REFERENCING REPORT

REFERENCING THE POLISH QUALIFICATIONS FRAMEWORK FOR LIFELONG LEARNING TO THE EUROPEAN QUALIFICATIONS FRAMEWORK

HUMAN CAPITAL
NATIONAL COHESION STRATEGY

European Qualifications Framework

IBE kwalifikacje po europejsku

EUROPEAN UNION
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Warsaw 2013

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Summary

This report references the proposed Polish Qualifications Framework (PQF) to the European Qualifications Framework (EQF). It also presents the course and progress of work on other projects undertaken to modernise the national qualifications system in Poland.

The modernisation of the qualifications system in Poland was undertaken in response to national needs and will serve the implementation of policies for lifelong learning. Efforts to modernise the national qualifications system are part of a broader context of change taking place in Europe, related to implementing the Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for lifelong learning,* hereinafter referred to as the Recommendation of the EP on the EQF.

The reforms of general and vocational education introducing learning outcomes as the primary reference point for educational policies were carried out in Poland from 2008 to 2011. Major changes were introduced to higher education in 2011. In 2006, work began on developing the National Qualifications Framework for Higher Education, and in 2008, work was initiated on the Polish Qualifications Framework. Implementing the PQF will close the cycle of reforms taking place in the institutions of formal general, vocational and higher education, and at the same time provide the impetus for developing qualifications attained outside of those systems in Poland.

The Polish Qualifications Framework is intended to include a variety of qualifications awarded in Poland, enabling the different qualifications systems functioning in the country to be integrated. The PQF has been designed so that its levels correspond to those of the EQF. A unique approach used in Poland is the introduction of two categories of level descriptors, distinguished by their degree of detail – universal (first stage) and descriptors typical for different types of education (second stage).

The report presents the results of analyses that reliably demonstrate the congruence between the Polish Qualifications Framework levels and those of the European Qualifications Framework. This will enable qualifications awarded in Poland to be compared (referenced) to those awarded in various EU countries. Additionally, Polish qualifications should be clearer and easier to understand in other countries and qualifications systems in Europe.

The report shows that Poland meets the ten referencing criteria defined by the EQF Advisory Group. In its annexes, the report also includes information on terminology, tables of learning outcomes required for selected qualifications with their PQF level descriptors – universal and those typical for the different types of education, a detailed description of the Polish educational system, as well as the opinions of international experts.

The report is addressed to both Polish stakeholders engaged in this field, as well as to individuals and institutions from different countries that are involved in implementing the Recommendation of the European Parliament on the EQF. The report is also intended to be an official source of information on the direction of work undertaken to modernise the national qualifications system in Poland.

The Referencing Report was being prepared at the same time as the "Self-certification Report of the National Qualifications Framework for Higher Education". The Self-certification Report shows how the framework for higher education in Poland relates to the PQF and how it is referenced to the Qualifications Framework for the European Higher Education Area (QF EHEA) and the EQF.

* Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for lifelong learning (OJ C 111, 6.5.2008, pp. 1–7).

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Introduction

Intellectual capital is the main source of competitiveness in a global economy. Improving its quality is one of the conditions ensuring socio-economic growth. The strategic government documents[1] of Poland already adopted or under preparation point to the significant challenge of developing intellectual capital and implementing the strategy of "lifelong learning", with the qualifications framework as one of its main tools. Developing the national qualifications system, especially the implementation of the Polish Qualifications Framework (PQF) leading to the better integration of the entire system, will be one of the most important modernisation activities allowing Poland to achieve progress more quickly, and thus significantly contribute to the process of European integration.

Given the changing socio-economic situation in Poland, the need arose to consolidate all activities relating to qualifications into a clear and coherent system based on a Polish Qualifications Framework referenced to the European Qualifications Framework. This report presents the concept of implementing the Polish Qualifications Framework, as well as the process and progress in the work of developing new systemic solutions. The report is addressed primarily to individuals and institutions from different countries working to implement the Recommendation of the EP on the EQF. The report is also to be an official source of information and the basis for developing informational materials on the Polish Qualifications Framework, a key element in modernising the qualifications system in Poland.

In Poland, qualifications are awarded in the formal general, vocational and higher education systems,[2] as well as outside of these systems by different entities, institutions and organisations. Poland has a rich history of accomplishments and a lengthy tradition in the field of qualifications. For many years, the formal general, vocational and higher education systems have functioned under clearly defined principles of quality assurance for their qualifications, based on legal regulations.[3] Qualifications awarded outside of these systems operate on the basis of various laws or other regulations of differing status established by a variety of professional associations, organisations and training institutions.

A characteristic feature of the current qualifications system in Poland is the relatively high autonomy of its specific subsystems. Qualifications awarded in various sectors do not necessarily relate to each other, and it is also rare that a previously acquired qualification in one sector is taken into consideration when working towards a subsequent qualification in another sector. The recognition and certification of competencies acquired outside of formal education is inconsistent. There is no comprehensive and generally accessible source of information on available qualifications, such as where they can be acquired and the requirements and conditions to be met in order to attain a qualification. Such information is available by sector or directly from the institutions awarding qualifications.

The way the "qualifications market" currently functions in Poland affects attitudes towards lifelong learning. As a result, compared to other European Union countries, Poland has very high rates of enrolment (in schools and universities), and a very low proportion of adults continuing their learning after they finish school. In 2012, Eurostat showed Poland with one of the lowest "lifelong learning" indicators (participation in education and training)[4] in the European Union: slightly less than 5% of individuals between ages 25 and 64 updates or attains new competencies, whereas the EU average is nearly 9% – for example, 30% in Denmark and over 20% in Finland and Sweden.[5]

[1] "The National Reform Programme for the implementation of the Europa 2020" 2012/2013 Update – document approved by the Council of Ministers April 25, 2012; "National development strategy"; "Active society, competitive economy, effective state" – a document adopted by the Council of Ministers on September 25, 2012; and the "Mid-term Strategy of Human Capital Development" project of November 15, 2011 together with "Perspectives for Lifelong Learning" of February 4, 2011.

[2] Before the integrated qualifications system is implemented, "formal education" is understood as including all school levels and higher education institutions. After implementation of the new system based on the qualifications framework, "formal education" will include all cycles of education and training that lead directly to a qualification listed in the integrated qualifications register.

[3] Defined in detail in the School Education Act of 7 September 1991 (Journal of Laws 2004, No. 256 item 2572, with later amendments) and the Act of 27 July 2005 on the Law on higher education (Journal of Laws 2012, item 572 with later amendments).

[4] This indicator is used in Eurostat studies (e.g. Labour Force Survey).

[5] The analysis also shows that Polish employers are relatively less likely to actively invest in human capital (in relationship to their employees). See Szczucka, Turek, Worek (2012); Worek, Stec, et. al. (2011); Dębowski, Lis, Pogorzelski (2010).

Modernising the national qualifications system by implementing the Polish Qualifications Framework will lead to the greater integration of this system. In accordance with the Recommendation of the EP on the EQF, the fundamental premises for an integrated qualifications system in Poland are:

- the use of learning outcomes as the major point of reference for the solutions developed in the system,
- enabling learning outcomes to be validated regardless of how they are attained (through formal and non-formal education and informal learning),
- developing opportunities for credit accumulation and transfer,
- implementing quality assurance procedures according to accepted European standards.

Change is already taking place with the gradual implementation of adapted, existing solutions to a system based on learning outcomes. Since 2008, documents on the core curricula in Polish formal education are defining expected learning outcomes.[6] In 2011, a far-reaching modernisation of vocational education began, which aims to base the entire system to a greater extent than before on learning outcomes.[7] 2011 also saw the introduction to higher education of the requirement to formulate study programmes with the use of learning outcomes as described in the National Qualifications Framework for Higher Education.[8]

In 2012, changes were introduced to the journeyman's and master's examinations conducted by the examination boards of craft chambers.[9]

This report includes information about the state of advancement in the work on the integrated national qualifications system based on the Polish Qualification Framework as referenced to the European Qualifications Framework. At the same time that this referencing report was being prepared, a related document, the "Self-certification Report of the National Qualifications Framework for Higher Education" was also being written. The Self-Certification Report presents Poland's National Qualifications Framework for Higher Education (NQF HE), as well as its references to the Qualifications Framework for the European Higher Education Area (QF EHEA), to the PQF, and, by the same token, to the EQF.

The referencing report begins with a description of the development of the qualifications system in Poland (Sections 1, 2, 3). The first section depicts the current status of qualifications in Poland, the second presents the targeted changes to be achieved, while the third section describes the scenario of the activities to be implemented. Section 4 presents the discussion on the compliance with the ten referencing criteria set out by the EQF Advisory Group. The report is supplemented with the opinions of international experts and the following addenda:

- Annex 1 – the opinions of institutions responsible for quality assurance in Poland about the report.
- Annex 2 – a glossary of basic concepts and their definitions. These terms are used in the report according to their definitions in the glossary.
- Annex 3 – the involvement of social partners. This is presented in a separate annex to avoid repetition (all the activities described in the report were undertaken with the extensive involvement of social partners).
- Annex 4 – the process of assigning PQF levels to qualifications.
- Annex 5 – selected examples of the relationships between the requirements of a qualification and the PQF descriptors.
- Annex 6 – a more detailed description of the Polish formal general and vocational education system, which provides a broader context for understanding the solutions presented in the report (a more detailed description of the higher education system is included in the "Self-certification Report of the National Qualifications Framework for Higher Education").

[6] See the Resolution of the Minister of National Education of 23 December 2008 on the core curriculum for pre-school education and general education in individual types of schools (Journal of Laws 2009, No. 4, item 17). It has been replaced by the resolution of the Minister of National Education of 27 August 2012 on the core curriculum for pre-school child development and general education in specific types of schools (Journal of Laws, item 977).

[7] Act of 19 August 2011 r. on amendments to the law on the education system and certain other laws (Journal of Laws, No. 205, item 1206).

[8] Act of 18 March 2011 on amendments to the Act – Law on higher education, the law on academic degrees and titles and on degrees and titles in the arts and on amendments to certain other laws (Journal of Laws, No. 84, item 455 with later amendments).

[9] Art. 3 of the Act of 19 August 2011 on changes to the School Education Act and several other acts (Journal of Laws, No. 205, item 1206).

1 Qualifications in Poland – baseline status

This chapter presents the qualifications that can be attained in Poland against the backdrop of basic information on its formal education system.

1.1. The formal general and vocational education system[10]

In Poland, the formal general and vocational education system ("system oświaty")[11] is governed by a separate act.[12] This system includes pre-school,[13] primary,[14] lower secondary[15] and upper secondary schools,[16] continuing education institutions,[17] other types of educational institutions,[18] and colleges.[19] It should be noted that the Polish formal general and vocational education system also includes primary, lower secondary and upper secondary schools for adults.

At this time, pre-school education can include children who have turned three years of age during the calendar year in which the school year starts and lasts until the end of the school year of the calendar year in which the child turns six (as of 2014, this changes to five). A child at age five is required to complete pre-school preparation in a pre-school, a pre-school class organised in a primary school or in another form of pre-school education.

Traditionally, children in Poland begin attending primary school at age seven. As of the 2009–2010 school year, six year olds can also begin attending school – at the request of their parents and with the approval of the school principal. As of September 1, 2014, compulsory education will begin when a child turns six in the calendar year in which the school year starts. Compulsory education lasts until the completion of upper secondary school, but no longer than when a child reaches 18 years of age.

Primary school lasts six years. In the final year of primary education, all children[20] take a test,[21] which is a prerequisite for obtaining a certificate of completing primary school. A child cannot "fail" the test; its result is not recorded on the certificate and will not affect the pupil's admission to lower secondary school.

After completing primary school, all children begin three years of study in lower secondary school, which ends with an examination. Taking this exam is a prerequisite for being awarded a certificate of completing lower secondary school. The lower secondary school examination, as with the primary school test, cannot be "failed"; its results are not recorded on the certificate, but they are taken into consideration during recruitment to upper secondary schools.

A graduate of lower secondary school has already completed compulsory schooling, but is still required to continue his/her education until he/she reaches age 18. This requirement can be fulfilled

[10] The information presented in this section is further detailed in Annex 6.

[11] The Polish national education system is divided into "system oświaty" and higher education. Many documents on Polish education translate the term "system oświaty" into "education system". From the perspective of this report, such terminology lacks precision for two reasons: it does not refer directly to vocational education and may suggest that it also includes higher education. For this reason, "system oświaty" is being translated in this report as "the formal general and vocational education system".

[12] The School Education Act of 7 September 1991 (Journal of Laws 2004, No. 256, item 2572 with later amendments).

[13] Including integrated pre-school units, SEN pre-schools and other forms of pre-school education.

[14] Including special, integrated, with integrated or sports units, sports and competitive sports schools.

[15] Including the following types of schools: special, integrated, dual language, with integrated units, dual language units, sports units, preparing for employment, sports and competitive sports.

[16] These are: basic vocational schools, technical upper secondary schools, general upper secondary schools, including special, integrated, dual language schools, those with integrated units, dual language and sports units, sports, competitive sports, agricultural and forestry schools, as well as schools for the fine arts. Post-secondary non-tertiary schools are listed among the upper secondary schools. See art. 9, par. 1, item 3 d of the School Education Act of 7 September 1991 (Journal of Laws 2004, No. 256, item 2572 with later amendments).

[17] Including institutions for continuing education, practical education, supplemental education and vocational improvement centres.

[18] For example, various detention and care centres operated by the formal general and vocational education system, psychological and pedagogical centres, pedagogical libraries, continuing education centres for teachers.

[19] Including teacher training colleges, foreign language teacher training colleges and colleges of social work.

[20] Except for special education needs children and youth due to their intellectual disabilities.

[21] For more about tests and exams in primary, lower and upper secondary education, see Annex 6.

in an upper secondary school or by learning an occupation while employed (e.g. in a crafts trade[22]), and in special cases, also by attending a vocational qualification course.

Upper secondary schools (*szkoły ponadgimnazjalne*) are categorised as follows:

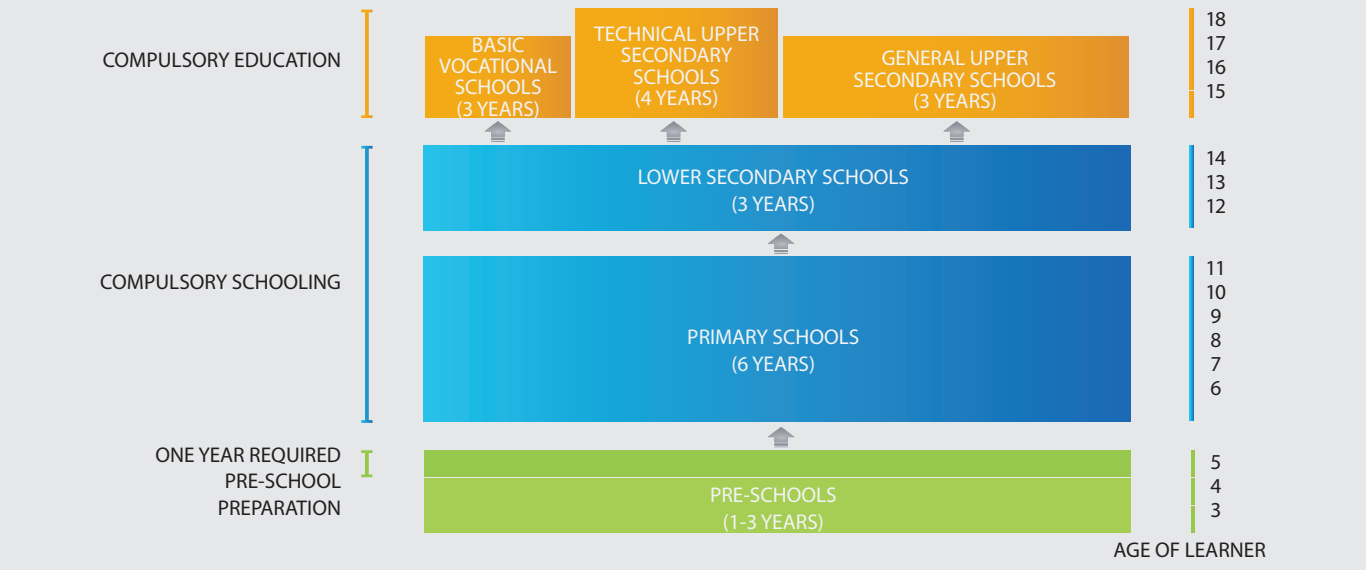
a) three-year basic vocational school (*zasadnicza szkoła zawodowa*), which offers the opportunity to obtain a vocational diploma[23] after having passed vocational examinations (for all qualifications distinguished in a given occupation)[24] as well as allowing further education to be attained, starting from the second year of a general upper secondary school for adults;
b) four-year technical upper secondary school (*technikum*) enabling the achievement of a vocational diploma after having passed vocational examinations (for all qualifications distinguished in a given occupation); pupils may also obtain a *matura* certificate after having passed the *matura* examinations;
c) three-year general upper secondary school (*liceum ogólnokształcące*), which provides the opportunity to obtain a *matura* certificate after having passed the *matura* examinations.

Additionally, the School Education Act includes post-secondary non-tertiary schools (*szkoły policealne*) among the upper secondary schools, which award vocational diplomas after vocational examinations are passed, and three-year special schools, which prepare SEN pupils for employment. These are targeted to pupils who are intellectually disabled to a moderate or severe degree and for pupils with multiple disabilities, where, upon completion, a certificate confirming readiness for employment can be attained.

A feature of Polish basic vocational and technical schools is the presence of a general education component implemented according to the requirements of the general education core curriculum. This allows the pupils of these schools to shape their educational career in a more flexible way. Graduates of technical schools are then eligible to apply to higher education institutions, whereas pupils from basic vocational schools can continue their education at year two in general upper secondary schools for adults and, in the future, also become eligible to study further at higher education institutions (permeability principle).

The Polish formal general and vocational education system includes pre-school, schools and centres for children and youth (Figure 1) and a network of institutions for adults (Figure 2).

Figure 1. Diagram of the formal general and vocational education system – children and youth (the system after implementation of reforms)



Source: IBE.

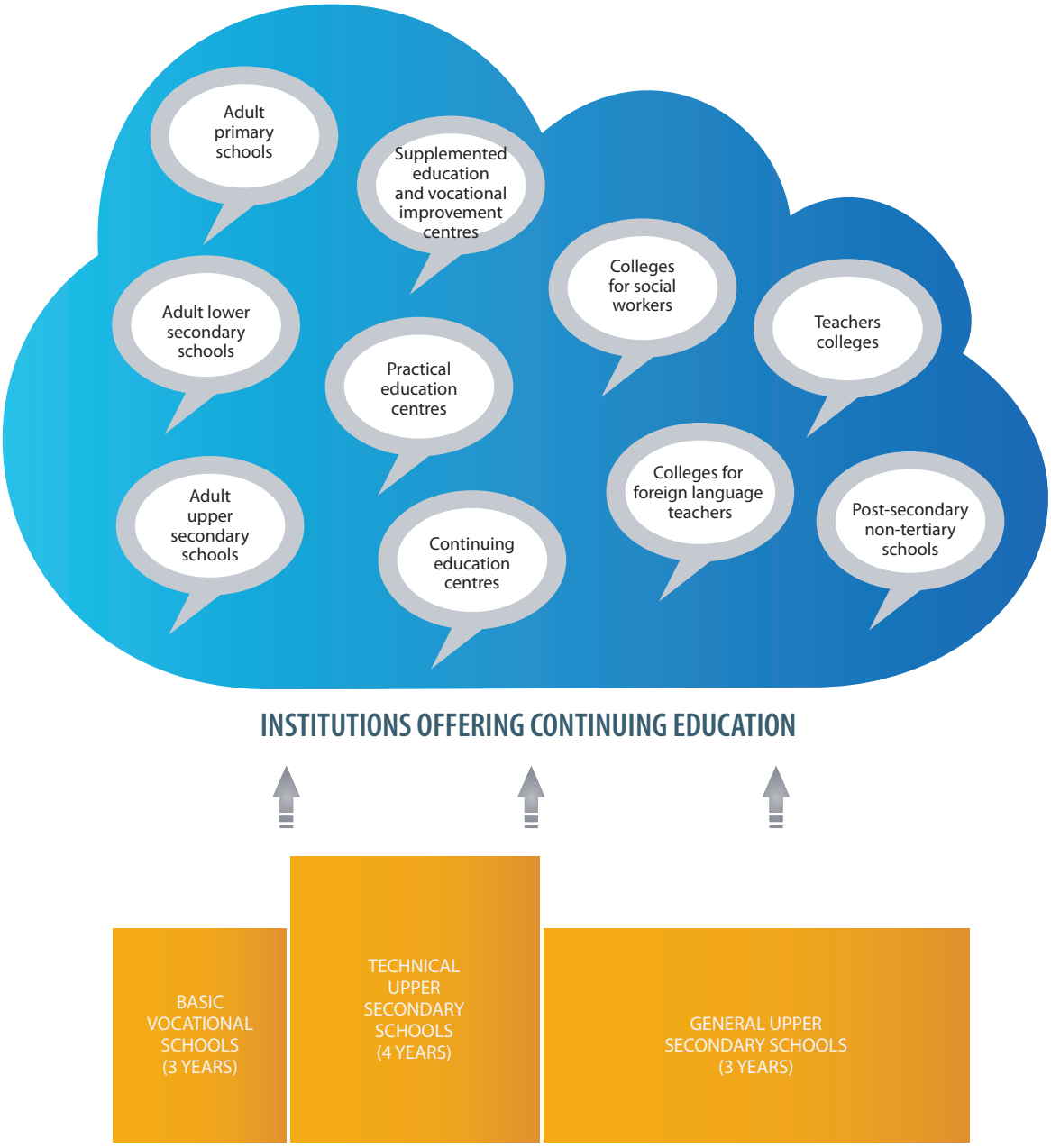
[22] About 80,000 young workers employed for the purpose of learning a profession in a crafts trade are simultaneously pupils of basic vocational schools, and about 4,700 youths are being educated in out-of-school forms. Adults can also be educated in the crafts trade system.

[23] The regulatory name of this qualification is "*dyplom potwierdzający kwalifikacje zawodowe*", which translates literally as "diploma confirming vocational qualifications".

[24] Young workers employed for the purpose of learning an occupation in a crafts trade who are attending a basic vocational school attain a journeyman's certificate after passing the journeyman's examination (Resolution of the Council of Ministers of 28 May 1996 on the vocational preparation of youth and their salaries, Journal of Laws, No. 60, item 278 with later amendments).

For many years, the formal general and vocational education system in Poland has also offered extensive opportunities for further education. After the modernisation of vocational education begun in 2011, further education (excluding higher education) is provided by a network of institutions, as shown in Figure 2.

Figure 2. Adult education institutions, exclusive of higher education

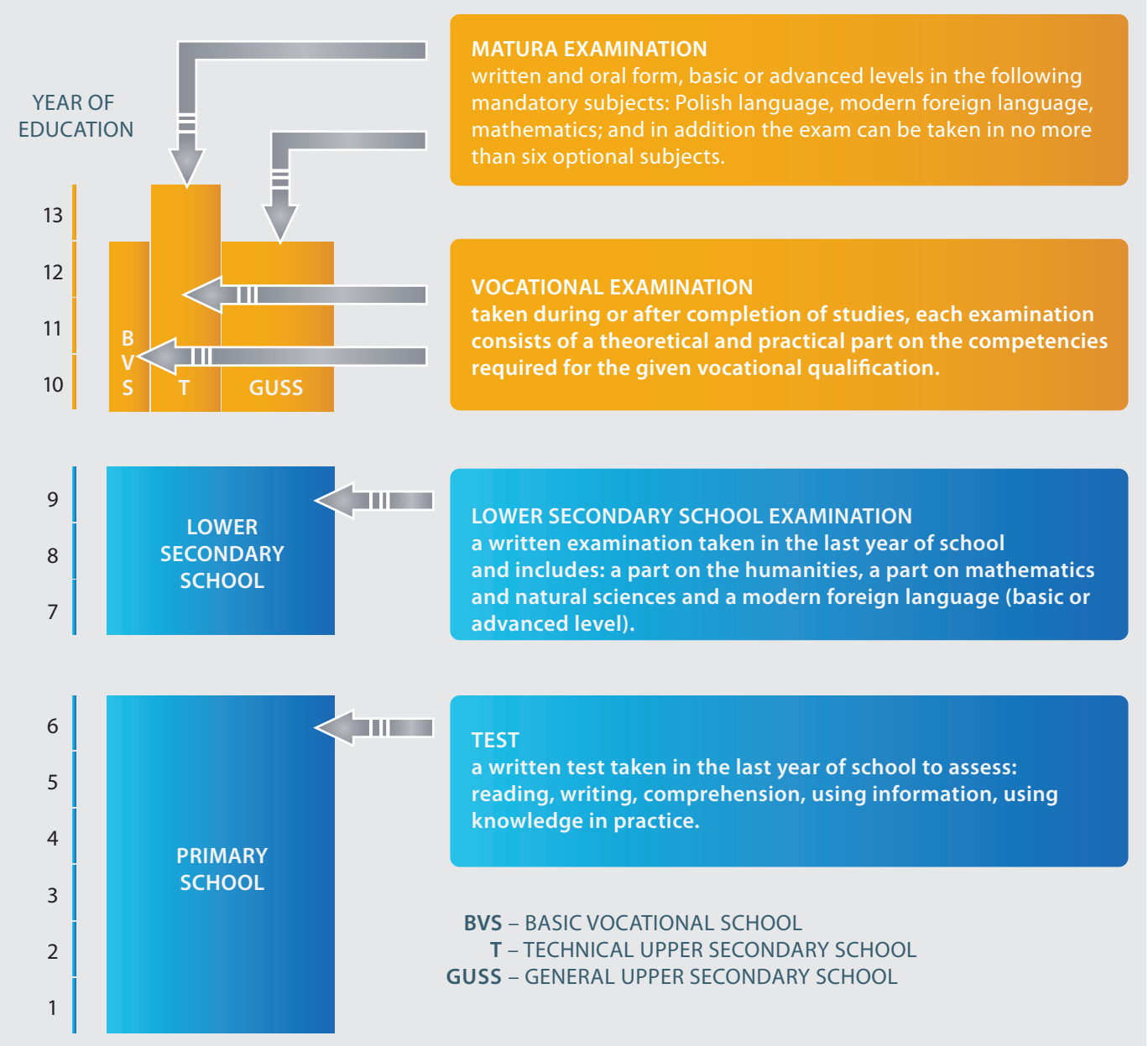


Source: IBE.

The majority of schools in Poland are operated by local government units and supervised by the Minister of National Education. Certain schools are under the jurisdiction of the Minister of Culture and National Heritage, the Minister of Agriculture and Rural Development, the Minister of Justice and the Minister of the Environment.

External examinations conducted by regional examination boards are an important part of the quality assurance system. The external examination system consists of: a test at the end of primary school and a lower secondary school examination taken by all pupils, the *matura* examination and vocational examinations, which are no longer required of all pupils (Figure 3).

Figure 3. External examinations of the formal general and vocational education system



Source: IBE.

Vocational school pupils (young workers receiving their theoretical foundation in school) have another way to achieve vocational qualifications. If the school they attend offers studies in a crafts trade related field, they can attain a journeyman's certificate in the occupation after having passed the journeyman's examination offered by the relevant examination commission of the crafts chambers.[25]

Pupils completing a general upper secondary or technical school do not have to take the *matura* examination; however, passing this examination opens the door to further education in higher education institutions. Graduates of such schools can also continue their education in a post-secondary non-tertiary school, which awards vocational diplomas upon passing the appropriate vocational examinations.

A list of all qualifications that can be awarded in the Polish formal general and vocational education system (except for special education schools) is presented in Table 1.

[25] In addition to the journeyman's examination, the crafts trade system also offers examinations for the title of master (master's examination), as well as vocational examinations in specific craft trades. See Par. 6, item 5 of the Resolution of the Minister of National Education of 14 September 2012 on the journeyman's examination, master's examinations and certifying examinations conducted by examining crafts chambers (Journal of Laws, item 1117).

Table 1. Qualifications awarded in the Polish formal general and vocational education system

Basic type of school	Name of the qualification	Entity awarding the qualification	Planned level of the qualification in the PQF[26]
Children and youth			
primary school (*szkoła podstawowa*)	– certificate of completing primary school	school	1
lower secondary school (*gimnazjum*)	– certificate of completing lower secondary school	school	2
upper secondary schools (*szkoły ponadgimnazjalne)*:			
basic vocational school (*zasadnicza szkoła zawodowa*)	– certificate of completing basic vocational school	school	not yet determined
	– vocational certificate	regional examination board	3
	– vocational diploma	regional examination board	3
technical upper secondary school (*technikum*)	– certificate of completing technical upper secondary school	school	not yet determined
	– vocational certificate	regional examination board	3 or 4 depending on the qualification
	– vocational diploma	regional examination board	4
	– *matura* certificate	regional examination board	4
general upper secondary school (*liceum ogólnokształcące*)	– certificate of completing general upper secondary school	school	not yet determined
	– *matura* certificate	regional examination board	4
Adults			
post-secondary non-tertiary school (*szkoła policealna*)	– certificate of completing post-secondary non-tertiary school	school	not yet determined
	– vocational certificate	regional examination board	3 or 4 depending on the qualification
	– vocational diploma	regional examination board	3 or 4 depending on the qualification
teacher training college (*kolegium nauczycielskie*)	– college diploma	college	not yet determined
foreign language teacher training college (*nauczycielskie kolegium języków obcych*) college of social work (*kolegium pracowników służb społecznych*)	– first-cycle (*licencjat*) vocational title (optionally – awarded by the higher education institution providing teaching-didactic oversight at the college)	higher education institution	6

Adults who have not attained the qualifications listed above at schools for children and youth can achieve the following qualifications through different paths:

- certificates of completing primary, lower secondary and general upper secondary school after having completed the relevant school for adults or passing extramural exams conducted within the framework of compulsory education classes as defined in the respective teaching programmes for adult primary school, adult lower secondary school or adult general upper secondary school;

[26] Sectoral experts performed the work of initially assigning levels to these qualifications by comparing in detail the required learning outcomes for the qualification with the appropriate descriptors in the PQF. As this comparison work has not yet been completed, a PQF level has not been proposed for some qualifications. The manner of comparing learning outcomes with descriptors is presented in Annex 5.

Table 1. continued

– *matura* certificate after having passed the *matura* examination, which can be taken after achieving a certificate of completing the appropriate type of school;
– a vocational certificate after completing a vocational qualification course provided by an adult education institution or by practical vocational education for adults[27] and passing the vocational examination, or after passing an extramural vocational examination. In order to take this type of examination, a person must have completed lower secondary school or eight years of primary school, and for at least two years, attended training or worked in the occupation related to the relevant qualification in accordance with the classification of vocational school occupations;
– a vocational diploma, if the person has vocational certificates for all the qualifications distinguished in a given occupation and also has attained the appropriate level of education for the particular occupation by: a) having completed secondary education, or b) having completed basic vocational education or having passed an extramural examination conducted by a regional examination board in the subjects required by the general education core curriculum for basic vocational schools.

In addition, the school system awards qualifications to graduates of special schools in the form of certificates of readiness for work.

As in the case of young workers employed for the purpose of learning an occupation in the crafts trades that are simultaneously pupils of basic vocational schools, adults may also earn a journeyman's certificate. In the Resolution of the Council of Ministers,[28] the journeyman's examination is treated as equivalent to the relevant type of vocational exam conducted in the formal general and vocational education system (below higher education). Additionally, the crafts trades offer a master's diploma, however this does not have an equivalent qualification awarded in the formal general, vocational or higher education systems.

1.2. Higher education

The higher education system in Poland is regulated by a separate legal act.[29] Studies are offered by public or private higher education institutions, whose operations are prescribed by law.

In Poland, studies are offered as first cycle studies (3–4 years),[30] second cycle studies (1.5–2 years), long cycle studies (9–12 semesters) and doctoral studies (2–4 years) on a full-time or part-time basis. An additional form of studies is the non-degree post-graduate studies.

As of 2011, higher education is undergoing reform, an important part of which is a change in the principles for the autonomous development of study programmes. The basis for developing such programmes is now the National Qualifications Framework for Higher Education (as of October 1, 2012) and new requirements which must be fulfilled in the description of the study programmes and qualifications.[31] The Resolution on the National Qualifications Framework for Higher Education defines the learning outcomes for first and second cycle studies for both the general academic and practical profiles in eight broad areas of study:

– humanities,
– social sciences,
– exact sciences,
– life sciences,

[27] Art. 2, section 1, item 27a of the Act of 20 April 2004 on the promotion of employment and labour market institutions (Journal of Laws 2008, No. 69, item 415 with later amendments).

[28] Resolution of the Council of Ministers of 28 May 1996 on the vocational preparation of youth and their salaries (Journal of Laws, No. 60, item 278 with later amendments).

[29] Act of 27 July 2005 on the Law on higher education (Journal of Laws 2012, item 572 with later amendments).

[30] The possibility of separating out the Bologna short cycle of studies leading to qualifications at PQF level 5 is being discussed.

[31] Resolution of the Minister of Science and Higher Education of 2 November 2011 on National Qualifications Frameworks for Higher Education (Journal of Laws, No. 253, item 1520).
Resolution of the Minister of Science and Higher Education of 5 October 2011 on the conditions of providing degree programmes in a given field and a given level of study (Journal of Laws, No. 243, item 1445 with later amendments).

– engineering and technology,
– medical sciences, health sciences and physical education,
– agricultural, forestry and veterinary sciences,
– fine arts.

Associated with this is the elimination of a centrally determined list of educational standards for specific fields of study. Educational standards have been limited to "rules of education of studies preparing persons for the teaching profession, and professions whose educational requirements and outcomes are defined by European Union legal regulations".[32] Qualifications awarded in higher education are presented in Table 2.

Table 2. Qualifications in the higher education system

Type of studies	Name of qualification	ECTS credits	Planned qualification level in the PQF
first cycle studies (Bologna first cycle)	– diploma certifying the title of *licencjat* – diploma certifying the title of *inżynier* – diploma certifying a title equivalent to *licencjat* or *inżynier* (for example, *inżynier* in fire prevention, *licencjat* in midwifery).	at least 180	6
second cycle studies (Bologna second cycle) or long cycle studies	– diploma certifying the title of *magister* – diploma certifying the title of *magister inżynier* – diploma certifying a title equivalent to that of a *magister* or *magister inżynier* (for example, the title of physician)	second cycle studies – at least 90 long cycle master's degree studies: at least 300 (5-year studies), 360 (6-year studies)	7
third cycle studies (Bologna third cycle)	– diploma certifying the academic degree of *doktor* in a specific discipline	45–60[34]	8
additionally:			
non-degree post-graduate studies	– certificates of completion of non-degree post-graduate studies	at least 60[35] (the studies should not be less than two semesters)	depending on the programme

Note: The number of ECTS credits required to attain first and second cycle qualifications, as well as certificates of completion of postgraduate non-degree studies is defined by law.[36] The ECTS credits achieved must relate to the learning outcomes of the study programme for the particular qualification.

Assigning specific qualifications to PQF levels and the Qualifications Framework for the European Higher Education Area was presented in the "Self-certification report of the National Qualifications Framework for Higher Education", being prepared at the same time as this referencing report.

[32] Art. 2, section 1, item 18 of the Act of 27 July 2005 on the Law on higher education (Journal of Laws 2012, item 572 with later amendments). This relates to studies in the following fields: medicine, dentistry, pharmacology, nursing and midwifery, veterinary medicine and architecture.

[33] Resolution of the Minister of Science and Higher Education of 1 September 2011 on professional titles awarded to higher education graduates, the conditions under which diplomas are issued and the required elements of diplomas awarded upon completion of studies and certificates awarded upon completion of post-graduate studies as well as the template for the diploma supplement (Journal of Laws, no. 196, item 1167).

[34] Resolution of the Minister of Science and Higher Education of 1 September 2011 on education during doctoral studies at higher education institutions and academic units (Journal of Laws, no. 196, item 1169).

[35] It should be noted that the number of ECTS credits will most likely be reduced to 30 as the result of current legislative work on the proposed principles of the amended Law on higher education and several other acts.

[36] Act of 18 March 2011 on amendments to the Act – Law on higher education, the law on academic degrees and titles and on degrees and titles in the arts and on amendments to certain other laws (Journal of Laws 2011, No. 84, item 455 with later amendments).
It should be noted that a range of 30–45 ECTS points is proposed in current work on the resolution of the Minister of Science and Higher Education to amend the *resolution on doctoral studies undertaken in higher education institutions and academic entities*.

1.3. Qualifications awarded outside of the formal general, vocational and higher education systems

In preparation for modernising the national qualifications system, an analysis of existing Polish laws on qualifications was conducted, including those awarded in non-formal education.[37] The analysis revealed a wide variety of approaches and terminologies, and in many cases even inconsistencies, resulting from variations in the legal acts where these qualifications were defined. Wide variation exists in the standards used to develop, award and even name the diplomas and certificates issued in non-formal education. This is especially evident in the case of professional associations. The nature of the control by state authorities on the awarding of these types of qualifications also differs, and in some situations, no such oversight exists. The performed analysis shows that some documents relating to qualifications do not refer directly to learning outcomes attained by learners. Certificates and diplomas exist that verify participation in a given training programme, but sometimes acquiring qualifications requires also the fulfilment of other criteria (e.g. years of work).

In Poland, attaining subsequent qualifications after completing formal general, vocational and higher education is a normal path of professional development in many fields. Additional qualifications are also linked to achieving specific professional advancement. This is true, among others, for the medical field (medical and nursing specialisations), legal professions (legal counsellor, solicitor, prosecutor, judge), accounting services (bookkeeper, independent bookkeeper, auditor, stock market broker), occupations in construction, electrical and energy, machine and equipment maintenance, land, air and sea communications, etc.[38] The education system for the armed forces also has about 300 specialisations that are not related to the formal general, vocational and higher education systems.[39] The crafts trades also have their own qualifications system (journeyman, master).

[37] Within the framework of "The development of terms of reference for the implementation of the National Qualifications Framework and the National Qualifications Register for lifelong learning" Project, implemented from July 2010 to the end of 2013 and financed by the European Social Fund through the Human Capital Operational Programme, Priority III, Measure 3.4, Sub-measure 3.4.1.

[38] Currently, work is underway at IBE to produce an inventory of the (partial) qualifications listed in Polish law that are outside of the formal general, vocational and higher education systems as part of the systemic project "The development of terms of reference for the implementation of the National Qualifications Framework and the National Qualifications Register for lifelong learning", implemented from July 2010 to the end of 2013 and financed by the European Social Fund through the Human Capital Operational Programme, Priority III, Measure 3.4, Sub-measure 3.4.1.

[39] Military qualifications are attained at centres, training facilities and schools for non-commissioned (NCO) officers and are part of the system for the professional development of non-commissioned officers and privates. Military diplomas and certificates issued by some centres and training facilities in disciplines similar to those operating in the civilian labour market are recognised in this market. Work conducted by the Ministry of National Defence to achieve an even greater recognition by the civilian labour market of the qualifications attained in the centres, training facilities and NCO schools is focused primarily on: (1) strengthening the motivation of professional non-commissioned officers and privates in acquiring additional vocational qualifications, (2) creating conditions that facilitate civilian employment after retirement from professional military service, (3) raising the prestige of military training units and their competitiveness in relation to civilian educational institutions.

2. An integrated qualifications system in Poland – target solutions

2.1. The basic premises

The national qualifications system (NQS) is understood as the entirety of activities related to the validation of learning outcomes to satisfy the needs of the labour market, civil society and the personal development of learners based on the national qualifications framework. In particular, the NQS includes the development, awarding and recognition of qualifications, as well as the quality assurance of qualifications.

Modernising the national qualifications system in Poland will be based on its integration by implementing two completely new instruments:

- the Polish Qualifications Framework referenced to the European Qualifications Framework,
- the integrated (national) qualifications register.[40]

The Polish Qualifications Framework, serving as the foundation for the national qualifications system, is to be a common referencing system for qualifications awarded in Poland. The qualifications register will include those qualifications whose quality is guaranteed by defined procedures and monitored by a specific entity. Entering a qualification into the integrated register will be related to assigning a level to it. The presence of a qualification in the national register will attest to its reliability.

	FULL QUALIFICATIONS
	Awarded exclusively in the formal general, vocational and higher education system
PQF QUALIFICATION LEVELS	VIII
	…
	II
	I

For many years, the formal general, vocational and higher education system in Poland has functioned under clearly defined principles set forth in legal regulations for validating qualifications and ensuring their quality. These are mainly full qualifications that define a level of education.[41] Full qualifications are awarded solely by institutions in the formal general, vocational and higher education system. These institutions can also award partial qualifications (Table A) for significantly smaller units of learning outcomes (e.g. vocational certificates or those attained in a non-degree post-graduate study programme). These qualifications can be assigned a PQF level in the first stage of implementing the Framework.

The certification of qualifications outside of the formal general, vocational and higher education system is based on various laws or other regulations of varying rank approved by a variety of institutions: entities governing specific occupations, professional organisations, training institutions (Tables B and C). These are exclusively partial qualifications, which in no way can be deemed an alternative (replacement) to full qualifications.

Because the qualifications in Table B exist on the basis of a legal framework, assigning them to a PQF level will be possible without changing the way they are awarded, after having analysed the appropriate legal acts.

Other qualifications from Table C that are important from a labour market perspective will also be considered for inclusion into the PQF in the future.

[40] Due to the strongly rooted general understanding of the word "qualification" in Polish, the term "registered qualification" will be used for qualifications entered into the register.

[41] It is not possible to propose a common term in Polish for diplomas certifying learning outcomes attained in a multi-year cycle of education, as well as those for the smaller sets of learning outcomes required for a qualification. For this reason the distinction was proposed between full and partial qualifications. It should be emphasised that many partial qualifications are significant in the Polish labour market.

	PARTIAL QUALIFICATIONS		
	Awarded in the formal general, vocational and higher education system (Table A)	Awarded outside of the formal general, vocational and higher education system by public authorities and entities governing professions (Table B)	The remaining partial qualifications awarded in Poland (may be assigned to a PQF level in the future) (Table C)
PQF QUALIFICATION LEVELS			
	8	8	
	…	…	
	2	2	
	1	1	

Table A. **Partial qualifications awarded in the formal general, vocational and higher education system**

MINISTER OF NATIONAL EDUCATION[42]	VALIDATION assessment within schools, external examinations; certificates, diplomas	QUALITY ASSURANCE pedagogical supervision; external examinations	PARTIAL QUALIFICATIONS e.g., vocational certificates
MINISTER OF SCIENCE AND HIGHER EDUCATION	VALIDATION assessment during classes-examinations; final assessment – defence of thesis/dissertation; validation of learning outcomes attained outside of the higher education system[43]	QUALITY ASSURANCE internal HEI systems of quality assurance; external quality assurance – Polish Accreditation Committee	PARTIAL QUALIFICATIONS e.g., non-degree post-graduate study programmes

Table B. **Partial qualifications awarded by public authorities and entities governing professions**[44]

Other ministers, central government department heads, agencies and other institutions (e.g., crafts chambers, entities governing professions).	VALIDATION	QUALITY ASSURANCE	only PARTIAL QUALIFICATIONS provides the opportunity of attaining the right to perform specific professional activities, among others, e.g., *lawyer, able seaman, patent lawyer, radiation inspector, master stove builder*
	great diversity of practices – most typical examples provided		
	defining standards, establishing examination commissions	defining requirements, including the learning outcomes	

Table C. **The remaining qualifications awarded in Poland**

IN THE FUTURE:
it will be possible to have specific qualifications included in the register after verifying that they meet all the requirements enumerated in the law

organisations, federations, associations, training institutions, etc. operating in various sectors	VALIDATION	QUALITY ASSURANCE	only PARTIAL QUALIFICATIONS that are of significance to specific social or professional communities for example: *Certified Bank Employee* (certified by the Union of Polish Banks) *Accountant* (certified by the Association of Accountants in Poland)
	very diverse practices		

[42] Qualifications exist in the formal general and vocational education system under the jurisdiction of the Minister of National Education in cooperation with other ministers, such as, for example, the Minister of Culture and National Heritage or the Minister of Agriculture and Rural Development.

[43] The Ministry of Science and Higher Education is preparing proposed principles amending the Act – Law on higher education, which plans to introduce a new system of certifying competencies attained by students outside of the higher education system.

[44] Some qualifications certified in the crafts trades are also included in the classification of vocational school occupations.

The register will include both qualifications that represent an integral whole (e.g. a physician) and "compound" qualifications, that is, those containing one or more "constituent" qualifications (e.g. a paediatrician).

After the new solutions are implemented, all qualifications awarded in the formal general, vocational and higher education systems will be included in the integrated register. In those cases where similar data sets already exist (for example, the information system for higher education POL-on), their qualifications will be included into the integrated register through those records. Additionally, some of the other diplomas and certificates currently awarded will be required to be entered into the integrated register. This should occur after confirmation of their compliance with the standards to be required in the integrated qualifications system. It will be possible to enter other qualifications into the register by having interested entities submit a substantiated application for this purpose. Entering a qualification into the integrated register will mean that it meets standards, i.e., it is described with the use of learning outcomes and the processes of validation and quality assurance are presented. Thus, the programme to modernise the national qualification system anticipates that all registered qualifications will have appropriate quality assurance systems in place.

It is anticipated that after the integrated qualifications register is implemented, various diplomas and certificates not included will be able to function as they have in the past, to the extent they are needed in society. However, it will not be possible to have a PQF level assigned to them.

A fundamental principle of the modernised qualifications system is to refer all its elements to learning outcomes. This relates not only to educational programmes and examination requirements, but also to organisational procedures and solutions. Institutions functioning in this system are to primarily focus on what a person knows and is able to do, and not on the form of learning and how long it is taking. Another important premise relates to the validation of learning outcomes, which interested persons should be able to attain to a greater degree than is currently possible, regardless of whether they were acquired through formal or non-formal education, or learned in another way.

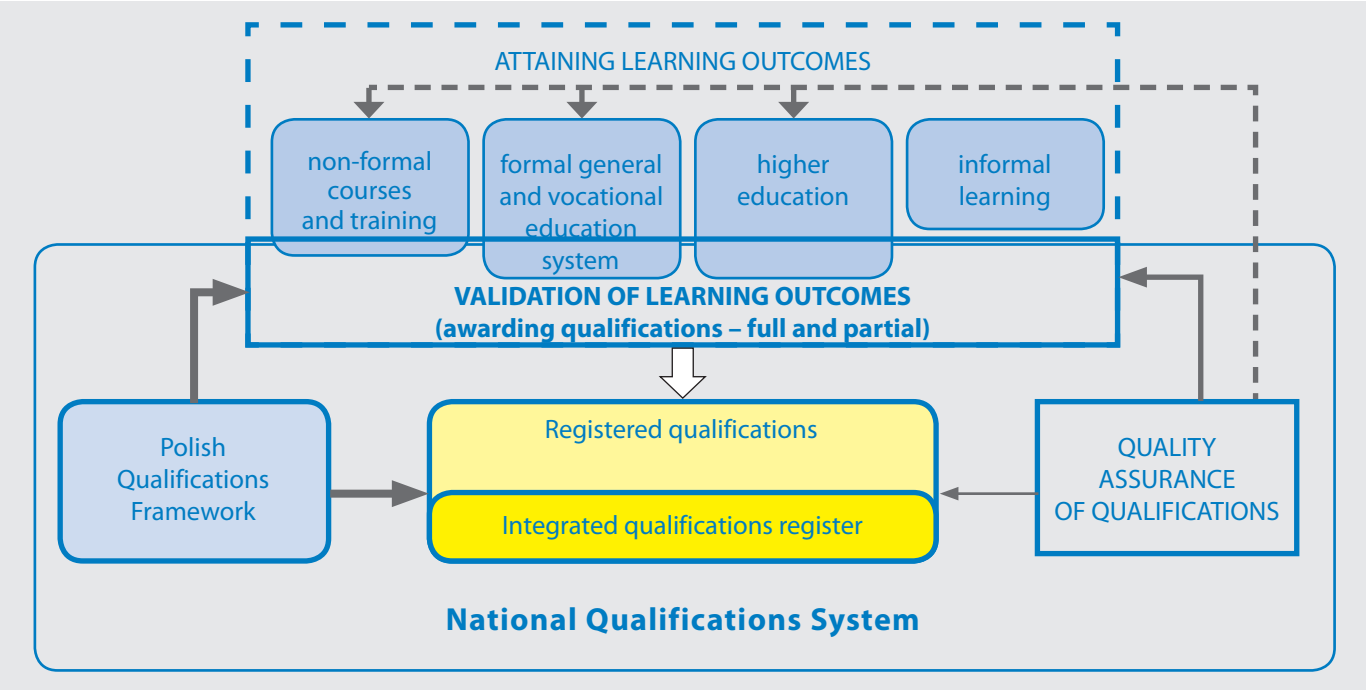
The system also will allow, to a much broader extent than today, credits to be accumulated and transferred, thus enabling a more flexible adaptation of learning pathways and achievement of subsequent qualifications in response to changing conditions and circumstances in life. This will facilitate the acquisition of new qualifications, which is especially significant in increasing the low professional mobility of Poles today.[45]

The modernised qualifications system will in large part be established of already existing elements. Among them are various types of legal regulations on both the development of educational programmes, as well as on validation and quality assurance. They are a significant achievement, consisting of many valuable elements that conform to the new approach proposed in the Recommendation of the EP on the EQF. These elements include primarily the new core curricula for general and vocational education, as well as new regulations introduced in higher education. Many good practices and solutions also exist in the training sector and labour market, among others on defining learning outcomes, their validation and qualifications' quality assurance. In the course of implementing comprehensive systemic solutions, it is assumed that these elements will be used in relevant ways. Poland also has an extensive system of institutions providing training and awarding qualifications, as well as entities responsible for qualifications' quality assurance.

Thus, the integrated national qualifications system will be made up on one hand, of elements that are already functioning in Polish social and economic life, as well as mechanisms that are now being prepared to enable the effective integration of the entire system, of which the most important are the Polish Qualifications Framework and the integrated qualifications register. A diagram of the modernised qualifications system is presented in Figure 4. This figure presents the relationships between various key activities required to achieve the integration of the national qualifications system and to enable qualifications awarded in Poland to be referenced through the PQF to the European Qualifications Framework.

[45] See, for example, Boni, M. (ed.), (2009); Paci, P., Tiongson, E.R., et al. (2007).

Figure 4. General diagram of the national qualifications system in Poland



Source: IBE.

Developing the integrated qualifications system will increase the ability to take into account the identification, documentation and validation of learning outcomes acquired over a lifetime. The most important results of introducing an integrated system based on the Polish Qualifications Framework are to be:

- the universal acceptance of learning outcomes as the primary point of reference in developing education and training programmes,
- the ability of citizens to more easily attain qualifications in ways, times and places that are more convenient to them,
- the reliable validation of learning outcomes attained through non-formal and informal learning,
- increased reliability of qualifications and of the entities awarding qualifications,
- increased recognition of Polish certificates and diplomas in the country and abroad,
- better links between what is offered by the national educational system and the needs of civil society and the economy.

Implementing the Polish Qualifications Framework and the integrated qualifications register should contribute to developing education and training systems, building bridges between traditional school and academic education, and learning in training courses, workshops, in the course of work or self-study. In other words, modernising the qualifications system should enable greater coherence to be achieved across all education sectors, strengthen the integration between general and vocational education at all PQF levels, and lead to greater flexibility in the activities undertaken within this framework in education, training and awarding qualifications.

The modernisation of the qualifications system in Poland is written into the broader context of the changes taking place in Europe, related to the approved European Union development strategy. The European Qualifications Framework should make it possible to compare qualifications awarded in Poland with those from various EU countries, whereas qualifications awarded in Poland are to be clearer and easier to understand in other countries and qualifications systems in Europe.

The integrated qualifications system is to be an important policy tool for lifelong learning. Its effectiveness will depend not only on developing good legal and organisational regulations or the involvement of institutions and organisations functioning within its framework, but also on society's understanding of the proposed solutions. Knowledge about the national qualifications system,

about the new possibilities and opportunities arising as a result of its modernisation, could be the most important long-term factor in determining the extent to which the ultimate aims of these activities will be achieved. For this reason, it will also be important to promote and disseminate knowledge about these issues, including, among others, by preparing and publishing periodic reports on Polish qualifications.

Gathering information about how developing and awarding qualifications actually works in specific sectors will require the ongoing cooperation of entities active in this field. According to the approved principles, the premise is dialogue and cooperation with different stakeholder groups of the qualifications system. The results of social dialogue, the conclusions of monitoring and research will be an important impetus for having appropriate entities (legislative or organisational) undertake specific activities to develop practices for creating and awarding qualifications in Poland.

The integrated qualifications system will cover all aspects of the activities undertaken in Poland related to validating learning outcomes. It will also be a tool of state policy in implementing lifelong learning in a partnership of government, local authorities, employers, workers and civil society. Developing the national qualifications system is a task of the state. As such, the ministers directly responsible for qualifications have a specific role to play in this endeavour. Substantial support for their activities will be provided by a functionally integrated qualifications register. A very important role in the system will also be played by the Internet portal (NQS portal), which will ensure transparency of the system. The effectiveness of the system will depend also on social partners, thus it is very important to appropriately define their role and joint responsibility. Without the ongoing involvement of stakeholders, the national qualifications system cannot function properly.

2.2. The Polish Qualifications Framework

The Polish Qualifications Framework (PQF), like the European Qualifications Framework (EQF), consists of eight qualification levels. Each PQF level is described with the use of descriptors, that is, general statements indicating the learning outcomes relevant to a qualification at a given level. The PQF takes into account learning outcomes achieved through formal and non-formal education, as well as informal learning.

The descriptors of the European Qualifications Framework served as the reference point for the PQF descriptors, enabling a clear depiction to be made of how the proposed Polish qualifications levels relate to the eight levels of the EQF. They were defined in the PQF in a manner very similar to the definition in the Recommendation of the EP on the EQF. In the PQF, as in the EQF, learning outcomes are described in the three categories of knowledge, skills and social competence (for more information, see section 4.2).

The descriptors in the PQF capture the full spectrum of learning outcomes. They reflect progress from the lowest to the highest level achieved by the learner. The PQF descriptors show how the following abilities advance at successive levels through learning in different contexts and stages of life:

- knowledge (depth, scope),
- skills (problem-solving, the innovative application of knowledge in practice, learning and communication),
- social competence (readiness to work with others and to assume responsibility for assigned tasks).

In developing the Polish Qualifications Framework, great importance was placed on the need to ensure coherence and completeness of the general characteristics of each level, and for this reason, many various aspects were taken into account (Table 3).

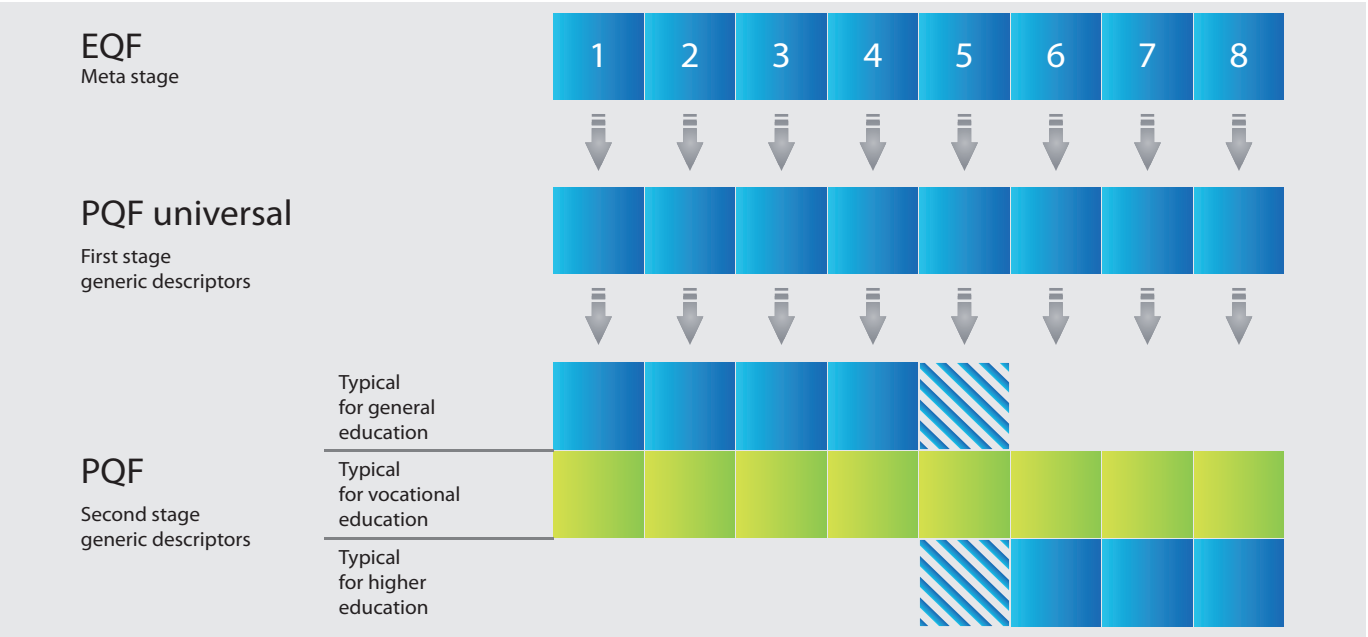
Table 3. Key descriptive categories and aspects of fundamental significance for the comprehensive description of knowledge, skills and social competence

Learning outcome group	Key descriptive categories	Essential aspects for a complete description
Knowledge	Scope	– Completeness of the cognitive perspective
	Depth of understanding	– Dependencies
Skills	Problem solving and applying knowledge in practice	– Complexity of the problem – Innovation in the approach – Independence of actions – Conditions under which one acts
	Learning	– Independence – Methods
	Communication	– Scope of expression – Complexity of expression
Social competence	Identity	– Participation – Sense of responsibility – Conduct
	Cooperation	– Team work – Conditions under which one acts – Leadership
	Responsibility	– Consequences of one's own actions – Consequences of the team's actions – Evaluation

Source: IBE.

A unique Polish solution is to distinguish two stages of generic descriptors in the PQF. Second stage generic descriptors further detail the first stage generic descriptors, which have a universal character (they relate to all sectors of education). Universal descriptors and second stage generic descriptors should be read together. Figure 5 illustrates the structure of the Polish Qualifications Framework.

Figure 5. Structure of the Polish Qualifications Framework



Source: IBE.

The Polish qualifications system can also have third stage generic descriptors. These descriptors already function in areas of learning in higher education, and they will also be used to describe specific fields of activities (sectors). They further detail corresponding second stage generic descriptors.
The tables of first stage generic descriptors as well as their comparison to EQF descriptors are presented in section 4.2. Examples of second and third stage generic descriptors and their relationship to each other are presented in Annex 5.

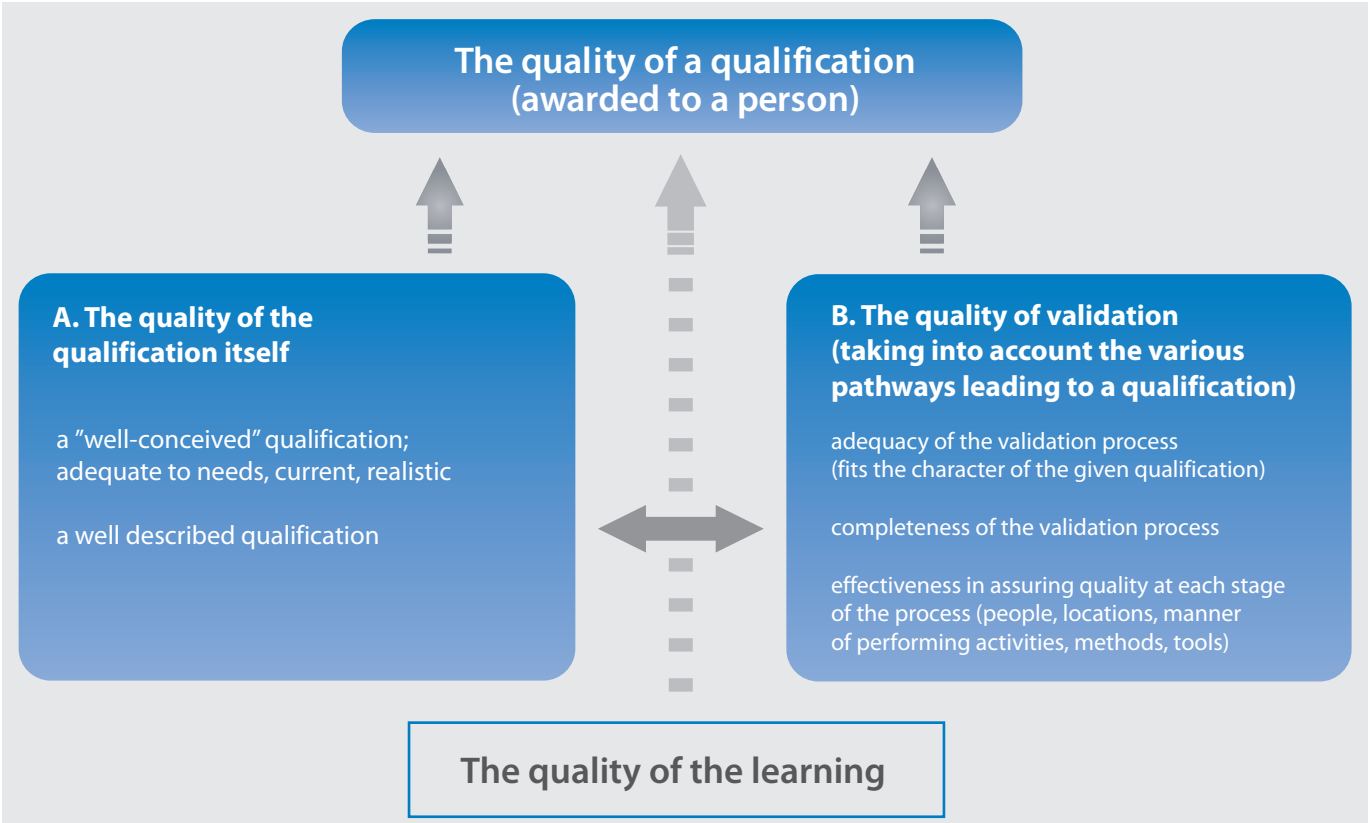
2.3. The quality assurance of qualifications

Quality assurance is a permanent component of many procedures associated with awarding qualifications in Poland. The entire system of quality assurance introduced in the formal general, vocational and higher education system reflects the principles and standards proposed in the Recommendation of the EP on the EQF and other European documents and materials relating to this issue.[46] However, as it has already been stated in Section 1.3 of this report, the quality assurance measures used to award qualifications outside of the formal general, vocational and higher education system do not always fully meet these standards.
Accordingly, work[47] began on formulating the general principles of quality assurance, which, while complying with the principles proposed in the European Union, will, at the same time, reflect the best Polish experiences and good practices in this field. The approach presented in the report on this issue is the result of this work, during which representatives of the concerned communities were consulted on an ongoing basis about the proposed concepts (see Annex 3).
During this work, the premise was adopted that the issue of quality assurance will be considered from the point of view of the qualification awarded to a specific individual. Discussions with experts and the social debate led to the recognition of three distinct factors influencing a qualification's quality. These are: the quality of the qualification itself, the quality of the validating process and the quality of the teaching and learning processes. These dependencies are illustrated in Figure 6.

[46] Among others: Recommendation of the European Parliament and of the Council of 18 June 2009 on the establishment of a European Quality Assurance Reference Framework for Vocational Education and Training (OJ C 155, 8.7.2009); European Guidelines for validating non-formal and informal learning (CEDEFOP 2009), Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG).

[47] As part of the systemic project "The development of terms of reference for the implementation of the National Qualifications Framework and the National Qualifications Register for lifelong learning", implemented from July 2010 to the end of 2013 (Human Capital Operational Programme, Priority III, Measure 3.4, Sub-measure 3.4.1.).

Figure 6. Factors determining the quality of a qualification



Comments:

1. "Well-conceived" means that the qualification meets needs, particularly of learners and the labour market, and is adapted to objective conditions – it must be able to be achieved within a foreseen amount of time.
2. A qualification's description must include, among others, comprehensive information on its required learning outcomes.
3. Adequacy of the validation process is based on the choice of appropriate methods ensuring a thorough verification that the learning outcomes have been achieved.
4. Ensuring the quality of the education (teaching and learning) is an integral element of educational management, but from the point of view of the Polish Qualifications Framework, it is not the primary issue because learning outcomes, not the educational process, are key from the perspective of a qualification. The educational process obviously plays a large role in a qualification's quality; however, its influence is indirect. Ensuring the quality of education is not the subject of work on conceptualising the quality assurance of qualifications.

Source: IBE.

In order to broaden the base of empirical work on the principles of quality assurance of qualifications, research and analyses[48] were initiated on a variety of related issues. Certain currently used mechanisms for qualifications' quality assurance used in Poland, as well as examples from abroad were included in the studies.[49]

The results of experts' discussions, research results and European document analyses on quality assurance served as the foundation for developing the initial concept of the principles to ensure the quality of qualifications. The basic conclusions reached as a result of this work are as follows:

[48] As part of the systemic project "The development of terms of reference for the implementation of the National Qualifications Framework and the National Qualifications Register for lifelong learning" implemented from July 2010 to the end of 2013 (Human Capital Operational Programme, Priority III, Measure 3.4, Sub-measure 3.4.1) and the National Qualifications Register for lifelong learning" implemented from July 2010 to the end of 2013 (Human Capital Operational Programme, Priority III, Measure 3.4, Sub-measure 3.4.1).

[49] – Research on the procedures used to confirm learning outcomes achieved through non-formal education and informal learning,
– Research on the quality assurance of qualifications outside of the formal education system. Analysis of the current situation in the perspective of the national qualifications system being developed,
– Research on various aspects of validating learning outcomes achieved through formal education in institutions of higher education and recognising learning outcomes attained outside of the formal education system,
– Expert opinions providing a deeper analysis of certain issues.

The premises for building the credibility of qualifications:

1. Within the context of quality assurance requirements, the national qualifications system should be developed in such a way as to ensure the equal treatment of:
   a) all fields of activity (sectors),
   b) all validating institutions (public, private and social).
2. The national qualifications system should include not only newly developed practices in qualifications' quality assurance and learning outcomes validation, but also existing practices in these areas.
3. The description of the learning outcomes required for a given qualification should be developed within the context of two perspectives (in a suitable ratio for a given qualification):
   a) the users of qualifications – learning outcomes are directly relevant in professional and social life,
   b) the persons teaching and validating.
4. Mechanisms need to be established to ensure the continued involvement of practitioners (primarily employers and individuals actively engaged in a profession), both in qualifications' development as well as validation.
5. Institutions with differing financial and organisational potential should be able to use the solutions developed to comply with quality assurance principles required by the national qualifications system (while simultaneously complying with defined standards).
6. The manner of validating competencies should be tailored to the specifics of a given qualification; the national qualifications system should not impose validation methods.
7. The process of validating learning outcomes for a given qualification should be the same regardless of the various learning paths taken to attain the qualification.
8. The educational process should be appropriately separated from the validation process.
9. Issuing a document confirming the attainment of a qualification should be linked to entering this record into an official register (to the extent that such a register exists for a given qualification) in a manner ensuring complete consistency of the information.
10. It should be the task of the state to define the universally required principles of the quality assurance of qualifications, including the requirements of validation procedures and validating organisations.[50]

Quality assurance of qualifications – general rules:

1. Universal compliance with the principles – all qualifications entered into the national qualifications register are subject to the general quality assurance rules.
2. Cooperation with stakeholders – quality assurance should be a cooperative process involving interested parties.
3. Variety of solutions – the principles of qualifications' quality assurance do not determine the specific solutions developed to ensure quality.
4. Oversight of public authorities – all entities implementing external monitoring activities are directly or indirectly subject to the oversight of the appropriate public authority body.

The principles of the quality assurance of qualifications:

1. Quality assurance of each qualification applies solutions used internally by a qualifications' awarding body (internal quality assurance system), as well as external solutions applied by entities that are external in relation to the qualifications' awarding body (external quality assurance system).
2. Internal and external quality assurance systems should be appropriately related.
3. Quality assurance systems should take into account the specificity of the awarded qualification.
4. Quality assurance systems should undergo improvement and be periodically reviewed.
5. The public should have access to information about the quality assurance systems and results of their periodic reviews.

[50] According to the Council Recommendation of 20 December 2012 on the validation of non-formal and informal learning (OJ C 398, 22.12.2012, pp. 1–5).

6. Quality assurance systems should have a problem identification system that includes making reclamations, complaints and appeals, as well as a system to investigate problems.
7. Each awarding body should have an internal quality assurance system.
8. The internal quality assurance system for qualifications should be an integral part of an awarding body's management system.
9. The internal quality assurance system should appropriately take into account the role of teachers and persons performing validation.
10. The internal quality assurance system should appropriately take into account the role of learners.
11. The internal quality assurance system should appropriately take into account the role of representatives of the relevant external communities.

2.4. Credit accumulation and transfer

Credit accumulation and transfer was not widely used in Polish educational practice. The possibility to accumulate credits was first introduced on a larger scale in connection with the implementation of the Bologna process in Poland. The basic principles of credit accumulation and transfer were included in the vocational education reforms of 2012 mainly to enable learning outcomes attained through short term, out-of-school courses (vocational skills courses) to be recognised and to allow extramural vocational examinations (validation) to be taken.

Experts[51] are currently working to develop the concept of credit accumulation and transfer. Pilot schemes are also planned to verify the proposed solutions (this is more extensively described in section 4.3).[52] At the same time, Polish groups supported by the Foundation for the Development of Education (the National Agency of the "Lifelong learning" Programme) are involved in projects developing concepts for ECTS and ECVET. In the field of higher education, the "National Team of Bologna Experts" is working on this issue, while the "ECVET Expert Team" is preparing the implementation of ECVET in Poland.

During preparatory work, the premise was accepted that credit transfer and accumulation will be an essential component of the integrated qualifications system. It will encompass the qualifications awarded in formal general, vocational and higher education found at all the levels of the Polish Qualifications Framework. Credit accumulation and transfer will enable a much greater diversity of paths to be used in attaining a qualification.

The model of credit accumulation and transfer developed in Poland will be compatible with European systems (ECTS – *European Credit Transfer and Accumulation System*, ECVET – *European Credit System for Vocational Education and Training*) and allow for the transfer of credits between the Polish qualifications system and the systems of individual Member States. As a result of clear and coherent principles of credit accumulation and transfer, the transparency of the qualifications included in the national qualifications register will also increase.

Work on developing the concept of credit accumulation and transfer has not yet sufficiently progressed to enable an initial version to be presented in this report.

[51] As part of the systemic project "The development of terms of reference for the implementation of the National Qualifications Framework and the National Qualifications Register for lifelong learning" implemented from July 2010 to the end of 2013 (Human Capital Operational Programme, Priority III, Measure 3.4, Sub-measure 3.4.1).

[52] As part of the systemic project "The development of terms of reference for the implementation of the National Qualifications Framework and the National Qualifications Register for lifelong learning" implemented from July 2010 to the end of 2013 (Human Capital Operational Programme, Priority III, Measure 3.4, Sub-measure 3.4.1).

2.5. The integrated qualifications register

The register will gather reliable information on registered qualifications, that is, those that fulfil the appropriate conditions for a future, modernised national qualifications system as defined in the regulations of laws setting forth the principles of this system's operation. As a result, it will now be possible for all interested persons to easily access this information in one place.

The integrated register will include qualifications regardless of already existing qualifications registers and lists or those that will be created in the future in Poland as needed by specific departments, sectors, communities or institutions. An institution will be selected to operate the integrated qualifications register.

The information gathered in the integrated register will be made available through an Internet portal. The NQF Portal, as is the case with similar portals in other EU countries, will be linked to the European Qualifications Framework portal.

The integrated register will be a record of qualifications, which, in the initial stage of implementation, will include only full and partial qualifications (Tables A and B on page 18) established by public authorities or institutions authorised by them. These qualifications will be included in the register after their authorisation by a public authority (e.g., a competent minister) or a legally authorised entity. The entity operating the register, after obtaining specific information about these qualifications, will be entering them into the register (recording). Such an approach (towards qualifications from Tables A and B) does not require the issuance of an administrative decision on the inclusion of qualifications in the register, because these qualifications will receive the status of a registered qualification before they are entered into the register.

With regard to qualifications awarded by the formal general, vocational and higher education system (Table A), the register operator will obtain data from the entity appointed by the relevant ministers, including, among others, information from existing data sets, such as the information system for higher education POL-on.

With regard to partial qualifications awarded within the authorisation of other ministries, agencies and entities empowered by law (Table B), the register operator will obtain information from ministers who are responsible for the specific qualifications.

Detailed arrangements for providing information about established qualifications will be developed by the relevant ministries and organisations representing stakeholder institutions and communities.

In conclusion, it should be stated that establishing an integrated qualifications register which includes full and partial qualifications from the areas indicated in Tables A and B does not violate the established division of competence of public authorities and institutions in Poland for establishing, awarding and ensuring the quality of qualifications. These powers remain with specific ministers or institutions authorised by them.

The second task will be to develop proposals to also include qualifications awarded outside of the formal education system (i.e., general, vocational and higher education and the areas indicated in Table B).

Entering a qualification into the register will mean that it is assigned a PQF level. This means that a registered qualification (both "full" and "partial") will be referenced to a level in the European Qualifications Framework. The integrated qualifications register will function as a repository, storing in electronic format all data associated with the registered qualifications.

The information collected in the national qualifications register will be made available through an NQS Internet portal. In an easily functional way from the point of view of a person seeking information, the portal will present the characteristics of qualifications and practical information on how to attain them. The NQF portal will be linked to the EQF portal. This will enable the different needs of various stakeholder groups to be met in accessing information on a wide range of issues regarding qualifications. Information on qualifications will be available in Polish and English.

Regularly updated data sets on each qualification accessible through the NQS portal will include the following information:

1. Basic information about each qualification – its official name, the assigned PQF level and learning outcomes (knowledge, skills, and social competence) that need to be validated in order to attain it (the required competencies);
2. Supplemental information about the qualifications – pre-requisite education or qualifications to begin attaining the given qualification, additional conditions, possibility of attaining subsequent qualifications, the credentials associated with the given qualification, the type of document issued to award the qualification;
3. Information on using the qualification – type of activities (including professional activities) that require the attainment of the qualification, desired predispositions, medical contraindications, special conditions occurring in the performance of work for the particular qualification, etc.
4. Information about how to attain the qualification, including the awarding bodies.

Qualifications established by legal acts will be entered into the national register directly or through already existing databases for these types of qualification (for example, POL-on). Assigning a PQF level to the qualification will occur in accordance with the requirements of the PQF when this type of qualification is established or when the appropriate regulations governing the qualifications system come into force – this will be the responsibility of the entity establishing the qualification (for example, higher education institutions, ministers).

The concept of the integrated qualifications register provides the possibility of expanding the set of registered qualifications with those awarded by various organisations (Table C) in the future. Including these types of qualifications into the register will be done in two ways:

1. An interested institution/organisation develops a proposal for a qualification according to the requirements set forth in regulations governing the functioning of the qualifications system. The proposal is then submitted to the relevant minister with an application to have it entered into the register. Verifying whether the submitted qualification meets all the legal requirements and entering it into the register may be done in the following manner:

   After reviewing the application, the minister responsible for the given qualification, or an authorised entity, decides whether or not to enter it into the register and grant it the status of a registered qualification. After being informed of the decision, the register operator enters (records) the qualification into the register.

2. The institution/organisation reports only a justified need to develop a new qualification (including, for example, the proposed design).

   Then a team of experts working with the entity operating the register, the minister responsible for the qualification (or eventually, an authorised entity), will develop the qualification in such a way so that it meets the legal requirements. In this option, the decision to enter the qualification into the register is made by the relevant minister (or authorised entity).

In both options, the authority to monitor the qualification's quality remains with the minister who makes the decision to enter the qualification into the register.

It is assumed that establishing qualifications should result from the collaborative work of all stakeholders, including relevant government departments, as well as industry associations and organisations. The standard will be to ensure sufficiently broad consultations of new proposals for qualifications with stakeholders, which in many cases will have to be agreed to in a forum with the Inter-ministerial Taskforce for Lifelong Learning, including the National Qualifications Framework.

The integrated qualifications register will be a new, important tool in the practical implementation of lifelong learning policies serving various stakeholder groups:

– Persons interested in attaining qualifications will be able to better plan their development and successive stages of their careers in Poland and abroad than has previously been possible.
– Employers will be able to use this information not only in hiring people with the relevant competencies, but also in better planning activities to support the professional development of their workforce.
– Government offices, institutions and non-governmental organisations carrying out various public activities will have access to a continuously updated data base on the qualifications functioning in the market.

3. Scenario for developing the qualifications system in Poland

Work on modernising the qualifications system has been ongoing since the 1990s. On the one hand, reform initiatives originate with public authorities (national government institutions), while on the other hand, the search for more effective operating models is undertaken by many groups who are taking advantage of their autonomy by introducing various innovations. It should be noted that government initiatives in this field are realised with the significant participation of stakeholder groups involved in education and the labour market. Thus, modernising the qualifications system in Poland is occurring simultaneously "top-down" and "bottom-up".

The 1999 reforms in education introduced core curricula, which standardised the teaching programme in a new way by defining general aims and the content framework for general education. As a result, schools gained the opportunity to independently develop their own teaching programmes. In 2007, a group of experts at the Ministry of National Education began working on developing a new general education core curriculum. While leaving the schools with the autonomy to continue to choose their own teaching programmes, in other words, the ability to organise their own educational process, the team working on the core curricula focused on developing clear learning outcomes. Over 100 experts from academia, the examination system and the teaching profession were involved in the work on the new core curriculum for general education. The draft curriculum proposals were broadly consulted, especially among teachers, in the form of conferences and discussion meetings in smaller groups. A special online forum was launched, enabling all interested persons to make comments and suggestions. Free materials were distributed. The new curriculum has been in force since the 2009–2010 school year.

Analogous activities with respect to the vocational education core curriculum began in 2008.[53] Representatives of many professional communities were engaged in developing this document together with education specialists. An especially important role was played by employers, trade unions, representatives of higher education and ministers responsible for specific occupations. The vocational education core curriculum was developed by basing the descriptions of school qualifications on learning outcomes. Drafts of the qualifications' descriptions were reviewed by experts who were not part of the vocational school system. Agreement on the descriptions was reached with the ministries responsible for specific occupations. Consultations were conducted with vocational school teachers, among others. About 600 persons (authors and reviewers) directly worked on developing the vocational education core curriculum. As of 2011, many conferences and seminars have been organised in Poland to present the work accomplished in this area. To date, over 80 such events have been held. About 50 meetings with practitioners involved in training and educational methodology were also held. The new core curriculum for vocational education is being implemented as of the 2012–2013 school year.

It should be noted that the general education core curricula and vocational education core curriculum define examination requirements. They are the basis on which external examinations are conducted; they also serve as an important reference for internal assessments at schools (see Annex 6).

In higher education, elements of a modern qualifications system were introduced in accordance with the guidelines of the Bologna Process, in which Poland has been participating since 1999. The following mechanisms have been introduced: a three-cycle system of studies, the ECTS system, the required issuance of the Diploma Supplement, and a universally mandatory accreditation system. In Poland, work on the qualifications framework for higher education started in 2006. The Minister of Science and Higher Education set up a Working Group for the National Qualifications Framework for Higher Education. After the basic premises and general concept of the Framework developed by the group were approved, sets of learning outcome descriptors for the eight broad areas of study were prepared.[54]

[53] Within the framework of the systemic project entitled "Improving core curricula is key to modernising vocational education" implemented in 2008–2013 by the National Centre for Supporting Vocational and Continuing Education (NCFSVCE) (Human Capital Operational Programme, Priority III, Measure 3.3, Sub-measure 3.3.3.).

[54] Work undertaken as part of the "National Qualifications Framework in higher education as a tool of improving educational quality" Project, implemented by the Ministry of Science and Higher Education (Human Capital Operational Programme, Priority IV, Measure 4.1, Sub-measure 4.1.3).

As of 2009, broad consultations began, mainly with the academic community. Their aim was to prepare higher education institutions for the changes to be introduced in designing and carrying out educational programmes. The main theme of seminars and conferences organised in 2009–2011 was the Qualifications Framework for Higher Education. During this period, about 160 different types of meetings took place throughout Poland between previously prepared Bologna Experts and academic staff, students and institutions involved in higher education (Rectors Conference, Polish Accreditation Committee, Council of Higher Education, Students' Parliament of the Republic of Poland, associations active in the academic community, trade unions, employers' associations and others). Basic information on the National Qualifications Framework for Higher Education was presented and solutions to various emerging problems were discussed with the academic community and external stakeholders at these meetings. At the same time, similar activities were conducted by the Ministry of Science and Higher Education as of 2010, with the organisation of about 80 meetings. The conclusions of these meetings formed the basis of improving legislative measures of an executive nature. Two publications served as important baselines for the discussions. About 6000 copies of these free publications were distributed.[55] Comments received during the meetings were relayed to the expert groups developing the National Qualifications Framework for Higher Education and examples of study programmes. On October 1, 2011, amendments to the Law on Higher Education of 18 March 2011 entered into force, enabling these new solutions to be implemented.[56]

Other ministries, such as the Ministry of Defence, have indicated that they are undertaking similar activities. In 2012, the Ministry initiated a process of identifying military specialisations that have their counterparts in the civilian labour market, and in the next stage, is planning to implement the certification of military certificates in the civilian job market.[57] Additionally, an appointed departmental team for the qualifications system of the Armed Forces of the Republic of Poland will diagnose the state of the existing system to both describe the qualifications, as well as the manner of attaining and documenting them. These qualifications will be defined according to established rules regarding, among others, the description of learning outcomes, training, formal requirements, and taking into account learning outcomes acquired through non-formal and informal learning. The development of the qualifications system in the Ministry of Defence is a multifaceted and long-term process requiring not only changes in a number of legal acts, but also changes in the education and training programmes, the preparation of teaching staff and training instructors, as well as preparing them to acquire the competence to be examiners.

The Council of Ministers approved the 2005–2008 National Reform Programme, which lists among its objectives the implementation of a National Qualifications Framework. Entries relating to the construction of a national qualifications framework were also in successive National Reform Programmes for 2008–2011 and for 2011–2014.

Building the national qualifications framework and system is also taken into account in the National Development Strategy 2007–2015. The Education Development Strategy for 2007–2013, in turn, anticipates the establishment of a transparent system of vocational qualifications and a system of recognising qualifications attained outside of the education system.

Establishing the Polish Qualifications Framework is also envisaged in the National Development Strategy 2020, where referencing qualifications to the European Qualifications Framework through the PQF is mentioned. The draft Strategy for the Development of Human Capital states that establishing the national qualifications system as part of the European area of lifelong learning will enable better comparisons of qualifications and increase opportunities for the validation of competencies acquired through non-formal education and informal learning. The draft Strategy for Innovation and Economic Efficiency proposes that the Polish Qualifications Framework could

[55] Chmielecka, E. (ed.) (2010), Kraśniewski, A. (2011).

[56] Act of 18 March 2011 on changes to the Act – Law on higher education, the law on academic degrees and academic titles and on degrees and titles in the fine arts and on changes to certain other laws (Journal of Laws, No. 84, item 455 with later amendments).

[57] It should be noted that not all qualifications attained in the military have their counterparts to those functioning in the civilian qualifications market. Given the specificity of the Armed Forces' work, a number of these qualifications will remain outside of the general qualifications system as departmental qualifications.

become a future business tool for recruitment and training. The draft Strategy for the Development of Social Capital speaks about the importance of the PQF for improving the quality of education.

In 2008, the Minister of National Education appointed a working group of experts to prepare a draft of the Polish Qualifications Framework and preliminary guidelines for its implementation.[58] Currently, work on modernising the national qualifications system is being carried out by the Educational Research Institute (IBE) in Warsaw as part of a systemic project whose implementation is supervised by the Ministry of National Education.[59]

In order to manage preparations for implementation of the national qualifications framework, on February 17, 2010, the Prime Minister appointed the Inter-ministerial Taskforce for Lifelong Learning, including the National Qualifications Framework, and within its framework – The Steering Committee of the National Qualifications Framework for Lifelong Learning (Section 4.1). In July 2011, the Steering Committee adopted the premises of the national qualifications system, the initial concept of the referencing report and a proposed "Glossary of Key Concepts related to the National Qualifications System." On August 26, 2011, these proposals were accepted by the Inter-ministerial Taskforce, which recommended that the glossary be consulted with the Council for the Polish Language. These consultations began at the beginning of 2012 (see Annex 2).

After the premises for the national qualifications system were approved, preparatory activities were started on many fronts so that once the appropriate decisions are made by authorised government officials on enacting the integrated qualifications system, work can begin on implementing the new solutions shortly thereafter. The following activities were undertaken:

- Preparation, based on an expert model, of a stakeholder consulted design of the Polish Qualifications Framework. Work on the design was completed in October 2012 (see section 4.2).
- Preparation of the substantive, institutional and organisational premises of the institution for the NQS, including the concept of the national qualifications register. In November 2012, work was completed on the concept of a national qualifications register, and the initial substantive, institutional and organisational premises for operating the register were developed at the same time. As part of this task, initial proposals were prepared to direct work on the legislation required for starting the implementation of the new solutions. Work is also underway on the concept of computerising the national qualifications system, including the NQS Internet portal. These materials will be presented in 2013 and will be the basis for further activities, which should lead to the initiation of the national qualifications register in 2015.
- Preparation of the concept of quality assurance principles, including the methodology of validating learning outcomes (procedures for validating competencies). In October 2012, work was completed on the document, "The concept of quality assurance principles, including the methodology of validating learning outcomes, consulted with experts" (see Section 2.3). This document is the starting point for preparing a concept that is to be developed by the end of 2013. Research and expert opinions on this issue will be included in the work on preparing the concept of quality assurance principles.
- Preparation of the concept of rules and procedures for assigning PQF levels to qualifications. In September 2012, work was completed on an initial proposal of the concept. A document was prepared, entitled "The rules for assigning qualifications to levels in the Polish Qualifications Framework – conclusions of the work of sectoral teams."[60] This material provides a starting point for further work of the sectoral teams, which are to initially assign PQF levels to 350 qualifications by the end of 2013 (see Annexes 3 and 4). This task is closely related to the work of preparing at least three proposed sectoral qualifications in 2013.

[58] Within the framework of the "Developing a balance sheet of qualifications and competencies available in the labour market in Poland and a model of the National Qualifications Framework" systemic project, implemented in 2008–2010 by the Ministry of National Education, and as of February 1, 2010 at the Educational Research Institute (Human Capital Operational Programme, Priority III, Measure 3.4, Sub-measure 3.4.1).

[59] "The development of terms of reference for the implementation of the National Qualifications Framework and the National Qualifications Register for lifelong learning" Project is being implemented from July 2010 to the end of 2013. (Human Capital Operational Programme, Priority III, Measure 3.4, Sub-measure 3.4.1).

[60] This document was prepared before it was determined that PQF levels are assigned to qualifications (and not vice versa).

- Preparation of the concept of an integrated system of credit accumulation and transfer for general education, vocational education and training and higher education. The first material outlining the concept is the subject of discussions with stakeholders as of January 2013. As part of this work, seminars will be held with the participation of international specialists and expert opinions will be prepared by national and international experts. Pilot projects also are planned to verify the proposed solutions. Work on the concept is targeted for completion by the end of 2013.
- Preparation of an expanded version of "A Glossary of Key Concepts related to the National Qualifications System." The new version will be prepared together with experts from the Council for the Polish Language (see Annex 2). This work is scheduled to be completed with publication of the glossary in 2013.
- An inventory will be made of all qualifications awarded on the basis of legal provisions for the purpose of building a qualifications map for Poland. The report on qualifications in Poland will be completed in 2013.
- Ongoing information on the integrated qualifications system will continue to be systematically disseminated through the media, the website (www.kwalifikacje.edu.pl), published materials and the organisation of conferences, seminars and workshops. These activities are intended to promote the idea of lifelong learning in society, as well as raise awareness about the Polish Qualifications Framework and develop educational programmes based on learning outcomes in educational institutions, training centres and the labour market. As preparatory work on these issues progresses, the scale of these activities will increase.

Additionally, national and international experts have been involved in preparing this referencing report, presenting the proposed Polish Qualifications Framework and the state of advancement in work on modernising the national qualifications system.

A draft referencing report was presented to the Steering Committee of the National Qualifications Framework for Lifelong Learning for consultation. After revising the report to take into account the comments provided during consultations, it was accepted by the Inter-ministerial Taskforce for Lifelong Learning, including the National Qualifications Framework at the meeting on April 15, 2013.

The report was approved by the Committee for European Affairs[61] on May 15, 2013.

The approved premises assume the gradual introduction of new solutions through the passage of subsequent laws establishing their legal basis and enabling the integration of the national qualifications system. A milestone in the process of modernising the national qualifications system will be the launching of the integrated qualifications register.

[61] The Committee for European Affairs makes decisions on behalf of the Council of Ministers. Legal basis: The Act of 27 August 2009 on the Committee for European Affairs (Journal of Laws No. 161 item 1277).

4. Referencing criteria

4.1. Criterion 1

Criterion 1. The responsibilities and/or legal competence of all relevant national bodies involved in the referencing process, including the National Coordination Point, are clearly determined and published by the competent public authorities.

In 2010, the Prime Minister established the Inter-ministerial Taskforce for Lifelong Learning, including the National Qualifications Framework to coordinate activities for the implementation of policy objectives in Poland for lifelong learning.[62] The Taskforce will function for the preparatory period leading to implementation of the qualifications framework. Chaired by the Minister of National Education, the Taskforce includes the Minister of Science and Higher Education, Minister of Economy, Minister of Labour and Social Policy, Minister of Regional Development, Minister of Foreign Affairs and Head of the Chancellery of the Prime Minister.

The main responsibilities of the Taskforce are:
- to develop a strategic document on solutions for lifelong learning in Poland,
- to monitor the implementation of policies for lifelong learning, including the development of the PQF,
- to initiate cooperation between government administrative bodies, partners and relevant institutions for the implementation of lifelong learning policies,
- to initiate and monitor Polish participation in the work carried out in the European Union on lifelong learning, including the European Qualifications Framework.

In order to monitor the development and implementation of the PQF, a sub-team was established of the Inter-ministerial Taskforce – the Steering Committee of the National Qualifications Framework for Lifelong Learning (Steering Committee of the NQF). Chaired by the Minister of Science and Higher Education, the Committee is comprised of representatives from:[63]
- the Minister of National Education,
- the Minister of Economy,
- the Minister of Labour and Social Policy,
- the Minister of Regional Development,
- the Minister of Foreign Affairs,
- the Minister of Culture and National Heritage,
- the Minister of Health,
- the Minister of National Defence,
- the Minister of Internal Affairs,
- the Minister of Transportation, Construction and Maritime Economy,
- the Minister of Sport and Tourism.

Experts and representatives of the following groups may participate in the work of the Committee in an advisory capacity:
- associations of territorial government units,
- employer organisations,
- trade unions,

[62] Resolution no. 13 of February 17, 2010 of the Prime Minister on the Inter-ministerial Taskforce for Lifelong Learning, including the National Qualifications Framework.

[63] Later changes in the structure of Poland's ministries resulted in relevant changes in the structure of the Steering Committee.

- education system institutions,
- higher education,
- institutions offering training to the labour market and civil society,
- institutions awarding qualifications.

As a result of the developing work on implementing qualifications frameworks, in 2010, the Minister of Science and Higher Education entrusted the *Bureau for Academic Recognition and International Exchange*[64] to function as the National Coordination Point. The Bureau is supervised by the Ministry of Science and Higher Education. The tasks of the National Coordination Point are "to ensure access to information and guidance on the relationship between the national qualifications system and the European Qualifications Framework and to support the participation of stakeholders in activities to compare and use qualifications at the European level". The Bureau represents Poland at meetings of international representatives of National Coordination Points.

Simultaneously, in 2010, the Minister of National Education commissioned the Educational Research Institute in Warsaw (IBE) to prepare comprehensive proposals to develop and implement the Polish Qualifications Framework and the referencing report. This task is carried out within the framework of a systemic project entitled "The development of terms of reference for the implementation of the National Qualifications Framework and the National Qualifications Register for lifelong learning".[65] The main result of the project will be to develop the overall concept of an integrated national qualifications system in Poland that includes the substantial and organisational premises, principles of operation and initial proposals for its most important components – the Polish Qualifications Framework and the Integrated Qualifications Register. Additionally, the project also includes work on proposals of the rules for assigning levels to qualifications, validating learning outcomes, the principles for credit transfer and accumulation and the principles governing the quality assurance of qualifications. In carrying out the tasks with which it has been entrusted, IBE works together with research institutes, experts and stakeholders of the qualifications system (see section 3).

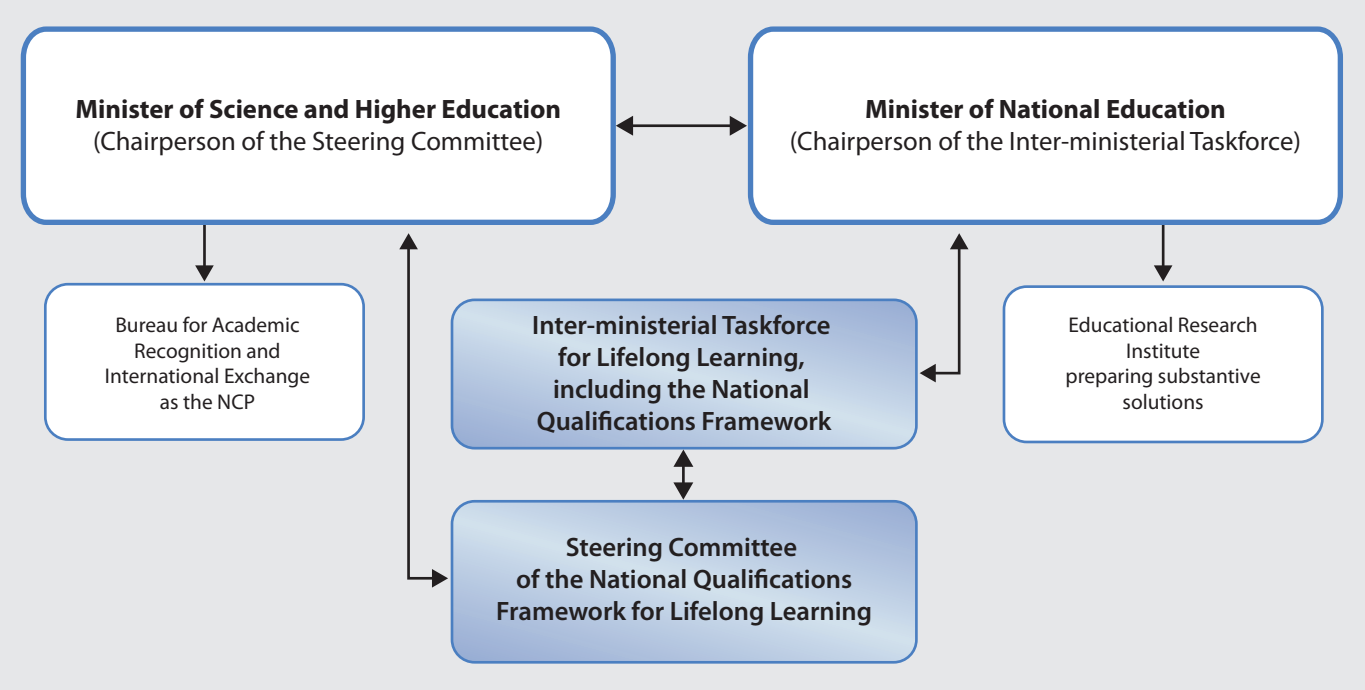
Since the beginning of the work on establishing the Polish Qualifications Framework and the referencing report, the proposals prepared by IBE have been submitted for approval to the Steering Committee and the Inter-ministerial Taskforce. These proposals were discussed at these forums. After acquiring the approval of these bodies, expert teams in cooperation with a broad community of social partners continued designing new solutions for the qualifications system. After some time, more advanced work and projects were again presented to the Steering Committee and Inter-ministerial Taskforce for discussion and approval.

The diagram presented in Figure 7 presents the management chart for developing the integrated qualifications system at the conceptual and preparatory stages of work.

[64] Resolution no. 37/2010 of 28 July 2010 of the Minister of Science and Higher Education amending the resolution on the establishment of the Bureau for Academic Recognition and International Exchange (Journal of Laws, Ministry of Science and Higher Education No. 4, item 68).

[65] Human Capital Operational Programme, Priority III, Measure 3.4, Sub-measure 3.4.1.

Figure 7. Institutions involved in preparing for the implementation of an integrated qualifications system based on the Polish Qualifications Framework



Source: IBE.

This chart is the result of existing laws governing Polish authorities, but it is not a solution that facilitates the management of all preparations. The responsibilities of individual ministers are defined in such a way that the issue of qualifications, which affects all ministries simultaneously, does not have a clearly defined advocate in the government. This raises the need to appoint inter-ministerial entities, which ensure relevant representation, but by virtue of their nature, have relatively limited ability to respond quickly to changing circumstances. The issue of eventually assigning responsibility and authority for directing the ongoing management of activities and the further development of the integrated system has not yet been determined. Regardless of the management model adopted for the qualifications system, the role of stakeholder groups, especially social partners, will be taken into account to the greatest extent possible within the Polish context.

4.2. Criterion 2

Criterion 2. There is a clear and demonstrable link between the qualifications levels in the national qualifications framework or system and the level descriptors of the European Qualifications Framework.

The Polish Qualifications Framework (PQF) has a similar structure to the European Qualifications Framework (EQF). It has eight levels corresponding to the EQF levels. Confirmation of the congruence between PQF and EQF levels was provided by the results of the following analyses:

- comparison of basic concepts, the language of the text and assumptions in the PQF and EQF,
- comparison of the descriptors at corresponding levels in both frameworks.

These comparisons are presented in the tables below.

A comparison of basic concepts, language of the text and assumptions in the PQF and EQF

In accordance with the concept of qualifications frameworks adopted in Europe, the PQF is based on learning outcomes. Learning outcomes appropriate for each level of the Polish Qualifications Framework are described in terms of knowledge, skills and social competence. Key terms used in the description of the structure and levels of the PQF are consistent with the definitions proposed in the Recommendation of the EP on the EQF. Existing differences in the wording are due to the specifics of the Polish language (concepts, terminology) and institutional conditions.

Each PQF level is defined by descriptors, which in general terms characterise the learning outcomes required for a given level. EQF descriptors served as the reference point for the PQF universal descriptors. The PQF universal descriptors can refer to descriptions of qualifications awarded both in the formal general, vocational and higher education systems, as well as out-of-school. It should be noted that the universal descriptors in the Polish Qualifications Framework develop further into three groups of second stage generic descriptors: those typical for general education, those typical for vocational education and training and those typical for higher education (see section 2.2). Through the PQF universal descriptors, second stage generic descriptors also fully correspond to the EQF descriptors.

The PQF uses a slightly different method of presenting the descriptors than is found in the EQF. The entries in the columns – knowledge, skills, social competence – are referenced to specific areas of learning or professional activity. The phrase "knows and understands" is used for the category of "knowledge"; the phrase "is able to" is used for the category of "skills". The phrase "is ready to" was accepted for the category of "social competence", by which two essential aspects are linked: axiological and psychological.

The correspondence of the definitions of learning outcome categories accepted in the work on the PQF with the definitions set out in the Recommendation is presented in Table 4.

Table 4. Comparison of the language of basic concepts (categories of learning outcomes) in the PQF and EQF

The definitions of knowledge, skills and competence in the EQF were taken from the official translation of the Recommendation of the European Parliament and of the Council of 23 April 2008 on the establishment of the European Qualifications Framework for lifelong learning.

knowledge		skills		social competence	competence
PQF	**EQF**	**PQF**	**EQF**	**PQF**	**EQF**
A set of descriptions of facts, principles, theories and practices assimilated during the learning process, relating to a field of learning or professional activity.	The outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study. In the context of the EQF, knowledge is described as theoretical and/or factual.	The ability to carry out tasks and solve problems related to the relevant field of learning or professional activity.	The ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive (involving the use of logical, intuitive and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments).	The ability to shape one's own development as well as participate in professional and social life autonomously and responsibly, while taking into consideration the ethical context of one's own conduct.	The proven ability to use knowledge, skills and personal, social and/or methodological abilities, in work or study situations and in professional and personal development. In the context of the European Qualifications Framework, competence is described in terms of responsibility and autonomy.
The definition in the PQF reflects the exact meaning of the definition provided in the Recommendation of the European Parliament and of the Council of 23 April 2008. In the Polish understanding of the concepts "facts", "theories" or "rules of conduct", the theoretical or factual nature of knowledge is implied (implicit) in these terms.		The definition adopted in the PQF directly refers to the definition in the Recommendation of the European Parliament and of the Council of 23 April 2008. "Cognitive" and "practical" skills are not distinguished in the Polish language and therefore this passage is omitted – it is treated as self-evident.		The PQF adopted the term "social competence", which in Polish best captures the meaning of this category of outcomes. The definition adopted in the PQF is consistent with the definition in the Recommendation of the European Parliament and of the Council of 23 April 2008. It accurately reflects the meaning of the provisions contained in the EQF. The Polish language has no equivalent of the expression "proven ability to use". The literal translation of this phrase would be misleading. The accepted definition omits this word, as reference is made to validated learning outcomes in the context of the qualifications system.	

Table 5. The Polish Qualifications Framework – universal descriptors

PQF descriptors illustrate the accrual of learning outcomes, from the lowest to the highest level.

	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Level 7	Level 8
KNOWLEDGE **a person knows and understands:**	elementary facts and concepts as well as the dependencies between selected natural and social phenomena and the products of human thought	a broadened set of basic facts, simple concepts as well as the dependencies between selected natural and social phenomena and the products of human thought	basic facts and concepts as well as the dependencies between selected natural and social phenomena and the products of human thought; and also a broader scope of selected facts, concepts and dependencies in specific areas; the elementary conditions of conducted activities	a broadened set of basic facts, moderately complex concepts and theories as well as the dependencies between selected natural and social phenomena and the products of human thought; and also a broader scope of selected facts, moderately complex concepts, theories in specific areas and the dependencies between them; the basic conditions of conducted activities	a broad scope of facts, theories, methods and the dependencies between them; the diverse conditions of conducted activities	an advanced level of facts, theories, methods and the complex dependencies between them; the diverse, complex conditions of conducted activities	an in-depth level of selected facts, theories, methods and complex dependencies between them, also in relationship to other fields; the diverse, complex conditions and axiological context of conducted activities	the world's scientific and creative achievements and the resulting implications of this for practice
SKILLS **a person is able to:**	carry out very simple tasks according to detailed instructions under typical conditions; solve very simple, routine problems under typical conditions; learn under direct guidance in a structured form; understand simple statements and formulate very simple statements	complete simple tasks following general instructions most often under typical conditions; solve simple, routine problems most often under typical conditions; learn under guidance in a structured form; understand moderately complex statements, formulate simple statements; formulate and understand the simplest statements in a foreign language	complete moderately complex tasks following general instructions under partially variable conditions; solve simple, routine problems under partially variable conditions; learn partially autonomously under guidance in a structured form; understand moderately complex statements, formulate moderately complex statements; understand and formulate very simple statements in a foreign language	complete moderately complicated tasks, partially without instruction, often under variable conditions; solve moderately complex and somewhat non-routine problems often under variable conditions; learn autonomously in a structured form; understand complex statements, formulate moderately complex statements on a broad range of issues; understand and formulate simple statements in a foreign language	complete tasks without instruction under variable, predictable conditions; solve moderately complex and non-routine problems under variable, predictable conditions; learn autonomously; understand moderately complex statements, formulate moderately complex statements using specialised terminology; understand and formulate very simple statements in a foreign language using specialised terminology	innovatively complete tasks and resolve problems which are complex and non-routine under variable and not fully predictable conditions; autonomously plan one's lifelong learning; communicate with one's surroundings, substantiate one's position	complete tasks as well as formulate and solve problems with the use of new knowledge, also from other fields; independently plan one's own lifelong learning and direct others in this area; communicate with various groups of respondents, appropriately substantiate one's position	analyse and creatively synthesise scientific and creative achievements to identify and solve research problems as well as those related to innovative and creative activities; contribute new elements to these achievements; independently plan one's own development as well as inspire the development of others; participate in the exchange of experiences and ideas, also in the international community
SOCIAL COMPETENCE **a person is ready to:**	respect the obligations arising from membership in various communities; act and cooperate with others under direct supervision in structured conditions; evaluate one's own actions and take responsibility for the direct results of those actions	assume the obligations arising from membership in various communities; act and cooperate with others under direction in structured conditions; evaluate the actions in which one participates and take responsibility for the results of those actions	be a member of various types of communities, function in various social roles and assume the basic obligations ensuing from this; act and cooperate with others partially autonomously in structured conditions; evaluate one's own actions and those of the team; take responsibility for the results of those actions	assume responsibility for participating in various communities and functioning in various social roles; act and cooperate with others autonomously under structured conditions; evaluate one's own actions and those of persons one is directing; take responsibility for the results of one's own actions as well as those of the persons one directs	assume basic professional and social responsibilities, evaluate and interpret them; independently act and cooperate with others under structured conditions, direct a small team under structured conditions; evaluate one's own actions and those of others and the teams one directs; assume responsibility for the results of those actions	cultivate and disseminate models of good practice in the workplace and beyond; make decisions independently; critically evaluate one's own actions, those of the team one directs and the organisations in which one participates; assume responsibility for the results of those actions	establish and develop models of good practice in the environments of work and life; initiate actions, critically assess oneself as well as the teams and organisations in which one participates; lead a group and take responsibility for it	conduct independent research which contributes to existing scientific and creative achievements; assume professional and public challenges that take into consideration: – their ethical dimension – responsibility for their results and develop models of good practice in such situations

Analysis of the congruence between the PQF and EQF descriptors

In order to perform an analysis of congruence, a comparison was made of the relevant provisions in both frameworks. Tables 6a – 6h show how the PQF universal descriptors (first stage generic descriptors) correspond to the EQF descriptors. EQF descriptors are presented in Polish and English. The similarities and differences between them are distinguished by colour. The comparative analysis was performed using the following indicators:

– **green colour**

the PQF descriptor exactly or very closely corresponds to the EQF descriptor (consistency within the category of learning outcomes: knowledge, skills, social competence),

– **orange colour**

the EQF descriptor is implicitly expressed by the PQF universal descriptor; direct references are found in the second stage generic descriptors,

– **blue colour**

the PQF descriptor includes content that was not directly expressed by the EQF descriptor.

In analysing the specific entries in the tables below, it can be seen that the description of skills in the PQF is more detailed than in the EQF and includes problem solving, performing tasks and communication, while taking into account, among others, the complexity and typicality of tasks and problems, extent of autonomy (direction) and conditions under which activities are conducted. In addition, the PQF assumes that "learning" is a skill, but also a responsibility, which, if undertaken, is treated as a social competence. Consequently, "learning" is considered both a "social competence" as well as a "skill" when it appears in the blue colour.

Table 6a. Comparison of PQF universal descriptors with EQF descriptors – level 1

	EQF Descriptors	PQF Descriptors
Knowledge	Basic general knowledge *Podstawowa wiedza ogólna*	a person **knows and understands:** elementary facts and concepts as well as the dependencies between selected natural and social phenomena and the products of human thought
Skills	Basic skills required to carry out simple tasks *Podstawowe umiejętności wymagane do realizacji prostych zadań*	a person is **able to**: carry out very simple tasks according to detailed instructions under typical conditions; solve very simple, routine problems under typical conditions; learn under direct guidance in a structured form; understand simple statements and formulate very simple statements
Competence (social)	Work or study under direct supervision in a structured context *Praca lub nauka pod bezpośrednim nadzorem w zorganizowanym kontekście*	a person is **ready to**: respect the obligations arising from membership in various communities; act and cooperate with others under direct supervision in structured conditions; evaluate one's own actions and take responsibility for the direct results of those actions

Comments to Table 6a:

- "elementary facts and concepts" in the PQF are an extension of the term "basic general knowledge" in the EQF;
- "dependencies between selected natural and social phenomena (…)" refers to the depth of understanding of the knowledge.

Table 6b. Comparison of PQF universal descriptors with EQF descriptors – level 2

	EQF Descriptors	PQF Descriptors
Knowledge	Basic factual knowledge of a field of work or study *Podstawowa wiedza faktograficzna w danej dziedzinie pracy lub nauki*	a person **knows and understands**: a broadened set of basic facts, simple concepts as well as the dependencies between selected natural and social phenomena and the products of human thought
Skills	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools *Podstawowe umiejętności praktyczne lub kognitywne potrzebne do korzystania z istotnych informacji w celu realizacji zadań i rozwiązywania rutynowych problemów przy użyciu prostych zasad i narzędzi*	a person is **able to**: complete simple tasks following general instructions most often under typical conditions; solve simple, routine problems most often under typical conditions; learn under guidance in a structured form; understand moderately complex statements, formulate simple statements; formulate and understand the simplest statements in a foreign language
Competence (social)	Work or study under supervision with some autonomy *Praca lub nauka pod nadzorem o pewnym stopniu autonomii*	a person is **ready to**: assume the obligations arising from membership in various communities; act and cooperate with others under direction in structured conditions; evaluate the actions in which one participates and take responsibility for the results of those actions

Comments to Table 6b:

– the phrase in the EQF "using simple rules and tools" corresponds in the PQF to "simple tasks (…) under typical conditions", where "using simple rules and tools" is implied.

Table 6c. Comparison of PQF universal descriptors with EQF descriptors – level 3

	EQF Descriptors	PQF Descriptors
Knowledge	Knowledge of facts, principles, processes and general concepts, in a field of work or study *Znajomość faktów, zasad, procesów i pojęć ogólnych w danej dziedzinie pracy lub nauki*	a person **knows and understands**: basic facts and concepts as well as the dependencies between selected natural and social phenomena and the products of human thought; and also a broader scope of selected facts, concepts and dependencies in specific areas; the elementary conditions of conducted activities
Skills	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying basic methods, tools, materials and information *Zestaw umiejętności kognitywnych i praktycznych potrzebnych do realizacji zadań i rozwiązywania problemów poprzez wybieranie i stosowanie podstawowych metod, narzędzi, materiałów i informacji*	a person is **able to**: complete moderately complex tasks following general instructions under partially variable conditions; solve simple, routine problems under partially variable conditions; learn partially autonomously under guidance in a structured form; understand moderately complex statements, formulate moderately complex statements; understand and formulate very simple statements in a foreign language
Competence (social)	Take responsibility for completion of tasks in work or study; adapt own behaviour to circumstances in solving problems *Ponoszenie odpowiedzialności za realizację zadań w pracy lub nauce; dostosowywanie własnego zachowania do okoliczności w rozwiązywaniu problemów*	a person is **ready to**: be a member of various types of communities, function in various social roles and assume the basic obligations resulting from this; act and cooperate with others partially autonomously in structured conditions; evaluate one's own actions and those of the team; take responsibility for the results of those actions

Table 6d. Comparison of PQF universal descriptors with EQF descriptors – level 4

	EQF Descriptors	PQF Descriptors
Knowledge	Factual and theoretical knowledge in broad contexts within a field of work or study *Faktograficzna i teoretyczna wiedza w szerszym kontekście danej dziedziny pracy lub nauki*	a person **knows and understands**: a broadened set of basic facts, moderately complex concepts and theories as well as the dependencies between selected natural and social phenomena and the products of human thought; and also a broader scope of selected facts, moderately complex concepts, theories in specific areas and the dependencies between them; the basic conditions of conducted activities
Skills	A range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study *Zakres umiejętności kognitywnych i praktycznych potrzebnych do generowania rozwiązań określonych problemów w danej dziedzinie pracy lub nauki*	a person is **able to**: complete moderately complicated tasks, partially without instruction, often under variable conditions; solve moderately complex and somewhat non-routine problems often under variable conditions; learn autonomously in a structured form; understand complex statements, formulate moderately complex statements on a broad range of issues; understand and formulate simple statements in a foreign language
Competence (social)	Exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change; supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities *Samodzielna organizacja w ramach wytycznych dotyczących kontekstów związanych z pracą lub nauką, zazwyczaj przewidywalnych, ale podlegających zmianom. Nadzorowanie rutynowej pracy innych, ponoszenie pewnej odpowiedzialności za ocenę i doskonalenie działań związanych z pracą lub nauką*	a person is **ready to**: assume responsibility for participating in various communities and functioning in various social roles; act and cooperate with others autonomously under structured conditions; evaluate one's own actions and those of persons one is directing; take responsibility for the results of one's own actions as well as those of the persons one directs

Comments to Table 6d:

– in the category of "knowledge", the EQF entry has a "single aspect", that is, it refers to "broad contexts within a field of work or study", whereas the PQF distinctly reflects two aspects of advanced knowledge – at the general level and within the context of a given field.

Table 6e. Comparison of PQF universal descriptors with EQF descriptors – level 5

	EQF Descriptors	PQF Descriptors
Knowledge	Comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge *Obszerna, specjalistyczna, faktograficzna i teoretyczna wiedza w danej dziedzinie pracy lub nauki i świadomość granic tej wiedzy*	a person **knows and understands**: a broad scope of facts, theories, methods and the dependencies between them; the diverse conditions of conducted activities
Skills	A comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems *Rozległy zakres umiejętności kognitywnych i praktycznych potrzebnych do kreatywnego rozwiązywania abstrakcyjnych problemów*	a person is **able to**: complete tasks without instruction under variable, predictable conditions; solve moderately complex and non-routine problems under variable, predictable conditions; learn autonomously; understand moderately complex statements, formulate moderately complex statements using specialised terminology; understand and formulate very simple statements in a foreign language using specialised terminology
Competence (social)	Exercise management and supervision in contexts of work or study activities where there is unpredictable change; review and develop performance of self and others *Zarządzanie i nadzór w kontekstach pracy i nauki podlegających nieprzewidywalnym zmianom, analizowanie i rozwijanie osiągnięć pracy własnej oraz innych osób*	a person is **ready to**: assume basic professional and social responsibilities, evaluate and interpret them; independently act and cooperate with others under structured conditions, direct a small team under structured conditions; evaluate one's own actions and those of others and the teams one directs; assume responsibility for the results of those actions

Comments to Table 6e:

– the phrase in the EQF "review and develop performance of self and others" is expressed in the PQF by three statements: "assume basic professional and social responsibilities, evaluate and interpret them", "direct a small team under structured conditions", "evaluate one's own actions and those of others and the teams one directs".

Table 6f. Comparison of PQF universal descriptors with EQF descriptors – level 6

	EQF Descriptors	PQF Descriptors
Knowledge	Advanced knowledge of a field of work or study, involving a critical understanding of theories and principles *Zaawansowana wiedza w danej dziedzinie pracy i nauki obejmująca krytyczne rozumienie teorii i zasad*	a person **knows and understands**: an advanced level of facts, theories, methods and the complex dependencies between them; the diverse, complex conditions of conducted activities
Skills	Advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study *Zaawansowane umiejętności wykazywania się biegłością i innowacyjnością potrzebną do rozwiązywania złożonych i nieprzewidywalnych problemów w specjalistycznej dziedzinie pracy lub nauki*	a person is **able to**: innovatively complete tasks and resolve problems which are complex and non-routine under variable and not fully predictable conditions; autonomously plan one's lifelong learning; communicate with one's surroundings, substantiate one's position
Competence (social)	Manage complex technical or professional activities or projects, taking responsibility for decision making in unpredictable work or study contexts; take responsibility for managing professional development of individuals and groups *Zarządzanie złożonymi technicznymi lub zawodowymi działaniami lub projektami, ponoszenie odpowiedzialności za podejmowane decyzje w nieprzewidywalnych kontekstach związanych z pracą lub nauką, ponoszenie odpowiedzialności za zarządzanie rozwojem zawodowym jednostek i grup*	a person is **ready to**: cultivate and disseminate models of good practice in the workplace and beyond; make decisions independently; critically evaluate one's own actions, those of the team one directs and the organisations in which one participates; assume responsibility for the results of those actions

Comments to Table 6f:

- the phrase in the EQF "critical understanding of theories and principles" corresponds in the PQF to "an advanced level", where a "critical understanding" is implicitly understood (this is stated *expressis verbis* in second stage generic descriptors);
- the statement in the EQF "in unpredictable (…) contexts" corresponds in the PQF to the words "make decisions independently; critically evaluate one's own actions, those of the team one directs and the organisations in which one participates" (virtually all the statements in second stage generic descriptors implicitly include the component of an "unpredictable context").

Table 6g. Comparison of PQF universal descriptors with EQF descriptors – level 7

	EQF Descriptors	PQF Descriptors
Knowledge	Highly specialised knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research; critical awareness of knowledge issues in a field and at the interface between different fields *Wysoce wyspecjalizowana wiedza, której część stanowi najnowsza wiedza w danej dziedzinie pracy lub nauki, będąca podstawą oryginalnego myślenia lub badań; krytyczna świadomość zagadnień w zakresie wiedzy w danej dziedzinie oraz na styku różnych dziedzin*	a person **knows and understands**: an in-depth level of selected facts, theories, methods and complex dependencies between them, also in relationship to other fields; the diverse, complex conditions and axiological context of conducted activities
Skills	Specialised problem-solving skills required in research and/or innovation in order to develop new knowledge and procedures and to integrate knowledge from different fields *Specjalistyczne umiejętności rozwiązywania problemów potrzebne do badań lub działalności innowacyjnej w celu tworzenia nowej wiedzy i procedur oraz integrowania wiedzy z różnych dziedzin*	a person is **able to**: complete tasks as well as formulate and solve problems with the use of new knowledge, also from other fields; independently plan one's own lifelong learning and direct others in this area; communicate with various groups of respondents, appropriately substantiate one's position
Competence (social)	Manage and transform work or study contexts that are complex, unpredictable and require new strategic approaches; take responsibility for contributing to professional knowledge and practice and/or for reviewing the strategic performance of teams *Zarządzanie i przekształcanie kontekstów związanych z pracą lub nauką, które są złożone, nieprzewidywalne i wymagają nowych podejść strategicznych; ponoszenie odpowiedzialności za przyczynianie się do rozwoju wiedzy i praktyki zawodowej lub za dokonywanie przeglądów strategicznych wyników zespołów*	a person is **ready to**: establish and develop models of good practice in the environments of work and life; initiate actions, critically assess oneself as well as the teams and organisations in which one participates; lead a group and take responsibility for it

Comments to Table 6g:

- the phrase in the PQF "knowledge and understanding of an in-depth level" also means familiarity with the "forefront of knowledge in a given field of work or study" as presented in the EQF;
- the phrase in the EQF "contexts that are complex, unpredictable and require new strategic approaches" is expressed in the PQF by three statements: "establish and develop models of good practice in the environments of work and life", "initiate actions, critically assess oneself as well as the teams and organisations in which one participates" and "lead a group" (virtually all the statements in second stage generic descriptors implicitly refer to the requirement of taking new strategic approaches in diverse and unpredictable contexts).

Table 6h. Comparison of PQF universal descriptors with EQF descriptors – level 8

	EQF Descriptors	PQF Descriptors
Knowledge	Knowledge at the most advanced frontier of a field of work or study and at the interface between fields *Wiedza na najbardziej zaawansowanym poziomie w danej dziedzinie pracy lub nauki oraz na styku różnych dziedzin*	a person **knows and understands**: the world's scientific and creative achievements and the resulting implications of this for practice
Skills	The most advanced and specialised skills and techniques, including synthesis and evaluation, required to solve critical problems in research and/or innovation and to extend and redefine existing knowledge or professional practice *Najbardziej zaawansowane i wyspecjalizowane umiejętności i techniki, w tym synteza i ocena, potrzebne do rozwiązywania krytycznych problemów w badaniach lub działalności innowacyjnej oraz do poszerzania i ponownego określania istniejącej wiedzy lub praktyki zawodowej*	a person is **able to**: analyse and creatively synthesise scientific and creative achievements; contribute new elements to these achievements to identify and resolve research problems as well as those related to innovative and creative activities; independently plan one's own development as well as inspire the development of others; participate in the exchange of experiences and ideas, also in the international community
Competence (social)	Demonstrate substantial authority, innovation, autonomy, scholarly and professional integrity and sustained commitment to the development of new ideas or processes at the forefront of work or study contexts including research *Wykazywanie się znaczącym autorytetem, innowacyjnością, autonomią, etyką naukową i zawodową oraz trwałym zaangażowaniem w rozwój nowych idei i procesów w najważniejszych kontekstach pracy zawodowej lub nauki, w tym badań*	a person is **ready to**: conduct independent research which contributes to existing scientific and creative achievements; assume professional and public challenges that take into consideration: – their ethical dimension – responsibility for their results and develop models of good practice in such situations

Comments to Table 6h:

– the EQF entry in the category of "knowledge" corresponds to the PQF entry because the mainstream of the world's development in science, art and technology occurs as a result of the interaction (interface) between various fields (this is written *expressis verbis* into second stage generic descriptors).

To summarise, it can be stated that the PQF descriptors correspond exactly to the EQF descriptors or are very close to them. The differences occur only when a phrase in the EQF is not directly expressed in the PQF universal descriptors, but is implicitly contained and reflected in second stage generic descriptors.

The comparison also shows that the universal descriptors of the PQF take more aspects into consideration in some of the entries. This is due to the approved concept of the Polish Qualifications Framework, which takes national conditions and contexts into consideration.

A feature of the situation in Poland is the reversal of the sequence of actions undertaken in developing the PQF. This occurred because other sectors were more advanced in their work on modernising the qualifications system. First, the core curricula for general education, vocational education and the National Qualifications Framework for Higher Education were established by legal acts, and only later was work completed on the descriptors of the Polish Qualifications Framework. This has generated a number of difficulties, because the basic premise of the system is that the provisions in the documents already in force were intended to further detail the first and second stage generic descriptors in the PQF. Comparative studies ultimately showed that the concurrence of the existing documents regulating curricula in general, vocational and higher education with the PQF descriptors is relatively high. However, their full harmonisation will require continued work in this area.

4.3. Criterion 3

Criterion 3. The national qualifications framework or system and its qualifications are based on the principle and objective of learning outcomes and linked to arrangements for validation of non-formal and informal learning and, where these exist, to credit systems.

As a result of modernisation processes (see section 3) at the moment all qualifications awarded in the formal general, vocational and higher education systems are described in documents with the use of learning outcomes. In the solutions developed as part of the modernisation of the national qualifications system, this principle has been extended to all qualifications that will be in included the national register. This is reflected in the design of the Polish Qualifications Framework. Ultimately, all other elements of the NQS will refer to learning outcomes. After the qualifications system becomes integrated through the implementation of the Polish Qualifications Framework, interested persons will have much greater opportunities than are presently possible to validate learning outcomes, regardless of how they were attained. An important part of the integrated qualifications system will be coherent principles of credit accumulation and transfer.

4.3.1. Learning outcomes as the basis for awarding qualifications

Qualifications awarded in the formal general, vocational and higher education systems

The learning outcomes that a student should attain during successive stages of education in the school system below higher education are defined in the core curricula for pre-school and general education, as well as in the core curriculum for vocational education (see Annex 6). Determining the content of these documents is the responsibility of the Minister of National Education. The core curriculum for general education is being gradually implemented as of the 2009–2010 school year, with all students to be educated according to the new core curriculum starting with the 2014–2015 school year. The learning outcomes presented in the core curriculum of general education also serve as a description of the examination requirements (Annex 6). As the new general education core curriculum is implemented, examinations will also be modified accordingly. These changes evoked significant difficulties in understanding the new descriptive requirements, which elicited discussion and debate.

The core curriculum for vocational education will start to be implemented in the 2012–2013 school year, with all vocational students being educated according to the new core curriculum as of the 2015–2016 school year. This curriculum also describes examination requirements (Annex 6), which will be modified accordingly as the core curriculum is implemented. Some groups of teachers and employers have great hope that these changes will improve the situation in vocational education in Poland. Others have also expressed doubts and criticisms.

As of the 2012–2013 academic year, the National Qualifications Framework for Higher Education[66] will apply. This document generally defines learning outcomes of the eight broad areas of study for qualifications corresponding to the completion of first and second cycle studies. The learning outcomes and their validation[67] must be described for the study programmes of specific fields in the eight broad areas of study offered by higher education institutions. For third-cycle studies (doctoral), regulations from the Minister of Science and Higher Education[68] describe the expected learning outcomes in more general terms than for first and second cycle studies. The changes introduced have garnered considerable support among higher education directors, but critical voices from some representatives of the academic community are also heard. Many university teachers faced

[66] Resolution of the Minister of Science and Higher Education of 2 November 2011 on the National Qualifications Framework for Higher Education (Journal of Laws, no. 253, item 1520).

[67] Resolution of the Minister of Science and Higher Education of 5 October 2011 on the conditions of providing degree programmes in a given field and a given level of study (Journal of Laws, no. 243, item 1445 with later amendments).

[68] Resolution of the Minister of Science and Higher Education of 1 September 2011 on doctoral studies in universities and academic entities (Journal of Laws, no. 196, item 1169).

with the need to change their approach are encountering various difficulties, but the situation is systematically improving.[69]

Qualifications awarded outside of the general, vocational and higher education systems

Studies showed that a large proportion of the requirements related to the awarding of diplomas and certificates in non-formal education are not described with the use of learning outcomes.[70] In the modernised national qualifications system, a requirement for entering a qualification into the national register will be to describe it using learning outcomes (see sections 2.5 and 4.4).

4.3.2. Validation of non-formal and informal learning

The formal general and vocational education system

The School Education Act provides persons who are 18 years of age with the opportunity to take extramural examinations conducted by regional examination boards. Once an exam has been passed, a certificate of completion can be awarded for every type of formal general education (primary, lower secondary and general upper secondary schools) and vocational qualification attained in school. It is also possible to have a vocational certificate awarded by taking extramural examinations. The formal general and vocational education system also makes it possible to take a vocational examination after having completed a vocational qualification course organised out-of-school, which can be offered not only by public and private schools and other providers of vocational education, but also by labour market institutions and entities conducting educational activities as part of their business activities.

Higher education

In higher education, the procedures for validating learning outcomes achieved outside of this system can be determined by individual higher education institutions. The law on the operation of higher education does not provide any general regulations governing this issue. An important direction in the development of the national qualifications system is increasing opportunities for higher education institutions to validate non-formal and informal learning. Currently, research and analyses[71] are underway to develop a model of validating learning outcomes achieved in this way that is adapted to the needs of higher education institutions and accreditation bodies. These studies are scheduled to be completed in April 2013. The proposed amendments to the Act on changes to the Law on higher education prepared by the Ministry of Science and Higher Education anticipate the introduction of a new system of validating competencies acquired by students outside of the higher education system.

Validation of non-formal and informal learning outside of the formal general, vocational and higher education systems

Awarding diplomas and certificates in different communities is based on various legal provisions. A variety of solutions and procedures are applied to define the conditions under which validation can occur, how it is performed and to assure the quality of qualifications.

An example of the ability to validate outside of the formal general, vocational and higher education systems was introduced by the Act on promoting employment,[72] which makes it possible for participants of "vocational preparation for adults" to take "verifying examinations".

One of the important objectives of the forthcoming modernisation of the qualifications system in Poland is to develop the principles, standards and methods for validation, while accounting for the

[69] More information is presented in the "Self-certification report of the National Qualifications Framework for Higher Education".

[70] See Danilewicz, D., Fryczyńska, M. (2012).

[71] Within the framework of "The development of terms of reference for the implementation of the National Qualifications Framework and the National Qualifications Register for lifelong learning" Project, implemented from July 2010 to the end of 2013 (Human Capital Operational Programme, Priority III, Measure 3.4, Sub-measure 3.4.1).

[72] Act of 20 April 2004 on the promotion of employment and labour market institutions (Journal of Laws 2008, No. 69, item 415 with later amendments).

transparency of these processes. Work is underway on making an inventory and standardising the descriptions of all qualifications established by legislation (as part of the development of a qualifications map for Poland).[73] The results of this inventory provide an important foundation for consideration during the development of the national qualifications system.

Work is also underway on a concept of the quality assurance principles for the national qualifications system in Poland. One of its essential elements will be the principles of ensuring the quality of validation. Studies which have been carried out indicate that there are also many other projects underway in Poland to develop validation procedures and increase the number of persons benefiting from this type of opportunity. These include government projects as well as trade and other industry initiatives. The results and recommendations ensuing from these projects are also used in developing the concept of qualifications' quality assurance principles (see section 3).[74]

4.3.3. Credit accumulation and transfer

In Poland, accumulating and transferring credits within the higher education system functions in the form of ECTS (*European Credit Transfer and Accumulation System*). The ECTS has been fully adopted by Polish higher education institutions – its implementation was required by legislation.[75] The proper application of the ECTS system is one element of the programme assessment carried out by the Polish Accreditation Committee (see section 4.5).

The vocational education core curriculum required as of the 2012–2013 school year introduces a new way of describing (by using learning outcomes) and acquiring qualifications. The core curriculum distinguishes coherent sets of learning outcomes that can be validated within the framework of out-of-school learning, as well as accumulated and recognised to attain successive qualifications.[76] The concept of having sets of learning outcomes distinguished in a qualification is consistent with the ECVET system developed in Europe (*European Credit System for Vocational Education and Training*).

At this stage, credit accumulation and transfer cannot yet be implemented in general education at schools. Work is still underway on a comprehensive model of credit accumulation and transfer,[77] which will also include general education. Elements of this system will also include the already functioning ECTS and ECVET, with their implementation currently being prepared (see section 2.4). It is assumed that the solutions developed will allow for credits to be accumulated and transferred regardless of where and how they are validated. It is expected that the developed model will define, among other things, the principles for distinguishing units of learning outcomes from qualifications and methods of awarding credits to sets of distinct learning outcomes. Work on the model of credit accumulation and transfer is scheduled to be completed in 2013. The next task will then be to prepare and gradually implement the mechanisms of the system in specific sectors.

The course of this work to date shows that securing agreement and implementing procedures enabling credit accumulation and transfer, especially between sectors (general, vocational and higher education) will require certain difficulties to be overcome, because this concept contradicts established practices. Convincing educational, professional and sectoral organisations to change their approach will require some effort.

[73] Within the framework of "The development of terms of reference for the implementation of the National Qualifications Framework and the National Qualifications Register for lifelong learning" Project implemented from July 2010 to the end of 2013 (Human Capital Operational Programme, Priority III, Measure 3.4, Sub-measure 3.4.1).

[74] *Ibidem*.

[75] Act of 27 July 2005 on the Law on higher education (Journal of Laws 2012, item 572 with later amendments).

[76] See Annex 6.

[77] Within the framework of "The development of terms of reference for the implementation of the National Qualifications Framework and the National Qualifications Register for lifelong learning" Project, implemented from July 2010 to the end of 2013 (Human Capital Operational Programme, Priority III, Measure 3.4, Sub-measure 3.4.1).

4.4. Criterion 4

Criterion 4. The procedures for inclusion of qualifications in the national qualifications framework or for describing the place of qualifications in the national qualification system are transparent.

It was agreed that the general principles for assigning PQF levels to qualifications should be applied to all the qualifications in the integrated national qualifications register. This would include those qualifications awarded in the formal general, vocational and higher education systems, as well as those awarded outside of these systems.

The qualifications currently awarded in the formal general, vocational and higher education systems will formally have PQF levels assigned to them based on a detailed analysis of their required learning outcomes. These qualifications will be a basic key resource to start off the qualifications register. For the purposes of the referencing process, a preliminary determination of the level of these qualifications[78] was made by performing a detailed comparison of the required learning outcomes with the appropriate descriptors in the PQF. The results of comparing examples of qualifications are presented in Annex 5.

After implementing the new solutions enabling the integrated system to function, determining the PQF level for qualifications will be possible in two ways. For qualifications established by ministers (which are awarded based on regulations in the law) or institutions under their jurisdiction, assigning a PQF level will occur when the qualification is developed, and the formal determination of its PQF level will take place when the qualification enters into force.[79] During the period of implementing the new solutions, the relevant minister or institution under his/her jurisdiction will be responsible for determining the proper PQF level for qualifications under his/her authority.

The remaining qualifications will have PQF levels assigned to them according to strictly defined procedures as they are entered into the integrated qualifications register. Standards will be set for describing qualifications submitted for entry into this register. Not only will learning outcomes be required to be included in the description of the registered qualification, but also its validation and quality assurance processes. Procedures for entering qualifications into the integrated register will include a detailed review of the compatibility of learning outcomes with PQF level descriptors. A quality assurance system for these processes is anticipated, related to registering a qualification based on an application submitted by an interested entity. This will ensure the reliability of assigning a PQF level to a qualification.

Proposals for legal solutions on the principles of assigning PQF levels to qualifications are currently being prepared. Work is also underway on the procedures for assigning levels (see Annex 4). It is focused on such issues as: the criteria for assessing the compatibility of learning outcomes to PQF descriptors, documentation guidelines, the composition and working procedures of the teams assigning PQF levels to qualifications. Precisely defining and then complying with principles and procedures for assigning PQF levels to qualifications will have significant meaning for the transparency of qualifications, and thus the credibility of the entire system. Work on these principles with the participation of stakeholders provides the opportunity to design solutions understood by a broad range of users.

[78] See Section 1.

[79] For example, a resolution issued by a minister, a resolution passed by the senate of a higher education institution.

4.5. Criterion 5

Criterion 5. The national quality assurance system(s) for education and training refer(s) to the national qualifications framework or system and are consistent with the relevant European principles and guidelines (as indicated in Annex 3 of the Recommendation).

Currently, quality assurance procedures are applied to all qualifications awarded in the formal general and vocational education system, higher education, as well as some other qualifications, such as those in the crafts trades. In the formal education system, the procedures comply with European guidelines for quality assurance in: vocational education and training – *European Quality Assurance in Vocational Education and Training* (EQAVET), validation – *European Guidelines for validating non-formal and informal learning* (CEDEFOP 2009) and higher education – *Standards and Guidelines for Quality Assurance in the European Higher Education Area* (ESG). The formal general and vocational education system has a system of pedagogical supervision, and an important role is also played by the external examination system (see Annex 6). An independent institution – the Polish Accreditation Committee – is responsible for assessing higher education institutions. Its assessments are provided to the Ministry of Science and Higher Education.

One important aim of modernising the qualifications system is to expand systemic solutions for the quality assurance of all qualifications included in the integrated register. After implementation of the integrated qualifications register, all qualifications for the entire country listed therein will be subject to uniform quality assurance requirements, consistent with the aforementioned European guidelines. Qualifications' quality assurance in the general, vocational and higher education systems will continue to be overseen by the relevant ministers. Responsibility for ensuring the quality of qualifications (directly or indirectly) under the authority of other ministers will remain with those ministers. Their oversight will be conducted according to the principles presented earlier.

4.5.1. Formal general and vocational education ("system oświaty")

Core curricula

The core curricula of formal general education and vocational education use learning outcomes to describe the requirements for attaining a qualification. Teaching programmes are developed by schools. The school principal is responsible for incorporating the appropriate core curriculum in the teaching programmes.

A comparative analysis conducted of the general education core curriculum showed it to be congruent with the respective sets of PQF descriptors. The vocational education core curriculum is currently the focus of work, with the aim of having each "school-awarded" qualification assigned to an appropriate PQF level by the end of 2013.

The functioning system of pedagogical supervision in schools and the external examination system use core curricula as the fundamental criterion to assess the quality of work in schools and the learning outcomes achieved by children and youth.

The system of pedagogical supervision

Pedagogical supervision serves to ensure the quality of qualifications and the educational process leading to their attainment at schools and facilities subject to the minister responsible for education.

This supervision is based on:

– evaluating the status and conditions of didactic, developmental and care activities performed by schools, educational facilities and teachers,

– analysing and evaluating the outcomes of didactic, developmental and care activities, as well as other statutory activities of schools and educational facilities,
– providing assistance to schools, educational facilities and teachers in their work of teaching, child development and pupil care,
– inspiring teachers to undertake innovative pedagogical, methodological and organisational activities.[80]

The principals of pre-schools, schools and educational facilities are obliged to supervise the educational process in the institutions under their direction. Each year, the school principal presents the conclusions and results of pedagogical supervision to the teachers' council. A superintendent of education supervises education in pre-schools, schools and educational facilities in a region.[81] The superintendent prepares an annual report on the results of the educational supervision conducted and presents it to the minister responsible for education.
Every year, each entity responsible for educational supervision prepares an educational supervision plan, which presents the objectives, scope of the evaluation, issues to be controlled and the work schedule. Pedagogical supervision is conducted in the following forms:
– evaluation of the activities of the school and its educational facilities,
– an audit of its compliance with the law,
– provision of support for the work of the school, its educational facilities and teachers.

The purpose of evaluation is to determine the extent to which a school or educational facility meets defined requirements, and based on this, to undertake activities to improve the quality of the school's work. The internal evaluation is most important in the day-to-day work of schools, which the principal performs together with the teachers. The external evaluation is based on existing data, observation, surveys and interviews with the school principal, teachers and other school staff, pupils, parents, partners and representatives of local government.

Quality standards for vocational education and training

Proposed standards of quality for vocational education have been developed. They comprise a comprehensive document covering all aspects of vocational education categorised into ten thematic areas. After their final approval, they will be introduced into schools providing vocational education. These standards are one of the ways Poland is implementing the EQARF/EQAVET European reference framework for quality assurance in vocational training, recommended to Member States for implementation and development.[82]

The system of external examinations

A key element for ensuring and improving the quality of education and qualifications acquired in schools is the system of external examinations. The Central Examination Board (CKE) and eight regional examination boards (OKE) are responsible for organising external examinations. The external examination system is supervised by the Minister of National Education.
In the external examination system, examinees are taking the same examination, and at the same time are solving the same problems to verify whether they have achieved the learning outcomes defined in the core curriculum. Exam results are assessed according to uniform criteria for the entire country. Trained examiners registered at the regional examination boards assess the exam results and do not know whose examinations they are assessing (see Annex 6).

[80] The School Education Act of 7 September 1991 (Journal of Laws 2004 No. 256 item 2572, with later amendments).

[81] Schools of the fine arts are under pedagogical supervision of the Minister of Culture and National Heritage and are evaluated on behalf of the Minister by the Centre of Artistic Education.

[82] Recommendation of the European Parliament and of the Council of 18 June 2009 on the establishment of a European Quality Assurance Reference Framework for Vocational Education and Training, (OJ C 155, 8.7.2009).

School Information System

An important element in assuring the quality of qualifications in Poland is the collection and dissemination of information on the formal general and vocational education system by the School Information System (SIO).[83] SIO is a tool for improving the effectiveness of managing education at the national, regional, local and school levels. The ability to easily access (on-line) information appropriately configured to the needs of educational policy makers enables informed decisions to be made on the various functional aspects of the school, which in many cases directly impact the quality of the educational process, and as follows, the quality of the qualifications attained in the school system.

The School Information System is maintained in electronic form and uses the Internet to provide processed information collected under the terms of a legal act. Each user group has access to its relevant scope of information. Some information is available to the public. The system has been implemented in this form since 2012.

4.5.2. Higher education

In Poland, institutions of higher education are directly responsible for the quality of awarded qualifications and the study programmes leading to them. They are legally required to operate an internal quality assurance system. The purpose of the external quality assurance system in higher education is primarily to verify the functioning of the internal quality assurance systems of institutions offering this level of learning.

The minister responsible for higher education defines the basic foundation of these systems by formulating:

- the requirements for describing qualifications,
- the National Qualifications Framework for Higher Education, including the description of learning outcomes for the eight broad areas of study and engineering qualifications,
- the organisational requirements of an institution of higher education, especially in reference to the number and qualifications of staff required to offer studies in specific fields,
- the requirements of the study programme,
- the principles of the programmatic and institutional evaluation of a higher education institution.

A higher education institution is required by law to submit to an evaluation by the Polish Accreditation Committee (for programmes or institutions). Additionally, they can also be evaluated by institutions established by the academic community, and submit to accreditation from abroad.

The Polish Accreditation Committee (PAC) – an independent body acting on the basis of the Act – Law on higher education – performs external evaluations of the quality of education, as well as of the qualifications awarded.[84] The PAC is a member of the European Association for Quality Assurance in Higher Education (ENQA), and is also registered with the European Register of Quality Assurance Agencies (EQAR). The PAC is also a member of the European Consortium for Accreditation (ECA), the Central and Eastern European Network of Quality Assurance Agencies in Higher Education (CEENQA) and the International Network of Quality Assurance Agencies in Higher Education (INQAAHE).

The PAC performs its activities in accordance with the "Standards and guidelines for quality assurance in the European Higher Education Area" (ENQA 2005).

The PAC evaluates programmes and institutions. Programme assessment includes the evaluation of, among others:

- whether the learning outcomes determined by the higher education institution for a given study programme are congruent with the descriptors for the given area of study in the National Qualifications Framework for Higher Education,

[83] See the Act of 15 April 2011 on the school information system (Journal of Laws, No. 139 item 814, from 2012, item 941 with later amendments).

[84] In accordance with Art. 48a of the Act – Law on higher education, the PAC conducts evaluations on its own initiative or upon a request to do so from a higher education institution to fulfil its mission as an institution working for the improvement of educational quality.

– whether the conditions of conducting studies and the educational process enable these outcomes to be attained,
– whether learning outcomes are correctly validated.

An institutional assessment takes into account the following issues, among others:
– the operation and improvement of internal quality assurance systems for education,
– the accreditation or certification from foreign institutions obtained by the faculty of the higher education institution,
– the results of the previously performed programme evaluations.

The assessment procedure conducted by the PAC is free of charge, mandatory and cyclical. In the case of a negative assessment, the minister responsible for higher education revokes or suspends the ability to provide higher education.

4.5.3. Qualifications awarded outside of the formal general, vocational and higher education systems

As the research conducted indicates,[85] institutions providing training and validation outside of the formal general, vocational and higher education systems take various measures to ensure the quality of the educational process and qualifications. However, at the moment, the qualifications they award are not referenced to the PQF and are not subject to mutually agreed upon principles of quality assurance.

Craft trades

Ensuring the quality assurance of qualifications for the titles of master and journeyman – through examinations carried out by crafts chambers – is determined by regulations promulgated by the Minister of National Education as well as other regulations (among others, on the crafts trades). The minister responsible for education determines:
– the conditions for appointing the examination boards of crafts chambers,
– the conditions under which a person can be admitted to take an examination and how examinations are conducted,
– the conditions, issuing procedures and templates for certificates and diplomas confirming that examinations have been passed in the crafts trades.

Examination requirements for occupations listed in the classification of vocational school occupations are defined in the vocational education core curriculum. For other occupations, these requirements are determined by the Polish Crafts Association (ZRP) in the form of standards of examination requirements developed on the basis of learning outcomes for knowledge, experience and competencies. These standards are uniform for the entire country.

Examination boards of federated crafts chambers are supervised by the Polish Craft Association. The course of vocational training in crafts trades is supervised by the crafts chambers. The Polish Craft Association also supervises the activities of the examination boards of crafts chambers.[86]

Research shows that crafts chambers implement most of the principles formulated in EQARF/EQAVET related to vocational education and training. Internal quality assurance mechanisms are the least developed, but they are successively expanding. Some crafts chambers have implemented ISO quality norms. Validation procedures leading to a crafts qualification comply with the guidelines for the quality assurance of validation developed by the European Centre for the Development of Vocational Training (CEDEFOP).

[85] Within the framework of "The development of terms of reference for the implementation of the National Qualifications Framework and the National Qualifications Register for lifelong learning" Project, implemented from July 2010 to the end of 2013 (Human Capital Operational Programme, Priority III, Measure 3.4, Sub-measure 3.4.1).

[86] The Act of 22 March 1989 on crafts trades (Journal of Laws 2002, no. 112, item 979 with later amendments).

Training institutions, trade associations and other institutions validating competencies

Both individual as well as associations of training institutions take a variety of steps to ensure the quality of training and the quality of validating learning outcomes. For example, the Polish Chamber of Training Companies has prepared Standards of Training Services and a Code of Good Practice approved by its members. The Małopolska Partnership for Lifelong Learning, in collaboration with the regional employment office, Jagiellonian University and training institutions, developed the Małopolska Standards for Education and Training Services. Mechanisms for improving the quality of training are constantly being developed and increasingly used in the Polish training market.

Many institutions providing training and validating competencies use internal quality assurance systems, but they also participate in external supervision to ensure quality. These mechanisms are introduced on the basis of licenses acquired from abroad or developed in collaboration with national institutions.

Educational laws and regulations governing the industrial trades control the standards and procedures for conducting some of the examinations organised by industry associations and other institutions that validate learning outcomes. In these cases, relevant government entities oversee the examination boards.

Some industry associations and validating institutions are developing their own quality assurance policies, among others, they submit to various accreditation procedures or comply with ISO quality standards. With some qualifications, validation is based on international procedures.

Training institutions, trade associations and other institutions validating competencies, which are developing quality assurance systems, generally meet most of the principles formulated in EQARF/EQAVET and their activities are consistent with the guidelines for assuring the quality of the validation process developed by CEDEFOP.

4.6. Criterion 6

Criterion 6. The referencing process shall include the stated agreement of the relevant quality assurance bodies.

After accepting the report by the Inter-ministerial Taskforce for Lifelong Learning, including the National Qualifications Framework, the referencing report was presented to the following bodies responsible for quality assurance of the Polish qualifications system:

- Educational Quality Department in the Ministry of National Education,
- Central Examination Board,
- Polish Accreditation Committee.

These institutions, after reading the report, submitted comments and suggestions. These comments were included in the text of the report presented to the Committee for European Affairs.
The written agreement of these bodies with the report is presented in Annex 1.

4.7. Criterion 7

Criterion 7. The referencing process shall involve international experts.

The participation of international experts in the referencing process serves to ensure the transparency and openness of work on the referencing report and the understanding of the Polish qualifications system by persons from abroad. The involvement of international experts is invaluable also within the context of their experiences of the referencing process in Europe. Participation of international experts in the work on the Polish Qualifications Framework became an important stage in the discussions on the desired direction of change in education and the labour market, as well as on the effectiveness of the proposed solutions. In order to ensure the most effective work on the principles of the national qualifications system, and also the transparency of the Polish referencing report for readers outside of Poland, international experts were invited to join us at the start of work on the referencing report. The opinions of these experts on the referencing process are presented in the last section of the report.

The experts invited to work with us from Scotland, Germany, Austria and Hungary have valuable experiences to offer Poland. In Scotland, the qualifications system is based on the Scottish Credit and Qualifications Framework, which has been operating for many years. The qualifications systems in Germany and Austria have certain similarities to the qualifications system in Poland. In all these countries, social partners are involved. In addition, Scotland, Germany and Austria are countries with large groups of workers from Poland. Hungary is a country that – like Poland – began the process of systemic transformation in the early 1990s and joined the European Union in 2004.

The following experts participated in the work:

– **Aileen Ponton** is Chief Executive Officer of the Scottish Credit and Qualifications Framework Partnership – the organisation responsible for implementing the Scottish Credit and Qualifications Framework and the qualifications register. The organisation is also the National Coordination Point for EQF matters and the National Contact Point for ECVET in the UK. Ms. Ponton is also an ECVET expert for the UK. She led the work on referencing the SCQF to the EQF in 2009 and since then has been involved in supporting the implementation of the SCQF and the EQF principles in Scotland. Aileen Ponton has also worked with many educational and sector bodies, including the Sector Skills Development Agency, a government agency responsible for establishing Sector Skills Councils to develop occupational standards and also has 16 years experience with the national awarding organisation in Scotland, the Scottish Qualifications Authority.

– **Michael Schopf** is a member of the steering committee for the German Qualifications Framework. He is a long-term employee of the Ministry of Education in Hamburg (Department of Vocational Training) and the Academy of Business in Hamburg (Wirtschaftsakademie Hamburg). He represents Germany in European groups important in the field of vocational education, including the EU-Directors General for VET, the ECVET Technical Working Group and in EU projects in this field. He was one of the experts who reviewed the Dutch referencing report.

– **Eduard Staudecker** is an employee of the Ministry of Education, Arts and Culture in Austria as well as the Chief Executive Officer and project leader for developing the Austrian Qualifications Framework. He provides legal supervision of the National Coordination Point of the Austrian NQF. He is also currently leading the Austrian ECVET Initiative at the national level and represents the area of vocational education and training in the Austrian Bologna follow-up group. He is a member of the EQF Advisory Group.

– **Erzsébet Szlamka** has extensive experience in the field of vocational and adult education, acquired at the National Institute of Vocational and Adult Education. She worked for the Ministry of Human Resources, where she organised an international conference on EQF. She now works for the Educational Authority as a National Qualifications Framework expert. Erzsébet Szlamka is

a member of the team developing the Hungarian Qualifications Framework, where she is responsible for international cooperation and the harmonisation of NQF-related projects. She is a member of the EQF Advisory Group.

Dates and topics of meetings with international experts to prepare the referencing report:[87]

Meeting date	Meeting topics
27–28 September 2011	– Official inauguration of the cooperation with international experts – General premises of the qualifications system in Poland – National Qualifications Frameworks for Higher Education – Glossary of Key Concepts related to the National Qualifications System – Level descriptors in the Polish Qualifications Framework – Initial concept of the referencing report
8 November 2011	– Summary of the results of the public debate – The role of stakeholders in the process of modernising the qualifications system
20–21 February 2012	– The Polish Qualifications Framework: universal descriptors – Second stage generic descriptors, levels 1–4 – Results of the study on validation in Poland – Assigning qualifications to levels in the PQF
7–8 May 2012	– Second stage generic descriptors, levels 5–8 – Analysis of the coherence between the Polish Qualifications Framework and the National Qualifications Frameworks for Higher Education – Possibilities for modernising the teacher promotion system in Poland after the modernisation of the national qualifications system – Entering qualifications into the integrated qualifications register (information on work progress) – Including a qualification into the national qualifications framework – the Scottish, German and Austrian experiences
3–4 September 2012 and 11–12 September 2012 (second group)	– Initial version of the referencing report (presenting the observations and comments of the international experts – discussion)
29–30 October 2012	– Second version of the referencing report (presenting the observations and comments of the international experts – discussion)

The topic of each item on the programme agenda was presented in the context of the referencing process and then discussed. Representatives of relevant ministries, stakeholders and the experts involved in the development of Polish qualifications system attended each meeting.

[87] Reports from the meetings with international experts are available from the project's website: http://kwalifikacje.edu.pl/.

4.8. Criterion 8

Criterion 8. The competent national body or bodies shall certify the referencing of the national qualifications framework or system with the EQF. One comprehensive report, setting out the referencing and the evidence supporting it shall be published by the competent national bodies, including the National Coordination Point, and shall address separately each of the criteria.

The proposed referencing report was presented to the Steering Committee for the National Qualifications Framework for Lifelong Learning for consultation. Once their comments were incorporated into the report, it was approved by the Inter-ministerial Taskforce for Lifelong Learning, including the National Qualifications Framework[88] at its meeting of April 15, 2013.

After consultations required by law with government ministries were completed, the referencing report received approval of the Commission on European Affairs, acting on behalf of the Council of Ministers (Government of the Republic of Poland) on May 15, 2013.

The referencing report will be posted on the government's official Internet site.

[88] The Inter-ministerial Taskforce fulfils the most important functions of the National Coordination Point in Poland.

4.9. Criterion 9

Criterion 9. The official EQF platform shall maintain a public listing of member states that have confirmed that they have completed the referencing process, including links to completed referencing reports.

After completion of the referencing process, the referencing report will be submitted to the European Commission in order to include it into the official platform of the European Qualifications Framework.

The version of the report to be placed on the EQF platform includes the comments and suggestions of the EQF Advisory Group, which were provided after the report was presented at their meeting of May 29, 2013.

4.10. Criterion 10

Criterion 10. Following the referencing process, and in line with the timelines set in the Recommendation, all new qualification certificates, diplomas and Europass documents issued by the competent authorities contain a clear reference, by way of national qualifications systems, to the appropriate European Qualifications Framework level.

It is assumed that the qualifications awarded in the formal general, vocational and higher education systems will have their PQF level noted as of the 2013–2014 school year, before implementation of the national qualifications register, on the basis of regulations issued by the relevant ministers.
The timeframe for having information about the PQF level included on all diplomas and certificates in the register, as well as Europass documents that refer to qualifications, will be determined after the relevant public authorities adopt the scenario for implementing the integrated qualifications system. The implementation scenario is currently being discussed and negotiated with representatives of ministerial departments on the Steering Committee for the National Qualifications Framework.

5. Conclusion

This referencing report presents the state of advancement in the modernisation processes and the goals and directions for the following actions as of the second half of 2012. Implementing the PQF is seen as a tool of systemic change with far reaching consequences; it is a process that must take many years. As progress is made in modernising the national qualifications system, successive updates of the referencing report will be prepared.

The opinions of international experts

5.1. Aileen Ponton (Scotland)

Comments on the Report of the Referencing of the Polish Qualifications Framework to the European Qualifications Framework

Introductory remarks

I was very pleased to be one of the foreign experts in the referencing process of the PQF to the EQF. The inclusion of experts serves to ensure the transparency and openness of work on the referencing report and also to ensure the understanding of the Polish qualifications system for people reading the report from outside Poland. The role of the international expert is seen by the European Commission as being fundamentally important to the transparency and robustness of the process of referencing and also to the user friendliness of the final report.

In addition to me, the other experts brought experience from Germany, Austria and Hungary. This allowed us, I believe, to draw on both similarities and differences in approach across those countries and to use those experiences to discuss and challenge the Polish referencing process. We also had an opportunity to provide an overview of the frameworks and referencing processes in our own countries to the Referencing Group. This led to considerable dialogue and the opportunity to discuss whether any aspects of for example the SCQF would be useful to the PQF or alternatively whether any parts of the SCQF were clearly things which would not fit the Polish system or the culture in relation to education and training.

Our input and our constructive challenge was welcomed and at each of the meetings we felt that substantial time was set aside to answer all our questions as well as time to meet key academics and researchers, trade unions, employers and other social partners. This certainly gave us a sense that the process was both well constructed and inclusive of partners. During the lifespan of the meetings we submitted both written and verbal comments and these were always considered very carefully and have been taken full account of in the final report. These included issues such as:

- During the course of the meetings we felt that there had been substantial stakeholder engagement and that this was not fully reflected in the draft report. This was accepted.
- We felt that one of the earlier drafts in trying to provide a very positive picture did not fully capture the amount of work which had been undertaken and which would still need to be undertaken to make the PQF a reality. This was accepted.
- We thought that they needed to take time to explain in more detail the differences and purposes of full, partial and compound qualifications. As experts from other countries we initially found this very difficult to understand although over the period of the meetings we did gain much better knowledge and the final report provides examples of these, which I think is very helpful.
- We spent a whole meeting reviewing the level descriptors and understanding how they linked from universal to second stage and beyond. I think this was helpful to the members of the Referencing Group as well as to the international experts and threw up issues of both understanding and translation. What was positive though was how much stakeholder buy-in they had to this approach and how they saw this as adding a real strength to the PQF as a whole.

5.1. Aileen Ponton

- We provided a lot of comment on the structure of the report itself trying to think what structure would make most sense to the non-Polish reader whilst still informing a home audience. All of these comments have been taken on board.
- We also had quite a substantial session on credit and the use of credit and different approaches to credit. It was useful to discuss this as a group and hear about what was happening in HE and also about some of the pilot work around ECVET. We agreed that the final report needed to indicate that there was still work to do here.
- We received reports throughout the process on the work of other related groups and subgroups looking at the descriptors, the register, the options for credit rating, the use of learning outcomes and again this provided us with an assurance that not only was the process robust, but that a wider group of stakeholders were involved in the option appraisal and the decision making.
- We found the glossary of key terms and definitions very helpful throughout the referencing process.
- We valued the very careful translation of the report into English, which made it easy to read as well as informative.
- Care was taken to ensure that both at the meetings themselves and in the final report, time was taken to explain the Polish education system, its legal basis and the far reaching changes either implemented or planned, which would impact on the PQF. This was extremely important for us as international experts in order that we understood the progress to date and the challenges that still had to be faced. The amount of change has been really quite radical and we needed to understand what the impact of that would be on the development, and more importantly, the implementation of the Framework.

The table below provides some information on each of the meetings and the topics covered.

Meeting date	Meeting topics
27–28 September 2011	– Official inauguration of the cooperation with foreign experts – General premises of the qualifications system in Poland – National Qualifications Frameworks for Higher Education – Glossary of Key Concepts related to the National Qualifications System – Level descriptors in the Polish Qualifications Framework – Initial concept of the referencing report
8 November 2011	– Summary of the results of the public debate – The role of stakeholders in the process of modernising the qualifications system
20–21 February 2012	– The Polish Qualifications Framework: universal descriptors – Second stage generic descriptors, levels 1–4 – Results of the study on validation in Poland – Assigning qualifications to levels in the PQF
7–8 May 2012	– Second stage generic descriptors, levels 5–8 – Analysis of the coherence between the Polish Qualifications Framework and the National Qualifications Frameworks for Higher Education – Possibilities for modernising the teacher promotion system in Poland after the modernisation of the national qualifications system – Entering qualifications into the integrated qualifications register (information on work progress) – Including a qualification into the national qualifications framework – the Scottish, German and Austrian experiences
11–12 September 2012 29–30 October 2012	– Initial version of the referencing report (presenting the observations and comments of the foreign experts – discussion) – Second version of the referencing report (presenting the observations and comments of the foreign experts – discussion

Referencing Report

What has been clear from the very start of the referencing process is just how much work has been going on in Poland in preparation for the development and implementation of the PQF itself. Major reforms have taken place between 2008 and 2011 and have focused in particular on legislation to support the introduction of a learning outcomes approach in general, vocational and higher education. This makes for substantial change in the curricula but also in the learning and teaching approaches required.

One of the key features of the PQF that makes it quite distinctive in European terms is the use of generic descriptors called universal descriptors, which are described in terms of knowledge, skills and competence, but then, in addition, second stage descriptors which relate these to general, vocational or higher education. Both of these types of descriptor also correspond to the EQF. In addition, it is also the intention to have some sector specific descriptors. In some ways this use of three stages of level descriptor is linked to the major reforms identified above. As major changes to the curriculum took place prior to the PQF descriptors being finalised, the report itself indicates that this has proved quite difficult and that full harmonisation between curricula and the descriptors will require further work.

A second key feature which is also quite unique is the use of full and partial qualifications. The latter denotes not simply subsets of the former but also additionality – e.g. a CPD qualification which would be taken after a full qualification. The main difference in the eyes of the international experts was that the partial qualifications were smaller but still subject to all of the rigour of the full qualifications. In addition, the partial qualifications may be certified by other types of organisations outwith the main general, vocational and higher education system (including professional bodies). We raised concerns that the word "partial" may be seen to downgrade those qualifications, but having discussed this with a much wider group of stakeholders, there seemed full support for this approach and it may simply be down to the English version of the phrase. The plan is to look to bring more of these types of partial qualifications into the Framework over time using the agreed processes.

Stakeholder engagement overall was extensive and well co-ordinated. The report indicates the very diverse range of events, focus groups, seminars and working groups which have taken place both in developing the PQF and in the PQF to EQF referencing process. Specific groups have considered issues such as the PQF model including the descriptors; the potential barriers to lifelong learning and how the PQF could assist in breaking down those barriers; and finally the validation and certification of learning outcomes.

One development which is not yet complete and which will need further work, recognised in the report, is the completion of work on a credit system or approach for the PQF. ECTS has been implemented and work is underway looking at how ECVET could be usefully built into the vocational sector but there is a clear recognition that it is still early days for this area of work and more will happen during the course of 2013.

The integrated qualifications register will be key to the full implementation of the PQF. Work took place in 2012 to develop possible models or options for assigning PQF levels to qualifications. It is the intention to have a new and central organisation which will operate the qualifications register. This will take the work forward in two parts – firstly, the inclusion of those full and partial qualifications which are the responsibility of each of the ministries, and then later, the inclusion of qualifications which are certified outwith the formal education system.

So, in summary, this has been a very ambitious piece of work, as referencing to the EQF has in effect been run in parallel with the development of the PQF itself. There have been distinct advantages in that, but it also means that there is still some work in progress. There has been a substantial amount of work undertaken to raise awareness of the PQF and to explain how it will be implemented. In addition, some of the very complex issues such as the development of the level descriptors and the types of qualifications for inclusion which have been complex have been fully signed up to by a range of stakeholders. However, finalising all the stages of level descriptors, agreeing quality assurance principles and testing out solutions to assigning levels along with approaches to credit are still in refinement and 2013 will still see work to be completed in each of these areas.

It was very interesting to be involved in this referencing and to listen to the discussion of my fellow experts as well as the Polish stakeholders, particularly on some of the very complex issues.

Compliance with the referencing criteria

This is an overview of the relationship between the evidence provided and each of the criteria for referencing.

Criterion 1

The responsibilities and/or legal competence of all relevant national bodies involved in the referencing process, including the National Coordination Point, are clearly determined and published by the competent public authorities.

Clear information on roles and responsibilities is provided, which centres around the work of the newly created Inter-ministerial Taskforce for Lifelong Learning, including the NQF.

Criterion 2

There is a clear and demonstrable link between the qualifications levels in the national qualifications framework or system and the level descriptors of the European Qualifications Framework.

Two pieces of work were undertaken. Firstly, to compare the basic concepts and language of the text used in the PQF and the EQF, and, secondly, a comparison of the actual descriptors. The detail provided was helpful and reinforced the links whilst outlining some of the additionality provided by the PQF. The international experts spent considerable time analysing these both on their own and then in discussion with each other, the PQF team from IBE and the stakeholders. This included much discussion around the links between the different stages of level descriptors from general to sectoral.

Criterion 3

The national qualifications framework or system and its qualifications are based on the principle and objective of learning outcomes and linked to arrangements for validation of non-formal and informal learning and, where these exist, to credit systems.

As indicated earlier, the use of learning outcomes has been built into the law in Poland and a considerable modernisation programme is underway. In addition, they have considered in some detail how the new PQF could provide a means for the greater recognition of informal and non-formal learning. This, however, needs to be firmly underpinned by the quality assurance principles and the assigning of levels so is still a work in progress.

Criterion 4

The procedures for inclusion of qualifications in the national qualifications framework or for describing the place of qualifications in the national qualification system are transparent.

As indicated earlier this has been tested using a number of solutions and a way forward identified firstly for those qualifications within the responsibility of ministries and secondly for those outside that. The final detail of this and the legal underpinning will not be complete until later in 2013.

Criterion 5

The national quality assurance system(s) for education and training refer(s) to the national qualifications framework or system and are consistent with the relevant European principles and guidelines.

The main quality assurance systems in the formal education system comply with the EQAVET principles in vocational education and training and with Standards and Guidelines for quality assurance in the EHEA in higher education. However, these solutions need to be extended to cover all qualifications which are intended for inclusion on the register.

Criterion 6
The referencing process shall include the stated agreement of the relevant quality assurance bodies.

Three specific organisations have been involved via the Inter-ministerial Taskforce and their formal responses have been included in the report.

Criterion 7
The referencing process shall involve international experts.

The process involved four international experts who were consulted throughout the referencing and for whom a wide range of information was made available.

Criterion 8
The competent national body or bodies shall certify the referencing of the national qualifications framework or system with the EQF. One comprehensive report, setting out the referencing and the evidence supporting it shall be published by the competent national bodies, including the National Coordination Point, and shall address separately each of the criteria.

The report was approved by the Inter-ministerial Taskforce.

Criterion 9
The official EQF platform shall maintain a public listing of member states that have confirmed that they have completed the referencing process, including links to completed referencing reports.

This will be done once the report is finalised.

Criterion 10
Following the referencing process, and in line with the timelines set in the Recommendation, all new qualification certificates, diplomas and Europass documents issued by the competent authorities contain a clear reference, by way of national qualifications systems, to the appropriate European Qualifications Framework level.

Discussions are underway on how this will be implemented in the general, vocational and higher education sectors.

5.2. Michael Schopf (Germany)

Comments to the Polish Referencing Report

To start with a summary, I can only confess frankly that the referencing report is a document which shows an impressive reform process in all the educational fields in Poland – provoked particularly by the adoption of the EQF recommendation for Poland.

Accompanying the development of the EQF at the European level, developing and implementing the German Qualification Framework (DQR), advising the referencing report of the Dutch Qualification Framework (NLQF) and looking through a lot a referencing reports from other European countries, I have never seen such a volume of reform areas and (sometimes surprising) solutions. Therefore, this Polish Referencing Report is not only a formal work for the EQF advisory group but also an information (and marketing) instrument for the reform process within Poland.

If all the intended or announced parts of the reform process can be realized within the next years, many parts of these solutions could be used by other member states as "blueprints" for their education systems and for the development of an "European Education Area" with good future prospects.

The international experts had the chance to give their comments and to develop ideas for a period of about two years. This was a very fruitful period. We participated in many well-prepared conferences and meetings and exchanged many e-mails. It was a very good cooperation and it happened in a very pleasant atmosphere. Some ideas were taken over, a lot of questions were answered and many aspects became clearer. Sometimes the PQF working group might have wished that they had not invited four experts at an early state of the PQF – unbelievable what these persons can ask and propose. But in the end, all of us were lucky.

Comments to specific aspects:

Aims and solutions

First of all, the aims of the PQF are the "official" ones, written down in the EQF recommendation, such as mobility, transparency, recognition in Europe and translation instrument.

Many further targets were added, coming from the accompanying reform process in Poland with the term "Polish qualification system". These additional targets are rather complex and could include political problems.

The structure and the descriptors of the PQF are agreeable. They are near enough to the EQF and contain only some Polish specifications. A very good decision is the development and the implementation of "Registered Qualifications", something like labelled or accredited qualifications. These "certificated competence bundles" only fulfil the requirements of the term "qualification" in the EQF glossary.

Totally new (also in the context of solutions in other member states) is the introduction of two versions of qualifications – full (large?) and partial (small?) qualifications. These partial qualifications are not comparable with parts of or additions to a qualification. Although during the next time, many questions will have to be answered as experience is gained in using the concept of two types of qualifications, the intention is positive: to bring as many qualifications as possible into the "Integrated National Register".

Another rather surprising Polish innovation is that a person in the regular education system can need e.g. 4 qualifications, documented by diplomas, for an occupation (or profession). This seems to have become a speciality of the Polish IVET (and CVET?) area (because this discussion does not take place in the general and higher education area). In other member states, (like Germany) one award, certificate or diploma normally equates to only one qualification.

The third important difference to all the other National Qualification Frameworks is the introduction of up to four stages of generic descriptors. The EQF can be said to be a meta-meta-framework and the National Qualification Frameworks are a meta-framework – in Poland this level is called the "first stage generic descriptors" or "universal descriptors". It is nearly impossible to dedicate the level of a concrete qualification to the NQF levels using the terminology of the specific qualification and the descriptors of the NQF. For the PQF, second stage generic descriptors have been developed

for the three education areas: general, vocational and higher education. From stage to stage the descriptors become more specific. In the area of higher education, e.g. descriptors for eight areas of studies and two profiles (practical and academic) have been formulated. The advantage is clear: existing qualifications can be more easily assigned and the curricula and assessment regulations of new qualifications can be more easily formulated at the desired level. This reform step will make the assignment of qualifications easier and more credible – on the way to an outcome-oriented education system.

A last remarkable decision is the intention to introduce credit point systems into all education areas – also in general education. This could become very useful if Poland wants to make the validation of non-formal and informal learning easier, to improve the permeability between the education areas and – generally speaking – to make the political intention of lifelong learning become reality for all of society.

Remaining questions

- Which additional (hidden?) aims shall be solved by the development and implementation of the PQF? What are the current problems in the Polish education system e.g.
  - missing links between the education system and the needs of the individual, society and the economy,
  - permeability esp. between vocational and higher education,
  - improvement of the status or prestige of Polish qualifications in Europe,
  - increasing the number of students in VET and reducing the number of students in higher education (to more closely meet the requirements of the labour market and to decrease the very high youth unemployment rate)?
- Though there exist no automatic connections: should it not be said that assigning a qualification to a special level will indirectly influence the social prestige, the salary and the career chances of a qualification?
- Could the concept of Partial Qualifications be made clearer e.g. by some examples? Does a defined borderline exists between "partial" and "full", measured for example, in hours of learning effort or in credit points? And to avoid an inflation of registered qualifications is there thought of a minimum learning effort for a qualification (e.g. 400 hours as in the Netherlands or 30 credit points as in New Zealand)?
- Does the idea that an occupation (such as electrician) consisting in Poland of four qualifications – while in all the member states an electrician is one qualification – actually improve the desired recognition of Polish qualifications in Europe? (In these countries electrical mechanic would be a lower qualification and it would be a part of the higher qualification of electrician.)
- Will the introduction of an (integrated?) credit point system lead to a totally modularised education system? What advantages will a credit point system have for the field of general education? And is it wise to develop a Polish system of its own and not to wait for a European recommendation?
- What are the systemic differences between "academic" and "practical" studies? Both take place in scientific institutions for higher education and both profiles have to fulfil the regulations of the EQF and the PQF at level 6 upwards and also be consistent with the BERGEN descriptors. And will the students in practical studies (as said in a former conference) get ECVET points instead of ECTS?

Qualifications in Poland – the current situation and assigning them to the PQF

The description of the Polish education system (including Annex 6) is understandable, comprehensive and detailed enough – though it is not always easy to explain the historical background of educational structures and terminologies from different countries.

A very important detail is the change of proportions in upper secondary school types 1990 – 2010: reduction of VET types from 73% to 43% due to political decisions and/or to decisions of the students and their parents. In consequence, the rate of students in higher education institutions has doubled within only a few years and is much higher now compared to other countries with a low

youth unemployment rate and a rather good economic situation (like Germany). (Remember: for the OECD ("Education at a Glance"), the Polish rates are positive and the German ones negative.)
Another remarkable reform step was the introduction of outcome-orientated core curricula in the fields of general and vocational education. This will make the whole reform process in Poland easier, because the orientation to outcomes is one of the main targets of the reform process. The core curricula and the external examinations have also the function of a quality assurance system.
Some qualifications or groups of qualifications in the formal education field have already been assigned. They seem to fit with the comparable qualifications assigned in other member states.
Many stakeholder groups have been involved in the development of the PQF and the whole reform process as members in commissions, as participants at conferences and by providing written comments. This involvement will improve the chance that in the end, all of the reform "tools" will be accepted by all stakeholders.
There is no reference in the report to the "Directive 2005/36/EC on the recognition of professional qualifications" and to ISCED2011 (or ISCED97). Probably the Polish expert groups have the impression that these frameworks have no influence on the PQF.

Remaining questions

- What are the reasons for the very high youth unemployment rate (e.g. compared with Germany)? And are the reforms aimed at reducing this rate?
- Do the proportions of private education institutions (schools and universities) to state institutions and of students in the vocational area to students in the higher education areas correspond with political intentions?
- Because of the surprisingly high rate of bachelor students in Poland: do the accreditation agencies work properly or will some bachelor studies have to be downgraded to the PQF level five (short cycle) as a result of the introduction of the PQF?
- Looking at the official Polish lifelong learning policy: shouldn't the CVET area become more structured, extended and more attractive?
- Who made the assignments for the (incomplete) list of "qualifications below higher education" (Table 1), and was this list a result of a consensus between experts and politicians or was it a political decision (like e.g. often in Germany)?
- Has the influence of the social partners within the development and the implementation of the reform "tools" (esp. the PQF) been important enough to achieve the desired common acceptance? (In Germany e.g. the Federal State and the Länder have the legal right to decide all important questions in the field of education. But in political reality, they decide nearly nothing without the agreement of the social partner, which therefore also in the development of the German Qualification Framework (DQR) had a veto right. On the other hand these general consensual decisions produce more or less automatic acceptance.)
- Comparing the assignments of qualifications in Poland with assignments in other member states: can any conflicts be seen at the moment already? Will e.g. the qualifications of "journeyman" and "crafts master" be assigned to levels 4 and 6 (as in Germany) or at lower levels?
- Do the outcome-orientated descriptors in the core curricula and in the study modules follow specific standards (like Bloom's taxonomy)? Or can the ESCO taxonomy (at the moment developed by a technical working group of the European Commission) become an alternative?
- Is it realistic to exclude the frameworks "Directive 2005/36/EC" and ISCED2011 (or ISCED97) because their intentions are quite different to those of the PQF? All three documents contain lists of levelled qualifications and methods for assigning them. The legal standard of the "Directive" is high and "ISCED" is important for statistics in the field of education. Would it not avoid later conflicts (e.g. if qualifications get assigned to different levels by using these different frameworks), if the PQF developer and the assigner had considered the "Directive" and "ISCED" in advance before publishing the assigning list? Or as a minimum: should the PQF assigners have written a justification of why they made no reference to the "Directive" and "ISCED"?

Referencing criteria

The comments to the descriptors are rather short, because most of the possible remarks have been made already above.

Criterion 1

The responsibilities of the relevant national bodies are clear. All the relevant ministries and organisations are involved in the processes. The role of IBE as a research institute which coordinates the developments and functions as a link between the expert and the political level is understandable.

Criterion 2

The said links between EQF and PQF are acceptable. The universal descriptors of the PQF are (as usual in all the National Qualification Frameworks) more detailed. For national and historic reasons some differences can be seen, but they are not considerable. The term "social competence" for the third column of the PQF is much better than the term "competence" of the EQF.

Criterion 3

Compared to many other member states (e.g. Germany), it is remarkable that already "all qualifications are described in terms of learning outcomes". The question remains whether (and if so, which) taxonomy standards were used.

Criterion 4

The general procedures for assigning qualifications ("legal solutions …") have been described in the report. But they might not be practical enough, esp. when different stakeholders want different levels. Something like a "handbook" might be needed.

Criterion 5 and 6

Quality assurance systems exist, e.g. the core curricula and the principle of external examinations could be described as a form of quality assurance. If these systems are consistent with European principles (e.g. EQARF) could have got a nearer view.

Criterion 7

The international experts felt fully involved in the process. It was much more than the performance of a formal duty as a member of the EQF advisory group. The comments, proposals and recommendations of the international experts always have been taken into account.

Criterion 8

The certification of the referencing of PQF with the EQF through the competent Polish bodies is accurate. (The reference to translation problems in the report could be used by all the member states.)

Criterion 9

The PQF will be linked with the existing EQF platform (probably as in all the member states).

Criterion 10

As in most of the member states the documentation of EQF-PQF-levels on diplomas etc. will also be delayed in Poland (2013/14 instead of 2012) but this is most acceptable. It looks as if the information about the level will be written directly on the diplomas, certificates, etc. and not on additional documents (such as, e.g. diploma supplements).

5.3. Eduard Staudecker (Austria)

The Polish NQF has been developed within a multi-level organizational structure involving key players through effective communication and coordination. Tasks and responsibilities have been distributed accordingly and communicated clearly. New management bodies were formed and linked to ministries, universities and research institutions (e.g. the Steering Committee, the Inter-ministerial Taskforce). Numerous modernizing processes are ongoing in Poland within the context of developing a comprehensive qualifications framework. The use of learning outcomes is fostered at all levels and in all education sectors, reflected by the development of new learning-outcomes based curricula, which are perceived as particularly promising for the purpose of improving quality in VET. Poland's commitment to developing a comprehensive framework is demonstrated by the intended inclusion of qualifications from outside the formal sector and their planned description in terms of learning outcomes.

The report demonstrates awareness of key issues that might arise from implementing mechanisms for credit accumulation for specific sectors. Furthermore, extensive preparatory work is being undertaken, addressing the definition of criteria and procedures for including qualifications and assigning PQF levels, and the development of a legal basis. Implementation of these principles and their legal anchoring is seen as an important contribution towards transparency and credibility. Uniform quality assurance requirements and mechanisms (e.g. pedagogical supervision, external examinations) for all national qualifications to be entered into the PQF register will further add to the PQF's credibility.

The Polish Referencing Report presents a systematic overview of the development and implementation of the Polish Qualifications Framework for lifelong learning. The report builds upon a strong scientific and political fundament, and serves as a basic document for the many initiatives implementing fundamental change in the Polish qualifications system. Congruence between PQF and EQF level descriptors is demonstrated in a systematic and thorough manner. The introduction of 'social competence' descriptors is seen as a suitable measure to overcome the tight 'competence' definition used in the EQF tableau and will facilitate understanding of the competence category at the national level. The report also provides a detailed review of the numerous meetings that have been held together with international experts.

Experts have been involved continuously throughout the process of producing this Referencing Report. Each of the meetings focused on specific key themes, which allowed for in-depth discussion and detailed expert feedback on key issues that went far beyond the technical implementation of the PQF, and right to the core of the Polish and European policy in labour market and education.

This report provides an adequate basis for a strong and comprehensive political approach. In the future, special attention needs to be devoted to fostering cooperation with other countries at the regional level, as well as to the structure of the European labour market (esp. and e.g. mobility of workers, economic cycle, shift to service industry, skills mismatch) in order to ensure the long-term benefits of the PQF for Polish citizens.

5.4. Erzsébet Szlamka (Hungary)

General comments

The aim, scope and therefore the type of the PQF are impressive: the Polish colleagues did not only reflect the education and training structure, but they initiated a fundamental change in the qualifications system. There were several pillars of the project: the implementation of the national qualifications register, the strengthening of quality assurance, credit transfer and the integration of non-formal and informal learning outcomes in the system. All these are fundamentally supported by the Polish Qualifications Framework, which – even though similarly to the EQF – has 8 levels, is not a simple copy: it is well adapted to Polish specifics.

The responsibilities are clearly divided and communicated: a committed project team with subgroups (for scientific research, matching of qualifications system with current labour market needs, referencing, NQR, validation, quality assurance, international cooperation, communication etc.) worked on the development in cooperation with stakeholders. Meanwhile, the Steering Committee of the NQF and the Inter-ministerial Taskforce for LLL, including NQF as well as the active participation of political decision makers made the political support and responsibility also visible throughout the whole process.

Communication about the PQF is worth mentioning: the wider public has been reached by conferences (including an annually organised conference where international guests were also welcome), a dedicated homepage, promotional materials including a widely understandable animation on how the qualifications framework operates, resulting in the awareness of the learning outcomes approach; the trio of knowledge, skills and competences; the transparent and flexible way of learning etc. During the almost two years of cooperation between Polish and international experts, while the Polish referencing process was on-going, international experts could experience the more and more active participation of stakeholders.

The process and report are transparent, not only by clearly describing the Polish educational system: though there are concepts used differently in Poland than in many other Member States, the terminology is explained and used consistently. Also, showing concrete qualifications with their learning outcomes helps both understanding and credibility.

The four international experts had the opportunity to express their opinion both at national conferences and at smaller seminars focussing on specific topics; comments have been taken into consideration or if not, reasons (Polish system and circumstances) have been clearly explained.

To sum up: (1) the development of the PQF is part of a considerable reform process; (2) all the referencing criteria have been fulfilled; (3) the results recorded in the report are not only on paper, but reflect Polish reality.

Detailed review of the Polish referencing process and report

The Poles started their referencing process (involving international experts) in September 2011. The undertaking was impressive, as the aim was not only to reference the Polish Qualifications Framework to the EQF, but also to reform the whole qualifications system (credit system, validation of non-formal and informal learning, implementation of registered qualifications, Qualifications Framework). This way the PQF served as a supporting tool for an overarching reform.

The thorough reform was well established within IBE (Educational Research Institute – Instytut Badań Edukacyjnych): there were different subgroups for research, communication and international relations. On the other hand, reading the referencing report, one may have the feeling that the whole system was developed within this research institute and little participation of political decision makers and social stakeholders actually influenced the decisions. (I must emphasize this "feeling" is in association with the report and the delay of its final acceptance; when remembering the process, the political decision makers were involved in the *Conference on Qualifications Frameworks as an Instrument of Public Policy for Lifelong Learning* and social stakeholders were involved in both conferences: in 2011 and 2012.) Also, it is important to mention that democracy (active citizenship and participation in policy-making) as well as competence-based education and learning outcomes approach do not

have such a long tradition in Central Europe as in Western Europe; therefore, decision makers first have to prepare a digestible material so that the wider public can have a word. It is important to mention that while in many countries ministries try to press stakeholders to accept the proposals, in Poland, once they understood the benefits, the academic society lobbied for a qualifications framework.
My next remark also concerns responsibilities (and methodology): the first table in the referencing report stipulates some qualifications awarded in the Polish higher education system below higher education, but it is not clear who exactly assigned these qualifications to certain levels and what the assignment of the remaining qualifications (certificate of completing basic vocational school and vocational diploma) depends on. (Something I missed also from other referencing reports: I would welcome a more detailed description on the methodology of linking qualifications to levels, but this may fit rather in a handbook like in Austria. Most countries put a stronger emphasis on linguistic description, although details on the social approach would be more interesting.)

The four international experts were involved in several meetings and conferences on the following topics:

- 27–28 September 2011 – Seminar on the Polish Referencing Process
  - General assumptions of the national qualifications system in Poland
  - Qualifications framework for Higher Education
  - Discussion of the details of cooperation (terms of reference)
  - Glossary of Key Concepts related to the National Qualifications System
  - Level descriptors in the PQF
  - Initial concept of the referencing report
  - Preparatory activities related to the development of the national qualifications system
  - Research plans
  - Initial concept of the institution for the national qualifications system
  - Disseminating information about the project and international cooperation

- 8 November 2011 – Seminar on the Polish Referencing Process
  - the involvement of stakeholders in the referencing process in Poland

- 20–21 February 2012 – Seminar on the Polish Referencing Process
  - The results of the study entitled "Study of procedures employed for certifying the effects of learning achieved using non-formal educational pathways and informal learning"
  - Assigning qualifications to levels in the Polish Qualifications Framework
  - The status of work undertaken to develop the Institution for the national qualifications system
  - Table of descriptors for the Polish Qualifications Framework

- 7–8 May 2012 – Seminar on the Polish Referencing Process
  - Table of descriptors for the Polish Qualifications Framework – levels 5–8
  - An analysis of the consistency between the proposed descriptors for levels 5–8 of the Polish Qualifications Framework with the adequate descriptors of the National Qualifications Framework for higher education
  - Case study: Levels of promotion in the teaching profession in the Polish qualifications system
  - Entering qualifications into the national qualifications register – progress report
  - Entering qualifications into the national qualifications system – the experiences of other countries

- 11–12 September 2012 – Seminar on the Polish Referencing Report
  - Presentation of the Polish Referencing Report proposal
  - Review of the draft version of the Polish Referencing Report from international experts
  - Panel discussion; challenges and open questions

- 29–30 October 2012 – Seminar on the Polish Referencing Process
  - Presentation of the Polish Referencing Report second draft proposal
  - Review of the second draft version of the Polish Referencing Report
  - Panel discussion; challenges and open questions
  - Final comments

- November 8–9 2012 – Qualifications Frameworks as an Instrument of Public Policy for Lifelong Learning
  - Participation in the panel discussion titled *"Implementing qualifications frameworks: a description of the status quo or change of the education system?"*

The topics were set logically, the meetings were well-prepared and as a consequence, experts could indeed follow the progress. The involvement of international experts was honest, their opinions were taken into consideration and in addition to the meetings, regular e-mail contact was also maintained. The attitude of committed Polish colleagues and the nice atmosphere also contributed to the good cooperation.

Although there were several issues (some of) the international experts did not fully agree with, most of these have either been rephrased so that foreigners understand the descriptions better or the reasons for not changing were explained:

- Likewise in Hungary, Polish educational subsectors (HE, VET, GE, AE) are traditionally divided. Therefore, the multiple genericness of qualifications framework descriptors was less understandable for non-Central Europeans as first, the solution seemed to resemble a sectoral framework. However, as it turned out, the descriptors are really consequent and those more specific are used only as a tool for easier linking. The methodology in Hungary is pretty much the same: based on outcome requirements, levels will be described so that linking is more transparent. (However, I must admit, sometimes I had the feeling that in Poland, higher education has its own way, it is not fully integrated in the framework. That is the reason some more information on supporting permeability between VET and HE would be useful.)
- There were also fruitful debates on some concepts like
  - *profession vs. occupation:* Poles use these concepts according to Polish traditions and the real meanings are well explained in the report (in some countries, the Polish meaning of occupation may be only a qualification, whereas in Poland, occupation is a wider concept than qualification). When having a debate on this issue, I came to the conclusion that referencing in this way is perfect for transparency, but does not necessarily bring the different educational and qualifications systems closer.
  - *full and partial qualifications:* since the Hungarian VET system also uses these concepts with a similar meaning, I had less problems with understanding; however, the European public will probably have to be even more informed on what basis, what (minimum) volume of qualifications can be linked to QF levels.
  - *quality of qualifications, the quality of learning, "well-conceived" qualification:* Polish colleagues fully considered the international experts' recommendations, which resulted in an understandable explanation in the report.

The process is dynamic, developments are still in process: the Polish educational system (VET and GE) does not use credits yet, but they are working on the usage of ECVET already, moreover, credit system is being developed for GE as well. Recognition policies will be based on credit systems. The report at this point does not provide details on the recognition of prior, non-formal and informal learning; the next edition of the document – when the results of credit system development will also be available – will probably include measures related to RNFIL as well.

5.4. Erzsébet Szlamka

Hungary also has to tackle with the same characteristics and problems mentioned in the introduction of the Polish referencing report: (traditional division of educational subsectors, early school leaving, low participation rate of adults in LLL); therefore, I would have welcomed some more details on how these reforms will e.g. contribute to decrease the high unemployment rate; to increase the proportion of adults continuing their learning after they finish school; the ratio of VET and HE students; etc.

One of the difficulties, when writing a referencing report is the great diversity of the target group: on the one hand, to promote the reform of Polish qualifications system, this document is a useful source for Polish social partners: employers, employees, teachers, providers etc. On the other hand, European experts can also well use the report as it gives a deep insight into the Polish qualifications system.

Although not mentioned explicitly in the report, in my opinion there are several features helping the Polish reform when negotiating with social stakeholders: the quick improvement of Polish PISA results[89] gave Polish decision makers a well-deserved credibility (when reform comes, it may mean something good as well…); the increase of teachers' salaries in the past couple years by about 50% resulted in more committed professionals; some leaders of the project are not only renowned as experts in the field but also capable of achieving political agreement.

To sum up, I feel all the referencing criteria have been fulfilled. The report is a clear, understandable and solid document on a thorough process, in which international experts had the opportunity not only to advise but also to participate in fruitful discussions, experiencing mutual learning, having positive effects on the Hungarian referencing process as well.

[89] Poland's reforms have raised performance to the same or higher levels as those of the USA and Norway, despite spending less than half of what those countries spend on education.

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6. Annexes

6.1. Annex 1. The opinions of institutions responsible for quality assurance

6.1.1. The opinion of the Educational Quality Department in the Ministry of Education (May 20, 2013)[90]

In response to your correspondence no. DSWM-I-MŁ-048-17/2013 of May 2 of this year requesting an opinion of the document entitled "Referencing Report. Referencing the Polish Qualifications Framework for lifelong learning to the European Qualifications Framework," I would like to thank the authors of this document for including therein the remarks of the Educational Quality Department, which were submitted by electronic mail on May 13 of this year.

In reference to the above information, please note that the Department of Educational Quality accepts the content of the report entitled "Referencing Report. Referencing the Polish Qualifications Framework for lifelong learning to the European Qualifications Framework," especially as it relates to the section on quality assurance – criterion 5.

Director of Educational Quality Department
Anna Dakowicz-Nawrocka

6.1.2. The opinion of the Central Examination Board (May 13, 2013)[91]

Having read, at the request of the Deputy Secretary of State in the Ministry of National Education of 2 May 2013 (DSWM-I-MŁ-043-15/2013), the *Referencing Report. Referencing the Polish Qualifications Framework for lifelong learning to the European Qualification Framework*, the Central Examination Board presents below its opinion on the report, particularly in connection with the section on quality assurance – the description of Criterion 5.

The Central Examination Board approves the contents of the *Referencing Report*, including the postulated extension of systemic mechanisms of quality assurance of qualifications to all qualifications included in the national register. Thus, the awarding of particular qualifications will be based on common national quality principles. We believe that the planned changes are a further major step on the way to integrate Polish education to the European education system. We are convinced that the Polish Qualifications Framework, based on learning outcomes described through the categories of knowledge, skills and social competences, will become the tool of systemic change with long-term consequences.

In our opinion, the following aspects are particularly valuable:

- Introduction of two stages of level descriptors: universal – relating to all types of education and variant – typical for general education, vocational education and training and higher education.
- Adaptation of the European Qualifications Framework recommendation to Polish circumstances and contexts, resulting, among others, from the specificity of the Polish language, the terminology commonly used in Poland and institutional conditions.

At the same time, we share the opinion of the Authors of the *Referencing Report* (p. 59), who recognise the necessity to continue work on the full harmonisation of Polish Qualifications Framework level descriptors with the general education and the vocational education core curriculum. This task seems to be especially important in the case of the *matura* examination, which will be based on new principles from 2015, defined in the Regulation of the Ministry of National Education of 25 April 2013 amending the Regulation on Terms and Conditions of Assessing, Classifying and Promoting

[90] Translation from Polish.
[91] Translation from Polish.

Students and Conducting Tests and Examinations at Public Schools (Journal of Laws of 30 April 2013, item 520). Taking into account that all additional subjects will be taken at the advanced level, it would be good to consider the PQF level to which the *matura* certificate should be assigned.

Director of the Central Examination Board
Artur Gałęski

6.1.3. The opinion of the Polish Accreditation Committee (June 14, 2013)[92]

In reference to the document of the Minister dated June 11 of this year on having the Polish Accreditation Committee provide an opinion about the "Referencing Report. Referencing the Polish Qualifications Framework for lifelong learning to the European Qualifications Framework" prepared by the Educational Research Institute, I respectfully inform you that the Polish Accreditation Committee, within the scope of its competencies, approves the content of the above-mentioned report.

Vice-chairperson, Polish Accreditation Committee
Prof. dr hab. Danuta Strahl

6.2. Annex 2. A Glossary of Key Concepts related to the National Qualifications System

6.2.1. The challenges of Polish terminology and efforts to address them

The objective of the *Recommendation of the European Parliament and Council of April 23, 2008 on establishing the European Qualifications Framework for lifelong learning* is to "create a common reference framework which should serve as a translation device between different qualifications systems and their levels, whether for general and higher education or for vocational education and training". In order for this to happen, in order to enable each stakeholder to take advantage of this tool, both the European frameworks as well as the Polish Qualifications Framework must be understandable to a broad range of individuals and institutions. Thus the terms and concepts used in the frameworks should be clear and simply explained.

Meanwhile, we face problems with terminology in Poland that make it difficult, or even impossible, to understand what qualifications frameworks should be. These problems are due to the simultaneous use of traditionally understood terminology in the pedagogical sciences, as well as the use of new connotations for the same terms that have already taken root in our language. These new meanings arose as the result of current legislative work, as well as the labour of translators working in EU structures, who, under time constraints, did not always have the option to check the definitions of the specialised terms they were translating.

Problems with correctly translating European documents are also related to the fact that the historically developed Polish terminology related to education, including schooling, training and learning, as well as qualifications, has multiple meanings, is fairly fluid and lacks internal congruence. An additional challenge in using this terminology is due to the speed of developments in this field, resulting in frequent modifications of definitions used by the community of international experts who are preparing proposals of successive documents on qualifications frameworks. Additionally, many of the new Polish terms in this field originate from the English language, and the authors of numerous papers use them in a Polish context by providing only their literal translations. Unfortunately, too often these terms turned out to be only homonyms (false friends).

The need to overcome the ever increasing linguistic chaos in the broadly understood field of education, and especially to unequivocally define the fundamental terms related to the national qualifications system, induced us to undertake another round of work on a glossary of key concepts related to the national

[92] Translation from Polish.

qualifications system (NQS) as part of "The development of terms of reference for the implementation of the National Qualifications Framework and the National Qualifications Register for lifelong learning" Project. The aim of this task was to enable various stakeholder groups to communicate with each other without barriers, and also to conduct an effective debate on this socially important topic.

The current work is a continuation of activities begun over five years ago that were carried out at the same time as work progressed on the proposed design and implementation of the National Qualifications Framework. It began with the initiation of the Working Group for the National Qualifications Framework for higher education at the Ministry of Science and Higher Education in December 2006. The result of this work was "Pangloss" – a glossary of terms of the National Qualifications Framework for Higher Education,[93] which was appended to the first version of the Terms of Reference of the National Qualifications Framework for Higher Education. Work on Polish terminology for the national qualifications system was next continued by a glossary team within the Working Group functioning as part of the project implemented by the Ministry of Education in 2008 entitled "Establishing a balance sheet of qualifications and competencies available in the labour market and developing a model of the National Qualifications Framework".

"Pangloss" served as a reference for developing the next document entitled "Glossary of basic terms related to qualifications frameworks "Terminological proviso".[94] The proposed glossary developed in 2006–2009 was appended to the terms of reference presented to the Steering Committee for the National Qualifications Framework for Lifelong Learning, which, at its meeting of May 17, 2010, accepted this document as the basis for further conceptual work and applications related to the NQF and its consultation process. It also served as the starting point for the subsequent document, "A Glossary of Key Concepts related to the National Qualifications System" (IBE 2011). The glossary was approved in 2011 by the Steering Committee for the National Qualifications Framework for Lifelong Learning[95] and the Inter-ministerial Taskforce for Lifelong Learning, including the National Qualifications Framework[96] with the recommendation to consult this material with the Council for the Polish Language.

As a result of the consultations with experts at the Council for the Polish Language, a linguistically improved version was developed of the most important entries and their re-edited definitions. They are presented below. After the Steering Committee for the National Qualifications Framework for Lifelong Learning approves the referencing report, a new, updated version of the glossary will be developed, whose title, as proposed by the Council for the Polish Language, will be "A Glossary of Key Terms in the National Qualifications System". The new version will also be prepared in cooperation with the experts of the Council for the Polish Language.

6.2.2. The principles applied in choosing and defining terms for the NQS, including the PQF

We first sought out definitions of specific words in already existing documents and publications that could be useful in building an integrated qualifications system. But the available definitions of many terms were found to be lacking because they did not meet the criteria of functionality, that is, they did not provide a clear description of the existing state of affairs nor provide the opportunity to design new legal and organisational solutions in the area of qualifications. In such cases, inspired by various sources, we developed our own definitions, avoiding, to the extent possible, dissonance with traditionally used terminology in this field, but at the same time taking into account the requirements of logical and linguistic propriety. Some of these proposals are regulatory definitions;[97] others are definitions to be used in future developmental work.[98]

[93] Pangloss – a term proposed by Marek Frankowicz, a Bologna Process expert, for use in developing the *Glossary of terms for the National Qualifications Framework for Higher Education*.

[94] Developed as part of the *Establishing a balance sheet of qualifications and competencies available in the labour market in Poland and developing a model of the National Qualifications Framework (NQF)* project.

[95] Resolution of the Steering Committee of 27 July 2011.

[96] Resolution of the Inter-ministerial Taskforce of 26 August 2011.

[97] This is the type of terminological assignment that sharpens the definition of the term, but takes into account the way it is typically understood.

[98] The correctness of the terms are guaranteed by terminological assignment, the terms are introduced into the language and are arbitrary. They do not require justification.

In creating the glossary of concepts and terms for an integrated qualifications system (which while maintaining its autonomy should also be compatible with the qualifications systems of other European Union countries), we had to accept the fact that some terms were completely new in the Polish language, for example, *non-formal learning [edukacja pozaformalna]*. Others are directly copied from English terms – and this is why they sound foreign, at times slightly jarring, and undoubtedly stand apart from the classical form of the Polish language. It should be noted that copying English terms into Polish does not always result in a good effect. For example, the English term *formal education* translates well into Polish – *edukacja formalna*, whereas the term *formal learning*, when literally turned into Polish, sounds much worse – *uczenie się formalne*. In Polish, the English term *formal learning* is expressed much more appropriately by using the phrase – "learning in the formal educational system".

The criterion of including a term in the glossary was its meaning as a fundamental (key, basic) concept essential in developing new solutions for the national qualifications system, including the need to amend appropriate legislative regulations. For practical reasons, the list of words defined in this glossary of terms has been maximally limited. As a result, terms important to the process of modernising the national qualifications system that did not raise doubts as to their interpretation and understanding in the Polish language were not included. Terms with meanings relating to the main entries were added in the appropriate columns of the definition. As a result of this approach, a subject index had to be created as an integral part of the glossary.

The new definitions presented in the glossary were developed according to certain assumptions relating to the principles of developing an integrated qualifications system in Poland, especially in relationship to the principles of validating competencies attained through learning outside of the formal educational system. These definitions are functional in the sense that they enable specific, defined solutions to be created, enabling an integrated qualifications system to be developed in Poland. It is obvious that somewhat different definitions of some of the terms would have been needed if other assumptions had been made on how the national qualifications system was to be modernised in the future.

6.2.3 Terms and definitions

The glossary presented in the Annex consists of 17 entries. They have been approved by the experts of the Council for the Polish Language with two exceptions. The Council for the Polish Language experts team believes that the Polish term for "qualifications framework" – *rama kwalifikacji* – already approved in Polish documents and materials is linguistically and factually incorrect as translated from the English, and should be replaced with more appropriate wording, such as "the structure of the qualifications' levels" – *struktura poziomów kwalifikacji*. In addition, the Council for the Polish Language experts expressed the view that the translation of "formal education" as *edukacja formalna* is also incorrect. Ultimately, until a more appropriate phrase is found, it was agreed to use the term "type 1 organised education" – *edukacja zorganizowana typu I* – for formal education. However, in the course of further consultations with representatives of the Ministry of Science and Higher Education, it was decided to use the terms "formal education" – *edukacja formalna* – and "non-formal education" – *edukacja pozaformalna*.

No.	Term	Definition
1.	Credit accumulation	The process of collecting validated learning outcomes that comprise the components of the requirements for a given qualification.
2.	Certification	The process by which a learner receives a formal document from an authorised institution stating that a qualification has been attained. Certification occurs after validation.
3.	Formal education	Learning through participation in education and training programmes leading to the attainment of a registered qualification.
4.	Non-formal education	Institutionally organised learning which is not included in the education and training programmes that lead to the attainment of a registered qualification.
5.	Learning outcomes	The knowledge, skills, and social competence attained in the learning process.
6.	European Qualifications Framework for lifelong learning (EQF)	The EU-adopted structure of qualifications levels constituting a system for referencing national qualifications frameworks to enable qualifications attained in different countries to be compared.
7.	Social competence	The ability to shape one's own development, as well as the autonomous and responsible participation in professional life and society, taking into account the ethical context of one's own behaviour.
8.	National qualifications system (NQS)	The entire system of procedures for establishing and awarding qualifications and ensuring their quality.
9.	Registered qualification	A set of learning outcomes described in the integrated qualifications register whose attainment is formally confirmed by an authorised institution. A qualification described in the register may be full or partial.
10.	Polish Qualifications Framework (PQF)	The description of the hierarchy of qualifications levels entered into the integrated qualifications register in Poland.
11.	Credit transfer	The recognition by an entity awarding a qualification of learning outcomes constituting a component part of the said qualification, which were validated by other entities.
12.	Descriptor	A general description of the requirements relating to knowledge, skills or social competence corresponding to a given qualification level.
13.	Informal learning	The attainment of knowledge, skills and competence through a wide range of activities occurring outside of organised forms of learning.
14.	Skills	The ability to carry out tasks and solve problems relevant to a field of learning or professional activity.
15.	Recognition of qualifications	Formal recognition by an authorised institution of the validity of a certificate / diploma obtained abroad.
16.	Validation	The multi-stage process of ensuring that the competencies required for a given qualification have been attained, regardless of the learning process. Validation leads to certification.
17.	Knowledge	A set of descriptions of facts, principles, theories and practices assimilated during the learning process, relating to a field of learning or professional activity.

6.3. Annex 3. The involvement of social partners in activities modernising the qualifications system

Introduction

Modernising the national qualifications system, where the key activity is the implementation of the Polish Qualifications Framework, requires the involvement and cooperation, as well as some form of control, of social partners. In the long term, the positive effects of an integrated qualifications system will depend on the awareness of individuals and institutions about how they can potentially use the PQF. In other words, they need to know how the new solutions can support various institutions in achieving their objectives and make it easier for people to rationally choose their field of education and work. Therefore, a public debate on an integrated qualifications system is essential for modernising the qualifications system in Poland. The debate will continue throughout the period of preparing for the implementation of new systemic solutions.

For these reasons, public consultations with a broad spectrum of stakeholders were given a particular focus in preparing these new solutions. Within the framework of the ongoing public consultations taking place at the Educational Research Institute, the public debate inaugurated in February 2011 on the Polish Qualifications Framework and related reforms plays a significant role. Additionally, stakeholders were included in the conceptual work on developing the principles of assigning qualifications to PQF levels and the guidelines for qualifications' quality assurance. This provided the opportunity for social partners to actively participate in the creation of a modernised qualifications system, which included influencing the entries of the Polish Qualifications Framework, as well as other components of the integrated qualifications system.

6.3.1. The public debate on the Polish Qualifications Framework

Many different groups are participating in the public debate on the Polish Qualifications Framework. They include representatives of ministries, labour offices, employers' organisations (including trade and sectoral groups) and trade unions, public institutions working on education, commercial training companies, various institutions involved in the education system, associations and non-governmental organisations, research and consultancy institutions.

The debate is being carried out as part of "The development of terms of reference for the implementation of the National Qualifications Framework and the National Qualifications Register for lifelong learning" Project. The Educational Research Institute in Warsaw organises the programme and schedule of meetings, engages professional moderators who help guide the discussions, and secures the support of experts working on the national qualifications system.

The first stage of public debate

The first stage of the debate began in February 2011. Approximately 200 people representing 101 institutions participated in these meetings. The last meeting of the first stage was held June 15, 2011 in Warsaw.

Discussions on modernising the qualifications system and the proposed Polish Qualifications Framework were conducted in three groups. Each group met five times. During these meetings, the groups developed a common position, discussing not only about the need to build a new qualifications system, but also about the related challenges and threats, and possible ways to overcome them. Discussion participants exchanged comments, expressed ideas and concerns about individual elements of the developing framework's structure, and discussed problems related to the Polish labour market and system of education. Participants also presented their own experiences in the areas being discussed.

The first group deliberated on the Polish Qualifications Framework model. The discussion centred on the structure of the PQF (including the various stages of generic descriptors) and the accepted manner of describing levels with the use of descriptors. As part of this group's work, each PQF descriptor entry was consulted and discussed in detail.

The second group discussed the qualifications framework as a policy tool for lifelong learning. The group developed a "catalogue of barriers" to lifelong learning and created a package of action proposals to promote and facilitate learning at each stage of life. They also indicated which of these activities will be more effective with the implementation of the PQF and other elements to modernise the national qualifications system.
The third group addressed problems associated with the validation of learning outcomes (validation and certification), and the mechanisms for qualifications' quality assurance. Efforts were undertaken to identify different known practices of validating of learning outcomes in Poland. Also discussed were the methods used and desired solutions. Proposals were formulated for the principles of qualifications' quality assurance and solutions for building a comprehensive validation system.
During the conference summarising the debate's first stage, the course of the debate and achievements were discussed. A participants' survey was completed by a total of 86 persons. A decisive majority agreed that the debate was needed (over 60% of respondents stated that the debate was "very much needed", and 36% – that it was "needed"). The survey revealed that nearly 60% of respondents asked questions during the debate, 65% believed that they had the opportunity to express their opinions (8% of participants stated that they did not have this option). 94% of respondents believed that they were kept well informed about the debate. 92% responded that they "feel better informed about the Polish Qualifications Framework", 8% held the opposite view. In answering the question: "Will the debate influence the final design of the PQF?", 88% of respondents answered affirmatively.
More information on the course and outcome of this stage of the public debate is provided in the document entitled "The development of terms of reference for the implementation of the National Qualifications Framework and the National Qualifications Register for lifelong learning – Report of the public debate."[99]

The second stage of the public debate

The second stage of the debate began in November 2011 and continued to the end of 2012; consultation in this form will be continued. Debate participants became acquainted with the progress of work on modernising the qualifications system. They received the first version of "A Glossary of Key Concepts related to the National Qualifications System."[100]

The debate primarily addressed the following areas:
- the Polish Qualifications Framework,
- assigning qualifications to PQF levels,
- the underlying premises for the national qualifications system (including guidelines for the participation of stakeholders),
- the national qualifications register,
- validation and certification,
- quality assurance.

Participants are deliberating on how to secure the ongoing involvement of employers, how to ensure the appropriate role of trade institutions and sectoral organisations in the process of validating learning outcomes, how to support lifelong learning, and how to expand the debate. In the third stage, the public debate will also take place using the Internet.

6.3.2. Work on the proposed rules for assigning PQF levels to qualifications

From the beginning, the Educational Research Institute has been working in close cooperation with representatives of trade and sectoral groups on the principles of assigning PQF levels to qualifications. In March 2012, persons engaged in designing and awarding qualifications from four sectors – social

[99] The report is available from the project's website: kwalifikacje.edu.pl.
[100] The glossary is available from the project's website: kwalifikacje.edu.pl.

services, financial services, electrical-electronics and construction – began working on this issue. The teams consisted of between five to eight persons and included: teachers, trainers, vocational counsellors, employees of institutions offering vocational education, staffs of examination centres, and representatives of employers, professional organisations and trade unions.

Initially, the teams worked independently of each other, but according to the same plan:
- at least eight qualifications were chosen from their field (the primary criterion for choosing a particular qualification was the precise and complete description of its learning outcomes),
- the PQF levels were determined for the qualifications,
- a proposal was prepared for the methodology of assigning PQF levels to qualifications,
- the results of this work were presented to the remaining teams for their opinions.

Although the teams worked separately, their recommendations turned out to be quite similar. Each team presented proposals on:
- the composition and characteristics of teams that will be organised to assign PQF levels to qualifications (the number and competencies of members, recruitment practices, length of term, etc.),
- the organisation of the work of the teams responsible for assigning PQF levels to qualifications (the selection and the role of the chairperson, role of the secretary, the role of the applicant entity, the role of external experts, preparing members for the meeting, meeting agenda items, how to make decisions, etc.),
- the principles of assigning PQF levels to qualifications, tools and methods of analysing learning outcomes and referencing them to PQF descriptors (procedures, helpful forms, etc.).

Each team's proposals also addressed various other issues, such as, among others, entering qualifications into the national register.
Joint discussions of the similarities and differences between the four proposals on how to assign PQF levels to qualifications and determining the possibility of developing a joint proposal were the subjects of further discussions and meetings of the groups. These meetings were held from July to September 2012. The result is a document entitled "The principles of assigning qualifications to levels in the Polish Qualifications Framework – conclusions from the work of sectoral teams", which includes joint proposals.
According to the time-table approved by the Steering Committee of the National Qualifications Framework for Lifelong Learning, work began on the initial assignment of PQF levels to 350 qualifications in October 2012. This will serve as a practical verification of the proposals developed by the four sectoral teams. According to the accepted guidelines, this work will be carried out in close cooperation with social partners, among whom professional sectoral organisations will play a particularly important role.

6.3.3. Work on the principles of the quality assurance of qualifications

In May 2012, the Educational Research Institute organised an expert consultative group to work on issues related to the quality assurance of qualifications. Persons with knowledge and experience in the field of qualifications' quality assurance, the validation of learning outcomes and a basic understanding of the national qualifications system, including the Polish Qualifications Framework project are participating in this work. The group consists of 12 experts representing vocational education and higher education institutions, professional organisations and public employment services.
The aim of the group is to develop the principles for the quality assurance of qualifications, including the methodology of validating learning outcomes. As of October 2012, the group met five times; in addition, participants prepared opinions and various other materials between meetings. As a result of the work performed to date, a document has been developed and consulted that describes

the threats to assuring the quality of qualifications, proposals for remedial action, and presents a set of principles to ensure the quality of qualifications. The next step will be to carry out extensive consultations with groups working in this area. The aim of the consultations is to verify the proposals by examining the feasibility of their implementation by different types of qualifications awarding bodies and institutions responsible for the quality assurance of qualifications.

The principle of "nothing about us without us"

The above examples illustrate the practical implementation of the premise that an integrated national qualifications system must result from the cooperation of experts with a broad range of representatives from various professional communities. With the participation of all stakeholders, the debate should lead to:

- a review of the current practices of awarding qualifications in Poland,
- the identification and promotion of good practices,
- the inclusion of a broad spectrum of professionals bringing the best experiences of the communities they represent to the process of creating new solutions.

From the experience and results of the cooperation to date, it is clear that success in preparing and implementing new systemic solutions, including the Polish Qualifications Framework, is not possible without the involvement of a wide range of stakeholders.

6.4. Annex 4. Assigning PQF levels to qualifications

6.4.1. Methodology of assigning levels

In 2012, an initial proposal for assigning levels to qualifications was developed together with sectoral teams. More information about the activities of sectoral teams is presented in Annex 3.

The experts agreed that assigning PQF levels to qualifications cannot be done intuitively and that the basis for determining a qualification's level must be a comparison of its required learning outcomes to the PQF level descriptors for each case. It was found that assigning a level to a qualification is possible if certain conditions are met. First, a specific set of information about the qualification is required. Second, the requirements of the qualification must be described in the language of learning outcomes.

The proposal assumes the use of the *best fit* principle. According to this principle, the qualification being analysed should be assigned to the level, which is best reflected in its key, essential learning outcomes.[101] The principle of *best fit* means that the determination of the level of the qualification is not only limited to comparing learning outcomes with PQF descriptors, but also requires their in-depth interpretation. It is especially important to take into account:

- the character of the tasks (activities) that the holder of the qualification will be prepared to perform,
- the manner of validating learning outcomes, especially the scope and character of the examination requirements and their corresponding assessment criteria.

After much discussion, it was decided that five distinct stages could be applied for assigning PQF levels. The first attempts to use this procedure showed the usefulness of this approach.

[101] See Coles, M. (2011).

The five stages of assigning a PQF level to qualifications

Stage 1	Analyse the qualification's documentation Assess the validity of the description of the learning outcomes required for the qualification.	*Assess the completeness of the information about the qualification.* *In order to determine the PQF level, the required learning outcomes must be specific, adequate and measurable.*
Stage 2	Choose the method of comparing the learning outcomes with PQF descriptors	*Three methods of comparison:* *a) learning outcomes for knowledge, skills and social competence treated as a whole;* *b) specific units of learning outcomes specified in the requirements for the qualification;* *c) specific learning outcomes required for the qualification;* *The methods of comparison may be used together.*
Stage 3	Compare learning outcomes with corresponding PQF descriptors	*Comparisons are made with PQF second stage generic descriptors. Universal descriptors should be treated as the second required reference point.*
Stage 4	Assign the level	*Best fit principle is used.*
Stage 5	Justify	*Assigning a level to a qualification should be justified by, among others, presenting the set of appropriate PQF descriptors with the qualification's learning outcomes.* *The set of PQF descriptors together with commentary should demonstrate the relevance of a given qualification's key learning outcomes to the proposed PQF level.*

Comparing learning outcomes for knowledge, skills and social competence treated as a whole

A qualification's learning outcomes within the categories of knowledge, skills and social competence are analysed. Based on the assessment of experts, the level of the learning outcomes is determined for the specific categories (the competent judges method).

Should different PQF levels be assigned to particular categories of outcomes, a weight is fixed for the "relevance" of the category for the particular qualification under analysis and, on this basis, the level of the qualification is determined. A flow chart of this process is shown in the following example.

QUALIFICATION "X"

learning outcomes for KNOWLEDGE level 6	learning outcomes for SKILLS level 5	learning outcomes for SOCIAL COMPETENCE level 4

	Knowledge	Skills	Social competence
Learning outcomes level by category	Level 6	Level 5	Level 4
Weight of learning outcomes category for the qualification	65%	25%	10%
LEVEL OF THE QUALIFICATION	**6**		

Comparing specific units of learning outcomes

A qualification's required learning outcomes are broken down into units (sets) of learning outcomes and then analysed. These qualification units are determined according to a specific criterion (e.g. by specific professional activities). Each unit includes learning outcomes for knowledge, skills and social competence.

Based on the assessment of experts, the PQF level is determined for each unit of learning outcomes (competent judges method), as is its importance to the qualification. Then, the level is determined for the entire qualification. A flow chart of this process is shown in the following example.

QUALIFICATION "Y"

unit of learning outcomes A *includes key learning outcomes for the qualification* level 3	unit of learning outcomes B *includes key learning outcomes for the qualification* level 3	unit of learning outcomes C *includes key learning outcomes for the qualification* level 4

Unit name:	**Level**
unit A	3
unit B	3
unit C	4
LEVEL OF THE QUALIFICATION	**3**

Comparing specific learning outcomes required for the qualification

A qualification's required learning outcomes are directly referenced to PQF level descriptors. Based on the assessment of experts, the PQF level of each individual learning outcome is determined (competent judges method), as is its importance to the qualification. Then, the level of the whole qualification is determined. A flow chart of this process is shown in the following example.

QUALIFICATION "Z"

learning outcome (1)	learning outcome (4) *key*	learning outcome (7)	learning outcome (10)
learning outcome (2)	learning outcome (5) *key*	learning outcome (8) *key*	learning outcome (11)
learning outcome (3) *key*	learning outcome (6)	learning outcome (9)	learning outcome (12)

	Level 3	Level 4	Level 5
Number of learning outcomes by PQF level	2	8	2
Number of key learning outcomes by PQF level	–	3	1
LEVEL OF THE QUALIFICATION	**4**		

After initially assigning levels to 350 qualifications, the procedures presented above will be verified and corrected. The experiences gained during the initial assignment of levels will also serve to verify the PQF level descriptors (first and second stage).

6.4.2. The initial assignment of PQF levels to qualifications

There are two stages in the work of initially assigning PQF levels to qualifications. The first was performed from March to September 2012 with levels being assigned to 32 qualifications. This enabled us to formulate the proposed methods of assigning levels presented above. The second stage began in October 2012, during which levels will be assigned to successive qualifications. By the end of 2013, levels will have been assigned to a total of 350 qualifications.

Assigning PQF levels to qualifications is undertaken in close cooperation with teams of specialists (see Annex 3). This work is directed by the Educational Research Institute and focuses on qualifications awarded in the formal general, vocational and higher education systems in 14 areas:

1. Food production and processing
2. Construction

3. Energetics
4. Mining and metallurgy
5. Clothing industry
6. Electromechanical industry
7. Chemical and ceramics industries
8. Wood, paper and printing industries
9. IT and electronics
10. Logistics and transportation
11. Management and administration
12. Tourism and gastronomy
13. Culture and personal services
14. Health care and social services

It is anticipated that work on determining the levels of qualifications will continue from 2013 to 2015 and will include qualifications awarded on the basis of laws other than those governing the formal general, vocational and higher education systems.

6.5. Annex 5. The relationship between descriptions of required learning outcomes for qualifications and descriptors – selected examples

6.5.1. The relationship between various stages of generic descriptors in the Polish Qualifications Framework

As indicated in the text of the referencing report (section 2.2), descriptors in the Polish Qualifications Framework differ in the extent of detail of the description and the field to which they apply. First stage generic descriptors (universal) and second stage generic descriptors (relevant for general education, or vocational education and training, or higher education) should be read together.
In addition, the Polish qualifications system includes, and will also further develop in the future, a third as well as subsequent stages of generic descriptors. Each generic descriptor at a subsequent stage is consistent with the more general descriptors. The more specific they are, the closer they are to the specific learning outcomes required for a given qualification. The way descriptors are "developed" to more specifically characterise the learning outcomes required for a given qualification is illustrated in the following diagrams.

Diagram A. How PQF descriptors are "further developed" in the case of general qualifications

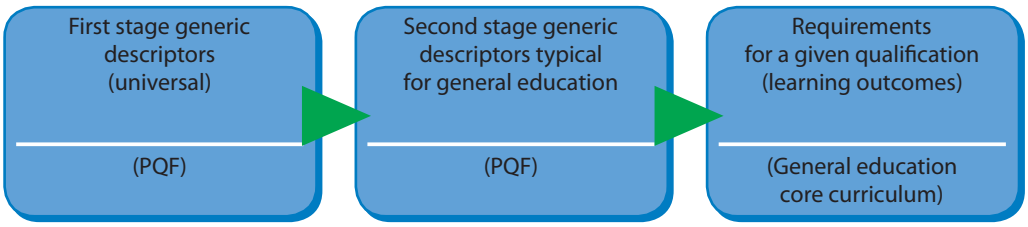


Diagram B. How PQF descriptors are "further developed" in the case of vocational qualifications awarded in schools

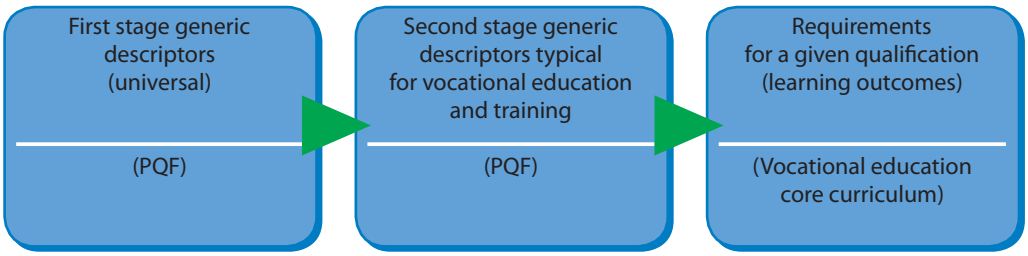
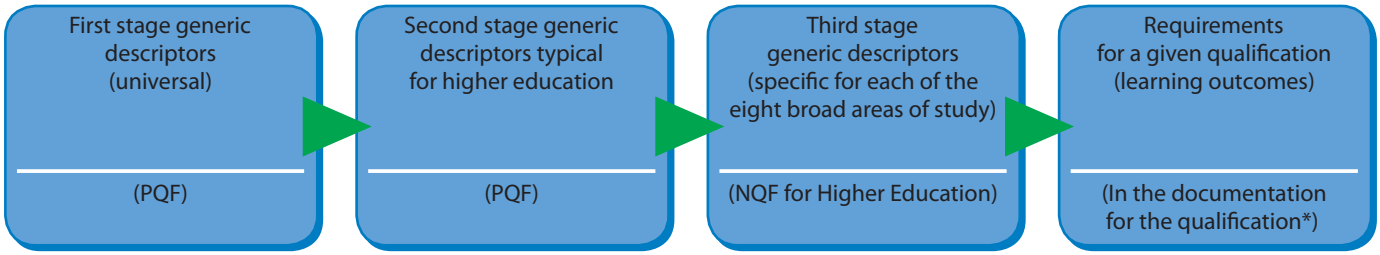
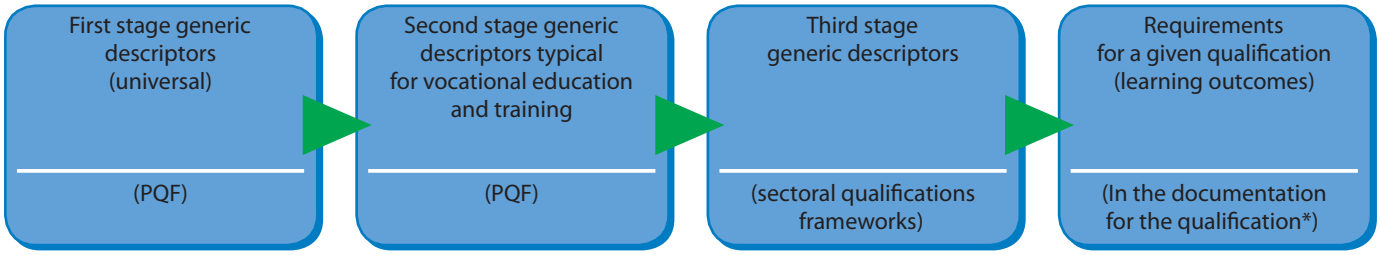


Diagram C. How PQF descriptors are "further developed" in the case of qualifications awarded in higher education



* developed by the higher education institution

Diagram D. How PQF descriptors are "further developed" in the case of partial qualifications awarded outside of the formal general and higher education systems (proposal for implementation within the integrated qualifications system)



*developed by the qualification awarding body

At present, some sectors in Poland have already established third stage generic descriptors, which, according to the diagrams presented here, should correspond in content with second and first stage generic descriptors in the PQF. The process of reconciling these entries is underway, which is challenging in some cases due to the fact that some third stage generic descriptors were developed earlier than the PQF (in higher education, for example).

6.5.2. The relationship between descriptions of required learning outcomes and descriptors using the example of a vocational qualification

The following are selected learning outcomes from the *vocational education core curriculum* for the vocational qualification of "electrician", which, according to preliminary analysis, will correspond to PQF level 3. The learning outcomes required for achieving this qualification are presented with the corresponding first and second stage generic descriptors. All of the material is presented in three tables of knowledge, skills and social competence. Placing the learning outcomes in adjacent columns allows one to see the decreasing generality of the PQF level descriptors.
The work was based on analyses performed by a sectoral team undertaking the initial assignment of PQF levels to vocational qualifications.[102]

[102] The work of the sectoral teams is presented in Annex 4.

Table 7

Qualification of "electrician" KNOWLEDGE		
PQF universal descriptors (level 3)	**Selected PQF second stage generic descriptors typical for vocational education and training (level 3)**	**Selected learning outcomes from the vocational education core curriculum**
A person knows and understands:	**A person knows and understands**:	**The pupil:**
• basic facts and concepts as well as the dependencies between selected natural and social phenomena and the products of human thought, • and also a broader scope of selected facts, concepts and dependencies in specific areas, • the elementary conditions of conducted activities.	• basic concepts and terminology, • basic phenomena and processes, • routinely utilised technologies, • routinely used organisational solutions, • basic rules, norms and procedures of workplace health and safety,	• distinguishes the wiring used in electrical systems, • identifies installation equipment, • identifies sources of illumination and housing for lamps, • defines the technical parameters for electrical systems and installation equipment, • identifies routine damage to electrical systems, • distinguishes the concepts related to workplace health and safety, fire prevention, environmental protection and ergonomics, • distinguishes the tasks and authority of institutions and services responsible for work safety and environmental protection in Poland, • describes the rights and responsibilities of an employee and employer in relation to workplace health and safety, • anticipates threats to life and personal health or to property and the environment related to the performance of professional tasks, • describes the threats associated with hazardous materials in the workplace, • describes the effects of hazardous materials on the human body, • organises the work station according to the requirements of ergonomics, workplace safety and hygiene regulations, fire protection and environmental protection, • applies measures to ensure individual and collective protection while performing professional tasks, • complies with the principles of workplace health and safety and adheres to legal regulations on fire prevention and environmental protection, • provides first aid to victims of accidents at work and in emergency situations threatening health and life,
	• basic information on tools, devices and machines, • basic characteristics and qualities of materials used,	• selects tools and measuring instruments and performs the mechanical installation of electrical and electronic components and equipment, • selects the tools to install various types of electrical systems, • selects the spare parts for the components of electrical systems from a catalogue, • selects tools for the assembly and dismantling of components in electrical systems, • selects meters for measuring the parameters of electrical systems,
	• basic rules and methods of communicating in the workplace, • basic principles and methods of team work,	• uses language elements (vocabulary, grammar, spelling and phonetics) in the performance of professional tasks, • formulates short and understandable statements and written texts to communicate in the workplace, • uses foreign language sources of information,
	• principles of planning the manner of carrying out one's vocational tasks, • of evaluating the implementation and results of work carried out.	• draws a diagram for the assembly of an installation, • routes the wiring and designates the location of installation components based on a diagram, • connects electrical components according to a circuit plan and installation diagram, • checks agreement between the actual assembly of the electrical installation and the diagram, • checks the performance of the electrical installation after assembly.

Table 8

Qualification of "electrician" SKILLS		
PQF universal descriptors (level 3)	**Selected PQF second stage generic descriptors typical for vocational education and training (level 3)**	**Selected learning outcomes from the vocational education core curriculum**
A person is able to:	**A person is able to:**	**The pupil:**
• complete moderately complex tasks following general instructions under partially variable conditions, • solve simple, routine problems under partially variable conditions, • learn partially autonomously under guidance in a structured form, • understand moderately complex statements, formulate moderately complex statements, • understand and formulate very simple statements in a foreign language.	**Typical for general education:** • find and process simple information, • utilise simple mathematical tools in situations related to learning or work and make simple calculations, **Typical for vocational education and training:** • analyse job offers in the context of the required competencies,	• uses the laws of electricity to calculate and estimate the values of electrical circuits and electronic systems, • measures installation and safety parameters according to instructions, • uses a technical drawing during assembly and installation, • uses technical documentation, catalogues and manuals, and adheres to the standards in this area,
	• carry out simple vocational tasks with the use of appropriate tools, devices, machines and materials, and operate the typical equipment found at a work station,	• draws schematic and assembly diagrams of electrical and electronic systems, • measures the parameters of electrical systems, • verifies the continuity of phase and protective conductors, • replaces damaged cables and electrical components, • performs electrical maintenance work according to documentation, • uses computer programs to support the performance of tasks,
	• communicate in the workplace: carry out the simple instructions of supervisors, take straightforward orders from clients, • monitor the work of a small work team, • discuss the work that was carried out,	• interprets statements about performing routine occupational activities articulated slowly and clearly in a standard form of the language, • analyses and interprets short written texts on performing routine occupational activities, • works with others in a team, • plans and carries out business marketing activities, • is able to negotiate the terms of an agreement,
	• autonomously prepare, implement and correct a plan of carrying out one's own vocational tasks, • resolve simple problems occurring while carrying out one's own vocational tasks.	• recognises routine damage to electrical installations, • checks the proper operation of electrical safety measures, • complies with the rules and defines the scope of maintenance work of electrical installations.

Table 9

Qualification of "electrician" SOCIAL COMPETENCIES		
PQF universal descriptors (level 3)	**Selected PQF second stage generic descriptors typical for vocational education and training (level 3)**	**Selected learning outcomes from the vocational education core curriculum**
A person is ready to:	**A person is ready to:**	**The pupil:**
• be a member of various types of communities, function in various social roles and assume the basic obligations resulting from this, • act and cooperate with others partially autonomously in structured conditions, • evaluate one's own actions and those of the team; take responsibility for the results of those actions.	• comply with regulations, rules and instructions, • follow technological changes in the field of one's vocation, • autonomously search for and choose employment,	• complies with the rules and defines the scope of maintenance work of electrical installations, • organises the work station according to the requirements of ergonomics, regulations governing workplace health and safety, fire protection and environmental protection,
	• oversee the quality of activities carried out by the team with which one works,	• complies with the rules of installing electrical systems in residential and industrial buildings,
	• take responsibility for the work carried out, • react to simple opinions about the work carried out, • discuss the tasks carried out with work colleagues, • autonomously establish contact with a potential employer,	• verifies the proper operation of the electrical system after installation,
	• make decisions about the work being carried out based on collected information, • take into consideration direct and deferred effects of the vocational activities carried out, • reliably carry out one's own vocational tasks.	• anticipates the consequences of activities carried out, • updates knowledge and improves vocational skills, • takes responsibility for the activities undertaken.

6.5.3. The relationship between descriptions of required learning outcomes and descriptors using the example of a general education qualification

Presented below are selected learning outcomes from the general education core curriculum for the *matura* certificate, which according to the accepted premises will correspond to PQF level 4. Due to the length of the description of the requirements for the *matura* examination, only some parts of this description are presented in the tables to illustrate how the specific *matura* requirements relate to PQF descriptors.

As in the previous example, the learning outcomes required to achieve this qualification have been presented with the corresponding first and second stage generic descriptors. All the material is included in three tables of knowledge, skills and social competence. Presenting the learning outcomes in adjacent columns allows one to note the decreasing generality of the PQF level descriptors.

The work was performed based on a comparative analysis of the general education core curriculum in the subjects of Polish, history and social studies, mathematics and the natural sciences and the requirements described in the Polish Qualifications Framework prepared by the Educational Research Institute by a team of didactic experts under the direction of Prof. Jolanta Choińska-Mika. The team completed its work in June 2012. This work was updated when the subsequent version of the PQF level descriptors was completed.

Table 10

Matura certificate KNOWLEDGE		
PQF universal descriptors (level 4)	**Selected PQF second stage generic descriptors: – typical for general education – typical for vocational education and training (level 4)**	**Selected learning outcomes from the general education core curriculum**
A person knows and understands:	**A person knows and understands:**	**The pupil:**
• a broadened set of basic facts, moderately complex concepts and theories, and the dependencies between selected natural and social phenomena and the products of human thought, • and also a broader scope of selected facts, moderately complex concepts, theories in specific areas and their dependencies, • the basic conditions of conducted activities.	**Typical for general education:** • the vocabulary, structure and rules of one's native language enabling the formulation of complex statements, • the vocabulary, structure and rules of a foreign language enabling the formulation of simple verbal and written statements. **Typical for vocational education and training:** • principles and methods of communicating in the professional community, • basic principles and methods of instructing and training at the workplace and leading a small team.	**Polish language:** • recognises the functions of text and the language resources used to produce it; is aware of the criteria for the correct use of language, • uses the basic concepts of poetics in analysis; in interpreting texts, uses knowledge about the context in which a text can be understood; recognises essential facts from the history of literature and other humanities fields in the text being read, • understands the various meanings of a literary work; carries out a comparative interpretation. **Mathematics:** • interprets mathematical text; after solving the problem, interprets the result obtained, • uses simple, well known mathematical objects.
	Typical for general education: • not too complex mathematical strategies and models, • basic theories about the material world, • not too complex natural and technical phenomena and processes.	**Mathematics:** • selects mathematical models for simple situations and critically assesses the relevance of the model, • uses strategies that clearly follow from the content of the assignment. **Biology:** • shows the relationship between structure and function at different levels of the organisation of life, indicates the source of biodiversity and its representation at the genetic, species and ecosystem levels, interprets the diversity of organisms living on Earth as being the result of biological evolution, • describes, organises and identifies organisms; presents and explains biological processes and phenomena; presents and explains the relationship between the organism and the environment, • explains the functioning of the human body at different levels of complexity; recognises the relationship between structure and function at each of these levels, • formulates conclusions based on conducted observations and experiments, • knows and understands the principles of sustainable development, • understands the meaning of natural and environmental protection; knows the rights of animals and analyses his/her relationship to living organisms and the environment. **Chemistry:** • understands basic concepts, laws and phenomena in chemistry,

Table 10 – continued

A person knows and understands:	A person knows and understands:	The pupil:
		• perceives the relationship between the structure of a substance and its physical and chemical properties, • proposes hypotheses to explain the chemical problems and plans experiments for their verification; on the basis of these experiments, independently formulates and justifies opinions and judgments. **Physics:** • builds simple physical and mathematical models to describe phenomena, • analyses popular science texts and assesses their content, • knows and is able to use the concepts and laws of physics to explain natural phenomena, • plans and conducts simple experiments and analyses their results. **Geography:** • acquires, processes and presents information from various sources of geographic information, including information and communication technology, and Geographic Information Systems (GIS), • perceives the regularity in the functioning of the natural environment, human life and the economy and the interconnections and relationships in the human-nature-economy system, • analyses and explains the demographic problems of societies, • proposes solutions to problems occurring in the geographical environment according to the concept of sustainable development and the principles of cooperation, including on an international scale.
	Typical for general education: • one's own identity connected to participation in various types of communities, • factors influencing success in life, • basic mechanisms of the functioning of societies and the economy, also in the global dimension, the basic principles of sustainable development.	**History:** • recognises the variability and dynamics of historical events and also the continuity of historical processes. **Social studies**: • recognises problems at the local, national, European and global scales and seeks their solution, • understands the complexity of social and political problems, • recognises the perspectives of various participants in public life, • explains democratic principles and procedures and uses them in daily life, • characterises democracy in comparison with other systems; assesses the activities of democratic institutions in Poland and the world, • assesses the role of associations and civic organisations and various forms of civic action in a functioning modern democracy, • describes how public authorities and other entities of public life function, • presents the rights and responsibilities of a citizen of the Republic of Poland, • understands the meaning of law and human rights in the daily life of a citizen and recognises cases of their violation, • presents the relationship between his/her life and the situation of the local community, Poland, Europe and the world, • explains the complexity of social, political, economic and cultural phenomena, • takes the global perspective into consideration when interpreting these phenomena.

Table 11

Matura certificate SKILLS		
PQF universal descriptors (level 4)	**Selected PQF second stage generic descriptors: – typical for general education – typical for vocational education and training (level 4)**	**Selected learning outcomes from the general education core curriculum**
A person is able to:	**A person is able to:**	**The pupil:**
• complete more complicated tasks, partially without instruction often under variable conditions, • solve more complex and somewhat non-routine problems often under variable conditions, • autonomously learn in a structured form, • formulate and understand slightly more complex statements related to a broad range of issues, • use a foreign language to formulate and understand simple statements.	**Typical for general education:** • formulate not too complex statements of varying character, consciously differentiate linguistic expressions, • understand complex statements in one's native language, • analyse, select and link information from various sources, • present and substantiate one's own position and discuss it in a group forum, • use a foreign language at the CEFR B1 level. **Typical for vocational education and training:** • communicate in the workplace: carry out the complex instructions of supervisors, conduct a dialogue with clients and co-operants, participate in meetings, • diagnose and resolve not too simple problems occurring while carrying out one's own vocational tasks or those of subordinate employees.	**Polish language:** • understands structurally complex texts, perceives meanings contained in the deep structure of a text, • perceives a variety of meanings in a literary work, carries out a comparative interpretation, • constructs statements of a higher level of complexity. **History:** • analyses events, phenomena and processes in the context of historical eras and perceives the relationship between the various areas of social life, • recognises types of sources; assesses the utility of sources in explaining a historical problem, • develops a cross-sectional or problem-related historical narrative, • perceives a problem and develops arguments, taking various aspects of the historical process into consideration, • selects and prioritises, integrates information from various sources of knowledge. **Social studies:** • finds and uses information on public life, critically analyses it, independently draws conclusions, • expresses and justifies his/her own opinion on selected issues orally and in written form in various public forums, • characterises democracy in comparison with other systems; assesses the activities of democratic institutions in Poland and the world, • assesses the role of associations and civic organisations and various forms of civic action in a functioning modern democracy. **Mathematics:** • interprets mathematical texts; after solving a problem, interprets the results obtained. **Biology:** • reads, selects, compares and processes information from a variety of sources, including with the use of ICT. **Chemistry:** • uses source texts in chemistry, acquires, analyzes, evaluates and processes the information from different sources, with particular emphasis on the media and the Internet.

Table 11 – continued

A person is able to:	A person is able to:	The pupil:
	Typical for general education: • utilise not too complex mathematical tools in many different situations and perform not too simple calculations, • conduct very simple experiments in the natural and technical sciences.	**Mathematics:** • interprets mathematical texts; after solving a problem, interprets the results obtained, • uses simple, well known mathematical objects, • selects mathematical models for simple situations and critically assesses the relevance of the model, • uses strategies that clearly follow from the content of the assignment, • conducts simple reasoning, consisting of a small number of steps. **Biology:** • plans, conducts and documents biological observations and experiments, formulates research problems, proposes hypotheses and verifies them through observations and experiments; describes experimental conditions, distinguishes between a control and experimental sample, • describes the attitudes and behaviours of a person responsibly using resources from nature and the environment. **Chemistry:** • presents hypotheses to explain problems in chemistry and plans experiments for their verification; based on the results, independently formulates and justifies opinions and judgments, • uses laboratory equipment and chemical agents safely, • designs and conducts chemical experiments. **Physics:** • constructs simple physical and mathematical models to describe phenomena, • plans and conducts simple experiments and analyses their results, • analyses popular science texts and assesses their content. **Geography:** • acquires, processes and presents information from various sources of geographic information, including information and communication technology, and Geographic Information Systems (GIS), • perceives the regularity in the functioning of the natural environment, human life and the economy and the interconnections and relationships in the human-nature-economy system, • analyses and explains the demographic problems of societies, • proposes solutions to problems occurring in the geographical environment according to the concept of sustainable development and the principles of cooperation, including on an international scale.
	Typical for general education: • plan one's own learning in the context of an educational programme being carried out, • formulate conclusions properly, • present and justify one's own position and discuss it in a group forum.	**Social studies**: • recognises problems at the local, national, European and global scales and seeks their solution, • recognises the perspectives of various participants in public life.

Table 12

Matura certificate SOCIAL COMPETENCE		
PQF universal descriptors (level 4)	**Selected PQF second stage generic descriptors: – typical for general education – typical for vocational education and training (level 4)**	**Selected learning outcomes from the general education core curriculum**
A person is ready to:	**A person is ready to:**	**The pupil:**
• take responsibility for participating in various communities and functioning in various social roles, • autonomously act and cooperate with others under structured conditions, • evaluate one's own activities and those of persons under one's direction, • take responsibility for the results of one's own activities and those of persons under one's direction.	**Typical for general education:** • take responsibility for one's decisions, • withhold the expression of unsubstantiated opinions. **Typical for vocational education and training:** • follow developmental trends in a given vocational field, use improvements in carrying out one's professional tasks, • discuss the work of a subordinate team and listen to workers; react to opinions about the work carried out.	**Polish language:** • understands structurally complex texts, perceives meanings contained in the deep structure of a text, • recognises the functions of text and the language resources used to produce it; is aware of the criteria for the correct use of language, • constructs statements of a higher level of complexity.
	• develop and monitor one's own work conditions and those of a subordinate team according to health and safety rules.	**Biology:** • is respectful of oneself and of all living things and the environment. **Chemistry:** • uses laboratory equipment and chemical agents safely. **Geography:** • perceives the regularity in the functioning of the natural environment, human life and the economy and the interconnections and relationships in the human-nature-economy system, • analyses and explains the demographic problems of societies, • proposes solutions to problems occurring in the geographical environment according to the concept of sustainable development and the principles of cooperation, including on an international scale.
	Typical for general education: • undertake individual action or participate in a group/ team's activities appropriate to the situation, • recognise the needs of other persons and respond to them, • submit to hierarchical structures or lead them, conduct dialogue and work together in partnerships, while being aware of their ethical aspects, • undertake autonomous learning in the context of an implemented educational programme.	**Social studies:** • works together with others – plans, shares assignments and completes them, • competently uses the procedures and opportunities offered by public institutions to citizens, • knows and uses the principles of self-organisation and self-help, • explains democratic principles and procedures and uses them in daily life.

6.5.4. The relationship between descriptions of required learning outcomes and descriptors using the example of a selected field of study in higher education

As presented in section 1.2, the National Qualifications Framework for Higher Education, which includes third stage generic descriptors for eight broad areas of study, has been implemented in Poland. These descriptors describe the learning outcomes of the first and second cycle qualifications, which are defined in the resolution on the eight separate broad areas of study[103] and the two profiles of education.[104]

The descriptors contained in the resolution form the basis upon which each higher education institution develops the learning outcomes for its study programmes leading to a specific qualification – certified by a diploma of having completed the studies. In defining its learning outcomes for the study programme of a specific field, a higher education institution may (but is not required to) use the examples of learning outcome descriptions developed by expert teams for selected fields of study, formally accepted by the Minister of Science and Higher Education and published in the resolution as model learning outcomes.[105]

To illustrate the relationship between descriptors of different generic stages, the following examples are presented below:

- a description of the learning outcomes for a first cycle qualification in the higher education practical profile in the area of technical sciences.[106] According to approved guidelines, such a qualification (the professional title) of "*inżynier*" corresponds to PQF level 6;
- a description of the learning outcomes for a typical first cycle study programme with a general academic profile in the field of "electronics" leading to the qualification (the professional title) of "*inżynier*" in electronics . Electronics is one of those fields of study for which example (model) learning outcomes are provided in the resolution of the Minister.[107]

As in sections 6.5.2 and 6.5.3., the examples of the learning outcomes required to attain the qualifications mentioned above are presented with their corresponding first and second stage generic descriptors, as well as with their corresponding third stage generic descriptors. All the material is presented in three tables of knowledge, skills and social competence. Placing the learning outcomes in adjacent columns makes it possible to follow the decreasing generality of the PQF level descriptors.

[103] The classification of education areas is similar to the one adopted by the OECD/EUROSTAT/UNESCO classification of areas of knowledge (science) [Revised Field of Science and Technology (FOS) Classification in the Frascati Manual, Organisation for Economic Co-operation and Development, 2007].

[104] The two distinguished educational profiles – general academic and practical – correspond to education of a more academic or more practical character.

[105] Resolution of the Minister of Science and Higher Education of 4 November 2011 on model learning outcomes (Journal of Laws, No. 253, item 1521 with later amendments).

[106] The learning outcomes presented are part of Annex 5 of the Resolution of the Minister of Science and Higher Education of 2 November 2011 on National Qualifications Frameworks for Higher Education.

[107] The learning outcomes presented are part of Annex 5 of the Resolution of the Minister of Science and Higher Education of 4 November 2011 on model learning outcomes.

Table 13

Qualification of an "inżynier" in electronics [electronics engineer] KNOWLEDGE			
PQF universal descriptors (level 6)	**PQF second stage generic descriptors (level 6)**	**PQF third stage generic descriptors (level 6) = descriptors for a first cycle qualification in higher education for a technical sciences area of study with a general academic profile**	**Sample learning outcomes for the study programme**
A person knows and understands:	**A person knows and understands:**	**A person:**	**A graduate:**
• an advanced level of facts, theories, methods and the complex dependencies between them, • the diverse, complex conditions of conducted activities.	• an advanced level of facts, theories, methods and the complex dependencies between them consisting of: – the basic general knowledge of the disciplines constituting the theoretical basis of the field, – detailed knowledge relating to selected issues in the field, – the main developmental trends in the field, • the fundamental dilemmas of modern civilization, • the economic, social, legal and other relevant results of activities undertaken in the field,	• has knowledge of mathematics, physics, chemistry and other appropriate subjects related to the undertaken field of study, useful in formulating and solving simple assignments related to the studied engineering discipline, • has basic knowledge of the spectrum of engineering disciplines related to the relevant discipline of the undertaken field of study, • has structured, theoretically-based general knowledge of the key issues characterising the studied engineering discipline, • has detailed knowledge of selected issues related to some of the areas of the studied engineering discipline, • has basic knowledge of the developmental trends in the studied engineering discipline, • has basic knowledge of the lifecycle of technical equipment, facilities and systems,	• has knowledge of mathematics, consisting of algebra, analysis, probability and elements of discrete and applied mathematics, including the mathematical and numerical methods needed to: – describe and analyse electrical circuits, electronic components, analogue and digital electronic systems, as well as the basic physical phenomena occurring therein, – describe and analyse the functioning of electronic systems, including those with programmable components, – describe and analyse algorithms for signal processing, including video and audio signals, – synthesise electronic components, circuits and systems, • has knowledge of physics, consisting of mechanics, thermodynamics, optics, electricity and magnetism, nuclear physics and solid state physics, including the knowledge necessary to understand the basic physical phenomena occurring in electronic components and systems and their environment, • has structured and theoretically-based knowledge in the field of photonics, including the knowledge required to understand the physical basis of optical communication systems, optical storage and information processing, • has structured and theoretically-based knowledge in electromagnetic fields and waves, including the knowledge needed to understand power generation, wired and wireless transmission and high frequency signal detection, • has elementary knowledge of the materials used in the electronics industry, • has structured knowledge of computer architecture, in particular, the underlying hardware, • has structured knowledge of programming methods and techniques, • has detailed knowledge of the architecture and programming of microprocessor systems (high and low level languages), • has elementary knowledge of the architecture of computer systems and networks, and operating systems, needed to install, operate and maintain IT tools for the simulation and design of electronic components, circuits and systems, • has elementary knowledge of the basics of telecommunications, telecommunications systems and networks,

Table 13 – continued

A person knows and understands:	A person knows and understands:	A person:	A graduate:
	• the basic principles of conducting business activities and entrepreneurial development, especially at the individual level.	• knows the basic methods, techniques, tools and materials used to carry out simple engineering tasks related to the fields and academic disciplines relevant to the undertaken field of study, • has the basic knowledge required to understand social, economic, legal and other non-technical aspects of engineering activities, • has basic knowledge of management, including quality management and conducting business activities, • knows the general principles of establishing and developing one's own business, drawing on knowledge from the scientific field and academic disciplines relevant to the undertaken field of study, • knows and understands the basic concepts and rules of protecting industrial property and copyright; is able to draw on the resources of patent information.	• has elementary knowledge of telecommunications network devices, including wireless networks and the configuration of these devices in local area networks, • has elementary knowledge of the basics of control and automation, • has structured and theoretically-based knowledge of the principles of the operation of electronic components (including optoelectronic components, power components and sensors), analogue and digital electronic circuits and simple electronic systems, • has structured knowledge of electrical circuit theory and the theory and methods of signal processing, • has basic knowledge in the field of metrology, knows and understands the methods for measuring and extracting the basic parameters characterising various types of electronic components and systems; knows computational methods and the IT tools needed to analyse the results of an experiment, • knows and understands the manufacturing processes of electronic components, integrated circuits and micro-systems, • knows and understands the processes of design and construction of simple electronic devices, • knows and understands the methodology of designing electronic components, analogue and digital electronic circuits (also in the integrated version) and electronic systems, as well as the methods and techniques used in design, including artificial intelligence; knows the language describing the hardware and computer tools for the design and simulation of circuits and systems, • is aware of the current state and newest developmental trends in electronics, • has elementary knowledge of the lifecycle of electrical components and systems, • has the basic knowledge needed to understand the non-technical aspects of engineering activities; knows the basic principles of occupational health and safety required in the electronics industry, • has an elementary knowledge of the protection of intellectual property and patent law, • has basic knowledge of management, including quality management and conducting business activities, • knows the general principles of establishing and developing one's own business.

Table 14

Qualification of an "inżynier" in electronics [electronics engineer] SKILLS			
PQF universal descriptors (level 6)	**PQF second stage generic descriptors (level 6)**	**PQF third stage generic descriptors (level 6) = descriptors for a first cycle qualification in higher education for a technical sciences area of study with a general academic profile**	**Sample learning outcomes for the study programme**
A person is able to:	**A person is able to:**	**A person:**	**A graduate:**
• innovatively complete tasks and resolve problems which are complex and non-routine under variable and partially unpredictable conditions, • autonomously plan one's lifelong learning, • communicate with one's surroundings, substantiate one's position.	• to an advanced degree – use chosen facts, theories, methods and the complex dependencies between them consisting of: – the basic general knowledge of the disciplines constituting the theoretical basis of the field, – detailed knowledge related to selected issues in the field, – the main developmental trends in the field, • draw upon knowledge to creatively identify, formulate and innovatively solve complex problems or carry out research activities, especially: – define the aim and subject of research studies, formulate research hypotheses,	**General skills (unrelated to the specific engineering study programme)** • is able to obtain information from literature, databases and other appropriately selected sources, in English or other foreign language considered as a language of international communication in the given engineering discipline; is able to integrate the information obtained, interpret it as well as draw conclusions, formulate and justify opinions, • is able to communicate with others using various techniques in the professional and other environments, • is able to prepare a well documented paper on issues related to the field and academic discipline relevant to the undertaken field of study in Polish and a foreign language, • is able to prepare and present an oral presentation on specific issues relating to the studied engineering discipline in Polish, • is able to learn autonomously, • has language skills in the academic field and disciplines relevant to the undertaken field of study at the B2 level of the Common European Framework of Reference for Languages. **Basic engineering skills** • is able to use information and communication technologies relevant to the tasks typical of engineering work,	• is able to obtain information from literature, databases and other sources; is able to integrate and interpret the information, as well as draw conclusions, formulate and justify opinions, • is able to work independently and in a team; is able to estimate the time needed to carry out assigned tasks; is able to develop and implement a work schedule to ensure that deadlines are met, • is able to develop the documentation to carry out an engineering task and to prepare a report presenting the results of the task, • is able to prepare and present a short presentation on the results of an engineering task, • has sufficient knowledge of English to communicate and understand written materials such as datasheets, application notes, manuals for electronic and IT tools and other similar documents, • has the skill of educating oneself, especially in order to improve professional competence, • is able to use known methods, mathematical models and computer simulations to analyse and evaluate the performance of electronic components, and analogue and digital electronic systems, • is able to analyse signals and simple signal processing systems in time and frequency domains using analogue and digital techniques and appropriate hardware and software tools, • is able to compare design solutions and electronic components according to prescribed utility and economic criteria (power, speed, cost, etc.), • is able to use correctly chosen development environments, simulators and computer-aided design tools for simulation, design, and verification of electronic components and simple electronic systems, • is able to use properly chosen methods and equipment to measure the basic parameters characterising components and electronic systems,

Table 14 – continued

A person is able to:	A person is able to:	A person:	A graduate:
	– creatively interpret and integrate information acquired from appropriately chosen sources, – assess the usefulness, select, develop research methods, techniques and tools and use them creatively, – interpret the results of the research conducted, • apply research results to the economic and social spheres, • disseminate the results of one's work in professional forums and publications, as well as in popular formats, such as mass media, • use a foreign language with sufficient ability to enable participation in international scientific and professional communities, • plan and implement individual and team research or creative projects, also in an international environment, • autonomously plan one's own development and inspire and organise the development of other persons, • teach/train using modern methods and tools.	• is able to plan and carry out experiments, including measurements and computer simulations, interpret results and draw conclusions, • is able to formulate and solve engineering tasks using analytical, simulation and experimental methods, • when formulating and solving engineering tasks, is able to perceive their systemic and non-technical aspects, • has the preparation required to work in an industrial environment, and knows the safety rules associated with this work, • is able to make a preliminary economic analysis of the engineering activities undertaken. **Skills directly related to performing engineering tasks** • is able to critically analyse and assess existing technology, in particular equipment, facilities, systems, processes, services, especially in conjunction with the studied engineering discipline, • is able to identify and formulate the specifications of simple, practical engineering tasks characteristic of the studied engineering discipline, • is able to assess the usefulness of routine methods and tools to solve simple, practical engineering tasks characteristic of the studied engineering discipline and to select and apply the correct method and tools, • is able to design and implement a simple device, object, system or process according to pre-set specifications characteristic of the studied engineering discipline, using appropriate methods, techniques and tools.	• is able to plan and carry out the simulation and measurement of electrical and optical characteristics, as well as extract the basic parameters characterising materials, components, analogue and digital electronics; is able to present the results in numerical and graphical form, interpret and draw conclusions from the results obtained, • is able to design a process to test analogue and digital electronic circuits and simple electronic systems and diagnose any errors that may occur, • is able to formulate the specifications for the functioning of simple electronic systems of functions, including with the use of hardware description languages, • is able to design electronic components, analogue and digital circuits (including integrated circuits) and electronic systems, while taking into account the assigned utility and economic criteria, using the proper methods, techniques and tools, • is able to design simple circuits and electronic systems for a variety of applications, including simple digital signal processing systems, • is able to use catalogues and application notes to choose the appropriate components for a proposed circuit or electronic system, • is able to design a simple printed circuit board using specialised software, • is able to plan the process of making a simple electronic device; is able to provide an initial estimate of its cost, • is able to build, run and test the designed circuit or simple electronic system, • is able to configure communications devices in local (wire and wireless) telecommunications networks, • is able to formulate algorithms, use high and low level programming languages and the proper IT tools to develop computer programs to operate electronic systems and program the microcontroller or microprocessor drivers of the electronic system, • in formulating and solving the tasks of designing elements, electronic circuits and systems, is able to perceive their non-technical aspects, including environmental, economic and legal issues, • applies the principles of occupational health and safety, • is able to assess the usefulness of routine methods and tools to solve simple engineering tasks that are typical for electronics and select and use appropriate methods and tools.

Table 15

Qualification of an "inżynier" in electronics [electronics engineer] SOCIAL COMPETENCE			
PQF universal descriptors (level 6)	**PQF second stage generic descriptors (level 6)**	**PQF third stage generic descriptors (level 6) = descriptors for a first cycle qualification in higher education for a technical sciences area of study with a general academic profile**	**Sample learning outcomes for the study programme**
A person is ready to:	**A person is ready to:**	**A person:**	**A graduate:**
• cultivate and disseminate models of good practice in the workplace and beyond, • make decisions independently; critically evaluate one's own actions, those of the team one directs and the organisations in which one participates; assume responsibility for the results of those actions.	• critically assess one's level of knowledge: – acknowledge its value in solving cognitive and practical problems, – acknowledge gaps and uncertainties in one's level of knowledge, – acknowledge the need to gain new knowledge, • assume the roles and fulfil social obligations, co-organise activities in the public interest and in work and social environments, • responsibly fulfil professional roles and respect the heritage, traditions and values of his/her profession, including: – following its ethical principles, – complying with its ethical principles in the community, – resolving ethical dilemmas, • think and act in an entrepreneurial manner, • appropriately use mass media resources.	• understands the need for lifelong learning; is able to inspire others to learn and to organise learning opportunities for them, • is aware of and understands the importance and impact of the non-technical aspects and effects of engineering, including its impact on the environment, and consequently the responsibility for the decisions made in this respect, • is able to work in a group, taking on different roles, • is able to appropriately prioritise the implementation of tasks specified personally or by others, • properly identifies and resolves dilemmas associated with the pursuit of one's profession, • is able to think and act in an entrepreneurial manner, • is aware of the social role of a technical higher education institution graduate, and especially understands the need to formulate and communicate information and opinions on technical achievements and other aspects of engineering to the public – among other means, through the mass media; shall endeavour to provide such information and opinions in a manner that is understandable to the general public.	• understands the need and knows of the opportunities for continuous training (second and third cycle studies, postgraduate courses) and improving professional, personal and social skills, • is aware of the importance and understands the non-technical aspects and impact of the work of an electrical engineer, including its impact on the environment, and consequently the responsibility for decisions made in this field, • is aware of the importance of behaving in a professional manner, complying with professional ethics and respecting diverse views and cultures, • has a sense of responsibility for his/her work and is ready to comply with the principles of teamwork and share responsibility for jointly implemented tasks, • is able to think and act in an entrepreneurial manner, • is aware of the social role of a technical college graduate, and especially understands the need to formulate and communicate information and opinions on the achievements of electronics and other aspects of electrical engineering to the public, among other ways, through the mass media; shall endeavour to provide such information and opinions in a manner that is understandable to the general public.

6.6. Annex 6. Basic information about the formal general and vocational education system in Poland[108]

6.6.1. Changes in the formal general and vocational education system after 1989

According to Article 70 of the Constitution of the Republic of Poland of 2 April 1997, everyone has the right to an education and public authorities are obliged to ensure that all citizens have equal access to education. The Constitution also stipulates that education in public schools is free of charge.[109]

Systemic transformation in Poland began in 1989. The first targets of change were the political system (building a democratic system) and the economy (transition from a centrally planned system to a free market economy). Changes in the formal general and vocational education system were designed and introduced gradually. Their purpose was to adapt the Polish education system to the changes occurring as the result of systemic transformation in all spheres of public life and the related aspirations of society. The reforms resulted in the following changes:[110]

a) elimination of state monopoly on the establishment and operation of schools and on developing teaching programmes and textbooks;
b) adaptation of the teaching programmes to the needs of a democratic and free market society, by replacing the doctrine of education through "giving pupils information" with the doctrine of education leading to "independence and activation of pupils";
c) ensuring equal opportunities in education for people from all walks of life and increasing the variety of institutions and forms of education addressed to adults;
d) modernisation of education, continued training and improvement of teachers while maintaining the autonomy of individual higher education institutions and other learning providers;
e) decentralisation of the management of general and vocational education by transferring responsibility for the operation of schools to local government units.

These changes support the process of systemic economic and social transformation and the integration of Poland with the European Union.

The introduction of new solutions began with the passage of the School Education Act of 7 September 1991 on the formal general and vocational education system. This made it possible for various entities (including private ones) to establish and operate schools. As work on modernisation progressed, the Act has been amended several times to introduce, among others, the hiring of school principals by a competitive recruitment process, programmatic pluralism and, related to this, an indirect system of managing school curricula (schools are free to choose their teaching programmes and textbooks). Parallel to local government reform, the School Education Act (concerning the formal general and vocational education system) included regulations on the responsibilities of local government units for operating schools. Changes were also made to the organisation of pedagogical supervision.

Regulations came into force in 1999 to reform the school system.[111] An eight-year primary school and four-year secondary school were replaced by a six-year primary school, three-year lower secondary school and three-year upper secondary school. This change also meant that compulsory education was extended by one year. An external assessment system was also introduced to ensure comparability of certificates, as well as allowing pupils' academic achievements to be diagnosed and the quality of the educational impact of schools to be evaluated.

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[108] More information about the higher education system is presented in the "Self-certification Report of the National Qualifications Framework for Higher Education", which is linked to this report.

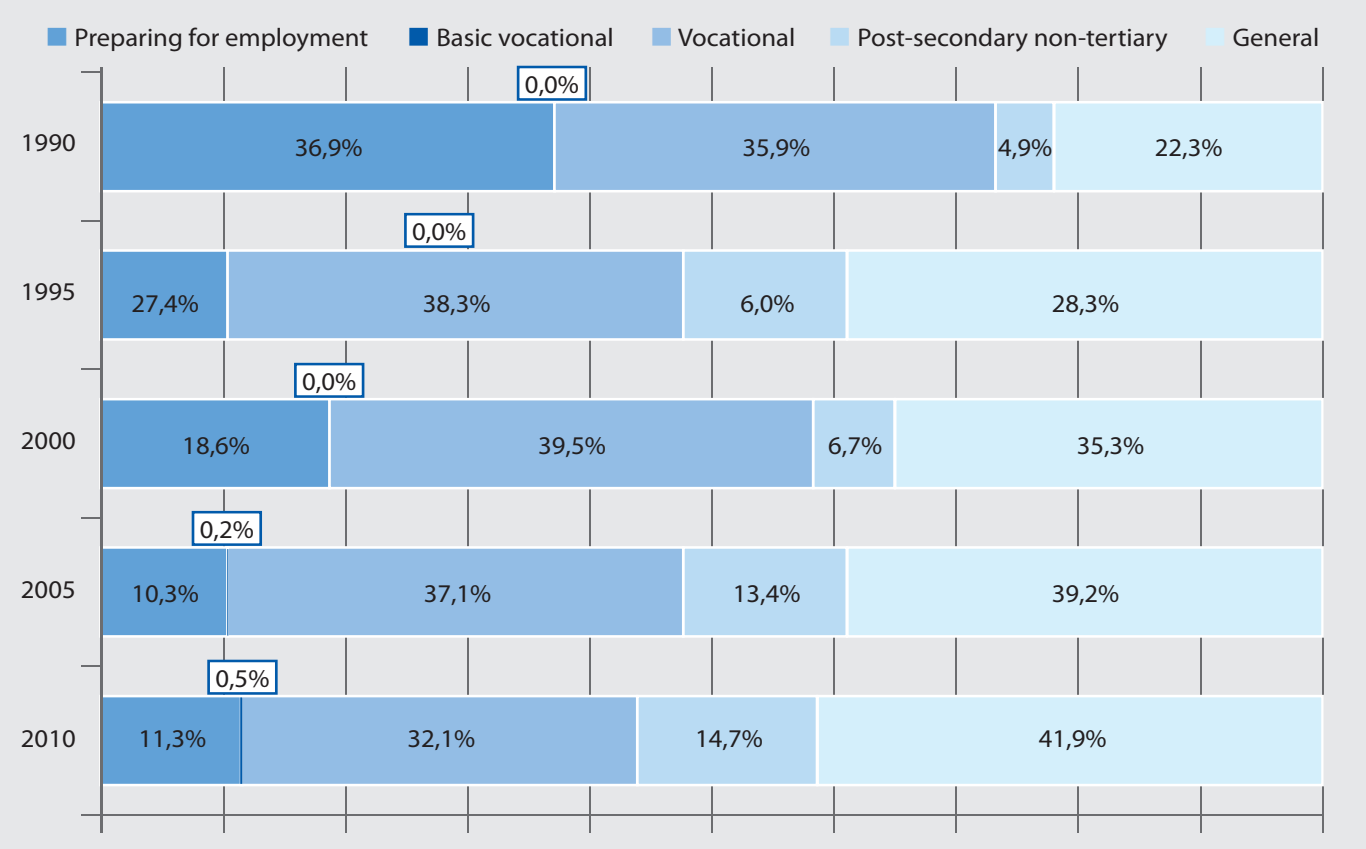
[109] Except for some educational services provided by public higher education institutions.

[110] See Sławiński, S. (1994, pp. 5–6); Banach, Cz., (1995); Książek, W. (2001, pp. 13–15); Ćwikliński, A. (2005, pp. 310–311); Kupisiewicz, C. (2005, pp. 9–35); Zahorska, M. (2007, pp. 93–113). Increasing the availability of upper secondary and higher education, ensuring equal opportunities in education and fostering improvement in the quality of education were recommended in a report for state officials already at the beginning of the 1970s by a group of theoreticians and practitioners from the field of teaching and child development led by Jan Szczepański. The report also proposed that continuing education should be made more widely available and that the level of vocational education should be increased. See Szczepański, J. (1973).

[111] See the Act of 8 January 1999 on the implementation of education system reform (Journal of Laws, No. 12, item 96 with later amendments).

The new organisation of general and vocational education, facilitating the implementation of society's educational aspirations, significantly changed the proportion of students enrolled in general and vocational schools (Chart 1).

Chart 1. The proportion of pupils in upper secondary school by type of school from 1990 to 2010



Note: The Central Statistical Office (GUS) categorises the specialised upper secondary school (currently being eliminated) as a vocational school.
Source: IBE 2012 based on data from GUS.

In 2005, a number of changes were introduced to the *matura* examinations. For the first time, a uniform set of questions and problems were presented to all persons taking the written examination (in previous years, exam topics varied by region), external examiners were hired to mark the written examinations (previously, the exams were assessed by teachers from the same school as the pupils). The traditional grading scale (1 to 6) was abandoned – *matura* examination results began to be expressed as a percentage. Since 2010, the requirement to pass an examination in mathematics was reinstated (after 27 years).

In 2009, a new core curriculum for general education, defining the learning outcomes required of pupils at each stage of education, was introduced. Introducing core curricula written by using learning outcomes specified the requirements for schools and pupils, and paved the way for including the qualifications awarded in general and vocational education into the national system based on the Polish Qualifications Framework.

The timetable for implementing the new general education core curricula				
school year	**reformed teaching by class**			
2009/2010	I class of primary school		I class of lower secondary school	
2010/2011	II class of primary school		II class of lower secondary school	
2011/2012	III class of primary school		III class of lower secondary school Lower secondary school examination adapted to the new curriculum	
2012/2013	IV class of primary school	I general upper secondary school	I class of technical upper secondary school	I class of basic vocational school
2013/2014	V class of primary school	I general upper secondary school	II class of technical upper secondary school	II class of basic vocational school
2014/2015	VI class of primary school Test adapted to the new curriculum	III general upper secondary school *Matura* examination adapted to the new curriculum	III class of technical upper secondary school	III class of basic vocational school
2015/2016			IV class of upper secondary technical school	
2012: first graduates of lower secondary school with the new curriculum				
2015: first graduates of primary and general upper secondary schools with the new curriculum				

Source: IBE.

As of 2012, a core curriculum for vocational education also based on learning outcomes is being implemented. An important systemic change is distinguishing qualifications in occupations taught in vocational schools, which are specified in the classification of vocational school occupations, and being able to validate them separately.[112] Changes in vocational education also involve increasing the accessibility of vocational training by making the system much more open to out-of-school forms of learning and validating learning outcomes attained by adults through non-formal education and informal learning.

According to the new guidelines for vocational education, the first vocational examinations based on the new curriculum will be offered already in 2013. As of September 1, 2012, the vocational qualifications validation system has been made available to persons learning in out-of-school venues and through work experience. Previously, persons who completed out-of-school forms of training and those who acquired vocational skills through informal learning were unable to have their learning outcomes validated by taking examinations organised by regional examination boards.[113]

[112] Resolution of the Minister of National Education of 7 February 2012 on the core curriculum of vocational education (Journal of Laws, item 184).

[113] Resolution of the Minister of National Education of 24 February 2012 changing the resolution on the conditions and manner of assessing, classifying and promoting pupils and auditors and conducting tests and examinations in public schools (Journal of Laws, item 262).

6.6.2. The formal general and vocational education system

Core curricula in the formal general education and vocational education

Education in the formal general and vocational education system is based on:

- general education core curriculum,[114] required in all pre-schools, primary schools, lower secondary schools and upper secondary schools,
- vocational education core curriculum,[115] required in all vocational schools providing training in occupations specified in the classification of vocational school occupations,[116]
- fine arts education core curricula.[117]

The core curricula describe learning outcomes that a pupil, acquiring qualifications in the general and vocational education system, should achieve upon completing each stage of education.[118] The pupil's level of mastery of knowledge and skills resulting from the core curricula also provides the basis for assessing his/her academic achievement, which is conducted by teachers during the school year. The internal school assessment system also takes into account a pupil's behaviour – the extent of respecting the rules of social conduct and ethical norms, as well as meeting responsibilities.[119]

General education core curriculum

The new general education core curriculum changed the description of the educational content by introducing learning outcomes, that is, the expected outcomes a pupil should attain at the end of every stage of education. The preamble to the core curriculum defines the basic aims of education from the perspective of the challenges of today's world. Specifically, it emphasises the importance of developing critical thinking and coping with an overflow of information that is not always reliable. The meaning of "key competencies" is underscored, indicated in the European debate on education as an important foundation in preparing youth for adult life. A set of attitudes is described, which should be inculcated by the Polish school. This document emphasises the significance of learning foreign languages and mathematics, developing skills in using knowledge to identify and solve problems, as well as drawing conclusions based on empirical observations. Education in lower and upper secondary school is included together in one core curriculum to emphasise that it is a programmatically coherent area of education. It should be noted that this document also governs the general education component in vocational schools.

The new core curriculum defines more precisely what a school should teach to an average pupil. At the same time, it introduces a number of modifications in the teaching content. Learning outcomes related to knowledge and skills are described for specific subjects for each stage of education. These descriptions have two levels. The general requirements define the aims of a given subject (e.g., these include modelling, strategic thinking and reasoning in mathematics). Achieving these aims is based on implementing the educational content, which is described as specific requirements. Shifting attention to learning outcomes means that schools have increased autonomy in designing and implementing the educational process. The framework for the teaching plan specifies the minimum number of hours intended for implementing the core curriculum of required educational activities for the entire cycle of education.

[114] Resolution of the Minister of National Education of 27 August 2012 on the core curriculum for pre-school child development and general education in specific types of schools (Journal of Laws, item 977).

[115] Resolution of the Minister of National Education of 7 February 2012 on the core curriculum for vocational education in occupations specified in the classification of vocational school occupations (Journal of Laws, item 184).

[116] Resolution of the Minister of National Education of 23 December 2011 on the classification of vocational school occupations (Journal of Laws 2012, item 7).

[117] Resolution of the Minister of Culture and National Heritage of 9 December 2010 on core curricula for fine arts education in state schools of the fine arts (Journal of Laws 2011, No. 15, item 70).

[118] Four stages of education are distinguished in Poland. The first stage encompasses education in grades I-III of primary school (early school education); the second, grades IV-VI of primary school; the third is education in lower secondary school, while the fourth is education in upper secondary school.

[119] See the Resolution of the Minister of National Education of 30 April 2007 on the conditions and rules for pupil assessment, eligibility for assessment and promotion, and examinations and tests in public schools (Journal of Laws, No. 83, item 562).

Learning outcomes described in the core curriculum of primary school (first and second stages of education)

The aim of general education in primary school is:

1) to have pupils acquire basic resources of knowledge about facts, principles, theories and practices related primarily to topics and phenomena within the realm of their experiences;
2) to have pupils attain the skills of using their knowledge while performing tasks and solving problems;
3) to shape pupils' attitudes enabling them to function in the modern world effectively and responsibly.

The most important skills achieved by a pupil during general education in primary school include:

1) reading – understood both as a simple task, as the ability to understand, use and process texts to the extent which enables the acquisition of knowledge, emotional, intellectual and moral development and participation in society;
2) mathematical thinking – the ability to use the basic tools of mathematics in everyday life and to use elementary mathematical reasoning;
3) scientific thinking – the ability to draw conclusions based on empirical observations of nature and society;
4) the ability to communicate in one's native language and a foreign language, both in speech and in writing;
5) the ability to use modern information and communication technologies, including for the purpose of seeking and using information;
6) the skill of learning as a way of satisfying a natural curiosity about the world, to explore one's interests and prepare for further education;
7) the ability to work in teams.

Source: Resolution of the Minister of National Education of 27 August 2012 on the core curriculum for pre-school child development and general education in specific types of schools, Annex No. 2.

Learning outcomes described in the core curriculum for lower secondary school (third stage of education) and general upper secondary school (fourth stage of education)

The aims of general education at the III and IV stages of education are:

1) to have pupils acquire defined resources of knowledge about facts, principles, theories and practices;
2) to have pupils attain the skills of using information while performing tasks and solving problems;
3) to shape pupils' attitudes enabling them to function in the modern world effectively and responsibly.

The most important skills achieved by a pupil during general education at stages three and four include:

1) reading – the ability to understand, use and reflectively process texts, including the texts of culture, leading to the achievement of one's own objectives, personal development and active participation in society;
2) mathematical thinking – the ability to use the tools of mathematics in everyday life and to formulate judgments based on mathematical reasoning;
3) scientific thinking – the ability to use scientific knowledge to identify and solve problems and draw conclusions based on empirical observations of nature and society;
4) the ability to communicate in one's native language and a foreign language, both in speech and in writing;
5) the ability to effectively use modern information and communication technologies;
6) the ability to seek out, select and critically analyse information;
7) the ability to recognise one's own educational and learning needs;
8) the ability to work in teams.

Source: Resolution of the Minister of National Education of 27 August 2012 on the core curriculum for pre-school child development and general education in specific types of schools, Annex No. 4.

Vocational education core curriculum

The aim of introducing new regulations on September 1, 2012 – the core curriculum for vocational education – is to improve the connection between what is offered in vocational education and training with the needs of the labour market. The new regulations also promote vocational education among adults interested in attaining additional qualifications for quicker retraining.

The new vocational education core curriculum includes 200 school occupations, in which 252 qualifications are distinguished. Most of the occupations included in the curriculum are made up of one, two or three qualifications.[120] The new core curriculum for vocational education – like the general education core curriculum – is described by using learning outcomes. Learning outcomes are specified for the qualifications distinguished in a given occupation, they also serve as examination requirements. The vocational education core curriculum also sets forth the conditions for conducting vocational education, including practical training.

The structure of the core curriculum in vocational education

The vocational education core curriculum defines:

1) the aims and objectives of vocational education;
2) the learning outcomes attained in the educational process, including:
   a) learning outcomes common to all occupations, related to:
      – workplace health and safety,
      – starting and operating business activities,
      – foreign language ability related to the occupation,
      – personal and social competencies,
      – organising the work of small teams (in upper secondary technical schools and post-secondary non-tertiary schools);
   b) learning outcomes common to the occupations in a field of learning constituting the foundation for education in an occupation or group of occupations:
      – administrative-service oriented,
      – construction,
      – electrical-electronics,
      – mechanics-mining-metallurgy,
      – agriculture-forestry with environmental protection,
      – tourism-gastronomy,
      – medical and social,
      – creative arts;
   c) learning outcomes specific to an occupation described in the qualifications for the occupation;
3) description of the education for specific occupations, including:
   – the aims of the education,
   – the names of the distinguished qualifications,
   – the conditions required to undertake training in a given occupation,
   – minimum number of hours of vocational education,
   – additional qualifications which may be achieved within the specific field of learning.

Source: Resolution of the Minister of National Education of 7 February 2012 on the core curriculum for vocational education.

A school-learned occupation as a compound qualification

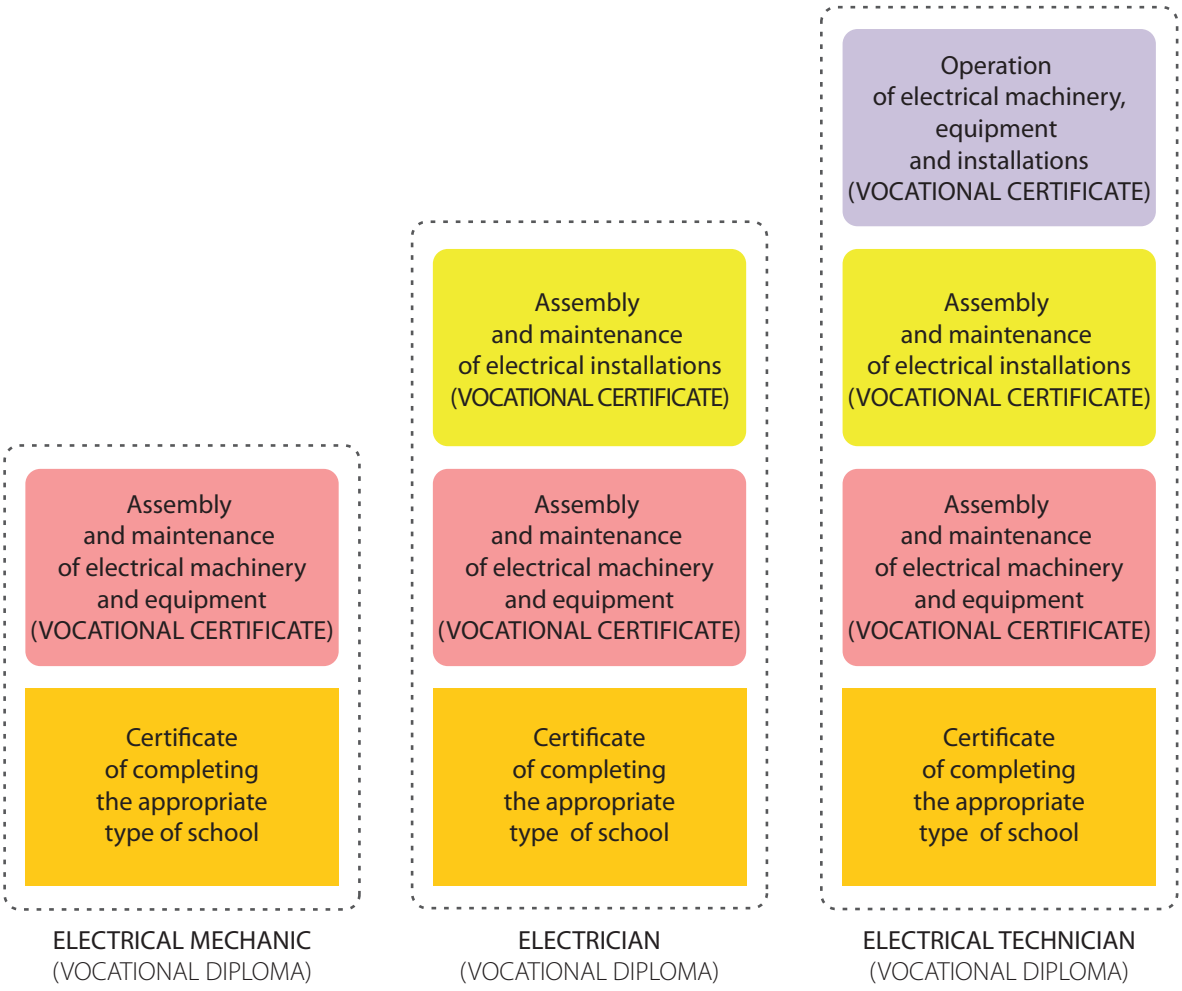
As part of the vocational education reform, a new way of understanding occupations learned in schools was introduced – as compound qualifications comprised of one, two or three separate vocational qualifications and a general education qualification. This makes it possible to attain subsequent occupations without having to start the vocational education process "from the

[120] See the Resolution of the Minister of National Education of 23 December 2011 on the classification of vocational school occupations (Journal of Laws 2012, item 7).

beginning"; successive, appropriately chosen qualifications can be added to those already attained.[121]

Figure 8 illustrates the way successive occupations learned in vocational school can be attained, based on the examples of: "electrical mechanic", "electrician" and "electrical technician". After graduating from basic vocational school and attaining a qualification from the occupation of "electrical mechanic" (e.g. "assembly and maintenance of electrical machinery and equipment"), a pupil can continue training in the occupation through, for example, a vocational qualification course. By attaining the subsequent qualification of "assembly and maintenance of electrical installations", the pupil is awarded a vocational diploma of "electrician". If he/she attains the next qualification – "operation of electrical machinery, equipment and installations" – and a certificate of completing a school providing secondary education, he/she is qualified as an "electrical technician".

Figure 8. Attaining successive occupations by adding subsequent qualifications (certificates)

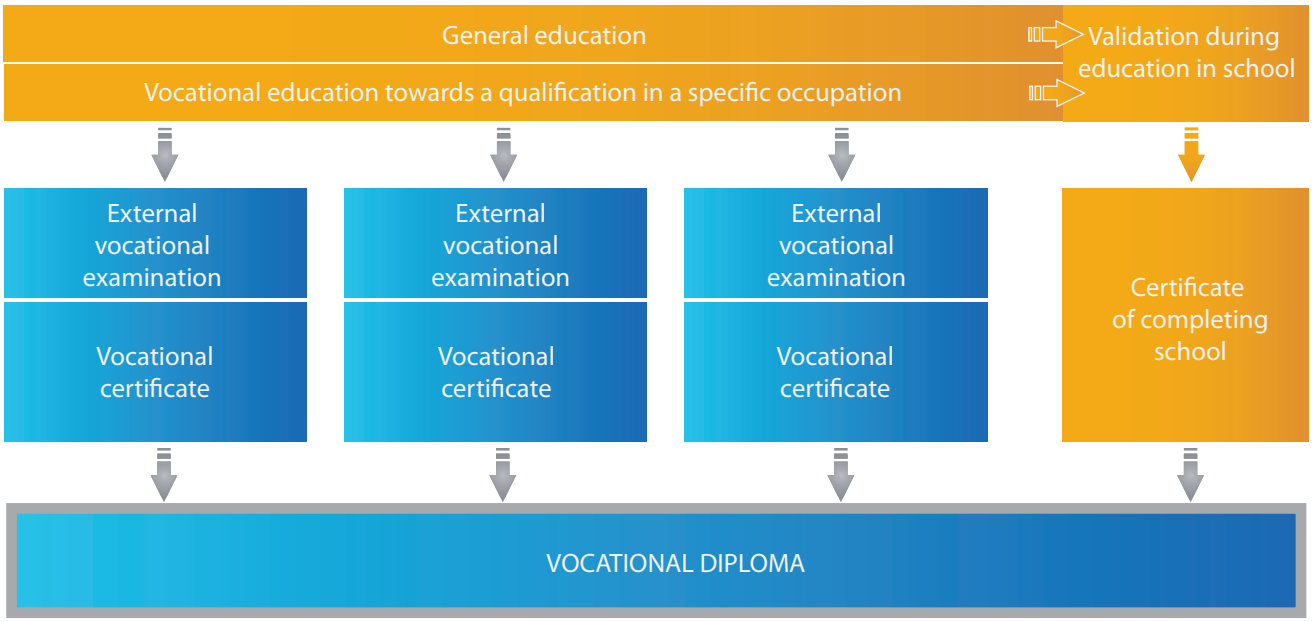


Source: IBE.

A person can be awarded a vocational diploma after having attained all vocational certificates in a given occupation and completing the level of education required for the given occupation. Pupils of vocational schools can take external examinations (offered by the District Examination Board) while attending school and obtain vocational certificates for specific qualifications distinguished in an occupation. A certificate of having completed a vocational school and a vocational certificate are the basis for having a diploma awarded (Figure 9).

[121] Previous regulations stated that each occupation learned in vocational school required the completion of a full cycle of education for the given profession in every case. This meant 2–3 years of education in a basic vocational school or 4 years of education in a technical upper secondary school.

Figure 9. Attaining a vocational diploma through the formal vocational education system (after September 1, 2012)



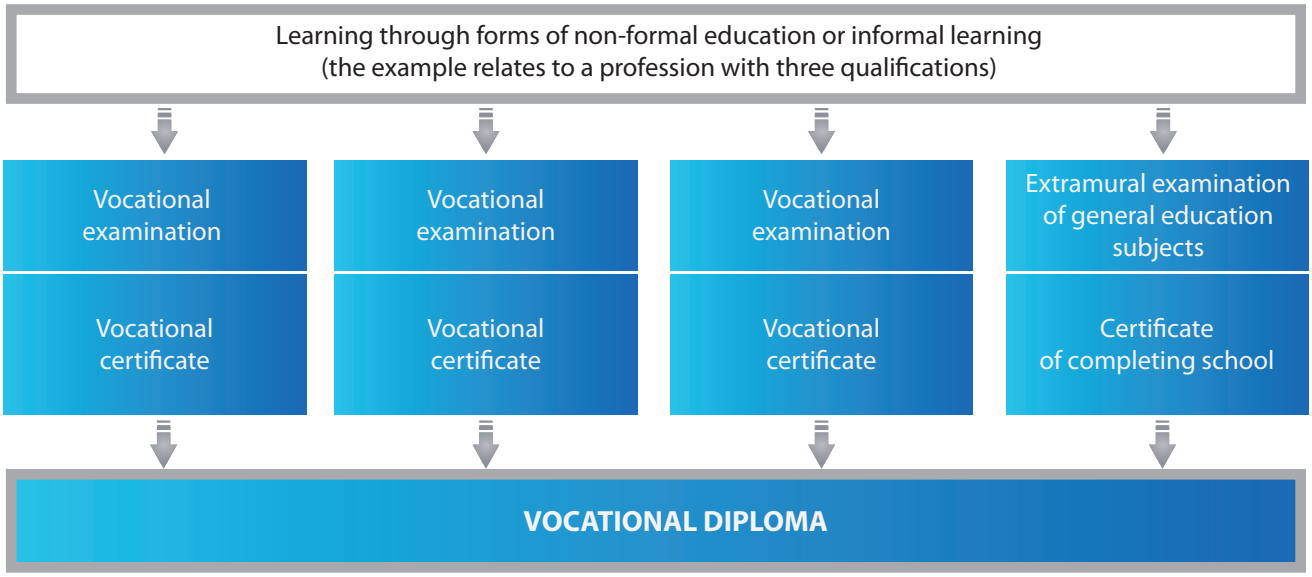
orange – scope of the school's activities

blue – scope of the District Examination Board's activities

Source: IBE.

After enacting the vocational education reforms, as of September 1, 2012, a vocational diploma can be also attained through out-of-school forms of education (e.g. by attending a vocational qualification course) or by gaining the appropriate competencies through work experience. Persons who achieved their competencies in this manner and would like to validate them can take not only vocational examinations offered by the District Examination Board, but also extramural examinations enabling them to obtain a certificate of completing school, which will provide the appropriate level of education for a specific occupation (Figure 10).

Figure 10. Attaining a vocational diploma through non-formal education or informal learning (as of September 1, 2012)



Source: IBE.

In Poland, training provided by crafts trades is an important addition to the vocational education provided by the formal education system. Crafts trades are regulated by a separate law.[122] The crafts trades have their own governing board, which includes representatives of guilds, craft chambers and the Polish Craft Association, established in 1933. About 300,000 micro-, small and medium-sized enterprises are federated in crafts trade structures.[123]

Vocational education in the crafts trades

Currently, about 26,000 crafts businesses train pupils as part of their business activities. This means that they implement a vocational training programme for young workers. Over 84,000 youths take advantage of this form of education on the basis of a special work contract with stated aims related to vocational training (this includes about 10% of youth in occupational training within the formal general and vocational education system). Craftsmen prepare their pupils in 115 trades, of which 48 are also listed as occupations that can be learned in the formal vocational education system.[124]

Occupations learned in the formal vocational education system are taught according to the vocational education core curriculum.[125] The remaining occupations are taught according to a programme guaranteeing that examination requirements will be met as described in the examination standards for the title of journeyman.[126] To carry out practical activities with pupils, craftspersons must have the qualifications described in the law; most often these are persons with a master's title who have pedagogical training and are members of one of the independent business organisations. The relevant crafts chamber or an appropriately authorised guild supervises the preparation of young workers in the profession.[127]

Vocational education is comprised of two, simultaneously realised parts: the practical part, organised in a crafts business, and the theoretical part, organised in a vocational school or continuing education courses. After completing the education, the learner can take a journeyman's examination conducted by the examination board of the crafts chamber. It should be noted that a learner can take this examination without having previously been a student of a craftsperson.

In addition to a journeyman's certificate, a master's diploma can also be awarded in the crafts trades, which does not have an equivalent in the formal general and vocational education system. On average, over 34,000 persons attain the title of journeyman, and 4,000 are awarded the title of master in a calendar year.

An important asset of vocational education in Poland is the ability to attain journeyman's and master's qualifications in vocations not offered in schools. This is especially significant in relation to unique occupations of an artisan character. This provides the opportunity to prepare individuals to serve as masters in the training of pupils and, consequently, prepare skilled experts in valued professional fields.

Source: IBE on the basis of: the Act of 26 June 1974 on the Labour Code, the Act of 22 March 1989 on the crafts trades, the Resolution of the Council of Ministers of 28 May 1996 on the vocational training of young people and their salaries, the Resolution of the Minister National Education of 15 December 2010 on the practical training of an occupation, the Resolution of the Minister of National Education of 14 September 2012 on the journeyman's examination, master's examination and the verification examination carried out by the examination board of the Chambers of Trade, the website of the Polish Craft Association.

[122] Act of 22 March 1989 on the crafts trades (Journal of Laws 2002, No. 112, item 979 with later amendments).

[123] See http://www.zrp.pl/tabid/314/language/pl/Default.aspx.

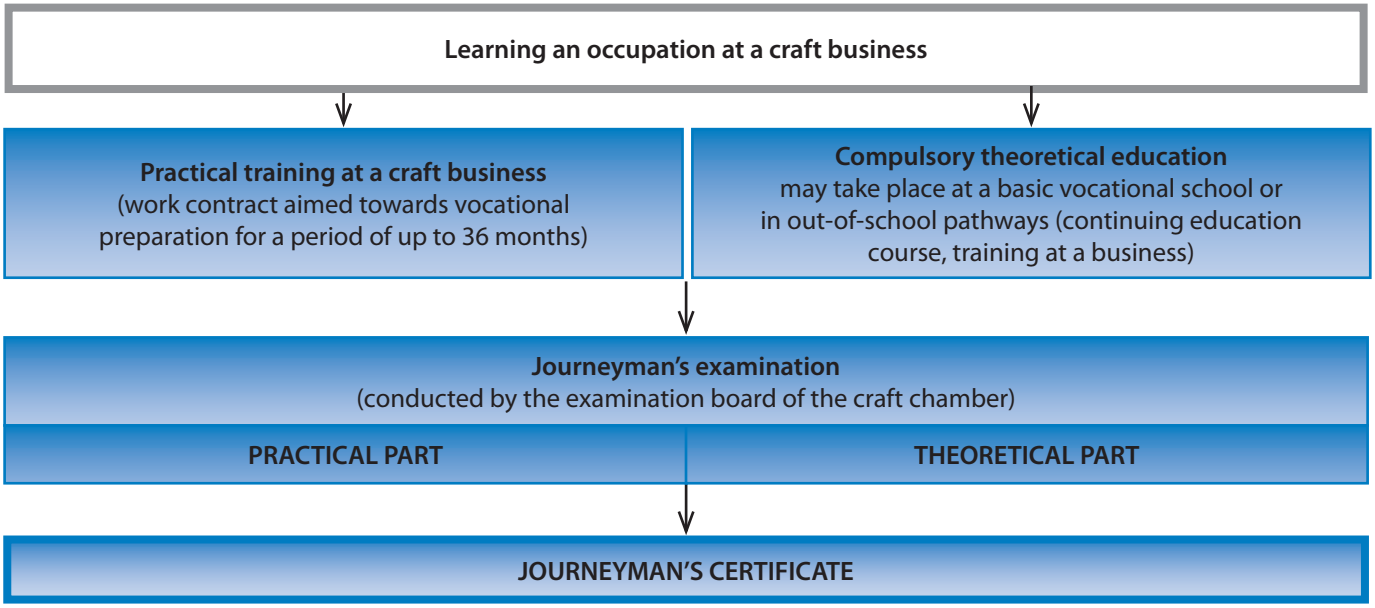
[124] See the list of in-school and out-of-school craft occupations that can be learned at a crafts employer http://www.zrp.pl/LinkClick.aspx?fileticket=pIrQQ%2fMPw2k%3d&tabid=60&language=pl-PL

[125] Resolution of the Minister of National Education of 7 February 2012 on the core curriculum in vocational education (Journal of Laws, item 184).

[126] Developed by the craft trade (Art. 3, par. 3a, Act of 22 March 1989 on the crafts trades; Journal of Laws 2002, no. 112, item 979 with later amendments).

[127] Art. 3, par. 6, Act of 8 March 1989 on the crafts trades (Journal of Laws 2002, no. 112, item 979, with later amendments).

Figure 11. Attaining a journeyman's certificate



Source: IBE.

The external examination system

The system of external examinations[128] is one of the most important instruments of educational policy with significant impact on the quality of the Polish formal general and vocational education system. Implementing an external assessment system means that all examinees taking the same examination throughout the country have the same set of questions and problems to solve.[129] All examination results are assessed according to criteria by specially prepared external examiners. The assessors do not know the individuals whose exams they are grading. This external examination system ensures objectivity and relative comparability, enabling the results of the educational process to be compared among different schools located in various regions of the country.

The external assessment system is comprised of:

- a test taken at the same time by all sixth graders of primary school,
- an examination taken at the same time by all pupils in the third year of lower secondary school,
- *matura* examination, taken at the same time by graduates of general and technical upper secondary schools,[130]
- vocational examinations, which may be organised at different times, are taken by pupils in vocational school and persons learning in out-of-school venues and at the workplace.

It should be noted that this system enables examinations to be taken extramurally.

The Central Examination Board is responsible for the guidelines and manner of taking examinations, examination content and assessment criteria. Together with regional examination boards, the Central Examination Board prepares sets of questions, problems and tests. In addition, the Central Examination Board analyses aggregate test and examination results, initiates research in the field of assessment and examination and coordinates the activities of the regional examination boards. The regional examination boards carry out all external examinations.

Appropriate changes are being made to all the types of examination content as the new core curricula are being implemented.

[128] The principles of external assessment are defined by the Resolution of the Minister of National Education of 30 April 2007 on the conditions and rules for pupil assessment, eligibility for assessment and promotion, and examinations and tests in public schools (Journal of Laws, No. 83, item 562, with later amendments).

[129] The Director of the Central Examination Board issues a written communication on the manner of adapting the conditions and forms of conducting in a given school year the test and lower secondary school examination to pupils (auditors) with special education needs, including persons with disabilities, with behavioural problems or at-risk of developing behavioural problems.

[130] The *matura* examination can be taken by graduates of previous years.

The 6th grade test

The test for 6th grade primary school pupils is a written test. The pupil receives a set of questions together with a form for answers and has 60 minutes to complete the test. The test verifies the extent of mastery in reading, writing, reasoning, the use of information and the use of knowledge in practice.

Lower secondary school examination

This examination consists of three parts: the humanities, mathematics-natural science and a modern foreign language. In the humanities exam, pupils respond to questions related to the Polish language, history and social studies. Polish language questions may be open ended or closed. History and social studies questions are closed.

The mathematics-natural science section presents a series of problems related to mathematics and the natural sciences: biology, chemistry, physics and geography. Math problems may consist of closed or open ended questions. The science portion consists of closed questions.

The lower secondary school pupil takes a modern foreign language test in the language studied as a compulsory subject (English, French, Spanish, German, Russian, Ukrainian[131] or Italian). This part of the exam has two levels: basic and advanced.[132]

Matura examination

The *matura* examination consists of three compulsory subjects, with pupils also choosing additional exam subjects. Exams can be taken at a basic or advanced level. The written part of the examinations in the compulsory subjects is taken at the basic level, while the level is not defined for the oral part. Pupils have to pass a written exam in the following subjects:

- the Polish language,
- mathematics,
- a modern foreign language.

Pupils have to pass an oral exam in the following subjects:

- the Polish language,
- a modern foreign language.

As part of the *matura* examination, a maximum of 6 examinations may be taken in other subjects, such as: biology, chemistry, physics and astronomy, geography, history, art history, computer science, social studies, Latin and ancient cultures.

In order to pass the *matura* examination, a minimum score of 30% of possible points must be obtained in each compulsory subject.[133] The results of the *matura* examination are the basic criteria for acceptance to a higher education institution.[134] The results of the examinations in additional subjects have no effect on passing the *matura* examination, but they are listed on the *matura* certificate.

Vocational examinations

The vocational examination consists of a written part (conducted in the form of a test) and a practical part. The practical exams can only be conducted in centres with the necessary infrastructure to carry out this part of the examination. Practitioners working in the field in which the exam is being conducted may assess the practical part. Vocational examinations are held at different times depending on need.

Vocational qualifications in some occupations learned in schools can also be attained in crafts businesses after passing the journeyman's examination.

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[131] Pupils will be able to take the Ukrainian language examination as of the 2013–2014 school year.

[132] Central examination Board (2010).

[133] The results of the *matura* examinations in elective subjects do not affect this outcome, but they are listed on the *matura* certificate.

[134] Additional entrance examinations can be required only in special situations.

Examinations in crafts occupations

Journeyman's and master's examinations are conducted by the examination board of crafts chambers. The Polish Craft Association supervises the examination board of the crafts chambers.[135] The examination consists of two stages: theoretical[136] and practical, based on the autonomous performance of examination assignments. Examination assignments and sets of questions for both stages are prepared by an examination team, and approved by the craft chamber.

Both young employers as well as adults can take the journeyman's examination. These could be, for example, persons who completed their vocational education with a craftsperson, a person with a primary school education but who has worked for many years in the occupation in which the exam is taken, but also persons who completed the relevant vocational school in the field in which the exam is being offered. The master's examination can be taken by persons fulfilling the relevant criteria, but they must have the appropriate professional experience. The specific requirements of the persons who can take examinations in the crafts trades system are presented in the resolution of the Minister of National Education.[137]

Source: IBE on the basis of: the Act of 22 March 1989 on the crafts trades, the Resolution of the Minister of National Education of 14 September 2012 on the journeyman's examination, master's examination and the verification examination carried out by the examination board of the Chambers of Trade, the website of the Polish Craft Association.

Adult education

In Poland, adults can undertake and supplement their learning through the formal general and vocational education system. Such persons can attend schools for adults,[138] which is a separately organised form of education that accepts persons who are at least 18 years old.[139] As of September 1, 2012, there are four types of schools for adults:

- primary schools for adults,
- lower secondary schools for adults,
- general upper secondary school for adults,
- post-secondary non-tertiary schools (offering vocational education).

Adults can also undertake learning in out-of-school forms.[140]

As of September 1, 2012, out-of-school forms of education include:[141]

- vocational qualification courses based on the core curriculum for vocational education. After the completion of the course, the learner receives a certificate of completion of the vocational qualification course which enables him/her to take the vocational examination (organised by a regional examination board);
- vocational skills courses, taught according to study programmes that incorporate selected parts of the vocational education core curriculum as needed;
- general competence courses, taught according to study programmes that incorporate selected parts of the general education core curriculum and consist of at least 30 hours;
- short, theory-based continuing education courses in a specific occupational field for young workers who are referred to such courses by their employer or school;
- other courses can be taken in out-of-school forms to attain or supplement vocational knowledge, skills and qualifications.

These courses are organised by continuing education institutions, practical training institutions and also centres for vocational continuing education and improvement.[142]

[135] Art. 3, par. 3c, Act of 22 March 1989 on the crafts trades (Journal of Laws 2002, no. 112, item 979 with later amendments).

[136] The theoretical stage is based on answering questions provided in written and oral form (two parts).

[137] Resolution of the Minister of National Education of 14 September 2012 on the journeyman's examination, master's examination and the verification examination carried out by the examination board of the Chambers of Trade (Journal of Laws, item1117).

[138] In the 2010/2011 school year, about 300,000 adults attended such schools. In recent years, general upper secondary schools have been the most popular among adults attending school, with about 200,000 persons enrolled.

[139] Including persons who turn 18 in that calendar year. In special cases regulated by law, a 15-year-old may attend a school for adults.

[140] In some cases, out-of-school forms are addressed to youths.

[141] See the Resolution of the Minister of National Education of 11 January 2012 on out-of-school forms of continuing education (Journal of Laws, item 186).

[142] See the Resolution of the Minister of National Education of 11 January 2012 on out-of-school forms of continuing education (Journal of Laws, item 186).

Based on the law,[143] entitled persons may participate in vocational training for adults and attain vocational qualifications. Persons registered with county labour offices as unemployed or seeking employment and meeting the following criteria are eligible for referral to vocational training for adults:

1. receives social benefits awarded to miners on leave or miners' welfare benefits,
2. attends sessions offered by Social Integration Centres or an individualised integration programme,
3. is a soldier in the reserves,
4. receives a training allowance,
5. receives training benefits provided by an employer that is valid for no longer than six months after termination of employment.

The programme of adult vocational training is aimed at the development of practical skills (80% of the programme) and acquisition of the theoretical knowledge required to perform professional tasks. The programme is prepared by the employer or a training institution in cooperation with the employer.
Graduates of upper secondary school having attained a *matura* certificate can also continue their education at colleges (*kolegium*). There are three types of colleges in Poland:[144]

– teacher training college, preparing teachers of pre-schools, primary schools and educational-behavioural facilities,
– foreign language teacher training college, preparing teachers of foreign languages for pre-school, primary, lower secondary, upper secondary schools and educational-behavioural facilities;[145] teacher training colleges can also provide continuing education courses for teachers,
– colleges of social work, educating in the field of social work; these can also provide specialised training in organising social assistance and in the social work profession.[146]

A condition for establishing and operating a college is the provision of academic and didactic oversight by a higher education institution. This oversight is based on an agreement between the higher education institution and the college to ensure that students are trained under conditions that meet the educational standards established for colleges. This oversight can be provided only by higher education institutions offering master's degree studies in the given profession. College education lasts three years and ends with a final examination. After passing the examination, the student receives a college diploma. After fulfilling additional requirements, a college student may obtain a licentiate degree and continue studies at a higher education institution.

Pedagogical supervision

Pedagogical supervision is a tool of educational policy, which – along with the external examination system – has substantial impact on the quality of work in pre-schools, schools and educational facilities under the jurisdiction of the minister responsible for education and child development.[147] Thus, pedagogical supervision is an equally important tool in ensuring the quality of the qualifications awarded in this system.
The authority to conduct pedagogical supervision at the school level rests with the school principal. The next level in the system of supervision is the regional superintendent of education,[148] who is

[143] Act of 20 April 2004 on the promotion of employment and labour market institutions (Journal of Laws 2008, No. 69, item 415 with later amendments) and the resolution of the Minister of Labour and Social Policy of 7 April 2009 on vocational training of adults (Journal of Laws, No. 61, item 502).

[144] Art. 9f and 77 of the School Education Act of 7 September 1991 (Journal of Laws 2004, No. 256, item 2572 with later amendments).

[145] Par. 1 of the Resolution of the Minister of National Education of 12 August 1997 on teacher training centres (Journal of Laws, No. 104, item 664, from 1999 No 67, item 755, from 2002 No. 100, item 910, from 2006 No 154, item 1099).

[146] Par. 2, item 2 of the Resolution of the Minister of Labour and Social Policy of 24 March 2005 on colleges of social work (Journal of Laws, No. 61, item 544).

[147] The described system of pedagogical supervision does not apply to care and behavioural facilities providing educational services in a location other than a pupil's permanent residence, training institutions and teacher continuing education centres and colleges of social work.

[148] In regards to fine arts education – the Centre of Fine Arts Education on behalf of the Minister of Culture and National Heritage.

responsible for pedagogical supervision of all pre-schools, schools and educational facilities in the voivodeship. Guidelines and priorities for pedagogical supervision are determined by the minister responsible for education and child development.

The school (pre-school, educational facility) principal supervises the entire pedagogical staff. The most important activity of supervision at this level is the internal evaluation performed by the principal with the teachers. The concept for conducting the internal evaluation is left to the decision of the evaluation teams of specific schools and educational facilities. Activities in the area of pedagogical supervision are performed systematically resulting from the preparation of an annual plan. The school principal discusses the results of this oversight with the teaching staff, and they are also analysed during the external evaluation carried out by the regional education superintendent's office. The internal evaluation is treated as equally important to the external evaluation.

The regional superintendent of education provides supervision according to the annual plan of pedagogical supervision for the given school year. A report on the results of this supervision is submitted to the minister responsible for education and child development. A team of inspectors from the superintendent's office prepares the external evaluation report, which is publicly available on the Internet.

The external evaluation covers the following areas:

- the results of activities (including learning outcomes),
- the processes occurring in pre-schools, schools and educational facilities,
- the functioning of institutions in the local community,
- the management of the pre-school, school or educational facility.

Each group of issues is assessed separately on a scale from A (highest rating) to E (lowest). During the external evaluation, information is collected from many sources – the entity responsible for the school, the principal, teachers and other staff, pupils, parents, partners of the pre-school/school/educational facility and representatives of local government. Data collection is done using quantitative (questionnaires in electronic and paper forms) and qualitative methods (individual and group interviews, observation, analysis of existing data).

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