

**Ministry of Economy and Labor**



**NATIONAL STANDARDS FOR  
PROFESSIONAL  
QUALIFICATIONS**

***THE EUROPEAN CONTEXT***

**Edited by:**

*Stefan M. Kwiatkowski  
Ireneusz Woźniak*

**Warsaw 2006**

## Ministry of Economy and Labor

This publication contains materials developed in the course of implementation of Part II of Phare 2000 Project no. PL0003.11, "National Vocational Education System", Action 2: Development of the set of national professional qualifications standards, based on analysis of requirements for the particular jobs". The project was carried out by a consortium consisting of: German Education and Training (GET – Germany), DEMOS (France), Doradca Consultants Ltd. (Poland). The following institutions were sub-contractors: the Institute for Terotechnology in Radom, PBS – Pracownia Badań Społecznych (Institute for Social Research) in Sopot. The work was coordinated and supervised by the Labor Market Department of the Ministry of Economy and Labor.

### NATIONAL STANDARDS FOR PROFESSIONAL QUALIFICATIONS

#### *The European context*

**Edited by: Stefan M. Kwiatkowski  
Ireneusz Woźniak**

This publication contains a discussion of issues tied to national professional qualification standards in selected European countries, presented in the context of labor market requirements; a brief description of lifelong vocational education development in Europe; and examples of legal and organizational solutions for the functioning of professional qualification standards in selected European countries.

Examples of Polish professional qualification standards are also presented. The set of national professional qualifications standards, which currently includes 48 items, would be enlarged by 200 new qualification standards that shall be developed in the years 2005-2007. This work shall be financed by the European Social Fund under the Sectoral Operational Program *Human Resources Development*.

This publication is designated for a broad spectrum of individuals and institutions, interested in the design and application of vocational qualifications standards, and in particular for specialists representing trade union and associations, chambers of commerce, educational and training institutions, teams which organize vocational examinations. This publication would be useful for students of pedagogical universities, especially for those majoring in pedagogy of labor.

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# INTRODUCTION

We present the Reader another publication on the National Standards for Professional Qualifications. This publication continues and develops the issues contained in a previous volume edited by us, “National standards for professional qualifications. Design and application”, published by the Ministry of Economy, Labor and Social Policy in 2003<sup>1</sup>. Both publications – the one from 2003 and the current one – cover the outcomes of ACTION No. 2 – “Development of a set of 40 national professional qualifications standards, based on analysis of requirements for the particular jobs” of the PHARE 2000 project “National Vocational Education System – Part II”, No. PL0003.11, completed in January 2004. In the last year’s publication we focused on describing the methodology applied to development of national professional qualifications standards. This time we attempt to demonstrate the European context for the standards’ functioning.

The quality and transparency of vocational education and professional qualifications in the European labor market is currently the focus of a lively discussions. The EU ministers responsible for education, whose meetings are part of the sessions of European Council, want to strengthen international cooperation in the area of vocational education and training. In the future, the comparability of diplomas and qualification certificates is to increase. Education ministers from EU countries believe that the current obstacles to the geographical and professional mobility of citizens must be quickly removed<sup>2</sup>.

One of the instruments meant to increase the employees’ mobility in the EU internal market is the **European Employment Strategy**, defined in the Amsterdam Treaty. Its goal is to coordinate the employment policy of EU Member Countries.

In **September** 1997, during an extraordinary summit on employment organized in Luxembourg, the participants decided to implement the idea of “employment as the object of joint care”. The European leaders made a decision on establishing an annual cycle for the implementation and monitoring of national employment policy in the Member Countries. This cycle was called the **Luxembourg Process**. It was decided that all citizens should have access to individual offer of employment, professional training and internship, and other instruments

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<sup>1</sup> S.M. Kwiatkowski, I. Woźniak (editors), *National standards for professional qualifications. Design and application* Ministry of Economy, Labor and Social Policy, Warsaw 2003.

<sup>2</sup> E.g. Council Resolution dated 13 July 2001, on the role of education and training in employment policy. Official Journal of the European Communities (O. J. EC 204/01, p. 1), 20 July 2001.

supporting vocational activation – not later than within 12 months from the loss of employment.

In 2000, the European Union proclaimed the so-called **Lisbon Strategy**, whose goal is to develop knowledge-based economy and knowledge.<sup>3</sup> In the area of education, actions were undertaken whose goal is to make the European economy competitive towards the rest of the world. At the same time, priorities of the European Employment Strategy were changed and adapted to the goals of the Lisbon Strategy.

Professional qualifications standards, in order to fulfill the hopes for increasing professional and educational mobility of EU citizens, should be adopted universally. This means they should be recognized and approved by the competent decision-making bodies of social partners on the national level, and that they must have national character. That's why it is justified to establish institutions or bodies to coordinate the work of social partners. These institutions would fulfill specific functions in the area of design and approval of professional qualification standards.

Thus, in Poland the various social partners (business chambers, trade unions and associations of employees and employers, institutions and sectoral teams), who want to participate in the design and updating of professional qualification standards for their respective sectors or groups, should commence cooperation. Those partners should cooperate with the Central Examination Board on the development of proposed standards and exam requirements which would be the basis to conduct examinations confirming professional qualifications. They should also cooperate with national labor offices, with the EURES network and institutions which are responsible for employment in EU countries.

Legal and organizational solutions for the functioning of professional qualification standards should enable the identification of skills acquired at specific education levels, which shall be key for undertaking employment in other countries. Professional qualifications standards could become a good basis for the system of transfer points in vocational education - a technique for transferring education and qualifications that becomes generally applied in Europe. So far, it is used on the level of university studies, and enables studying and learning irrespective of state borders and education systems. We have high hopes associated with the use of professional qualifications standards for the purpose of validating qualifications acquired by way of professional experience, informal and incidental training.

Thanks to the PHARE 2000 project – „National Vocational Education System – Part II” – we have made a significant step towards solving the issues of modern vocational training and education.

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<sup>3</sup> See also: *Convention on the Recognition of Qualifications concerning Higher Education in the European Region, Lisbon 1997*. Convention of the Council of Europe/UNESCO.

We would like to express our thanks to the whole research team working on the project, as well as the employees of the Labor Market Department of the Ministry of Economy and Labor, who provided us with assistance during the solving of problems associated with the development of national vocational training system and the national professional qualifications standards.

*Stefan M. Kwiatkowski*  
*Ireneusz Woźniak*

# 1. DEVELOPMENT OF THE SET OF NATIONAL PROFESSIONAL QUALIFICATION STANDARDS

## IMPLEMENTATION OF PART II OF PHARE 2000 PROJECT, "NATIONAL VOCATIONAL EDUCATION SYSTEM"

*Małgorzata Hunin*

### 1.1. PROJECT GOALS AND ORGANIZATION OF WORK

The system of lifelong learning, which is currently being developed - and in particular the project **Phare 2000 National Vocational Education System – Part I and Part II** – is a stage in the implementation of human resources development strategy in Poland. Its goals, priorities, instruments and resources must take into account, simultaneously, both the *acquis communautaire* and the current conditions and mechanisms of social and economic development in Poland. The starting point for actions undertaken under Phare 2000 project were the results of international project carried out during the recent years in Poland; the developed methodologies, and priorities determined in the course of preparations to the implementation of European Employment Strategy.

**The first part of Phare 2000 project – National Vocational Education System** - was executed on the basis of a twinning agreement, concluded in February 2002 between the current Ministry of Economy, Labor and Social Policy of the Republic of Poland, and the French Ministry of Social Affairs, Labor and Solidarity. Under this contract, dialogue with social partners was initiated, in order to stimulate the development of continued education.

The main goal of the **second part of the project** was to build foundations of an effectively functioning system of lifelong vocational education system for adults. Three groups of issues to be solved were identified:

- 1) improvement of the decision-making process in the area of employment and educational policy;
- 2) assuring high quality of training offered as part of lifelong education, and transparency of qualifications;
- 3) offering fast and flexible training for adults, adapter to the needs of the labor market.

The main instruments for implementation of the project goals were planned in three areas:

- statistical research on vocational education;
- design of professional qualification standards;
- design of modular programs for vocational training.

It should be stressed that the **Terms of Reference** (ToR) were detailed and exhaustive, and the goals of planned research and analyses were finally translated into specific “products” of the projects – the necessary elements of the system of lifelong vocational training that is being developed.

At the same time, instruments were developed for further operation of the project after its completion. These include instruments that shall be used for future observation of the system and for international comparisons (methodology and tools for statistical research); as well as instruments that assure the system’s functioning – that is, methodology for the development of professional qualifications standards and the modernized MES methodology, for the modular programs of vocational training. The ToR entails also the preparation of a large group of specialists, whose goal will be to support the dissemination and development of these methods.

Of course, the conditions for successful implementation of innovations were not forgotten. The ToR contains actions tied to the design of organizational and legal solutions that determine the mode for creating, approving and using the professional qualifications standards, and the modular vocational training programs. Such form of the ToR prepared by the Ministry for the Phare 2000 project – National Vocational Training System – is owed to the necessary strategic analysis and selection of priorities in the above named three areas. This has placed special responsibility on the entity executing the project, whose works were an important contribution into the process of building a modern system of vocational education in Poland.

The project was carried out by a consortium comprising the following companies: German Education and Training (GET – Germany), DEMOS (France) and Doradca Consultants Ltd. (Poland). The sub-contractors were the Institute for Terotechnology in Radom and PBS – Pracownia Badań Społecznych (Institute for Social Research) in Sopot.

The scope of works managed by the consortium included:

- the planning of organizational and operational management of expert teams;
- supervision and monitoring of the performance of works for the three components of the project;

- coordination of work performed by the individual parties (partners, sub-contractors, experts from EU countries);
- implementation of a current monitoring and evaluation system, used to analyze project progress;
- implementation of a system for ongoing monitoring and control of financial management;
- assuring an effective and timely reporting system, covering progress reports and subject-related reports, as well as other documents tied to the dissemination of information on the project and its results.

The overall management of the project was the responsibility of its director and manager, working together with a team of specialists on accounting, administration, legal and translation issues – a total of 14 persons.

## **1.2. IMPLEMENTATION OF ACTION no. 2 PART II OF THE PROJECT**

Implementation of the project took place from 29 October 2002 to 31 January 2004. According to the ToR, works were carried out simultaneously in three components - actions of the project.

The text below provides a description of Action no. 2, **“Development of the set of national professional qualifications standards, based on analysis of requirements for the particular jobs”**.

This component included the implementation of the following tasks:

- development, on the basis of research carried out in enterprises, of a description of 40 national qualification standards for professions/ specializations designated by the Ministry, and their dissemination;
- design of a model for organizational and legal solutions that determine the procedure for creating, approving and updating the national professional qualifications standards.

Coordination and supervision was carried out by the Key Expert of Action no. 2. That person was assisted by a deputy and experts coordinating narrower areas of works.

The number of analyzed enterprises from the whole country reached 552. There were 2001 persons involved in the implementation of Action 2, and specifically: 14 employees of the consortium’s office, 59 authors of standards, 14 methodology consultants, 82 reviewers, 122 evaluators, 1710 respondents in enterprises. Those numbers are the best proof of the works’ scope. It could be said that research conducted under Action no. 2 was the largest research of professions ever conducted in Poland.

Detailed information on project progress is contained in the Quarterly Reports (no. 1 through 4), which have been delivered to the then Ministry of Economy, Labor and Social Policy, and the JFK – Cooperation Fund. The summary of works is contained in the **Final Report**, delivered to both these institutions.

Evaluation of project progress was done by the steering committee, which consisted of representatives of the beneficiary (the Ministry of Economy, Labor and Social Policy), the Contracting Institution JFK – Cooperation Fund, and institutions interested in the project, that is, Office of the Committee for European Integration and the Ministry of National Education and Sports. For the purpose of final approval of the set of 40 national professional qualifications standards, the special Receipt Committee was established at the Ministry of Economy, Labor and Social Policy.

### 1.3. OBTAINED RESULTS

The fulfillment of duties, achieved with the delivery of “products” specified in the ToR, within the deadlines set forth in the project schedule, was possible thanks to intense mobilization of the whole team. Due to such broad scope of the tasks, and the short time allowed for their implementation, the works were carried out very quickly. It required the consortium of contractors and the beneficiary (the Ministry) which issued opinions on the “products” to engage significant time, resources and efforts, as well as effective work organization and coordination of mutual activities.

The Steering Committee approved all presented reports, together with enclosures and "products", and expressed a positive opinion on the speed and progress of work.

The worth noting effects of Action no. 2 include:

- the set of 40 national professional qualifications standards, which enable to tie the qualification requirements of selected professions/ specializations to the offer of lifelong vocational education;
- the proposed model for organizational and legal solutions, that allow to introduce these standards into the vocational education system in Poland;
- a group of specialist prepared to design, implement and disseminate the national professional qualifications standards;
- an IT system, together with a database on professional qualifications standards;
- published articles which disseminate information on the executed project and its achievements.

It can be assumed that the final shape of lifelong education will depend on the readiness of the administration, institutions at all levels and of social partners to continue the dialogue and to plan further projects on this subject matter. The most important element will be the readiness to make specific decisions and undertake actions on the basis of conviction that the system’s effectiveness is

and shall be a condition for maintaining the competitiveness of the Polish economy, enterprises and employees in the new, European labor market.

The Phare 2000 project – National Vocational Training System – is an important step along this way. The results of Action no. 2, pertaining to the building of national professional qualifications standards, are the first step towards uniformity of requirements on the professional training and examination, bringing closer together the school and out-of-school, formal and informal education; and towards the state recognition of qualifications acquired through the lifelong collecting of professional experience.

## 2. PRIORITIES OF VOCATIONAL TRAINING IN THE CONTEXT OF EUROPEAN INTEGRATION

*Stefan M. Kwiatkowski*

European integration is analyzed primarily from the political and economic perspective. Relatively less attention is devoted to the educational aspects of this process. This is due to the fact that all member countries of the EU have far-reaching autonomy in the field of education. This is the result of respect for cultural differences and traditions tied to the structures of educational systems, goals and content of education, as well as the methods for external and internal assessment of the level of knowledge, skills and attitudes of students.

The right to autonomy does not mean resignation from attempts to seek dignified acceptance for organizational and program models, common educational ideas or the attempts to achieve comparability of professional qualifications. Those latter ones, which are a domain of vocational training and its result at the same time, are an extremely important element of European integration. In the era of global economy, qualifications have universal nature - they know no boundaries. They allow graduates of vocational schools, of various types and levels, to compete with each other in the broadening European labor market. This market, with all its imperfections, is the measure of the qualifications' quality.

The market value of qualifications depends on many factors specific for the systems of vocational education in the individual countries of the European Community. Each country has its own, different priorities of vocational training and the corresponding implementation strategies<sup>4</sup>. It is worth to take into account those priorities which can be called European. They usually have the form of documents developed by the European Council or its agencies, in consultation with the member countries.

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<sup>4</sup> See also: *Strategy for the development of continuous training by the year 2010. Ministry of National Education and Sport, Warsaw 2003.*

During the Lisbon meeting of the European Council, held in March 2000, the overall strategic goal for the economic development of our continent was formulated:

*European economy should become the most competitive and dynamic economy in the world – a knowledge-based economy, capable of sustainable economic growth with more and better jobs and greater social cohesion*<sup>5</sup>.

Implementation of this goal (by the year 2010) requires significant transformations of economic nature, as well as changes in the area of education. Changes in education were outlined in the report adopted by the Education Council, presented to the European Council in Stockholm in March 2001. Detailed program of works was approved by the Education Council and the European Commission on 14 February 2002, and presented during the meeting of European Council held on 15 and 16 March 2002 in Barcelona.

The program which is the focus of our interest covers:

- 3 general strategic goals;
- 13 detailed goals, or priorities;
- 42 key issues covering actions necessary to implement strategic and detailed goals.

Focusing our attention on the goals, we can identify those which are directly or indirectly tied to vocational training. First of all, the strategic goals and corresponding detailed goals (priorities) should be listed:

**Strategic goal no. 1:** Improvement of the quality and effectiveness of education systems in the countries of European Union.

Detailed goals:

1. Increasing the quality of training and vocational development of teachers and trainers.
2. Development of qualifications and competencies necessary in knowledge-based societies.
3. Providing universal access to information and communication technologies.
4. Increasing recruitment for studies in the areas of science and technology.
5. Increasing financial outlays for education.

**Strategic goal no. 2:** Facilitating universal access to education systems.

Detailed goals:

6. Building an open educational environment.
7. Making the education process more attractive.
8. Supporting civic activity, assuring equal chances and social cohesion.

**Strategic goal no. 3:** Integration of education systems with their surroundings.

Detailed goals:

9. Strengthening ties to the labor environment, research institutions, employers and employees.

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<sup>5</sup> *Education in Europe: various systems of education and training - common goals until 2010*. Education Development Foundation, Warsaw 2003, p. 3.

10. Development of entrepreneurship.
11. Improvement in the area of foreign languages teaching.
12. Increasing the mobility and exchange of pupils, students, teachers and academic employees.
13. Strengthening of European cooperation.

The above presented detailed goals do not form a hierarchical structure, but the first of them – speaking of the training and vocational development of teachers and trainers – is fundamental for the process of changing the whole system of vocational education.

For the purpose of implementation, the standard (or standards) of professional qualifications for teachers must be developed first. Standards of that type have been prepared for almost 50 professions included in the Classification of Professions and Specializations, but they do not include the profession: **teacher of vocational subjects**.

The structure of professional qualifications standards includes:

- skills and knowledge referring to specific professional tasks;
- psychophysical features tied to the profession<sup>6</sup>.

For the purpose of developing professional qualifications standards for teachers of vocational subjects, the following should be done:

- define tasks that are common for various groups of vocational subjects (artistic, economic, medical, agricultural and forestry, technical professions)<sup>7</sup>;
- identify tasks specific for the various groups of vocational subjects;
- match the tasks with sets of skills and knowledge necessary to carry them out;
- develop a set of psychophysical features, characteristic for the given profession.

The general professional qualification standard, or the standards created for the individual groups of vocational subjects, can be used as the basis to describe educational requirements - that is, the standards for training teachers of vocational subjects. Such procedure makes it possible to precisely tie the actual tasks (in the area of teaching, education and care) with the necessary skills, knowledge and psychophysical features of teachers. The standard of professional qualifications is necessary to develop a standard for training teachers at higher learning institutions.

It is worth noting that the professional qualifications standards can be used to determine not only the necessary skills and knowledge of teachers, but also their desired psychophysical features (sensory and motor abilities, talents and personality traits) that are so much necessary in this profession.

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<sup>6</sup> S.M. Kwiatkowski, K. Symela (editors), *Standards for Professional Qualifications. Theory – Methodology – Projects*. IBE, Warsaw 2001, p. 120–123.

<sup>7</sup> *Classification of Professions and Specialties*. Ministry of Labor and Social Policy, Central Statistical Office, Warsaw 1996, p. 54–55.

The second detailed goal, tied to the issues of **qualifications and competencies necessary in the knowledge society**, refers both to general and vocational training. It is targeted equally at students and teachers. This goal is addressed to the society of the future – to the society in which knowledge is a condition for social and economic development. This refers both to the declarative knowledge (*knowing “that”*) and procedural knowledge (*knowing “how”*). The latter one enables us to move from knowledge to skills. Skill is defined as a condition in which thanks to the declarative knowledge, and using procedural knowledge, the student is able to perform actions which lead to accomplishment of specific professional task.

It is necessary to explain the relation between qualifications and competencies. Generally speaking, qualifications are the basis of preparation for work in a given profession. Based on the concept of professional qualifications standards, we can define qualifications as a set of skills, knowledge and psychophysical features. Competencies include qualifications and the relevant authorizations, powers and related scope of responsibility. According to the above, the students acquire qualifications in a school-based or out-of-school system of vocational training. The road to competencies leads through practice and experience, confirmed with the relevant documentation.

The discussed goal can be analyzed as an attempt to integrate vocational training (qualifications) and work (competencies). This still remains an important goal and a postulate, formulated by specialists from the field of labor pedagogy and directed at institutions responsible for vocational training.

The third of the analyzed goals is of more general than vocational nature. **Access to information and communication technologies** is a challenge faced by those societies which aspire to being knowledge societies. Effective use of the opportunities tied to development of information science, and of the resulting development of information and communication technologies, requires the inclusion of appropriate content into the so-called canon of general education. This canon is implemented already in primary school, and next in lower secondary schools. In theory, a graduate of vocational school should know how to use information and communication technologies in the process of learning the various subjects covered by syllabus. Access to the Internet, to computer classrooms and specialized equipment still remain an issue. In reality, this is a problem of financial and organizational nature. To solve this, it is necessary to create a mechanism for continuous financing of purchases of computer hardware and software, financing its maintenance and setting rules for access to this equipment in classrooms, laboratories and Internet cafes – already at the level of primary school. A student of lower secondary school should be able to use the Internet daily, as well as all other technical equipment held by the school. In this situation, the use of information and communication technologies by students of secondary schools (including vocational schools) is included in the extra-vocational quali-

fications – that is, qualifications which do not authorize them to perform the profession, but are necessary to achieve the current required labor quality<sup>8</sup>.

Implementation of the fourth goal – **increasing recruitment for studies in the area of science and technology** – should commence already on the level of primary school. Interests in mathematics, sciences, technique should be developed already at this education level. Those interests can become more specific in lower secondary school and be expressed by the participation in competitions, leading to a more informed choice of secondary school. When we analyze the goals of vocational schools in this aspect, it is worth to take note of the level at which sciences are taught, as this is a condition of success during entrance exams to technical colleges and universities. The level of teaching depends on the qualifications of teachers of both theoretical and practical subjects (compare with goal no. 1).

The fifth goal: **increasing financial outlays for education** is the last one among the detailed goals comprising strategic goal no. 1. This goal is approved by all interested parties, but extremely difficult to implement. It is enough to note that the share of educational expenses in the Gross Domestic Product in the years 1990-2002 rose by barely 0.47% - from 3.9% to 4.37% (in 2002, public spend on education and learning amounted to PLN 33.8 billion)<sup>9</sup>.

From the perspective of vocational training, increase of outlays for education does not automatically mean an improvement in the functioning of the basic vocational schools and technical secondary schools, which are often seen as cost-consuming schools. All financial decisions regarding secondary education are made on the level of district authorities. The local self-government decides how to divide resources among the special schools, general and specialized secondary schools and vocational schools. The latter ones are still perceived as second-category educational institutions, and believed to generate unemployment. These opinions are not based on facts (vocational education can be analyzed from the standpoint of competitiveness of economy, and it is clear that the largest demand for work is seen among graduates of basic vocational schools)<sup>10</sup>, but stereotypes are difficult to fight. Therefore, the final decisions both on the school network and on the financing of individual school types are not always based on content, e.g. on the needs analysis of the local labor market. This can lead to excessive recruitment for general and specialized secondary schools, at the expense of vocational schools.

Further detailed goals are tied to the strategic goal no. 2. They include the sixth goal, which speaks of the **creation of an open educational environment**. This openness means primarily broad access to educational institutions, and flexible ways of acquiring professional qualifications. In practice this means a

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<sup>8</sup> S.M. Kwiatkowski, I. Woźniak *The designing of national professional qualifications standards*. Edukacja no. 3 (83) 2003, p. 8.

<sup>9</sup> *Teaching and education during school year 2002/2003*, Warsaw 2003, p. XXIX.

<sup>10</sup> *Demand for work in 2002*. CSO, Warsaw 2003, p. 15–16.

broadening of the education offer – both in the school and out-of-school system – patency of both systems, promotion of varied educational paths, conditions for linking learning with work, and introduction of effective solutions in the field of vocational consulting.

In the school system of vocational education, openness means on one hand an educational offer which takes into account the requirements of contemporary labor market; and on the other hand, system which enables graduates of basic vocational schools to continue learning in supplementary general or technical secondary school. Both these tasks are implemented, but the situation is very complicated in the area of creating new areas of education. The main issue lies in the correlation (or, more specifically, in its lack) between the new contents of vocational education, and the teachers' preparation to deliver them.

In the extra-school system, despite more flexible curricula, the main problem is the quality of training and the related recognition of diplomas and certificates in the school system<sup>11</sup>.

The openness of educational environment will certainly be supported by more extensive introduction of distance learning, with the use of the Internet.<sup>12</sup> The use of this form of training to acquire and develop professional qualifications is limited. The development of motor skills in this way seems to be rather difficult.

Speaking of openness, it is not possible to omit the issue of transforming the Continuous Education Centers and Practical Training Centers into modern educational institutions, linked into a network which enables the implementation of lifelong learning concept<sup>13</sup>.

The seventh goal - **making the education process more attractive** – has didactic nature. It can be analyzed from the standpoint of elements of the education process. In such case, we focus on:

- operational formulation of the goals of teaching/learning;
- selection of contents appropriate for the goals;
- determination of the forms of cooperation between the teacher and the students;
- selection of varied (lecturing and activating, algorithmic and heuristic) teaching methods;
- adapting the applied didactic means (including multimedia sets) to the expected course of cognitive actions of the students;

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<sup>11</sup> See art. 68 b (accreditation) of the law dated 27 June 2003, on changing the law on education system and some other laws.

<sup>12</sup> S. Juszczak, *Distance learning*. Publishing house A. Marszałek, Toruń 2002, p. 124–128.

<sup>13</sup> S.M. Kwiatkowski, *Lifelong learning – memorandum of the European Commission*. Edukacja no. 1/2002, p. 110–116.

- development of tools for measuring school achievements, that allow to define the achievement level of operational goals<sup>14</sup>.

The training process can become more attractive also thanks to skilful mixing theory with practice, and rational organization of professional internships (including internships in countries of the European Union).

The list of detailed goals for strategic goal no. 2 ends with the eight goal – **supporting civic activity, assuring equality of chances and social cohesion.** This is a very general goal with numerous addressees. Its implementation requires the creation of opportunities for active participation of students (including of course students of vocational schools) in the school life, and also in the transformations occurring in its surroundings. Active participation is the only way to shape democratic attitudes, to properly prepare the students for conscious participation in social life.

Equality of chances is a domain of rather pre-school and primary school education, than of vocational schools. It can, however, be seen from the perspective of training quality, which is necessary to continue learning. Thus, the equality of chances among students of general and technical secondary schools can be expressed in comparable training level - and comparable results of the uniform "matura" – school-leaving examination.

Certain tasks, especially those for the extra-school system, stem from the need for providing support for those people who for some reasons have interrupted their education in the school system. Implementation of this goal does not concentrate on equal chances alone - it leads to integration of the society.

The last group of detailed goals is tied to strategic goal no. 3. It is opened by goal no. 9: strengthening of ties with the labor environment, research institutions, employers and employees. The need to tie vocational schools with the labor world was already mentioned in the course of analysis of the sixth goal. We could cite the concept of the dual system operating in Germany. Under that system, school learning is integrated with work, in a natural manner. Such solution is found in the crafts in Poland, but is not applied universally. In order to change that situation, first of all employers must be encouraged to maintain constant contacts with vocational schools. This is difficult to achieve in a situation of high unemployment and clear imbalance between supply and demand in the area of work. Despite that, we cannot talk about vocational training reform without the participation of employers<sup>15</sup>.

A specific element of this integration is the strengthening, or rather the establishment, of ties between vocational schools and research institutions. This goal can be achieved in those local communities where independent research institutions are present; or where the local industrial plants have their laborato-

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<sup>14</sup> S.M. Kwiatkowski, *Vocational training. Dilemmas of theory and practice.* IBE, Warsaw 2001, p. 71–172.

<sup>15</sup> M. Kabaj, *Project for a system integrating vocational education and the labor market. Towards dual training.* „Polityka Społeczna” no. 9/1998, p. 3–9.

ries or research and development centers. The nature of such ties could be program-based, organizational (internships) and/or personal. In this latter case, specialists from research institutions could work as teachers in vocational schools (permanently, or as special commissioned tasks). This area covers also the cooperation of universities with vocational schools – which was successfully developed in Poland before World War 2.

**Development of entrepreneurship** – the tenth detailed goal – finds its implementation in the current syllabus of secondary schools<sup>16</sup>. The educational goals of the subject „Basics of entrepreneurship”, which is taught in basic vocational schools, include:

- shaping entrepreneurial attitudes;
- preparation for conscious and active participation in the economic life;
- shaping the skills of effective communication and cooperation;
- learning the mechanisms of market economy;
- learning the skill of active search for work and its conscious choice;
- learning the role of the state in market economy, the integration processes and globalization of the economy.

The goals of this subject, taught in secondary technical schools, are supplemented with:

- development of interests in the undertaking and managing of business activity;
- learning about the basic rules for undertaking and managing business activity in various forms.

The list above includes cognitive and teaching goals.

It is important to select the teaching/learning methods in such a way that they enable appropriate implementation of goals from the first (cognitive) and the second (educational) group. It is worth noting that development of entrepreneurship among students is possible in a situation where the whole school shares an entrepreneurial spirit, and the classes in “Basics of entrepreneurship” are not an isolated island.

The obvious detailed goal during the period of European integration is goal no. 11, regarding **improvement in the area of foreign languages teaching**. This is yet another goal targeted at schools of all levels and types. Its appropriate implementation in primary and lower secondary schools is the basis for further, more specialized, learning in upper secondary schools. The European description of language training could be helpful in meeting the language-related goal, as it specifies, among others, the levels of language proficiency<sup>17</sup>.

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<sup>16</sup> Regulation of the Minister of National Education dated 26 February 2002 on the syllabus for pre-school education and general education in various types of schools.

<sup>17</sup> *European system for description of language training: learning, teaching, assessment*. NTTC, Warsaw 2003, p. 32–37.

The further, twelfth detailed goal is to **increase the mobility and exchange of pupils, students, teachers and academic employees**. With regard to vocational schools, this refers both to students and teachers<sup>18</sup>. The students, thanks to such European programs as *Sokrates*, *Leonardo da Vinci* and *Youth* have the opportunity to get to know the educational and vocational reality of European Union countries. The teachers can actively participate (through study travel and research) in the following programs: *TESSA*, *TERM*, *IMPROVE*, *SMART*, *FIESTA*, *COST*, and recently *CVT*.

As a result of these travels, students and teachers gain a knowledge of:

- structures of the vocational education systems in the individual countries of the European Union;
- rules for the cooperation between vocational schools and their business environment;
- qualification requirements;
- situation in the labor market.

Analysis of the acquired information could be the starting point for program and organizational changes, and for cooperation in the area of exam procedures.

The last, thirteenth goal focuses on the need to **strengthen European cooperation**. In the area of education, this cooperation requires the development of rules for recognizing qualifications acquired in individual member countries (including professional and scientific titles and degrees). This is the first step towards creating an European education area. Further steps require the adoption of solutions that would be satisfactory for graduates of various types of schools, who seek their own place in the European labor market. Thus, European cooperation means on one hand the opportunity for free choice of school or university within the European Union (together with the privilege of making changes in the course of learning); and on the other hand, the gradual opening up of the European labor market for graduates whose education complies with the modern standards of professional qualifications.

The detailed goals listed above can be found, in a synthetic form, among the priorities of the Sectoral Operation Program "Human Resources Development", implemented by the Ministry of Economy and Labor. The implementation of this program is planned for the years 2004-2006. The teaching community, focused on the issues of vocational training, has now the opportunity to participate in competitions for performing work provided for under this program.

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<sup>18</sup> See the texts in collective publication edited by R. Gerlach, *Education towards the labor market*. Wydawnictwo Akademii Bydgoskiej, Bydgoszcz 2003.

### 3. RECOGNITION AND COMPARABILITY OF PROFESSIONAL QUALIFICATION IN THE EUROPEAN UNION

*Ireneusz Woźniak*

One of the four fundamental freedoms which are the basis of the common market of the European Union is the free flow of persons, next to free flow of goods, capital and services. An important condition to profit from this freedom is the introduction of a **diploma recognition system** by the member countries.

The international comparability and recognition in the area of training and professional mobility entails two approaches covering the recognition of diplomas for learning purposes. In practice, this refers to university diplomas and recognition of certificates for professional purposes.

**Recognition of diplomas for scholar (academic) purposes** enables the students to continue education in another country. There are no uniform Community regulations that would enforce mutual recognition of diplomas for scholar purposes. Each country of the European Union recognizes diplomas of other countries according to its own rules. In practice, the recognition of diplomas for academic purposes is done on the basis of detailed comparison of syllabuses which were the basis to obtain these diplomas. In this process, increasing importance is placed on the cooperation between various universities, including their merging into consortia, and student exchange.

**Recognition of diplomas for professional purposes** is a more complicated process, as it has to take into account not only the requirements of the education system (universities and vocational schools), but also the qualification standards adopted by business and professional organizations; and the legal regulations pertaining to the practice of particularly important professions, tied to special responsibilities (the so-called regulated professions). In some countries (such as Germany or Holland) most qualifications acquired in the school system are recognized by the business community without additional requirements. In some other countries (e.g. Great Britain) professional qualifications are acquired outside the school system. The recognition process for these qualifica-

tions has the form of accreditation – or authentication, usually in the form of examination carried out by authorized (certified) entities.

Poland has signed agreements with some countries of the European Union (Austria, Germany) on automatic recognition of diplomas for academic purposes. In the other countries, such decision is made individually by the universities. There are various other European initiatives, whose goal is to simplify the recognition of education. The recognition of qualifications for professional purposes remains an important issue.

Recognition of qualifications pertaining to regulated professions is defined on the Community level by the appropriate directives, regarding the system for sectoral and general recognition. For example, Council Directive to 89/48/EEC, Council Directive no. 92/51/EEC and the Directive of the European Parliament and Council no. 99/42/EC assume the mutual recognition of vocational education and diplomas of higher studies which last for a minimum of three years. Thus, they enable highly qualified employees to undertake work in their respective professions all over the European Union. At the same time, the directives allow member countries to apply compensation measures in the case if significant differences in the training course for the given profession exist between individual countries.

Quite often these compensation measures include language examinations or additional adaptation internships. The European Commission is planning further work on mechanisms facilitating the recognition of education and qualifications. It is proven by the fact that the professional qualifications of doctors, nurses, midwives, dentists, veterinarians, pharmacists and architects are already recognized “automatically” all over the EU.

### **3.1. RECOGNITION OF PROFESSIONAL QUALIFICATIONS**

The system for recognition of professional qualifications under EU regulations has evolved – from the unification of training programs on national levels to the development of minimum requirements on Community level. The Community regulations assure a mechanism for qualifications recognition for those persons who intend to undertake work in a member country other than the one in which they acquired the qualifications.

When Polish law was adapted to Community regulations during the previous years, it was decided that the issue of diploma recognition in professions covered by sectoral systems will be covered by legislation regulating the rules of access to and performance of the given profession. For the purpose of the general system, only two laws would be adopted, setting general criteria (modeled after Community regulations). It is worth noting that in terms of diploma recognition, Polish regulations implementing Community laws are in force from the day when Poland became full-fledged member of the European Union.

### 3.1.1. Sectoral system

The sectoral system covers eight professions (doctor, dentist, nurse, midwife, pharmacist, veterinary, lawyer and architect). The system of „automatic” recognition of diplomas in the agreed professions is based on uniformity of training programs which are the basis for issuing corresponding diplomas. Thanks to this solution, every EU member country recognizes diplomas issued by the remaining countries to EU citizens.

The obligation of mutual recognition under the sectoral system does not cover diplomas of third party countries – it applies only to diplomas of Community states. The recognition of a diploma granted by a third party country by any EU member country is not binding on the other EU countries.

In Poland, harmonization was applied to individual laws regulating the above named professions<sup>19</sup>. The fundamental change, compared to the previously applied regulations, is the removal of Polish citizenship criterion as the necessary condition to be granted right to practice the profession towards those persons who obtained their diplomas and right to practice in member countries of the European Union. In the case of medical professions, the adaptation of law was tied, in some cases, to introduction of changes to the syllabuses (this applies primarily to nurses and midwives). One of the more visible changes is the replacement of the professional title of “stomatologist” with the title of “dentist”. This change should not be tied to loss of rights by the stomatologists.

### 3.1.2. The general system

The general system was created in response to the slowness of agreement on the diplomas and professions that would be recognized “automatically” (sectoral harmonization). After ten years of work, the sectoral system covers only eight professions. The concept of the general recognition system was based on the rule of mutual trust among member countries, which means that diplomas are recognized without the prior harmonization of various degrees and programs of teaching and education.

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<sup>19</sup> The law of 5 December 1996 on the profession of medical doctor (Journal of Laws of 2002, no.21 item 204 as amended) – refers to the professions of medical doctor and dentist; the law of 5 July 1996 on the profession of nurse and midwife (Journal of Laws of 2001, no.57 item 602 as amended), the act of 19 April 1991 on pharmacists’ chambers (Journal of Laws of 1991, no.41 item 179, as amended); the law of 21 December 1990 on the profession of veterinary doctor and on veterinarian’s chambers (Journal of Laws of 1991, no. 8 item 21 as amended), the act of 15 December 2000 on the professional self-government of architects, construction engineers and urban planners (Journal of Laws of 2001, no.5 item 42 as amended), the act of 5 July 2002 on the rendering of legal assistance within the Republic of Poland by foreign lawyers (Journal of Laws of 2002, no.126 item 1069).

The Community legislation referring to the general system includes:

- Council Directive dated 16 July 1985, on the comparability of vocational training qualifications between the Member States of the European Community (85/368/EEC);
- Council Directive of 21 December 1988, on a general system for the recognition of higher-education diplomas awarded on completion of professional education and training of at least three years' duration (89/48/EEC);
- Council Directive of 18 June 1992, on a second general system for the recognition of professional education and training to supplement Directive 89/48/EEC (92/51/EEC);
- Directive of the European Parliament and the Council of the EU, dated 7 June 1999, establishing a mechanism for the recognition of qualifications in respect of the professional activities covered by the Directives on liberalization and transitional measures and supplementing the general systems for the recognition of qualifications (99/42/EC).

The main purpose of the general system for diploma recognition is to assure the possibility of recognizing qualifications of an employee who is a EU citizen in another member country. This refers to the regulated profession, whose performance is based on legislation of the receiving country. This system does not cover recognition of education for academic purposes, or for continuing education. It applies solely to the possibility of performing the profession within the internal labor market of the European Union.

The relevant authorities of the state receiving a qualified employee, who gained education in one of the member countries, are obliged to recognize that person's formal qualifications. Recognition of a diploma does not equal the permission to work. The diploma's contents can be subject to verification from the standpoint of learning length or differences in syllabus, where the education covers subject areas fundamentally different from those required to obtain diploma in the country in question.

In case of differences in the contents or length of training of the migrating person, the member country is entitled to apply one of the compensating rules, which cover:

- the need to document professional experience;
- passing a test verifying the skills;
- completing an adaptation phase.

The decision on application of one of the compensation measures is made on a case-by-case basis, after an analysis of the diploma's contents. The choice between internship and exam depends on the interested person, with the exception of professions where good knowledge of the domestic law is required. In such case, the internship or exam are imposed by the receiving country. Both forms of compensation cannot be applied together.

The basis for the functioning of the general system for diploma recognition in Poland are two laws, which implement the provisions of the above described Community legislation:

- the law dated 10 May 2002, on the rules for recognizing qualifications to engage in or perform some types of activities, gained in EU member countries (Journal of Laws of 2002, no. 71 item 655);
- the law dated 26 April 2001, on the rules for recognizing qualifications to perform regulated professions, acquired in EU member countries (Journal of Laws of 2001, no. 87 item 954).

Those laws are in force since the time Poland joined the European Union. The scope of the laws covers all citizens of EU member countries (including Polish citizens) who have acquired, within the territory of the EU, the qualifications to perform regulated professions or qualifications to engage in or perform activities listed in attachment to the law dated 10 May 2002.

The body responsible for conducting the procedure may apply compensation measures towards the applicant, that is, a test of skills or adaptation internship, if there are differences in the training duration or syllabus.

An applicant whose qualifications are recognized is entitled to use a Polish title set for this profession. At the same time, the applicant has the right to use the title obtained in the secondary or university education system (or an abbreviation thereof) in its original wording.

The organ recognizing the qualifications is entitled to request additional documentation, on health condition, lack of criminal record or the applicant's morals, if the Polish regulations for the given profession include such requirements.

On the basis of the law dated 10 May 2002, a center of information on regulated professions shall be set up in Poland. Until the time the relevant secondary provisions on the creation of such center are issued, its role is temporarily played by the Bureau for Academic Recognition and International Exchange. It provides information on the Polish system for recognition of qualifications, regulated professions in Poland, appropriate bodies to which the applications for recognition of qualifications should be addressed. The center is the first place where both Polish citizens and citizens of other member countries can obtain information on the opportunity for recognition of qualifications in Poland and in other EU member countries.

## 3.2. THE LISBON STRATEGY

EU member countries – or, depending on the country, their individual regions - are responsible for organizing their education systems and the contents of teaching curricula. According to the subsidiarity principle, the European Union can support and supplement such actions of member countries that can contribute to a higher level of education. Those actions are defined in art. 149 and 150 of the European Union Treaty and refer to:

- promotion of the mobility of pupils, students and teachers;
- development of cooperation between schools and universities;
- encouraging to learning foreign languages;
- recognition in schools, universities and workplaces the scientific titles and degrees, qualifications and professional competencies;
- promoting open learning and distance learning.

The European Council, during its Lisbon session (March 2000) confirmed that European Union faces fundamental changes which are the result of globalization and development of knowledge-based economy. The Council agreed that by 2010 the following strategic goal is to be reached:

*European economy should become the most competitive and dynamic economy in the world – a knowledge-based economy, capable of sustainable economic growth with more and better jobs and greater social cohesion.*

This is the basis for necessary actions in the area of education, whose goal is to make the Europe competitive and attractive for the rest of the world<sup>20</sup>.

In 2002, during the Barcelona session, the European Council adopted the document:

**Education in Europe: various systems of education and training - common goals until 2010. Program of work regarding the implementation of future education systems goals.**

This document defines three strategic goals that are to be achieved by the educational systems of EU member countries in the course of Lisbon Strategy implementation:

1. Improvement of the quality and effectiveness of education systems in the countries of European Union.
2. Facilitating universal access to education systems.
3. Integration of education systems with their surroundings.

Within those three strategic goals, 13 detailed goals were designated for the education systems of EU countries. According to the Council decision of February 2003, the following issues are particularly important in the coming years and should be treated as priorities:

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<sup>20</sup> See also: *Convention on the Recognition of Qualifications concerning Higher Education in the European Region, Lisbon 1997*. Convention of the Council of Europe/UNESCO.

**1. The problem of number of students who do not graduate from schools.**

By the end of 2010, all member countries should reduce, at least by half, the size of the so-called school dropout ratio (in Poland, this name is applied to the number of students who did not complete their primary or lower secondary education within the school duty age, compared to the total number of graduates of primary or lower secondary school in the given school year), compared to result of 2000, to keep the European average below 10%.

**2. Graduates of mathematical, technical and natural sciences studies at universities.** By year 2010, the gender disproportions among graduates of such studies should be reduced at least by a half. At the same time, the number of graduates of such studies should increase, compared to 2000.

**3. Society's education level.** Increase, by 2010, the percentage share of persons with at least secondary education among the whole adult population (aged 25 to 64), so that the European average amounts at least to 80%.

**4. Work quality at schools.** By 2010 reduce, compared to 2000, the percentage of 15-year old youths whose level of functional literacy is too low.

**5. Lifelong education.** By 2010, an average of 15% of adults in productive age (aged 25 to 64) should participate in various forms of training. This share cannot be lower than 10% in any member country.

These goals prove that the European Union does not overlook in its development the common educational policy – even if the implementation of these goals takes different forms in each country.

### 3.3. THE COPENHAGEN PROCESS

On 30 November 2002, the ministers of European countries and the European Commission have adopted the so-called Copenhagen Declaration, whose goal is to strengthen cooperation in the area of vocational education and training. The declaration is the outcome of Council Resolution on the Promotion of Enhanced European Cooperation in Vocational Education and Training, dated 12 November 2002. The systems of vocational education and training are gradually losing their national character. Citizens of the European Union increasingly need access to individualized learning and individualized access to jobs. The main barriers include the different national education systems, unmatched levels of education and professional qualifications, differing definitions of professions and sectors of the economy. They do not allow for an „universal circulation” of qualifications and professional competencies.

The removal of barriers and obstacles to the mobility of learners and workers is to be achieved through:

**1. Building of a single, uniform European structure of competencies and professional qualifications.** The implementation instruments include such elements as: qualifications and competencies standards, training standards, European CV, supplement to professional diploma (certificate, qualifications certificate), document called EUROPASS Training and the network of Na-

tional Contact Points which enable the recognition of EUROPASS Training documents. **2. Building a system of transfer points for the vocational education and training**, inspired by the successes of the **European Credit Transfer Points for higher education (ECTS)**.

- 3. Establishment of general criteria and rules for quality system in vocational education and training.** Following the example of the European Forum on Quality, the generally applied quality criteria and rules in vocational education and training should be an initiative on EU level. They should have the form of instructions, guidelines and checklists.
- 4. Establishment of general rules for validation of informal and incidental learning.** The goal is to determine rules for assuring better compatibility among the approaches applied in different countries, on various levels of training.
- 5. Development of lifelong vocational guidance.** The goal is to strengthen the European system for exchange of vocational information, consulting and counseling, which enables EU citizens to be mobile in the labor market and the market of training services.

The Copenhagen Process is developed from the perspective of lifelong education. Particular attention is paid to the needs of EU citizens tied to access to convenient forms of education and training, irrespective of the borders of individual member countries. The results of education and training are to be recognized irrespective of the location where they were acquired (school, university, workplace, private courses, development of own interests at home, self-study).

For the purpose of developing cooperation in the area of vocational education and training, the following basic tasks were defined:

- strengthening of the European dimension;
- adoption of common work plan in the area of qualifications transparency;
- development of a common system for the recognition of credits in vocational education and training;
- development of common criteria for quality assurance of vocational education and training;
- development of sectoral qualifications;
- strengthening the systems of vocational counseling and guidance;
- authentication of informal and incidental learning;
- diagnosing needs in the area of training and education of teachers and trainers.

Implementation of the planned tasks is to be supported by international cooperation of specialists, within groups specially appointed by the European Commission - **Technical Working Groups (TWG)**.

For the issues of comparability and recognition, particularly important is the activity of the *TWG on Credit Transfer in Vocational Education and Training*, and the *TWG on a Single Transparency Framework*.<sup>21</sup>

The *TWG on a Single Transparency Framework* has three priority actions:

- Identification of the basic elements that shall define common, uniform framework for the transparency of qualifications. An example here can be the European Curriculum Vitae<sup>22</sup>;
- Development of an integrated and user-friendly schedule of professional qualifications and competencies. Currently work is underway to develop and test such schedule in a version fit for publication in the Internet. It was decided that the starting document would be the European CV. It was also decided that the schedule would take into account all tools and instruments mentioned in the Copenhagen Declaration, as well as their accessibility in electronic and paper form;
- Development of recommendations for assuring synergy among the already existing elements and solutions. This refers in particular to the National Reference Points for Vocational Qualifications, the Euroguidance Centers, and to National Contact Points for EUROPASS.

The CEDEFOP created also at its website "virtual communities" for each TWG group, which enables online discussion and exchange of experiences among all interested parties.

### 3.4. THE EUROPASS INITIATIVE

Those persons who want to complete part of their training (especially professional internship) abroad can document the training's course thanks to the initiative called Europass Training, introduced in 2000. Another goal of the EUROPASS is to promote cooperation among vocational training centers and enterprises in the European Union.

One way to implement the idea of employees' mobility is the increased transparency in the area of vocational education and training. This is to be achieved by broadening the concept of Europass Training and of the *European pathway for training*. These are two related concepts for implementing the Council's decision on promotion of European pathways for vocational training and internships at the workplace<sup>23</sup>.

The European training pathways are based on documenting the periods of vocational training, that a person undergoes in the course of training at the

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<sup>21</sup> LEONARDO DA VINCI Thematic Contact Seminar: „Transparency, Recognition and Quality in Vocational Training“. Contributing to the „Bruges Process“ in vocational training through the LEONARDO DA VINCI Programme, Vienna, 28–29 April 2003.

<sup>22</sup> Sample of *European CV* is available at: <http://www.cedefop.gr/transparency/cv.asp>

<sup>23</sup> Council decision of 21 December 1998 on the promotion of European pathways in work-linked training, including apprenticeship (1999/51/EC).

workplace (*work-linked system*), and in other member countries of the EU (registration of qualifications acquired abroad). Documentation is based on meeting a specific number of quality criteria. This way, partnership is formed between the workplaces where the person receives training, and the institution from another country which is responsible for the employee mobility policy. A market and network of partnership are developed, in which goals, contents, duration, methods and ways for monitoring the European training pathways are agreed.

The dissemination of information on the Europass system is done by the National Contact Points<sup>24</sup>. To assure a similar course of the European Training Pathways, their comparability and to provide a description, a number of documents were created:

- **European Curriculum Vitae;**
- **Certificate supplement**, which refers to certificates of vocational qualifications;
- **Diploma supplement**, referring to an university diploma;
- **the Europass Training** which is issued by authorized National Contact Points to training institutions, referring the persons receiving training abroad under the network of European training pathways;
- the European Language Portfolio;
- **ECDL – European Computer Driving License.**

A vocational school student may receive education in any country of the EU. However, the student's basic place of education must establish contact with the foreign school and determine a curriculum for the selected phase of education or vocational training. Upon completion of foreign learning, the basic place of education issues an Europass to the student – a document with information on training completed abroad. Europass contains the following information:

- information on the locations where the student received training;
- certificates from the foreign centers on the contents and scope of training, translated into the student's mother language;
- information on results obtained by the student and methods for their verification.

Possession of an Europass by its very definition removes all barriers to the recognition of qualifications in other countries of the EU, and offers better changes for finding work abroad.

### 3.5. THE EURES NETWORK

**EURES (European Employment Services)** is a cooperation network which brings together the public employment services in countries of the European Economic Area (member countries of the EU, Norway, Iceland and Switzerland) as well as other regional, national and international organizations which

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<sup>24</sup> List of National Contact Points:

<http://europa.eu.int/comm/education/programmes/europass/contact.pdf>

deal with employment issues (trade unions, organizations of employers, local and regional authorities). The network was established in 1994, on the basis of Council of Europe Regulation no. 1612/68, to inform, provide counseling and guidance for job-seekers all over Europe.

The purpose of the EURES network is to:

- enable the job-seekers and employers access to information and counseling which facilitates the flow of workforce and transparency of the labor market within the European Economic Area (EEA);
- exchange between partners of the EURES network of all information on job vacancies, profile of regional labor market, as well as the living and working conditions;
- creation of an European labor market, by improving the conditions for free movement of employees within the EEA, promoting the maximum transparency of labor market and qualifications.

The EURES network includes about 500 of the „Euro-advisers” on professional matters. They have access to databases with international job offers, selected from all participating countries. All information on undertaking work in one of the EU member countries is provided by national employment agencies which propose employment thanks to the European EURES network.

The EURES system consists of two primary components, that is:

1. The so-called Euro-donors - national employment agencies, such as ANPE, APEC, OMI which submit employment offers.
2. The telecommunication system enabling access to the following services:
  - central database which contains information on job vacancies in the individual countries;
  - central database on the living and working conditions in the individual countries;
  - an e-mail system which enables the Euro-donors effective communication within the whole network.

Information contained in the EURES allows to answer numerous questions regarding: situation in the labor market, residence permits, required documents, information on available jobs, working conditions, costs of education and healthcare, comparability of qualifications. Currently EURES is an important instrument which supports employee mobility across Europe. The most important part of the system is the database on job offers (Euro-offers), which includes offers for various professional groups, offers in sectors where international links are present (such as tourism or the hotel business), and offers which require foreign language skills and experience from other countries.

In order to support the EURES program, in March 2003 an additional internet portal, called PLOTEUS, was introduced. It contains information on offers regarding vocational education and training at all levels.

### 3.6. CLASSIFICATION STANDARDS IN VOCATIONAL EDUCATION AND TRAINING

Countries which establish national classifications try to make them compatible with international classifications. Examples of international classifications include:

- International Standard Classification of Occupations (ISCO-88) of the International Labor Organization (ILO);
- International Standard Classification of Education (ISCED-97) developed by the UNESCO;
- European 5-level structure of vocational training, established in 1985 by the European Union (CEDEFOP);
- International Standard Classification of Industry of the United Nations Industrial Development Organization (UNIDO).

In the United States, a structure corresponding to the ISCO is the US Standard Occupational Classification (SOC) which, similarly as the ISCO, contains about 1,200 occupation names. Aside from the SOC, the United States use the Dictionary of Occupational Titles (DOT) which contains a list of about 17,5 thousand professions and specialties. The DOT is considered to be a common denominator for the SOC and professional qualifications standard. In Great Britain, there is a large number of classifications used by various institutions and social sub-systems, but their common denominator is the standard of National Vocational Qualification - NVQ. France does not have a classification of professions. Instead, a standard of diploma was adopted, which serves as a certificate that its holder complies with the professional standard guaranteed by the state. In consequence, there can be various diplomas established for one profession (their number is basically unlimited). Those diplomas are supposed to create separable sets of professional competencies specific for a given profession. Currently France has about 14 thousand of diplomas (certificates), and their number is not limited by any regulations.

The condition for international comparability of professional qualifications is for the definition of profession in a given country to match the definition which was the basis to create international classifications. The concepts of profession must reflect the status of economic development and relations in the domestic labor market. If this compatibility was not present, classifications of professions and standards of professional qualifications would be an artificial creation from the very start. They would not fulfill their mission of being a liaison between the economy, the labor market and the vocational education system. Appropriate definition of the profession/specialty should also assure the comparability of business classification of professions and specialties with the school classification.

Various structures of classification were designed and developed for various purposes, e.g.:

- for statistical purposes;
- for the purposes of vocational counseling and guidance;
- to enable continuation of learning under various educational systems.

European classification systems for education and the labor market are modeled after the two primary international classifications, that is the ISCED-97 and ISCO-88.

In Poland, a classification of professions and specialties was developed. It is valid as of 1 January 2003. The list of professions includes information which professions taught in the school system match professions under the business system. In a natural way, sometimes several business professions constitute a single school-taught profession, and such cases are also marked in this classification. This eliminates doubts regarding appropriate matching of school professions to business professions, and brings the school education closer to the labor market.

### **3.6.1. The European Five-Level Framework**

In 1985, the European Union Council published its decision on the comparability of qualifications acquired in the course of vocational training among the countries of European Union – known as the European 5-Level Framework<sup>25</sup>.

Below description of the levels are presented.

#### **Level 1**

Compulsory education and professional initiation. This professional initiation is acquired at an educational establishment, in an out-of-school training program, or at the undertaking. The volume of theoretical knowledge and practical capabilities involved is very limited.

This form of training must primarily enable the holder to perform relatively simple work and must be acquired reliably and quickly.

#### **Level 2**

Training providing access to this level: compulsory education and vocational training (including, in particular, apprenticeships). The holder is fully qualified to engage in a specific activity, with the capacity to use the relevant instruments and techniques.

This activity involves chiefly the performance of work which may be tied to application of advanced techniques in a limited scope.

#### **Level 3**

Training providing access to this level: compulsory education and/or vocational training and additional technical training or technical vocational education, or other secondary level training.

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<sup>25</sup> Council decision of 16 July 1985 on the comparability of vocational training qualifications between the Member States of the European Community (85/368/EEC).

This form of training involves a greater fund of theoretical knowledge than level 2. Activity involves chiefly technical work which can be performed independently and/or entail executive and coordination duties

#### **Level 4**

Training providing access to this level: secondary training (general or vocational) and postsecondary technical training.

This form of training involves high-level technical training acquired at or outside educational establishments. The resultant qualification covers a higher level of knowledge and of capabilities. It does not generally require mastery of the scientific bases of the various areas concerned. Such capabilities and knowledge make it possible in a generally autonomous or in an independent way to assume design and/or management and/or administrative responsibilities.

#### **Level 5**

Training providing access to this level: secondary training (general or vocational) and complete higher training.

This form of training generally leads to an autonomously pursued vocational activity – as an employee or as self-employed person – and to achieving a mastery of the scientific bases of the occupation. The qualifications require involvement in a vocational activity and demonstrate integration of the above defined levels.

From the very beginning, one feature of the 5-level framework was posing problems. The levels mix educational criteria with criteria of professional competencies. On one hand, the levels are defined as having appropriate level of education (the so-called entry criteria), e.g. on level 3 compulsory school education and vocational training. On the other hand, the profile of professional competencies (called exit criteria) was defined as the ability to perform independent professional work.

Professional apprenticeship was clearly classified at level 2. At level 3, there was no appreciation for skills gained in the practical way. In some countries, for example in Germany, the *action competence* - acquiring competencies by way of professional experience – is classified at level 3, or even level 4.

### **3.6.2. Proposal of new directive on recognition – new definitions of professional qualifications levels**

In March 2003, the European Commission published proposed directive on recognition of professional qualifications<sup>26</sup>. Below article 11 is quoted, which defines the levels of professional qualifications:

#### *Article 11* *Levels of qualifications*

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<sup>26</sup> Proposal for a directive of the European parliament and of the council on the recognition of professional qualifications (presented by the commission). Brussels, 07.03.2002 COM (2002), 119 final, 2002/0061 (COD).

1. For the purpose of applying Article 13 (on recognition conditions defined in this proposal), the following five levels of professional qualification are established:

- **Level 1:** „attestation of competence”;
- **Level 2:** „certificate”;
- **Level 3:** „diploma certifying successful completion of a short training course”;
- **Level 4:** „diploma certifying successful completion of an intermediate training course”;
- **Level 5:** „diploma certifying successful completion of a higher training course” .

**Level 1** corresponds to:

- a) an attestation of competence issued by a competent authority in the Member State on the basis of a very short training course, a specific examination without prior training or full-time practice of the profession in a Member State for three consecutive years or for an equivalent duration on a part-time basis during the previous 10 years;
- b) general primary or secondary education, attesting that the holder has acquired general knowledge.

**Level 2** corresponds to training at secondary level, of a professional nature or general in character, supplemented by a professional course.

**Level 3** corresponds to training at post-secondary level and of a duration of at least one year and less than three years.

The following shall be treated as level-3 training courses:

- a) training courses with a special structure which provide a comparable professional standard and which prepare the trainee for a comparable level of responsibilities and functions. Each member country shall prepare its list of training courses which meet the above criteria;
- b) regulated training which is specifically directed to the practice of a particular profession and which consists of a course of education supplemented, where appropriate, by professional training, probationary or professional practice, for which the structure and level are laid down in the legislative, regulatory or administrative provisions of the Member State in question, or which are subject to control or approval by the authority designated for that purpose. Each member country shall prepare its list of training courses which meet the above criteria.

**Level 4** corresponds to a course of training at higher or university level and of a duration of at least three years and less than four years. The following shall be treated as level-4 training: Regulated training which is directly aimed at the practice of a particular profession and which consist of a three-year program of

post-secondary study or a part-time program of post-secondary study of equivalent duration, carried out in a university or an institution providing an equivalent level of training, and, possibly, professional training, probationary or professional practice required in addition to the program of post-secondary study.

The structure and level of the professional training, probationary or professional practice shall be laid down in the legislative, regulatory or administrative provisions of the Member State in question or be subject to control or approval by the authority designated for that purpose.

**Level 5** corresponds to training at higher education level and of a minimum duration of four years. The following shall be treated as level-5 training: regulated training aimed specifically at the pursuit of a particular profession and which consist of a program of post-secondary study of at least four years' duration or a program of part-time post-secondary study of equivalent duration, carried out in a university or an institution providing an equivalent level of training and, possibly, professional training, probationary or professional practice required in addition to a program of post-secondary study.

The structure and level of the professional training, probationary or professional practice shall be laid down in the legislative, regulatory or administrative provisions of the Member State in question or be subject to control or approval by the authority designated for that purpose.

The above levels are to contribute to the simplification of the process of mutual recognition of professional qualifications. Description of the development of stages or levels of professional qualifications is a difficult and controversial task, given the fact that Europe has various, time-honored national education systems.

The proposed Article 11, which defines 5 levels of professional qualifications acquired in the course of vocational training, a lively discussion ensued in the EU countries – especially in Germany. The criticism of the proposed levels is usually based on charges that this regulation would harm other initiatives undertaken within the EU in the area of reconciliation, comparability and recognition of professional qualifications. Some fears have also arisen due to the undervaluation in the proposed classification of the levels of German dual education, which is defined „only” on level 2 of qualifications. German critics call for the recognition of quality standards of qualifications acquired during training under the dual system, and raising them even to the 4<sup>th</sup> level – according to the same criteria as for a master, specialist-expert, qualified manager or technician from level 4.

### **3.6.3. International Standard Classification of Education (ISCED-97) and Polish Classification of Education (PKE)**

UNESCO developed the universal system for classification of education as a tool functioning in the area of educational statistics – ISCED – the Interna-

tional Standard Classification of Education. The first version of ISCED was published in 1976, and was modernized in 1997 which resulted in ISCED-97.

The purpose of the ISCED-97 is to determine a universal template for collecting information and describing the national and international indices in the area of education. The classification was designed as a tool to describe formal levels of education in the individual countries. ISCED 97 contains also all equivalent forms of educational activity of children, youth and adults, regardless of the institution providing it or the forms of delivery. ISCED is also necessary to calculate the indices used by OECD in international comparisons, and to illustrate the development of education systems.

ISCED-97 describes seven levels of education, from the kindergarten (level 0) to academic and university education (level 6):

**Level 0** - Pre-primary education

**Level 1** - Primary education or first stage of basic education

**Level 2** - Lower secondary or Second stage of basic education

**Level 3** - Upper secondary education

**Level 4** – Post-secondary non-tertiary education (e.g. post-secondary schools which are not universities).

**Level 5** - First stage of tertiary education, not leading directly to an advanced research qualification (e.g. studies for a Bachelor's or Engineer's degree).

**Level 6** – Second stage of tertiary education, leading to an advanced research qualification (e.g. studies for a Master's degree).

The Polish Classification of Education (PKE) was introduced on 18 June 2003 (Regulation of the Council of Minister dated 6 May 2003 on the Polish Classification of Education, Journal of Laws of 2003, no. 98 item 895). This regulation is a secondary provision to the law dated 29 June 1995, on public statistics. The Polish Classification of Education (PKE) is a description of the Polish education system, but does not include out-of-school education forms. It consists of two parts: the first describes training, and the second one education.

The first part is designated to serve national statistics, reporting and research in the area of education; the needs of education management and the international exchange of information in that area.

The part covering education is to be used in research of the labor market, economic activity, employment and salaries; in demographic research (censuses and microcensuses) and research of households. It will be useful for all educational research which focuses on the education level of the population.

The Polish Classification of Education is based on current legislation and applies to education in schools which are covered by the education and higher learning systems. It is tied to a reporting system which covers such areas as:

- the participation of children, youths and adults, as well as persons with special educational needs, in the various types and levels of education;
- participation of the teaching personnel in education;
- the status of material resources, school equipment etc.

In the field of levels and areas of training, the PKE refers to the International Standard Classification of Education (ISCED-97), but takes into account current domestic developments. The regulation complies with the law of the European Union.

The Polish Classification of Education defines **9 major levels of education**, which correspond to the education system and higher learning system:

- 1) **pre-primary education – level 0** – covers education in kindergartens and pre-school units of primary schools;
- 2) **primary education – level 1**, covers education in the 8-year primary schools, 6-year primary schools and in artistic schools which offer no professional qualifications,
- 3) **lower secondary education – level 2**, covers education in lower secondary schools;
- 4) **secondary education - upper secondary and artistic, with professional qualifications - level 3:**
  - a) **upper secondary education** – covers education in basic vocational schools, in general secondary schools – that is, secondary schools on the basis of an 8-year primary school, or on the basis of a basic vocational school in technical secondary schools or in vocational secondary schools: vocational secondary schools, technical secondary schools and in equal-ranking schools on the basis of an 8-year primary school, or on the basis of a basic vocational school; and in post-secondary schools,
  - b) **upper secondary education** – covers education in basic vocational schools, 3-year general secondary schools, 3-year specialized secondary schools, 4-year technical secondary schools, 2-year supplementary general secondary schools, 3-years supplementary technical secondary schools and post-secondary schools,
  - c) **education in artistic schools, offering professional qualifications;**
- 5) **education in colleges – level 4** – covers education in teacher training colleges and in language teacher training colleges;
- 6) **education in higher education vocational schools – level 5** – covers studies at higher vocational school or at tertiary-level school, ending with a bachelor's or engineer's degree;
- 7) **master's studies - level 6** – covers studies at tertiary-level school, ending with a master's or equivalent degree;
- 8) **education in post-graduate studies – level 7** – covers studies at tertiary school or other organizational units which are authorized to deliver post-graduate studies, designated for persons who have completed tertiary education; organized by tertiary-level schools and by higher vocational schools;
- 9) **education in doctoral studies - level 8**, covers studies ending with the scientific title of a doctor.

### **3.6.4. International Standard Classification of Occupations (ISCO-88) and the Polish Classification of Professions and Specialties**

The International Labor Organization develops the International Standard Classification of Occupations. The current version is a derivative of the ISCO 68 version.

On 1 January 2003, the new classification of professions and specialties came into force in Poland (regulation of the Minister of Labor and Social Policy dated 10 December 2002 on the classification of professions and specialties for the needs of the labor market, and the scope of its application – Journal of Laws no. 222 of 20 December 2002, item 1868). This classification was developed on the basis of the International Standard Classification of Occupations ISCO-88, adopted during the XVI International Conference of Labor Statistics held in Geneva in 1987, and its new edition of 1994, the so-called ISCO-88 (COM), adapted to the needs of the European Union.

In the Polish classification of professions and specialties, similarly as in the ISCO-88 and ISCO-88 (COM) four broad levels of classifications are defined, with reference to six levels (the "0" level is not included) of education, defined in the International Standard Classification of Education (ISCED-97) adopted during the 29<sup>th</sup> session of the UNESCO in 1997:

- **first level of qualifications** (elementary qualifications) is referred to the first level of education under ISCED, acquired in primary school;
- **second level of qualifications** – referred to the second level of education under ISCED, acquired in lower secondary school and to the third level of education under ISCED, acquired in general secondary school, specialized secondary school and basic vocational school;
- **third level of qualifications** – referred to the fourth level of education under ISCED, acquired in post-secondary school, and to the third level of education under ISCED, acquired in technical secondary school;
- **fourth level of qualifications** – referred to the fifth level of education under ISCED, acquired during higher vocational studies, university studies for a master's degree and post-graduate studies; and to the sixth level of education under ISCED, acquired during doctoral studies.

The structure of classification is the outcome of grouping professions on the basis of similarities of professional qualifications, required to execute tasks of a given profession (specialty), taking into account both aspects of qualifications – their level and specialization. The criteria were used to group the individual professions and specialties into elementary groups, and those were in turn collected into medium-sized, big and large groups.

### 3.7. CONCLUSIONS

In order to achieve higher effectiveness of investments into education in Europe, and to build the European labor market, it is necessary to introduce gradual changes in the area of recognition of qualifications and competencies, acquired in any location in the European Union. During the Barcelona session in March 2002, the European Council has adopted an Action Plan, whose goal is to eliminate the barriers existing in the European labor market by the year 2005. This includes also the barriers caused by non-recognition of qualifications and education acquired in the informal manner. Despite important political steps made in this area (such as directives regarding the recognition of professional qualifications, the Commission Action Plan on skills and mobility, and the Action Plan for mobility adopted during the Nice session of the European Council); and implementation of numerous instruments meant to support this policy (the European CV, Europass Training, system of credits in vocational training, supplement to the certificate of professional qualifications), progress is much slower than expected. The slow and bureaucratic processes for qualifications recognition, applied in many countries and institutions, remain the most important barrier to a smooth and effective European labor market, and to perspectives for employment in any part of Europe for the holders of these qualifications. Without a transparent, friendly and predictable system for recognition of scientific degrees and qualifications, that would function above internal borders of the European Union, there can exist neither the European knowledge area, nor the European labor market.

During the time when integration of labor markets and economies progresses at an increasingly fast rate, we cannot allow education to remain behind. Moreover, the European students, interns and apprentices are increasingly aware of these needs and of right to studies offering qualifications that could be effectively used all over EU. The institutions and national accreditation bodies will be increasingly frequently forced to seek ways to grant such qualifications. Those who do not do it will risk punishing their own citizens by limiting their chances in the European economy and the European knowledge society.

Therefore, we should appreciate the initiative of the Ministry of Economy and Labor to build the national vocational training system on the basis of national professional qualifications standards. The defined levels of qualifications will be very useful in the process of recognition of professional qualifications, certificates and diplomas of Polish students and employees, who compete with employees from other countries of the European Union. The national standards for professional qualifications are a necessary starting point to build in Poland a system for recognizing qualifications acquired through informal and incidental training. This would sanction the educational path which is the basis to introduce the concept of lifelong learning under the continuous education system.

## **4. PROFESSIONAL QUALIFICATIONS STANDARDS IN THE FEDERAL REPUBLIC OF GERMANY**

*Hermann Schmidt*

### **4.1. WHY THERE ARE NO EUROPEAN STANDARDS FOR SYSTEMS OF VOCATIONAL AND CONTINUOUS EDUCATION?**

First of all, it should be stated that the goal of education policy of the European Union is not to harmonize the education systems of member countries. It was assumed that it is not possible to consolidate such varying approaches, carrying historical and cultural premises. The very different systems of Vocational Education and Training (VET) and the continuing vocational training (CVT) deliver varying professional qualifications. On the other hand, the development of common, European professional qualifications standards could help promote mobility and employability in the European labor market.

Discussion on the recognition of employee qualifications in EU member countries has been ongoing since the late 1970's. Various European associations of employers have pressured the European Commission to develop certain guidelines on that matter. But the governments remained reluctant, and the Federation of European Employers have finally refused to cooperate on this initiative.

It was agreed that the most important precondition for employment in another country is the ability to speak that country's language; but language competencies do not form part of professional qualifications in any EU country. It was also decided that the professional experience should be also somehow confirmed. In such case, they could be hired for a trial period, from three to six months, during which they would have a good opportunity to demonstrate their competencies at the workplace. Formal qualifications would be only an indicator, and not a proof of possessing professional competencies.

CEDEFOP – the European Center for Development of Vocational Training – published in the 1980's a comparative research which analyzed all standards for vocational education and training (VET) on the level of qualified employees. This research presents the situation found in twelve member countries of the EU. The governments, representatives of employers and trade unions, as well as the researchers, worked for years to create a representation of employee qualifications in Western Europe. They tried to develop comparative analyses of various situations tied to professions, qualifications and competencies, as well as the results of professional work. The huge effort resulted in an impressive volume of information, and contributed to a more clear picture of qualifications found in EU countries.

The project did not bring about the so much desired cooperation of employers with employment agencies on the organization of apprenticeships – the mobility of workforce inside EU did not increase.

In Germany in the 1970's, on the basis of bilateral government agreement, recognition was introduced for about 80 qualifications with partners from France and Austria – primarily in the area of technical, commercial and crafts professions.

This work was conducted by the Federal Institute for Vocational Education and Training (BIBB) with the participation of experts of its social partners, and their counterparts from France and Austria. Also in that case, the researchers did not manage to demonstrate the expected influence on increasing the mobility of qualified employees in these three countries.

The last initiative proposed by France in 2002, called “professional durability”, brought together working groups from Spain, Italy, Greece, Great Britain, Hungary and Germany. It attempted to develop common European VET standards, modeled after the French "diploma standard". All these initiatives confirm the common experience, that the national procedure for establishing qualification standards cannot be, so far, replaced by uniform international standards. National employers, trade unions and governments analyze their decisions on the basis of needs of the domestic labor markets, which are still very much different from the needs found in the European Union.

Nevertheless, the creation of European standards of vocational education and training (VET) and continuing vocational training (CVT) remains a challenge in the process of merging national economies, and in the process of search for qualifications that would improve employability in the European labor market.

## 4.2. SCOPE OF STANDARDS AND THEIR LEGAL BASIS

**The standards for vocational education and training (VET)** in Germany should not be confused with **the standards for continuing vocational training (CVT)**.

**The standards for vocational education and training** describe what a qualified employee – for example on level 3 of the European 5-level framework – is able to plan, perform and check within the specific “vocational training for a professional function”; how long the training should last and what outcomes of training should be evaluated (the standards for vocational education and training focus on preparation to perform a profession).

**The standards for continuing vocational training** describe what a qualified employee – for example on level 4 of the European 5-level framework – is able to do within the professional function under “further vocational training” (e.g. master in industrial profession), and how these requirements should be evaluated (the standards for continuing vocational training focus on employment).

**The standards for vocational education and training (VET) and the standards for continuing vocational training (CVT)** become the national standards on the basis of a Regulation on Vocational Training (§25 and 46.2), issued jointly by the Federal Education Minister and the minister in charge of a given professional sector (usually this is the Minister of Economy).

**Regional standards** are developed in response to the needs of regional labor market, by the relevant Chambers of Commerce and Industry (as well as crafts and professional chambers) on the basis of Regulation on Vocational Training (§ 46.1), after the decision issued by the Chamber's Training Committee.

**Enterprise standards** are defined by enterprises which join the initial, continuing and further vocational training. Usually, in order to assure high quality of employees' competencies, the enterprises have many domestic and international training locations. Standards of such type are „proprietary” and have no specified legal basis.

## 4.3. COMPONENTS OF THE STANDARDS

The standards for vocational education and training fit into the legal framework (*Ausbildungsordnungen*), the regulation on training. They include the following components of the standard:

- name of the profession to which the training applies (e.g. mechatronics technician);
- duration of training (from 2 to 3.5 years);

- characteristic features of the training or its primary professional functions (*Berufsbild*);
- specification (program, recommendations) of training in the enterprise (*Ausbildungsrahmenplan*);
- requirements regarding evaluation and the procedure for evaluation of skills.
 

The standards for vocational education and training (national and regional) have only two components:

  - name of profession for „further training” and the related requirements (e.g. industrial master);
  - criteria for evaluation, and procedure for evaluation of skills.

#### **4.4. MODULES OF PROFESSIONAL SKILLS**

The standards of vocational education and training and standards for continuing vocational training can be broken down into units of professional skills, which make up narrow qualifications. The standard of vocational education and training can, for instance, be split into two units – the basic standard elements and specialist standard elements.

The standard for continuing vocational training for an industrial master (*Industriemeister*) can be broken down into the following units: „technical functions”, „management functions”, "human resources development functions" etc. Those units can be described as modules of „further” training which can be the contents of training (education/evaluation) separately. After the achievement of a sufficient level of competencies in all modules they are brought together to create higher qualifications for a profession, e.g. for the industrial master.

Most employees, to follow the technical, economic and organizational changes, require continuing training. Most of such training occurs at the workplace and is delivered by co-workers or external experts, both domestic and foreign. The organization and method of training does not require any standards, programs or certificates.

If the training is supposed to have a broader scope, and the time needed for its implementation exceeds a few days, the training is usually organized in the form of courses, which have all features of a training module. They have clearly defined goal, contents in the form of recommended syllabus, evaluation and certification.

Sometimes the national standards of vocational education and training cover not only important occupational functions, specific for the region, undertaking or sector, but also contain, for example, technical functions for managerial professions, or management functions for technical professions, or the requirement to use a specified foreign language. Those additional functions can be described as “additional training modules” (*Zusatzqualifikationen*), in which the trained persons are evaluated in the course of the main training or afterwards, upon its completion. The goal of the federal policy is to increase the number of

additional training modules, standardized in the whole country, to make the training and the acquired skills more flexible and versatile.

## **4.5. TRAINING PROGRAMS**

### **4.5.1. Initial training in the dual system**

#### **Training at an undertaking**

The nature of trainings taking place in enterprises is the need to organize them according to the work process. For this reason, the national training standard does not contain a syllabus, but a specification of the training (*Ausbildungsrahmenplan*), which lists all major professional functions that must be trained in the course of work. The decision on when and how these functions would be trained is up to the enterprise itself. Thus, the specification is a recommendation, and not an obligatory and detailed requirement. The training institution must present the enterprise with a training plan, which sets forth the requirements for the enterprise, and takes into account the specific nature of work in that enterprise. This plan is subject to approval by the Board (including representatives of the training institution and the enterprise) and next by the Chamber (appropriate for the given profession and sector), together with the training contract which is signed with the course's participant.

#### **School education – *Berufsschule* – vocational school**

School education focuses on theory and is based on a syllabus, created according to the national standard for vocational education and training. The national standard for vocational education and training is developed by national institutions and institutions of federal countries – the lands (*Länder*) in cooperation with social partners; and approved jointly by the education ministers of the individual lands.

### **4.5.2. Continuing and further vocational education**

#### **Continuing and lifelong education**

In Germany, the continuing training and the life long learning (LLL) takes place primarily in undertakings or at home, and usually is not based on any official program. The training is focused at specific results and is based on guidelines in the form of instructions, using textbooks and multimedia. There exists none "national program" for continuing education, as the challenges and changes posed for the system of continuing education occur too quickly and require fast reactions from those who decide to undertake the training. All material used for continuing training is focused on results.

Continuing training for the unemployed is ruled by a different logic. The courses are usually paid for by the labor office. The training institution that participates in the training must present clear goals of the training, equipment,

qualifications of its employees and the syllabus. Of course, training programs are not published because of competition in the market of training services.

### **Further training**

As described above, „further training” which is based on the national standards for vocational education and training does not have a specified syllabus. All materials used during the courses are applied according to the recommendations of training institutions, such as: the BIBB, chambers, trade unions and other.

In contrast, "further education" delivered in schools (e.g. in technical schools) follows a syllabus issued by the Education Minister of the land where the given school is located.

### **4.5.3. Procedure for assessment**

**Assessment** is the process of collecting evidence confirming that a given person is able to plan, execute and control all main functions of “vocational training” or “further vocational training”, described in the standard for vocational education and training, or standard for continuing education. The assessment can have written, verbal and practical form (providing evidence of the achieved competencies), individual or collective, interviews, tests etc. Assessment on the basis of Regulation on Vocational Training is organized and executed at the Chambers. According to the law, the Chambers must have trilateral examination committees (consisting of representatives of employers, trade unions and teachers) for each “vocational training” or “further vocational training”. Over 300,000 experts from undertakings and schools serve as voluntary members of the examination committees.

**Requirements on the assessment and the assessment procedure** form an integral part of the standards of vocational education and training and for continuing training. They also describe the duration of the evaluation, and parts constituting the whole of professional competencies which are to be achieved in the course of training. The assessment committee at the Chamber decides about the contents and procedure of assessment.

### **4.5.4. Certification procedure**

#### **The dual system**

Participant of a course in the dual system, where the training takes place both at the workplace and at school (*Berufsschule*), receives usually three certificates on the achievement of qualifications:

- 1) the qualified employee certificate, based on the national standard for vocational education and training, established by the Chamber as a public authority;
- 2) a certificate issued by the training institution/ the undertaking;

3) a school completion certificate.

All three certificates create an individual portfolio, very useful during search for work. Certificates issued by the Chambers confirm that national competence standards in specific sectors have been reached. A certificate issued by a training institution/ undertaking offers the opportunity of seeing the course participant from the standpoint of his/her personality and social competencies. The school certificate proves that the person absorbed “theory” (scientific foundations) in various general and professional areas.

### **Continuation of training**

Certificates issued by training institutions/ enterprises confirm that the person participated in a training organized at the workplace, or in a training course with very specific subject matter (entry-level training, development training etc.). This certificate becomes invalid in a very short time, unless its holder can prove that he/she commenced work in the profession to which the training applied.

### **Further training**

Further training is designated for qualified employees who want to improve (supplement) their qualifications (from level 3 to level 4 of the European qualifications framework). Certificates are based on the legal basis of national standards (*Fortbildungsordnung Industriemeister*) or on the basis of regional professional qualifications standards (standard determined by the Chamber).

Further training which takes place in school (e.g. training of technicians in vocational school) is confirmed by a certificate issued by the Education Minister of the relevant land.

## **4.6. LEGAL BASIS FOR CREATING STANDARDS, PROGRAMS AND CERTIFICATION**

### **4.6.1. The dual system and „further training” based on national standards for professional qualifications**

The legal basis for training activities on national level is the Regulation on Vocational Training of 1969, which introduced national standards for vocational education and training (§25), regional standards for continuing training (§ 46.1) and national standards for continuing training (§ 46.2). A whole chapter (§34 to 43) is devoted to assessment and certification, which is entrusted to the Chambers as public training authorities.

The development of modular programs for vocational training does not need specific legal basis. Modular training does not lead to recognized qualifications, unless the specific module is clearly defined as part of a broader qualification. In such case, the definition, creation and approval of module is done ac-

ording to the same procedures and regulations as in the case of standards for vocational education and training.

Regulation on the Promotion of Vocational Training of 1981 redefines the organization and scope of BIBB duties (which were originally described in the Regulation on Vocational Training of 1969), listing all tasks of the Institute, including research and standards development (§ 6).

#### **4.6.2. Primary and further education, vocational training based on the school system**

The primary and further education, as well as vocational training which takes place at schools under the strict legal regime of 16 lands, takes into account legal solutions of the educational system of the given land. To coordinate and organize the planning referring to educational policy in the given land, the Standing Conference of the Education Ministers of the Länder – KMK was established. It issues recommendations regarding solutions common for all lands in the area of qualifications and certification.

### **4.7. INSTITUTIONS OPERATING IN THE EDUCATION MARKET**

#### **The federal government**

Its competencies cover the primary, continuing and further education and training, including full responsibility for the national labor market and economic policy. The Federal Government creates the national policy on training, establishes and creates educational standards and qualifications standards, promotes research in the area of vocational training, finances training programs for handicapped persons and for minority groups, finances intra-company training programs held in small and medium-sized enterprises, presents to the Parliament the annual report on the condition of vocational training in Germany, and finances the work of the Federal Institute for Vocational Education and Training (BIBB). The federal government creates platforms which enable regular meetings with other institutions and organizations operating in the educational market.

#### **Employers**

They set the scope and quality of the initial and continued training occurring at undertakings. About 600,000 undertakings provides training locations for the dual system, which constitutes about 50% of all undertakings able to deliver good quality three-year training. Most of the employers' associations actively participate in the national system of vocational education and training, and the policy of continuing vocational training. The employers, together with trade unions, in practice maintain and manage the system of training in Germany. No far-reaching decision in the area of training is made by the federal government without their approval. Sixteen representatives of employers are members of the

BIBB Board, to engage in discussions with the federal government and other institutions operating in the education market and to make joint decisions. Employers' representatives are members of all BIBB working groups. The case is similar with trade unions.

### **Trade unions**

They have the same rights as the employers in the process of creating policy on the national training system. Their representatives are present on the lands' committees dealing with education and training on the regional level, in committees of Chambers and in training institutions or undertakings (their various tasks include the verification of enterprises' training plans). In the 1950's and 1960's, the dual system was criticized for lack of transparency. After the Regulation on Vocational Training came into force in 1969, the trade unions became supporters of the dual system. The regulation gave them the right to co-create and co-decide in many significant areas of training activities.

### **The lands**

The regulations regarding competencies of lands stress their autonomy in the area of all issues tied to full-time or day-time out-of-school apprenticeships. The lands do not have to engage in joint planning processes in this area. Despite that, the lands are important partners for institutions operating in the education market under the dual system. That's why the federal government invited representatives of lands to provide assistance to the BIBB Board, engaging in discussions on the policy of national vocational training. Starting from 1976, representatives of lands regularly meet with other institutions operating in the education market on the BIBB Board.

### **Making decisions according to the rule of consensus**

All institutions operating in the education market have the right to initiate work on new standards for vocational training and qualifications – but this initiative is usually made by the social partners. The federal government policy is geared at allowing the social partners to make the first move and to reach agreement, despite differing interests of various parties. The employers and trade unions send their experts to the BIBB, to develop professional qualifications standards, together with the scientific and research employees. The Institute often plays the role of negotiator, develops preliminary drafts of standards, and finally presents to the government the joint approach of social partners, which is helpful in the development of final decision. The land, which is autonomous in the area of education, acts as a conscious and responsible partner during the making of all decisions. The federal government acts according to the consensus rule, which means that no decisions are made against any of the social partners on the important issues tied to the system of vocational education and training, and the continuing training standards. That is why the social partners assure

broad-reaching social approval of the new standards in the economy - even if their introduction is tied to high costs.

## 4.8. PROCEDURES FOR DEVELOPMENT OF STANDARDS AND MODULES

### 4.8.1. Institutions

**The Federal Institute for Vocational Education and Training (BIBB)** was established as an institution of public authority, in order to assure an appropriate platform for agreement for the various institutions operating in the education market. BIBB is managed by a board including representatives of employers, trade unions, federal government and governments of the individual lands. All representatives of these institutions have equal voting rights. The BIBB is financed in 100% by the federal budget, despite the fact that the federal government has only 25% of voting rights on the Board. This unique solution stresses the will of the federal government to engage the social partners and lands' representatives in active cooperation on the development of joint national policy for the vocational education and training, and for continuing vocational training.

**The German trade unions** represent various branches of industry. After the war, the supreme institution was the DGB (*Deutscher Gewerkschaftsbund*), which served as a spokesman, representing all employees, expressed its opinion on national policy, and on the issues of education and training. The role of DGB was limited to coordination of policy and organization of work of representatives-experts for the individual sectors. Individual trade unions, for example of the metal industry, engaged in its own negotiations with employers, for example on proposed cooperation on the development of professional qualifications standards.

As there was no representative of all **organizations of employers** (from the sectors of industry, crafts, agriculture, retail and wholesale trade, liberal professions) that would also be a partner for the government and the DGB in the area of training, an institution was founded which fulfills that function since 1972. This is the Board of Knowledge on Vocational Training in Germany (*Kuratorium der Deutschen Wirtschaft für Berufsbildung*). The government or the BIBB sends to the Board requests for opinions of employers on the training, standards of professional qualifications and related matters, to be provided by experts of employers.

The education ministers of the lands usually have their own research and development institutes (*Landesinstitute*), which conduct research, monitor the development of education and training, create and develop standards, and act as local counterparts of the BIBB. Those institutions - together with the BIBB, private research institutes, the Federal Institute of Labor Market Research – Fed-

eral Employment Agency (IAB), a certain number of research institutes specializing in the issues of vocational training and education, working for the universities - create the network of experts (*Arbeitsgemeinschaft Berufsbildungs – Forschungsnetz*).

#### 4.8.2. Procedures

##### **Standards for vocational education and training**

The initiative to develop or update standards for vocational education and training can be proposed by any of the above listed institutions, operating in the education market. During the past six years, the above listed institutions together with some other research institutions (e.g. *Fraunhofer Gesellschaft*) created a system for early diagnosis of changes in professional functions. Data is collected that can suggest a permanent change trend in qualifications, as not all changes last long enough to make it worth developing a new qualifications or training standard.

Indicators of durable changes include new subjects in continuing training delivered at undertakings, or brand new subjects of courses offered in the market at the request of employers, or in response to advertisements on jobs in new positions. Those changes have their sources in the economy, technology or organization of the labor processes. They result also from the changes in the number of employees in a given sector of economy. All the key data is presented to institutions operating in the education market, to facilitate the decision on creating a new professional qualifications standards, or on updating and extending an existing standard.

Research is also conducted to establish if the new qualification needs can be met under continuing or further training. This can take place on the regional level, under training delivered by regional chambers of the given land, or on the country-wide level, thanks to standards for continuing vocational education, by recommending the organization of short-term courses by enterprises or by other training institutions.

The initiative to create a new standard for vocational education and training is presented to the Board of the BIBB, which must discuss the proposal and make a decision. This decision becomes a recommendation for the relevant federal minister (usually the Minister of Economy), who issues the final decision and requests the BIBB to develop the standard in cooperation with social partners and experts. The BIBB invites experts representing the lands, to coordinate the process of developing standards on the federal and land level, and to have the syllabus agreed and accepted by all interested parties. The BIBB presents the draft standard to all social partners.

When the project is agreed and adopted, it is further presented to the relevant ministries (usually economy and education), which jointly agree the standard and publish it together with the school syllabus for the lands, as a public announcement in the *Federal Gazette*. The procedure for developing a new stan-

standard for vocational education and training, which is to be introduced for the first time, should not last more than two years. In 1997, four new standards in the area of information technologies were developed and published, and work on them lasted less than a year. Update of the standard should not last more than a year. Institutions operating in the education market have agreed such timeframe to avoid public criticism, often encountered in the past, when the interests of social partners hindered agreement and quick decisions on standard design.

Information of the new or updated standards is communicated publicly (to undertakings, schools etc.) as early as possible, when the draft standard is being developed. The government and the BIBB regularly publish lists of new draft standards, but more important is the dissemination of information by employers, trade unions and employee boards, as they prepare and inform the teachers and trainers about the scope, goals, contents and novelties in the national standards that are being developed. The information channels of social partners turn out to be much more effective for the process of communicating innovations in standards than any other channels for social communication.

### **Regional standards for continuing vocational training**

The regional standards, according to the Regulation on Vocational Education (§ 46.1) are developed and approved by chambers of various sectors (trade, industry, crafts, liberal professions, agriculture etc.) and are controlled by these chambers. The initiative can be proposed by an undertaking or another social partner organization, or a training institution, but the proposer must prove that there exists a "constant need" for continuing training in that area, created by the regional labor market. The training committee of the Chamber determines the further fate of the proposal. In case of approval, it gathers the team of experts who are competent to prepare a draft standard. The draft is presented to the training committee, is approved and published by the Chamber.

### **National standards for continuing vocational training**

The standards for continuing vocational training, according to the Regulation on Vocational Training (§46.2), are initiated and developed in the same way as the standards for vocational education and training. As the standards for continuing vocational training have only two components (requirements for the profession, criteria and procedure for assessment), the process of their development is usually shorter (one year on the average). In most cases, the modular program based on the standard for continuing vocational training is developed by the BIBB and experts of the social partners. Those programs are only a recommendation for the training institutions.

The publication and dissemination of standards for continuing vocational training and training programs is directed at all institutions operating in the education market.

## **4.9. HOW TO ADAPT THE STANDARDS TO THE NEEDS OF THE LABOR MARKET?**

In the stable German economy of the 1970's and 1980's, the standards of professional qualifications were much more long-lasting than they are today. Some of them were used for ten, fifteen or even twenty years, before someone reported "outdated contents" or "obsolete training goal". When the first standards for vocational education and training for four new professions in the area of information technologies were developed in 1997, their authors were not sure if the standard and the proposed results of three-years training course would be still valid in 2000, when the first participants would complete the training. Six years have passed, and the professional qualifications standard for the information technologies professions is still valid. The training and the spread of new qualifications across the broad labor market requires time before a balanced opinion can be issued on the appropriate choice of professional qualifications standard.

From 1995 until 2003, the experts developed over 40 new standards for vocational education and training, several hundred regional standards for continuing vocational training, and almost 50 national standards for continuing vocational training. In addition, about 120 standards for vocational education and training were updated during the same period.

All the standards were closely monitored during their practical introduction. Collection of feedback was organized to verify the labor market needs. The system for early identification of changes, mentioned above, is a new tool for following technical, economic and social changes, as well as changes in labor organization, in order to design new and update/improve existing standards. A lot depends on the transfer of information on qualification needs from the economy, vocational training in enterprises and from the administration. The new qualification needs are identified the fastest in these areas. There exists a conviction that more research should be conducted in that area.

## **4.10. FINANCING THE DEVELOPMENT OF STANDARDS**

The assumptions of the German training system, regarding the financing of training, are as follows:

- the student in the dual system does not cover any training costs, and receives a refund (Regulation on Vocational Training);
- All institutions operating in the education market have their own interests, that's why they cover their own costs (e.g. the undertakings cover the costs of internal training, the costs of experts providing advice to the government or the BIBB, or experts working in Chamber's committees);
- public interest of the country, whose economy largely depends on export, means that efforts to increase the qualifications of workforce must be highly valued. For this reason, the federal governments cover the costs of research, implementation of innovative programs (pilot projects), training programs for disabled persons and for minority groups. They also cover part of the costs of training employees within the enterprise, including the costs of information and communication during the training, etc. When the government or the BIBB uses specialist knowledge of experts representing social partners (e.g. during the development of professional qualifications standards, or training modules), it must cover their travel costs;
- The chambers create the infrastructure of the German training system. They are organizations of employers (membership in chambers is obligatory), which receive subsidies as public authority institutions dealing with training issues. The chambers are financed from taxes paid by all members – enterprises.

## **4.11. CONCLUSIONS**

### **4.11.1. Increasing the importance of vocational training**

Vocational education and training, as well as continuing training, further training and development usually have a low status in the society. General education and professional career enjoy much greater public interest and public recognition. Fortunately these differences become less pronounced. However, vocational and continuing training needs more prestige, to become something more than a mere instrument for solving problems of the labor market. Training qualifications must be confirmed with credit points for the purpose of various opportunities for developing future professional career, to enable their holders professional promotion or commencement of university studies.

#### **4.11.2. Optimization of the training system and increasing the volume of research**

Learning from others, by copying systems used in other countries, is not the right way to success. Education and training systems are deeply rooted in the social nature of each country. However, if some elements of foreign systems can be taken over by the institutions operating in the education market, they could be transplanted and developed according to the country's needs. Development of the standards for vocational education and training and of training modules is a global trend, commenced in the 1990's as consequence of globalization and reaction of the education system to challenges resulting from the changes.

Early identification of changes, development of the standard, monitoring the process of new standards' introduction and the reaction of labor market, improvement of existing standards, introduction of new education, training and assessment methods, quality assurance, development of modular training programs etc. are those areas where training systems of most countries still show some weaknesses. There exists the need to engage in research and activities selected in such a way that they would include, involve all institutions operating in the education market into the development of national vocational education system. The experience of foreign countries can be used to improve own system. All improvement methods should be carefully planned and introduced taking into account the influence they would have on the whole system. It should be remembered that agreement among various partners and institutions operating in the education market takes a long time - but is a condition of durable success and growth.

#### **4.11.3. Appointment of „spokesmen” of institutions operating in the education market**

In order to develop training standards, first the “job specifications” (job description) must be developed, which presents the expected outcomes of professional activities at the workplace. To create the job description, it is necessary to involve employers. If we can cooperate with an association of employers, speaking on behalf of the whole sector or all employers, this is the most credible information source, as all employers assume responsibility for the process of developing job description. The training specification depends in turn on the educators, who work on the basis of job specification. If there is no relevant organization of employers, which should at least analyze whether the “job specification” meets the expectations of various employers and SME sectors in various parts of the country, the agreement process shall meet significant obstacles. The “spokesman” or the institution representing employers or trade unions facilitates the reaching of consensus.

#### **4.11.4. Creation of an “agreement platform” for institutions operating in the education market and for research institutions**

The platform which facilitates a meeting of the institutions operating in the education market in order to discuss research results, issues of educational policy and improvement of the education system, largely contributes to the optimization of training system and assuring their quality. Regular meetings are necessary to maintain the process of dialogue and constant system development, to monitor progress and keep up with changes. For this purpose, the European Union established CEDEFOP in 1975. Most EU countries have such institutions as the German BIBB, which serve as a platform for agreement among social partners.

#### **4.11.5. This issues of vocational education and training should be constantly present in politics and social consciousness**

As mentioned above, the issues of general education and development of professional career usually dominate the media and social consciousness. Interest in vocational and continuing education and training should become the primary subject of public debates at least once a year. The report on the current situation and progress in the development of training should be approved by the government and presented to the parliament. It could become the basis for a nation-wide discussion on training and its importance for the economy and labor market. This does not mean that the aspect of developing the country's culture is less important. Such political approach could help to improve the training system better and faster than all the efforts of experts and professionals.

#### **4.11.6. Placing the developed standards and models within the holistic education system**

Professional qualifications standards, education programs, training modules, assessment procedures etc. are very important components of the systems of vocational education and training and of continuing vocational training. The process of their development, monitoring, updating and re-development is part of the system's development. The systems of education and training vary significantly in the countries of the EU. They always provide some guidance which are worth increased attention (e.g. five levels of training and education – from unskilled worker to professional). The standards should be allocated to those levels for which they are designated. Modules should be described as part of professional qualifications. A holder of a given qualification should be able to acquire (link) several new modular qualifications, to achieve broader and more general qualifications, which can be helpful in finding a better job, or enable the continuation of education and training.

**Useful information on VET and CVT in Germany, available in the Internet:**

- [www.bibb.de](http://www.bibb.de) website of the Federal Institute for Vocational Education and Training
- [www.bmbf.de](http://www.bmbf.de) website of the Federal Ministry for Education and Research;
- [www.iab.de](http://www.iab.de) website of the Institute of Labor Market Research – Federal Employment Agency;
- [www.kmk.de](http://www.kmk.de) website of the Conference of the Education Ministers of the Länder (federal states);
- [www.ausbildung-plus.de](http://www.ausbildung-plus.de) - database on additional VET qualifications;
- [www.foraus.de](http://www.foraus.de) website of a virtual forum for trainers;
- [www.bildungplus.forum-bildung.de](http://www.bildungplus.forum-bildung.de) federal and lands' Education Ministries' initiative “Forum bildung”.

## **5. PROFESSIONAL QUALIFICATIONS STANDARDS IN GREAT BRITAIN**

*Bob Mansfield*

### **5.1. NATIONAL OCCUPATIONAL STANDARDS AND NATIONAL OCCUPATIONAL QUALIFICATIONS**

The vocational education training in the United Kingdom of Great Britain and Northern Ireland (UK) is based on the **National Occupational Standards** – NOS, which are used to develop **National Vocational Qualifications** – NVQs.

The National Occupational Standard is a performance standard, expected in the course of employment – often called the outcome. The National Vocational Qualification describes the evidence which the candidate has to present to prove that he/she can reach performance level defined in the National Occupational Standard (NOS).

The National Occupational Standard determines what has to be achieved, and not what has to be taught. The National Vocational Qualification (NVQ) lists exam requirements, and determines the way for assessing National Occupational Standards.

National Occupational Standards are used in initial and continuous professional training. In the United Kingdom, there is no formal division between the initial and continuous training.

### **The scope of standards and qualifications**

The only officially recognized standards are the National Occupational Standards, which are used to develop National Vocational Qualifications and the “Vocationally Related Qualifications”. The only regional variation exists in Scotland, which used a separate system for modular accreditation of qualifications, and the Scottish Vocational Qualifications (SVQs). Nevertheless, SVQs are based on the same National Occupational Standards as the NVQs in England, and are identical in each aspect.

Occupational standards of individual enterprises, or sectoral occupational standards, are developed and generally applied, but not officially recognized. Certificates and diplomas based on such standards are not part of the National Qualifications Framework - NQF. Discussions is ongoing in the Department for Education and Skills to recognize some generally applied qualifications (such as qualifications confirmed by Microsoft certificates, related to computer skills).

### **Components of the National Occupational Standards and National Vocational Qualifications**

Each The National Occupational Standard (NOS) is a detailed performance specification, which consists of:

- Title/ header, which specifies what should be achieved (the so-called outcome);
- certain number of statements which determine the proper method and quality of performance (the so-called performance criteria);
- basic knowledge and skills needed to achieve the outcome.

Each of the National Occupational Standard (NOS) is called the “element of competence”. Elements of competences are grouped into „Competence Units” which in turn form the basis to build the National Vocational Qualification (NVQ).

There are no rules specifying the number of Competence Units that have to constitute the National Vocational Qualification, but this number usually ranges from six to fifteen. In addition, to each Competence Unit requirements on evidence are added, which specify the type and number of evidence that has to be presented to demonstrate vocational competences in a given Competence Unit. The structure of National Vocational Qualifications is presented in exhibit 1.

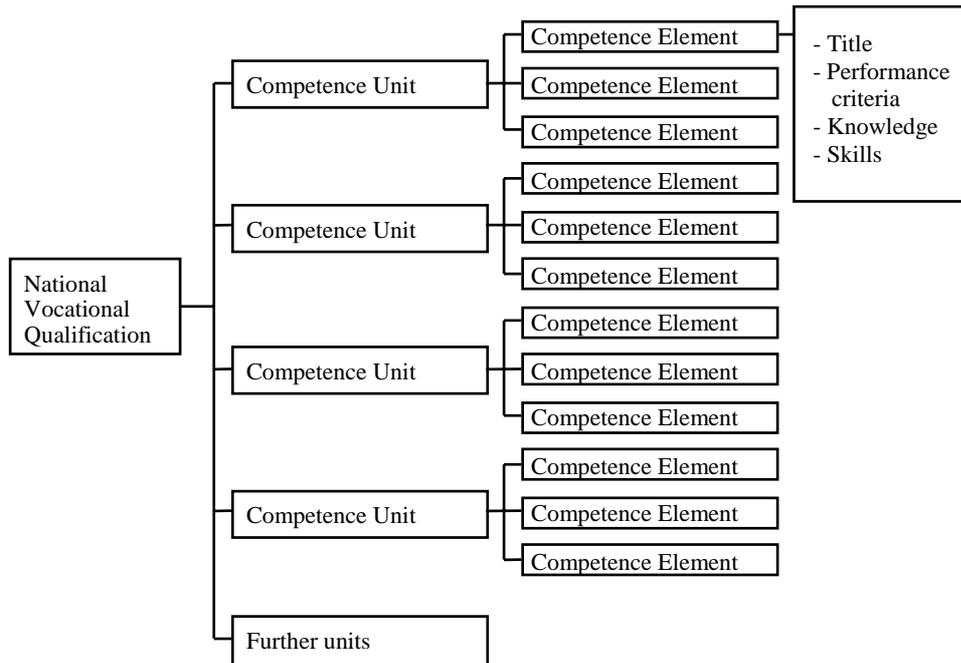


Exhibit 1. Structure of National Vocational Qualifications (NVQ)

## 5.2. CERTIFICATES AND QUALIFICATIONS

In the United Kingdom, the term "qualification" means a certificate granted after the achievement of vocational competence.

Qualifications are described (designed) by independent awarding bodies, which cooperate with the Sector Skills Council (SSC). The Sector Skills Councils have replaced the National Training Organizations – NTOs. The awarding bodies administer and allocate occupational qualifications certificates through a network of further education colleges and training centers, many of which are private institutions or operating within enterprises, and through the centers of occupational skills.

The Qualifications and Curriculum Authority – QCA, as the central entity, monitors and establishes criteria that guarantee quality, and the awarding bodies are responsible for the quality of education and training centers (further education colleges, training centers, enterprises) which offer education and training on specific National Vocational Qualifications.

The awarding bodies are not-for-profit organizations, operating under commercial rules. There exists a number of awarding bodies in the United Kingdom:

- **AQA** - Assessment and Qualifications Alliance - the biggest one, created after the merger of Associated Examining Board, the Northern Examinations and Assessment Board and the City and Guilds<sup>27</sup>.
- **Edexcel**, created after the merger of BTEC, which delivers vocational qualifications, the University of London Examinations and Assessment Council – ULEAC and the examination bodies of GCSE and GCE<sup>28</sup>.
- **OCR**, which covers the examinations of the Oxford and Cambridge and Royal Society of Arts – RSA<sup>29</sup>.
- **NOCN** - National Open College Network is a national awarding body, grouping several regional Open College Networks. Each local network is licensed to award qualifications that are developed locally, in response to the local community needs.
- **SQA** –the Scottish Qualifications Authority combines the functions of QCA and awarding bodies.

There exist about 70 awarding bodies, offering qualifications within sectors and occupations.

### 5.3. NATIONAL QUALIFICATIONS STRUCTURE (with the exception of Scotland)

In order to improve the transparency of qualifications, the Qualifications and Curriculum Authority (QCA) developed in England the National Qualifications Framework – NQF.

The National Qualifications Framework contains an agreed set of comparable qualifications, based on five levels. It consists of:

**National Vocational Qualifications** – qualifications designated for persons working in specific positions. National Vocational Qualifications are based directly on the National Occupational Standards and are subject to criteria defined by the QCA, which contain a requirement that a person must be able to acquire NVQs free of charge, irrespective of whether they are acquired by participation in a training course, during studies or work.

**Vocationally Related Qualifications** – qualifications for learners who participate full-time in training. These qualifications are related to the National Occupational Standards, but contain other customary requirements, such as the need to participate in a course or complete studies.

**Academic qualifications** – all qualifications confirmed with higher education diplomas. Degree level: Certificate, Intermediate, Honors, Masters and Doctoral levels<sup>30</sup>.

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<sup>27</sup> Further information : <http://www.aqa.gov.uk>

<sup>28</sup> Further information : <http://www.edexcel.gov.uk>

<sup>29</sup> Further information : <http://www.ocr.gov.uk>

<sup>30</sup> Further information: <http://www.qca.org.uk/nq/framework/>

## **General National Vocational Qualifications (GNVQs) and Vocational A Levels.**

The general qualifications GNVQs which have been defined in 1993 cover broader areas than qualifications specific for typical vocational specialties and narrow-profile professions. GNVQs on the advanced level have been re-named, in August 2000, to “Vocational A levels” and are increasingly frequently accepted as entry requirement to university. They are accessible to students of secondary schools and colleges, who are older than 16 years<sup>31</sup>.

### **Key skills** (in Scotland: core skills)

These are general vocational skills, required for effective work and learning in all areas of training and profession. The key/core skills are now an obligatory element of the GNVQs and their Scottish counterparts. They are present in the Modern Apprenticeship Programs. Key skills are also developed under the Vocational A levels<sup>32</sup>.

### **Other popular qualifications**

Some of the qualifications listed below could be recognized in the future as Vocationally Related Qualifications, provided they are modified to reflect the contents of National Occupational Standards:

- **Higher National Diplomas and Higher National Certificates** (HNDs and HNCs), These are granted upon completion of vocational courses, delivered by further education colleges and universities. The HNCs are granted on the basis of part-time learning undertaken by working persons, while the HNDs are usually full-time courses. Additional two years of learning allow to acquire a higher learning degree<sup>33</sup>.
- **Access courses** – one-year preparatory courses for persons who are over 21 years old and do not have “A levels” qualifications, to commence university studies. Further training colleges and universities offer them on a full and part time basis, and the content varies depending on institution.<sup>34</sup>
- **Qualifications of the National Open College Network** (NOCN) – developed locally, designated primarily for adults in the local community, who have little or no qualifications. Such persons can undertake education in college or local centers, and acquire partial qualifications (based on a small number of competency units)<sup>35</sup>.
- **Modern Apprenticeships Programs** – programs based on work with elements of training, designated for young people, aged 16 to 19. They are

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<sup>31</sup> Further information: [http://www.qca.org.uk/nq/ks/framework/gnvq\\_a-level\\_questions\\_answered.asp](http://www.qca.org.uk/nq/ks/framework/gnvq_a-level_questions_answered.asp).

<sup>32</sup> Further information: <http://www.qca.org.uk/nq/ks> i <http://www.sqa.org.uk>.

<sup>33</sup> Further information: <http://www.educationuk.org>

<sup>34</sup> Further information: <http://www.ucas.ac.uk/access>

<sup>35</sup> Further information: <http://www.nocn.org.uk/quals/nocn-quals.html>

available on two levels – basic (level 2 of NVQ) and advanced (level 3 of NVQ). They exist in more than 80 sectors of industry and trade. They contain skills based on the relevant National Vocational Qualification. They are confirmed with a Technical Certificate, which confirms also the possession of basic knowledge and the mastery of specific Key Skills Units of the GNVQs<sup>36</sup>.

## 5.4. QUALITY ASSURANCE

In the United Kingdom operate four agencies which watch over the quality of vocational education:

- **England:** the Qualifications and Curriculum Authority (QCA) regulates all external qualifications in England. CA cooperates with supervisory bodies in Wales, Scotland and Northern Ireland, in order to assure close ties between vocational qualifications.
- **Scotland:** the Scottish Qualifications Authority (SQA) is responsible for accreditation and granting of qualifications in Scotland;
- **Northern Ireland:** the supervisory authority in Northern Ireland is the Council for the Curriculum, Examinations and Assessment (CCEA), which supervises external qualifications meant for students up to 19 years of age, acquired under a school system, full-time. The National Vocational Qualifications are subject to competencies of the QCA.
- **Wales:** in Wales, the supervisory authority is the Qualifications, Curriculum and Assessment Authority for Wales (ACCAC) which supervises all external qualifications. The National Vocational Qualifications are subject to competencies of the QCA.

Colleges and other institutions providing training are subject to control by the Office for Standards in Education – OFSTED and the Adult Learning Inspectorate - ALI.

- The Office for Standards in Education controls all national education sectors for persons aged 16-19, tertiary and further education colleges<sup>37</sup>.
- The Adult Learning Inspectorate controls all types of work-linked training, delivered in educational institutions for students aged 16+ and for adults, in further education colleges<sup>38</sup>.

## 5.5. EVALUATION

In case of the Vocationally Related Qualifications, the practice of evaluation is determined by the awarding bodies, and controlled by specific inspection

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<sup>36</sup> Further information: <http://www.realworkealpay.info>

<sup>37</sup> Further information: <http://www.ofsted.gov.uk/inspect/post16d.htm>

<sup>38</sup> Further information: <http://www.ali.gov.uk>

agency, in order to assure the quality of work of evaluating institution. In the case of National Vocational Qualifications, the evaluation process is defined for the whole country by the Qualifications and Curriculum Authority (QCA). This is a complex process, but it is fundamental for the system of vocational qualifications, which can be best defined as assessment-led.

The awarding bodies, authorized to grant National Vocational Qualifications, are accredited by the QCA. Each awarding body is obliged to set up a „national network of approved assessment centers” which manage the process of evaluating the National Vocational Qualifications on the local level. The assessment centers can be managed by colleges, employers or private training institutions.

The evaluation whether the person possesses the National Vocational Qualifications is subject to detailed regulations. The roles and responsibilities of all persons tied to the assessment process are described in detail. Those who perform direct evaluation must have appropriate qualifications, acquired as the relevant Competence Units which form part of the National Vocational Qualifications in vocational education and training.

In the assessment process, there are three roles which require appropriate qualifications and which have strategic importance:

- **The assessor** – designated by the certified assessment centers to evaluate the quality of "evidence" of qualifications possessed by the given candidate. Those persons must be competent in a given professional area, and must complete the Competence Unit required for an assessor.
- **Internal verifier** – advises the assessors, controls the evaluations performed by them in assessment centers, checks the quality and integrity of assessment. The person in that role must complete the Competence Unit required for an internal verifier.
- **External verifier** – regularly visits the centers, controls the adherence of adopted assessment criteria, checks the performed assessments. The external verifier is designated by the awarding body and usually works under part-time employment contract. Those persons must complete the Competence Unit required for external verifiers.

The process of assessment of the National Vocational Qualifications consists of four phases:

- **Planning the assessment** – determination of existing competencies and planning the manner for collecting “evidence”;
- **Collection of „evidence”** – the process in which the candidate and the assessor collect the individual elements of evidence, which is usually noted down in the exercise log book or collected in the portfolio of evidence;
- **Evaluation of evidence** – process in which the credibility of evidence is confirmed, and the evidence is compared with the specifications of the National Occupational Standard;

- **Decision on the assessment** – the process in which the assessor checks if the evidence, treated as a whole, allows to place the candidate's competencies in a specific Unit of Competence.

The assessment is based on the evidence that the candidate develops in the course of assessment process. The evidence can have various forms:

- an object produced by the candidate;
- observation of the candidate by the assessor;
- opinion of persons who have observed the candidate;
- review and evaluation of individual cases of work performed by the candidate;
- written answers to questions posed by the assessor;
- verbal answers to questions posed by the assessor.

The evidence can be collected at the workplace, at the training center or in college. Some candidates commence full or part-time study at courses which lead to the National Vocational Qualifications, but this is not obligatory.

The evidence is evaluated according to the following criteria:

- it must be credible – directly related to the aspect of evaluated competence, and must be made independently by the candidate;
- it must be current, that is produced during the assessment process;
- it must be sufficient – must contain a sufficient number of "products" which confirm vocational proficiency, to eliminate the luck factor during the examination.

The National Vocational Qualification is built by the candidate by collecting the Competence Units over a specified period of time. Each Unit can be separately certified at the candidate's request. Usually the candidates acquire all Units in sequence, until the achievement of National Vocational Qualification.

During the process of assessment planning, the assessors and candidates identify those vocational areas where the candidate has little or no experience, or is not fully competent. Those areas become the basis to determine the training curriculum. As the National Vocational Qualification is not a pre-defined learning program, this curriculum can have various forms. Candidates studying in colleges follow a pre-determined education program, while working candidates can choose to participate in short courses, to train under the guidance of qualified co-workers, to use open learning materials or study at home.

## **5.6. TRAINING MODULES AND PROGRAMS**

There are no national guidelines on training programs– modules or curricula. In practice, almost all Vocationally Related Qualifications have modular form, and the teaching curriculum is prepared and implemented by the awarding body which deals with the given qualification.

For the National Vocational Qualifications, Competence Units are in reality modules used to set training curricula. The training curriculum for the Na-

tional Vocational Qualifications covers learning required to achieve performance standard – nevertheless, the training can be conducted in any other manner.

In Scotland modules are used, which in most cases are identical with the Competence Units. This is possible, as the Scottish Competence Units contain also framework guidelines for training curricula.

## **5.7. LEGAL BASIS**

The legal system of the United Kingdom is based on the concept of *enabling legislation*. This means that the detailed contents of National Occupational Standards or the drafts of National Vocational Qualifications are rather rarely defined under the legal system. A broadly defined legislation is developed, which allows to establish agencies and institutions, authorized to and responsible for the development and implementation of goals and tasks in the relevant action area. The agencies define and publish criteria and recommendations which are tied to the national policy; monitor and evaluate the implementation of defined goals.

Additional legislation is defined by the *Orders of Council* which contain a detailed list of institutions admitted to apply law based on enabling legislation.

The two most important legislative acts are: the Education and Training Act of 1997 and the Learning and Skills Act of 2000.

The Education and Training Act established the QCA by merging the two previous agencies. This institution has led to the establishment of the National Qualifications Framework – NQF as well as criteria and guidelines which shape this framework.

The Learning and Skills Act established the Learning and Skills Councils, whose tasks is to prepare government training programs on the local level and to administer funds; as well as the Adult Learning Inspectorate to control the apprenticeships.

Earlier legislation, of 1986 and 1991, established the National Occupational Standards System, based on National Vocational Qualifications.

## **5.8. ROLE OF SOCIAL PARTNERS**

The key organizations which implement occupational standards are the newly established Sector Skills Councils (SSCs). The Sector Skills Councils are independent organizations, covering the whole United Kingdom, established by groups of influential employers of the industry and trade sectors of strategic importance. The Sector Skills Councils are managed by employers, with active participation of representatives of trade unions, professional associations and corporations, as well as of other partners in the given sector. The Sector Skills Councils are licensed by the Department for Education and Skills. They act in agreement with the relevant departments in Scotland, Wales and Northern Ireland, to meet the needs of the labor market regarding skills and productivity in

the given sector, all over the United Kingdom. The Sector Skills Councils gradually replace the National Training Organizations – NTOs.

Thanks to the Sector Skills Councils, the employers are given responsibility for strategic actions meant to meet the needs of business community, tied to the new sector skills. In return, these Councils receive significant public funds.

Each Sector Skills Council sets the priorities and goals with its employers and social partners, on the basis of four key criteria:

- reduction of shortages and „gaps” in skills and qualifications;
- improvement of productivity and quality of public and business services;
- intensification of actions meant to increase the skills and productivity of each employee in the labor market, including actions whose goal is to create equal opportunities in the labor market;
- improvement of the educational background, including apprenticeships, higher learning and national occupational standards.

Thus, the Sector Skills Council are responsible for developing the National Occupational Standards and National Vocational Qualifications within their respective sectors. When the National Vocational Qualification is created, it is taken care of by the relevant awarding body and the Sector Skills Council. Social partners do not take part in the process of administering the National Vocational Qualification (their role is irreplaceable in the process of qualification design).

The design process of the National Vocational Qualification is presented in figure 2.

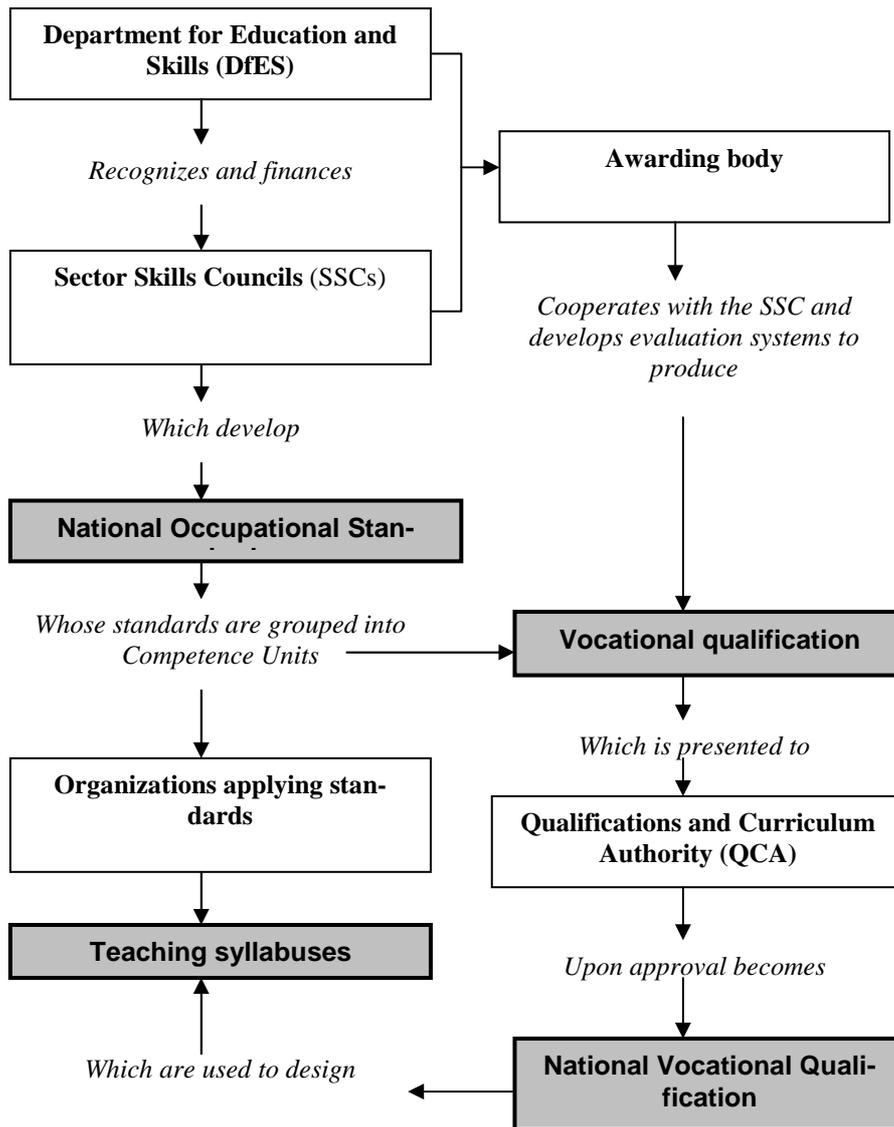


Figure 2. Design process of the National Vocational Qualification

## **5.9. KEY INSTITUTIONS AND PROCEDURES**

### **The Department for Education and Skills**

The Department for Education and Skills as the responsible department assures funds for supporting the development of National Occupational Standards and National Vocational Qualifications. These funds are allocated to the QCA and the Sector Skills Councils. Financing of the Sector Skills Councils must be also provided by organizations operating in a given sector.

### **The Qualifications and Curriculum Authority (QCA)**

The Qualifications and Curriculum Authority (QCA) is an agency of the Department for Education and Skills (DfES), a public body which reports to the minister – secretary of state in charge of Education and Skills. This Authority does not form part of the Civil Service. Activities of the Authority are financed by the Department for Education and Skills, and from fees for certificates, paid by the awarding bodies. The Qualifications and Curriculum Authority accredits the awarding bodies which thus are given the authority to approve National Vocational Qualifications. It also sets the criteria and accredits the National Vocational Qualifications, presented for opinion by the awarding bodies. The Authority does not award qualification certificates. This is a supervisory body which only sets the quality assurance criteria. The Qualifications and Curriculum Authority is also responsible for the development of the National Framework of Vocational Qualifications and determines the position of each National Qualification in that Framework, which is defined by the given sector and the level of National Vocational Qualification. The National Vocational Qualifications are awarded on five levels. Level 1 covers a limited scope of routine professional tasks, while level 5 covers professional activities on a master's level within the learned profession.

### **The Learning and Skills Council (LSC)**

The Learning and Skills Council (LSC) acts through a network of its local branches, supporting the education and training based on professional work. Each local branch of the Council develops a strategic training plan in its area, and finances the local training providers who issue qualification certificates on the basis of National Qualifications Framework.

They key institutions are the Sector Skills Councils and the awarding bodies, described above.

## 5.10. UPDATE OF STANDARDS

### **National Occupational Standards**

National Occupational Standards are updated on the basis of research on labour market needs tied to the occupational skills and competencies. The research is conducted every two years by the Sector Skills Councils (SSCs).

### **Ties to the labor market**

The links between the National Occupational Standards and the labour market are assured by the fact that standards are developed in close cooperation with the business sector.

There are no established methods for the design of National Occupational Standards, but certain guidelines and recommendations exist, that are accepted and applied by most Sector Skills Councils. The design process usually entails:

- research conducted by vocational experts and consultants on standards, to identify professional roles and functions within a given occupational standard;
- listing the identified professional functions in the form of standard;
- consulting the draft standard with experts/ practitioners working in the industry. Consultations can take the form of:
  - workshops;
  - opinion polling with mailed questionnaires;
  - direct interviews;
  - observations;
  - panel discussion in a group of experts.

The consultation process is subjected to rigorous procedures and control.

## 5.11. FINANCIAL ASPECTS

### **Design of the National Occupational Standards**

The design of the National Occupational Standards is partly financed by the Department for Education and Skills (DfES). The business sector provides its financial contribution via the relevant Sector Skills Council. This contribution is equal to the contribution of the Department for Education and Skills, but has the form of “contribution in kind”. Contributions in kind can include the time allocated by employers to consult the proposed standard.

### **Development of modular programs for vocational training**

Modules are developed by awarding bodies and other educational institutions. They are commercial products, sold in the free market.

**Useful Internet resources on the standards and modules of VET and CVT in the United Kingdom.**

Many of the information websites are listed in the text. Below are some additional links:

- <http://www.ali.gov.uk> – Adult Learning Inspectorate
- <http://www.dfes.gov.uk> - The Department for Education and Skills
- <http://www.hms.gov.uk> (government publications and legislation)
- <http://www.lsc.gov.uk> - the Learning and Skills Council
- <http://www.lsd.gov.uk> - Learning and Skills Development Agency
- <http://www.lifelonglearning.co.uk> – website on lifelong learning
- <http://www.nto-nc.org> – the National Training Organizations Council – currently liquidated, but the website is still active and provides access to numerous NTOs and SSCs which design standards
- <http://www.ofsted.gov.uk> – Office for Education Standards – inspectorate
- <http://www.qca.org.uk> – the Qualifications and Curriculum Authority
- <http://www.sqa.org.uk> – the Scottish Qualifications Authority
- <http://www.ssda.org.uk> – the Sector Skills Development Agency
- <http://www.standards.dfee.gov.uk> – a website dedicated to standards – information on National Vocational Standards

## 6. VOCATIONAL CERTIFICATION IN FRANCE

*Jean Pierre Willems*

### 6.1. VOCATIONAL CERTIFICATION AND TRAINING

Ongoing vocational training covers training programs addresses to adults and young people, already employed or commencing their professional life (the French labour code, art. L 900-1). It includes training of employees, job-seekers and systems of training for working persons *block release training*). It varies significantly from the basic vocational training of young people who have not entered the labor market yet.

Ongoing vocational training, together with the basic vocational training, constitute the system of lifelong training.

Issues tied to vocational training are regulated by the labor code. Basic vocational training is subject to provisions of the education code.

Provisions tied to vocational certification are contained in the education code (articles L.335-5, L.335-6, L.613-3 and L.613-4), and in the labor code (art. L.934-1).

#### **Genesis of the vocational training system, and of legal regulations pertaining to certification.**

The French vocational training system was created in the early 1970's, as the result of both the National Inter-Ministerial Agreement of 9 July 1970, and of the law dated 16 July 1971, which caused the introduction of chapter IX into the labor code: „Vocational development under lifelong training”.

The law dated 16 July 1971 created possibilities for certification of qualifications from the technical educations scope. In order to draw up a report on state recognition of qualifications awarded by bodies other than the Ministry of Education, Ministry of Agriculture and the Ministry for Youths and Sports, the Technical Certification Commission was established. The above named

ministries have the right to establish qualifications that are covered by official guarantees of recognition by the state.

In the years 1971-1993, regulations on vocational training were changed, as a result of inter-ministerial negotiations on the national level. Since 1973, actions of the legislative bodies were particularly important, as there were no significant inter-ministerial agreements present.

The latest initiative entails an almost complete reform of the professional certification system, both with reference to the definition of certification and the manner for acquiring qualifications. This reform is the outcome of the **Social Modernization Act dated 17 January 2002** (L. no. 2002-73).

Currently inter-departmental negotiations are underway, with the view to change laws regulating vocational training, and to implement the provisions of the Social Modernization Act, referring to certifications. The results of negotiations will be contained in provisions of a law which is being developed by the Ministry of Labor.

## 6.2. AREAS OF CERTIFICATION

### Types of qualifications

Vocational certification covers all qualifications of vocational designation - certificates, diplomas and other formal qualifications acquired at schools and tertiary education institutions, during apprenticeships or in vocational development systems; or acquired completely or in part in the course of validation of acquired experiences (the Education Code, art. L. 335-5).

The only qualifications that are not covered by issues of vocational certification are:

- qualifications acquired under general education. In particular the *baccalauréat* exam, which completes education in secondary schools and enables its continuation at universities/tertiary education institutions;
- qualifications acquired at schools, institutions, ministries, official bodies and all other entities that are not officially recognized by the state and not covered by the National Register of Vocational Certification (see below).

## Number of certificates

The total number of recognized certificates (defined above) amounts to about 14 thousand. The main reason for such large number of certificates is the fact that all qualifications which are the result of completing higher education – including general qualifications – are treated as qualifications useful for vocational purposes. Below are the numbers of certificates recognized by individual ministries:

STATE EDUCATION	
Secondary education certificates (from CAP to BTS) <sup>39</sup>	700
Tertiary education certificates (from DUT to DESS) <sup>40</sup>	10,000
Qualifications awarded by institutions	100
AGRICULTURE MINISTRY	150
LABOUR MINISTRY	300
MINISTRY for YOUTH AND SPORTS	100
DEFENSE MINISTRY	300
OTHER MINISTRIES	50
ENGINEERING QUALIFICATIONS	800
CONSULAR BODIES	300
PRIVATE ENTITIES	500
Vocational qualification certificates	400
TOTAL	13,700

*(Note: the numbers are estimates, due to lack of official statistics, and due to the fact that the National Register of Vocational Certification does not have its final shape yet).*

## 6.3. LEGAL FRAMEWORK OF CERTIFICATION

### Situation from before the law on 17 January 2002

Legal framework of vocational certification were changed significantly as a result of adoption of the Social Modernization Act of 17 January 2002.

Before that law was adopted, there were four types of certification:

- state diplomas awarded by the following Ministries: of Education, Agriculture, and of Youth and Sports. The diplomas were certified automatically;
- qualifications certified by force of Prime Minister decision, upon receipt of recommendation from the Technical Certification Committee. This group covered qualifications awarded by other ministries (of health, labour, social

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<sup>39</sup> CAP = Certificat d’Aptitude Professionnelle - *Certificate of Vocational Skills*

BTS = Brevet de Technicien Supérieur (*technician’s diploma after a 2-year post-secondary school*).

<sup>40</sup> DUT = Diplôme Universitaire Technique = *University diploma in the field of sciences*,  
DESS = Diplôme d’Etudes Supérieures Spécialisées = *Diploma of university specialization (1-year postgraduate course)*.

issues, defense etc.), by consular chambers, professional organizations, public and private training entities and institutions).

- engineer qualifications, awarded by engineering schools and confirmed by the Engineering Qualifications Committee.
- vocational qualification certificates, established by the National Joint Committees for Employment (CPNE)<sup>41</sup>, representing various sectors.

Only the first three categories of qualifications were recognized by the state.

### **Situation after adoption of the law of 17 January 2002**

Currently all qualifications are recognized by the state, including vocational qualification certificates. Recognition shall be covered by a single system of regulations.

This system:

- defines certification areas, that is, the qualifications that it covers. This applies to qualifications for professional use, entered into the National Register of Vocational Certification;
- establishes the National Committee for Vocational Certification, whose primary task is to register qualifications and manage the register;
- establishes the National Register of Vocational Certification, which collects information on all forms of certification recognized country-wide;
- determines the conditions for entry into the National Register of Vocational Certification, and specifically requirements regarding various qualifications or certifications;
- requires all bodies awarding qualifications, entered into the National Register of Vocational Certification, to provide access to the awarded qualifications through training (optionally) and obligatorily, through validation of acquired experience.

Those regulations are set forth in articles L. 335-5, L. 335-6, L. 613-3 and L. 613-4 of the Education Code, and their full wording is found in the Labor Code (L. 934-1).

## **6.4. COMPONENTS OF CERTIFICATION**

### **Open, centralized system**

The Social Modernization Act is tied to far-reaching reform of the components of the certification system. The new system will be both centralized and open.

Centralized, because it will strengthen the role of ministries which will be able to automatically include in the Register the certifications which they developed, as a result of decisions made by committees with the participation of employers and employees. As a result, the country-wide ministerial certification

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<sup>41</sup> CPNE = Commissions Paritaires Nationales pour l'Emploi.

will be strengthened in its role as reference point for certification, and will build the framework of the whole system.

Nevertheless, all entities and authorities that want to create various certifications will be able to do it, provided they obtain approval of the Prime Minister on the basis of recommendation from the National Committee for Vocational Certification.

Aside from ministerial actions, the law allows the functioning of a number of various qualifications, which has been the feature of French culture for 30 years. This means that the state (public) system of certification exists with the additional option of other forms for certification.

Thus, aside from the ministries, every entity or authority that wants to operate in the area of certification can do it by establishing its own certificates and diplomas.

The law includes also the opportunity to involve social partners representing various levels, that is, representatives of employees and employers.

Finally, the National Committee for Vocational Certification, which does not have the right to set standards, will play the role of supervisory body, by managing and disseminating information on certification.

### **National Committee for Vocational Certification**

The National Committee for Vocational Certification (CNCP) was established. It includes:

- sixteen representatives of ministries;
- five representatives of employers' organizations;
- five representatives of employees' organizations;
- three representatives of permanent assemblies of chambers of agriculture, commerce, industry and trade;
- three representatives of regions.

Together with the chairman appointed by the Prime Minister, the Committee includes 33 members (Regulation no. 2002-617 dated 26 April 2002 – Official Journal of 28 April, p. 7710).

Further 12 persons with appropriate qualifications participate in the works of the Committee as its advisors, including the main clerk of the Committee.

The tasks of the CNCP include the creation and maintenance of the National Register of Vocational Certification, and entering into the register certificates, diplomas and other official confirmations of qualifications that should be placed automatically in the register; as well as processing requests for registration of those qualifications which are not recorded automatically.

Decisions of the Committee on the said requests are sent to the Prime Minister who makes the final decision. CNCP provides to the respective bodies and authorities information on the corresponding features of the individual certificates, and enters those matching features in the Register.

The CNCP is also responsible for monitoring projects tied to vocational certification on the European level.

Within the CNCP there exists a specialized commission, whose task includes the processing of Committee recommendations, in particular those pertaining to requests for certification. This commission includes:

- ten representatives of ministries - of Labor, Vocational Education, Agriculture, Vocational Training, Higher Education and Youth and Sports;
- ten representatives of organizations of employers and employees (five from each side).

The tasks of the commission include processing of requests for registration, received from entities which want to be able to award qualifications recognized by the state, and which are not covered by the right of automatic entry of their qualifications into the Register.

## **6.5. NATIONAL REGISTER OF VOCATIONAL CERTIFICATION**

### **The establishment of the National Register of Vocational Certification**

The National Register of Vocational Certification was established on the basis of Regulation no. 2002-616 dated 26 April 2002 – Official Journal of 28 April, p. 7708).

The register contains a list of qualifications designated for professional use, recognized by the state on national level. For information purposes, this register lists also vocational qualification certificates, established by the National Joint Committees for Employment (CPNE) , representing various sectors.

Qualifications are sorted according to sectors and levels. They list matching elements and potential recognition of achievements. The Register states also the number of persons who acquire qualifications with the available methods.

The register should enable both individuals and enterprises access to constantly updated information on professional qualifications.

The National Register of Vocational Certification is a useful information tool, introduced after the adoption of Act on Social Modernization. It contains information on qualifications recognized by the state, and awarded by the Ministries of Education, Agriculture, Youth and Sports on the basis of their own diplomas, and by the Technical Certification Committee with respect to other recognized qualifications. Information on vocational qualifications certificates can be found in sections referring to particular sectors. The first version of the Register was prepared at the end of 2003. It will be the object of further improvement work.

The National Committee for Vocational Certification is responsible for establishing and managing the Register.

### **Registration of requirements on qualifications**

Automatic registration covers qualifications awarded on behalf of the state, and awarded as a result of recommendations from advisory bodies, including representatives of employers and employees.

Each ministry that is covered by the requirement of obtaining recommendations from the interested social partners acts independently with respect to its own qualifications.

In the case of qualifications not awarded by the state, the awarding authority files a motion to the National Committee for Vocational Certification (CNCP). This motion defines the qualifications and determines manners for acquiring them, states important parameters of certification and describes the extent to which it supplements the existing forms of certification.

The motion must contain:

- detailed description of actions tied to a specific, existing profession, function or occupation. This description has to be prepared in cooperation with relevant professional experts;
- description of skills, talents and knowledge necessary to perform the profession, function or occupation to which these qualifications apply;
- the composition of the certifying body; the organization proposing the motion must present sufficient evidence for the impartiality of such body;
- report on the performed activities and positions held for at least three groups that acquired the qualifications in question. The applicant must establish a system for monitoring qualification holders.

With respect to professional qualifications certificates, the motion for registration must contain decision of the National Joint Committee for Employment (CPNE) and state the date of preparing the certificate, description of the work (occupation) and certification; reference to qualifications defined in collective agreements or the level of qualifications defined in such agreements, the methods for acquiring certificate and the existing or desirable features, corresponding with other certificates covered by the Register.

### **Registration procedures**

The ministries awarding those qualifications which are automatically entered into the National Register, notify the National Committee for Vocational Certification (CNCP) on all cases of developing, updating or withdrawing the qualifications.

As for the other entities awarding qualifications, their motions to be included in the register are directed to the minister in charge of the professional area to which the qualifications apply. If this is not possible, entities operating on national level file their motions to the minister responsible for vocational training, and regional entities to their regional prefect.

Motions on the national level are processed directly by the CNCP, and motions on regional level are dealt with by the regional correspondent of CNCP.

It is possible to designate an expert who would provide broader information than information received from the CNCP. Regional motions have to be filed to the special commission of the Regional Coordination Committee for Employment and Vocational Training. The process is serviced by the relevant regional body, representing the state, or by a structure of state authorities. Decision on registration is made by the CNCP.

### **Validity of registration**

Entries in the register remain valid for 5 years, with the exception of automatic entries which are permanent, until the relevant minister decides to withdraw them. The 5-year registration is renewable.

### **Results of making an entry into the National Register of Vocational Certification**

Entry in the National Register means the following results:

#### 1. Official recognition by the state of the qualifications level.

Currently a five-level scale is applied:

- **Level V** corresponds to qualifications necessary to perform manual labor and the work of qualified administrative personnel;
- **Level IV** corresponds to qualifications necessary to perform work of technical personnel;
- **Level III** corresponds to qualifications necessary to perform work of senior technical personnel;
- **Level II** corresponds to qualifications necessary to perform work of managerial personnel;
- **Level I** corresponds to qualifications necessary to perform work of senior managerial personnel.

This scale shall be verified by the CNCP, mainly to adapt it to the European model “3-5-8”.

#### 2. Opportunity for official recognition of currently held qualifications.

Qualifications entered in the National Register entitle their holders to participate in competitions for vacancies in the public sector, and enable them to use privileges defined in collective agreements and conventions, vested in persons who possess the required qualifications.

#### 3. Opportunity to obtain qualifications by completing an apprenticeship.

In the course of training during an apprenticeship, it is also possible to acquire state-recognized qualifications. That’s why entry into the National Register is an important pre-condition for the development of apprentice systems.

#### 4. Priority of access to funds for the financing of vocational training.

Almost all mechanisms for the financing of vocational training, corresponding to individual training programs, are addressed primarily to the training systems which lead to state-recognized qualifications - either as a result of train-

ing projects tied to training leave, or actions financed by Regional Councils, or by the ASSEDIC<sup>42</sup> for job-seekers.

5. The requirement of providing access to qualifications through the validation of acquired experiences (VAE).

All qualifications, entered into the National Register, must be accessible through validation of acquired experience. The entity which developed the given qualifications decide whether one or several training options should be developed.

## 6.6. STRUCTURE OF CERTIFICATION

### Past situation

In the past, there had been no method for organizing vocational qualifications into a framework, or an entity that would deal with it. The procedures for defining the nature of qualifications, applied by various ministries, often differed.

The Education Ministry determined qualifications on levels V to II (from CAP to BTS)<sup>43</sup> with a method different than the one applied to qualifications acquired in the course of tertiary education (from the DUT<sup>44</sup> to master's and engineer's diplomas).

This lack of unification made comparison of qualifications difficult, as there had been no common reference points.

For instance, in tertiary education qualifications are based primarily on teaching areas and contents of the syllabus. Meanwhile, in secondary education qualifications are defined mainly on the basis of an in-depth assessment of vocations and various forms of professional activity. That analysis is the basis – before the development of the training program – to develop a framework of skills and certification.

### New rules

The Social Modernization Act cuts off from the past system in two ways:

1. It creates a standard format for determining the nature of qualification. As of now, all qualifications entered in the National Register of Vocational Certification must contain:
  - list of works that can be performed by the holder of the given qualifications;

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<sup>42</sup> ASSEDIC = Association pour l'Emploi dans l'Industrie et le Commerce.

<sup>43</sup> CAP = Certificat d'Aptitude Professionnelle – *Certificate of Vocational Skills*, BTS = Brevet de Technicien Supérieur.

<sup>44</sup> DUT = Diplôme Universitaire Technique.

- professional activities corresponding to these works or functions;
  - skills required to perform these works and functions;
  - methods for verifying skills and awarding qualifications.
2. It no longer contains references to the training component as the basis. The training component is no longer an obligatory element of qualifications. The new law places the definition of qualifications clearly within the area of skills – that is, the ability to apply knowledge and know-how in specific actions, and not only in the theoretical context.

The cut-off from the past is so significant, that it would probably take years before all qualifications are defined according to the new rules.

## **6.7. VOCATIONAL CERTIFICATION**

### **Obtaining qualifications through training**

Certification can be acquired as a result of vocational training, which can have the following forms:

- basic training, that is during study at school or tertiary education institution;
- apprenticeship under an employment contract;
- employee training, that is a contract on vocational training linked with work;
- vocational development in any form (system of training, training programs during special training vacation, training programs for job-seekers etc.).

However, the entities awarding qualifications do not have to organize training which results in the acquisition of these qualifications. Candidates can acquire qualification by acquiring experience which is subjected to partial validation. This means that candidates who are not able to acquire full qualifications as a result of experience validation should be provided access to training.

### **Obtaining qualifications through validation of acquired experiences**

Validation of acquired experiences means the evaluation of skills gained in the course of specific activities (professional or not), in order to acquire vocational qualifications or certificate thereof, that are included in the National Register of Vocational Qualifications (the Labor Code, art. L. 900-2).

Validation of acquired experiences is a manner for acquiring certification of the same importance that would result from a formal training; and the law grants priority to none of these options.

### **Requirements on validation**

Each certifying entity, listed in the National Register of Vocational Certification, is obliged to establish a procedure for validation of acquired experiences. The existence of such procedure is a condition for entry in the Register.

Some exceptions from the rule are present in the sectors of health services, defense and security. In practice, a few years must pass to enable acquisition of full vocational qualifications as a result of experience validation.

### **Conditions for the validation of acquired experiences**

Every person, regardless of employment status, can apply for validation of experience. The only condition is to perform over the past three years, in a continuous or interrupted manner (on a professional basis or not) the activity tied to qualifications for which the given person applies.

The periods of basic training or vocational development, as well as apprenticeships constituting part of the training programs are not taken into account during the assessment of the said period (Regulation no. 2002-615 of 26 April 2002 – Official Journal 28 April, p. 7707).

The entity awarding qualifications cannot impose the requirement of possessing academic degree or having completed specific training as the condition to apply for validation.

Individuals can file an application for acquiring qualifications or certificate only once a year. If someone wants to acquire various qualifications, he or she can file no more than three applications during one year. Those requirements, and the commitment of the applicant to adhere to them, must be included in the application for validation.

### **Validation procedure**

Application for validation of acquired experience should be directed to the authority or entity awarding qualifications, in form and time specified and communicated by that entity.

The procedure for processing motions, and conditions for evaluating these motions, are determined by the said entity, subject to the following restrictions:

- the applicant must complete documentation, including documents which confirm activities that he/she performed;
- the application is considered by a body established according to regulations on qualifications. Qualified representatives of the given profession should constitute at least one fourth of that body (employers and employees in equal proportion). There should also be a balance between the number of women and men. If the body considering the motion includes persons representing organizations or workplaces where the applicant performed the analyzed activities, or colleagues of the applicant, these persons cannot participate in discussion on this given applicant.

Procedures must allow for assessment whether the acquired experience, presented in the applicant's documentation, corresponds to the skills, talents and knowledge covered by certification of the awarded qualifications. If this is provided for under the procedures, the applicant can be assessed on the basis of experience drawn from practice or from imagination.

Validation procedures never include any exams or tests. They entail an effective analysis of skills acquired in practice. Thus, on the basis of the law it cannot be required that the applicant practices the activity in question directly until the time of filing the motion for validation.

### **Decision on validation**

The body designated by the awarding entity has the final say on the validation of experience and the award of full or partial qualifications. If only partial validation is awarded, the body determines the skills, knowledge and talents that the person must acquire in the course of next 5 years to acquire full qualifications.

In tertiary education, the various forms for validation of acquired experience are regulated by specific regulations. (Regulation no. 2002-590 of 24 April 2002 – Official Journal dated 26 April, p. 7513).

First of all, the application should be directed to the director of the awarding institution at the time when the applicant comes to that institution to acquire qualifications. The general rules for validation are set by the Board of this institution, which also establishes the validation bodies of that institution.

Second, most members of the validation bodies must be teaching or scientific employees, aside from persons who are not teachers and are competent enough in a given area to evaluate the nature of acquired skills and experiences, in particular in the professional area to which validation applies.

Finally, the validation body must conduct an interview with the applicant. The assessment can be based on a situation drawn from practice or an imagined one.

## **6.8. COSTS OF CERTIFICATION AND ITS FINANCING**

### **Lack of national statistical data**

There are no national statistics on the costs of certification system in France. Those costs are fully included in the operating costs of basic training and vocational development.

The costs of financing actions tied to certification were so far covered by the financing of training resulting in certification.

The establishment of the system for validation of acquired experiences will lead to the creation of certification procedures that would not be tied to any specific training methods. Preliminary market research suggests that the costs validation of acquired experiences for one person range from EUR 500 to EUR 3,500; and usually fall into the range from EUR 1,000 to EUR 1,500.

### **Forms of financing the acquisition of certification**

Certification can be acquired in many ways, depending on the applicant's employment status:

- in the case of basic training, certification is part of the training program;

- in the case of vocational development, certification can be acquired either through validation of acquired experiences, or through training. The options differ depending on the situation of persons applying for certification:
  - working persons can use training or validation of acquired experiences within the structures of the enterprise in which they are employed. They can also profit from the option of validation of acquired experiences and/or training leave to participate in courses;
  - job-seekers have access to training and validation of acquired experiences under training programs financed by Regional Councils, ANPE and ASSEDIC<sup>45</sup>. They can also use the services of AFPA, a training institution functioning primarily under public procurement from the Ministry of Labor.

## **6.9. CONCLUSIONS**

The reform introduced in 2002 is a significant cultural revolution in the area of vocational certification.

It again confirmed the public and national nature of certification, and the fact that they are covered by state guarantee. The fact that all qualifications, certificates and diplomas designated for use in professional work must be defined with respect to actions, skills and certifications; and that all qualifications can be acquired through validation of acquired experiences, completely changes the traditional concept of certification based on training, knowledge and know-how.

Introduction of these changes requires time, and the change and development of work methods.

Introducing this reform, France entered a new phase in three main areas of activity, which include:

- the social area, as certification is now accessible to persons who acquired their skills through practice, and not as a result of training;
- the economic area, as individual certification became a part of a broader system of certification, and responds to security needs, by controlling the skills of service and goods providers (both for their buyers and consumers);
- the area of human resources management, whose elements include continuous education – and in the broader sense, lifelong learning.

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<sup>45</sup> ANPE = Association National pour L'Emploi.

ASSEDIC = Association pour l'Emploi dans l'Industrie et le Commerce.

# APPENDIX

## EXAMPLES OF POLISH PROFESSIONAL QUALIFICATION STANDARDS

Forty professions have been selected for the development of professional qualification standards. The basis for selection was the needs analysis of the domestic labor market, and consultations with ministers responsible for the individual professions, as well as with representatives of employers' and employees' organizations (table 1).

**Table 1. List of professions, for which the professional qualifications standards were developed.**

<b>Item</b>	<b>PROFESSIONS</b>
1	Assembler of building structures (712903)*
2	Mason (712102)*
3	Fitter of sanitary installations and equipment* - <i>trained profession covering elementary group (7136)</i>
4	Fitter of municipal services networks* - <i>trained profession covering elementary group (7137)</i>
5	Floor layer (713203)*
6	Finishing works technician in the construction sector (713901)*
7	Fitter of building insulation (713401)*
8	Fitter – installer of technical equipment in rural construction (723310)*
9	Fitter of gas installations (713602)*
10	Carpenter (742204)*
11	Locksmith (722204)*
12	Construction technician (311204)*
13	Land surveyor technician (311104)*
14	Highway engineering technician (311206)*
15	Environmental engineering and land melioration technician (311208)*
16	Landscape architecture technician (321202)*
17	Telecommunication technician (311402)*
18	Assistant (technician) in postal and telecommunication services* - <i>trained profession covering elementary group (4213)</i>

19	Fitter of telecommunication networks and equipment* - <i>trained profession covering elementary group (7252)</i>
20	Information technology technician (312102)*
21	Occupational safety and hygiene specialist (214923)
22	Labor inspector (247104)
23	Fireman (515101)*
24	Firemanship technician (315104)*
25	Firemanship engineer (214910)*
26	Environment protection inspector (315204)
27	European integration specialist (247902)
28	Nurse* - <i>trained profession Nurse – covering the whole elementary group (3231)</i>
29	Mechatronics technician (311990)
30	Organizer of tourist services (341401)* - <i>trained profession: Tourism services technician</i>
31	Specialist in marketing and commerce (sales) (241912)
32	Cosmetic services technician (514107)*
33	Manager of small enterprise - <i>according to classification, this is an occupation covering the intermediate group: Managers of small enterprises (131)</i>
34	Sales representative (regional representative) (341503)
35	Welder - <i>trained profession covering elementary group (7212)</i>
36	Lecturer at courses (educator, trainer) (235910)
37	Road surface layer (712404)
38	Painter and wallpaper-layer (714103)*
39	Computer graphic artist (311801)
40	Operator of numerically controlled machine (821107)

(\*) – means that the profession is covered also by classification of professions in vocational training

Further sections of this study present the description of six selected national professional qualification standards:

1. Labor inspector (247104)
2. Lecturer at courses (educator, trainer) (235910)
3. Occupational safety and hygiene specialist (214923)
4. Computer graphic artist (311801)
5. Landscape architecture technician (321202)
6. Fireman (515101)

# 1.

## Qualifications standard for the profession

### LABOR INSPECTOR (247104)

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## 1. Legal basis for performance of the profession<sup>1</sup>

- Act of 6 March 1981 on the National Labor Inspectorate (Journal of Laws no. 124/01 item 1362, as amended).
- Regulation of the Marshal of the Sejm of the Republic of Poland, of 18 September 2001, on establishing the seats and territorial scope of district labour inspectors (*Monitor Polka* no. 34/01 item 549).
- Regulation of the Marshal of the Sejm of the Republic of Poland, of 25 October 2002, on the granting of Statute of the National Labor Inspectorate (*Monitor Polka* of 2002, no. 54 item 740).
- The act dated 16th September 1982, on employees of state offices (Journal of Laws no. 86/01 item 953, as amended).
- Convention no. 81 on labour inspection in industry and trade, adopted in Geneva on 11 July 1947 (Journal of Laws no. 72/97 item 450).
- Convention no. 129 on labour inspection in agriculture, adopted in Geneva on 25 June 1969 (Journal of Laws no. 72/97 item 452).
- Regulation of the Council of Ministers dated 8 January 2002 on the organization for receiving and considering complaints and requests (Journal of Laws no. 5/02 item 46).
- The law dated 7 July 1994, the Construction Law (Journal of Laws of 2000, no. 106 item 1126, as amended).
- Regulation of the Minister of Infrastructure dated 6 February 2003, on issues of safety and hygiene during the execution of construction works (Journal of Laws of 2003, no. 47 item 401).
- The law dated 30 August 2002, on compliance system assessment (Journal of Laws of 2002, no. 166 item 1360).
- The law dated 11 November 2001, on chemical substances and products (Journal of Laws of 2001, no. 11 item 84, as amended).
- The law dated 27 April 2001, the Environment Protection Law (Journal of Laws of 2001, no. 62 item 627, as amended).
- The law dated 22 June 2001, on genetically modified organisms (Journal of Laws of 2002, no. 175 item 1433).
- Regulation no. 12/98 of the Chief Labor Inspector dated 14 October 1998, on the obtaining of titles of specialist and chief specialist by the employees of National Labor Inspection, employed in the position of senior labour inspector.
- Regulation no. 5/97 of the Chief Labor Inspector dated 3 March 1997 on the organization of reception, consideration and processing complaints and requests by the organizational units of the National Labor Inspection (amended with Regulation no. 13/2001 of the Chief Labor Inspector dated 23 August 2001 - Official Bulletin no. 3/2001 item 30), and the Regulation no.

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<sup>1</sup> Legal status at 1 June 2003

- 9/2002 of the Chief Labor Inspector dated 5 June 2002 (Official Bulletin no. 2/2002 item 19).
- Regulation no. 2/2000 of the Chief Labor Inspector dated 8 February 2000 on the rules of procedure during examination of circumstances and reasons of occupational accidents and catastrophes (Official Bulletin no. 1/2000, item 3).
  - Regulation no. 15/2002 of the Chief Labor Inspector dated 14 August 2002, on the rules for conducting controls tied to acceptance of newly built or rebuilt enterprises or parts thereof (not published).
  - Regulation no. 17/2001 of the Chief Labor Inspector dated 31 October 2001, on determining the rules for administrative enforcement of duties tied to occupational safety and hygiene (OSH) and the payment of due remuneration for work as well as other employee benefits, levied by force of decisions issued by the National Labor Inspectorate, and change of regulation on the detailed organization and scope of duties of the organizational units of the National Labor Inspectorate (Official Bulletin no. 3/2001).
  - Regulation no. 9/96 of the Chief Labor Inspector dated 14 October 1996, on the engagement in training activity by employees of National Labor Inspection who are state officials (Official Bulletin no. 5/96, item 19, as amended).
  - Regulation no. 15/1999 of the Chief Labor Inspector dated 23 December 1999 on the positions and types of work within the National Labor Inspection which can entail access to confidential information constituting state or business secret (Official Bulletin of the National Labor Inspection of 2002, no. 1 item 1, with amendments resulting from Regulation no. 18/2001 dated 11 December 2001 – Official Bulletin of the National Labor Inspection of 2002, no. 1 item 1).
  - The act dated 26 June 1974 - the Labor Code (Journal of Laws of 1998, no. 21 item 94, as amended).
  - The act dated 24 August 2001 - Code of procedure in misdemeanor cases (Journal of Laws no.106/01, item 1148).
  - The act dated 24 August 2001 - provisions introducing the Code of procedure in misdemeanor cases (Journal of Laws no.106/01, item 1149).
  - The act dated 20 May 1971, - the Misdemeanors Code (Journal of Laws no.12/71, item 114, as amended).
  - Regulation of the President of the Council of Minister dated 22 February 2002 on levying fines by way of a penalty ticket (Journal of Laws no.20/01, item 201).
  - The act dated 14 June 1960, Code of administrative procedure (Journal of Laws no.98/00, item 1071, as amended).
  - The act dated 6 June 1997, the Penal Code (Journal of Laws no.88/97, item 553, as amended).
  - Regulation of the Council of Minister dated 22 March 1983 on the rules for cooperation between bodies supervising and controlling working conditions with the National Labor Inspectorate (Journal of Laws no.19, item 83).

- Agreement between the Chief Labor Inspector and the President of the Social Insurance Institution (ZUS) dated 24 November 1995, on cooperation of the NLI bodies with the ZUS (Official Bulletin no. 1/96, as amended).
- Agreement of 22 December 1999 between the Chief Labor Inspector and the President of the State Mining Authority regarding detailed rules for cooperation of the NLI with District Mining Offices (not published).
- Agreement of 24 October 1995 between the Chief Labor Inspector and the General Inspector of Building Control, on rules for cooperation (Official Bulletin no. 4/95).
- Agreement of 29 August 2000 between the Chief Labor Inspector and the Chief Commander of State Fire Service on cooperation (not published).
- Agreement dated 8 January 1993, between the Chief Labor Inspector and the President of the Office of Technical Inspection, on cooperation of the NLI bodies and bodies of the OTI (Official Bulletin no. 1/93).
- Agreement dated 25 June 1992, between the Chief Labor Inspector and the Chief Commander of Voluntary Work Corps (OHP), which defines the rules of cooperation between bodies of the NLI and bodies of the OHP (Official Bulletin no. 5/92).
- Agreement of 14 May 2003, between the Chief Labor Inspector and the Chief Environment Protection Inspector, on cooperation between the National Labor Inspectorate and the National Environment Protection Inspectorate (not published).
- Agreement of 18 November 2002, between the Chief Labor Inspector and the Chief Sanitation Inspector, on cooperation between the National Labor Inspectorate and the National Sanitation Inspectorate (not published).
- Agreement dated 18 May 1993, between the Chief Labor Inspector and the Justice Minister – Attorney General, defining the rules of cooperation between the NLI and the state attorney offices (Official Bulletin no. 4/92).
- Agreement dated 11 December 2000, between the Chief Labor Inspector and the Chief Commander of Polish Police, on rules for cooperation between the bodies of the NLI and of the Police (*Labor Inspector* no. 2/01).
- Agreement dated 6 March 2001, between the Chief Labor Inspector and the Minister of Agriculture and Rural Development, President of the Farmers' Social Insurance Fund (KRUS); President of the National Union of Farmers, Agricultural Circles and Organizations; President of the Agricultural Property Agency (APA); President of the Board of Agriculture Employees in Poland; President of the Federation of Agricultural Employers, Tenants and Land Owners' Union; President of the National Council of Agricultural Chambers; President of the Board of the Union of Voluntary Fire Service; President of the National Village Heads Association, meant to improve the conditions of occupational safety and hygiene in agriculture (*Labor Inspector* no. 4/01).

## **2. Synthetic description of profession**

The National Labor Inspectorate is a body established to supervise and control the adherence to provisions of the labour law, and specifically to regulations and rules of occupational safety and hygiene (OSH). The basic entity of the National Labor Inspectorate is the labour inspector, whose fundamental rights include controlling all employers from the perspective of adherence to provisions of the labour law and rules of occupational safety and hygiene. In the course of performance of the control, the labour inspector has the right to request written and verbal information on matters covered by the control; to request proof of identity from persons hired by the employers; to inspect documentation of the enterprise which illustrate detailed issues covered by the subject matter of the control. The labour inspector is authorized to issue administrative decisions (injunctions), which oblige the employer to remove any faults entailing breach of regulations or rules of occupational safety and hygiene, and thus to bring the actual situation at the workplace in line with regulations.

The inspector can also use the injunction to order the employer to pay due remuneration or other benefit to the employee; hold works which cause direct threat to the employees' life or health; or re-direct persons employed contrary to current regulations for performing forbidden, harmful or dangerous works to perform other works. In the course of acceptance of newly built or re-built enterprises or parts thereof, if the inspector finds direct threats to the life or health of future employees, he is entitled to lodge objection, thus making it impossible to use the premises until the time the threats are removed.

The labour inspector is also entitled to request the employers and their founding bodies to remove any found breaches of the labour law, and also to discipline persons who committed these breaches. In the case of special regulations, the labour inspector is entitled to issue decisions or opinions.

The labour inspector is also entitled by force of law to prosecute acts which are defined in the labour legislation and the provisions of the Misdemeanor Code as offences against rights of employees and rights of persons performing paid work. The labour inspector is entitled to punish employers and other persons acting on their behalf, or responsible for the specific scope of matters by levying fines; or, in more serious cases, to direct the matter to court.

The task of the labour inspector is also to research and process complaints in the area of employment relations, to provide legal and technical advice.

The inspectors play a special role during the analysis of occupational accidents, especially those with grave outcomes for the injured parties, as well as occupational diseases – as the in-company services which analyze the circumstances and reasons of such accidents are not always reliable in their actions, and do not always draw the right preventive conclusions from such events. The labour inspector has also influence on the level of premium for accidents insurance, which depends on the working conditions. The labour

inspector controls the performance of duties, and evaluates the occupational risk assessment made by employers.

Tasks of the labour inspector can undergo constant changes, resulting from the state's policy and from Poland's membership in the EU. This refers to, for example, to tasks tied to control of machinery, equipment and tools (during the phases of design, production or trade); the control of OSH regulations during the manufacture of chemical products or packaging; as well as controlling whether the employees receive appropriate personal protective equipment.

The labour inspector, according to the Law on National Labor Inspectorate and the law on state officials, has the status of state official. Thus, he/she is obliged to protect the interests and rights of citizens. The inspector is obliged to adhere to the provisions of the Constitution of the Republic of Poland and other regulations, protect the state's authority and strive to strengthen the citizens' trust in state bodies; reliably and objectively, effectively and timely perform the entrusted tasks; develop own professional knowledge and act in a dignified manner, both at work and during free time.

When performing control, the labour inspector encounters various situations, including aggressive behavior of representatives of controlled entities, or even attempts to pressurize or bribe the inspector. This means frequent exposure to stress, with which the inspector must be able to cope. The work, which requires constant visits at various employers, where workers' representations are not always present, requires ease of establishing contact, ability to support one's arguments and convince others to them, perseverance and patience. The preparation of administrative decisions, petitions and requests for penalties requires also the formation of such psychophysical features as: analytical and logical thinking, independence in making decisions and responsibility.

According to provisions of art. 23 section 3 of the Law on National Labor Inspectorate, dated March 1981 (Journal of Laws no.124/01, item 1362, as amended), the following employees can be hired in the position of labour inspector:

- junior labour inspector ;
- labour inspector;
- senior labour inspector;
- senior labour inspector – specialist;
- senior labour inspector – chief specialist;
- superintendent of labour inspection.

Employees of the National Labor Inspectorate, working in the above named positions, perform and supervise control activities within a territory covered by their respective district labour inspectorate.

They should have university-level education and the required knowledge of issues which fall within the Inspectorate's scope of duties, offer a guarantee of proper performance of duties, and pass an examination in front of a

commission appointed by the Chief Labor Inspector. To prepare for the exam, the candidate needs to complete inspector's apprenticeship, according to a syllabus prepared by the Jan Rosner Training Center of the National Labor Inspectorate in Wrocław. Employment relationship with the above named employees (labour inspectors) is established on the basis of nomination. The inspectors, within their scope of duties, are independent of any external influences.

The rules for obtaining the title of specialist and chief specialist by the employees of National Labor Inspection, employed in the position of senior labour inspector, is defined in the Regulation no. 12/98 of the Chief Labor Inspector dated 14 October 1998. In order to acquire specialization, the inspectors must gain additional qualifications in the areas of specific technical or legal sciences (e.g. marine economy, the power sector, health services, time of employment, remuneration). Contrary to other positions, specialists can work all over the country.

### 3. Positions

Table 1. Assignment of positions to the levels of professional qualifications

Level of professional qualifications	Typical positions	COMMENTS
1	*)	
2	*)	
3	*)	
4	– junior labour inspector – labour inspector – senior labour inspector	
5	– senior labour inspector – specialist <sup>1)</sup> – senior labour inspector – chief specialist <sup>1)</sup> – superintendent of labour inspection.	<sup>1)</sup> Regulation no. 12/98 of the Chief Labor Inspector dated 14 October 1998, on the obtaining of titles of specialist and chief specialist by the employees of National Labor Inspection, employed in the position of senior labour inspector.

\*) *Not identified in the research.*

## 4. Professional tasks

- T-1. Controlling the employers' adherence to provisions of the labour law in the area of regulations and rules of occupational safety and hygiene (OSH).
- T-2. Controlling the employers' adherence to provisions of the labour law, in the area of regulations on employment relationship, remuneration for work and other benefits under the employment relationship, working hours, vacations, protection of parenthood, employment of minors and disabled persons.
- T-3. Controlling the adherence of OSH rules during the planning of construction, reconstruction and modernization of enterprises, as well as during the design and construction of machines, other technical equipment and technologies employed in the enterprises.
- T-4. Participation in the acceptance procedures of newly built or rebuilt enterprises or parts thereof.
- T-5. Analyzing the reasons for occupational accidents and diseases, controlling the application of means preventing such accidents and diseases, and participation in the examination of circumstances of occupational accidents.
- T-6. Issuing legal instruments, in particular injunctions and warrants of the labour inspector.
- T-7. Prosecuting offences against rights of employees and participating in such court cases in the role of public prosecutor.
- T-8. Providing technical advice and information regarding the elimination of threats for the life and health of employees, as well as advice and information on compliance with labour regulation.
- T-9. Planning the control and supervisory activities.
- T-10. Drafting control protocols.
- T-11. Cooperation with trade unions, workers' self-government bodies and the social labour inspection during the performance of control activities.
- T-12. The superintendent who is entrusted with coordination of work in a team performs the following actions: ongoing evaluation of controls and control documentation prepared by labour inspectors, ongoing analysis of the execution of tasks specified in annual action plan.
- T-13. Self-control of issued administrative decisions.
- T-14. Control of duties and analysis of the occupational risk assessment.

## 5. Constituents of professional qualifications

- Q-1. Providing legal and technical advice, engaging in preventive activities.
- Q-2. Controlling the adherence to regulations on labor's legal protection.
- Q-3. Controlling the adherence to regulations on occupational safety and hygiene.
- Q-4. Researching and analyzing occupational accidents and diseases.
- Q-5. Controlling the employer's obligations tied to occupational risk assessment.
- Q-6. Organizing inspector's own work on the basis of action plan and identification of threats in the allocated enterprises, and coordination of team's work by the labour superintendent.

## 6. Correlation between occupational tasks and constituents of professional qualifications

Table 2. Correlation between occupational tasks and constituents of professional qualifications

Occupational tasks	Constituents of professional qualifications					
	Q-1	Q-2	Q-3	Q-4	Q-5	Q-6
T-1	X		X	X	X	
T-2	X	X				
T-3			X		X	
T-4			X		X	
T-5			X	X	X	
T-6		X	X	X	X	
T-7		X	X	X	X	
T-8	X	X	X		X	
T-9						X
T-10		X	X	X	X	
T-11	X	X	X	X	X	
T-12						X
T-13		X	X	X	X	X
T-14			X	X	X	

## 7. Extra-professional qualifications

Table 3. Assignment of extra-professional qualifications to professional qualifications levels

Level of professional qualifications	Extra-professional qualifications
<b>SKILLS</b>	
1	*)
2	*)
3	*)
4	<ul style="list-style-type: none"> <li>– Establishes social contacts, conducts discussions and interviews;</li> <li>– Uses computer databases;</li> <li>– Uses universal computer software.</li> </ul>
5	*)
<b>KNOWLEDGE</b>	
1	*)
2	*)
3	*)
4	<ul style="list-style-type: none"> <li>– Information technologies;</li> <li>– Universal computer software and databases;</li> <li>– Rules of organization and management of enterprises.</li> </ul>
5	*)
<b>PSYCHOPHYSICAL FEATURES</b>	
1	*)
2	*)
3	*)
4	<ul style="list-style-type: none"> <li>– Perceptiveness.</li> <li>– Analytical and thinking.</li> <li>– Ability to concentrate attention.</li> <li>– Ability to split attention.</li> <li>– Good memory.</li> <li>– Logical thinking.</li> <li>– Accuracy.</li> <li>– Resistance to stress.</li> <li>– Integrity, abiding the laws.</li> <li>– Honesty.</li> <li>– Persistence.</li> <li>– Patience.</li> <li>– Spatial imagination.</li> <li>– Ease of switching from one activity to another.</li> </ul>
5	*)

\*) *Not identified in the research.*

## 8. Specification of qualifications: general professional, vocational and specialist for the profession

*NOTE: Qualifications on the higher level contain qualifications from lower levels*

### LEVEL 1

- *Not identified.*

### LEVEL 2

- *Not identified.*

### LEVEL 3

- *Not identified.*

### LEVEL 4

## General professional qualifications

### SKILLS

- Recognizes threats to employees' health tied to work processes, technology, use of machines and other technical equipment.
- Properly documents any found irregularities.
- Recognizes the breaches of basic duties of legal labour protection.
- Follows the legislative changes tied to labour protection issues.
- Plans controls from the standpoint of reaching the planned goal.
- Cooperates with social and self-government partners in the controlled enterprise.
- Uses the support materials while performing control (information on the enterprise, statistical data, guidelines, checklists).
- Properly organizes and conducts control activities.
- Analyzes the action program of the DLI, and the team plan from the standpoint of planning own work.
- Uses information on the supervised enterprises, held by the DLI.
- Analyses and interprets the results of measurements of the work environment.
- Plans rational utilization of work time.
- Analyses and interprets regulations of the labour law and of occupational safety and hygiene.
- Identifies the forms and systems of managing business entities.

## **KNOWLEDGE**

- The Labor Code
- The law on NLI together with secondary regulations.
- Procedures applied by the NLI, referring to control activities.
- Provisions of the labour law.
- Action program of the National Labor Inspectorate.
- Action program of the District Labor Inspectorate.
- Threats present in the enterprises allocated for supervision.
- Guidelines to conduct control, checklists.
- Regulations of the Chief Labor Inspector.
- Explanations and interpretations of the Chief Labor Inspector.
- Code of administrative procedure.
- Labor protection system in Poland.

## **Psychophysical features**

- Self-reliance.
- Independence of attitudes and beliefs.
- Persuasive ability.

## **Occupational qualifications**

### **Skills**

- Evaluates machines, other technical equipment and installations from the standpoint of compliance with OSH requirements (Q-3, Q-4, Q-5).
- Recognizes and evaluates threats to life and health of employees, tied to the work processes used by the employer; evaluates the methods to reduce or eliminate these threats, used by the employer (Q-3, Q-5).
- Evaluates the selection of measures applied by employer to protect the employees from dangerous and harmful factors of the labour environment (Q-3, Q-5).
- Performs an analysis of occupational risk assessment in positions found in the supervised enterprises (Q-3, Q-5).
- Reads technical drawings within a scope enabling the assessment of design solutions from the standpoint of occupational safety and hygiene (Q-3).
- Evaluates the activity of OSH expert on the controlled project documentation (Q-3).
- Evaluates the appropriateness of applied design solutions included in the documentation from the standpoint of current laws regarding technical conditions that have to be complied with by buildings, equipment, installations, technological solutions etc. (Q-3).

- Analyzes and evaluates the individual phases of investment, construction and technological processes from the standpoint of compliance with regulations and norms of OSH and ergonomics (Q-1, Q-3).
- Evaluates the appropriateness of completed works which are subject to acceptance (Q-3).
- Evaluates whether the machines and other technical equipment are constructed in a way assuring safe and hygienic working conditions, and in particular whether they protect the employees from injuries, dangerous chemical substances, electric shock, excessive noise, harmful quakes, vibrations and radiation, and the harmful and dangerous influence of other factors in the work environment, as well as whether they take into account the rules of ergonomics (Q-1, Q-3, Q-5).
- Recognizes and evaluates threats to life and health of employees, tied to the manufacture of products and packaging whose use is dangerous (Q-3, Q-5).
- Evaluates threats tied to the transport, marking and storage of dangerous substances (Q-3, Q-5).
- Analyzes and interprets regulations on the transport, packaging, marking and storage of dangerous substances (Q-1, Q-3, Q-5).
- Classifies an event as occupational accident (Q-4).
- Conducts an analysis of occupational accidents in a given enterprise (Q-4).
- Analyzes and establishes the circumstances and reasons of occupational accidents (Q-4).
- Calculates the frequency and severity rates of occupational accidents (Q-4).
- Evaluates the preventive measures applied by employer (Q-4).
- Evaluates the accident documentation prepared by the employer Q-1, Q-4, Q-5).
- Analyzes the reasons for occupational diseases (Q-4).
- Evaluates buildings and premises from the standpoint of compliance with OSH requirements (Q-2, Q-3, Q-4, Q-5).
- Follows the latest legal developments regarding labour law, verdicts and resolutions of the Supreme Court, interpretations of the relevant minister in charge of labour issues (Q-2, Q-3, Q-5).
- Applies regulations referring to administrative proceedings (Q-2, Q-3, Q-5).
- Evaluates the in-company sources of labour law and documents regarding employment relationships (Q-2, Q-3, Q-5).
- Prepares letters and motions of labour inspector (Q-2).
- Applies the relevant procedural provisions in misdemeanor cases (Q-2, Q-3, Q-5).
- Recognizes acts which have the features of offences against employee rights (Q-2, Q-3, Q-5).
- Identifies perpetrators of offences (Q-2, Q-3, Q-5).
- Interrogates the perpetrators and witnesses of offences against employee rights (Q-2, Q-3, Q-5).

- Formulates motions for punishment (Q-2, Q-3, Q-5).
- Levies fines (Q-2, Q-3, Q-5).
- Clearly and precisely communicates the interpretation of legal solutions (Q-1).
- Clearly and precisely communicates information on technical solutions (Q-1).
- Appears in court (Q-1, Q-2).
- Evaluates threats present in the enterprises allocated for supervision (Q-6).
- Uses information on the supervised enterprises, held by the DLI (Q-6).
- Analyses information sent to the DLI by the controlled enterprises, regarding the degree and manner of implementation of labour inspector's decisions (Q-6).
- Includes in the work plan the need to conduct control from the perspective of potential enforcement procedure (Q-6).
- Describes all irregularities found in the controlled enterprise and states their reasons and outcomes (Q-2, Q-3, Q-6).
- Defines the degree of breaching the law by the employer or other persons acting on employer's behalf (Q-2, Q-3, Q-6).
- Applies the appropriate systematic to the control protocol, style and language (Q-2, Q-3, Q-4, Q-5, Q-6).
- Uses specialist computer software, helpful in the formulation of control protocol (Q-2, Q-3, Q-6).
- Uses computer databases (Q-2, Q-3, Q-4, Q-5, Q-6).
- Defines the degree of breaches of law in the controlled enterprises (Q-2, Q-3, Q-4, Q-5).
- Uses control conclusions to define preventive actions (Q-2, Q-3, Q-4, Q-5).
- Applies the appropriate form, style and language of written communication (Q-2, Q-3, Q-4, Q-5).
- Evaluates the influence of harmful factors on the local working environment (Q-2, Q-3, Q-5).
- Identifies the basic pollutants of the natural environment, tied to the production process employed by the enterprise (Q-2, Q-3, Q-5).
- Evaluates solutions which reduce or eliminate the emission of pollutants to the natural environment (Q-2, Q-3, Q-5).
- Formulates conclusions (Q-2, Q-3, Q-5).
- Establishes social contacts, conducts discussions and interviews (Q-1, Q-2, Q-3).
- Cooperates with representatives of social partners before the commencement and in the course of control activities (Q-1, Q-2, Q-3).
- Demonstrates the influence of safe work organization on the economic results of the enterprise (Q-1, Q-2, Q-3).
- Provides knowledge on the labour law and of occupational safety and hygiene (Q-1, Q-2, Q-3).
- Provides legal and technical advice (Q-1, Q-2, Q-3).

- Evaluates the implementation by the employer of the recommendations, comments and motions put forward by workers' representation (Q-1, Q-2, Q-3).
- Plans the timely presentation of documentation for evaluation by labour superintendent (Q-2, Q-3, Q-4, Q-5).
- Evaluates the organization of work processes and work stations from the standpoint of compliance with OSH requirements (Q-2, Q-3, Q-4, Q-5).
- Evaluates the arguments and conclusions of the party appealing the decision (injunction) of the labour inspector (Q-2, Q-3, Q-4, Q-5, Q-6).
- Prepares written administrative decisions (injunction of labour inspector) (Q-2, Q-3, Q-4, Q-5).
- Evaluates the appropriateness of design solutions from the standpoint of current laws regarding technical conditions that have to be complied with by buildings, equipment, installations, technological solutions (Q-1, Q-3).

### **Knowledge**

- Basic information on the controlled enterprise, referring in particular to threats, controls executed so far, legal measures applied (Q-2, Q-3, Q-4, Q-5).
- Information on trade unions and social labour inspection, operating in the controlled enterprise (Q-2, Q-3, Q-4, Q-5)..
- Regulations regarding technical conditions that have to be complied with by buildings, premises, installations, taking into account OSH regulations (Q-3, Q-5).
- OSH requirements on machines and other technical equipment and installations (Q-3, Q-4, Q-5).
- Technological, investment and construction processes (Q-1, Q-3).
- Polish Standards - general and sector-specific (Q-3).
- Regulations on compliance evaluation (Q-1, Q-3).
- Technical and operational documentation (Q-1, Q-3).
- Legislation on chemical substances posing threat to life or health, road transportation of dangerous materials, general OSH regulations (Q-1, Q-3, Q-5).
- Polish Standards on issues tied to control of packaging (Q-1, Q-3, Q-5).
- Guidelines of the Main Labor Inspectorate regarding the adherence of regulations and rules during the packaging, storage and distribution of chemical substances which pose threat for life and health (Q-1, Q-3, Q-5).
- Regulations on occupational accidents and diseases (Q-4).
- Methods for establishing circumstances and reasons of occupational accidents (Q-4).
- Documentation tied to establishing circumstances and reasons of occupational accidents (Q-4).
- Documentation tied to analysis and registration of occupational diseases (Q-4).
- Occupational accidents ratio and occupational diseases ratios (Q-4).

- Actions performed by teams working on occupational accident location (Q-4).
- Factors harmful to health, present in work processes, and their influence on humans (Q-3, Q-5).
- Assessment of occupational risk tied to various positions (Q-3, Q-5).
- Evaluation of work stations, machinery and equipment from the standpoint of ergonomics (Q-1, Q-3, Q-5).
- OSH regulations and norms of general and sector-specific nature, to an extent enabling control in enterprises allocated for inspection (Q-3, Q-5).
- Evaluation of work stations, machinery and equipment from the standpoint of ergonomics (Q-3, Q-5).
- Financial and accounting regulations (Q-2, Q-3, Q-4, Q-5, Q-6).
- Procedural provisions in misdemeanor cases (Q-2, Q-3, Q-5).
- Regulations regarding technical conditions that have to be complied with by buildings, machinery, equipment and installations (Q-1).
- Directives of the European Union (Q-1).
- Interpretations of labour law (Q-1, Q-2).
- Court procedures (Q-2).
- Degree of implementation of the issued legal instruments (injunctions and warrants) (Q-6).
- Guidelines to conduct control, checklists (Q-6).
- Information on the manner of executing the decisions of labour inspector (Q-6).
- Information on the deadlines for executing the decisions of labour inspector (Q-6).
- Formal and legal requirements pertaining to control protocols (Q-2, Q-3, Q-6).
- Solutions which reduce or eliminate the emission of pollutants to the natural environment (Q-2, Q-3, Q-5).
- Interpretation of measurements of the basic values of work environment (Q-2, Q-3, Q-5).
- The law on trade unions (Q-1, Q-2, Q-3).
- The law on social labour inspection (Q-1, Q-2, Q-3).
- The law on employee self-government bodies (Q-1, Q-2, Q-3).
- Regulations of the labour law (Q-2, Q-3, Q-4, Q-5, Q-6).
- Verdicts and decisions of the Supreme Court (Q-1, Q-2, Q-4).

### **Psychophysical features**

- Good eyesight (Q-3, Q-4).
- Distinguishing of colors (Q-3, Q-4).
- No fear of heights (Q-3, Q-4).
- Good sense of balance (Q-3, Q-4).
- Ease of verbal communication (Q-1).
- Technical talents (Q-3).

- Ability to work quickly (Q-6).
- Ready to work under adverse conditions (Q-3, Q-4).
- Ability to establish contacts with others (Q-1, Q-6).

## Specialist qualifications

### Skills

- Evaluates threats present in individual farming (Q-1).
- Cooperates with institutions dealing with labour protection in individual farming (Q-1).
- Undertakes preventive measures, taking into account the rules covered by agreements in the area of individual farming (Q-1).
- Cooperates with the media in order to propagate the rules of safe work on agricultural farms (Q-1).
- Cooperates with self-government and administrative authorities (Q-1).
- Conducts OSH training for farmers, lectures and presentations at schools (Q-1).
- Organizes contests and competitions for rural children and youths (Q-1).
- Evaluates threats typical for specific sectors and selected areas of the labour law (Q-1).
- Performs enforcement activities (Q-2, Q-3).
- Performs the activities of a press spokesman (Q-1).
- Conducts audits as part of the valuation of OSH management systems, analyzes security reports, operations and rescue plans (Q-1, Q-2, Q-3).

### Knowledge

- Most important threats in individual farming (Q-1).
- Most important threats and technological processes in specific sectors and selected areas of the labour law (Q-1).
- Occupational accidents and diseases in individual farming (Q-1).
- Agreements and other legal acts regarding cooperation to improve the situation of occupational safety and hygiene in individual farming (Q-1).
- The work program of the National Labor Inspectorate regarding labour protection in individual farming (Q-1).

### Psychophysical features

- *Not identified.*

## General professional qualifications

### Skills

- Analyzes post-control documentation prepared by labour inspectors from the standpoint of using these materials to develop collective information.
- Analyzes the reasons for found irregularities.
- Analyzes materials from the standpoint of obtained effects.
- Formulates conclusions on the basis of documentation analysis.
- Analyzes the current legal solutions from the standpoint of potential legislative motions and proposals.
- Cooperates with bodies supervising working conditions on issues tied to exchange of information pertaining to labour protection, and undertaking joint initiatives in order to remove any found irregularities.
- Uses knowledge resulting from the supervisory and control activities in order to solve problems which are the subject of agreements.
- Formulates preventive conclusions.
- Negotiates manners to eliminate threats, taking into account the competencies of the National Labor Inspectorate and the supervisory body with which the agreement was concluded.
- Analyzes the action program of the DLI, and the team work plan.
- Analyzes the execution of tasks defined in the annual action program of a District Labor Inspectorate.
- Analyzes the use of work time by labour inspectors of the team.
- Discusses irregularities resulting from the assessment of the inspectors' work.
- Analyzes the appropriate selection of subjects for control, appropriate documentation of irregularities in the control protocol, and the appropriateness of post-control actions (legal measures).
- Uses statistical data and information on execution of tasks, held by the DLI.
- Plans work from the standpoint of current evaluation of the degree of tasks' execution.

### Knowledge

- Legal regulations referring to the subject matter of conducted controls, which are the basis to develop collective information.
- Information on the controlled enterprises and sectors (threats, technologies, economic situation).
- Agreements concluded between the Chief Labor Inspector, District Labor Inspector and supervisory bodies.
- Legal regulations regarding the rules for operation, authority and duties of supervisory bodies controlling labour conditions.

- Labor law, including specifically regulations pertaining to matters which are the object of concluded agreements.

### **Psychophysical features**

- *Not identified.*

### **Occupational qualifications**

- *Not identified.*

### **Specialist qualifications**

- *Not identified.*

## **2.**

### **Qualifications standard for the profession**

#### **LECTURER AT COURSES (EDUCATOR, TRAINER)**

#### **(235910)**

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## 1. Legal basis for performance of the profession<sup>2</sup>

- The law dated 12 September 2002, on amendments to the Teachers' Charter and to some other laws, including the law on remuneration in the state budget-financed sphere (Journal of Laws of 2002, no.152, item 1267).
- The act dated 7 September 1991 on the education system (uniform text)m, with subsequent amendments.
- The act dated 26 January 1982, the Teachers' Charter (unified text – 4 April 2000), with subsequent amendments.
- Regulation of the Ministry of National Education and Sports dated 6 May 2003, on the requirements to be complied with by person holding the post of director or other managerial position in the various types of schools and educational institutions (Journal of Laws of 2003, no.89, item 826).
- Regulation of the Ministry of National Education and Sports dated 23 April 2003 on the conditions and manner for establishment, transformation, liquidation, organization and manner for operation of teachers' training centers, including the scope of their obligatory activities and the tasks of methodology consultants; as well as the conditions and manner for entrusting teachers with the tasks of methodology consultants (Journal of Laws of 2003, no.84, item 779).
- Regulation of the Ministry of National Education and Sports dated 27 February 2003 on the requirements that should be complied with by experts sitting on examination and qualification boards for teachers who attempt to obtain professional promotion, on the conditions for placing on the experts' list and deletion from it (Journal of Laws of 2003, no.44, item 375).
- Regulation of the Ministry of National Education and Sports dated 7 January 2003 on the adaptation internship and test of skills conducted as part of procedure to recognize the qualifications to perform the teacher's profession, acquired in member countries of the European Union (Journal of Laws of 2003, no.5, item 47).
- Regulation of the Ministry of National Education and Sports dated 19 November 2002, on the detailed scope of duties of teachers and educators working in non-public kindergartens and non-public educational institutions managed by church legal persons (Journal of Laws of 2002, no.204, item 1722).
- Regulation of the Ministry of National Education and Sports dated 10 September 2002 on the detailed qualifications required of teachers, and the specification of schools and instances in which it is possible to employ teachers without tertiary education or who did not graduate from a teachers' training institution (Journal of Laws of 2002, no.155, item 1288, as amended).
- Regulation of the Minister of National Education dated 2 November 2000 on the criteria and manner for evaluating teacher's work, the manner for

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<sup>2</sup> Legal status at 1 June 2003

- appeal and the composition and manner for appointing the evaluation team (Journal of Laws of 2000, no. 98, item 1066).
- Regulation of the Minister of National Education dated 3 August 2000 on acquiring degrees of professional promotion by teachers (Journal of Laws of 2000, no. 70, item 825).
  - Regulation of the Ministry of National Education dated 19 October 1999, on the requirements that should be complied by the examiners of district examination boards, and the conditions for entering and deleting persons from the examiners' lists (Journal of Laws of 1999, no. 93, item 1071).
  - Regulation of the Minister of National Education dated 13 August 1999 on detailed rules for pedagogical supervision, list of positions requiring pedagogical qualifications, qualifications necessary to perform pedagogical supervision, as well as qualifications of persons who can be commissioned to conduct research and develop expert opinions (Journal of Laws of 1999, no. 67, item 759).
  - Regulation of the Minister of National Education dated 28 September 1993 on the types, organization and rules for operation of the public educational entities - Attachment 4, Journal of Laws no. 95, item 434.

## **2. Synthetic description of profession**

A lecturer at courses (educator, trainer) can perform and supervise tasks tied to providing support to adults in continuous education. Due to the specific nature of the profession, and the area of operations, the course lecturer is a person with theoretical qualifications and practical experience, a specialist in the area that he/she teaches. Theoretical knowledge and practical experience of the lecturer, relevant for the subject matter of the course, should be properly documented.

The lecturer at courses (educator, trainer) can engage in teaching activity during training for various professional and age groups, in various types of institutions. The training can be of qualifications or professional development nature, or satisfying general human needs, aspirations and ambitions of participants (psychotherapy training, driver's license courses, courses on art history, etc.). The lecturer may run individual classes, or classes which are part of a bigger project. Also, the lecturer who possesses specialist expert knowledge in a given area, may: examine, provide advice and consultations, participate in the coordination of activities in the area of preparing, issuing opinions and making available to participants (learning adults) methodology materials and teaching aids which support both learning in group and self-study.

The work of course lecturer is of individual nature. Sometimes the lecturers can work in pairs or in teams.

Work of a course lecturer entails constant and direct contact with the participants. Ease of communication, verbal and written, is an indispensable

feature. Other important traits include the ability to focus attention and split it at the same time, precision and logic of speech.

Work with a large group of people, often in various technical conditions, requires patience and the ability to quickly adapt to a new situation.

The nature of work requires also:

- significant emotional resilience;
- ability to harmoniously cooperate with others;
- large dose of self-reliance in the planning of tasks;
- consequence in the execution of planned tasks;
- the ability to plan and organize own work.

The course lecturer can set up and manage own training institution, and activities in the field of organizing continuous education.

In the profession of course lecturer (educator, trainer), there are groups of positions tied to:

- teaching in organized forms (delivering lectures, running seminars or training sessions);
- teaching activity supporting adult learning, in the form of consultations and guidance in the area tied to subject matter of taught areas;
- providing consultations and advice to other lecturers, in the area of taught subjects matter and methodology for the classes;
- planning and delivering courses;
- preparation, organization and management of a training or educational center/institution;
- planning, organization and delivery of training within an undertaking that is not a training center;
- participation in the work of experts' teams;
- participation in the work of examination boards.

Positions tied to management of centers (institutions), participation in the work of expert teams and examination boards usually require additional licenses.

### 3. Positions

**Table 1. Assignment of positions to the levels of professional qualifications**

Level of professional qualifications	Typical positions	COMMENTS
1	*)	
2	*)	
3	*)	
4	<ul style="list-style-type: none"> <li>– lecturer.</li> <li>– trainer</li> <li>– teacher – consultant</li> <li>– methodology advisor</li> <li>– consultant</li> <li>– advisor</li> </ul>	
5	<ul style="list-style-type: none"> <li>– Training specialist</li> <li>– training manager</li> <li>– director of a training center</li> <li>– expert</li> </ul>	

\*) *Not identified in the research.*

### 4. Professional tasks

- T-1. Diagnosing training needs on various levels (local, enterprise, individual persons).
- T-2. Preparing scenario for training classes.
- T-3. Delivering a lecture presenting general and specialist knowledge.
- T-4. Preparing and delivering exercises which form and/or improve the skills of training participants.
- T-5. Diagnosing the progress of course participants, informing them of results.
- T-6. Managing the group process during the classes.
- T-7. Development of subject-focused and methodology materials, as well as teaching aids which support the teaching/learning process.
- T-8. Designing the training syllabus.
- T-9. Preparing a training offer.
- T-10. Preparing financial plans for training and courses.
- T-11. Organization and management of own teaching work.
- T-12. Preparing the premises and exercise stations to conduct the classes.
- T-13. Participation in the organization of seminars, specialist and methodology conferences.
- T-14. Managing the course.

- T-15. Engaging in subject-based and methodology cooperation with other lecturers.
- T-16. Engaging in cooperation with authors of textbooks and teaching aids.
- T-17. Managing an organizational unit offering training services.
- T-18. Evaluating own work.
- T-19. Evaluating the work of other lecturers (inspections, observations, supervision).
- T-20. Evaluation of training, including analysis of their effectiveness – the degree of meeting assumed goals.
- T-21. Conducting research in the area of usefulness of teaching programs, textbooks and teaching aids.

## **5. Constituents of professional qualifications**

- Q-1. Preparation and delivery of classes (lecture, seminar, workshop, training, exercise, demonstration) during a course.
- Q-2. Evaluation and examination of participants.
- Q-3. Course design.
- Q-4. Evaluation of training services.
- Q-5. Managing the course.
- Q-6. Managing an organizational unit (team, laboratory, teaching institution) offering training services.

## 6. Correlation between occupational tasks and constituents of professional qualifications

Table 2. Correlation between occupational tasks and constituents of professional qualifications

Professional tasks	Constituents of professional qualifications					
	Q-1	Q-2	Q-3	Q-4	Q-5	Q-6
T-1	X		X	X	X	X
T-2	X		X			
T-3	X					
T-4	X					
T-5	X	X			X	X
T-6	X					
T-7	X	X	X			
T-8		X	X		X	X
T-9			X		X	X
T-10			X		X	X
T-11	X				X	X
T-12	X	X			X	X
T-13			X	X	X	X
T-14					X	X
T-15	X	X	X	X	X	
T-16			X	X	X	
T-17						X
T-18	X	X	X	X	X	X
T-19				X	X	X
T-20		X		X	X	X
T-21			X	X	X	X

## 7. Extra-professional qualifications

Table 3. Assignment of extra-professional qualifications to professional qualifications levels

Level of professional qualifications	Extra-professional qualifications
<b>SKILLS</b>	
<b>1</b>	*)
<b>2</b>	*)
<b>3</b>	*)
<b>4</b>	<ul style="list-style-type: none"> <li>– Effectively communicates.</li> <li>– Searches for information and processes it.</li> <li>– Uses information technologies (includes using the Internet information resources, using electronic mail, word processor, spreadsheet and database).</li> <li>– Organizes the job and workstation, taking into account the rules of ergonomics and current regulations on occupational safety and hygiene and environment protection.</li> <li>– Adheres to the rules of social coexistence.</li> <li>– Acts in ethical manner.</li> <li>– Understands and respects the basic rights of the employer and employee.</li> <li>– Solves problems and makes decisions within own scope of competencies.</li> <li>– Performs basic calculations.</li> <li>– Creates work documentation and updates it systematically.</li> <li>– Plans and implements own professional development path.</li> <li>– Performs self-assessment.</li> <li>– Copes with stress.</li> <li>– Adapts to changes.</li> <li>– Provides pre-medical aid.</li> <li>– Initiates the introduction of technical and organizational solutions which improve work conditions and quality.</li> </ul>
<b>5</b>	<ul style="list-style-type: none"> <li>– Differentiates between tasks performed by individual organizational units.</li> <li>– Effectively manages people.</li> <li>– Economically manages the budget.</li> </ul>
<b>KNOWLEDGE</b>	
<b>1</b>	*)
<b>2</b>	*)
<b>3</b>	*)
<b>4</b>	<ul style="list-style-type: none"> <li>– Communication techniques.</li> <li>– Techniques for searching for and processing information.</li> <li>– Rules of ergonomics, regulations on occupational safety and hygiene, fire protection and prevention, environment protection.</li> </ul>

	<ul style="list-style-type: none"> <li>- Rules of social coexistence.</li> <li>- Selected issues of the labour law.</li> <li>- Rules for drawing up letters, completing documentation, managing calculations.</li> <li>- Problem-solving methods.</li> <li>- Rules and methods for providing pre-medical aid.</li> </ul>
<b>5</b>	<ul style="list-style-type: none"> <li>- Rules for organization of work stations.</li> <li>- Rules for effective team management.</li> </ul>
<b>PSYCHOPHYSICAL FEATURES</b>	
<b>1</b>	-
<b>2</b>	-
<b>3</b>	-
<b>4</b>	<ul style="list-style-type: none"> <li>- Good communication skills.</li> <li>- Ability to learn continuously and update knowledge.</li> <li>- Logical thinking ability.</li> <li>- Concentration and ability to split attention.</li> <li>- Pre-disposed to work in a team.</li> <li>- Imagination and creative thinking (creativity).</li> <li>- Flexibility in actions.</li> <li>- Open to new experiences and people.</li> <li>- Self-reliance.</li> <li>- Responsibility.</li> <li>- Emotional resistance.</li> <li>- Ability to work under stress.</li> <li>- Ability to make quick and apt decisions.</li> <li>- Persuasive ability.</li> <li>- Tolerance, respect for others, patience, kindness.</li> <li>- Ability to accept oneself and identify with own actions.</li> <li>- Sense of humor.</li> </ul>
<b>5</b>	<ul style="list-style-type: none"> <li>- Ability to manage and motivate people.</li> <li>- Risk-taking ability.</li> </ul>

\*) *Not identified in the research.*

## 8. Specification of qualifications: general professional, occupational and specialist for the profession

*NOTE: Qualifications on the higher level contain qualifications from lower levels*

### LEVEL 1

- *Not identified.*

### LEVEL 2

- *Not identified.*

### LEVEL 3

- *Not identified.*

### LEVEL 4

## General professional qualifications

### Skills

- Applies the rules of appropriate presentation, prepares and delivers presentation on the possessed general and specialist knowledge.
- Uses appropriate professional and teaching terminology.
- Uses audio-visual equipment which supports the delivery of lecture.
- Properly uses the teaching aids necessary to conduct exercises.
- Uses the computer in a scope allowing to prepare text and graphical materials, as well as presentations with the use of specialist software.
- Plans own actions.
- Uses various information sources.
- Organizes and classifies information from the perspective of their usefulness to achieve the assumed goal.
- Clearly formulates and communicates own expectations.
- Effectively conducts negotiations.
- Reacts to changes in a constructive manner.
- Performs evaluation of own work.
- Uses conclusions drawn from the evaluation to improve work and plan own development.

### Knowledge

- The rules for preparing and delivering proper presentations.

- General OSH and fire protection and prevention rules, as well as tied to the area of classes.
- Rules for editing texts (textbooks, teaching materials).
- Taxonomy of didactic goals.
- The rules for evaluating and examining participants.
- Features of optimum didactic measures.
- Knowledge of own styles - social, learning, managing others, on preferred roles within a team.
- Voice techniques and their significance.
- Relaxation techniques.
- Rules of ergonomics.
- Rules for human communication.
- Methods for coping with conflicts.

### **Psychophysical features**

- Imagination and creative thinking ability.
- Emotional resistance.
- Self-control ability.
- Self-reliance.
- Ability to establish contacts with others.
- Able to demonstrate empathy.
- Ability to make quick and apt decisions.
- Ability to cooperate.
- Leadership abilities.

## **Occupational qualifications**

### **Skills**

- Formulates training goals on the basis of possessed knowledge (Q-1, Q-3).
- Develops scenarios of classes (Q-1).
- Evaluates the usefulness of training contents for its participants, performs a selection according to the expectations and perception abilities of the recipients (Q-1, Q-4).
- Selects the methods for delivering classes according to the goal and level of participants (Q-1, Q-3).
- Chooses appropriate forms for delivering the classes, taking into account organizational, institutional and financial constraints (Q-1, Q-3).
- Chooses teaching methods adequate for the goal and the participant's perception abilities (Q-1, Q-3).
- Plans the tasks effectively over the time provided for their delivery (Q-1).
- Learns about the participants' interests (Q-1).
- Prepares an optimum station to organize exercises (Q-1).

- Delivers the exercises, using alternative methods adapted to the purpose, abilities of participants and equipment, adhering to OSH and fire prevention rules. (Q-1).
- Determines optimum spatial conditions to deliver the classes (Q-3).
- Provides the participants with feedback on their learning results (Q-1, Q-2, Q-4).
- Effectively manages the group process during each phase of the group's development (Q-1).
- Solves conflict situations without harm to the group and the teaching process (Q-1).
- Develops contents-related and methodology materials according to the methodology for developing materials which support teaching and self-study (Q-1, Q-3).
- Flexibly reacts to changes in demand for specific forms of training (Q-1).
- Collects feedback from participants on the effectiveness of courses (achievement of assumed goals) (Q-4).

### **Knowledge**

- Current general and specialist knowledge which is the subject of the training (Q-1).
- General psychological knowledge (Q-1).
- Teaching (didactic) rules (Q-1).
- Rules for didactic design (Q-1).
- Methods of theoretical and practical teaching (Q-1).
- Andragogy (rules for adult learning) (Q-1).
- Modern technical teaching means (Q-1).
- Psychological aspects of didactic assessment (Q-1, Q-2, Q-4).
- Critical analysis of information (Q-1).
- Phases of the group development dynamics (Q-1).
- Methods for coping with difficult participants of training (Q-1).
- Negotiation techniques (Q-1).
- The rules for development of subject-focused and methodology materials, as well as didactic aids (Q-1).
- The place of evaluation in management of own development (Q-1).
- Rules for providing feedback (Q-1, Q-2, Q-4).

### **Psychophysical features**

- *Not identified.*

## Specialist qualifications

### Skills

- Designs the training according to diagnosed needs (Q-3).
- Defines personnel and material requirements, necessary to achieve the goals of planned training (Q-3).
- Creates the training schedule according to didactics rules (Q-3).
- Designs and applies teaching aids, according to didactics rules (Q-1).
- Organizes optimum premises to deliver classes in the form of exercises (Q-1).
- Prepares station for exercise, providing optimum learning conditions for training participants (Q-1).
- Plans and designs research diagnosing training needs (Q-1, Q-4).
- Performs measurements of knowledge and skills covered by training subject (Q-2, Q-4).
- Writes a report on the conducted research (Q-1, Q-2, Q-4).
- Prepares sets of examination tests (Q-2).
- Chairs the examination team (Q-2).

### Knowledge

- Basic rules for methodology of social research (educational) (Q-2).
- Methods and tools for collecting qualitative and quantitative data (Q-2, Q-4).
- Qualitative and quantitative analysis of data (Q-2, Q-4).
- Methods for developing and presenting results (Q-2, Q-4).
- Rules and methods for didactic measurements (Q-2, Q-4).
- Regulations which allow to admit didactic materials and aids for use (Q-1, Q-3, Q-5).

### Psychophysical features

- *Not identified.*

## LEVEL 5

## General professional qualifications

### Skills

- Justifies concepts, actions, projects.
- Formulates opinions and draws reviews.
- Manages a training (educational) project/ undertaking.
- Manages a team of people.
- Organizes work processes.

- Motivates others to work.
- Selects appropriate management style.

### **Knowledge**

- Rules for good organization of projects.
- Rules from transporting knowledge – from diagnosis to forecast.

### **Psychophysical features**

- Creativity.
- Self-criticism.

## **Occupational qualifications**

### **Skills**

- Defines the financial and legal framework of the undertaking (Q-5).
- Prepares the training budget and constructs the financial plan (Q-5).
- Properly manages financial resources (Q-5).
- Reconciles and presents the financial results of the delivered training (Q-5).
- Participates in the organization of seminars, specialist and methodology conferences (Q-5).
- Prepares materials for seminars and conferences (Q-5).
- Develops plans and schedules for classes (Q-5).
- Organizes and coordinates the work of team delivering the training (Q-5).
- Maintains documentation of the course (Q-5).
- Performs recruitment (Q-5).
- Monitors the course of the training, introduces necessary corrections (Q-4, Q-5).
- Plans the work of co-workers and subordinate employees (Q-5).
- Plans the employment of other persons delivering the classes (Q-5).
- Analyses own achievements and determines their influence on the institution's economic results (Q-6).
- Controls the work results of subordinate employees (Q-6).

### **Knowledge**

- Information on institutions and persons providing teaching services, necessary to deliver the training (Q-5).
- Legal basis regarding the organization and delivery of training (Q-5).
- Methods for preparing financial plans for various educational undertakings (Q-5).
- Types of costs and potential methods for their co-financing (Q-6).
- Information on conferences and seminars on the relevant knowledge (Q-6).

- Requirements on documentation used for the courses (Q-5).
- Basic legal regulations on the delivery of courses, their financing and issuance of certificates and diplomas (Q-5, Q-6).
- Elements of management (Q-6).
- Tools for personnel management (recruitment, motivation, development) (Q-5, Q-6).
- Management styles (Q-6).
- Dynamics of information delivery (Q-6).
- Methods and tools for work control (Q-4, Q-5).

### **Psychophysical features**

- *Not identified.*

## **Specialist qualifications**

### **Skills**

- Plans and designs evaluation of lecturer at course (Q-5).
- Plans and designs the research on training effectiveness (Q-4, Q-5).
- Plans and designs research on the usefulness of teaching syllabus, textbook and/or didactic aids (Q-4, Q-5).
- Collects quantitative and qualitative data (Q-6).
- Classifies information from the standpoint of goals implementation (Q-5).
- Analyzes the collected data, draws conclusions and formulates recommendations (Q-6).
- Manages the team of center's co-workers (Q-6).
- Draws up long-term plans for the development of training center (institution) (Q-6).
- Draws up financial plans of the training center (institution) (Q-6).

### **Knowledge**

- Current knowledge on the training offer in the given area and on educational needs (Q-6).
- Rules for education marketing (Q-6).
- Innovative methods of action (Q-5).
- Theory of evaluation (Q-4).

### **Psychophysical features**

- *Not identified.*

# **3.**

## **Qualifications standard for the profession**

### **OCCUPATIONAL SAFETY AND HYGIENE SPECIALIST (214923)**

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## **1. Legal basis for performance of the profession<sup>3</sup>**

- The act dated 26 June 1974, the Labor Code (Journal of Laws no. 24, item 141, as amended).
- The law dated 9 November 2000, amending the Labor Code and some other laws (Journal of Laws no. 107, item 1127).
- Regulation of the Council of Ministers dated 2 September 1997 on the occupational safety and hygiene services. (Journal of Laws no. 109, item 704).
- Regulation of the Minister of Labor and Social Policy dated 28 May 1996, on detailed rules for training in occupational safety and hygiene (Journal of Laws no. 62, item 285).
- Regulation of the Council of Ministers dated 28 July 1998, on the general rules for occupational safety and hygiene.
- Regulation of the Minister of Labor and Social Policy dated 26 September 1997, on general rules for occupational safety and hygiene (Journal of Laws no. 129, item 844) and the Regulation of the Minister of Labor and Social Policy dated 11 June 2002, amending the regulation on general rules for occupational safety and hygiene (Journal of Laws no. 91, item 811).
- Regulation of the Minister of National Education and Sports, dated 31 December 2002, on issues of occupational safety and hygiene in public and non-public schools and educational establishments.
- Regulation of the Minister of National Education and Sports, dated 11 March 1998, on rules for occupational safety and hygiene in tertiary education establishments.

## **2. Synthetic description of profession**

The OSH specialist coordinates, supervises and organizes all activities tied to the occupational safety and hygiene situation at an enterprise. The main tasks of the OSH specialist include constant supervision of the level of work safety. For this purpose, the OSH specialist prepares assessments and analyses, conducts control activities tied to the adherence to OSH rules and regulations, participates in the occupational risk assessment at various positions, puts forward motions and advises the management on means that should be applied to assure safety and protect the health of employees. In case of a direct threat to the employees, the OSH specialist is entitled to make a decision on immediate cessation of work of machinery and technical equipment, or requesting the employer to immediately stop work in the whole enterprise, its part or on the threatened premises.

The OSH specialist serves as advisor to the employer during solving issues tied to occupational safety and hygiene, participates in the development of

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<sup>3</sup> Legal status at 1 June 2003.

modernization and investment plans and in technical acceptance of premises and production equipment which influences the OSH conditions. He/she consults technical and organizational solutions that can influence working conditions and work safety, provides advice on how to solve OSH-related problems.

The duties of the OSH specialist include also cooperation with bodies of the State Sanitation Inspection and authorized laboratories, on measuring factors harmful to the health, present at work stations, in accordance with the employer's duties. On behalf of the employer, the OSH specialist cooperates with bodies supervising working conditions: the National Labor Inspectorate, State Sanitation Inspection and Office of Technical Inspection. This cooperation entails providing explanations during control, supervising the full and timely implementation of actions necessary to perform the issues warrants and decisions.

The OSH specialist participates in the establishing of circumstances and reasons of occupational accidents. As the person leasing the OSH department, he/she is responsible for proper completion and storage of documentation on occupational accidents and diseases, for the maintenance of required records, proper registration of results of analysis of the working environment, and for proper storage of these records. The OSH specialist participates in the drafting of internal orders, regulations and procedures on labor safety and hygiene. Cooperates with the relevant organizational units or persons on the organization and assurance of appropriate level of OSH training.

Has the right to move to the employer for rewards for employees with special achievements in the area of improving working conditions. Has the right to move to the employer for penalties for employees who do not follow work safety regulations.

The effectiveness of the OSH specialist's work depends largely on his ability to establish contact with other people, as well as on the ability to engage in discussions, convince and negotiate. Valued traits include: perceptiveness, good memory, imagination and creative thinking, self-reliance, quick reflex, ability to split attention, ability to focus attention, ease of speaking in public and ease of written communication. Stress resistance and ability to make decisions quickly are also important.

The OSH specialist can work on his own account, e.g. by setting up a company which offers advice, training and other services in the area of occupational health and safety.

Persons with the qualifications of an OSH specialist should be hired in the position of OSH specialist or chief OSH specialist. Criteria that should be met by candidates for these positions are defined in the regulation of the Council of Ministers dated 2 September 1997 on the occupational safety and hygiene services.

The employers who choose not to establish their own OSH services commission these duties to companies specializing in that field. Persons with the qualifications of an OSH specialist can run own businesses providing services

tied to the assurance of occupational safety and hygiene. This includes also services in the fields of training, measuring the work environment parameters (own laboratories), risk assessment in particular positions, etc.

### 3. Positions

**Table 1. Assignment of positions to the levels of professional qualifications**

Level of professional qualifications	Typical positions	COMMENTS
1	*)	
2	*)	
3	– OSH specialist	
4	– OSH specialist <sup>1)</sup> – chief OSH specialist <sup>1)</sup> – manager of a company providing consulting and advisory services in the field of OSH	Criteria for employment in line with the Regulation of the Council of Ministers dated 28 July 1998, on the general occupational safety and hygiene regulations.
5	*)	

\*) *Not identified in the research.*

### 4. Professional tasks

- T-1. Preparing assessments and analyses of OSH situation in the enterprise.
- T-2. Participation in the development of modernization and investment plans and in technical acceptance of premises and production equipment which influences the OSH conditions.
- T-3. Putting forward motions on OSH requirements tied to the applied technological processes, and to specific work position.
- T-4. Assessment of occupational risk, formulation of conclusions and recommendations on measures to be applied to assure employee's safety.
- T-5. Supervising and coordinating the work of employees of the OSH service.
- T-6. Supervising work tied to prevention and propagation of issues of OSH and ergonomics.
- T-7. Supervising the register of accidents and proper storage of OSH documentation.
- T-8. Supervision and systematic control of working conditions and of the adherence to OSH rules and regulations.

- T-9. Providing advisory services to the enterprise's management on the current laws on occupational safety and hygiene.
- T-10. Coordination of cooperation with bodies supervising working conditions: the National Labor Inspectorate, State Sanitation Inspection and Office of Technical Inspection; the trade unions, social labor inspection, health services etc.
- T-11. Participation in post-accident investigations.
- T-12. Engaging in cooperation with research and development entities on the issues of occupational safety and hygiene.
- T-13. Engaging in cooperation with the relevant organizational units or persons on the identification of training needs, and assuring appropriate level of OSH training.
- T-14. Supervising and development of internal orders, regulations and procedures on labor safety and hygiene; acceptance of detailed instructions.

## **5. Constituents of professional qualifications**

- Q-1. Providing advice on labor's legal protection.
- Q-2. Assessment of occupational risk tied to various positions.
- Q-3. Coordinating work of a team of people acting to promote occupational safety and hygiene.
- Q-4. Evaluating from the OSH standpoint modernization and investment plans and of technical acceptances of premises, equipment and workstations.
- Q-5. Auditing systems of occupational safety and hygiene.
- Q-6. Diagnosing educational needs, engaging in information and propagation activities.

## 6. Correlation between occupational tasks and constituents of professional qualifications

**Table 2. Correlation between occupational tasks and constituents of professional qualifications**

Occupational tasks	Constituents of professional qualifications					
	Q-1	Q-2	Q-3	Q-4	Q-5	Q-6
T-1	X	X				
T-2	X			X		
T-3	X			X		
T-4	X	X				
T-5			X			
T-6						X
T-7	X					
T-8	X	X			X	
T-9	X					
T-10	X		X	X		
T-11	X		X			
T-12				X		X
T-13						X
T-14	X				X	

## 7. Extra-professional qualifications

Table 3. Assignment of extra-professional qualifications to professional qualifications levels

Level of professional qualifications	Extra-professional qualifications
	<b>SKILLS</b>
<b>1</b>	*)
<b>2</b>	*)
<b>3</b>	<ul style="list-style-type: none"> <li>– Activates employees, provides positive motivation.</li> <li>– Reads technical documentation.</li> <li>– Uses databases and software, the Internet and e-mail</li> <li>– Discerns the fundamental rights and obligations of employers and employees.</li> <li>– Clearly and concisely formulates and presents opinions and proposals for solutions.</li> </ul>
<b>4</b>	<ul style="list-style-type: none"> <li>– Plans, evaluates and manages the work of a team.</li> <li>– Develops and presents information materials, using the computer and other visual means.</li> <li>– Uses qualitative and statistical analysis methods.</li> <li>– Allocates tasks on the basis of employees' competencies.</li> <li>– Conducts negotiations and applies proper communication rules.</li> </ul>
<b>5</b>	*)
	<b>KNOWLEDGE</b>
<b>1</b>	*)
<b>2</b>	*)
<b>3</b>	<ul style="list-style-type: none"> <li>– Organization of the production and technological process, organization of enterprise management.</li> <li>– Organization and competencies of enterprise structures.</li> <li>– Databases, software, communication with the use of Internet and e-mail.</li> <li>– Methods and tools of statistical research.</li> <li>– Development of statistical material.</li> <li>– Basics of technical drawings.</li> <li>– Adult psychology: needs, motivations, attitudes, talents, personality, temper, intellectual traits, behaviors etc.</li> <li>– Rules for cooperation in groups – methods for solving conflicts.</li> <li>– Rules and features of group functioning in work environment.</li> </ul>
<b>4</b>	<ul style="list-style-type: none"> <li>– Modern human resource management rules.</li> <li>– Setting tasks and assessing the possibilities for action.</li> <li>– Reports on research conducted by R&amp;D entities.</li> </ul>
<b>5</b>	*)
	<b>PSYCHOPHYSICAL FEATURES</b>
<b>1</b>	*)
<b>2</b>	*)
<b>3</b>	– Perceptiveness.

	<ul style="list-style-type: none"> <li>- Ability to concentrate attention.</li> <li>- Logical thinking.</li> <li>- Organizational skills.</li> <li>- Ability to cooperate.</li> <li>- Technical talents.</li> <li>- Good memory.</li> <li>- Spatial imagination.</li> <li>- Accuracy.</li> <li>- Persistence and patience.</li> <li>- Initiative.</li> <li>- Self-control.</li> </ul>
<b>4</b>	<ul style="list-style-type: none"> <li>- Imagination and creative thinking.</li> <li>- Ease of communication, verbal and written.</li> <li>- Management abilities.</li> <li>- Independence.</li> </ul>
<b>5</b>	*)

\*) *Not identified in the research.*

## **8. Specification of qualifications: general professional, occupational and specialist for the profession**

***NOTE: Qualifications on the higher level contain qualifications from lower levels***

### LEVEL 1

- *Not identified.*

### LEVEL 2

- *Not identified.*

### LEVEL 3

## **General professional qualifications**

### **SKILLS**

- Evaluates the organization of work processes and work stations from the standpoint of compliance with OSH requirements.
- Informs the employer on an ongoing basis of found occupational threats, informs of actions meant to remove these threats.
- Cooperates on the solving of OSH-related issues, important for the enterprise.

- Influences safety-promoting behaviors of employees.
- Uses databases and software, the Internet and e-mail.
- Uses professional publications, selects and disseminates appropriate materials which popularize the issues of OSH.
- Uses information on competitions, fairs or seminars organized by various institutions.
- Uses qualitative and statistical analysis methods.
- Establishes contacts, conducts discussions and interviews.
- Cooperates with the occupational medicine specialist on health prevention.
- Provides explanations during control, conducts official correspondence.
- Admonishes employees who do not apply OSH rules.

### **Knowledge**

- Regulations on occupational safety and hygiene.
- Ergonomic products, ergonomic working conditions, ergonomic evaluation of machinery and work stations.
- Forms and techniques for information.
- Information on publications and periodicals.
- Safety culture at the workplace.
- Management of registers and storage of documents.
- Rules for conducting discussions and interviews.
- Areas of OSH policy at the workplace.
- Role and duties of the OSH services.

### **Psychophysical features**

- Spatial imagination.
- Ability to cooperate.
- Emotional resistance.
- Ability to establish contacts with others.
- Persistence and patience.

## **Occupational qualifications**

### **Skills**

- Formulates preventive conclusions and recommendations for implementation, on the basis of analysis of labor law breaches (Q-1),
- Uses conclusions drawn from events, accidents and breakdowns for preventive actions (Q-3).
- Prepares documentation on the analysis of reasons and circumstances of occupational accidents (Q-1, Q-3).
- Supervises full and timely implementation of actions necessary to implement the orders and decisions of body supervising working conditions (Q-1, Q-3, Q-4).

- Recognizes accident threats tied to the work processes, uses effective methods to reduce or eliminate these threats, used by the employer (Q-1, Q-2, Q-5).
- Evaluates risk tied to threats associated with work processes and demonstrates methods to reduce that risk (Q-1, Q-2).
- Provides the employees information on existing threats, possibilities for protection by using personal protective equipment, security signals (Q-6).
- Determines the negative results of the use of non-ergonomic products, and staying in unhygienic conditions (Q-1, Q-2).
- Defines and interprets the reason for accident (Q-1, Q-3).
- Completes and properly stores documentation on occupational accidents and diseases (Q-1).
- Demonstrates ways to implement the orders and decisions of bodies supervising and controlling working conditions (National Labor Inspectorate, State Sanitation Inspection) (Q-1).
- Cooperates on the drafting of internal orders, regulations and procedures on labor safety and hygiene (Q-1, Q-5).
- Interprets the existing norms obligatory standards, which set forth the methods for measuring and determining the presence of harmful factors at the workplace, and establishing admissible limits for such factors, due to health protection (Q-1, Q-2).
- Analyses and interprets the results of measurements of the work environment (Q-1, Q-4).
- Cooperates with the State Sanitation Inspection and laboratories on the appropriate frequency of measurements (Q-1, Q-3, Q-4).
- Identifies factors which are harmful for health, burdensome and dangerous, as well as sources of these factors at the workplace, analyses and interprets the results of measurements of the work environment (Q-1, Q-2, Q-5).
- Identifies typical sources of psychological stress at the workplace (Q-1, Q-2, Q-5).
- Initiates the use of effective methods and preventive measures to secure against electric shocks (Q-1, Q-4).
- Assesses noise levels and proposes appropriate ways to limit it (Q-1, Q-4).
- Evaluates the status of lighting and demonstrates the appropriate methods and sources for lighting the premises and work stations (Q-1, Q-4).
- Puts forward requests on the use of effective ventilation, air conditioning and dust extraction (Q-1, Q-4).
- Proposes the installation of effective security and signaling equipment (Q-1, Q-4).
- Identifies materials, factors and processes which pose a threat of fire or explosion in the work environment (Q-1, Q-2, Q-5).
- Selects personal protective equipment (Q-1, Q-2, Q-5).

- Moves for disciplinary consequences for the breach of OSH regulations (Q-1, Q-3).
- Does not allow to work persons who are not allowed to work in a specific position, or whose behavior or manner of performing work creates a threat for the life or health (Q-1, Q-2, Q-5).
- Organizes forms to propagate OSH issues (competitions, polls etc.). (Q-6).

### **Knowledge**

- Employees' rights and obligations in the area of OSH (Q-1).
- Obligations of the employer and managers in the area of OSH (Q-1, Q-2).
- Liability for breaching regulations on work protection (Q-1).
- Special protection of the work of women and under-age employees, basic rules of that protection (Q-1).
- Rules for supervision of working conditions, performed by state bodies and social organizations (Q-1, Q-3, Q-4).
- OSH documents which must be stored, duration of storage (Q-1).
- System for analyses and certification of products (Q-1, Q-4)
- Rules for ergonomic organization of work stations (Q-1, Q-4).
- Documentation tied to establishing circumstances and reasons of occupational accidents (Q-1).
- Recording results of analyses, storing these records (Q-1).
- Assessment of occupational risk (Q-1, Q-2).
- Methods for estimating occupational risk (Q-1, Q-2).
- Limiting risk with operational measures (Q-1, Q-2).
- Limiting occupational risk by applying personal protective equipment (Q-1, Q-2).
- Materials, factors and processes which pose a threat of fire or explosion in the work environment (Q-1, Q-2 Q-4, Q-5).
- Measurement and interpretation of factors present in the work environment (Q-1, Q-4).
- Audible, infra- and ultrasound noise – sources, methods for limiting (Q-1, Q-4).
- Mechanical vibrations, their sources in the work environment, influence on the human organism (Q-1, Q-2 Q-4, Q-5).
- Influence of industrial aerosols on the human body (Q-1, Q-2 Q-4, Q-5)
- Occupational exposure to harmful chemical substances (Q-1, Q-2 Q-4, Q-5).
- Thermal burdens at the workplace (Q-1, Q-2 Q-4, Q-5).
- Lighting of rooms and workstations (Q-1, Q-2 Q-4, Q-5).
- Use of ventilation and dust extraction equipment (Q-1, Q-4).
- OSH requirements on machines and other technical equipment and installations (Q-1, Q-4).
- Requirements regarding security against electric shocks (Q-1, Q-4).

- Biological threats, their presence and influence on the human organism (Q-1, Q-2 Q-4, Q-5).
- Electromagnetic fields and waves (Q-1, Q-2, Q-4, Q-5).
- Threats associated with electric equipment and static electricity (Q-1, Q-2 Q-4, Q-5).
- Threats tied to in-company transport and storage (Q-1, Q-2 Q-4, Q-5).
- Types of mechanical threats, factors causing such threats, their reduction (Q-1, Q-2 Q-4, Q-5).
- Occupational accidents, legal qualification of the events, specimen of accident protocol, accident card and deadlines for drawing up documentation (Q-1, Q-3).
- Benefits paid on occupational accidents and diseases, and on work in harmful and burdensome conditions (Q-1, Q-3).
- Establishing circumstances and reasons for occupational accidents, procedure in the case of occupational diseases (Q-1).
- Formal and legal requirements regarding the accident protocol and accident chart (Q-1, Q-3).
- OSH requirements for buildings, work premises, hygienic and sanitary equipment and related areas (Q-1, Q-4).
- Rules for drafting OSH instructions (Q-1, Q-5).
- Security signs and signals (Q-1, Q-5).
- Detailed OSH training (Q-6).

### **Psychophysical features**

- Ability to convince others (Q-1, Q-2, Q-3, Q-4, Q-6).
- Ability to proceed properly with others (Q-1, Q-2, Q-3, Q-4, Q-6).

## **Specialist qualifications**

- *Not identified.*

### LEVEL 4

## **General professional qualifications**

### **Skills**

- Follows the latest developments in OSH and proposes their application at the workplace (e.g. solutions applied in other enterprises).
- Conducts negotiations and applies proper communication rules.
- Informs the employees on their rights, obligations, the scope of influence of legal and repressive means of the supervision and control bodies.

- Initiates the introduction of technical, organizational and ergonomics solutions which improve the OSH conditions.
- Provides advice on solving problems tied to OSH.
- Formulates and presents opinions and proposals for solutions.
- Forecasts the influence of changes introduced at the individual phases of production process on the level of safety.
- Advises in conflicts tied to occupational safety and hygiene.
- Manages career paths.
- Plans and evaluates the work of a team.
- Allocates tasks on the basis of employees' competencies.
- Uses the results of research and publications of R&D units.
- Cooperates with services responsible for training and with organizers of training, specifying the requirements as to contents, methods and organization.
- Openly expresses opinions and beliefs, resists attempts of manipulation and pressure.

### **Knowledge**

- Conventions of the ILO and directives of the European Union.
- Reports of the Supreme Chamber of Control (NIK) and National Labor Inspectorate, regular evaluation of OSH situation.
- Quality management standards.
- System for assessing compliance of machinery and personal/collective protective equipment with the requirements for safety and health protection in Poland.
- Reports on research conducted by R&D entities.
- Tasks and capacities for actions of the R&D units.
- Control methods, main tools (checklists, assessment sheets, questionnaires, interviews etc.).

### **Psychophysical features**

- Ease of communication, verbal and written.
- Self-reliance.
- Independence.
- Management talents.
- Ability to make quick and apt decisions.

## **Occupational qualifications**

### **Skills**

- Interprets results of periodic assessment of the OSH status (Q-1, Q-4).
- Forecasts the influence of changes introduced at the individual phases of production process on the level of OSH (Q-1, Q-2).

- Follows and implements legislative developments tied to OSH issues (Q-1, Q-5).
- Recognizes accident threats tied to the work processes, uses effective methods to reduce or eliminate these threats, used by the employer (Q-1, Q-2, Q-5).
- Implements legislative, general and sector regulations which determine OSH requirements for the implemented technological process and current work organization (Q-1, Q-5).
- Consults technical and organizational solutions that can influence working conditions and work safety (Q-1, Q-3, Q-4).
- Determines the necessary technical and organizational actions that support the improvement of OSH conditions (Q-1, Q-2).
- Provides advice on compliance with OSH requirements on investment projects, organization of the production process and purchases of production means and personal protective equipment (Q-1).
- Analyzes and evaluates the individual phases of investment, construction and technological processes from the standpoint of compliance with regulations and norms of OSH and ergonomics (Q-1, Q-2, Q-4).
- Analyzes the reasons for occupational accidents and diseases (Q-1, Q-2).
- Evaluates the economic outcomes of threats, including occupational accidents and diseases (Q-1, Q-2).
- Evaluates buildings and premises, and related areas, from the standpoint of compliance with OSH requirements (Q-1, Q-4).
- Evaluates machines, other technical equipment and installations from the standpoint of compliance with OSH requirements (Q-1, Q-4).
- Uses physiological, biomechanical, anthropometric and similar information to evaluate and correct work stations (Q-1, Q-2, Q-5).
- Evaluates the orders, regulations and instructions prepared at the workplace from the standpoint of their compliance with OSH rules and regulations (Q-1, Q-5).
- Evaluates the applied substances, materials and technological processes from the standpoint of their negative influence on health and accident threats (Q-1, Q-4).
- Conducts post-accident investigation, using appropriate procedures and techniques (Q-1, Q-3).
- Organizes actions meant to evaluate risk (Q-1, Q-2).
- Plans the making of decisions on the basis of risk acceptance criteria (Q-1, Q-2).
- Holds the operation of machinery and technical equipment in case of direct threat to the life or health of employees (Q-1, Q-2, Q-5).
- Cares for the training, practical experience and the current level of OSH knowledge in the team of OSH service employees (Q-3).
- Moves for rewards or penalties for employees, for the compliance or non-compliance with OSH rules (Q-1, Q-2, Q-5).
- Identifies and formulates training needs (Q-6).

## **Knowledge**

- Verdicts of the Supreme Court on cases tied to accidents (Q-1, Q-3).
- Limiting risk by encouraging employees to safe behaviors (Q-1, Q-2).
- Rights and tasks of bodies supervising working conditions, rules for cooperation with these bodies (Q-1, Q-3, Q-4).
- Legal and economic rules for OSH management (Q-1, Q-2).
- Economic results of occupational accidents (Q-1, Q-2).
- Sources of stress at the workplace and its physiological consequences (Q-1, Q-2, Q-4, Q-5).
- Learning and teaching of adults (Q-6).
- Assessment of the effectiveness of delivered training, evaluation (Q-6).

## **Psychophysical features**

- Courage (Q-1, Q-2).
- Empathy (Q-1, Q-3 Q-4, Q-6).

## **Specialist qualifications**

- *Not identified.*

## **LEVEL 5**

- *Not identified.*

# 4.

## Qualifications standard for the profession

### COMPUTER GRAPHIC ARTIST (311801)

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## **1. Legal basis for performance of the profession<sup>4</sup>**

- The Law dated 5 July 2002 on the protection of certain services provided by electronic means, based on or including conditional access (Journal of Laws of 2002, no.126, item 1068).
- The act on copyright and related laws (Journal of Laws of 1994, no.24, item 83).
- Regulation of the Minister of Labor and Social Policy dated 1st December 1998, on issues of occupational safety and hygiene in workstations equipped with computer displays (Journal of Laws of 1998, no.148, item 973).
- Statement of the Minister of Culture and National Heritage dated 1 August 2000 on the publication of uniform text of the Act on copyright and related laws (Journal of Laws of 2000, no.80, item 904).

## **2. Synthetic description of profession**

The computer graphic artist can perform and supervise professional tasks performed with the use of computer techniques and software, commissioned by publishing houses and advertising agencies, and in particular:

- prepare for print books, press articles, advertising materials (leaflets, folders, posters, catalogues etc.);
- develop editorial concepts and external forms of publications and advertising materials;
- prepare graphic layouts of internet pages;
- use laser printers, scanners and equipment controlling the work of printing machines.

The specific features of the profession require the computer graphic artist to have such features as creative thinking and imagination, as well as accuracy, patience, good hand-eye coordination, and artistic talents. Work of the computer graphic artist is performed in contact with other persons. A typical professional situation is work in an editorial team. Therefore, it is important that such person has an ease of establishing contacts, is complaisant and able to work in a group.

Most computer graphic artists work in small advertising and publishing companies. Very often their working hours are flexible.

It is very important to know the latest graphic techniques, have a knowledge of the market, and to cooperate with persons organizing the production process. If the computer graphic artist has own company, or works in an executive position, managerial skills are a must. The person must also be creative and motivated to constantly develop skills and qualifications (getting to know the latest graphic editing software). Knowledge about photography is also helpful.

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<sup>4</sup> Legal status at 1 June 2003.

In the profession of computer graphic artist, particular attention should be devoted to knowledge of copyright laws, tied to the use of existing graphics to develop own projects. The graphic must remember to obtain permission to use the designs produced by other authors. In many cases, graphic designs are treated as creative works subject to copyright laws.

The profession of computer graphic artist is tied to health hazards resulting from prolonged work at the computer.

The variety of positions in the area of computer graphic results from the number of persons working in graphic design companies or studios. Depending on the number of employed computer graphic artists, the scope of their occupational tasks varies. In the case of small number of employees, the scope of tasks per one employee is larger. In large companies, individual computer graphic artists have narrow scopes of duties, such as using software for halftone graphics, vectorial graphics, preparing materials for imagesetting, etc.

The division of positions is based also on the type of services offered by the company: it can entail production of designs for the needs of the company, designing for the internet, designing book covers or 3D graphics.

One of the most frequently found positions in this profession is the graphic designer. The tasks of graphic designer include:

- preparing computer visualization of design elements;
- receiving the materials and guidelines for the project;
- agreeing with the DTP operator all details and technical possibilities for executing the project;
- preparing various versions of the design for presentation to the customer.

Another, very frequent position is the DTP (Desktop Publishing) operator, who prepares materials for printing (e.g. for screen printing) in electronic form. The basic duties of the DTP operator include:

- adapting the design to technical specifications and printing method;
- prepare files for the image setters or the printing house;
- delivering the typeset document in agreed form;
- storing the typeset works on the computer hard drive and on CD-ROMs.

The DTP operator may contact the sub-contractors in order to agree details of the commissioned printing works.

### 3. Positions

**Table 1. Assignment of positions to the levels of professional qualifications**

Level of professional qualifications	Typical positions	COMMENTS
1	*)	
2	*)	
3	– Graphic designer – DTP operator – Website designer – 3D graphics designer	
4	– Technical editor – Art director	
5	*)	

\*) *Not identified in the research.*

### 4. Professional tasks

- T-1. Handling software used to create vectorial graphics.
- T-2. Digital processing of halftone images.
- T-3. Design of graphic compositions used in advertising and publication.
- T-4. Scanning transparencies (slides), photographs, negatives, handling a digital camera.
- T-5. Selecting the right font format and size, interlines, styles, tab sizes, setting of titles and subtitles during computer typesetting.
- T-6. Performing computer typesetting of publication (setting the format, appropriate placement of photographs, illustrations, vectorial graphics, resizing and makeup of text on pages). Printing proofs for adjustment of contents and typesetting.
- T-7. Preparing color matchprints (positives and negatives) on plates with the use of four basic colors or special colors.
- T-8. Handling software used to create 3D graphics.
- T-9. Preparing and optimizing graphic designs to be used on the Internet. Designing graphic and multimedia presentations.
- T-10. Organize own workstation.
- T-11. Receive orders from customers.
- T-12. Organize the work of a team of graphic designers, working on a joint project.
- T-13. Engage in cooperation within the team of graphic artists, to execute a joint project.
- T-14. Print matchprints used for color correction.

## 5. Constituents of professional qualifications

- Q-1. Preparing vectorial graphics for advertising and publishing purposes.
- Q-2. Preparing halftone graphics for advertising and publishing purposes.
- Q-3. Design of graphic compositions used in advertising and publication.
- Q-4. Preparing color prints in four basic colors or special colors.
- Q-5. Preparing graphics for use on websites.
- Q-6. Using specialist software to create 3D graphics.
- Q-7. Designing graphic and multimedia presentations.

## 6. Correlation between occupational tasks and constituents of professional qualifications

**Table 2. Correlation between occupational tasks and constituents of professional qualifications**

Occupational tasks	Constituents of professional qualifications						
	Q-1	Q-2	Q-3	Q-4	Q-5	Q-6	Q-7
<b>T-1</b>	X		X		X		X
<b>T-2</b>		X	X		X		X
<b>T-3</b>			X				
<b>T-4</b>		X	X		X	X	X
<b>T-5</b>	X	X	X				
<b>T-6</b>			X				
<b>T-7</b>	X	X	X	X	X	X	X
<b>T-8</b>				X			
<b>T-9</b>						X	X
<b>T-10</b>					X		X
<b>T-11</b>							X
<b>T-12</b>	X	X	X	X	X	X	X
<b>T-13</b>	X	X	X	X	X	X	X
<b>T-14</b>	X	X	X		X	X	X
<b>T-15</b>	X	X	X		X	X	X
<b>T-16</b>	X	X		X			

## 7. Extra-professional qualifications

Table 3. Assignment of extra-professional qualifications to professional qualifications levels

Level of professional qualifications	Extra-professional qualifications
	<b>SKILLS</b>
1	*)
2	– Adheres to the rules of occupational safety and hygiene, and of environment protection.
3	– Organizes the workstation taking into account the rules of ergonomics and current regulations on occupational safety and hygiene. – Cooperates with other members of the team. – Shares experience with other team members.
4	– Prepares the schedule for team's work. – Monitors the course of team's work. – Values work of team members.
5	*)
	<b>KNOWLEDGE</b>
1	*)
2	– Rules and regulations of ergonomics and on occupational safety and hygiene. – Regulations on environment protection.
3	– Managing team's work. – Rules and techniques for teamwork.
4	– Planning of work. – Control and monitoring of the performed works. – Methods for work valuation.
5	*)
	<b>PSYCHOPHYSICAL FEATURES</b>
1	– Good eyesight.
2	– Dexterity. – Artistic talents. – Good sight and movement coordination. – Perceptiveness.
3	– Ability to concentrate attention. – Ability to split attention. – Self-control ability. – Ability to cooperate. – Being vigilant to errors. – Logical thinking ability. – Good memory.
4	– Management talents.

	<ul style="list-style-type: none"> <li>- Persuasive ability.</li> <li>- Demonstrating initiative.</li> <li>- Entrepreneurship.</li> <li>- Creativity.</li> <li>- Self-reliance.</li> <li>- Organizational skills.</li> </ul>
<b>5</b>	*)

\*) *Not identified in the research.*

## **8. Specification of qualifications: general professional, vocational and specialist for the profession**

*NOTE: Qualifications on the higher level contain qualifications from lower levels*

### LEVEL 1

- *Not identified.*

### LEVEL 2

- *Not identified.*

### LEVEL 3

## **General professional qualifications**

### **Skills**

- Applies techniques for importing and exporting drawings.
- Enters and edits text objects.
- Edits curves, including Bézier curves.
- Edits graphic objects.
- Edits groups of objects.
- Selects colors.
- Applies painting and drawing techniques.
- Scans the image for further digital processing.
- Prepares material for printing on an appropriate printer.
- Prints publications to file, e.g. in the ps., pdf. or prn. format
- Prints presentation materials to demonstrate project options to the customer.
- Imports and exports graphics.
- Stores the prepared files in a separate folder on computer drive.

- Copies the stored data to CD-R disks.
- Updates company site on the Internet.
- Uses electronic mail.

### **Knowledge**

- Knowledge of software used to create vectorial and bitmap graphics.
- Construction of a vectorial image.
- Knowledge of color models.
- Construction of a bitmap image.
- Screen resolution.
- Popular formats for recording images.
- Basic knowledge on halftones.
- Text editing rules.
- Types of fonts.
- Possibilities of formatting templates, paragraphs.
- Using other software in conjunction.
- Types of printers.
- Printing techniques.
- Storage methods.

### **Psychophysical features**

- Responsibility.
- Ease of switching from one activity to another.
- Ability to solve problems.
- Resistance to stress.
- Ability to adapt to variable conditions.
- Perceptiveness.
- Distinguishing of colors.
- Ability to cope with monotonous, long-lasting work.
- Accuracy.
- Persistence and patience.

## Occupational qualifications

### Skills

- Selects appropriate colors to obtain the right climate of the composition, stress the contents of text, maintain the clarity and cohesion of artistic presentation (Q-3).
- Agrees with the DTP operator the details for project execution (Q-1, Q-2, Q-3).
- Adapts the design to technical specifications and printing method (Q-4).
- Sets printing parameters - format, typesetting marks, color separations (Q-4).
- Selects sparing combinations of various effects and capacities of software tools (Q-3).
- Edits images using available program tools (Q-2, Q-3, Q-5).
- Employs image transformation techniques (Q-1, Q-2, Q-3, Q-5).
- Uses tools to modify graphic objects (Q-1, Q-2, Q-3, Q-5).
- Uses bitmap graphics to enrich the composition and artistic expression of the design (Q-3).
- Fills the colors and “bleeds” the vectorial materials (Q-1).
- Fills objects (Q-1, Q-2).
- Modifies contours of objects (Q-1).
- Uses additional software windows to work on drawings (Q-1, Q-2, Q-3).
- Creates vectorial depth of field, applying shape, color and light to the objects (Q-1, Q-3).
- Selects fragments of the image, using available selection methods (Q-1, Q-2, Q-3, Q-5).
- Performs adjustments and modifications of the image to improve its quality, using the available software tools (Q-2, Q-3).
- Uses special effects to modify objects (Q-1, Q-2, Q-3, Q-5).
- Uses layers’ channels to work on halftone objects (Q-2, Q-3, Q-5).
- Uses masks to separate and protect image area during color correction, filtering and using various graphic effects on the remaining part of the image (Q-2, Q-3, Q-5).
- Uses layers to introduce changes into the image (Q-2, Q-3, Q-5).
- Uses color channels (Q-2, Q-3, Q-5).
- Changes the resolution and sizes of halftone objects (Q-2, Q-3, Q-5).
- Sets parameters on the resolution, color and saturation of the scanned materials (Q-2, Q-3, Q-5).
- Uses a digital camera (Q-2, Q-3).
- Selects appropriate recording format for the scanned image (Q-2, Q-3, Q-5).
- Selects appropriate fonts to the nature of the publication (Q-3, Q-5).
- Sets the paragraph parameters (Q-3, Q-5).
- Creates and uses styles during the typesetting process (Q-3).

- Modifies (formats) the text, using styles, bullet points, tabulators (Q-3).
- Enters decorative fonts to documents (Q-1, Q-2, Q-3, Q-5).
- Changes page layouts (Q-3, Q-5).
- Formats and processes text of publication (Q-3).
- Sets the page parameters (Q-3).
- Inserts tables of contents, indexes, page breaks (Q-3).
- Creates styles of publications (Q-3).
- Places graphic elements on page according to description or provided sample (Q-3, Q-5).
- Creates tables and frames (Q-3).
- Designs lettering signs, lettering compositions, logos, signs, information posters etc. (Q-3).
- Designs, using vectorial and bitmap graphics, postcards, book covers, posters, advertising posters, calendars, billboards, folders etc. (Q-1, Q-2, Q-3).
- Keeps the graphic presentation in line with the project's subject matter and composition logics (Q-3).
- Selects color using color guides (e.g. PANTONE) (Q-3).
- Applies rules for the construction of text, letter sets, letter compositions (Q-3).
- Composes graphic forms matching the contents of the realized project (Q-1, Q-2, Q-3).
- Finds faults and errors in printed reproductions (Q-3, Q-4).
- Sets appropriate resolution and ruling of files for imagesetting (Q-3, Q-4).
- Prepares materials for imagesetting, including color separations (Q-3, Q-4).
- Prepares final output files for the imagesetters or printers (or for screen printing, thermal printing, stamp printing etc.) (Q-3, Q-4).
- Prepares matchprints for final color approval before printing the materials (Q-3, Q-4).
- Prints materials with color separation (Q-3, Q-4).
- Draws graphic objects in presentation (Q-7).
- Prepares objects for the purpose of presentation under another software (Q-7).
- Uses software templates to create presentations (Q-7).
- Adds and formats text in presentation (Q-7).
- Optimizes graphics and images for use on websites (Q-5).
- Prepares animated images in the .gif format for use on websites (Q-5).
- Prepares electronic versions of presentation to demonstrate project options to the customer (Q-7).
- Adds cliparts from library during the preparation of presentation (Q-7).
- Uses tables and charts in the presentation (Q-7).
- Designs slideshows (Q-7).

## **Knowledge**

- Publication formats (Q-3).
- Rules for formatting text (Q-3).
- Graphics and text blocks (Q-3).
- Preparing tables (Q-3).
- Image size and its parameters (Q-1, Q-2, Q-3, Q-5).
- Software tools to create vectorial graphics (Q-1, Q-3).
- Use of light to change the way objects look (Q-6).
- Tonal correction (Q-2, Q-3, Q-5).
- Color differences depending on computer displays (Q-1, Q-2, Q-4).
- Balance and correction of colors (Q-2, Q-3).
- „Bleeding” of halftone images (Q-4).
- Rules for optimizing images (Q-5).
- Rules for using spaces between letters, words, lines (Q-3).
- Perspective – its types applied in graphic design (Q-1, Q-2, Q-3).
- Types and capabilities of scanners and digital cameras (Q-2, Q-3).
- Optical resolution and image size (Q-1, Q-2, Q-3, Q-5).
- Rules for selecting scanning resolution (Q-1, Q-2, Q-5).
- Color separation (Q-4).
- Rules for preparing color separations (Q-4).
- Preparing materials for imagesetting (Q-4).
- Knowledge of printing technologies used in various publishing forms (Q-4).
- Recognition of color changes (Q-2, Q-3).
- Equipment used for color tests (Q-4).
- Multimedia presentations (Q-7).
- File formats for multimedia, presentations, video and electronic documents (Q-7).
- Mechanisms for cooperation between various applications (e.g. OLE) (Q-7).
- Requirements for graphics used at websites (Q-5).
- Image formats used at websites (Q-5, Q-7).
- Animation of images in .gif format (Q-5).
- Plotter – knowledge of software (Q-1, Q-2, Q-3, Q-4).

## **Psychophysical features**

- Imagination and creative thinking (Q-1, Q-2, Q-3, Q-5, Q-6).

## **Specialist qualifications**

### **Skills**

- Makes 3D objects (Q-6).
- Navigates in the 3D space, using six predefined views (Q-6).
- Uses transformations during animation of 3D objects (Q-6).

- Modifies 3D objects to change their structure and look (Q-6).
- Animates 3D objects (Q-6).
- Edits the grid in order to achieve high precision and good rendition of details in 3D objects (Q-6).
- Edits shapes used to create 3D geometry (Q-6).
- Uses light to illuminate scenery (Q-6).
- Uses cameras for film sequences (Q-6).
- Uses materials for designing 3D objects to obtain their appropriate look (Q-6).
- Uses maps to make the scenes look realistic (Q-6).
- Works with presentations on the Intranet and Internet (Q-7).
- Adds sound and movies to presentations (Q-7).

### **Knowledge**

- Types of printers (Q-4).
- Calibration process – matching the colors on computer display to colors of printed materials (ICC profiles) (Q-4).
- Types of proofs / matchprints (Q-4).
- Rules for modeling of 3D objects (Q-6).
- Rules for animation of 3D objects (Q-6).

### **Psychophysical features**

- Spatial imagination (Q-6).

## LEVEL 4

### **General professional qualifications**

#### **Skills**

- Allocates work to graphic artists according to their qualifications and skills.

#### **Knowledge**

- Types of composition.
- Colors, their influence and mutual relations.

#### **Psychophysical features**

- Ease of communication, oral and written.
- Efficiency and effectiveness.
- Readiness to introduce changes
- Organizational skills.
- Ability to treat others properly.
- Reliability.
- Honesty.

- Involvement.
- Ability to establish contacts with others.
- Emotional resistance.

## **Occupational qualifications**

### **Skills**

- Receives project materials and guidelines (Q-3).
- Determines the quality of originals received for work (Q-3).
- Determines the format of publication or advertising material (Q-3).
- Determines with the customer the colors of the interior, cover and type of paper (Q-3).
- Sets the deadlines for performance of work, specifically the acceptance of color matchprints and proofs (Q-3).
- Determines the technique for printing the publication or advertising material (Q-3).
- Contacts subcontractors on matters tied to commissioned works: sets the deadline for performing the service, delivering the typeset document in agreed form, acceptance of performed work (Q-3).
- Presents publication possibilities to the customer (Q-3).
- Determines price for the project according to price list and required work input (Q-3).
- Prepares a complete calculation and communicates its results to the customer (or the sales representative servicing the given customer) and to the employee in charge of invoicing customers (Q-3).
- Manages work records (customer, type of work, deadline) (Q-3).

### **Knowledge**

- Knowledge of printing materials and prices (Q-3).
- Rules for proper composition of graphic designs (Q-3).

### **Psychophysical features**

- *Not identified.*

## Specialist qualifications

### Skills

- Design of graphics with the use of composition rules (Q-3).

### Knowledge

- Elements of perception psychology (Q-3).
- Evaluation of source images (Q-3).
- Color management systems (Q-3).
- Selected issues of economy.
- Technology of printing materials (Q-3).
- Selected issues of civil and copyright law.
- Technical editing (Q-3).
- Rules for preparing publications (Q-3).

### Psychophysical features

- Artistic talents.
- Ability to make quick and pertinent decisions.

## LEVEL 5

- *Not identified.*

# 5.

## Qualifications standard for the profession

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## 1. Legal basis for performance of the profession<sup>1</sup>

- The act dated 7 July 1994 the Construction Law (Journal of Laws no. 106 of 2000, item 1126).
- The act dated 18 July 2001, the Water Management Law (Journal of Laws no.115, item 1229).
- The act dated 4 February 1994, the Geology and Mining Law (Journal of Laws no.27, item 96).
- The law of 3 February 1995, on the protection of agriculture and forest lands (Journal of Laws no.16, item 78).
- The act dated 27 March 2003, on spatial development (Journal of Laws no.60, item 717).
- The act dated 27th April 2001 the Environment Protection law (Journal of Laws no.62, item 627).
- The act dated 28 April 2001 on waste management (Journal of Laws no.62, item 628).
- The act dated 24 August 1991 on fire prevention and protection (Journal of Laws no.81, item 351).
- The act dated 20 June 1997, the Road and Traffic Code (Journal of Laws no.98, item 602).
- The act dated 16 October 2001, on the protection of nature (Journal of Laws no. 99 of 2001, item 1079).
- Regulation of the Minister of Internal Affairs and Administration dated 29 December 1999 on the special rules for organizing the national rescue and fire extinguishing system (Journal of Laws no.111, item 1311).
- Regulation of the Minister of Internal Affairs and Administration dated 15 January 1999, setting detailed requirements on fire prevention water supply, technical, chemical, environmental or medical rescue services, and on conditions that have to be met by fire access roads (Journal of Laws of 1999, no. 7 item 64).
- Regulation of the Minister of Environment Protection, Natural Resources and Forestry dated 14 July 1998, stating the types of investment projects which are particularly harmful for the environment and human health or that can cause the environment to deteriorate, and the requirements that must be complied by the evaluation of environmental influence of such projects (Journal of Laws no.93, item 589).
- Regulation of the Minister of Environment Protection, Natural Resources and Forestry dated 14 July 1998, on the requirements that have to be complied by the evaluation of environmental influence of projects which are not considered to be particularly harmful for the environment and human health or that can cause a deterioration of the environment, premises and works changing water relations (Journal of Laws no.93, item 590).

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<sup>1</sup> Legal status at 1 June 2003 .

- Regulation of the Minister of Environment Protection, Natural Resources and Forestry dated 9 March 1995 on the requirements that should be met by a forecast of the influence of the local zoning plan on the natural environment (Journal of Laws no.29, item 150).
- Regulation of the Infrastructure Minister dated 19 November 2001 on types of construction objects where it is necessary to establish the inspector supervising the construction on behalf of the investor (Journal of Laws no.138, item 1554).
- Regulation of the Infrastructure Minister dated 13 December 2001, on documents used for planning works and required for determining the land use permit (Journal of Laws of 2002, no. 1 item 12).
- Promulgation of the President of the Council of Ministers dated 26 July 2001 on publication of the Concept for spatial development of the country (*Monitor Polski* no.26, item 432).

## **2. Synthetic description of profession**

The landscape architecture technician sets up, maintains (cares for plants and landscape elements and equipment), and performs auxiliary works during the design of landscape architecture objects<sup>2</sup>. Organizes and supervises work tied to setting up and maintenance of landscape architecture elements in rural and urban areas.

The landscape architecture technician performs professional tasks tied to:

- assistance in the preparation of design documentation for landscape architecture elements;
- the handling of computer software used to prepare project documentation;
- geodesy works tied to setting up the lawns, setting flower beds for perennial plants, planting trees and shrubs;
- use of geodesy and design documentation;
- setting up the landscape architecture elements according to prepared designs;
- cultivation and fertilization of soil,
- selection of plants to be planted,
- maintenance of the landscape architecture elements;
- maintenance of tourist trails in national and landscape parks;
- land reclamation works in the landscape architecture elements.

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<sup>2</sup> Landscape architecture objects are, according to the law of 16 October 2001 on nature protection (Journal of Laws no. 99 item 1079), green areas understood as areas located in cities and compact-settlement villages used for recreation, leisure, health, teaching, educational and aesthetical purposes; and in particular: parks, green squares and lawns, boulevards and promenades, kindergartens, botanical and zoological gardens, ethnographical gardens, horticultural and agricultural fairs and expositions, historical gardens, cemeteries (active and historical), pet cemeteries, historical settlements, burial mounds, historical fortifications, house gardens and green areas in residential settlements.

In the profession of landscape architecture technician, there exist positions tied to:

- auxiliary works during the design of landscape architecture elements;
- setting up the landscape architecture elements;
- maintenance of the landscape architecture elements.

The landscape architecture technician can engage in business activity in his/her own account.

The landscape architecture technician, as part of the professional tasks, should consciously shape the surroundings, using natural elements of the landscape, and constructed elements. The shaping of space where plants are one of the most important elements is expressed in the form resulting from merging the business and individual human needs with the conditions of the natural environment.

The landscape architecture technician should be a good observer. This is due to the fact that the dominant element of green areas are plants – alive, constantly changing their forms and governed by laws of nature. The knowledge of inter-dependencies between the soil, plant and climate allows the technician to properly set up and care for the entrusted areas. Having in-depth and versatile theoretical and practical knowledge, the technician creates appropriate habitat for plants and – by applying rational cultivation procedures – influences the growth, development and decorative properties of plants.

The landscape architecture technician should be a professional, able to forecast changes occurring in the natural and artificial plant assemblies, and consciously develop design concepts, his own and of others.

The landscape architecture technicians can work independently or in teams. Technicians managing teams should possess organizational and managerial talents. Features such as conscientiousness, accuracy, time-keeping, precision and responsibility are very important issues in this profession. Lack of these features can cause serious losses in the plants, which in consequence will reduce the employer's trust in the contractor. Managers of companies are financially responsible for the performed work and entrusted funds, designated for the purchase and use of machines, equipment and plants.

It is extremely important to be able to foresee the outcomes of performed work, as the result of landscape architecture design are fully visible usually only after a long period of the plants' vegetation. Ability to convince is necessary during discussions with customers, to assure that the executed project has highly decorative, natural and utilitarian properties.

The work of landscape architecture technician often takes place in adverse weather conditions – extreme temperatures, draught or high humidity. The working hours can be longer during high season. The landscape architecture technician should be prepared to carry heavy objects and to work at heights. The above listed conditions require significant physical fitness and good health condition.

### 3. Positions

**Table 1. Assignment of positions to the levels of professional qualifications**

Level of professional qualifications	Typical positions	COMMENTS
1	*)	
2	*)	
3	<ul style="list-style-type: none"> <li>– Specialist on setting up landscape architecture elements</li> <li>– Specialist on the maintenance of landscape architecture elements</li> </ul>	
4	*)	
5	*)	

\*) *Not identified in the research.*

### 4. Professional tasks

- T-1. Participation in the preparation of design documentation for landscape architecture elements.
- T-2. Performing works tied to putting the landscape design into practice, in field.
- T-3. Performing works tied to setting up the landscape architecture elements.
- T-4. Performing works tied to maintenance of landscape architecture elements.
- T-5. Performing reclamation works in the landscape architecture elements.
- T-6. Planning and organizing work tied to setting up and maintenance of landscape architecture elements.
- T-7. Managing work of subordinate employees during the setting up and maintenance of landscape architecture elements.
- T-8. Controlling and assessing the quality of performed work tied to setting up and maintenance of landscape architecture elements.
- T-9. Engaging in cooperation with customers, contractors and relevant institutions in the area of setting up and maintenance of landscape architecture elements.
- T-10. Managing business activity in the area of setting up and maintenance of landscape architecture elements.

## 5. Constituents of professional qualifications

- Q-1. Setting up landscape architecture elements
- Q-2. Maintenance of landscape architecture elements
- Q-3. Participation in the design of landscape architecture elements

## 6. Correlation between occupational tasks and constituents of professional qualifications

Table 2. Correlation between occupational tasks and constituents of professional qualifications

Occupational tasks	Constituents of professional qualifications		
	Q-1	Q-2	Q-3
T-1			X
T-2	X		X
T-3	X	X	X
T-4	X	X	
T-5	X	X	X
T-6	X	X	X
T-7	X	X	X
T-8	X	X	X
T-9	X	X	X
T-10	X	X	X

## 7. Extra-professional qualifications

Table 3. Assignment of extra-professional qualifications to professional qualifications levels

Level of professional qualifications	Extra-professional qualifications
<b>SKILLS</b>	
1	*)
2	– Organizes the workstation.
3	<ul style="list-style-type: none"> <li>– Uses knowledge derived from various sources.</li> <li>– Applies regulations regarding business activity.</li> <li>– Prepares documents tied to business activity.</li> <li>– Supervises and controls the performed work.</li> <li>– Accepts and evaluates the quality of performed work.</li> <li>– Performs self-control of performed work, removes faults.</li> <li>– Provides pre-medical assistance.</li> </ul>
4	<ul style="list-style-type: none"> <li>– Prepares business plan of enterprise.</li> <li>– Determines the enterprise's marketing strategy.</li> <li>– Prepares a cost estimate for the planned scope of work.</li> <li>– Prepares the financial plan of enterprise.</li> <li>– Manager the work of subordinate employees.</li> <li>– Conducts negotiations and concludes contracts with customers and contractors.</li> </ul>
5	*)
<b>KNOWLEDGE</b>	
1	*)
2	– Rules for organization of work
3	<ul style="list-style-type: none"> <li>– Regulations regarding business activity.</li> <li>– Documentation of business activity.</li> <li>– Supervision and control of performed work.</li> <li>– Rules of self-control.</li> <li>– Rules and methods for providing pre-medical aid.</li> </ul>
4	<ul style="list-style-type: none"> <li>– Business plan.</li> <li>– Marketing plan.</li> <li>– Developing cost estimates.</li> <li>– Basics of human resource management.</li> <li>– Rules for drawing contracts.</li> </ul>
5	*)
<b>PSYCHOPHYSICAL FEATURES</b>	
1	*)
2	<ul style="list-style-type: none"> <li>– Good visual memory.</li> <li>– Ready to work under varying weather conditions.</li> </ul>
3	<ul style="list-style-type: none"> <li>– Perceptiveness.</li> <li>– Spatial imagination.</li> <li>– Ability to split attention.</li> <li>– Ability to concentrate attention.</li> </ul>

	<ul style="list-style-type: none"> <li>– Ability to cooperate.</li> <li>– Accuracy.</li> <li>– Patience.</li> <li>– Persistence.</li> <li>– Passion for order and tidiness.</li> </ul>
<b>4</b>	<ul style="list-style-type: none"> <li>– Creativity.</li> <li>– Ability to make quick and apt decisions.</li> </ul>
<b>5</b>	*)

\*) *Not identified in the research.*

## **8. Specification of qualifications: general professional, occupational and specialist for the profession**

**NOTE:** *Qualifications on the higher level contain qualifications from lower levels*

### LEVEL 1

– *Not identified.*

### LEVEL 2

– *Not identified.*

### LEVEL 3

## **General professional qualifications**

### **Skills**

- Applies rules for setting up landscape architecture elements
- Applies rules for maintenance of landscape architecture elements
- Performs financial settlement of performed works.
- Applies regulations of environment protection and sustainable growth to the setting up and maintenance of landscape architecture elements.
- Applies provisions of the construction law during the setting up of landscape architecture elements.
- Applies regulations of occupational safety and hygiene during the setting up and maintenance of landscape architecture elements.

### **Knowledge**

- Rules for setting up landscape architecture elements

- Rules for maintenance of landscape architecture elements
- Calculation of costs of performed works.
- Regulations on protection of the environment and nature.
- The Construction Law.
- Regulations on occupational safety and hygiene.

### **Psychophysical features**

- Good eyesight.
- Stereoscopic vision.
- Distinguishing of colors.
- Artistic talents.
- Technical talents.
- Balance.
- Dexterity.
- Resistance to allergens.
- No fear of open spaces.
- Good physical condition and fitness.
- Persistence and patience.

## **Occupational qualifications**

### **Skills**

- Collects background materials to develop project documentation (Q-3).
- Analyzes location plans, maps of soil and agricultural activities and other technical designs tied to the setting up landscape architecture elements (Q-1, Q-2).
- Prepares engineering drawings and other design elements of landscape architecture objects (Q-3).
- Uses computer software which assists in the design of landscape architecture objects (Q-3).
- Draws up lists of necessary materials and makes take-off measurements of the works (Q-3).
- Prepares cost estimates for the work to be performed (Q-3)
- Draws schedule of work tied to setting up of landscape architecture elements(Q-1).
- Takes inventory of landscape architecture elements, together with a list of trees, shrubs and all other plants (Q-1, Q-2).
- Performs geodesy measurements related to the execution of configuration design (Q-1, Q-3).
- Secures the plants and soil at a construction site (Q-1, Q-2).
- Selects machinery and equipment to be used for works tied to setting up and maintenance of landscape architecture elements (Q-1, Q-2).

- Performs soil works required to shape the area according to the landscaping design (Q-1, Q-2).
- Designs the location of garden paths and locations of landscaping elements, according to the landscaping design (Q-1, Q-2).
- Builds the garden paths and landscaping elements, according to the landscaping design (Q-1, Q-2).
- Sets up elements of tourism infrastructure in national and landscape parks (pathways, steps, road signs, picnic and camping sites, etc). (Q-1, Q-2).
- Controls the quality of used materials, correctness of performed work, situation of occupational safety and hygiene (Q-1, Q-2).
- Applies cultivation procedures, according to the landscaping design (Q-1, Q-2).
- Determines locations for setting up lawns, flower beds, planting climbing plants and trees, according to the landscaping design (Q-1, Q-2).
- Sets up various grassy surfaces and areas covered by climbing plants (Q-1, Q-2).
- Sets up flower beds (Q-1, Q-2).
- Plants trees and decorative shrubs, including hedges (Q-1, Q-2).
- Controls the quality of plants and other gardening supplies, as well as the appropriateness of performed works (Q-1, Q-2).
- Controls the proper care for plants in the course of construction works (Q-2).
- Prepares landscape architecture elements for acceptance (tidies and checks the elements) (Q-1, Q-2).
- Performs procedures tied to maintenance of premises and objects during the warranty period (Q-2).
- Draws schedules of care and maintenance works, tied to the maintenance of various landscape architecture elements (Q-2).
- Performs seasonal care procedures tied to maintenance of landscape architecture elements, including care for lawns, flower beds, climbing plants, trees and shrubs, including preventive cuts up to the ladder height (Q-2).
- Selects trees and shrubs for sanitation cutting, and dry (dead) trees and shrubs for removal (Q-2).
- Conducts land reclamation works on damaged areas, including the replacement of dead or damaged plants, and reclamation of soil (Q-2).
- Applies protective procedures tied to disease and pest control (Q-2).
- Selects plants, vessels and materials to make plant decorations (Q-1, Q-2).
- Conducts ongoing and major renovations of garden paths and other elements of landscape architecture equipment (Q-2).
- Performs maintenance procedures on machinery and equipment used for setting up and maintenance of landscape architecture elements (Q-1, Q-2).
- Applies safe for the environment methods, means and tools for the protection and fertilizing of plants; and safe means used for the repair and

- renovation of machinery and equipment used for setting up and maintenance of landscape architecture elements (Q-1, Q-2).
- Properly secures the location of works (according to rules on occupational safety and hygiene) and tidies the location of performing work after completing each stage (Q-1, Q-2).
- Knows the rules for cooperation with representatives of other sectors, cooperating at the location of building landscape architecture elements (Q-1, Q-2).

### **Knowledge**

- Types of landscape architecture elements (Q-1, Q-2).
- Basic rules for the setting up and maintenance of landscape architecture elements (Q-1, Q-2).
- Technical documentation tied to setting up and maintenance of landscape architecture elements (Q-3).
- Basics of designing landscape architecture elements (Q-3).
- Basics of engineering drawings, including computer techniques (Q-3).
- Elements of geodesy (Q-1, Q-2).
- Basics of construction (Q-1, Q-2).
- Basics of soil science (Q-1, Q-2).
- Biology and physiology of plants (Q-1, Q-2).
- Decorative plants and trees, including basics of fito-sociology (Q-1, Q-2).
- Rules for selecting decorative plants used for landscaping design (Q-1, Q-2).
- Rules for taking inventory of landscape architecture premises, including the lists of plants (Q-1, Q-2).
- Methods for securing plants and soil at the construction site (Q-1, Q-2).
- Protection of decorative plants (Q-2).
- Basics of construction and earth works organization (Q-1, Q-2).
- Detailed rules for performing work tied to setting up of landscape architecture elements (Q-1, Q-2).
- Detailed rules for works tied to the care for plants and maintenance of roads, paths and other elements of landscape architecture equipment (Q-2).
- Rules for making take-off measurements and preparing cost estimates (Q-3).
- Rules for selecting machines and equipment for the construction and maintenance of landscape architecture elements (Q-1, Q-2).
- Types, reasons for and results of degradation of landscape architecture elements in urban and other areas (Q-1, Q-2).

### **Psychophysical features**

- *Not identified.*

## **Specialist qualifications**

- *Not identified.*

### **LEVEL 4**

## **General professional qualifications**

### **Skills**

- Uses the services of institutions and organizations tied to landscape architecture.

### **Knowledge**

- Institutions and organizations in the area of landscape architecture.

### **Psychophysical features**

- *Not identified.*

## **Occupational qualifications**

### **Skills**

- Provides consulting and guidance on the setting up and maintenance of landscape architecture elements (Q-1, Q-2).

### **Knowledge**

- Specialist consulting services on the setting up and maintenance of landscape architecture elements (Q-1, Q-2).

### **Psychophysical features**

- *Not identified.*

## **Specialist qualifications**

- *Not identified.*

### **LEVEL 5**

- *Not identified.*

## **6.**

### **Qualifications standard for the profession**

#### **FIREFIGHTER (515101)**

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## 1. Legal basis for performance of the profession<sup>3</sup>

- The act dated 24 August 1991, on fire prevention and protection (uniform text, Journal of Laws no.147, item 1229 of 2002, as amended)
- The act dated 24 August 1991, on State Fire Service (uniform text, Journal of Laws no.147, item 1230 of 2002, as amended)
- The act dated 18 April 2002 on state of natural disaster (Journal of Laws no.62, item 558, as amended).
- The act dated 20 June 1997, the Road and Traffic Code (Journal of Laws no.58, item 515, as amended).
- Regulation of the Minister of Internal Affairs and Administration dated 29 December 1999 on the special rules for organizing the national rescue and fire extinguishing system (Journal of Laws no.111, item 1311, as amended).
- Regulation of the Minister of Internal Affairs and Administration dated 8 December 1998, on the requirements on professional qualifications, physical and mental abilities of persons working in fire prevention and protection units, as well as the professional qualifications of other persons, performing activities in the area of fire prevention and protection (Journal of Laws no.159, item 1050, as amended).
- Regulation of the Minister of Internal Affairs and Administration dated 31 July 2001, on the special rules for management of and cooperation between fire prevention and protection units, participating in rescue action (Journal of Laws no.82, item 895).
- Regulation of the Council of Ministers dated 4 July 1992, on the scope and manner for enforcement of rights by the person leading the rescue action (Journal of Laws no.54, item 259).
- Regulation of the Minister of Internal Affairs and Administration dated 8 April 1999, on detailed rules for the organization of regional and district headquarters of the State Fire Service (Journal of Laws no.38, item 375, as amended).
- Regulation of the Minister of Internal Affairs and Administration dated 19 September 2001 on the ceremony for taking oath by the firefighters of the State Fire Service (Journal of Laws no.114, item 1227).
- Regulation of the Minister of Internal Affairs and Administration dated 31 March 2003, on the uniforms of firefighters of the State Fire Service (Journal of Laws no.71, item 650).
- Regulation of the Minister of Internal Affairs and Administration dated 25 November 1997, on the types and specimens of ID documents of firefighters of the State Fire Service, bodies authorized to issue these documents, and on detailed rules for making entries in these documents (Journal of Laws no.154, item 1014, as amended).

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<sup>3</sup> Legal status at 1 June 2003

- Regulation of the Minister of Internal Affairs and Administration dated 19 September 2001 on the work certificates and service opinions for the firefighters of the State Fire Service (Journal of Laws no.114, item 1228).
- Regulation of the Minister of Internal Affairs and Administration dated 16 June 1997, on the professional qualifications that should be possessed by the firefighters of the State Fire Service working in specific positions, as well as the ranks for particular positions (Journal of Laws no.70, item 446, as amended).
- Regulation of the Minister of Internal Affairs and Administration dated 19 April 2002, on detailed rules for vocational training authorizing the firefighters to obtain the first commissioned officer rank in State Fire Service (Journal of Laws no.44, item 422).
- Regulation of the Minister of Internal Affairs and Administration dated 29 January 1998 on the scope, detailed rules, manner and frequency for conducting periodic assessment of physical and mental fitness for service of the firefighters of the State Fire Service (Journal of Laws no.22, item 117, as amended).
- Regulation of the Minister of Internal Affairs and Administration dated 17 November 1997, on the detailed safety and hygiene conditions for the firefighters, and the scope of these conditions in the case of other persons participating in rescue actions, exercises or training (Journal of Laws no.145, item 979).
- Regulation of the Minister of Internal Affairs and Administration dated 11 December 1997, on the long-lasting rescue actions, detailed norms, rules and conditions for receiving board during such actions, as well as exercises or training by the firefighters of the State Fire Service or other persons participating in such actions or training; as well as cases in which financial equivalent is paid instead of providing board, the rules for calculation and payment of the equivalent (Journal of Laws no.160, item 1098).
- Regulation of the Minister of Internal Affairs and Administration dated 6 June 1997 on detailed rules for issuing periodic opinions on the firefighters of the State Fire Service, as well as the manner for lodging and processing of appeals against such opinions (Journal of Laws no.63, item 402, as amended).
- Regulation of the Minister of Internal Affairs and Administration dated 29 August 1997, on detailed rules for granting awards to firefighters of the State Fire Service (Journal of Laws no.109, item 711).
- Regulation of the Minister of Internal Affairs and Administration dated 21 November 1997, on the detailed organization of disciplinary committees, and detailed rules for enforcement of disciplinary penalties towards firefighters of the State Fire Service (Journal of Laws no.144, item 968).
- Regulation of the Minister of Internal Affairs and Administration dated 16 March 1998, on detailed rules for delegating firefighters of the State Fire

- Service to perform tasks outside the units of the State Fire Service, their rights and obligations (Journal of Laws no.38, item 223, as amended).
- Regulation of the Minister of National Defense and Internal Affairs dated 29 July 1992, on the firefighters of the State Fire Service delegated to work in the Military Fire Prevention Service (Journal of Laws no.58, item 289).
  - Regulation of the Minister of National Defense dated 24 August 1992, on the rules and manner for performance of tasks by the Military Fire Prevention Service (Journal of Laws no.66, item 334).
  - Regulation of the Council of Ministers dated 13 October 1992, on detailed rules for dissolving organizational units of fire prevention, and the cancellation of fire services officer posts (Journal of Laws no.78, item 395).
  - Regulation of the Minister of Internal Affairs and Administration dated 21 July 1997 on the work hours and schedule of the firefighters of the State Fire Service (Journal of Laws no.82, item 530, as amended).
  - Regulation of the Minister of Internal Affairs and Administration dated 22 July 1997, on detailed rules for granting leaves to firefighters of the State Fire Service (Journal of Laws no.94, item 576).
  - Regulation of the Council of Ministers dated 4 July 1992, on the scope and manner for enforcement of rights by the person leading the rescue action (Journal of Laws no.54, item 259).
  - Regulation of the President of the Council of Ministers dated 8 January 2001, on the positions in the Ministry of Internal Affairs and Administration at which delegated officers of the Police, State Fire Service and the Border Guard can be employed (Journal of Laws no.1, item 3).
  - Regulation of the Council of Ministers dated 10 November 1995, on the positions in units subordinate to the Ministry of Internal Affairs, at which the employees are state officials (Journal of Laws no.130, item 631).
  - Regulation of the Minister of Internal Affairs and Administration dated 25 February 2003, on the physical culture goals implemented in the Police, the State Fire Service, Border Guard and the Government Security Bureau (Journal of Laws no.50, item 433).
  - Regulation of the Minister of Internal Affairs and Administration dated 21 March 2003, on types of institutions to which a firefighter of the State Fire Service can be delegated, and on financial benefits allocated in case of delegating the firefighter to school, additional training or higher studies (Journal of Laws no 61, item 546).
  - Regulation of the Minister of Internal Affairs and Administration dated 4 May 1999, on directing road traffic (Journal of Laws no.48, item 481, as amended).

## 2. Synthetic description of profession

The firefighter performs tasks tied to rescuing threatened persons, animals and assets, and endangered environment, with relation to:

- fighting fires and other natural disasters;
- technical rescue actions;
- chemical and environmental rescue actions;
- medical rescue actions.

The profession of firefighter is performed by functionaries of the corps of privates and non-commissioned officers of the State Fire Service, who perform typical and characteristic professional tasks in the allocated positions.

The firefighter performs professional tasks in the region of danger or direct rescue actions, under conditions of threats to the life, health, property and assets, in order to liquidate or remove effects of the event.

The firefighter acts according to procedures, tactics, regulations and instructions, performing the following functions: recognizing the situation at the location of rescue action, securing the location, setting up and using rescue equipment and devices, performing rescue actions.

During a rescue action, both the privates and non-commissioned officers perform identical professional tasks, sometimes covering the same knowledge and skills, but varied according to the scope of responsibility.

The firefighter works in the rescue and fire extinguishing units of the State Fire Service, as well as in other units of fire protection and prevention, at positions designated for privates and non-commissioned officers, focused on rescue actions. The firefighter is also prepared to perform organizational and managerial tasks within the smallest tactical units - the troop and patrol.

The performance of the firefighter profession is associated, in a marginal way, with the management of administration and quartermaster matters.

The quality of tasks performed by the firefighter depends on the compliance with specific health requirements, possession of psychophysical features, communication skills, constant maintenance of physical fitness and participation in vocational and continuous training, and self-learning.

### 3. Positions

**Table 1. Assignment of positions to the levels of professional qualifications**

Level of professional qualifications	Typical positions	COMMENTS
<b>1</b>	*)	All positions designated for firefighters (privates and non-commissioned officers) are listed in the Regulation of the Minister of Internal Affairs and Administration dated 16 June 1997, on the professional qualifications that should be possessed by the firefighters of the State Fire Service working in specific positions, as well as the ranks for particular positions (Journal of Laws no. 70, item 446, as amended).
<b>2</b>	<ul style="list-style-type: none"> <li>– Apprentice</li> <li>– Junior rescuer</li> <li>– Junior technician</li> <li>– Junior rescuer – driver</li> <li>– Special equipment operator</li> <li>– Dispatcher</li> <li>– Senior rescuer</li> <li>– Senior rescuer – driver</li> <li>– Senior technician</li> <li>– Rescuer – driver</li> <li>– Technician</li> <li>– Rescuer</li> <li>– Senior dispatcher</li> <li>– Specialist rescuer</li> <li>– Senior special equipment operator</li> <li>– Patrol leader</li> <li>– Assistant to fireman on duty</li> </ul>	
<b>3</b>	*)	
<b>4</b>	*)	
<b>5</b>	*)	

\*) *Not identified in the research.*

### 4. Professional tasks

- T-1. Application of methods for rescuing threatened persons, animals and assets, and endangered environment.
- T-2. Reconnaissance at the rescue post.
- T-3. Conducting rescue actions and activities, taking into account their specific nature, in cases of: fires, traffic accidents and catastrophes, construction catastrophes, natural disasters, breakdowns and threats caused by hazardous materials.
- T-4. Fitting and service of fire extinguishing and rescue equipment, including work at heights.
- T-5. Appropriate securing of the rescue action location.
- T-6. Providing pre-medical assistance to the injured at the location of the event.
- T-7. Maintenance of the technical equipment, repairing simple failures.

- T-8. Use of communication equipment.
- T-9. Organizing safe location for own work.
- T-10. Organizing safe location for work of colleagues.
- T-11. Organizing and managing the actions of the troop/patrol in the zone of direct rescue actions.
- T-12. Organizing within the troop/patrol actions tied to rescuing people, animals, assets and environment.
- T-13. Performance of administrative tasks tied to personnel, logistics and financial issues.
- T-14. Supervising the effectiveness of rescue actions within troop/patrol, maintaining safe conditions for the rescue actions.

## **5. Constituents of professional qualifications**

- Q-1. Managing fire extinguishing activities.
- Q-2. Managing technical rescue activities.
- Q-3. Managing activities of chemical and environmental rescue.
- Q-4. Managing medical rescue activities.
- Q-5. Assuring personnel and logistic support for rescue actions.
- Q-6. Coordination of rescue actions on the intervention level.

## 6. Correlation between occupational tasks and constituents of professional qualifications

Table 2. Correlation between occupational tasks and constituents of professional qualifications

Professional tasks	Constituents of professional qualifications					
	Q-1	Q-2	Q-3	Q-4	Q-5	Q-6
T-1	X	X	X	X	X	X
T-2	X	X	X	X		X
T-3	X	X	X	X		X
T-4	X	X	X	X	X	X
T-5	X	X	X	X	X	X
T-6				X	X	X
T-7					X	
T-8	X	X	X	X	X	X
T-9	X	X	X	X	X	X
T-10	X	X	X	X	X	X
T-11	X	X	X			X
T-12	X	X	X	X		X
T-13					X	X
T-14	X	X	X	X		X

## 7. Extra-professional qualifications

Table 3. Assignment of extra-professional qualifications to professional qualifications levels

Level of professional qualifications	Extra-professional qualifications
<b>SKILLS</b>	
<b>1</b>	*)
<b>2</b>	<ul style="list-style-type: none"> <li>– Uses dielectric equipment.</li> <li>– Secures the location of event from outsider access.</li> <li>– Provides pre-medical assistance to the injured in accidents and catastrophes.</li> <li>– Handles and uses technical means for wire- and wireless communication.</li> <li>– Organizes and conducts rescue actions according to regulations on occupational safety and hygiene, fire prevention and protection and environment protection.</li> <li>– Prevents stressful situations.</li> <li>– Uses special and protective clothing, personal protective equipment.</li> <li>– Properly proceeds with evacuated and rescued persons.</li> <li>– Organizes the evacuation of large groups of persons, children, disabled persons.</li> <li>– Organizes evacuation of wild, farm and domestic animals.</li> <li>– Assesses the influence of stress situations on the functioning of people and animals.</li> </ul>
<b>3</b>	*)
<b>4</b>	*)
<b>5</b>	*)
<b>KNOWLEDGE</b>	
<b>1</b>	*)
<b>2</b>	<ul style="list-style-type: none"> <li>– Rules of professional ethics.</li> <li>– Rules and manners for securing electrical, gas, water and sewage installations in case of their breakdown.</li> <li>– Rules for securing damaged structures and buildings.</li> <li>– Rules for procedure in case of accidents where hazardous materials are involved.</li> <li>– Main load-carrying and construction elements of vehicles.</li> <li>– Rules for cutting off the power supply of electricity-powered vehicles.</li> <li>– Rules for procedure in case of accidents and catastrophes involving technical infrastructure.</li> <li>– Rules for providing pre-medical assistance.</li> <li>– Rules for bringing out and transporting injured persons.</li> <li>– Rules for communication and correspondence.</li> </ul>

	<ul style="list-style-type: none"> <li>– Types of special and protective clothing, personal protective equipment.</li> <li>– General knowledge on factors harmful to health, burdensome and dangerous factors at the workplace.</li> <li>– Typical occupational threats, factors harmful to health, burdensome and dangerous present at the workplace.</li> <li>– Regulations on occupational safety and hygiene.</li> <li>– Elements of psychology of social groups.</li> <li>– Selection of the evacuation location and securing premises from which people were evacuated.</li> <li>– Tasks of services participating in rescue actions during evacuation.</li> </ul>
<b>3</b>	*)
<b>4</b>	*)
<b>5</b>	*)
<b>PSYCHOPHYSICAL FEATURES</b>	
<b>1</b>	*)
<b>2</b>	<ul style="list-style-type: none"> <li>– Good memory.</li> <li>– Spatial imagination.</li> <li>– Logical thinking.</li> <li>– Persistence.</li> <li>– Patience.</li> <li>– Accuracy.</li> <li>– Self-reliance.</li> <li>– Ability to treat animals properly.</li> <li>– Initiative.</li> </ul>
<b>3</b>	*)
<b>4</b>	*)
<b>5</b>	*)

\*) *Not identified in the research.*

## **8. Specification of qualifications: general professional, occupational and specialist for the profession**

***NOTE: Qualifications on the higher level contain qualifications from lower levels***

### LEVEL 1

– *Not identified.*

## General professional qualifications

### Skills

- Rescues and evacuates people, animals and property from threatened premises and areas in various situations tied to fires, catastrophes, natural disasters and during other, local threats.
- Makes passages and access routes to the threatened or injured persons.
- Removes natural and artificial obstacles which hinder the delivery of assistance to threatened or injured persons.
- Determines the manners and methods for search and evacuation of threatened or injured persons.
- Evacuates people in situations of absolute necessity.
- Organizes and conducts reconnaissance during rescue actions.
- Recognizes threats which can be dangerous to the life, health, assets and environment.
- Evaluates the scope of event after the patrol arrives at the location of event as the first unit.
- Engages in rescue actions with relation to presence of local threats: biological, sanitary, radioactive, pyrotechnical, climatic.
- Takes measurements using measuring equipment: of temperature, content of oxygen and substances which create explosive mixtures, of toxic and radioactive contamination.
- Uses the technical and tactical or fire extinguishing and rescue equipment, in various situations and conditions.
- Proceeds according to the rules for using fire extinguishing equipment and devices.
- Handles equipment for chemical and environmental rescue, for technical and medical rescue.
- Directs road traffic during rescue actions.
- Engages in radio communication in line with current regulations.
- Delivers reports on the radio.
- Organizes work for his subordinates, according to regulations on occupational safety and hygiene, fire prevention and protection and environment protection.
- Designates a safe location for parking vehicles at the action location, under various conditions and threats.
- Allocates tasks for the troop/patrol and manages rescue actions according to existing rescue procedures and plans.

- Determines the places for cutting, stretching and lifting constructions and their elements, and the appropriate selection of rescue equipment.
- Adapts techniques of rescue actions and the equipment in line with threats present in the course of actions.
- Reads simple electric and hydraulic diagrams, diagrams of the rescue equipment.
- Cooperates with units of the National Fire Rescue and Extinguishing System, fire prevention and protection, and other services present at the rescue location.
- Controls the execution of orders by the troop/patrol from the standpoint of achievement of intended goal.
- Supervises the effectiveness of rescue actions within troop/patrol, from the standpoint of their safe conditions.
- Analyzes and monitors the time of work of rescuers in the troop/patrol in the zone of direct rescue actions, in particular the time of work in protective clothing and breathing equipment.

### **Knowledge**

- Rules and methods for rescuing threatened persons, animals and property.
- Rules for establishing contact with threatened and panicked persons.
- Elements and rules for recognizing threats: fire, chemical, environmental, construction and other local threats.
- Methods for assessing situation, forecasting the development of fire.
- Technical means for reconnaissance.
- Rules of procedure for utility and technical installations during fires, breakdowns or catastrophes.
- Specific nature of conducting rescue actions under particularly difficult conditions.
- Legal regulations, instructions, procedures for performing rescue and fire extinguishment actions.
- Basic rules and elements of fire-fighting tactics.
- Rules for behavior in zones of smokiness, thermal influences, explosions, threats tied to electricity, toxic, caustic and radioactive substances.
- The construction of breathing equipment.
- Types and equipment of fire-fighting vehicles.
- Rules for parking the zones of direct rescue activities and threatened areas.
- Rules for securing the conflagration site, locations of accidents and catastrophes.
- Procedures of medical rescue.
- Rules for handling, carrying and storage of equipment.

- Detailed safety and hygiene conditions for the firefighters, and the scope of these conditions in the case of other persons participating in rescue actions, exercises or training.
- Rules for organization of rescue actions and managing teams.
- Rules for decision-making and issuing battle commands.
- Basic concepts in the area of organizing rescue actions.
- Rights of the person leasing the rescue action.
- Issues of psychology tied to rescue actions.
- Powers in circumstances justified by state of absolute necessity.
- The right to abstain from rules of procedure generally accepted as safe.
- Basic types of tactical actions.
- Information contained in defense plans, regional and district rescue plans.
- Data contained in documentation of command posts.
- Rules for cooperation with other rescue services.
- Rules for supervision within the competencies to manage rescue actions of the troop/patrol.

### **Psychophysical features**

- Good eyesight.
- Distinguishing of colors.
- Night vision.
- Stereoscopic vision.
- Good hearing.
- Balance.
- Good sense of smell.
- Sight and movement coordination.
- Quick reflex.
- Perceptiveness.
- Manual dexterity.
- No fear of heights.
- Sense of touch.
- Ability to split attention.
- Ability to work quickly.
- Ease of switching from one activity to another.
- Resistance to prolonged effort.
- Emotional resistance.
- Self-control.
- Technical talents.
- Ability to obey others.
- Courage.
- Ready to work under adverse conditions.
- Ability to treat other people properly.

- Ability to make quick and apt decisions.
- Persuasive ability.
- Ability to work under conditions of social isolation.
- Ease of communication, verbal and written.
- Ability to establish contacts with others.
- Imagination and creative thinking.
- Ability to cooperate.

## **Occupational qualifications**

### **Skills**

- Performs actions tied to the localization and extinguishing of fires (Q-1).
- Interrupts the burn process, applies appropriate procedures to events associated with fires (Q-1).
- Administers foams and other extinguishing agents in various circumstances (Q-1).
- Evaluates the conservation of building materials and constructions during fire (Q-1).
- Undertakes appropriate actions in case of accidents and communication or building catastrophes, natural disasters, breakdowns, threats associated with technical equipment and dangerous materials (Q-2, Q-3).
- Airtightens and ventilates threatened zones and zones of direct rescue actions (Q-1, Q-3).
- Pumps, seals or walls in the locations of dangerous substances leakages (Q-2, Q-3).
- Puts up water curtains (Q-1, Q-3).
- Neutralizes hazardous substances (Q-2, Q-3).
- Puts up barriers on water courses or water basis threatened with the results of hazardous substances spillages (Q-2, Q-3).
- Collects hazardous substances from the water surface (Q-2, Q-3).
- Handles devices and equipment (electricity-powered, engine-powered, and pressure devices) used in technical rescue (Q-2, Q-3).
- Selects the extinguishing post and erects water stations, stations for hooking up water pipes, suction and pumping equipment, stands at extinguishing post (Q-10).
- Works at offensive and defensive extinguishing posts (Q-1).
- Analyses the effectiveness of operating extinguishing currents (Q-1).
- Uses water supply sources, including hydrant installations (Q-1).
- Uses, in circumstances of a fire, the automatic fire signal installation, permanent and semi-permanent fire extinguishing equipment (Q-1).
- Provides lighting for the location of rescue actions (Q-2, Q-5).

- Uses rescue sets of the State Fire Service - R1 and R2 (Q-4).
- Preserves and maintains personal weapons, special and protective clothing, rescue equipment (Q-5).
- Preserves and maintains the breathing equipment (Q-5).
- Preserves and maintains technical equipment (hydraulic and pneumatic equipment, saws) (Q-5).
- Maintains fire service vehicles and their equipment (Q-5).
- Removes basic failures in the work of pumps (Q-5).
- Coils fire hoses (Q-5).
- Marks and secures location of vehicle parking (Q-5).

### **Knowledge**

- Events occurring during the burning process and fire (Q-1).
- General rules for preventing environmental damages in the area of own operations (Q-3).
- Reasons for outbreaks and spreading of fires (Q-1).
- Rules for extinguishing fires of premises and areas (Q-1).
- Methods and possibilities for delivering water over large distances. Rules for selecting and building the water drawing point (Q-1).
- Construction materials, construction elements of buildings and structures. Their resistance to high temperatures (Q-1).
- Assessment of threats and procedure in case of leakages of hazardous substances (Q-3).
- Rules and manners for action during flood (Q-2).
- Basic parameters, types, construction and rules for using rescue equipment (Q-2).
- Mechanism for production of extinguishing foams depending on the used equipment (Q-1).
- Rules for using and assembling barriers that limit and remove the spillages of substances hazardous for the environment (Q-2, Q-3).
- Rules for conservation and maintenance of water and foam equipment and fittings (Q-5).
- Rules for drying fire hoses (Q-5).
- Rules for work in gas-tight protective clothing (Q-3).
- Rules for safe work of pneumatic and hydraulic equipment, and saws (Q-2).

### **Psychophysical features**

- *Not identified.*

## Specialist qualifications

### Skills

- Handles and maintains mechanical ladders, hoists and jacks, and moving platforms (Q-1, Q-5).
- Conducts rescue actions at heights, using equipment of specialist height rescue groups (Q-2, Q-6).
- Fills pressurized containers (Q-5).
- Handles and services power-generating equipment (Q-5).
- Drives motor boats and ships (Q-2, Q-3).
- Handles and services equipment for water and diving rescue (Q-2, Q-5).

### Knowledge

- Tactics of search and rescue actions (Q-1).
- Construction and handling of mechanical ladders, hoists and jacks, and moving platforms (Q-1, Q-5).
- Rules for rescue actions at heights, using equipment of specialist height rescue groups (Q-2).
- Security rules for the filling of pressurized tanks (Q-5).
- Rules for handling and servicing power-generating equipment (Q-5).
- Conditions for handling and use of motor boats and ships (Q-2, Q-3)
- Rules for handling and servicing equipment for water and diving rescue (Q-2, Q-5).
- Tactics of actions with the use of height rescue equipment, and water and diving equipment (Q-2).

### Psychophysical features

- *Not identified.*

#### LEVEL 3

- *Not identified.*

#### LEVEL 4

- *Not identified.*

#### LEVEL 5

- *Not identified.*