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1 INTRODUCTION TO INITIAL VOCATIONAL EDUCATION AND TRAINING

Initial vocational education and training (IVET) in the Czech Republic (CR) has a long tradition and plays a key role in the education system. IVET as a whole is not governed by any special piece of legislation. There are special laws regulating various types of IVET which is provided at upper secondary (ISCED3), post-secondary (ISCED 4) and tertiary (ISCED 5) levels. Secondary education, including IVET and non-university tertiary education, is codified by Law no. 561/2004 on pre-school, basic, secondary, higher professional and other education (the so-called Schools Act). The **Schools Act** came into effect on 1 January 2005 and it has replaced the previous incoherent legislation in this area. The administrative framework for IVET is also formed by the law on the establishment of higher-level self-governing units (regions), which provides for the delegation of a number of responsibilities for education to regions.¹ Another law that concerns IVET is **Law no. 563/2004 on pedagogical staff** which came into effect on 1 January 2005. University education is codified by **Law no. 111/1998 on higher education institutions**.

IVET begins following the completion of compulsory education (at the age of 15). It lasts typically 3 or 4 years depending on the educational programme. There is a small share of programmes lasting 1-2 years. The **typical age of students** at secondary schools is 15-18/19. Graduates who have passed the “maturita” examination may continue studies at tertiary level. These studies last 3-3.5 years at *vyšší odborná škola* (VOŠ – higher professional school) (ISCED 5B) where the typical age of students is 19-21. The length of studies at higher education institutions (ISCED 5A) is 3-6 years and the typical age of students is 19-24.

Rate of Participation in IVET of Relevant Age Groups

Age group	1996	2000	2003
15 – 21-year-olds	64.3 %	58.2 %	72.8 %

Source: ÚIV, *Data about Students Based on UOE (UNESCO, OECD, Eurostat) Questionnaires, a demography using ČSÚ data.*

The data concerning participation in IVET are affected by a change in the education system in 1995/96 whereby compulsory education in basic school was extended from 8 to 9 years. Consequently, in terms of age groups there is one year missing in secondary schools (this mainly concerns VET schools as the change did not affect six- and eight-year gymnázia). This is why the year 2000 cannot be compared with other years.

The increase in participation of the population aged 15-21 between the years 1996 and 2003 is the result of another systemic change whereby a new type of school was established in 1996/97 (*vyšší odborná škola* - higher professional school - ISCED 5B), and the result of a gradual filling of individual classes.

¹ Zákon č. 347/1997 Sb., o vytvoření vyšších územně samosprávných celků [Law no.347/1997 on the establishment of higher-level self-governing units].

Main Educational Pathways

Educational pathways on **secondary level** have linear character, i.e. they are established by educational programme down the line:

- **4-year study programmes** (ISCED 3A) are designed also for pupils who successfully completed compulsory education. The studies contain at least 45 % of general education, i.e. it is focused mainly on theory, although work placements form an important part of the programme.
- In **2-to-3-year vocational programmes** (ISCED 3C) are designed for pupils who successfully completed compulsory education. The programme is largely focused on vocational subjects, particularly on practical training, although general subjects account for at least 30 % of the provision.
- **1- or 2-year vocational programmes** (ISCED 2C) are designed for pupils who completed compulsory education and failed to complete all nine years of basic school, young people with special learning needs and those who complete special programmes at basic schools. The training is largely focused on practice.

Post-secondary level:

- **Follow-up programmes** (ISCED 4A). These two-year programmes follow from three-year vocational programmes. Admission is conditional upon completion of a vocational programme with the same or similar focus (ISCED 3C).

Tertiary level:

- The programmes of **higher professional education** (non-university type of tertiary education) (ISCED 5B) last 3 years including a work placement (for general nursing it is 3.5 years). Admission is conditional upon completion of secondary education with a “maturita” examination (ISCED 3A).
- Higher education institutions provide education in three types of programme: **Bachelor and Master** (ISCED 5A) and **Doctoral** (ISCED 6).

Conservatoires provide a specific educational pathway at upper secondary and tertiary levels. Programmes at conservatoires develop the artistic talents and skills acquired in basic and basic arts education, provide general education and prepare students for the performance artistic activities in music, dance, singing and drama. Those who successfully complete programmes of various length either acquire secondary education with “maturita” (ISCED 3B) or higher professional education (ISCED 5B) with “absolutorium”.

1.1 Development of IVET

The beginnings of IVET

The beginnings of the system of IVET in the Czech lands date back to as early as the **2nd half of the 19th century**. There was an old tradition of trades which had developed in Bohemia and Moravia for centuries and had been linked to the overall development of educational attainment in Central Europe.

The training of apprentices in schools was made compulsory as early as 1774. Apprentices were educated in so-called *nedělní opakovací školy* (recurring Sunday schools). The 1859 trades law stipulated clear rules for apprentice training. It introduced an obligation to conclude training agreements with apprentices stating the length of training (a maximum of 4 years), and an obligation to attend *školy pro průmyslové vzdělání* (schools for industrial training). They differed from “recurring schools” in that they provided vocational theory to meet the needs of various occupations. These schools were therefore called *školy pokračovací* (continuing schools) and were (subject to various reforms) part of the VET system until 1930. Then they became vocational schools as the content of their provision was changed in a substantial manner.

Střední odborné školy (SOŠ – Secondary technical schools) also have a long tradition in the Czech Republic (CR) and constitute one of the stable components of the education system. Their function was at first fulfilled by so-called *reálky* (real schools) which existed together with *gymnázia* (schools providing general education programme at secondary level) from the 1850s. In their initial years they also provided the basics of vocational education in line with the needs of local industry and trade. The educational provision, which at first was designed for apprentices and journeymen, later focused on craftsmen and small businessmen.

1875 saw the beginnings of a system of vocational training which, in addition to “*školy pokračovací*” for apprentices, included ***nižší a vyšší průmyslové školy*** (lower and upper industrial schools). The education in industrial schools was originally purely vocational. This changed in the 1920s when the so-called upper industrial schools began to provide general education, and their students were therefore entitled to take a “maturita” examination providing access to technical higher education institutions. Other types of SOŠ had undergone similar development. For example, *obchodní akademie* (business academies) at upper secondary level began to operate in 1872, and *obchodní školy* (business schools) originated in the 1950s. The tradition of vocational education in agriculture is even longer – the foundations of a system of agriculture schools were laid in 1864.

Development after 1945

In the first years after World War Second the education system followed on from the pre-war tradition. The only major change was the introduction of general subjects in the curricula of apprentice schools (in 1946), and apprentice training began to be considered as a special type of vocational training.

The communist coupe in 1948 affected the education system of the then Czechoslovakia in an extraordinarily grave manner. The changes were enacted by the **Law on a Fundamental Adjustment of Uniform Education** (Law no. 95/1948), which affected the development of Czech (and Slovak) education in the following decades. Its adoption incapacitated pupils

from selecting an educational pathway in line with their individual interests, aptitudes and plans. The educational content and objectives were politicised and unified to a great extent.

Lower secondary education was merged with elementary school to form *základní škola* (**basic school**). The term secondary education was only used to denote programmes at upper secondary level. The law considerably alleviated the selective nature of **gymnázia**: students could only enter them, as other secondary schools, after completing uniform basic schooling. **SOŠ** provided both vocational and general education. The “maturita” examination became a compulsory examination in all secondary vocational and technical schools, which made it possible for students to seek admission to higher education institutions. Based on this law, schools training apprentices became part of the education system. The system of vocational programmes leading to vocational qualifications was codified. Apprentices received their training in **SOU and “apprentice” schools** which, together with *gymnázia*, **SOŠ** and secondary schools for adults, belonged to secondary schools. The proportion of general subjects in their programmes was gradually increasing.

The reform launched in 1976 and embedded in the Schools Act of 1984² had the rationale behind it of making secondary education generally accessible and of ensuring that every secondary school leaver has a qualification recognised by the labour market. This was to be done by partial alignment of all three streams of upper secondary education and putting them on an equal footing (*gymnázia*, **SOŠ** and **SOU**). For *gymnázia*, this meant a considerable change in educational content. The proportion of general education was reduced in favour of vocational education, which was to provide the student with a qualification in case he/she could not go on to higher education, or for the student to make an informed choice of an appropriate programme at a university. Optional subjects were mostly technical and also involved work placements in companies. In consequences of the reform the proportion of general and theoretical education at **SOŠ** increased. A fundamental change occurred in the training of young people for manual occupations. Education implemented on the basis of a training agreement was abolished, and all those who were trained in newly established **SOU** were granted the status of pupils. Pupils in **SOU** could acquire secondary vocational education which provided them with a qualification to perform manual and similar occupations (three-year programmes), or “full” secondary education completed by “maturita” (newly introduced four-year programmes). The latter provided the pupils with a vocational qualification and the possibility of seeking admission to any higher education institution. The overall number of vocational (formerly “apprentice”) programmes was reduced.

Development after 1989

As a result of the radical change of the political, social and economic environment in 1989, the system of initial vocational education and training has undergone **major developments**. New types of vocational education were introduced, thus expanding IVET provision. These changes contributed to a major streamlining of the content of IVET. Decision-making mechanisms were altered, which has led to **increased powers and responsibilities on the part of schools** and to the introduction of new funding methods (per capita funding). The establishment of schools other than public (private, denominational, etc.) was made possible.

² Zákon č. 29/1984 Sb., o soustavě základních a středních škol (školský zákon) [Law no. 29/1984 on the system of basic and secondary schools (Schools Act)].

The overall transformation of IVET in the CR was largely affected by the Phare programme as part of which the *Strategic Study into Vocational Education and Training in the Czech and Slovak Republics* (1992) was developed. The conclusions of the Strategic Study were also supported by the OECD Examiners' Report on Education Policy in the CR (1995). These studies were followed by an extensive experiment in 19 pilot schools implemented as part of a project within the Phare programme entitled **Vocational Education and Training Reform (1994-1998)**. The project and its outputs were the driving force behind transformation and innovation of the system of IVET in the CR.

While before 1989 vocational education and training was static and prepared for a guaranteed and stable job, after 1989 IVET must be able to respond effectively to the changing situation in the labour market. From the perspective of systemic adjustment, secondary education appeared to be the most dynamic segment of IVET. The **key changes** in secondary education include the following:

- **Change in the structure of educational provision.** While in 1990 the ratio of those admitted to SOŠ to those admitted to SOU was 26:74, in 2003 it was 56:44. This is evidence that, in the 1990s, there was a significant decline in young people's interest in vocational training.
- **Blurring sharp distinctions between types of secondary school.** This trend appeared both at institutional level in the form of integration of various types of secondary school into one institution, and in terms of content changes – the development of broadly-conceived programmes and strengthening the general component of education. One typical example is *lycea* programmes which combine education provided by *gymnázia* and vocational education (in technical, business, science and pedagogical fields). They are designed for students who intend, after “maturita”, to study in technical and business higher education institutions.
- **Matching supply and demand.** A major contribution as regards the expansion of educational opportunities consisted in the establishment of non-public schools and dozens of new programmes in management, finance and services.
- **Decreasing the average school size.** This negative trend was caused both by demographic decline (in the 2nd half of the previous decade), and by a not properly considered expansion of educational provision in the form of programmes which often provided training for very similar occupations. Efforts to redress this negative development have resulted in the process of optimisation of the network of secondary schools, the completion of which is now the responsibility of regions. The main objective of this process is to reduce the number of schools and to create an effective network of schools capable of responding to educational demand at regional and national levels.

In tertiary education a major change was brought about by the 1995 amendment to the Schools Act³, which has introduced a new level of education – so-called **higher professional education**. It is provided by *vyšší odborné školy* (VOŠ – higher professional schools) which had been gradually set up (as an experiment since 1993) most frequently at SOŠ. Another important change in tertiary education was the adoption of a new **law on**

³ Zákon č. 138/1995 Sb. o soustavě základních škol, středních škol a vyšších odborných škol (Školský zákon) [Law no. 138/1995 on the system of basic, secondary and higher professional schools (Schools Act) which amends and complements Law no. 29/1984].

higher education institutions in 1998⁴. The law introduces a distinction between *university* and *non-university* higher education institutions, and divides HE institutions into *public*, *private* and *state* ones. The law also codifies a new type of study programme – Bachelor, in addition to the formerly existing Master and Doctoral programmes.

Current development trends in VET

The most important strategic document which sums up the current development trends and priorities in national and European educational contexts is the ***Long-Term Plan for Education and the Development of the Education System of the CR*** (2002). The document draws on the ***National Programme for the Development of Education in the CR*** (the so-called White Paper) of 2001, which had been drawn up on the basis of programme documents and analyses carried out in previous years. The National Programme sets out broader objectives of education policy for a period of 5 to 10 years. On the other hand, the ***Long-Term Plan*** delineates a set of priorities to be implemented and defines **key measures** to be introduced to attain these objectives in the areas of policy and human, financial and material resources.

The Long-Term Plan sets out the following **priorities** for years to come:

- Reform and modernisation of educational objectives and content (curricular reform)
- Reform of the process of completion of secondary studies
- Quality care, monitoring and evaluation of educational results
- Development of an integrated diagnostic, information and counselling system in education
- Optimisation of educational provision and institutional structure of education (except higher education)
- Improving working conditions of teachers and school senior staff
- Establishment of public HE institution of non-university type and development of other forms of tertiary education
- Development of continuing education as part of lifelong learning.

The priorities are implemented with a contribution from projects funded from the European Social Fund.

Some of the plans – e.g. curricular reform and the reform of the process of completion of secondary education – have been reflected in the **new Schools Act⁵**, which came into effect on 1 January 2005 (see following chapters). Along with the Schools Act the **law on pedagogical staff⁶** came into effect. It stipulates the requirements for the work of pedagogical staff, their continuing training and a career system. At present a **law on**

⁴ Zákon č. 111/1998 Sb. o vysokých školách [Law no. 111/1998 on higher education institutions and changes and additions to other laws (Higher Education Act)].

⁵ Zákon č. 561/2004 Sb. o předškolním, základním, středním, vyšším odborném a jiném vzdělávání [Law no. 561/2004 on pre-school, basic, secondary, higher professional and other education (Schools Act)].

⁶ Zákon č. 563/2004 Sb. o pedagogických pracovnících a o změně některých zákonů [Law no. 563/2004 on pedagogical staff and a change to other laws].

continuing education is under preparation which should provide additional legal regulations that would foster the entire area of lifelong learning.

Progress of curricular reform

The objective of this reform is to facilitate a **more flexible shaping of graduate profiles** depending on school needs, the needs of the regional labour market, developments in the field and the aptitudes and interests of students. The new schools law introduces, from 2005, a new system of educational programmes and a **two-stage development of curricula** which will concern both primary and secondary education. The system consists, above all, of framework curricula and school-based curricula.

Framework curricula are **centrally determined** and approved curricular documents which set out generally binding requirements for various levels and fields of education, and the targeted personal qualities the students should achieve during education. They are binding for the development of school-based curricula, for evaluation of learning outcomes, the development of textbooks, and also serve as a basis for funding. Framework curricula for secondary vocational and technical education will be issued by the *Ministerstvo školství, mládeže a tělovýchovy* (MŠMT – Ministry of Education, Youth and Sports) after they have been discussed with the relevant ministries, central trade union bodies and national employers' organisations.

School-based curricula will be developed by schools according to the framework curriculum for the field of education they want to provide. They will elaborate on the content of the framework curriculum in line with the conditions and development objectives of the school, and in line with regional labour market needs. School-based curricula will not be approved at institutional level, as they are the responsibility of the school director. They must be made available at an accessible place within the school. Alignment between the framework curriculum and the school-based curriculum will be monitored by *Česká školní inspekce* (ČŠI - the Czech Schools Inspectorate).

The framework curricula for secondary VET are being developed in line with a **new system of educational fields**. There will be one framework curriculum for each field. There will be curricula for programmes with vocational certificate (ISCED 3C) and for programmes with "maturita (ISCED 3A). The plan is to develop some 250 - 300 framework curricula. Framework curricula are broadly conceived and most of them will cover IVET for a number of related occupations and jobs. Framework curricula are being discussed with schools, social partners and other experts.

The framework curricula set out the competencies graduates should have and the required learning outcomes. There are three areas of competencies set out in the curricula: civic, key and vocational competencies. Vocational competencies are defined based on the qualification requirements for the relevant occupation or a group of related occupations. Vocational competencies are derived from professional profiles and an Integrated System of Typical Positions which contains information about the content of, and requirements for, the performance of various occupations.

The content of education is determined **according to educational areas** (not teaching subjects): language education, social sciences, natural sciences, mathematics, health education, ICT, business education and vocational education in the relevant field. Learning outcomes are set that are required for the educational areas (knowledge, skills, habits), as

well as an outline of subject matter. Emphasis is placed on educational outcomes and the subject matter is perceived as an educational tool and not an end in itself.

Framework curricula set a minimum number of teaching periods and a minimum proportion of work placement or vocational training. At least 20 % of the overall number of teaching periods may be used at the school's discretion while developing its school-based curriculum. Framework curricula also set out principles governing the development of school-based curricula and define the major requirements concerning the delivery and organisation of education, safety and health and material and human resources. Framework curricula describe approaches to the education of students with special learning needs (i.e. disabled students, students with health or social disadvantages, but also exceptionally talented students), and to adult education.

Nation-wide introduction of framework curricula is expected stepwise from 2006. As they are being developed, pilot school-based curricula are under preparation in order to test the scheme of two-stage curricula development and the relevance of the framework curricula, and to assist schools in the process of developing their own curricula.

Reform of the process of completion of secondary education

The student assessment methods used in secondary education show certain shortcomings. For example, there is no general description of student performance in relation to marking, there are no continuous assessment standards, final examinations are not standardised and assessment is therefore subjective and may differ from school to school. In view of this, **new rules governing the completion of secondary vocational education and training** (final examinations in vocational programmes and “maturita” in four-year programmes) are being developed.

A **final examination** in programmes leading to the acquisition of a **secondary vocational certificate (ISCED 3C)** consists of a written exam, oral exam and practical exam. With effect from 2005 the law stipulates an obligation to appoint one expert from industry to the examination board who takes part in the student assessment. The previous legislation did not make it possible for a social partner to be a full member of the board (if he/she was invited, he/she could ask questions but not take part in the assessment).

Further reform of the final examination will be focused on the development of evaluation standards which will set vocational competencies for various fields of education and the relevant assessment criteria. Evaluation standards will be linked to a uniform testing procedure. By the end of 2008 the uniform testing procedure for the final examination will be proposed and piloted in all programmes at ISCED 3C level.

From 2007 **reformed “maturita” examination (ISCED 3A)** will be a reality. It will consist of two parts – a common and a “profile” part. The common part is administered and assessed centrally. This concerns general subjects (the mother tongue, a foreign language and an optional subject where the student may choose from mathematics, basics of civic and social education, basics of science and technology and basics of information technology). This approach will facilitate standardisation of the examination, increase its transparency and the relevance of the “maturita” certificate in entering further stages of the educational pathway, particularly tertiary education. The “profile” part of “maturita” concerns vocational subjects

and is the responsibility of the school director. It takes account of the characteristics of the educational field, graduate profile, target competencies and the relevant curriculum.

1.2 Relationship between IVET and general education

The education system of the Czech Republic (CR) is structured so that the division into **general and vocational educational pathways** takes place after completion of compulsory schooling. Approximately 82 % of young people undergo vocational and 18 % general education.

In line with Central European tradition, **general education at ISCED 3 level** in the CR is provided by *gymnázia*. *Gymnázium* is a secondary general school, internally differentiated, providing secondary education completed by a “maturita” examination. Roughly one half of programmes at gymnasia are four-year programmes (ISCED 3) and may be entered after completion of nine-year compulsory education (about 55 % of all *gymnázia* students). *Gymnázia* also provide six-year or eight-year programmes (talented pupils may enter these programmes after completing 5 and 7 years of basic school respectively). In this case gymnasium covers ISCED 2 and ISCED 3 levels (45 % of the overall number of *gymnázia* programmes). *Gymnázium* prepares students for studies at higher education institutions (irrespective of focus), and possibly at *vyšší odborná škola* (VOŠ – higher professional schools). Students are also prepared for performing certain jobs in administration, culture and other areas requiring broad general awareness and do not require special vocational training.

Vocational education at ISCED 3 level is delivered in three-year programmes leading to a vocational certificate (ISCED 3C), or in four-year programmes completed by “maturita” (ISCED 3A). However, the decision to enter vocational education after completing compulsory education does not mean that the student no longer improves his/her general education. The curricula of three-year programmes allocate at least 30 % of teaching to general subjects, while it is 45 % in four-year programmes. All basic areas are included: languages (Czech and a foreign language), social sciences, mathematics, natural science, aesthetics, physical education (the proportion of teaching allocated depending on the relevant discipline).

The advantage of **vocational programmes at ISCED 3A level** is that they are recognised to be **equal to general education** in *gymnázia*. Graduates of these programmes may continue studying at tertiary level. This increases the attractiveness of vocational educational pathways.

Education at *gymnázia* does not constitute a dominant sector at upper secondary level (ISCED 3). The proportion of young people admitted to first year of gymnasia in the overall number of students entering secondary education was increasing in the 1990s, but has stagnated in recent years. This has been largely influenced by the efforts of the *Ministerstvo školství, mládeže a tělovýchovy* (MŠMT – Ministry of Education, Youth and Sports) and regions to affect directly or indirectly (by means of funding) the planned capacity of various types of school and programmes, and particularly to limit the number of students in six- and eight-year *gymnázia*. This development has been supported by *gymnázia* as they try to

maintain their exclusive position in terms of student quality by setting demanding admission requirements.

The relationship between vocational and general education at ISCED 3 level is also affected by an increasing proportion of students in four-year programmes completed by “maturita” (ISCED 3A) and by a large proportion of general education in the curricula (at least 45 %).

Students in the first class of IVET and of gymnasium (ISCED 3) as the % of the total number of these students

	Gymnázia	IVET		
	ISCED 3A	ISCED 3C	ISCED 3A	Total
1991	12,8	59,1	28,1	87,2
1995	14,9	44,6	40,5	85,1
2000	18,5	41,3	40,2	81,5
2003	18,2	37,4	44,4	81,8

Source: Vojtěch, J., Festová, J., Sukup, R.: Vývoj vzdělanostní a oborové struktury žáků ve středním a vyšším vzdělávání v ČR a v krajích ČR a postavení mladých lidí na trhu práce 2003/04 [The Development of Level and Field Structure of Students in Secondary and Higher Professional Education in the CR and in Czech Regions and the Position of Young People in the Labour Market], NÚOV, Praha, 2004.

In response to new labour market demands, **the proportion of general education** in vocational curricula **has been increasing overall**, and so has the emphasis on the development of transferable, **key competencies**. They are defined in the Standard of Secondary Vocational and Technical Education, the principal curricula document with nationwide validity. Key competencies cover communication, personal and interpersonal competencies, problem solving, numerical applications and the use of ICT.

The gymnázia curriculum contains general education in the area of languages, social sciences, mathematics and informatics, natural sciences, aesthetics and healthy lifestyles. *Gymnázia* programmes may be focused on 12 educational branches (general; mathematics; mathematics and physics; programming; natural sciences; aesthetics; current languages; classical languages; selected subjects in a foreign language; humanities; physical education; sports training). This opens the possibility for schools to shape their profiles in line with the relevant conditions, regional needs and student capacities. However, over 90 % of *gymnázia* students study the general branch. This means that the vocational component has not found its way into *gymnázia* studies and, since the early 1990s, the academic rather than vocational component has been strengthened.

As a response to this development, educational programmes of the „lyceum“ type were prepared (technology, business, natural sciences, teacher training) which are provided by *střední odborné školy* (SOŠ – secondary technical schools). The proportion of general education in the programmes accounts for some 70 % of the curricula. Graduates of the programmes are prepared for studies at higher education institutions with the relevant focus.

There are very limited opportunities for a **horizontal transfer between general and vocational educational pathways**. In view of the fact that educational programmes are linear – i.e. they are conceived as integrated 3-4-year studies based on the relevant

curriculum, transfers are very rare and occur particularly because of failure in the originally selected programme (mostly transfers from gymnázium to SOŠ. Recognition of prior education depends on the judgment and decision of the school director. Return to general education after completion of secondary vocational education virtually never occurs, as graduates of vocational and technical programmes with “maturita” (ISCED 3A) can access directly tertiary education, and graduates of vocational programmes with a vocational certificate (ISCED 3C) can undergo follow-up courses (ISCED 4A) completed by “maturita” and then continue in tertiary education.

At tertiary level educational programmes are not divided into general (academic) and vocational ones. Studies at tertiary level (both at *vyšší odborné školy* (VOŠ – higher professional schools) and at *vysoké školy* (VŠ - higher education institutions) are considered to be vocational. However, curricula also contain general education – particularly foreign languages and ICT.

In terms of the success of graduates of general and vocational education in the labour market, there are differences depending on the type of programme. According to a Labour Force Survey the rate of unemployment (calculated as unemployed graduates divided by employed plus unemployed graduates) among *gymnázia* graduates is far higher as compared to graduates of IVET schools. *Gymnázia* graduates who do not continue studying have difficulties finding employment in the initial years after leaving school. However, among this group there are young people who failed in entry examinations to VŠ and register at labour offices while they plan to give it another try the following year. The average rate of unemployment among IVET graduates one year after school leaving is 22.7 %, while for *gymnázia* graduates it is 28.4 %. The situation of *gymnázia* leavers improves in the following years, but even five years after completion of studies it is still worse (15 %) compared to IVET leavers (10.1 %).

Unemployment of school leavers 1 and 5 years after completion of school

Rate of unemployment among school leavers (%)		
	1 year after completion of school	5 years after completion of school
Secondary education ISCED 3		
Vocational and technical education - average (ISCED 3C, 3A)	22.7 %	10.1 %
General education (ISCED 3A)	28.4 %	15.0 %
Tertiary education ISCED 5^{*)}		
Higher education institutions (ISCED 5A)	8.1 %	1.3 %

Source: calculations of NÚOV according to Labour Force Survey 2003 (ČSÚ).

Note.: ^{*)} Only graduates of *vysoká škola* (VŠ - higher education institutions, ie. ISCED 5A – Bachelor and Master programmes) are included. Graduates of *vyšší odborná škola* (VOŠ – higher professional schools, ie. ISCED 5B) are not included.

Graduates of VŠ do not face great difficulties in the labour market. The rate of unemployment in the first year after graduation is lower than the average rate of unemployment for the CR. In subsequent years it further decreases so that five years after graduation only 1.3 % of VŠ graduates do not have a job.

1.3 Qualifications structure

Graduates of IVET programmes acquire vocational qualifications corresponding to the level and field of education they have undertaken. Certificates of IVET document the acquisition of a qualification – i.e. they verify the competencies of the holder to perform tasks usually related to a specific occupation or a group of occupations.

Qualification levels

The structure of qualifications and educational levels is determined by the relevant laws on education (the schools law and the law on higher education institutions).

In secondary and post-secondary vocational education and training (ISCED 2, 3 and 4), it is possible to distinguish **three basic qualification levels** documented by the following certificates:

- **Certificate of a final examination** (ISCED 2C) – testifies to partial skills for the performance of very simple, auxiliary, mostly manual activities in production or services. Graduates acquire the qualification of auxiliary worker or worker in various industries, e.g. chemistry, food production, wood industry, or qualifications such as a fisherman, fruit grower, gardener, pastry cook, care person, etc.
- **Vocational certificate** (ISCED 2C and ISCED 3C) – documents a qualification for the performance of manual occupations (i.e. sales person, locksmith, auto-mechanic, cook, tailor, etc.), or other vocational operational, administrative, and technical tasks (depending on the programme).
- **“Maturita” certificate** (ISCED 3A, ISCED 4A) - documents a qualification for the performance of middle-level technical, economic and other functions or occupations (e.g. in industry, healthcare, public administration, services, welfare, education, etc.), and for professional administrative and technical activities (depending on the programme).

These certificates may be issued **by schools** which the *Ministerstvo školství, mládeže a tělovýchovy* (MŠMT – Ministry of Education, Youth and Sports) has included in the schools registry. For the outcomes of secondary education – see chapters 2.2 and 3.3.

Education in programmes at ISCED 3A and ISCED 4A levels makes it possible to acquire two qualifications. Graduates of the relevant programmes are qualified both to enter the labour market and to access tertiary education (*vyšší odborná škola* – VOŠ - higher professional school – ISCED 5B, and *vysoká škola* – VŠ - higher education institution – ISCED 5A), regardless of their field of study.

In tertiary education it is possible to distinguish the following qualification levels which are documented by the following certificates:

- **A diploma and a certificate of “absolutorium”** (ISCED 5B) – this qualification facilitates the performance of highly qualified, specialised independent professional activities depending on the nature of the programme.
- **A diploma and a certificate of a state final examination** (Bachelor, Master or Doctoral, ISCED 5A, 6). Graduates of Bachelor study programmes usually continue in a Master study programme however they are prepared also for performance of relevant occupation. Graduates of a Master programme have a range of theoretical knowledge in the relevant field based on the current state of science, research and development, and are able to apply it and pursue creative activities. In arts the qualification testifies to great talents and the capacity to perform demanding artistic activities. Doctoral programmes further develop a professional qualification and are focused on independent research and development activities, or independent theoretical and creative work in arts.

These certificates are issued by VOŠ and VŠ which are authorised to do so by the *Akreditační komise* (AK – Accreditation Commission) of the MŠMT.

Organisation of examinations

The organisation of examinations based on which the certificates are issued is the responsibility of individual educational institutions. In order to enhance comparability of the educational outputs of various schools at upper secondary level and their credibility in the eyes of employers, there are various measures pursuing standardisation of examinations (including the involvement of social partners). (see chapter 1.1 – “Reform of the process of completion of secondary education”).

Recognition of qualifications

The certificates acquired within the IVET system which testify to the relevant qualification only serve employers as a guideline indicating the level of education and vocational competencies of prospective employers. In line with Czech labour legislation, it is up to the employer to assess whether the applicant’s qualification is appropriate. However, there are certain exceptions, mainly as regards specific professional competencies (e.g. handling poisons), trades (regulated trades), and regulated professions (architects, physicians, lawyers). In these areas the qualification requirements are stipulated in legislation and the occupation cannot be performed unless they are fulfilled. Certain qualification requirements are also binding for the public sector – mainly for healthcare and education.

Certificates corresponding to the individual levels of education also contain the name and code of the field of education. The system of the fields of education for ISCED 2, 3, 4, 5B is defined by legislation⁷.

⁷ Nařízení vlády č. 689/2004 o soustavě oborů vzdělávání v základním, středním a vyšším odborném vzdělávání [*Government Ruling no. 689/2004 on the system of programmes in basic, secondary and higher professional education*].

When assessing a qualification, employers tend to judge the relevant level of education as a qualification requirement for the performance of tasks of varying difficulty, rather than the specific programme undertaken and competencies acquired.

1.4 Schools / training centres providers

The Czech education system consists of:

- Kindergartens, basic school, secondary schools, conservatoires, language schools authorised to administer state language examinations, and higher professional schools (all are codified by the Schools Act);
- Basic art schools providing basic education in artistic disciplines (as leisure activities);
- School facilities performing educational and various special functions which are subject to the Schools Act or the law on institutional and protective care;
- Higher education institutions.

Vocational and technical education is provided at secondary and tertiary levels (ISCED 2–6). Schools which provide IVET are divided according to the level and nature of the education they provide into:

- ***Střední odborná škola*** (SOŠ – secondary technical school)

SOŠ provide secondary IVET mostly in **four-year programmes** completed by a “maturita” examination (ISCED 3A). In 2003 the proportion of graduates of SOŠ in the total number of graduates of secondary schools was 35.6 %. SOŠ may also organise two-year **follow up courses** (ISCED 4) for those who have completed secondary vocational programmes and hold a vocational certificate.

- ***Střední odborné učiliště*** (SOU – secondary vocational school)

SOU provide education mostly in **three-year programmes**, or in **two-year programmes**. They lead to the acquisition of a vocational certificate (ISCED 3C). In 2003 those who underwent these programmes accounted for some 38 % of the overall number of secondary school leavers. SOU also provide a small number of **four-year programmes** completed by “maturita” (ISCED 3A). In 2003 the proportion of these graduates was 5.4 %. SOU may also provide **one- and two-year programmes** (ISCED 2C). In 2003 the proportion of those who underwent these programmes was less than 1 % of total secondary school leavers. Work placements implemented by SOU students may take place in **practical training centres**. These are normally private facilities (62 %) established for this purpose.

- ***Konzervatoř*** (conservatoire)

Conservatoire programmes develop the knowledge, skills and other capacities students have acquired in basic and basic art schools, provide general education and prepare students for

the performance of demanding artistic activities in music, dance, singing and drama. Successful completion of a conservatoire leads to acquire **secondary education with “maturita”** (ISCED 3B) or to **higher professional education with “absolutorium”** (ISCED 5B).

- **Vyšší odborná škola (VOŠ – higher professional school)**

VOŠ have been around since 1996. They prepare students for qualified performance of vocational tasks. They provide **higher professional education completed by an “absolutorium”** (ISCED 5B) to secondary school leavers who hold a “maturita” certificate.

- **Vysoká škola (VŠ - higher education institution)**

VŠ provide education in three types of programme: **Bachelor** (normally three years – ISCED 5A), **Master** (normally two years following on from bachelor programmes – ISCED 5A), and **Doctoral** (normally three years after Master studies – ISCED 6). Until the end of 1998 all existing VŠ had a university status. From 1999 non-university VŠ might be set up providing predominantly Bachelor studies.

Number of schools (facilities) providing education at secondary and tertiary levels in 2003

	Secondary schools			VOŠ	VŠ
	SOŠ	SOU	Total		
Number of schools¹	815	544	1,359	169	52
Pupils/students	219,700	212,200	431,900	30,700	269,700

¹ number of facilities

Source: ÚIV.

Continuing education provided by schools/educational institutions

Schools also provide a varying range of **continuing education** opportunities. Continuing VET in schools may include programmes leading to the acquisition of an official qualification, shorter retraining courses and courses of education as a leisure activity.

The proportion of adults in programmes leading to the acquisition of an official qualification at **secondary schools** is currently less than 6 % of the total number of students. The curricula are derived from the curricula for initial education of young people and may be studied using various part-time arrangements. Upon passing prescribed examinations the graduates receive a certificate equal to that awarded in full-time programmes. SOŠ, SOU and VOŠ may also provide continuing training courses, including retraining, on a commercial basis.

Those attending continuing training programmes leading to an official qualification at **VOŠ** currently account for about 17 % of the total number of students. At **VŠ** it is 20.6 %. **VŠ** may provide lifelong learning programmes outside the framework of study programmes, either

for free or for a fee. They may be job-related or leisure activities (e.g. “Third-Age Universities”).

Non-public educational institutions

After 1989 education experienced a major change as the establishment of **private and denominational schools** was made possible. Their development at all levels began virtually from zero and gained momentum in the 1990s. In 2003/2004 there were almost 20 % private and 2.1 % denominational schools at secondary level, and 26 % and 7.1 % respectively at higher professional level. The setting up of private VŠ was made possible in 1998. In 2003/2004 they accounted for 50 % of all VŠ (but only for 5 % in terms of student numbers). In general, most students at upper secondary and tertiary level are educated in public schools.

Administrative framework (organisation, governance and administration)

The governance and administration of IVET have been strongly affected by public administration reform which started in the education sector in 2001. The underlying principles of the reform were decentralisation, strengthening the role of regional governments and support for school autonomy.

Similar trends occurred in the **system of funding**. All schools providing IVET (except VŠ) are financed by the *Ministerstvo školství, mládeže a tělovýchovy* (MŠMT – Ministry of Education, Youth and Sports) via regional authorities which allocate the resources to individual schools and by the regional budgets. Private secondary schools and VOŠ which are included in the schools network are funded from public resources based on similar principles, except that a smaller portion of their income comes from private sources.

In connection with decentralisation of public administration and strengthening of regional and local government, **the responsibility for setting up** secondary and VOŠ was, in 2001, delegated from the MŠMT to regions (regional authorities). Regional authorities as regional self-governing bodies are directly responsible for the establishment and closing down of IVET schools and school facilities, for their governance and the funding of their capital and operating costs. Regions are responsible for the management of approximately 76 % of SOŠ and SOU, and approximately 66 % of VOŠ (the rest are private or denominational schools).

The new schools law which came into effect on 1 January 2005 also expands the autonomy of secondary and VOŠ as regards curricula and school management. The **school director**, who is appointed by the regional authority based on a competitive examination, has extensive powers. He/she is responsible for implementation of the approved curricula, for the quality of pedagogical work, human resources policy, school management and an efficient use of financial resources. The law commands that **school councils** be set up in all basic, secondary and VOŠ irrespective of their governing body. The councils work as self-governing bodies facilitating the participation of parents, mature students, pedagogical staff and other partners in the school's operations.

1.5 Role of social partners and enterprises

The involvement of social partners in IVET is largely voluntary and based on the initiative of the parties interested. Their involvement and the definition of their role is codified in the new schools law which came into effect on 1. 1. 2005. Statements by social partners have, with exceptions stipulated by the law, a consultative nature. There are no (or weak) financial incentives that would support the activity of social partners in education.

At national level, social partners are involved – via *Rada hospodářské a sociální dohody* (RHSD - Council for Economic and Social Agreement) - mainly in formulating and commenting upon legal regulations, government papers and education development and funding policies. There is a “working team for education and human resources” on the RHSD. *Rada pro rozvoj lidských zdrojů* (Council for Human Resources Development), which was set up in 2003, plays an important role in supporting a coherent approach to human resources development (HRD). It has a tripartite representation and it co-operates on the development of strategic national papers and decisions interlinking employment, IVET, qualifications and entrepreneurship issues. Similar bodies for strategic HRD management have been set up in most regions.

At **regional** level social partners are represented on regional RHSDs and regional Councils for HRD. However, the situation differs region by region. In practice, they contribute, above all, to commenting on proposals for optimisation of the schools network and changes to the IVET programme structure.

At **sectoral** level there are examples of good co-operation between social partners and IVET schools. It is usually initiated by professional associations (economic chambers) – i.e. not by employers or trade unions. The importance of the sector in the regional economy plays a major role in this co-operation. Professional associations test the quality of prospective specialists.

At **company** level there are also examples of good co-operation with schools, particularly where the company “takes” graduates and requires that they receive good practical training. The reason is that companies normally have state-of-the-art technology, while schools do not have human, material and technical resources to teach the relevant issues.

One positive step towards harmonising IVET (especially on secondary level) with labour market is the activity of so-called “field groups” which were set up at the instigation of the *Ministerstvo školství, mládeže a tělovýchovy* (MŠMT – Ministry of Education, Youth and Sports). Members of the groups are representatives of employers’ organisations, trade unions, professional or trade organisations and school associations. There is also a “policy group” operating within the field group scheme which is made up of representatives of ministries, regional authorities and social partners. At regional level it is possible to set up regional working groups composed of representatives of local companies, entrepreneurs, regional and municipal authorities, etc.

Social partners on the field groups may influence the development of framework curricula which form the basis of the ongoing curricular reform. At regional level they may contribute directly to the design and implementation of school-based curricula. There are currently 25

field groups⁸ which reflect the structure of the economic sectors and cover the full range of branches in which secondary and higher professional leavers may seek employment.

From 1 January 2005 legislative changes are effective which strengthen the influence of social partners on IVET. The new schools law stipulates an obligation for employers' organisations to take part in discussions on framework curricula for IVET. An expert from industry must, according to the law, be represented on the examination board for final examinations at the end of vocational programmes with a vocational certificate (ISCED 3C).

The involvement of social partners in the development of IVET is also the subject of various projects (particularly within the Leonardo da Vinci programme). When addressing these issues problems occur which, as mentioned above, concern social dialogue and, particularly, the lack of motivation on the part of social partners and non-existent legislation.

Level	Responsibilities of social partners in IVET	Role (advisory/decision-making)
National	- Formulation of and comments on legal regulations and government papers	advisory
Regional	- Formulation of, recommendations to and comments on strategic documents at regional level - Recommendations for optimisation of the network of schools	advisory
Sectoral	- Formulation of general frameworks for the provision of continuing training in companies (in sporadic cases this is implemented as part of collective bargaining at a higher level) - Co-operation in the development of framework curricula	advisory/decision-making
Enterprise	- Planning and implementation of training in companies (collective agreements – difference between corporate and school level), - Co-operation between schools and companies	advisory/decision-making

⁸ They have 8-20 members – experts in labour market issues and curricula development. The membership of experts is voluntary and they do not receive any remuneration. This is why it is sometimes difficult to ensure their co-operation.

1.6 Planning and forecasting

Over the last few years methods for the identification of future skills needs have been developed and tested at national, regional and sectoral levels. Moreover, ways are being sought of continuous forecasting of these needs via the development of an institutionally and financially supported system. At present there is not a coherent system and forecasting activities are carried out as part of separate projects. The requirements for identification of future needs for skilled labour are set out in major government papers⁹.

In 2001 a combined quantitative/qualitative methodology was developed for the forecasting of skilled labour needs, which drew on West European experience and was adjusted to the conditions in the Czech Republic (CR)¹⁰. It involves a five-year quantitative forecasting model which facilitates identification of prospective employment opportunities for holders of various qualifications and provides information for employers about their chances of finding such individuals. In addition to this, there is a methodology for the development of qualitative sectoral and regional studies which aims to provide more detailed information than that obtained via the model, and to add a qualitative dimension to the required qualifications. Further development of the methodology and preparations for its use is taking place as part of projects supported by the *Ministerstvo práce a sociálních věcí* (MPSV – Ministry of Labour and Social Affairs)¹¹. Forecasting outputs at national level have not been presented for public use yet and their quality is being tested.

A quantitative prognostic model provides projections for 60 groups of occupations and 35 educational fields. Data time series are used concerning employment structure, school leavers and their employment opportunities during a five-year period, unemployment, demography and estimates of future development of employment in various sectors. The model also envisages that a certain qualification may be replaced by another suitable qualification and accommodates the change in demand caused by this substitution. The outputs from the quantitative model are further assessed, adjusted and complemented based on detailed analyses of the development of the occupational and education structure of employment in the CR and in the world. As part of a newly launched five-year project¹² supported by the MPSV (to be completed in 2009) two five-year prognoses of skilled labour needs in the CR should be developed along with one sectoral study.

Apart from the forecasting via the models mentioned above, there is also analytical work in progress focused on comparing the developments in education with labour market developments, and on the identification of employers' needs. Moreover, analyses are being conducted concerned with the match between qualifications attained and jobs performed, and with the occupational structure of the labour force from the perspective of education. Comparative analyses also concern the situation in the CR and that in developed countries with a comparable economic situation to that of the CR.

⁹ Human Resources Development Strategy, National Programme for the Development of Education, National Employment Action Plans, etc.

¹⁰ Project Regular Forecasting of Training Needs: Comparative Analysis, Elaboration and Application of Methodology in Předvídání kvalifikačních potřeb: vypracování a pilotní ověření metodologie [*Forecasting Skill Needs: Methodology Elaboration and Testing*], Praha 2001, ISBN 80-238-7550-7.

¹¹ Vzdělávání, výzkum a vývoj jako klíčové faktory rozvoje společnosti a ekonomiky [*Education, Research and Development as Key Factors of Society and Economy development*], NVF 2003.

¹² Společnost vědění – nároky na kvalifikaci lidských zdrojů a na další vzdělávání – *Knowledge Society – Demands for Qualification of Human Resources and for Continuing Education*.

For the identifying qualitative changes in the content of skilled labour for the needs of the education sector, there are so-called “field groups” (for details see 1.5) which have been operating for several years. The results of the groups’ work include studies on the professional requirements of various sectors and industries (prepared in 1999 and again for 2005). The findings are used to innovate curricula.

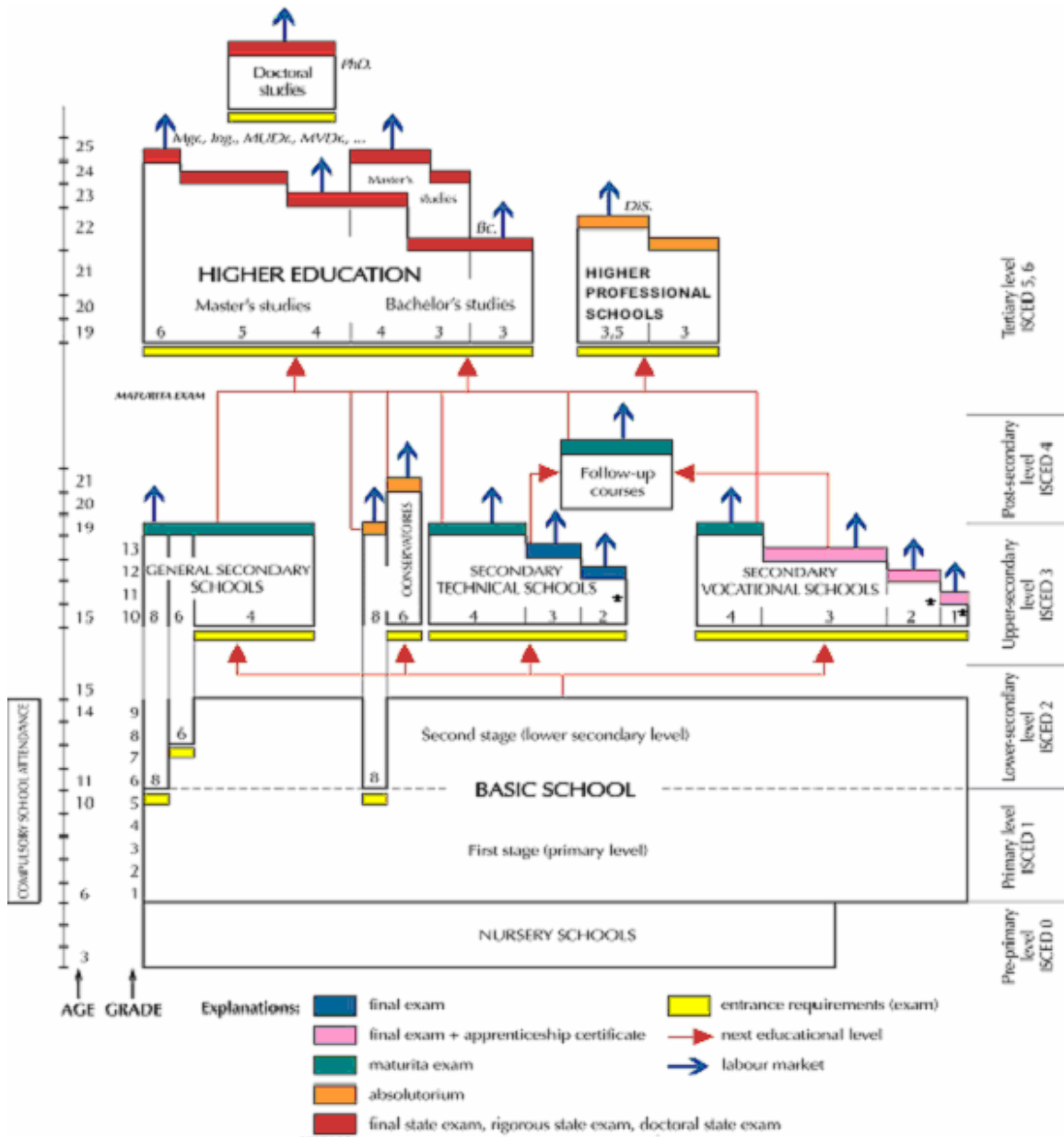
There are also requirements for forecasting skills needs on the part of Czech employers, as there are certain skills shortages. There are also vacancies identified by labour offices for some occupations.

In the *Ministerstvo školství, mládeže a tělovýchovy* (MŠMT – Ministry of Education, Youth and Sports’) administrative area a rather comprehensive information system is being developed as part of the *Informační systém o uplatnění absolventů škol na trhu práce* (ISA – Information System on the Situation of School Leavers in the Labour Market) project. This information system concerns the transfer of school leavers from school to employment and the factors that affect their position in the labour market (economic development, demographic changes, employers’ needs, unemployment, the development of the education system, etc.). This information is facilitated by the system for major groups of users via the Internet, publications, the media, etc.

A regional version of the ISA system is the *Regionální informační systém o uplatnění absolventů škol na trhu práce* (RISA – Regional Information System on the Position of School Leavers in the Labour Market), which was set up in 2004 in the Moravskoslezský region. This interactive information system (www.risa.cz) provides far more detailed information services than the national system. It accommodates information about the educational provision of schools and other training organisations in the region, about unemployment (specified right down to the level of individual field of education). Moreover, it provides information about employers’ needs in the region, vacancies registered at labour offices, remuneration and the development trends in various occupations. The benefits of the system include a free and permanent access via the Internet and the possibility of obtaining very detailed sets of information based on user requirements.

As the process of early identification of skills needs is very demanding in terms of information sources, financial resources and co-operation between a wide range of institutions and experts a proposal for a permanent system for forecasting of qualification needs for the CR was drafted for the MPSV in 2003. A systemic approach should create the environment for regular prognostic activities which wouldn’t be independent of isolated projects.

1.7 Diagram of main pathways within IVET



Note: * Short educational programmes (one-year and some two-year programmes) provided by secondary technical schools and secondary vocational schools belong to ISCED 2C level.

2 IVET AT LOWER SECONDARY LEVEL

Education at lower secondary level (ISCED 2) in the Czech Republic (CR) is largely represented by the second stage of basic school which provides general education as part of compulsory education. In addition to this, this level also covers short IVET programmes (ISCED 2C) which may be entered upon completion of compulsory education.

These **one- and two-year programmes** are mostly attended by pupils who completed remedial and auxiliary programmes at basic school and pupils who completed compulsory education but failed to complete all nine years of basic school and are not able to meet the requirements of *střední odborná učiliště* (SOU – secondary vocational schools) or *střední odborná škola* (SOŠ – secondary technical schools) (ISCED 3C, ISCED 3A). Their typical age is 15 – 16/17.

Most IVET programmes at ISCED 2C level are offered by practical schools. *Praktická škola* (practical school) does not provide vocational qualifications, but develops and strengthens manual skills and working habits and prepares for the performance of simple auxiliary tasks in production or services. The main objective of this training is to achieve the highest possible degree of socialisation of disadvantaged pupils in order to facilitate their integration into the work process, depending on their interests, capacities and competencies. Recently (in relation to the development of new, modern technologies) simple tasks have either been disappearing or decreasing in number, which reduces employment opportunities for graduates of these programmes.

A very small number of these one and two-year programmes are delivered in separate classes of SOU where pupils are trained to perform simple jobs.

The number of pupils who acquire vocational education at lower secondary level is very low (see Annex 1). The indicator showing the proportion of individuals in ISCED 2C programmes in the total number of pupils in ISCED 2 is entirely irrelevant in the CR in view of the characteristics of ISCED 2C. Pupils who are trained in ISCED 2C are at an age of pupils and students in upper secondary education (ISCED 3). Pupils entering the first years of practical schools in 2003/04 accounted for 0.3 % of pupils entering first years of schools at upper secondary level (ISCED 3).

2.1 Curricula

Vocational education and training at lower secondary level (ISCED 2C) is implemented in line with an **approved curriculum**. The lengths and demands of the curricula are differentiated taking account of the pupils' disadvantage and prior education.

Education is normally provided by special pedagogues who use specific teaching methods (re-educational, compensatory, rehabilitation). A lower number of pupils facilitates an individual approach. There are boarding facilities which perform the rehabilitation function and where pupils take part in joint out-of-school activities.

2.2 Learning outcomes

Those who complete the programmes acquire a certificate of a final examination or just a certificate of completion, and achieve secondary education (without a vocational certificate and “maturita”). The **final examination** consists of a practical part and an examination in vocational subjects. Those who only receive a **certificate of completion** (without having taken the final examination) mostly find jobs in so-called sheltered workshops.

3 IVET AT UPPER SECONDARY LEVEL: SCHOOL BASED AND ALTERNANCE

It is a characteristic feature of the Czech schools system that virtually all those who complete basic school (almost 95 %) continue schooling at post-obligatory level. An overwhelming majority of these pupils enter IVET and achieve a vocational qualification recognised by the labour market as upper secondary level (ISCED 3). In 2003/2004 the proportion of new entrants in secondary VET schools out of the overall number of pupils admitted to secondary schools was approximately 80 %. IVET at ISCED 3 level is “school-based”, although educational programmes at this level have a large proportion of practical training. For absolute figures according to age and gender see Statistical Annex, Table 10.2.

Rate of participation in IVET at upper secondary level for the relevant age groups¹⁾

Age group	1996	2000	2003
16 – 19	47.3 %	47.7 %	58.9 %
15 – 18 ²⁾	63.9 %	56.3 %	63.3 %

Source: ÚIV (according to UOE and ČSÚ questionnaire data).

Notes: ¹⁾ Data presented is influenced by the extension of compulsory education in basic school to 9 years (this affected the data for 2000).

²⁾ It is more common in the Czech Republic (CR) to present data in this age interval.

Educational programmes at upper secondary level may be divided according to the levels and fields of education. **In terms of levels of education**, programmes at ISCED 3 level are divided as follows:

- Programmes providing **secondary education with a vocational certificate** (ISCED 3C) facilitate the acquisition of a qualification for manual occupations (e.g. salesperson, locksmith, auto-mechanic, electrician, bricklayer, roofer, cook, tailor). The main objective of these programmes is **preparation for the labour market**. Most programmes last three years, some two years. They may be undertaken in various forms: daily attendance, evening courses, self-study with consultations, distance and combined studies. It is also possible to undertake a shortened programme lasting 1 to 1.5 years). This shortened programme is designed for applicants who have secondary education with “maturita” and seek to achieve an additional qualification. A typical age of the students is 15-18.
- Programmes providing **secondary education with “maturita”** (ISCED 3A) facilitate the acquisition of a qualification for **middle-level technical, business and other jobs and occupations in production or services** (e.g. healthcare, public administration, welfare, education). Achievement of this level of education is a requirement for admission to *vysoká škola* (VŠ - higher education institution) and *vyšší odborná škola* (VOŠ – higher professional school). The programmes last four years (daily attendance), in the other forms (evening, self-study with consultations, distance combined,) they are normally one year longer. Studies in the daily form are undertaken by students aged 15-19, the other forms are mostly used by adult learners.

Courses are mostly prolonged by one or, at most, two years for disabled students – e.g. for instance with impaired hearing and vision.

Since 1 January 2005 a new educational programmes have been introduced – so-called “shortened studies” (1-2 years) for applicants with “maturita” in a different branch of education who seek to achieve an additional qualification.

- Programmes at *konzervatoř* (conservatoire) lead to the acquisition of two levels of education: secondary education with “maturita” (ISCED 3B) and higher professional education (ISCED 5B). Apart from general education graduates achieve a qualification for the performance of **artistic and artistic-pedagogical activities in music, dance, singing and drama**. Secondary education with “maturita” may be acquired upon successful completion of the relevant part of the programme at the earliest after 4 years (daily attendance) in the six-year programme, or after 8 years (daily attendance) in an eight-year programme in dance. Higher professional education at a conservatoire may be acquired upon successful completion of a six-year or eight-year programme. Graduates who completed their studies by “*absolutorium*” (ISCED 5B) are awarded the title *diplomovaný specialista* (specialist with a diploma), abbreviated as “DiS.” and used behind the name.

The proportion of new entrants in various types of programme at secondary schools (2003/2004) out of the overall number of new students admitted to secondary schools

Programme	Proportion of new entrants
Secondary VET with a vocational certificate ¹⁾ (ISCED 3C)	36.9 %
Secondary VET with “maturita” (ISCED 3A)	44.3 %
Gymnázium (ISCED 3A)	18.5 %

¹⁾ This includes 0.7% of new entrants in programmes providing secondary education (without a vocational certificate and “maturita”).

Source: Vojtěch, J., Festová, J., Sukup, R.: *Vývoj vzdělanostní a oborové struktury žáků ve středním a vyšším vzdělávání v ČR a v krajích ČR a postavení mladých lidí na trhu práce 2003/04 [The Development of Level and Field Structure of Students in Secondary and Higher Professional Education in the CR and in Czech Regions, and the Position of Young People in the Labour Market - 2003/04], NÚOV, 2004.*

Educational programmes also differ in terms of **fields of education**. The system of fields of education for secondary and VOŠ is set out in a government regulation. There is a **separate educational programme** for each field and level of education. There are currently some 180 programmes within VET with a vocational certificate, and 370 programmes within education with “maturita”. There are no sector-specific educational pathways in the Czech Republic (CR). Fields of education are grouped into “group of fields of education” - e.g. mechanical engineering and production; transport and communications; healthcare; hotels and tourism.

Groups of fields of secondary education with a vocational certificate that are most frequently studied (first-year students, 2003)

Group of fields of education	Number of students	% of students in programmes with a “vocational certificate”
Gastronomy, hotels and tourism	11, 555	22.5 %
Mechanical engineering and production	8, 265	16.1 %
Construction	5,120	10 %
Electrical engineering, telecommunications and IT	4, 239	8.3 %

Source: Vojtěch, J., Festová, J., Sukup, R.: *Vývoj vzdělanostní a oborové struktury žáků ve středním a vyšším vzdělávání v ČR a v krajích ČR a postavení mladých lidí na trhu práce 2003/04 04 [The Development of Level and Field Structure of Students in Secondary and Higher Professional Education in the CR and in Czech Regions and the Position of Young People in the Labour Market]*, NÚOV, 2004.

Groups of fields of secondary education with “maturita” which are most frequently studied (first-year students, 2003)

Groups of fields of education	Number of students	% of students in programmes with “maturita”
Business and administration	11, 247	20.8 %
Electrical engineering, telecommunications and IT	5, 899	10.9 %
Healthcare	5, 016	9.3 %
Mechanical engineering and production	4, 293	7.9 %
Construction	3, 724	6.9 %

Source: Vojtěch, J., Festová, J., Sukup, R.: *Vývoj vzdělanostní a oborové struktury žáků ve středním a vyšším vzdělávání v ČR a v krajích ČR a postavení mladých lidí na trhu práce 2003/04 04 [The Development of Level and Field Structure of Students in Secondary and Higher Professional Education in the CR and in Czech Regions and the Position of Young People in the Labour Market]*, NÚOV, 2004.

The structure of IVET programmes at ISCED 3 level isn't still flexible enough. After completion of basic school the student must decide which linear programme and field he/she wants to study (including the targeted qualification). A change in the course of studies is possible, but so difficult that students prefer to complete the original programme.

3.1 Access requirements

Applicants for studies at *střední odborná škola* (SOŠ – secondary technical school) and *střední odborné učiliště* (SOU – secondary vocational school) are required to have completed compulsory education or to have successfully completed basic education before completing compulsory education. Apart from this they must meet the relevant admission requirements.

The admission criteria, form and content of entrance examinations are set by the school director depending on the programme, level and field of education. This means that admission proceedings differ according to fields and levels of education and from school to school. The principal criterion is basic school performance or achievements in previous education. An **entry examination** is normally part of admission proceedings (written or oral) which aims to test the applicant's skills and knowledge acquired at basic school in the Czech language, mathematics and, possibly, a foreign language. Often there is no entry examination. This is particularly true of programmes with a “vocational certificate” (ISCED 3C). In some fields, particularly in arts, an aptitude test forms an obligatory part of admission proceedings (it is taken before the entry examination). The applicant is also required to meet **health requirements** set for a particular programme by the Ministry of Health in the form of a government regulation. Applicants may also be admitted to a higher than first year. The school director may decide that, based on documents testifying to previous education, an examination should be part of these admission proceedings.

An application for studies at secondary schools is filed either by the applicant himself/herself, or by his/her legal guardian (the signature of an underage applicant is a mandatory part of the application). The deadlines for filing applications and the dates of admission proceedings are set by the *Ministerstvo školství, mládeže a tělovýchovy* (MŠMT – Ministry of Education, Youth and Sports). Decisions on admission and the number of new entrants are the responsibility of the school director. The number of students admitted to the first years in various programmes and schools depends on both the results of admission proceedings, and on the overall number permitted by the relevant regional authority as the school's founding body. Regional authorities in the Czech Republic (CR) seek to influence the structure of schools and programmes provided so that material and human resources are used in an optimal manner and so that educational provision meets the needs of the relevant regional labour market.

Applicants may choose any programme and any school, public or private, which offers the relevant programme. All programmes and fields are accessible for all applicants regardless of their gender, nationality, etc., provided that they meet the admission requirements. Applicants may also choose a form of study (daily attendance, evening, self-study with consultations, distance), provided that the school offers these forms within the relevant programme. Applicants aged 15-16 normally opt for daily attendance. The school director may permit, in justified cases, studies in line with an individual study plan.

3.1.1 Promoting participation

In order to improve access to education schools may organise courses preparing for secondary education, or courses designed to complete basic education.

Considerable attention is devoted to the issue of ensuring access to education and qualifications for **pupils with special learning needs** – i.e. disabled or socially disadvantaged pupils. These pupils are educated either in (a) programmes at ISCED 2C level (for details see chapter 2), or (b) in the same programmes as other pupils provided their health condition allows this (while the conditions and methods are adjusted to their disability), or (c) in specially adjusted programmes (mostly prolonged by one or, at most, two years). Pupils who require special pedagogical care and above-the-standard support measures may be educated in special schools and special programmes.

The school director may give his/her consent concerning an **individual educational plan** for various pupils with special learning needs. The position of assistant to the teacher has been introduced in order to assist these pupils.

In order to support the education of pupils with social disadvantages and pupils from different socio-cultural backgrounds, particularly the Roma community, who are most at risk of dropping out of the education system, school, civic associations and other organisation provide, with the support from MŠMT, various **complementary educational programmes**. Depending on the level of social need these pupils may obtain an individual contribution to cover some costs related to education.

Moreover, schools and school facilities set up **conditions for the development of pupils' talents** by means of extended teaching of certain subjects or groups of subjects. Pupils involved in sporting activities may be entitled to a different schedule of education. Moreover, the school director may permit individual study plans for pupils with exceptional talents. A pupil with exceptional talents may, based on a request by his/her parent or legal guardian, be transferred to a higher grade without the need to complete the previous grade.

3.2 Curricula

Educational provision at *střední odborné školy* (SOŠ - secondary technical schools) and *střední odborná učiliště* (SOU – secondary vocational schools) is in line with curricular documents approved by the *Ministerstvo školství, mládeže a tělovýchovy* (MŠMT – Ministry of Education, Youth and Sports). Curricula for healthcare programmes are approved in agreement with *Ministerstvo zdravotnictví* (Ministry of Health). The secondary education of healthcare personnel is regulated by the law on healthcare non-medical professions and by other legal regulations. Curricula are divided according to levels and fields of education. Specific curricula may fall within the purview of *Ministerstvo obrany* (Ministry of Defence), *Ministerstvo vnitra* (Ministry of the Interior) and *Ministerstvo spravedlnosti* (Ministry of Justice). They are delivered by schools that are set up by these ministries.

There is a **separate curriculum for each field of education**. Schools may develop their own curricula which may be implemented after they have been approved by the MŠMT. This opportunity is mostly made use of by private or denominational schools.

MŠMT has delegated the responsibility for the development and continuous innovation of curricular documents to the *Národní ústav odborného vzdělávání* (NÚOV – National Institute for Technical and Vocational Education), which also provides methodological assistance to schools and various entities (e.g. groups of schools) which intend to present to MŠMT their own curriculum for approval.

When developing curricular documents, information collected by so-called “**field groups**” operating at the NÚOV is used. They consist of representatives of schools and social partners, particularly employers. There are currently 25 “field groups” covering all fields of VET. Around 270 experts are involved in these “field groups”. A draft curriculum is submitted to the MŠMT for approval. Necessary changes in curricula are discussed with other experts from industry, representatives of employers and professional associations, or the relevant ministries. In the process of developing curricular documents attention is also paid to labour market needs. The curricula reflect the knowledge gained from labour market research and the situation of school leavers research. They also reflect professional requirements for the performance of various occupations which are set out in the Integrated System of Typical Positions.

There is continuous innovation taking account of the development in various branches. Curricula are updated at least once in 10 years, in some cases three times in a decade. In the course of the 1990s most curricular documents were innovated as a result of social and economic changes.

The new schools law introduces a **new system for the development of curricula** which differs considerably from the existing one, as it consists of two stages (framework curricula and school-based curricula). Schools are supposed to implement this new method of curricula development stepwise from 2006/2007 (see chapter 1.1 – The progress of curricular reform).

3.2.1 Content and delivery

The principal curricular document which has a nation-wide validity is the ***Standard of Secondary Vocational Education and Training*** (of the year 1998), which sets out generally valid requirements concerning the objectives and content of secondary VET. These requirements are binding for all those who develop curricula. They are differentiated in terms of:

- levels of education – i.e. secondary education with a vocational certificate (ISCED 3C) and secondary education with “maturita subject areas” (ISCED 3A),
- various fields of education in VET – e.g. mechanical engineering, agriculture, electrical engineering, etc.

The Standard sets out **requirements** as regards: general education, basic vocational and technical education (for various fields) and key competencies. It also defines the

proportions of general and vocational education. The ratio in vocational programmes with a vocational certificate is at least 30:70 in favour of the vocational component, and in programmes with “maturita” it is at least 45:55. This ratio is not identical in all years and all programmes. Recently, there has been a trend, particularly in VET programmes with “maturita”, towards strengthening general education due to the expansion of the teaching of languages and ICT. Moreover, basic knowledge of economics is increasingly considered to be part of general education.

In line with this standard NÚOV or schools themselves develop curricula for various fields of education. Each curriculum normally includes a graduate profile, a study plan and subject syllabi.

Schools may adjust the curricula (or their parts) in line with the relevant rules so that they are more in compliance with the educational conditions and needs of the specific school. Schools may change the **study plan** up to 10 % of the overall number of teaching periods, allocate the subject matter in various subjects to individual years, or to change the content of **subject syllabi** (up to 30 %).

General education in all curricula involves Czech language and literature, a foreign language, mathematics, civic education, physical education and ICT. The curricula for “maturita” programmes also include history. In programmes leading to a vocational certificate selected themes from history are part of civic education. Natural sciences are included in compliance with the field of education. All curricula include the subject “business”, provided that it is not part of vocational education (e.g. in business programmes). The scope and content of the teaching of individual general subjects are differentiated in terms of levels of education and VET needs in the specific area (e.g. stronger demand for the knowledge in mathematics and physics in mechanical or electrical engineering). General subjects also contain selected subject matter that supports the vocational education and training of students (e.g. language teaching includes exercises in professional written and spoken production, the reading of professional texts, the use of vocational terminology, etc. History may include information about the history of the relevant field, and mathematics may include applications).

Vocational education places emphasis on broad vocational knowledge and skills, particularly in programmes providing secondary education with “maturita” (ISCED 3A) and preparing students for the performance of middle-level technical, business and similar jobs. In programmes providing training for manual jobs vocational education is more focused on preparation for the specific jobs or related jobs. Vocational education includes theoretical knowledge and practical skills. Practical skills are acquired by means of exercises in technical classrooms, laboratories and workshops, and by means of work placements or practical training.

Work placements (on average 6 – 8 weeks in the course of the programme) are part of curricula which prepare students for middle-level technical/business and similar functions (ISCED 3A). Work placements take place either on a continuous basis as part of classes, or in blocks (full weeks). Work placements are implemented in school facilities (either a school farm or workshop), and in a real working environment – in companies and institutions. The proportions of theory and practice and the scope of placements vary depending on the programme. Organisation of work placements is the **responsibility of the school**.

Practical training is part of curricula for programmes preparing students for manual occupations (ISCED 3C). It accounts for 30-45 % of instruction (around 30 % in four-year programmes with “maturita” and 35-45 % in three-year programmes leading to a vocational certificate). It takes place in school workshops, practical training centres, or in authorised companies (possibly small business owner’s premises).

Some schools take different approaches to the acquisition of practical skills on the part of their students. These include small student firms (real or fictitious). In 2004, 13 % of secondary technical and SOU employed these methods.

In compliance with the Standard of Secondary Technical and Vocational Education curricula also set out requirements for the development of **key competencies** (i.e. communication and social competencies, work with information and ICT, problem solving, application of mathematical procedures). There is a new element concerned with subject matter Introduction to the world of labour, which aims to prepare students for entering the labour market and taking an active approach to their employment and career development. It is a cross-curricular issue and it is incorporated into various subjects.

It can be inferred from the above that there is a trend towards expanding the component of general education in the curricula by means of including more general subject matter into instruction, as well as key (transferable) competencies which facilitate employability in a wider range of positions and better preparedness for continuing education and lifelong learning.

Curricular documents only set out the objectives and content of education. The choice of teaching and student assessment methods is up to the director and teachers. Traditional teaching methods still prevail, although an increasing number of schools apply new methods that are more focused on students, their independent work, teamwork and, possibly, project teaching and student projects.

3.2.2 Assessment

General requirements concerning student assessment are determined by MŠMT. The requirements as regards the assessment of students’ behaviour and their results in individual subjects are set in the school’s assessment regulations which are subject to approval by the school council. Assessment is carried out by teachers. However, there is a growing trend towards peer assessment and students’ self-assessment.

There are various ways of **continuous assessment** of learning outcomes (written, oral or practical examinations, independent work, projects, etc.), which are derived from the content and focus of the relevant subject.

Students get a school performance report twice a year. The report most often contains marks, while in sporadic cases there may be verbal assessment (a combination of the two is also possible). If verbal assessment is provided, the learning outcomes must be described so as to make clear what level the pupil has achieved in view of the objectives and his/her capacities. The report also provides an overall assessment in line with MŠMT regulations. There are three levels of overall assessment: pass with honours, pass and fail.

Student achievements in individual subjects are assessed using a five-grade scale (1-excellent, 5-fail). The student's behaviour is assessed using three grades: 1-very good, 2-satisfactory, 3-non-satisfactory. A student who failed in a subject (or in two at most) can take a remedial examination. Those pupils who passed in all compulsory subjects (as set out in the curriculum) in the second term of the school year may progress to a higher year.

Final assessment takes place in front of an examination board and takes the form of either a final or "maturita" examination. The methods and conditions as regards completion of secondary VET, as well as the content, organisation and assessment of various types of examination, are set by legislation. However, the examinations are not standardised in terms of graduate requirements. The examination boards are composed of teachers of the relevant school and of other schools with a related focus. Participation of an expert from industry in the board is obligatory for programmes leading to a vocational certificate, in other cases it is recommended by law. The final and "maturita" examinations are assessed using a scale of 1 to 5, as in the case of continuous assessment. An examination is considered to be passed successfully when none of its components receives a fail mark.

All **final examinations** (in ISCED 3C programmes) are entirely or largely designed to test the performance of the student in the vocational component of the programme. The "**maturita**" examination (ISCED 3A programmes) also contains a component designed to test student performance in general subjects (it is currently compulsory to take "maturita" in the Czech language and either mathematics or a foreign language – the decision is up to the student). Examinations always consist of a written, oral and practical part.

In view of the existing drawbacks in assessment – particularly the non-existence of student performance assessment standards - **new regulations** concerning completion of studies are being developed (see chapter 1.1). The regulations should be in place from 2007/2008.

3.2.3 *Quality assurance*

Evaluation of schools and assurance of the quality of education are carried out both by means of self-evaluation, and by means of external evaluation by the *Česká školní inspekce* (ČŠI – Czech School Inspectorate). The results of a school may also be evaluated by its **founding body**. The ČŠI is an administrative body with a nationwide scope of operations. It identifies and evaluates the situation, implementation and outcomes of education provided by schools, their compliance with school-based curricula and the appropriate relationship between framework and school-based curricula. The ČŠI also monitors and evaluates the efficiency of the education system. It makes sure that legal regulations are being observed and that public resources are spent in an efficient manner. It examines suggestions, complaints and petitions which fall within its remit.

Self-evaluation of schools is carried out in line with regulations and deadlines determined by MŠMT. Self-evaluation results form a basis for the development of an annual report about the school's activities, and also serve as background material (among other things) for external evaluation by the ČŠI.

The quality of vocational training including work placements and practical training in companies is assured by the school. The content of vocational training is set out in the

relevant curricula. Evaluation of the quality of vocational training is carried out in co-operation with the company where it takes place, and by the ČŠI as part of its inspection activities. There is one teacher in each school responsible for the content, implementation and evaluation of the quality of vocational training. The teacher is regularly in contact with the workplaces where practical training takes place and together with the practical training teachers / practical subject teachers and practical training instructors assesses the quality of vocational training.

3.3 Learning outcomes

Successful completion of all years of studies (i.e. “pass” – the student does not get a “5” mark in any subject) is a precondition for the student to take a final or “maturita” examination and achieve the relevant certificate. The fact that it is not possible to recognise successfully completed education if the student fails in the final or “maturita” examination remains to be a problem.

3.3.1 Qualifications / certification

Graduates of IVET programmes acquire an **initial vocational qualification** depending on the level and branch of education. The qualifications acquired in VET at upper secondary level correspond to the following levels of education.

Secondary education (without a vocational certificate and “maturita”)

Those who complete this education (1-2-year programmes at ISCED 2C level, 3-year programmes without a vocational certificate at ISCED 3C level) acquire a certificate of a final examination. However, this does not entitle them to continue studying (not even at post-secondary level). They normally perform less demanding manual jobs.

Secondary education with a vocational certificate

Graduates who passed a final examination acquire secondary education with a vocational certificate” and a qualification for the performance of the relevant manual or related occupation (ISCED 3C). Successful passing of the final examination involves successful passing of a practical examination and a theoretical examination in vocational subjects. Graduates receive a certificate of a final examination and a vocational certificate. They may either enter the labour market or continue studying in follow-up programmes (ISCED 4A).

Secondary education with “maturita”

Graduates who passed a “maturita” examination acquire “secondary education with “maturita” (ISCED 3A) and a qualification for the performance of the relevant middle-level

technical, business and similar jobs or occupations depending on the programme they studied. Successful passing of the “maturita” examination involves successful passing of all partial examinations including a theoretical and practical examination in vocational subjects. Successful passing of “maturita” is documented by a “maturita” certificate. Graduates achieve a so-called “double” qualification – i.e. they may enter the labour market or seek admission to studies at tertiary level. A “maturita” examination at a conservatoire (ISCED 3B) is governed by different rules.

The certificates mentioned above are not legally binding in terms of the performance of specific occupations (except the regulated ones) – it is up to the employer to decide on the requirements concerning the level and branch of education of his/her employees. In spite of this, the labour market usually requires the relevant level and field of education. (see chapter 1.3)

3.3.2 Progression and transition

Students dropping out before completion of the programmes

At present there are not official statistics as to the number of secondary school students who have dropped out of the educational process. This problem is assessed using the data obtained during implementation of the first stage of a project within the EQUAL initiative which involved 20 secondary schools across the Czech Republic (CR) providing two-, three- and four-year programmes. Other data were obtained by means of detailed questionnaires used in schools in Moravskoslezský region. Data from classroom records and statistics were also used. Based on these data the following secondary school drop-out figures have been estimated for the CR:

The proportion of students at risk of failing to complete the relevant educational programme

Programme	Proportion of students at risk *	
	Males	Females
Two-year programmes for students who failed to complete the ninth year of basic school	17.7 %	12.5 %
Three-year programmes with a vocational certificate	1.5 %	0.9 %
Four-year programmes with “maturita”	1.9 %	0.8 %

* Share in the total number of students – males or females

Source: NÚOV.

In reality the shares of students who fail to complete three- and four-year programmes at *střední odborné školy* (SOŠ – secondary technical schools) and *střední odborná učiliště*

(SOU – secondary vocational schools) are higher than those presented in the table. The table does not include students who have been transferred, within one school, to a related programme at a lower level. According to calculations, these students account for some 4 % of the total number of students.

These figures are not alarming and it seems the CR should not face problems meeting the Lisbon conclusions, in which EU member states have committed themselves to reducing the proportion of drop-outs below 10 % until 2010. In spite of this, the situation is not satisfactory as this limit is exceeded in some types of education. This concerns particularly two-year educational programmes.

Destinations of graduates of upper secondary education

Graduates of educational programmes providing secondary education with a **vocational certificate** (ISCED 3C) achieve a qualification for the performance of manual occupations and most of them enter the **labour market**. Out of these about 26 % fail to find employment and become unemployed one year after completion of the school. Their situation improves in the following years, 5 years after completion of school less than 14 % are unemployed. (see table below) Those who find a job often perform occupations that differ from those for which they were trained (almost 40 % of the graduates). This is not only due to the lack of suitable employment opportunities. More often this is due to bad remuneration and working conditions or to the fact that they failed to find the relevant job in the place of their residence.

Unemployment of school leavers 1 and 5 years after completion of school

Rate of unemployment among school leavers (%)		
	1 year after completion of school	5 years after completion of school
Vocational and technical education - average (ISCED 3C, 3A)	22.7 %	10.1 %
of which: - with a vocational certificate (ISCED 3C)	26.1 %	13.6 %
- with “maturita”(ISCED 3A)	19.8 %	6.7 %

Source: Calculations of NÚOV according to Labour Force Survey 2003 (ČSÚ).

Graduates of three-year programmes with a vocational certificate can **continue studying** in follow-up programmes (ISCED 4A). By means of this they either enhance their vocational qualification or achieve knowledge necessary for entrepreneurship. At the same time, they achieve a higher level of education (secondary education with “maturita”) which makes it possible for them to study at tertiary level. Follow-up programmes are attended by almost 25 % of graduates with a vocational certificate and some 70 % complete them successfully. After completion they work as highly qualified workers or heads of various operations.

Graduates of programmes providing secondary education with a “**maturita**” examination (ISCED 3A) acquire a qualification for the performance of middle-level jobs in technical fields, business, agriculture, healthcare and other areas. At the same time, they are prepared for **entering tertiary education**. Out of the graduates with “maturita” (they account for some 40 % of the relevant age group) over one half continue studying at tertiary level - some 20 % of them are admitted to *vyšší odborné školy* (VOŠ – higher professional schools) and the remaining 80 % study bachelor or master study programmes at higher education institutions.

Graduates of secondary vocational education with “maturita” who enter the **labour market** find employment more easily compared to those with a vocational certificate. About 20 % of graduates with “maturita” become unemployed one year after completion of the school, five years less than 7 %. (see table above) Again, there is a large proportion of those who find jobs different from those for which they were originally trained. The reasons are basically the same as in the case of graduates with a vocational certificate, although in this case there is a higher proportion of those who did not want to study their branch in the first place.

Qualification requirements for the jobs taken by graduates of IVET largely correspond to the level of education achieved. If graduates are overqualified for a particular job, it is normally for a temporary period of time during which they acquire the necessary practical skills. After some time their jobs improve.

Preparation of Graduates for Entering the Labour Market

Since 2000 the subject matter related to **introduction to the world of labour** has been gradually integrated into secondary school programmes. The main objective is to provide students with the most important knowledge and skills related to their employability, and to equip them with competencies that help them make education and career-related decisions. In most cases the subject matter is included into the relevant subject syllabi in all years. It is up to the school director to decide on the ways of incorporating these issues into the subjects. He/she takes account of the links between the content of the Introduction to the World of Labour subject area and the content of the relevant subjects, as well as human resources and other school conditions.

Career counselling services

Labour offices co-operate with schools mainly as regards career counselling issues. Labour offices organise meetings and discussions for students, and arrange for them to visit information and counselling services at labour offices. The quality of the co-operation is dependent to a large degree on the quality of the educational counsellor employed by the school and on the scope of information the students have acquired as part of the “Introduction to the World of Labour” subject.

There are *Pedagogicko-psychologické poradny* (pedagogical-psychological counselling centres) in all districts. They employ qualified psychologists who assist students in addressing education-related problems, and carry out pedagogical-psychological examinations and help

students decide on their professional orientation. They also provide methodological assistance to teachers and educational counsellors in schools, and to psychologists in school educational facilities. The emphasis of the work of the counselling centres is gradually shifting from diagnostic to therapeutic methods.

There is still an insufficient number of **educational counsellors** in schools (one per school). Moreover, they also have to teach and therefore cannot devote all their working time to counselling.

At present there are still insufficient **links between IVET and employment**. At SOŠ this issue is only addressed by means of work placements, at SOU part of practical training takes place in a real working environment. Work placements organised by SOŠ are short, and the practical training in a real working environment organised by SOU is absolutely insufficient (particularly as regards technical disciplines).

The links between teaching and a real working environment will be supported as part of curricular reform. The proportion of work placements in SOŠ study plans will increase (in programmes where the proportion amounts to less than 4 weeks during the studies). Moreover, the proportion of practical training in a real working environment in SOU programmes will be extended. The envisaged strengthening of the role of social partners should help schools arrange for work placements or practical training at the real workplace.

Programmes supporting integration of graduates into the labour market

Individual action plans

An individual action plan (IAP) constitutes one of the labour offices' techniques designed to enhance the employability of a job seeker and to prevent long-term unemployment. Labour offices are obliged, as part of the "First Chance" scheme, to offer the development of an IAP to individuals aged up to 25 and graduates of *vysoká škola* (VŠ – higher education institution) within two years of successful completion of studies (up to the age of 30). If the client refuses an IAP, he/she is taken out of the job seekers registry.

An IAP is developed on the basis of co-operation between the counsellor and the client. The objective is to find a match between the client's wishes and labour market needs – i.e. between the client's working potential (competencies, skills) and employer requirements. To this end there is a questionnaire where the client states his/her interests. The IAP identifies the progress of and time schedule for implementation of individual measures. It is normally concluded in writing. The counselling process consists of 3 stages. In the first stage the client uses self-service information and counselling instruments. In the second stage an individual interview takes place (individual capacities are identified, the applicant formulates his/her ideas). This is followed by counselling and educational activities which include: individual counselling, group counselling, motivation courses, retraining courses, completion of studies at public schools, and career-related diagnostics. The third stage consists in a final evaluation, and, in the event of continuing unemployment, specific measures are suggested for the client to find a job.

Contribution for on-the-job introductory training

A contribution for on-the-job introductory training is one of the new instruments of an active employment policy which has been introduced by law no. 435/2004 on employment. A labour office may, based on an agreement, provide a contribution to an employer who employs a job seeker who receives more intensive care. This category also involves young people up to 25 and graduates of VŠ within 2 year of successful completion of studies (up to the age of 30). A maximum period of time during which the contribution is provided is 3 months, and its level may amount to a half of the minimum wage at most.

Socially purposeful jobs

“Socially purposeful jobs” constitute one of the instruments of an active employment policy. Employers may, based on an agreement with the labour office, create jobs that are filled by job seekers who cannot find any other employment. The labour office may provide a subsidy for these jobs. As regards young people up to 25, the job creation agreement may include a requirement that an individual action should be developed and practical experience organised.

Retraining

Another instrument of an active employment policy is the retraining of registered job seekers and individuals interested in finding employment. The objective of retraining is to acquire a new qualification or to enhance the existing one. Retraining may take the form of special educational programmes designed for young people up to 25, or for graduates of VŠ within 2 years of completion of studies (up the age of 30).

Programmes targeted to address unemployment

Employment-related problems may also be addressed by means of targeted programmes designed to enhance employability of those interested. There may be such programmes not only at national, but also at regional, district and municipal levels. However, so far there have only been limited opportunities for implementing these programmes, and their wider use by young people and graduates seeking to address employment issues is expected in the future.

4 APPRENTICESHIP TRAINING

“Apprenticeship training” as specified in a definition used in the European Union does not exist in the Czech Republic (CR).

Vocational qualifications that are partially comparable with this type of vocational training may be acquired at *střední odborné učiliště* (SOU – secondary vocational school). Upon successful completion of these programmes pupils acquire secondary education with a vocational certificate (ISCED 3C) – see chapter 3.

5 OTHER YOUTH PROGRAMMES AND ALTERNATIVE PATHWAYS

Young people may also acquire vocational skills outside the system of formal education in schools. This education involves, above all, **education as a leisure activity, “post-maturita” courses and retraining programmes.** There are no statistics for monitoring youth participation in these programmes.

Leisure education

Various forms of **“leisure” education** are provided, for example, by language schools. Other private and public institutions deliver programmes developing various talents (artistic, sporting, etc.).

Post-maturita courses

Students who have completed secondary school with “maturita” and have not been admitted to studies at tertiary level can undergo “post-maturita” language courses offered by language schools. Most schools which provide these courses offer a choice of one out of two main languages (English and German). There are about 20 hours of teaching of the main language. Those interested may choose an additional language or other subjects. Recent graduates of secondary schools do not lose their entitlement to student social allowances – i.e. their social and health insurance continues to be paid by the state, and they still enjoy various student discounts. Upon completion of the courses the student gets a **certificate of completion**, or may even take one of the examinations leading to internationally recognised certificates. Full-time “post-maturita” courses **last one year** and students pay tuition fees. Language schools must have their courses accredited by *Ministerstvo školství, mládeže a tělovýchovy* (MŠMT – Ministry of Education, Youth and Sports).

Retraining programmes

Individuals who have left the education system without a qualification and become unemployed, and job seekers registered at labour offices, can undergo retraining. Retraining programmes constitute one of the measures of an active employment policy and are organised by the relevant labour offices. The objective of retraining is to acquire a new, or enhance existing, qualifications.

Retraining is implemented based on an agreement between the labour office and the job seeker. The costs of retraining are covered by the labour office. The average length of retraining courses is about two months.

Two basic types of retraining have gradually developed:

- **specific (targeted)** – i.e. a change in the existing qualification designed to acquire specific theoretical knowledge and practical skills for a new job. It is mostly derived from specific labour market needs and is often accompanied by a promise of employment;

- **non-specific** – i.e. designed to increase employability mainly among graduates of secondary schools and higher education institutions by means of acquiring competencies that are commonly and constantly required by the labour market.

The outcomes of accredited retraining courses are **formally recognised**. Recognition of retraining courses is regulated in the law on employment¹³ which authorises MŠMT to issue the relevant decree and to **carry out accreditation of retraining facilities and courses**. This means that the responsibility for retraining is shared by *Ministerstvo práce a sociálních věcí* (MPSV – Ministry of Labour and Social Affairs) and the MŠMT. The MPSV, together with labour offices which fall within its purview, are responsible for **the development of retraining programmes**, while the accreditation commission at MŠMT is formally responsible for their accreditation, including the decision on the nature, function and legal validity of the certificates issued.

Those who complete accredited retraining courses obtain a formally recognised **certificate** of a qualification with nationwide validity, which, however, is not equivalent to certificates achieved in the formal education system. So far it has not been possible to give formal recognition to partial qualifications which, if accumulated, could lead to the acquisition of a certificate recognised in formal education. Acceptance of retraining certificates by the labour market is therefore not always ensured – it depends on the will of employers and on the quality of the education.

¹³ Zákon č. 435/2004 Sb. o zaměstnanosti [*Act No. 435/2004 on employment*].

6 VOCATIONAL EDUCATION AND TRAINING AT POST-SECONDARY (NON-TERTIARY) LEVEL

At present the only form of VET at post-secondary level is so-called **follow-up courses** (ISCED 4A).

Follow-up courses constitute an important element in the education system promoting transferability between educational pathways. The general purpose is to open up a path for graduates of three-year vocational programmes which lead to a vocational certificate (ISCED 3C) and prepare qualified manual workers for the acquisition of a more advanced education (secondary education with “maturita”). This both facilitates access to tertiary education and provides a broader range of employment opportunities (in positions requiring secondary education with “maturita”).

Follow-up courses may be delivered by secondary schools which provide secondary education with “maturita” in the relevant field. Follow-up studies last two years (full-time attendance).

The number of graduates of vocational courses who seek to complement their education in follow-up courses is growing. In 2002/2003 the **proportion of new entrants in follow-up studies** out of the overall number of graduates of three-year vocational programmes in the previous year was 27.4%. However, around one third of those admitted do not complete their studies (especially men). (see Statistical Annex, Table 10.5) A large number of students in follow-up courses follow other than full-time studies (in 2002/2003 there were 48.4 % students in the first year in other forms of study).

The programmes “Entrepreneurship in the Field” and “Entrepreneurship in Technical Occupations” are most in demand. These programmes provide the business-oriented training necessary for entrepreneurship. Students in follow-up courses focused on entrepreneurship account for some 40 % of all students in these courses.¹⁴

6.1 Admission requirements

The primary requirement for admission to follow-up courses is the **completion of a three-year vocational programme and acquisition of secondary education with a vocational certificate**. Admission proceedings to follow-up courses are similar to those at secondary schools. The school director may decide that an entrance examination will be part of the proceedings. One of the basic admission criteria is performance in previous education.

¹⁴ Vojtěch, J., Festová, J., Sukup, R.: Vývoj vzdělanostní a oborové struktury žáků ve středním a vyšším vzdělávání v ČR a v krajích ČR a postavení mladých lidí na trhu práce 2003/04 [*The Development of Level and Field Structures of Students in Secondary and Higher Professional Education in the CR and in Czech Regions, and the Position of Young People in the Labour Market 2003/04*], NÚOV, Praha 2004.

Applicants are admitted to follow-up courses on the condition that the vocational programme they have completed (and in which they have acquired a vocational certificate) is in the same or a related field. For example, an individual who holds a vocational certificate as a “baker” may be admitted to a “maturita” course in “food technology/flour processing” (similarly: tailor – clothing, electrician – electrical engineering).

Decisions on admission are the responsibility of the schools director who takes account of the results of admission proceedings. The total number of students admitted to follow-up courses at a particular school is regulated by a limiting number set by the school’s founding body.

6.2 The curriculum

There is a separate curriculum **for each field of education**. The curricula cover **two to three years** depending on the form of study (**full-time, evening, self-study with part-time lectures**). Apart from these forms of study, the new Schools Act makes it possible to take a **distance or combined form** of study (full-time + evening or self-study with part-time lectures). Based on the new Schools Act there will be a change in the system of educational programmes and curricula. Until now there has been a **separate system of programmes** for follow-up studies, whereas from 2006, in line with the law, it will only be possible to organise follow-up studies in those fields where secondary education with “maturita” is available (i.e. in four-year programmes) and in schools which provide these programmes.

The curriculum in follow-up programmes follows on from the curriculum of three-year programmes with a vocational certificate in the relevant field and complements it so that it corresponds to secondary education with “maturita”. There is both vocational and general education (the ratio is approximately 55:45). The vocational component contains more theory as compared to the three-year programmes, and places more emphasis on intellectual rather than manual skills, and develops organisational and management skills. In addition to vocational knowledge, there is a focus on enhancing business and management knowledge and ICT skills, including special SW. The necessary skills are developed by means of practical exercises within individual subjects at school, or by means of work placements in companies.

The educational programmes have, until now, been designed centrally and **approved** by MŠMT, in a similar manner to the curricula for other types of secondary VET. According to the new Schools Act the curricula will be designed by schools as school-based curricula (see chapter 1.1). School-based curricula will be derived from framework curricula adjusted for the relevant programme providing secondary education with “maturita”.

The quality of education in follow-up courses is ensured in the same way as in secondary schools (for details see chapter 3.2.3). External evaluation is carried out by the *Česká školní inspekce* (ČŠI – Czech School Inspectorate). Schools conduct self-evaluation.

6.3 Learning outcomes

Follow-up courses are completed by a “**maturita**” examination under the same conditions that apply to other (four-year) programmes providing this type of education. Evidence of completion of the studies and the qualification acquired is a “maturita” certificate. Graduates who have passed “maturita” acquire, apart from secondary education with “maturita”, a qualification for the performance of **middle-level technical, business and other activities or occupations in the relevant field, or for the performance of demanding manual occupations in the field**. Most graduates enter the labour market directly. They may also seek admission to studies at tertiary level (in *vyšší odborná škola* (VOŠ – higher professional schools) or higher education institutions).

7 VOCATIONAL EDUCATION AND TRAINING AT TERTIARY LEVEL

Education at tertiary level in Czech Republic (CR) is not divided into vocational (professional) and academic. Tertiary education is considered to provide graduates at various levels with the opportunity of entering the labour market or continuing education at another level – either immediately after graduation or after some time. It is necessary to meet the entry requirements for the relevant level of tertiary education. Tertiary education is provided by *vyšší odborné školy* (VOŠ - higher professional schools) (ISCED 5B) and *vysoké školy* (VŠ - higher education institutions) (ISCED 5A, 6). Education at VOŠ is governed by Schools Act no. 561/2004 on pre-school, basic, secondary, higher professional and other education. Education at VŠ is fostered by Law no. 111/1998 on higher education institutions.

Studies at *vyšší odborná škola* (VOŠ – higher professional school)

VOŠ were introduced into the education system of the CR as a separate qualification level of education in 1996/97. The insufficient capacity of higher education institutions led to an attempt to introduce a so-called binary model of tertiary education, which at that time was operating in a number of European countries. The aim was to make tertiary education accessible for a larger part of the population than before.

VOŠ were set up in the CR from 1993 as an experiment within a Phare project. In 1995 “post-maturita” courses at *střední odborná škola* (SOŠ – secondary technical schools) were abolished and the legislation in place made it possible for the schools providing them to introduce higher professional studies. However, what followed was a rather spontaneous development of higher professional education – in terms of the number of schools, their size, programme structure and regional distribution.

Most VOŠ were set up as part of SOŠ. Only a small number of them had an independent legal status. In 1996/97 higher professional education was provided by 158 schools. In subsequent years their number increased only slightly. In 2003/04 their number stabilised at 165. The bodies responsible for their administration are **regions** (approx. 68 % of VOŠ), **churches** (7 %) and **private organisations** (almost 25 %).

Some VOŠ, particularly private ones, accredited their studies as bachelor programmes and were granted state permission to operate as private higher education institution **of a non-university type** (see below). So far there has only been one public non-university VŠ that has been converted from a former regionally-administered school. Accreditation of study programmes carries the same demands for all entities, but a public VŠ may only be set up by law. This is one of the reasons why most non-university VŠ are private.

VOŠ develop and enhance the knowledge and skills of graduates of secondary education with “maturita”. They provide general and vocational education and practical training for a **qualified performance of demanding professional activities**. The length of full-time higher professional programmes is 3 years including a work placement, for the sick-nurse programme it is 3.5 years. In addition to full-time studies, higher professional programmes may have the structure of various forms of part-time education (evening studies, self studies

with part-time lectures, distance studies, combined studies). These forms are allowed to take at most one year longer than full-time programmes. Upon successful completion of these programmes, graduates acquire a qualification recognised by the labour market. VOŠ often offer programmes in a field that no VŠ provides, or they are located in places (districts) where there is no VŠ or faculty.

Higher professional education has a strong practical focus and contains both theory and practical training. Practical training is organised either at school or in the form of work placements in companies. The studies are completed by an “**absolutorium**”, consisting of a theoretical examination in vocational subjects, a foreign language and the defence of a thesis. “Absolutorium” must be undertaken within five years of successful completion of the final year of the programme. Graduates can use the title *diplomovaný specialista* DiS (specialist with a diploma) which is not an academic title. Academic titles may only be awarded by VŠ.

Recognition of prior education acquired by VOŠ students is up to the relevant school director. The director recognises a qualification provided that the student documents its acquisition by presenting the relevant certificate or proves this in some other way. The director may also recognise a part of a qualification under the same conditions as for a full qualification, provided that no more than 10 years have passed since the student undertook this part of his/her education or if the student proves the relevant knowledge in an examination. The examination is set by the school director. Based on his/her recognised educational qualifications, the student is exempted from attending some or all classes and from the relevant assessment.

Higher professional studies (ISCED 5B) are not recognised as equivalent to Bachelor studies at VŠ (ISCED 5A), and “absolutorium” at a VOŠ does not give a graduate a right to apply for Master studies following from a Bachelor programme. VOŠ do not undertake research and students are therefore not trained to combine studying with research activities.

Public VOŠ are the only type of public school which collect tuition fees (regulated). The level of tuition fees is set by a *Ministerstvo školství mládeže a tělovýchovy* (MŠMT – Ministry of Education and Sports) decree for various field of education. The fees per year range from 2,500 CZK (approx. 83 EUR) to 5,000 CZK (approx. 167 EUR).

Employers got to know VOŠ graduates relatively quickly and accept them for their good professional knowledge and skills, the capacity to adjust quickly to job requirements and their language skills. The **rate of unemployment** among them remains lower than the average unemployment rate for school leavers in general. In 2003 the average rate of unemployment for all school leavers was 15 %, whereas for VOŠ leavers it was only 10.6 %¹⁵.

Higher education

VŠ in the CR are divided into institutions of a university and non-university type. **University type of VŠ** may provide all three levels of higher education – Bachelor (ISCED 5A), follow-up Master (ISCED 5A), so-called “long” Master programmes (ISCED 5A) and Doctoral

¹⁵ Festová, J.: Nezaměstnanost absolventů škol se středním a vyšším odborným vzděláním – 2004 [*Unemployment Among Graduates of Secondary and Higher Professional Schools - 2004*], Tab. 4.2, Tab. 5.1, NÚOV, Praha 2004.

programmes (ISCED 6). Long Master programmes are not divided into Bachelor and Master programmes – namely in medicine, dental medicine, veterinary medicine and some others. In connection with the type of study programme provided, VŠ carry out scientific, research, development, artistic or other creative activities which are considered to form an integral part of their operations.

Non-university type of VŠ provide predominantly Bachelor study programmes (ISCED 5A), but may also provide Master programmes (ISCED 5A) and, in connection with them, research, development, artistic and other creative activities. This type of VŠ is not divided into faculties. Non-university VŠ do not have a long tradition in the CR, as their establishment was made possible by the 1998 Law on VŠ.

VŠ of both types may be **public, state and private**. In 2003/2004 there were 56 VŠ¹⁶ in the CR, of which 24 were public, 28 private and 4 state institutions (under the remit of the Ministry of Defence and the Ministry of the Interior).¹⁷ Higher education is free of charge, but VŠ may set fees for (a) admission proceedings, (b) studies in excess of the standard length plus one year, (c) a programme delivered in a foreign language, (d) studies in an additional Bachelor or Master programme for graduates of Bachelor or Master programmes. Private VŠ collect tuition fees. The number of VŠ students has roughly doubled since 1989. In the academic year 2003/2004 there was a total of 274 192 students at VŠ in the CR, of which 4.8 % studied at private VŠ¹⁸.

In the 1990s the provision of HE institutions underwent further differentiation. In 1998 study programmes at private VŠ (mostly Bachelor – ISCED 5A) were set up. Most VŠ (there are currently 119 faculties¹⁹) have gradually been introducing a new study structure: Bachelor (3-4 years, ISCED 5A), Master (2-3 years, ISCED 5A) and Doctoral programmes (3 years, ISCED 6). Compared to 1990, the structure of VŠ is very diverse.

In line with the Bologna process²⁰ it is required that graduates of Bachelor programmes should be ready to enter the labour market and, at the same time, be prepared for further studies any time after graduation. There is a similar requirement from Master programmes. Diversification of studies aims in the direction of tertiary education, making it possible for each individual to set out on an educational pathway that suits his/her capacities, aptitudes, means and career prospects. It also facilitates the reduction of study failure.

The relationship between the academic environment (VŠ) and the labour market is typically somewhat distant. VŠ fails to respond flexibly enough to labour market needs and requirements. One of the reasons for this is the low rate of unemployment among individuals with VŠ degrees. In 2003 the overall rate of unemployment was 7.8 %, while it was only 2.2 % for people with VŠ qualifications.²¹ The rate of unemployment among VŠ graduates was 6.9 % in 2003.²² Reinforcing co-operation between VŠ and companies was the objective

¹⁶ This is the number of schools providing the studies. The number of registered schools may be higher as some schools have not yet launched their programmes.

¹⁷ Source: Statistická ročenka školství 2003/2004 – výkonové ukazatele [Statistical Yearbook on Education 2003/2004 – Performance Indicators], Tab.F1.1, ÚIV, Praha 2004.

¹⁸ Calculations based on: Statistická ročenka školství 2003/2004 – výkonové ukazatele [Statistical Yearbook on Education 2003/2004 – Performance Indicators], Tab. F1.1, ÚIV, Praha 2004.

¹⁹ Source: Statistická ročenka školství 2003/2004 – výkonové ukazatele [Statistical Yearbook on Education 2003/2004 – Performance Indicators], Tab.F1.1, ÚIV, Praha 2004.

²⁰ The CR signed it in 1999.

²¹ Source: Statistická ročenka ČR [Statistical Yearbook of the CR], Tab.10-15, ČSÚ, Praha 2004.

²² Source: Krajská ročenka školství 2003 [Regional Yearbook on Education 2003], Tab.E2T6, ÚIV, Praha 2004.

of a number of projects, development programmes and targeted activities of the MŠMT (primarily focused on technical VŠ). In the future, co-operation between VŠ and companies and the private sector, as well as support for the employability of VŠ graduates, will be supported, among others, by the European Social Fund.

Participation in tertiary education

At VŠ there were a total of 274,192 students in the academic year 2003/2004, and VOŠ were attended by 30, 681 students, which is 10.5 % of all students in tertiary education (absolute numbers of students in tertiary education according to age and gender – see Statistical Annex, Table 10.6). The proportion of VOŠ graduates out of the total number of graduates of tertiary programmes was 14 % in 2002/2003.²³

Participation of the 19-25 age group in tertiary education

1996	2000	2003
13.5%	15.7%	20.3%

Source: ÚIV.

The growth of the indicator is the consequence of growing numbers of students at VŠ and VOŠ, but also of the declining demographic curve.

7.1 Access requirements

Studies at *vyšší odborná škola* (VOŠ – higher professional school)

According to the schools law, admission proceedings to VOŠ are exclusively the **responsibility of the school director**. Applicants are required to have completed secondary education with “maturita” and to meet the relevant admission requirements and show the required capacities, knowledge, interests and health condition.

All individuals who have met **the basic statutory requirement** (i.e. secondary education with “maturita”, ISCED 3A) have the right to file an unlimited number of applications for higher professional studies and to undergo admission proceedings which do not discriminate against any applicant. There are no restrictions as regards the selection of an VOŠ programme by the applicant.

There are no restrictions regarding the age and the previous education of the applicants for higher professional studies. However, graduates of vocational programmes at secondary level normally go on to higher professional education with the same focus. The network of VOŠ is broad and their provision diverse. Some programmes are provided only in regions where there are good conditions for the arrangement of work placements and in terms of the vocational specialisation. For example, the VOŠ specialising in fisheries is in Jihočeský

²³ Own calculations according to the Statistická ročenka školství 2003/2004 – výkonové ukazatele [Statistical Yearbook on Education 2003/2004 – Performance Indicators], ÚIV, Praha 2004.

region which is characterised by many lakes and a rich tradition of fish farming. These schools are open to applicants from across the Czech Republic (CR). The location where the student undergoes his/her work placement is mostly determined by the school which has a contract for work placements with the relevant legal entities or individuals.

In the academic year 2003/2004 a total of 24, 339 individuals applied, and 15, 507 were admitted - i.e. 63.7 %. The proportion of those admitted out of the number of those who actually turned up for the admission proceedings is 72.5 %.²⁴ Of the overall intake number 23 % were graduates of *gymnázia* and 73.9 % of *střední odborná škola* (SOŠ - secondary technical school) and *střední odborné učiliště* (SOU – secondary vocational school) leavers.²⁵

The tackling of difficulties related to admission to studies is up to each individual. VOŠ offer **preparatory courses** for applicants where they may improve or complement their knowledge and skills so that they are better prepared for admission examinations. VOŠ also offer **complementary courses** to students (optional subjects). These are primarily designed for those students whose previous education was not fully compatible with the VOŠ specialisation. Attendance at these courses is at the students' discretion.

Recognition of learning gained in prior education is, for example, possible when transferring to VOŠ from *vyšoká škola* (VŠ – higher education institution) or from another VOŠ. It is exclusively the responsibility of the school director (see above). Students in other than full-time studies (evening studies, self studies with part-time lectures, distance studies, combined studies) often get their work placement recognised. These are mostly students who work in the relevant field. There are not yet mechanisms in the CR for the recognition of non-formal and informal learning.

In the course of studies VOŠ students can transfer to another VOŠ, change the programme, suspend studies (for a maximum of two years), or repeat a year. They must apply for the above in writing. Decisions on these matters are at the discretion of the school director.

VOŠ do not have programmes specifically designed for the disabled. Only those applicants whose health condition is assessed by a physician as suitable for the studies are admitted. Specific needs of applicants are addressed on an individual basis. The school director may approve, based on a request in writing, an individual study plan for students with special learning needs, special talents or in other justified cases.

The school director may also grant various financial allowances to students from socially disadvantaged backgrounds. In the case of public VOŠ, where regulated tuition fees are paid, the amount may be reduced to as low as 50% of the fee set. Moreover, students may be granted achievement-related scholarships based on the school's regulations. The scholarship regulations are issued by the school director based on the consent of the school's founding body.

Studies at *vyšoká škola* (VŠ - higher education institution)

²⁴ Source: Statistická ročenka školství 2003/2004 – výkonové ukazatele [*Statistical Yearbook on Education 2003/2004 – Performance Indicators*], ÚIV, Praha 2004, calculations based on Tab.E1.6.

²⁵ Source: Statistická ročenka školství 2003/2004 – výkonové ukazatele [*Statistical Yearbook on Education 2003/2004 – Performance Indicators*], ÚIV, Praha 2004, calculations based on Tab.E1.7.

Access to both Bachelor (ISCED 5A) and “long” Master study programmes (ISCED 5A) is conditional upon **completion of secondary education with a “maturita” examination**. “Maturita” is considered to be of equal status regardless of the type of programme and facilitates access to tertiary education. There is an exception regarding arts programmes where students may be admitted without “maturita”. The same is true of students who completed a conservatoire programme (and gained a higher professional qualification), but do not have secondary education with “maturita”.

Each VŠ or faculty may set additional entry requirements. These may concern specific knowledge, capacities, aptitudes or secondary school record²⁶, and are specifically defined. The VŠ or faculty is obliged to provide information about the form and general content of entry requirements and the assessment criteria²⁷. An **entry examination** is often part of admission proceedings, mostly taking the form of a test of knowledge, and/or essay and/or interview. Almost all VŠ take the applicant’s secondary performance record into consideration. Each VŠ also sets intake figures. Admission proceedings, including the entrance examination, is exclusively the responsibility of each VŠ or faculty.

Admission to a Master programme (ISCED 5A) which follows on from a Bachelor programme (ISCED 5A) is conditional upon completion of a Bachelor study programme. There may be an additional requirement concerning the similarity of the focus of the programmes or the number of credits²⁸ acquired in specific subjects. If the student decides to continue studying a Master programme at another VŠ where he/she completed Bachelor study programme, the VŠ often requires that an entrance examination be passed.

The difficulty of admission proceedings is considerably influenced by the nature of the studies and, particularly, by the number of applicants. The number of applicants for higher education (HE) studies in 2003/2004 was 117, 544, whereas only 69, 582 of them were admitted (i.e. 59.2 % of those who applied, but 64% of those who turned up for the admission proceedings)²⁹. Of those admitted, 44 % were *gymnázia* graduates, 48.7 % of SOŠ and SOU leavers³⁰. Applicant numbers are therefore high – they are twice as high as the number of study places. The numbers are also considerably affected by the fact that applicants also involve those who already study at an institution which they originally did not want to attend (but who are still studying there at the time of the admission proceedings).

There are no restrictions on the number of applications for VŠ studies an individual can file. Neither is age a limiting factor. However, in terms of entitlement to social allowances there is a limit of 26 years³¹. It is up to each applicant to overcome potential obstacles to admission – i.e. successful passing of the entry examination. Many VŠ and various private organisations organise paid “**preparatory courses**” for applicants, where they may enhance their knowledge and skills so that they are able to pass the entry examinations.

²⁶ Zákon č. 111/1998 Sb. o vysokých školách [Law no. 111/1998 on higher education institutions], Article 49, paragraph 1.

²⁷ Zákon č. 111/1998 Sb. o vysokých školách [Law no. 111/1998 on higher education institutions], Article 49, paragraph 5.

²⁸ A credit is a study load expressed in quantitative terms.

²⁹ Source: Statistická ročenka školství 2003/2004 – výkonové ukazatele [Statistical Yearbook on Education 2003/2004 – Performance Indicators], ÚIV, Praha 2004, calculations based on Tab.F3.6.

³⁰ Source: Statistická ročenka školství 2003/2004 – výkonové ukazatele [Statistical Yearbook on Education 2003/2004 – Performance Indicators], Tab.F3.9, ÚIV, Praha 2004.

³¹ For example, students aged 26 and older must pay health and social contributions. Before they turn 26, this is covered by the state.

Recognition of prior learning is possible – for example when a student transfers from another VŠ or VOŠ, and it is fully within the purview of the relevant VŠ or faculty. The Czech VŠ system still lacks mechanisms for recognition of non-formal and informal learning outcomes.

Students at VŠ may be provided with scholarships from the institution's resources in line with the scholarship regulations. The regulations are set by each VŠ in line with its preferences and financial means. Scholarships are provided to all students who meet the relevant requirements laid down in the regulations. Their provision and amount is normally linked to the study performance and social background of the student.

In view of the CR's area and population there are some programmes only delivered by one VŠ – e.g. veterinary or military ones.

7.2 Curricula

Studies at *vyšší odborná škola* (VOŠ – higher professional schools)

The curricula of each VOŠ are approved by the *Ministerstvo školství, mládeže a tělovýchovy* (MŠMT – Ministry of Education, Youth and Sports). Higher professional studies have a **strong professional focus**. Even general subjects, such as foreign languages or ICT, are professionally focused. Professional training is complemented by **work placements** where students test their theoretical knowledge at the workplace in companies, from which students also draw the topic of their graduate thesis.

VOŠ curricula are either traditional (consisting of subjects) or modular. Many schools use credits to give weight to the study load (always in line with the European credit transfer system).

Schools develop draft curricula based on the relevant field of education and labour market requirements. They are mostly designed by a team of teachers, often in co-operation with employers. The draft curriculum must contain³²: (a) the graduate profile – targeted knowledge, competencies and skills, (b) employment opportunities for graduates – a list of professional tasks or professions for which the graduate is prepared, (c) characteristics of the study programme – objectives, features, organisation of teaching, admission requirements, (d) definition of the scope and form of theoretical training, consultation hours, self-study and other educational methods for each form of education, (e) the content broken down into subjects (or modules) or other integrated parts of the particular subject matter, and their division into compulsory, optional/compulsory and optional subjects, (f) a study plan with allocation of teaching hours per subject (module) and a weekly division of the subject matter into various periods of academic year, (g) the content of subjects (modules) including work placements and proposals of companies where work placements will take place, (h) assessment methods for various subjects, identification of subjects (modules) which will be part of the “absolutorium”.

³² Vyhláška ze dne 27. prosince 2004 o vyšším odborném vzdělávání, Sbírka zákonů č. 10/2005 [Decree of 27 December 2004 on higher professional education, Collection of Laws no. 10/2005].

The draft curriculum is assessed by the *Akreditační komise* (AK – Accreditation Commission). The AK members are appointed and dismissed by the MŠMT. It is composed of representatives of *vysoká škola* (VŠ higher education institution), VOŠ and industry. Based on a statement of the AK which evaluates the curriculum in terms of content and professional quality, the MŠMT grants accreditation for a period which is double the standard length of the programme (i.e. 6 or 7 years). Accreditation may be prolonged repeatedly. Accreditation of curricula for healthcare programmes is conditional upon the consent of *Ministerstvo zdravotnictví* (Ministry of Health), and *Ministerstvo vnitra* (Ministry of the Interior) must give its consent to accreditation of curricula for programmes concerned with security services.

The MŠMT does not grant accreditation if the draft curriculum does not contain all the requisites, if its content is not in line with the objectives and principles laid down in the schools law, or if the AK have submitted a negative report.

The structure of VOŠ programmes in terms of focus is very diverse and responds flexibly to labour market requirements. VOŠ in the Czech Republic (CR) offer 188 study programmes in 46 fields of education. Most students are in business programmes. In 2003/04 these students accounted for some 27 % of all VOŠ students. Technical programmes were studied by 23 % of students, humanities by 13 % of students, 8 % study healthcare programmes and some 7 % were in programmes concerned with agriculture/forestry, ecology and environmental protection.

The quality of higher professional education is assured by means of 3 mechanisms: (1) external evaluation is carried out, in line with statutory requirements, by *Česká školní inspekce* (ČŠI - Czech Schools Inspectorate). It evaluates the conditions, progress and results of education against the accredited curriculum. The relevant evaluation criteria are set by the MŠMT and made public. Inspection is carried out based on a plan for the relevant year³³ and based on suggestions, complaints and petitions; (2) **internal evaluation** of VOŠ is fully the responsibility of the school director who establishes control mechanisms, compliance criteria and the use of evaluation results. He/she is also responsible for assuring the quality of the educational provision. The school council³⁴ is also involved in the evaluation. The council, apart from other duties, comments on draft curricula and their implementation; (3) evaluation of the curricula is the statutory obligation of the **AK**, which assesses the quality of the curriculum in connection with an application for accreditation or its prolongation (see above).

Studies at *vysoká škola* (VŠ - higher education institution)

VŠ provide accredited **Bachelor, follow-up Master, “long” Master and Doctoral programmes**. They may be studied either in a regular daily form, in a distance form or in a combination of the two. Study programmes are developed and submitted for accreditation by the relevant VŠ or by an institution which intends to deliver the programme in co-operation

³³ The plan is proposed by the head of the Schools Inspectorate and approved by the Minister of Education.

³⁴ The number of the members of a school council is determined by the school's founding body. The body appoints one third of the members, one third are elected by students and one third by the VOŠ pedagogical staff.

with the VŠ. Accreditation is awarded by the MŠMT on the basis of a statement of the accreditation commission. Members of the AK are appointed by the government based on a proposal by the MŠMT. There are separate AK for VOŠ and VŠ. Accreditation is granted for a period at most double the length of the standard duration of studies, and for at most ten years for Doctoral programmes. Accreditation may be repeatedly prolonged.

A draft study programme presented to the AK for approval must contain³⁵: (a) the name of the programme, the type, form and objective of studies, (b) the breakdown into subjects, (c) characteristics of the subjects, (d) the rules and conditions related to the development of study plans, the length of a work placement, if applicable, (e) the standard length of studies in academic years, (f) the requirements the student must meet during and at the end of the studies, including the content of state examinations, (g) the academic degree awarded, and (h) a list of programmes in the same or related area where the student may continue studying.

The AK issues a statement based on the evaluation of the relevant study programme quality. The MŠMT does not grant accreditation if the study programme is not in line with general requirements stipulated in the law on VŠ, if it does not provide evidence of the availability of human, material, information-related, financial and technical resources, or if the VŠ cannot guarantee that it is able to deliver the programme properly. Another reason for rejection is incorrect data in the application or a negative report from the AK.

In line with the law on VŠ, a **Bachelor study programme** (ISCED 5A) is primarily designed to prepare graduates for various occupations and for continuing in studies of Master study programmes. The standard length of a Bachelor programme is at least three and at most four years. A **Master study programme** (ISCED 5A) is focused on the acquisition of theoretical knowledge based on the current state of science, research and development, on its practical application and on the development of creative skills. In arts it is focused on demanding artistic activities and the development of talents.³⁶ The standard length of a Master programme which follows from a Bachelor programme is at least two and at most three years.³⁷ In those cases where the nature of the study programme so requires, accreditation may be granted to a Master study programme which does not follow from a Bachelor programme – a so-called “**long**” **Master study programme**. The standard length of such programmes is at least four and at most six years. A **Doctoral study programme** is focused on scientific research and independent creative activities in the area of research and development, and on independent theoretical and creative activities in arts³⁸. The standard length is three years.

The introduction of a **three-level study structure** is a demanding and long process. The Bologna process envisages that this should become reality by 2010. The law on VŠ made it possible to implement structured studies from as early as 1990. The specific levels of HE were appropriately and accurately formulated in the law on VŠ of 1998, which supported the restructuring of study programmes in line with the Bologna process. The original hesitation on the part of VŠ and a formal approach in terms of just dividing up “long” Master

³⁵ Zákon č. 111/ 1998 Sb. o vysokých školách (*Law no. 111/1998 on higher education institutions*).

³⁶ Zákon č. 111/ 1998 Sb. o vysokých školách (*Law no. 111/1998 on higher education institutions*), Article 46, paragraph 1.

³⁷ Zákon č. 111/ 1998 Sb. o vysokých školách (*Law no. 111/1998 on higher education institutions*), Article 46, paragraph 2.

³⁸ Zákon č. 111/ 1998 Sb. o vysokých školách (*Law no. 111/1998 on higher education institutions*), article 47, paragraph 1.

programmes has gradually been changing. There are a number of examples showing that VŠ pay a lot of attention to programme restructuring, and they are beginning to communicate with prospective employers of their graduates and accept their requirements concerning the content of study programmes for various levels of education.

Higher education may be provided as full-time studies, as distance studies (self studies with individual consultation) or as a combination of the two. The most frequent form is full-time studies. The new concept of distance studies was introduced as late as the 1990s. The distance studies (or combined studies) are only possible at some faculties, and in most cases this method does not cover the entire length of the studies but only a certain part. In 2003/2004 the proportion of VŠ students in distance and combined studies out of the total number of VŠ students was 20.6 %.

There are two principle methods of instruction in Bachelor and Master study programmes – **lectures and practicals**. Doctoral programmes are implemented in compliance with an individual study plan under the guidance of a supervisor. Many study programmes include a **work placement**. This is carried out in establishments which pursue long-term close co-operation, in line with special regulations, with the VŠ or a faculty (e.g. clinical and practical training in medicine, pharmacy and other healthcare disciplines takes place in faculty hospitals), or in facilities which conclude a contract on student work placements with the relevant VŠ or faculty (e.g. work placements of teachers-to-be are implemented at basic and secondary schools, in pre-school facilities, etc.). In most other disciplines there are various ways of carrying out work placements. Their length, position within the programme and the places where they are conducted differ, depending on the relevant field of study. There may even be different work placements in the same field of study provided by different faculties. In many cases the introduction of work placements is viewed as a big problem, in other cases co-operation with companies is very good, in view of the fact that they even assist students in writing their papers during studies and later Bachelor and Master thesis. This makes it possible for companies to select their future employees, and students have a chance to get used to the environment and prepare for their future employment. In any case, work placements form a much discussed important component of many study programmes.

Evaluation of the quality of public and private VŠ is fostered by the law on VŠ which commands VŠ to carry out regular evaluation of their activities and to publish the results in an annual report. A detailed description of **internal evaluation**, i.e. the definition of the content, conditions and frequency of the evaluation, must be set out in Long-Term Plans³⁹ which schools develop for a period of five years, update annually and discuss with the MŠMT. There are differences between institutions as to the level of comprehensiveness of their internal evaluation systems. Some VŠ provide for evaluation by means of a decree issued by the rector. They have a uniform methodology for evaluation of all study programmes and commissions for various programmes. They may carry out surveys among students, graduates, etc.

External evaluation is carried out by the AK which conducts a comprehensive evaluation of educational, scientific, research, development, artistic and other creative activities on the part of both public and private VŠ. It also publishes the results⁴⁰. If there are shortcomings

³⁹ The full name is the Long-Term Plan for Educational, Scientific, Research, Development, Artistic or Other Creative Activities of Higher Education Institutions.

⁴⁰Zákon č. 111/1998 Sb. o vysokých školách (*Law no.111/1998 on higher education institutions*), Article 84, paragraph 1.

ascertained in relation to the implementation of accredited activities, the AK may suggest partial or full suspension or revocation of accreditation. The AK normally focuses at one particular moment on evaluation of faculties which have the same or similar focus⁴¹.

VŠ are also interested in external evaluation carried out by foreign and Czech experts and international organisations, and evaluation required as a condition of membership of various prestigious associations⁴². One obstacle to this type of external evaluation being implemented more often is the need for the relevant financial resources. Some VŠ also monitor the press and assess articles concerning their institution.

The MŠMT declares its interest and support⁴³ for better co-ordination of internal and external evaluation, and for greater involvement of students and the professional public in internal and external evaluation respectively (public evaluation of Master and Doctoral theses and papers as part of associate professorship proceedings), as well as of other stakeholders (employers, professional associations, etc.).

7.3 Learning Outcomes

Studies at *vyšší odborná škola* (VOŠ – higher professional school)

Graduates of higher professional programmes acquire a diploma and are entitled to use the title of “diplomovaný specialista” in the relevant field (DiS). The acquisition of a higher professional qualification facilitates direct access to the labour market. In order to achieve the qualification the student must complete all three (or 3.5) years of study and pass all prescribed examinations and an “absolutorium”. Graduates of VOŠ often head directly for employment or apply for higher education studies. VOŠ also provide continuing vocational education in the form of short courses where graduates may innovate and update the knowledge and skills acquired in their prior studies.

Studies at *vysoká škola* (VŠ - higher education)

The studies in Bachelor and Master study programmes are completed by a **state final examination** one component of which is the **defence of a Bachelor / Master (diploma) thesis** (although the defence of a Bachelor thesis is not necessary, VŠ or faculties require it). Programmes in medicine, veterinary medicine and hygiene are completed by a so-called *státní rigorózní zkouška* (state rigorous examination). State examinations are taken in front of an examination board. Members of the board must be professors, associate professors or experts approved by the scientific council of the relevant VŠ or faculty, and renowned experts appointed by the *Ministerstvo školství, mládeže a tělovýchovy* (MŠMT – Ministry of Education, Youth and Sports) .

⁴¹ For example in 1998 evaluation of all business faculties was carried out, in 1999 all medical faculties and in 2004 all faculties of theology were evaluated.

⁴² For example, at the Economics University evaluation was conducted in 1998 on the basis of which the institution was admitted as a member of the prestigious association of European business schools CEMS.

⁴³ Strategie rozvoje terciárního vzdělávání 2000-2005 [*Strategy for the Development of Tertiary Education 2000 – 2005*], MŠMT, 2001.

Graduates of **Bachelor study programmes** acquire the title of “bakalář” – Bachelor (Bc.), or “bakalář umění” – Bachelor of Arts (BcA.). Graduates of arts programmes who were admitted without “maturita” are only awarded this title after they complete secondary education with “maturita” or acquire a higher professional qualification at a conservatoire.

Graduates of **Master study programmes** acquire the following academic titles: “inženýr“ - Engineer (Ing.) in economics, engineering and technologies, agriculture, forestry and military disciplines; “inženýr architekt“ – Engineer Architect (Ing. arch.) in architecture; “doktor medicíny“ – Doctor of Medicine (MUDr.) in medicine; ”zubní lékař“ – Doctor of Dental Medicine (MDDr.) in dental medicine, “doktor veterinární medicíny“ – Doctor of Veterinary Medicine (MVDr.) in veterinary medicine; “magistr umění“ – Master of Arts (MgA.) in artistic disciplines; and “magistr“ - Master (Mgr.) in other areas.

After having acquired the academic title of “Master” it is possible to take a state “rigorous” examination in the same field. It also involves the defence of a “rigorous” thesis. Upon successful passing of the examination the following academic titles are awarded: JUDr. in law, PhDr. in humanities, pedagogical and social sciences, RNDr. in natural sciences, PharmDr. in pharmacy and ThLic. or ThDr. in theology.

The studies in **Doctoral study programmes** are completed by a state doctoral examination and the defence of a dissertation. Upon successful passing of the examination the academic degree “doctor” – Doctor (Ph.D.) is awarded, and “Doctor of Theology” (Th.D.) in theology.

8 LIST OF ABBREVIATIONS

AK	Accreditation Commission
CR	Czech Republic
ČŠI	Czech School Inspectorate
ČSÚ	Czech Statistical Office
EQUAL	Community Initiative
EU	European union
HE	higher education
VŠ	higher education institution
VOŠ	higher professional school
HRD	human resources development
ICT	information and communication technologies
ISA	Information System on the Situation of School Leavers in the Labour Market
ISCED	International Standard Classification of Education
ISTP	Integrated System of Typal Positions
IVET	initial vocational education and training
MŠMT	Ministry of Education, Youth and Sports
MPSV	Ministry of Labour and Social Affairs
NVF	National Training Fund
NOZV	National Observatory of Employment and Training
NÚOV	National Institute for Technical and Vocational Education
RHSD	Council for Economic and Social Agreement
RISA	Regional Information System on the Situation of School Leavers in the Labour Market
SOŠ	secondary technical school
SOU	secondary vocational school
ÚIV	Institute for Information on Education
UOE	Database of UNESCO, OECD and EUROSTAT
VET	vocational education and training
VÚP	Research Institute of Education in Prague

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www.vuppraha.cz

10 STATISTICAL ANNEX

10.1 Lower Secondary IVET

Reference year 2002/2003							
	Age						
	Total	12 and less	13	14	15	16	17 and more
Male	484	x	x	x	18	92	374
Female	439	x	x	x	28	98	313
Total	923	x	x	x	46	190	687

Absolute number of participants

Source: ÚIV.

10.2 IVET at Upper Secondary Level: School-Based and Alternance

Reference year 1995/96								
	Age							
	Total	14 and less	15	16	17	18	19	20 and more
Male	281 769	26 539	61 829	72 591	58 068	28 712	9 650	24 380
Female	265 797	24 048	57 356	68 251	58 507	31 088	8 987	17 260
Total	547 266	50 387	119 185	140 842	116 575	59 800	18 657	41 640

Source: ÚIV.

Reference year 1999/00								
	Age							
	Total	14 and less	15	16	17	18	19	20 and more
Male	184 240	3 424	28 610	50 792	56 005	31 813	8 826	4 770
Female	163 064	1 833	24 829	44 098	48 962	28 344	8 522	6 476
Total	347 304	5 257	53 439	94 890	104 967	60 157	17 348	11 246

Source: ÚIV.

Reference year 2001/02								
	Age							
	Total	14 and less	15	16	17	18	19	20 and more
Male	206 812	12	25 938	54 561	55 196	43 339	18 382	9 384
Female	182 050	1	25 885	45 831	46 662	38 166	15 455	10 050
Total	388 862	13	51 823	100 392	101 858	81 505	33 837	19 434

Source: ÚIV.

10.3 Apprenticeship training

neni

10.4 Other Youth Programmes and alternative pathways

neni

10.5 Vocational education and training at post-secondary level (non-tertiary)

Reference year 2002/03													
	Age												
	Total	17 and less	18	19	20	21	22	23	24	25	26 - 29	30 – 35	36 and more
Male	20 602	18	2 554	5 844	2 416	1 011	639	630	618	537	3 122	3 213	x: 30-35
Female	18 210	11	3 445	3 770	3 460	1 079	439	377	408	512	1 974	2 735	x: 30-35
Total	38 812	29	5 999	9 614	5 876	2 090	1 078	1 007	1 026	1 049	5 096	5 948	x: 30-35

Source: ÚIV.

10.6 Vocational education and training at tertiary level

Reference year 1995												
	Age											
	Total	17 and less	18	19	20	21	22	23	24	25	26 - 29	30 and more
Male	101 950	21	10 040	19 720	18 639	15 639	12 769	9 000	4 930	3 054	6 686	1 466
Female	89 654	23	9 579	19 346	17 725	13 739	10 508	7 052	3 665	1 823	4 600	1 594
Total	191 604	44	19 619	39 066	36 364	29 369	23 272	16 052	8 595	4 877	11 286	3 060

Source: ÚIV.

Reference year 2000												
	Age											
	Total	17 and less	18	19	20	21	22	23	24	25	26 - 29	30 and more
Male	117 472	21	8 206	16 446	18 898	18 354	16 596	12 867	8 578	5 507	7 586	4 413
Female	121 001	32	8 313	16 867	19 630	18 377	15 853	12 330	8 576	5 781	9 327	5 915
Total	238 473	53	16 519	33 313	38 528	36 731	32 449	25 197	17 154	11 288	16 913	10 328

Source: ÚIV.

Reference year 2002/03												
	Age											
	Total	17 and less	18	19	20	21	22	23	24	25	26 - 29	30 and more
Male	131 790	132	2 432	14 116	23 495	19 267	17 137	15 564	11 683	8 052	13 940	5 972
Female	136 260	153	1 519	17 633	24 653	20 990	17 867	15 352	11 180	7 233	13 011	6 699
Total	268 050	285	2 951	32 249	48 648	40 257	25 004	30 916	22 863	15 285	26 951	12 641

Source: ÚIV.