

**Knowledge Management System  
Theme 4**

**Initial Vocational Education and Training**

**Slovakia**

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**with support of  
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This background study was prepared for the eKnowVet database of the European Centre for the Development of Vocational Training (Cedefop). There are in total 11 themes in the database broken into detailed topics (the so-called islands). The study served as a basis for a more precise analysis of Theme 4 – Initial Vocational Education and Training. Respective paragraphs and references in the text are coded in accordance with respective codes of the database. These codes are applied by the member states, and the visitors of <http://www.trainingvillage.gr>, button National VET Systems, can find under them information about respective topics across Europe.

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**Legal definition**

There is no legal definition of initial vocational education and training in Slovakia. Legislation is institution based and as a consequence only institutions providing initial VET are mentioned and their activities further regulated by law. Thus, secondary specialised school (SOŠ, stredná odborná škola), secondary vocational school (SOU, stredné odborné učilište), are traditionally legally recognised providers of IVET compared to grammar school (G, gymnáziá) representing the general stream of education. Thus, usually, however not correctly, IVET is reduced to the educational programmes offered by this kind of upper secondary level schools. This reduction is better understandable due to the fact that there is no traditional apprenticeship in Slovakia. There is a variety of opinions concerning tertiary education. Some refuse to consider it as vocational, others consider all programmes of tertiary education belonging to IVET and some experts would disagree, considering only those programmes leading to clearly identified professions (e.g. medical doctor, electrical engineer) as IVET and not diverse humanity related study programmes.

There are four points of view traceable among experts:

1. Legalistic: Initial education and training is considered vocational provided it is declared by law;
2. Institutional: Initial education and training is considered vocational provided it is offered by institutions which declare the delivery of vocational education and training within their mission statement;
3. Instrumental: Initial education and training is considered vocational provided it leads to officially recognised qualifications bound to specific professions;
4. Pedagogical: Any kind of initial education and training is considered vocational provided it is aimed at acquiring specific knowledge, skills and attitudes required explicitly by respective vocations.

In contrast to the first three more or less legislation-linked concepts, the fourth approach is education/learning process-based indicating that vocational skills could be adopted regardless of the training provider's legislative characteristics (e.g. within grammar school lessons in chemistry containing work in the laboratory).

The first two approaches are typical for officials and administrators, the fourth for scholars and educators, while the third one is the common sense approach.

**Starting point of IVET**

Form the legalistic point of view IVET starts after completing nine years of basic school (ZŠ, základná škola); i.e. with the provision of ISCED 3A and ISCED 3C education at SOŠ, SOU, and associated secondary schools (ZSŠ, združená stredná škola), recently originating from the merging of SOŠ and SOU. This is the mainstream case.

There are some marginal exceptions. A dance conservatoire provides integrated lower and upper secondary education and its students on the lower secondary level are considered to be acquiring ISCED 2A IVET education. ISCED 2C IVET is offered at vocational schools for special education needs (SEN) students (OU, odborné učilište) with mental handicaps and in practical schools (PŠ, praktická škola) for SEN students with limited training ability. The

other kind of exception is related to low achievers from ZŠ who may enter ISCED 2C training at vocational school (U, učilište) even without completing a lower secondary education.

Of course grammar schools graduates could start with IVET at secondary schools offering post-secondary ISCED 4 level studies or within tertiary education.

From the pedagogical point of view as explained above, IVET starts with developing respective skills and without any doubts at least regarding the subject Technical Education (technická výchova) offered in Grades 5 to 9 of ZŠ is aimed at the provision of IVET related knowledge, skills and attitudes.

From a legalistic point of view the typical age of students entering IVET is 15. From a pedagogical point of view there is no typical age unless the age of 10, when children are introduced to the subject Technical Education, which could be considered the start of systematic IVET.

### **Main pathways**

Here are the main pathways (HEI – higher education institution):

- I. ZŠ – G – HEI or post-secondary IVET programmes at upper secondary schools or labour market entry;
- II. ZŠ – SOŠ (ISCED 3A except very rare ISCED 3C cases) - HEI (usually technical universities) or labour market entry or post-secondary IVET programmes at upper secondary schools;
- III. ZŠ – SOU (typically ISCED 3C, but also ISCED 3A) – labour market entry or post-secondary studies (e.g. leading to ISCED 3A if not acquired within previous VET) and more rarely HEI in case of ISCED 3A graduates.

An associated secondary school could stand within three paths above instead of SOŠ and/or SOU.

### **Qualifications**

Qualifications can only be obtained at the secondary and tertiary levels. Graduation from ZŠ as well as completing compulsory education of 10 years (usually ZŠ plus one year at secondary school) is not linked to awarding of qualifications.

ISCED 3C level graduates of SOU are awarded the certificate of apprenticeship (výučný list), which is considered a minimum level of education and training leading to marketable qualifications (usually nine years of ZŠ plus three years of secondary school). ISCED 3A graduates from SOŠ or SOU are awarded the “maturita” school leaving certificate (vysvedčenie o maturitnej skúške). The “maturita” school leaving certificate is traditionally considered a minimum level of education with a “higher status” and ISCED 3C graduates often enter two-year follow-up studies to obtain the “maturita” school leaving certificate.

According to Slovak legislation, ISCED 3C graduates achieve “secondary vocational education” (stredné odborné vzdelanie), while ISCED 3A graduates achieve “full secondary vocational education” (úplné stredné odborné vzdelanie). Full secondary education is considered in many cases a minimum level of education for the adoption of middle range job positions (and a precondition of a higher tariff wage in the public sector).

ISCED 2C graduates of U are awarded a certificate which is not considered a certificate of apprenticeship but only certifies the ability to perform simple operations, e.g. changing of motor oil or tires, but not providing qualification (e.g. as a self employed car mechanic).

Similarly certificates awarded to ISCED 2C graduates of special schools are not considered certifying qualification in contrast to ISCED 3A and ISCED 3C graduates of special SOŠ and SOU.

All post-secondary non-tertiary education programmes graduates are awarded certificates confirming a full secondary vocational education, except graduates of the so-called post-maturita specialising studies who are awarded “higher professional education” (vyššie odborné vzdelanie). Although rated ISCED 5B with regard to the content of education and training, these programmes are still not considered as tertiary education from the legislative point of view and therefore the graduates are not considered as tertiary educated.

Only graduates of higher education institutions, i.e. bachelors and masters are considered tertiary educated. Graduating from doctoral studies (PhD) is not considered to be higher than tertiary education and in general does not mean higher remuneration in the public sector except in teaching professions.

Nevertheless, a PhD degree is considered a minimum level signalling the highest grade in the scale (0-9) applied within the national classification of education levels (see 040103).

Providers of IVET

Schools based IVET is offered by the aforementioned kinds of schools, which can be state/public, church affiliated or private. Practical training for students could also be offered by centre of practical training (SPV, stredisko praktického vyučovania) or ad hoc agreed and usually low capacity offering workplace of practical training (PPV, pracovisko praktického vyučovania), which will be further subsumed under SPV. SPV offer practical training for students of SOU, if school based practical training is impossible or inappropriate. SPV could be also state, public, church affiliated or private.

Centre of professional practice (SOP, stredisko odbornej praxe) could offer the adoption of practical skills to students of SOŠ. In contrast to the case of SOU students where practical training is a systematic long-term event, professional practice for SOŠ is just a complementary event. SOP are considered institutions of the world of work offering opportunities for SOŠ students usually based on an agreement with school and the students on the provision of the practice in the number of days stipulated by the respective curricula.

The tables below offer absolute numbers and participation rates in 2000 and 2002 containing all ISCED 3 and all ISCED 4 vocational programmes of upper secondary and post-secondary non-tertiary levels, except those leading to higher professional education rated ISCED 5B, which are according to the UOE standard applied by the Institute of Information and Prognoses of Education (ÚIPŠ, Ústav informácií a prognóz školstva) included within tertiary non-university education statistics. UOE harmonised data broken by age is not available for 1990 and 1995.

***Absolute number of participants and participation rate in IVET (ISCED 3 + 4)***

<b>2000</b>									
<b>Age</b>									
	<b>Total</b>	<b>14 (and less)</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21 (and more)</b>
<b>Absolute number</b>									
<b>Male</b>	109 419	68	20 366	32 317	30 954	16 441	4 296	1 356	4 977
<b>Female</b>	102 437	70	18 701	29 262	28 954	15 049	4 446	1 565	5 955
<b>Total</b>	211 856	138	39 067	61 579	59 908	31 490	8 742	2 921	8 011
<b>Participation rate (%)</b>									
<b>Male</b>			45.61	71.95	67.94	35.90	9.41	2.90	
<b>Female</b>			43.62	67.75	66.72	34.51	10.06	3.51	
<b>Total</b>			44.63	69.89	67.34	35.22	9.73	3.20	

Source: Institute of Information and Prognoses of Education

***Absolute number of participants and participation rate in IVET (ISCED 3 + 4)***

<b>2002</b>									
<b>Age</b>									
	<b>Total</b>	<b>14 (and less)</b>	<b>15</b>	<b>16</b>	<b>17</b>	<b>18</b>	<b>19</b>	<b>20</b>	<b>21 (and more)</b>
<b>Absolute number</b>									
<b>Male</b>	118 462	11	17 998	31 021	31 990	22 733	8 161	1 670	4 813
<b>Female</b>	105 679	29	16 677	26 485	27 706	20 414	7 731	1 735	4 967
<b>Total</b>	224 141	40	34 675	57 506	59 696	43 147	15 892	3 405	9 780
<b>Participation rate (%)</b>									
<b>Male</b>			43.02	70.60	70.70	50.30	17.92	3.59	
<b>Female</b>			41.13	62.96	63.87	46.89	17.71	3.94	
<b>Total</b>			42.09	66.87	67.36	48.63	17.82	3.76	

Source: Institute of Information and Prognoses of Education

The comparison of 2000 and 2002 data indicates higher shares within the categories of older students in 2002. It is caused by the progress of the basic school reform - the three-year gradual expansion from the eight-year programme to the nine-year programme finishing in the school year 1999/2000. The gradual reduction of basic school leavers after eight years of education led to the increase in the 17 to 19 year old age categories visible in 2002.

The higher participation rate of males in VET compared to females is significantly visible in the younger categories due to the higher share of males in shorter ISCED 3C programmes that would be better visible in specific statistics of ISCED 3C programmes.

A higher share of participants in VET is a traditional feature of the Slovak (and former Czechoslovak) education system, originally set to prepare up to 60% of graduates within SOU and over 80% of secondary graduates within VET schools. Since the 1990s the share of general education (grammar schools) graduates has been gradually increasing (see 040102).

## **040101 Development of IVET**

### **Overall history of education**

Education and schools in the territory of Slovakia had been developing within Austro-Hungarian Empire, after the 1867 compromise leading to the autonomy of the Hungarian Kingdom, and predominantly influenced by Hungarian authorities. In contrast to the Hungarian liberal revolution ideas and the remarkable József Eötvös law from 1848, the stress put on education for all as a policy priority gradually weakened, and the quality of legislation as well as the quality of education deteriorated by the end of 19<sup>th</sup> century in comparison to the Austrian part of the dual monarchy. Before the dissolution of the Austro-Hungarian Empire, mass education in what is today Slovakia was very poor, partly due to the gradual substitution of other languages of instruction by the Magyar language, in particular since the 1870s. In 1918 in the first year of the newly established Czechoslovakia, the Slovak nation of over two million population had only about 300 Slovak speaking elementary and 20 secondary school teachers. As a consequence it was only possible to introduce the eight-year compulsory education in 1927. Hence, the vocational education and training that follows solid general education in developed institutionalised and massive form only dates back to the 1930s, and the 1940s for tertiary IVET. Slovakia as an independent state emerged in 1<sup>st</sup> January 1993. Nevertheless, there are some remarkable educational efforts from long ago that are worth mentioning.

### **VET history – tertiary level**

Since the 16<sup>th</sup> century, mining, metallurgy and machinery related technology developed with worthwhile acceleration in the 17<sup>th</sup> century in central Slovakia. The first documents about the organised training of specialists (the so-called expectants) are from the years 1605, 1632 and 1676 respectively. In the 18<sup>th</sup> century a two years programme of expectants with outlined curricula existed. On 6<sup>th</sup> August 1737, the mining school in Banská Štiavnica was established, which gradually developed into the first technically oriented higher education institute in 1770. Curricula from 14<sup>th</sup> April 1770 “Systema Academiae Montanae” specified three years of study followed by one year of practice, and completed by a practical exam and dissertation. At that time there were three departments at the academy – chemistry and mineralogy; mathematics and mechanics; and mining; in 1807 a department of forestry was added. This academy became well known internationally not only for the offered studies but also as an important research institution.

In the 18<sup>th</sup> century, the Collegium Oeconomicum was established in Senec as the first tertiary school focusing on some fields of economics, predominantly accounting, and aimed at the preparation of state administrators. It was established by the decree of Maria Theresia, Austro-Hungarian Empress dated 14<sup>th</sup> September 1763 and operated till 24<sup>th</sup> June 1776, when the building of school burnt down.

Although the first universities in the territory of Slovakia were founded in the 15<sup>th</sup> and 17<sup>th</sup> centuries (Academia Istropolitana in Bratislava in 1465, and Jesuit University in Trnava in 1635 and later moved to Buda in today’s Budapest, are worth mentioning), all of them were closed down and/or moved outside the territory of present-day Slovakia. The oldest existing HEI are Comenius University established in 1919, the Slovak Technical University originally established in 1937 and the School of Economics established in 1940; all of them are located in Bratislava.



## **VET history – lower than tertiary level**

Vocational education and training was traditionally linked to the activities of guilds and the first educational institutions appeared at the end of the 18<sup>th</sup> century. In 1783 Emperor Joseph II ordered the obligatory training of all apprentices in Sunday schools. At least one year of attendance at these courses became obligatory in 1786. Apprentices were almost exclusively practically trained and instruction in apprentice schools even at the turn of the 20<sup>th</sup> century lacked theoretical bases. In the 1917/1918 school year there were 95 apprentice schools (with 12 176 apprentices) offering three years of part-time training in evenings and on Sundays aimed at the provision of the knowledge and skills necessary for running small crafts.

In contrast to the mining, metallurgy and forestry areas there were no schools that could be considered predecessors of today's secondary specialised schools before the end of the 19<sup>th</sup> century.

The first secondary industrial school of machinery was established in 1872 by private initiative in Košice and gradually developed into a model public school. A metal processing school established in Bratislava in 1903 developed into the most important industrial school in modern Slovakia creating the basis for the development of further technical tertiary education (starting in the 1940s) by producing quality secondary educated students and teachers. Industrial schools were also established in Banská Štiavnica, Banská Bystrica and Prešov.

Commercial schools emerging by the end of 19<sup>th</sup> century offered three years programmes in the Magyar language in eight cities of what is now Slovakia. They were also very attractive for those interested in entering state administration positions.

There were no specialised Slovak speaking schools in Slovakia except for the so-called "repetitory schools" offering no more than five hours per week of practical instruction related to regionally important subject matter. Nevertheless, there were some quality specialised schools offering education in the Magyar language in forestry, winery and horticulture.

Worth mentioning is the establishment of the school in Liptovský Hrádok in 1796; it gradually developed into the Royal Chamber Forestry School, however it later declined to the lower status secondary school.

Between World War I and World War II the unification of the inherited education system in the newly founded Czechoslovakia was begun. People's vocational schools affiliated to municipality schools were established by Act 75/1920 Coll. in order to support the broadening knowledge and skills of poorly educated youngsters from predominantly rural areas. In addition, the following types of regular VET schools started to emerge:

- commercial schools of two forms
  - four year commercial academy;
  - two year commercial schools;

offering also one year courses, one year study programmes, and two years follow up programmes;

- industrial schools of three types
  - higher industrial schools offering four year studies completed by the "maturita" school leaving certificate;
  - master schools for already trained apprentices with two years of apprentice training completed by certificate of apprenticeship certifying graduates for individual trades; and

- sectoral vocational schools offering two or three years of training instead of traditional individual apprentice training in diverse crafts;
- agricultural schools of the following types
  - higher agricultural school offering four year programmes, whose graduates could apply for higher education;
  - farmer schools offering two year programmes specialising in cutlery and planting;
  - schools of horticulture with diverse specialisations offering one and two year study programmes;
- schools of forestry and wood processing offering four year and one year programmes.

In the 1937/1938 school year there were 20 commercial schools with 3 523 students and 224 teachers, 12 industrial schools with 1 945 students and 147 teachers.

Vocational schools for women's professions offering two years of study followed by one year higher women schools or other specialised schools, e.g. two year nursery schools, or in the institute for kindergarten teachers also existed. In the 1937/1938 school year there were 20 vocational schools for women professions with 1 631 students and 216 teachers.

While the structure of today's secondary specialised schools is visible in the development of the 1930s, modern secondary vocational schools still did not exist.

In the 1937/1938 school year, there were 131 apprentice schools with 13 427 apprentices and 1 074 teachers considered by law as regular schools offering VET, however aimed at complementing work and on the job training in the workshops of their employees. After the World War II these types of schools were gradually replaced by the vocational schools and school based training backed significantly by legislation from 1960; and further replaced by secondary vocational schools as a consequence of the 1976 educational reform.

The unification of curricula, the nationalisation of all schools, the further development of networks of schools and programmes including tertiary education and stressing the so-called polytechnic principle linking theoretical education with productive work in all segments of education, including general education, are characteristic for the period of the communist regime. The enhancement of former apprentice schools into regular secondary schools with remarkable investments were also typical. IVET in Slovakia is still strongly influenced by the former Czechoslovakian reform from 1976. There were three inhibitors of this reform.

The first one came from the atmosphere of global education reforms following the "Sputnik shock" – quite paradoxically, but understandable from the feeling of belonging to the Western world and from the similar recognition of endangered competitiveness.

Thus, the second one came from the reflection of the status of the society and the economy in the early 1960s resulting in the 1968 attempt to reform communism. Czechoslovakia, before the World War II one of the leading economies, recognised the unavoidable collapse of the communist experiment partly due its continuing inability to keep up with developments in technology. The necessity to cope with the "scientific and technological revolution" and to prepare a younger generation for it – this was typical rhetoric of the 1970s reform.

The third one came from a specific policy mix: the decision to promote workers' and farmers' children's access to secondary and even tertiary education over the children of unreliable intellectuals made responsible for 1968; the traditional Soviet style preference of "productive technical and natural science related studies" over "humanities", and from the serious

recognition of the importance of improving the quality of education and consequently the labour force as inevitable for a country without natural resources and where people were always recognised as the main asset.

The 1976 “New Concept of Education Reform” made IVET a core of the education system. Institutions training future blue-collar workers became a status of secondary schools - the secondary vocational schools (SOU, stredné odborné učilište) emerged. Besides two- or three-year training programmes many SOU started to offer four-year programmes finished by a highly appreciated “maturita” school leaving exam (maturitná skúška) and “maturita” school leaving certificate (vysvedčenie o maturitnej skúške). A three-tier model of secondary education - grammar school (G, gymnázium) providing general education, secondary specialised school (SOŠ, stredná odborná škola) providing predominantly theoretically based vocational education, and SOU providing predominantly practically oriented vocational education - created in the 1970s lasts till now despite criticism of the unequal quality of the “maturita” programmes, especially those offered by SOU.

The enhanced status of SOU was supported by massive investment into SOU facilities. In contrast to G and SOŠ, SOU with a projected 60% of the age cohort benefited from the affiliation with and financial support of large enterprises or respective sector headquarters. These so-called “complex” SOU mushroomed and provided campus style service including practical training in school workshops. Since that time the school-based practical training has started to be preferred, finally resulting in the unsound break of links between SOU and the world of work after the collapse of many large enterprises and hard years that all enterprises faced during restructuring and the challenge of the market driven economy. On the other hand, as a consequence of this system with its very low drop out rate and pushing almost everyone to at least secondary vocational qualification, Slovakia and the Czech Republic are at the top of the EU countries and far beyond the 2010 EU benchmark of 85% in the share of 22 year olds with completed upper secondary education.

In the 1990s, the collapsing economy caused the rejection of almost all SOU students traditionally contracted and co-financed by relevant enterprises. At the same time enterprises became unable to maintain SOU. They were established by respective ministries and gradually almost all students became fully financed by the state.

While the number of G and SOŠ dramatically increased (from 128 and 181 in 1989 to 223 and 281 in 2003, respectively), the number of SOU declined from 311 to 267. SOU gradually drifted closer to SOŠ as a consequence of declining interest in blue-collar professional training (due to its lower status and lower employability). This gradual loosening of the links with the world of work finally resulted in the current status where all secondary schools (except for some specific cases) are established by regional authorities regardless of whether they provide general or vocational education. Significantly, the merging of SOU and SOŠ is in progress. There were 89 associated secondary schools (ZSŠ, združená stredná škola) in 2003. Private and church affiliated schools introduced in the 1990s represented 13% of all secondary VET schools in 2003.

A shift in students preferences is visible from the change in the distribution of graduates from G, SOŠ and SOU in 1989 (14.5%, 26% and 59.5%, respectively) and 2001 (18.4%, 34.7% and 46.9%, respectively). The 2001 data are applied because the more recent data are biased by the regulation of the inflow into the secondary schools during the period of the gradual extension of the basic school (ZŠ, základná škola) from an eight- to nine-year programme.

With the revival of the economy, increasing foreign direct investment and the positive outlook of Slovakia after accession into the EU, the rebirth of contacts between enterprises which recently used to find employees among unemployed but experienced workers and VET schools is expected. The booming automotive industry is the first sector initiating reform with revitalised links to schools.

While the financing and management of schools have been reformed several times, the curricular reform in VET schools is still pending. After the administration reform completed by fiscal decentralisation in 2005, self-governing regions are responsible for financing IVET, according to the per capita based financing scheme introduced in 2003. In contrast to this there are no visible promoters of the curricular reform. Educators are given the right to adjust the curriculum with regard to the content and the number of week hours of respective subjects but they are not substantially stimulated to do so. A reform of the “maturita” schools leaving exam (maturitná skúška), in preparation since 2001, piloted in 2004 and to be introduced nation-wide in 2005, introducing standardised tests in Math, English and German, is expected to influence the curricular development heavily. The preliminary data confirms the status of the G, SOŠ and SOU as seen by the population. It is documented by a decrease in the average percentage of success in tests from G to SOŠ and from SOŠ to SOU.

#### **040102 Relationship between IVET and general education (incl. statistics)**

##### **Parity of esteem between general and vocational education**

Institutionally there is no difference between schools providing general education and VET schools.

All secondary schools are legal entities maintained by self-governing regions (in very rare, exceptional cases by state administration, see 040104).

Although traditionally called “apprentices” (“učeň”), secondary vocational school (SOU, stredné odborné učilište) students are regular students with the same status as students at other secondary schools. Nevertheless, the status of graduates is increasing as follows: from graduation from training branches at SOU (i.e. without “maturita”) to study branches at SOU (i.e. with “maturita”), and graduation from study at grammar schools (G, gymnázium) and secondary specialised schools (SOŠ, stredná odborná škola).

Although changing the school upon the request of the student or his/her parents is only up to two respective school directors, this kind of switch is very rare and almost exclusively from a higher status school (and usually more demanding school) to a lower status school (and/or lower demanding school). Students of SOU wishing to acquire full secondary education (“maturita”) usually prefer two-year follow-up studies after completing an SOU training branch and receiving a certificate of apprenticeship (výučný list) instead of immediately shifting to other studies or schools. Similarly, SOŠ students have no specific motivation to think about a shift to grammar school because completion of SOŠ provides the same level of education (“maturita”) and the right to apply to higher education. Also in the case of a strong specialisation within secondary education (e.g. agriculture) with a natural follow-up at the agricultural university, they are free to decide to study at any other universities. In contrast to the practice before 1989, no recommendation from the secondary school is necessary for application to the higher education institution. At that time secondary VET schools usually did not recommend jumping into the other sector tertiary studies, or continuing any form of tertiary studies at all. Originally, grammar schools were considered the primary path to tertiary education, SOŠ to middle level professional positions and SOU to worker

occupations. Gradually the barriers for this kind of streamlining disappeared and it is now fully up to the students to decide on the change in path after secondary education. Nevertheless, the difference in the quality of academic training remains visible.

The network of schools could be changed by the regional authority after the specific procedure regulated by law involving regional and local players, and after the final approval of the Ministry of Education SR (MŠ SR, Ministerstvo školstva SR).

Officially approved study and training branches are annexed to MŠ SR Decree No. 80/1990 Coll. on secondary schools (Vyhláška MŠ SR č. 80/1990 Zb. o stredných školách), as amended, and the current register, annually updated, is maintained by the Institute of Information and Prognoses in Education (Inštitút informácií a prognóz školstva).

All public higher education institutions in Slovakia are universities, according to the law from 1990. However, according to the law from 2002 they face an evaluation process that will differentiate them into research universities, universities and non-university higher education institutions. There is no official classification of higher education institution as general or vocational. All graduates from master studies are treated equally. Similarly there is no difference in the reflection of bachelors from general studies and of studies that could be considered vocational. However, bachelor studies are still considered by citizens as half of a study rather than specific education and training adjusted to labour market needs.

### General and vocational programme ratios

Students in Slovakia decide between general and vocational education by choosing a secondary school, usually at the age of 15 after completion of basic school (ZŠ, základná škola).

#### *Distribution of upper secondary education (ISCED 3) participants in general and vocational programmes from 1990 to 2002*

	1990*		1995**		2000		2002	
	N	%	N	%	N	%	N	%
<b>IVET</b>	261 250	82.34	271 482	80.65	205 532	77.64	217 764	75.37
<b>General</b>	56 027	17.66	65 134	19.35	59 177	22,36	71 177	24.63
<b>Total</b>	317 277	100	336 616	100	264 709	100	288 941	100

Source: Institute of Information and Prognoses of Education

\* Not UOE harmonised (data includes ISCED 2C pupils)

\*\* Data are for the school year 1994/1995

Similar to the figures about graduates (see 0401) the VET stream is among the strongest in Europe, despite a gradual decrease since 1989. Although it is expected by some analysts and international players (e.g. the World Bank) to increase the share of participants in general education and this policy within the National Programme of Upbringing and Education for the Next 15 to 20 Years (Národný program výchovy a vzdelávania v Slovenskej republike na najbližších 15 až 20 rokov) was approved by the government, the relatively modest increase of generally educated students indicated both the persistence in the system but also the exclusivity of grammar schools not appropriate for students looking for general yet not too much academic education. Furthermore, SOŠ could be considered to some extent a mixture of general and vocational education.

IVET needs a curricular reform even more urgently than grammar schools, due to the higher sensitivity to technological changes, but the reform of VET must be strongly linked to the differentiation within general education study programmes. Otherwise the recommendation to increase the number of participants in general education to more than 30% of the age cohort will remain unrealistic.

### **Upper secondary level and post secondary non-tertiary IVET**

Compulsory education in Slovakia is fixed at 10 years in order to stimulate students to achieve at least secondary education. Thus, after completion of a nine-year programme of ZŠ, students, typically at the age of 15, choose between G, SOŠ, SOU and associated secondary school (ZŠS, združená stredná škola). The minimum qualification could be obtained after three years (training branches at SOU for blue-collar professions) because the end of compulsory education (usually completed after the first year of secondary school) is not certified.

G is a very demanding general educational institution aimed at deepening the students' theoretical knowledge and academic skills, and considered the best preparatory programme for university studies. The course of study ends with a "maturita" school leaving exam (maturitná skúška) which is an obligatory precondition for admission into higher education. The standard course of study lasts at least 4 years and at most 8 years (for pupils completing Grade 4 or exceptionally Grade 5 of ZŠ). The long form was originally aimed at pupils considered as exceptionally academically gifted. Currently it predominantly attracts the children of parents who expect a better academic environment and/or prefer bypassing the rigorous secondary school admission procedure after the completion of ZŠ.

The five-year programme (1 year of a specialised language of instruction training followed by 4 years of regular study) offers highly desired bilingual education (English, German, French, Spanish, Italian) with the instruction and teaching staff partly based/trained on the Slovak system curricula and partly on the guarantor-country curricula. Bilingual schools are maintained by the state administration and are excluded from the responsibilities of the respective regional self-government.

SOŠ traditionally provide for ISCED 3A, very rarely ISCED 3C, and in special cases, post-secondary education, which is content-related rated like ISCED 4, and 5B.

SOŠ represent a variety of schools preparing students for both higher education and/or the labour market in professions requiring a quality general and professional education with a firm grounding in theory. In SOŠ, general subjects represent 42% to 45% and VET subjects 55% to 58% of the instruction time.

SOU represent the vocational stream of the training for workers. They provide for VET in ISCED 3C training branches and 3A study branches that also prepare graduates for admission to higher education. In ISCED 3A branch curricula, general subjects represent 25% to 50% and VET subjects 50% to 75% of the instruction time. In ISCED 3C branches general subjects represent 20% to 40% and VET subjects 60% to 80% of the instruction time.

There are two specificities of SOU with roots in their previous links with the enterprise sector:

- SOU students may be trained for a particular enterprise/entrepreneur, according to a specific contract (currently significantly less than 1% of the students in total);

- The SOU is a co-called contributory organisation (príspevková organizácia) with a different accounting system compared to the grammar school and secondary specialised school; it is a so-called budgetary organisation (rozpočtová organizácia). The former system was designed for multi-source financing with the state budget as one source of means while the latter was originally designed for institutions fully dependent on the state budget.

ZŠS could only be considered as an administrative stream because they usually originate from the merging of an SOŠ and SOU as a consequence of the decline in population or interest in their educational and training programmes.

### **The specific case of basic school low achievers**

There are no “regular” VET schools on any level lower than ISCED 3 in the Slovak Republic. Nevertheless, there is a specific school, the so-called vocational school (U, učilište), affiliated with the SOU and making use of the SOU premises. Vocational schools typically provide 2-year training courses with specially adjusted curricula for marginal low achievers from ZŠ who usually did not succeed in completing the full nine grades of ZŠ.

This programme is rated as level ISCED 2C, though it is offered to students of mainstream upper secondary education age. The official document on the completion of education within programmes with specially adjusted curricula is a special kind of certificate which confirms the completion of training and entitles the holder the possibility of performing simple tasks but it cannot be considered a certificate of apprenticeship.

### **Students with special education needs**

Although inclusion of special education needs (SEN) students into mainstream schools is in progress, there exists a network of specialised institutions serving these children and youth from kindergarten age to upper secondary age. ISCED 3A and ISCED 3C IVET is offered in special SOŠ and special SOU that are compatible to mainstream SOŠ and SOU.

There are also vocational schools for SEN students (OU, odborné učilište) providing for simple training for mentally handicapped students in three levels of competence. A practical school (PŠ, praktická škola) is designed for those with a limited training ability.

### **Curriculum**

The MŠ SR has established two institutions which are responsible for educational programme design and the curriculum development.

- The National Institute for Education (Štátny pedagogický ústav – responsible for general education curriculum including general subjects of VET schools; measuring educational output);
- The State Institute of Vocational Education (Štátny inštitút odborného vzdelávania – responsible for VET curriculum in co-operation with 15 sectoral expert commissions).

Documents developed by these institutions and approved by the MŠ SR allow for the adjustment of curricula by respective schools. No more than 10% of the weekly teaching hours may be changed, and no subject may be cancelled by application of this rule. 30% of the content may be adjusted to local/regional needs including regional labour market needs.

## Tertiary IVET

Although all programmes of tertiary education are considered to belong to IVET by some experts, other experts disagree, considering only those programmes leading to clearly identified professions (e.g. medical doctor, electrical engineer) as IVET and diverse humanity related study programmes not. This was addressed in detail earlier (see 0401).

## Accreditation of study programmes

The Accreditation Commission of the Government of the Slovak Republic (Akreditačná komisia Vlády Slovenskej republiky) contains outstanding representatives of higher education institutions and fields of science; a third of the members come from outside HEI. Only accredited study programmes are eligible for admission of students; the loss of accreditation could result in the transfer of students to other HEI for the completion of their studies by the state exam (štátna skúška). HEI are accredited by a specialised procedure and under specific conditions for bachelor studies, master studies and PhD studies. Thus, without persuasive backing by professional capacities HEI might only be certified to offer bachelor level studies.

There is no specific accreditation body for programmes which might be considered IVET. Tertiary IVET programmes are accredited by the Accreditation Commission by standard procedure (see 040702).

The evaluation of HEI and the national quality assurance model is in the process of preparation (see 040702).

## Unemployment of graduates

The unemployed graduate is considered a graduate up to two years after the graduation, according to the labour offices methodology. Thus, the absolute numbers of registered unemployed graduates contain two kinds of graduates, the new ones and those from the previous year. A typical pattern of the unemployment cycle can be seen when looking at the monthly data. The peak figures of secondary school graduates (after holidays) in September and the peak figures of graduates in July are followed by a gradual decrease until April of the next year, e.g. indicating an absorption of 73% (due to the decrease from 9 940 to 2 670) of the unemployed HEI graduates and an absorption of 18% (the decrease from 26 356 to 21 515) of unemployed secondary graduates until April 2004.

Quite typically, the strongest inflow of registered unemployed graduates concerning HEI graduates and SOU graduates, is visible in June when both categories face direct labour market entry; and in June and September concerning other secondary school graduates who balance between labour market entry and continued study at HEI.

No unemployment rates of graduates are officially issued but there are data allowing for comparison among different types of graduates. The rate of unemployed graduates is officially calculated every month as follows: the number of registered unemployed graduates is divided by the number of graduates from two consecutive years according to the educational statistics. The table below offers data about the average unemployment share in 2003/2004.

*Average unemployment rate of graduates from three streams of secondary education in 2003/2004 in Bratislava region and the whole country (in %)*

	G	SOŠ	SOU
<b>Bratislava Region</b>	2.0	4.6	7.7
<b>Slovak Republic</b>	4.9	16.4	25.0

Source: Institute of Information and Prognoses of Education



The country data offers a well-known and expected picture: rate of unemployed graduates is increasing with the decreasing status of the school and the generally perceived level of difficulty of the study. The vulnerability of SOU graduates is however significantly lower within the Bratislava region, which has substantially higher labour market absorption and a low total unemployment rate.

A comparison of SOU and SOŠ graduates unemployment rates and the total unemployment rate clearly indicates that SOU graduates (many of whom are ISCED 3C graduates with certificates of apprenticeship) are more vulnerable than SOŠ graduates (who are almost all graduates of ISCED 3A programmes). In regions with higher total unemployment rates (and a lower supply of jobs) SOŠ graduates have lower unemployment rate than the total unemployment rate, apparently pushing SOU graduates from the market. In the rich Bratislava region with lots of employment possibilities SOU graduates do well and have only a slightly higher unemployment rate.

***Unemployment rate of graduates by region and type of IVET school in April 2004 (in %)***

	<b>BA</b>	<b>TT</b>	<b>TN</b>	<b>NR</b>	<b>ZA</b>	<b>BB</b>	<b>PV</b>	<b>KE</b>	<b>SR</b>
<b>Total</b>	4.3	11.7	10.4	19.5	14.4	23.3	21.7	23.8	16.5
<b>SOŠ</b>	4.0	12.8	12.1	17.3	12.4	18.4	17.2	17.1	13.8
<b>SOU</b>	6.8	17.9	15.4	25.0	19.7	31.5	28.3	32.7	22.6

Source: Institute of Information and Prognoses of Education Notes: BA – Bratislava region (Bratislavský kraj), TT – Trnava region (Trnavský kraj), TN – Trenčín region (Trenčiansky kraj), NR – Nitra region (Nitriansky kraj), ZA – Žilina region (Žilinský kraj), BB – Banská Bystrica region (Banskobystrický kraj), PV – Prešov region (Prešovský kraj), KE – Košice region (Košický kraj)

There are no data about the unemployment rates of graduates before 1999 and there are no data tracing the performance of the people on the labour market in the long run.

An increase in unemployment of graduates is expected by the Institute of Information and Prognoses Education, with peak numbers in 2005/2006 followed by a gradual decrease, however, the numbers for 2010/2011 will still be higher than those for 2003/2004. The following table offers a comparison of the unemployment rates of SOU and SOŠ by study and training branches.

***Unemployment rate of SOU and SOŠ by branches in September 2003 (in %)***

<b>Clusters of study and training branches</b>	<b>SOŠ</b>	<b>SOU</b>
<b>Technology regarding all industries</b>	18.9	26.2
<b>Agriculture including forestry and veterinary</b>	26.4	33.3
<b>Health</b>	7.1	-
<b>Service inclusive humanities</b>	21.9	27.0
<b>Culture and arts</b>	12.4	21.7

Source: Institute of Information and Prognoses of Education

Among both graduates there are high shares and absolute numbers of unemployed in agriculture-related studies, and within the cluster of “economics, organisation, retail and services”. The unemployment rate in agriculture is in accordance with the gradual decrease of employment in the agro sector; and schools as well as vocational counsellors should take an action to stop producing graduates for this sector. In contrast to this, employment

opportunities in services and retail are expected to grow in the future. The low employability of graduates might be caused by diverse factors. Besides the low quality of education in economics there are strong external reasons, including the low purchasing power of inhabitants and still a not friendly enough environment for self-employment. Among SOU graduates mechanical engineering and metal-processing, electrotechnics as well as wood-processing feature high unemployment rates. However reduced unemployment rates in these sectors is expected as a consequence of massive foreign investment. In contrast to these sectors, the construction sector is expected to remain vulnerable; and worsening is expected in the textile and clothing industry.

### **040103 Qualifications structure**

The qualification structure in the Slovak Republic is simple however, with some specific terminology which might be confusing for foreigners. Furthermore four issues - education levels according to education sector related laws, codes of education levels applied within national socio-economic statistics, international standard codes of education (ISCED 97), and qualification levels are often mixed up.

#### **Education levels recognised by education sector legislation**

Traditional classification levels valid since the 1980s have been as follows:

- Basic education;
- Secondary education with further specification
  - secondary vocational education;
  - full secondary (general) education;
  - full secondary vocational education;
- Higher professional education;
- Tertiary education.

Basic education (základné vzdelanie) is acquired by completing basic school (ZŠ, základná škola) or by completing first four years at an eight-year grammar school.

Secondary education is specified as follows: full secondary general education - study branches at grammar school (G, gymnázium), full secondary vocational education - study branches at secondary specialised school (SOŠ, stredná odborná škola) and secondary vocational school (SOU, stredné odborné učilište) rated ISCED 3A, and secondary vocational education - training branches at SOU rated ISCED 3C.

ISCED 3A programmes here named “full” are often translated into English as “completed” secondary vocational or general education. This often causes misunderstanding and ISCED 3C graduates were considered as individuals without completed secondary education.

ISCED 3A full secondary vocational education graduates acquire double qualification while ISCED 3C secondary vocational education graduates are trained for direct entry into the labour market and are not eligible for admission to higher education without a two-year follow-up education providing them with ISCED 3A full secondary education. For further details see 0403.

There are post-secondary studies offered by secondary schools which are rated ISCED 3A, ISCED 4 (see 0406) and also studies content related rated ISCED 5B. The graduates from the latter studies receive higher professional education (vyššie odborné vzdelanie), however these ISCED 5B studies provided by SOŠ are not recognised as tertiary education by the Higher Education Act.

Traditionally, master studies lasting four to six years were considered as leading to tertiary education while bachelor studies were not known and PhD-compatible studies (CSc. – Candidate of Science) were considered a research and development qualification. With the application of the Bologna declaration, three levels of tertiary education are registered.

### **National education level codes**

This classification is widely used within statistical surveys allowing for a more detailed categorisation and more sensitive coding of the education level of older people educated within previous/other education systems. The regulation of the Statistical Office 16/1996 Coll. (Opatrenie Štatistického úradu Slovenskej republiky 16/1996 Z.z. Klasifikácia odborov vzdelania) recognises 10 codes.

- 0 Completed compulsory education in a grade lower than Grade 8 (9) of ZŠ.
- 1 Completed basic or secondary education (except secondary education stated in points 2 and 3).
- 2 Secondary vocational education acquired at SOU.
- 3 Secondary education (study in less than four-year programmes – without “maturita”).
- 4 Full secondary vocational education (study at SOU finishing with “maturita”).
- 5 Full secondary general education (study at G finishing with “maturita”).
- 6 Full secondary vocational education (study at SOŠ or conservatoire (konzervatórium) finishing with “maturita”).
- 7 Higher professional education (finishing with “absolutorium” or tertiary education bachelor level).
- 8 Tertiary education.
- 9 Research and development qualification.

These codes are very often used by the Statistical Office and the Ministry of Labour statistics within diverse labour market surveys. They are also used as sub-components of codes of study and training branches in educational statistics.

### **Qualifications**

The qualification is considered as two components containing:

- the formal precondition expressed in the acquired level of education (e.g. full secondary vocational education, which means graduation from ISCED 3A study branch of SOŠ or SOU, or a follow-up programme after completing an ISCED 3C training branch at SOU);
- specific professional requirements which are stipulated by
  - Act No 312/2001 Coll. with regard to state service;

- Act No 533/2003 Coll. with regard to public service; and
- Act No 455/1991 Coll. on self-employment with regard to small craftsmen (in addition other by annexed laws and bylaws backed requirements may be applied: e.g. specific qualification exams regulated by the Decree of the Ministry of Interior No 323/2001 Coll. specifying the details on required knowledge and skills, examining and certifying organised by the Slovak Chamber of Craftsmen (Slovenská živnostenská komora); furthermore Slovak Technical Norms, where appropriate also European norms, might be used for additional certification requirements by employers and/or employers representatives.

## **040104 Schools/training centres/providers**

### **IVET below ISCED 3 level**

Basic school (ZŠ, základná škola) offers initial VET within specific subject Technical Education (technická výchova). Basic schools can decide about their specialisation i.a. offering more week hours for the specific subject. Basic school with expanded technical education is officially recognised. Recommended curriculum prepared by the National Institute for Education (ŠPÚ, Štátny pedagogický ústav) and approved by the Ministry of Education SR (MŠ SR, Ministerstvo školstva SR) is offered for any interested.

Basic schools are legal entities. In the school year 2003/2004 there were 2 272 public maintained by municipalities, 104 church-affiliated and 11 private basic schools. IVET offered within basic school is not separately certified.

### **Secondary schools**

Secondary specialised school (SOŠ, stredná odborná škola), secondary vocational school (SOU, stredné odborné učilište), associated secondary school (ZSŠ, združená stredná škola) are legal entities offering certified IVET. In specific cases they can also offer continuing vocational training and in co-operation with regional labour offices re-training for the unemployed.

Grammar schools can offer fragments of IVET, even specific VET subject can be introduced if agreed among key players (parents, school and local educational authority), however, this IVET is not certified.

All secondary schools are legal entities. The difference between state schools and public schools is as follows: public schools are schools which were originally state schools but were transferred to the responsibility of self-governing regions in the 2000s. The number of state school is marginal; it includes special schools for students with special education needs, and bilingual schools established by international agreements.

*Number of secondary schools by ownership in the school year 2003/2004*

Type of school		Number of schools
Grammar schools	State and public	158
	Private	17
	Church-affiliated	45
Secondary specialised schools	State and public	254
	Private	43
	Church-affiliated	11
Secondary vocational schools	State and public	211
	Private	11
	Church-affiliated	5
Associated secondary schools	State and public	78
	Private	0
	Church-affiliated	0
Secondary schools total	State and public	701
	Private	71
	Church-affiliated	61
<b>Total</b>		<b>833</b>

Source: MŠ SR, Network of secondary schools for the 2003/2004 school year, as of 12 Nov 2002.

A vocational school (U, učilište) it is affiliated to an SOU and offers training for trainees with difficulties in completing basic school. IVET offered by vocational school is content related rated ISCED 2C and certified for the fulfilment of simple tasks. A certificate is not recognised as secondary level education. In the 2003/2004 school year there were 54 public vocational schools. There were no non-state vocational schools.

Secondary VET schools should provide for practical training. This practical training could be offered in different ways. Predominantly it is offered by schools themselves, sometimes complemented by specific practice in establishments of practical training. It is however also possible to split IVET into theoretical and practical education and training. In such cases theoretical IVET is offered at SOU and practical IVET in centres of practical training (SPV, stredisko praktického vyučovania) or workplaces of practical training (PPV, pracovisko praktického vyučovania). There were 27 public and six private centres of practical training in the 2003/2004 school year. If an individual, e.g. self-employer, is interested in offering practical training for a student who is theoretically educated at SOU and at the same time contracted by him/her for future employment, a workplace of practical training could be established. The costs for running the workplace of practical training are borne by the establisher, e.g. the aforementioned self-employer, if additional students not contracted by him/her are offered this practical training he/she must be reimbursed the respective part of the expenditures.

There are four secondary schools established under the responsibility of the Ministry of Interior SR (MV SR, Ministerstvo vnútra SR), secondary school of fire control and three other schools offering post-maturita studies to train the police staff; and one school established by the Ministry of Justice SR (MS SR, Ministerstvo spravodlivosti SR), the secondary school for justice ward. There are no more schools established by the Ministry of Defence SR (MO SR, Ministerstvo obrany SR). All schools of "power" sectors were traditionally subjected to specific rules (see also 040302). There are 31 secondary health schools, supervised by the

Ministry of Health SR (MZ SR, Ministerstvo zdravotníctva SR, see 040302), 24 established by the higher territorial units and 7 church-affiliated, which could be at least partially considered as sectoral schools. In total there were only 36 out of 308 secondary specialised schools offering 60 programmes which are partly or fully controlled by other sectors in the 2003/2004 school year.

As legal entities, basic and secondary schools are granted wide autonomy, which might be however restricted by establishers in the case of private and church-affiliated schools. The autonomy of state and public schools is stipulated by education laws which do not fully apply to non-state schools. Thus, non-state schools can enjoy a wider or narrower autonomy depending on the decision of the establisher. Public and state schools are managed by director who is appointed for a five-year period based on the proposal of the school board (rada školy) and resulting from a tender. The director is responsible for adhering to the agreed curricula, educational standards and professional and institutional level of the institution. He/she is responsible for financial management and maintaining tangible assets within the scope of his/her delegated responsibility (e.g. may or may not be entitled by the school establisher to rent school facilities). The director is responsible for hiring the staff and for the in-service training of the educational staff. A director of secondary school provides for the first level state administration comprising 14 responsibilities specified by law. The second level of state administration is performed by the self-governing regional educational authority. Furthermore, the regional school office (krajský školský úrad) is responsible for the first level of state administration (concerning issues not delegated to the school director), e.g. equivalence of diplomas/certificates. The regional school office is also given other responsibilities concerning issues where delegation to self-governing regions were not considered appropriate within decentralisation reform; i.e. this office appoints heads of committees for school leaving exams.

Curriculum development is framed by the MŠ SR allowing for the adjustment of curricula according to the 10/30 formula. Schools are free to change 10% of the weekly hours of instruction and 30% of the content within certain subjects. Furthermore, schools may also initiate changes in official curricula via the State Institute of Vocational Education (ŠIOV, Štátny inštitút odborného vzdelávania).

The quality of the educational output of VET schools and consequently matching IVET with labour market needs is the responsibility of the school director, according to the law. There are no other bodies responsible for the quality of the output. The ŠPÚ organises the nationwide measurement in selected general subjects and in co-operation with the ŠIOV has prepared a reform of secondary school final exams aimed at increasing their transparency, objectivity, reliability and validity. Social partners are allowed to take part in final exams in VET schools; similarly they can participate in activities of the aforementioned 15 sectoral expert commissions and suggest changes in profiles and initiate the introduction of new study and training branches. However, their involvement in VET planning and quality monitoring is very rarely visible and usually based on personal engagement.

The school self-governing bodies, introduced for the first time in the 1990s, are explicitly listed in Act No 596/2003 Coll. on state administration in education and school self-government (Zákon č. 596/2003 Z.z. o štátnej správe v školstve a školskej samospráve):

- school board (rada školy);
- municipal school board (obecná školská rada);
- territorial school board (územná školská rada);
- students' school board (žiacka školská rada).

All self-governing bodies are not decision-making bodies. They may be considered rather as monitoring bodies commenting on the activities and official programming and reporting documents of the decision-makers (school director, municipality, regional school office and self-governing region educational authority). Discrepancies between self-governing bodies and decision-making bodies are dealt with by the State School Inspection (Štátna školská inšpekcia). Nevertheless, the most visible activity of self-governing boards is their involvement in the selection of school director. The students' school board may be established at secondary schools only representing students' interests towards the school director.

### **Higher education**

Higher education institutions (HEI) are established and may be dissolved by an act of the National Council except private HEI that are established by the decision of the government following the proposal of the MŠ SR and report of the Accreditation Commission. Currently there are 20 public universities including the Catholic University (Katolícka univerzita) in Ružomberok, three state HEI (covering the army, police and health sectors, the former two exclusively, the latter in parallel with other HEI), and four private HEI (covering management, health and social work, economy and management of public sector, and law). Former state universities were transformed into public ones according to Higher Education Act No 131/2002 Coll. (Zákon č. 131/2002 Z.z. o vysokých školách). This act distinguishes between HEI according to the founder and for the first time enable the creation of private HEI. This is why private HEI are so marginal so far. There were only 52 graduates from private HEI - all from economics related fields in 2004. Two HEI were excluded from the process of transformation into public ones (the Military Academy and the Police Academy) due to their specific character; a third state university has been established by the purposeful action of medical doctors - members of the parliament, against the opinion of the MŠ SR and HEI representatives.

According to the law, there are three representatives of HEI. They are the Slovak Rectors' Conference (Slovenská rektorská konferencia) which is in practice the main counterpart of the MŠ SR, the Board of Higher Education (Rada vysokých škôl) containing representatives of all HEI and their faculties, and the HEI Students' Council (Študentská rada vysokých škôl), representing students.

In contrast to 1989 when there were 13 HEI with 43 faculties, in 2003 there were 25 HEI with 104 faculties. The number of students has doubled and the number of graduates has increased from 9 321 to 18 205.

Public HEI have considerable autonomy. Public interests are represented by the HEI Administrative Board (Správna rada) with limited power; this board may stop risky or inefficient activities, e.g. selling/buying property, help in the elaboration of development plans and comment on the HEI Annual Report.

Public HEI are fully autonomous in hiring and firing staff and in financial management, provided no deficit in budget exists. In the case of a deficit the HEI management could be taken over by another HEI following the proposal of the MŠ SR and the agreement of HEI representatives. An HEI must achieve a balanced budget. They are not longer bailed out by the state budget and can even go bankrupt. HEI are only partly financed from the state budget via the MŠ SR making use of allocation formulae elaborated by the MŠ SR in agreement with representatives of the HEI. Additional expenditures must be earned from own activities and/or other contributions. Tuition fees have not yet been introduced despite repeated efforts of the MŠ SR through an amendment of the law, which would allow the introduction of tuition fees representing 0-30% of study programme costs and compensated by the system of loans with low interest rates and scholarships for excellent students and students from low income families.

Educational programmes are elaborated by HEI and submitted to accreditation to the Accreditation Commission of the Government of the Slovak Republic (Akreditačná komisia Vlády Slovenskej republiky). In the 2000s all HEI transformed their educational programmes into three separate parts: bachelor studies, master studies and doctoral studies under pressure from the MŠ SR and the Bologna agreement. The only exception awarded by the Minister of Education concerns theological studies, which have remained without bachelor levels. Nevertheless further transformation may be forthcoming due to disputable constructions of bachelor studies in teacher training, which does not correspond to the labour market needs. Furthermore, VET teacher and trainer training, traditionally organised in the form of complementary pedagogical studies to master's studies in diverse non-teacher training programmes, has been subjected to harsh criticism by Accreditation Commission associates participating in working groups activities. Nevertheless, in practice simply failing to adhere to the format of accreditation documents and/or a lack of evidence of quality full-time staff in terms of professors and associate professors may lead to a failure in the accreditation procedure. The only instrument providing for feedback with regard to the quality of instruction, explicitly backed by law, is the obligatory assessment of instruction by students. The assessment form (questionnaire) elaboration and administration as well as the utilisation of collected results was left up to the HEI. HEI Annual Reports may or may not reflect these results. In addition to the accreditation procedure, which is purely input based and aimed at assessment of the potential of HEI to deliver quality service a comprehensive accreditation, the so-called "complex" accreditation, is stipulated by law, within which the quality of service should be assessed. The Accreditation Commission should address all activities of HEI in order to evaluate "the fulfilment of the mission and tasks of HEI". This kind of evaluation procedure however requires the setting of criteria and HEI quality assurance activities, which only started to be initiated in 2004. Thus no comprehensive accreditation has been carried out to date.



## **040105 Role of social partners and enterprises**

Although social partners may participate in decision-making processes in curriculum development, education standards establishment and on qualification exams, their role in VET is primarily that of advisors to the state (public) administration.

### **National level**

#### ***The Council of Economic and Social Partnership***

On 1<sup>st</sup> December 2004 The Council of Economic and Social Partnership (RHSP, Rada hospodárskeho a sociálneho partnerstva) has been established as an advisory partnership body on the national level with the aim of creating room for mutual consultation and for agreement on or clarification of standpoints of respective social partners. The RHSP replaced the Council of Economic and Social Agreement (RHSD, Rada hospodárskej a sociálnej dohody). Backed by Act No 106/1999 Coll. on the Economic and Social Partnership (Tripartite Act) (Zákon č. 106/1999 Z.z. o hospodárskom a sociálnom partnerstve (zákon o tripartite)) the RHSP failed to achieve agreements due to strong differences between the standpoints of trade unions and government's standpoints. The Tripartite Act came to be considered by the government as a brake on its executive powers, and by employers as a lowering of the operability of the social dialogue. Valid since 15<sup>th</sup> June 1999, this act was nullified on 31<sup>st</sup> December 2004. In stressing social dialogue over the inevitability of agreements among the three partners, the RHSP could become a place for VET related topics and discussions as opposed to a political battlefield where problems of education were not substantially addressed because they were pushed out by more hot political topics. Fiscal incentives for co-funding VET could be an appropriate topic for discussion at this level.

#### ***The Council of the Minister of Education SR for VET***

The Ministry of Education SR is the central government body responsible for IVET. Other ministries play just a limited role with regard to secondary schools by offering their sector relevant IVET, e.g. the Ministry of Health SR and secondary health schools. The Council of the Minister of Education SR for VET (Rada Ministra školstva SR pre OVP) was established based on the Resolution of the Government of SR No 213 of 7 March 2001. It is an advisory body to the Minister of Education originally consisting of 28 members representing relevant central level players, representatives of 8 Slovak regions, trade unions and employers' representatives.

The basic mission of the Council is to:

- debate and assess the situation and standards of vocational education and training, submit proposals for improvement of VET with regard to methodology, content, structure, management, financing, legislation, links with labour market, employment of graduates, economics and other problems in schools and establishments in SR;
- contribute to the preparation of principal measures for resolving problems of the quality and content of education and the financing and management of VET in schools and training establishments;
- debate and comment on proposals and recommendations submitted with regard to important issues and concepts concerning the provision of VET in schools and training establishments;

- based on its own initiative, propose to the Ministry of Education SR (MŠ SR, Ministerstvo školstva SR) or relevant bodies possible ways of resolving problems referring to training in schools and training establishments;
- if exact information and standpoints are needed, to ask relevant institutions for elaboration of scientific analyses, studies, expert opinions in the field of VET in schools and training establishments and its impact on employment policy;
- co-operate with ministries, state administrative bodies, self-governing bodies, employers' representatives, trade unions, research and other institutions dealing with VET in schools and training establishments.

Despite and partly due to the turbulent changes in regional schooling (new administration models at the regional level, new financing schemes) the activities of the Council were frozen in 2003 and 2004.

### ***The Council of the Minister for Lifelong Learning***

The Council of the Minister for Lifelong Learning was established based on the Resolution of the Government of SR No 157 of 25 February 2004 and effective since May 2004. It is an advisory body to the Minister of Education consisting of 22 members representing seven ministries in addition to the MŠ SR, social partners and other key players, e.g. the Slovak Society for Quality (Slovenská spoločnosť pre kvalitu). The primary mission of the Council is to analyse the current status of the provision of LLL, funding LLL, quality assessment of LLL. Despite its name, the Council seems to focus on adult education as visible from the membership of the Council. A representative of the Association of Adult Education Providers (Asociácia inštitúcií vzdelávania dospelých) is a member of the Council while representatives of IVET are not. Nevertheless this is currently a single living intergovernmental advisory body to the Minister of Education that could in detail address the IVET related topics.

### **Social partners involvement directly linked to IVET**

#### ***Curriculum development and educational standards setting***

Fifteen expert commissions covering all education and training needs in the national economy and corresponding to clusters of study and training branches have been established based on the Principles of the establishment, organisation, and activity of expert commissions and co-ordinating council for vocational education and training at secondary specialised schools, secondary vocational schools and associated secondary schools in the Slovak Republic were adopted by MŠ SR valid since 1<sup>st</sup> January 2002. Previously existing sectoral expert commissions established according to the Principles of the establishment, organisation, and activity of expert commissions for vocational education and training at secondary specialised schools and secondary vocational schools, adopted by MŠ SR, valid since 1<sup>st</sup> October 1999, were abolished or transformed.

Conclusions, standpoints, and expressions of expert commissions and the Co-ordinating Council have the character of proposals and recommendations and create the basis for MŠ SR decision-making with regard to VET.

The main task of expert commissions is to deal with the content and conceptual and methodological issues of VET. They ensure balance between the social, individual and economic needs and labour market requirements, and the development in science and

technology, sectoral concepts, and the concept of the development of upbringing and education in the Slovak Republic. They discuss, assess and express standpoints to the content of drafts of the so-called basic pedagogical documents (základné pedagogické dokumenty, see 040302), the aims and tasks of VET with regard to the content, forms and methods of instruction and the aims and tasks of educational standards, didactical tests and experiments. Expert commissions assess educational programmes in VET schools. On the request of MŠ SR they assess the personal and material readiness of VET schools to implement educational programmes. Expert commissions participate in the evaluation of educational programmes and assess the evaluation tools of VET schools students. Within their mission they co-operate with state and private educational institutions, employers, businesses, private companies and social partners.

The chairmen of individual expert commissions were appointed by the Minister of Education, deputy chairmen and members of Co-ordinating Council were appointed by the State Institute of Vocational Education (ŠIOV, Štátny inštitút odborného vzdelávania). Members of expert commissions include representatives of ŠIOV, respective sectors, labour market institutions, professional chambers, employers' associations and federations, companies, secondary schools, HEI, regional offices, institutions, etc. Additional experts may be involved in the work of ad hoc sub-commission.

Expert commission work is coordinated by the Co-ordinating Council established in February 2002. The main task of the Co-ordinating Council is to support coherence in the activities of expert commissions, generalise the output of expert commission activities, develop proposals for addressing key issues resulting from expert commission output, submit proposals to the Council of the Minister for VET. The chairman of Co-ordinating Council is the director of ŠIOV; the Co-ordinating Council is made up of the chairmen of individual expert commissions. The chairman and the members of the Co-ordinating Council are appointed by the Minister of Education. The Co-ordinating Council reports to the Council of the Minister for VET. The real impact of trade unions and employers' representatives however depends on the personal engagement of the individuals due to the lack of its own VET-related capacities. The two social partners are often represented by the director or other staff of VET schools whose standpoints might be influenced by their educational background. The few genuine VET experts have to cover too many posts and topics. Thus despite the window opened for trade unions and employers representatives, curriculum development and standard setting is dominated by educators and the educational sector representing VET experts. Moreover, a focus on the content and instruction dominates over assessment of the quality of learning and meeting labour market needs in both acquired skills and competencies, and graduate profiles.

### ***Assessing educational output and qualification***

The links between VET schools and enterprises were weakened or even broken in the 1990s in the period of the transformation of the economy and the severe restructuring efforts, which completely changed the picture of the world of work. In the 2000s a revival of these links is considered inevitable. At the moment however this reconciliation seems far off, except for those sectors and enterprises already restructured and facing rapid growth and the risk of the lack of a qualified labour force. The best example is the automotive industry, where Slovakia is developing into a leader in per capita car production. A reform of IVET in this sector was the best example of reform driven by the initiative of employers. It is also an example of the fruitful co-operation of employers and education sector experts when pushed together by market forces. In weaker sectors due to a pending infrastructure or risky prognosis, the incentive to strengthen the co-operation might be necessary. Entrepreneurs are not made

payable in support of IVET, thus they are not essentially interested in the introduction of innovations and the quality control, unless their future profit is seriously endangered (see *No longer waiting for Godot. In: Cedefop Info No 3/2003*).

In the 2004/2005 school year final exam reform at secondary schools is being introduced pursuant to the MŠ SR Decree No 510/2004 Coll. on completion of education at secondary schools and completion of training at vocational schools for SEN students, vocational schools and practical schools (Vyhláška MŠ SR č. 510/2004 Z.z. o ukončovaní štúdia na stredných školách a ukončovaní prípravy v odborných učilištiach, učilištiach a praktických školách). A previous fully school-based model, with teachers in the double role as educators as well as examiners was considered untenable because of incomparable assessment (marking) between schools, gradually leading to a softening of quality standards. This is also one of the reasons why subject “maturita” commissions are now composed of three subject specialists, headed by the regional authority assigned professional coming from outside the respective school. In VET schools a delegate of the professional chamber may become a standing member of the commission provided he/she meets the relevant professional requirements. An additional expert from the practice, even without VET experience might be invited to be an active member of the commission, however, without the right to assess. (see *Secondary VET schools not happy to be a B. In: Cedefop Info No 1/2005*).

### **Regional level**

The process of regional VET councils initiated in the 2000s has been slowed down due to the preoccupation of local authorities to settle decentralisation reform – in particular fiscal decentralisation, and the building capacity of respective institutions; and by the preoccupation of the MŠ SR with HEI reform and regional schools financing reform. New impulses for the establishment of regional VET councils may come from the gradual recognition of the importance of regional human resource development planning linked to the ESF projects preparation, from the new Education Act which must address the IVET links to the labour market and is expected to be submitted for public discussion in April 2005 and from the recognition of the importance of influencing the quality of the labour force by entrepreneurs themselves due to the declining supply of properly qualified workers from among the unemployed and the rapidly decreasing numbers of secondary VET school graduates.

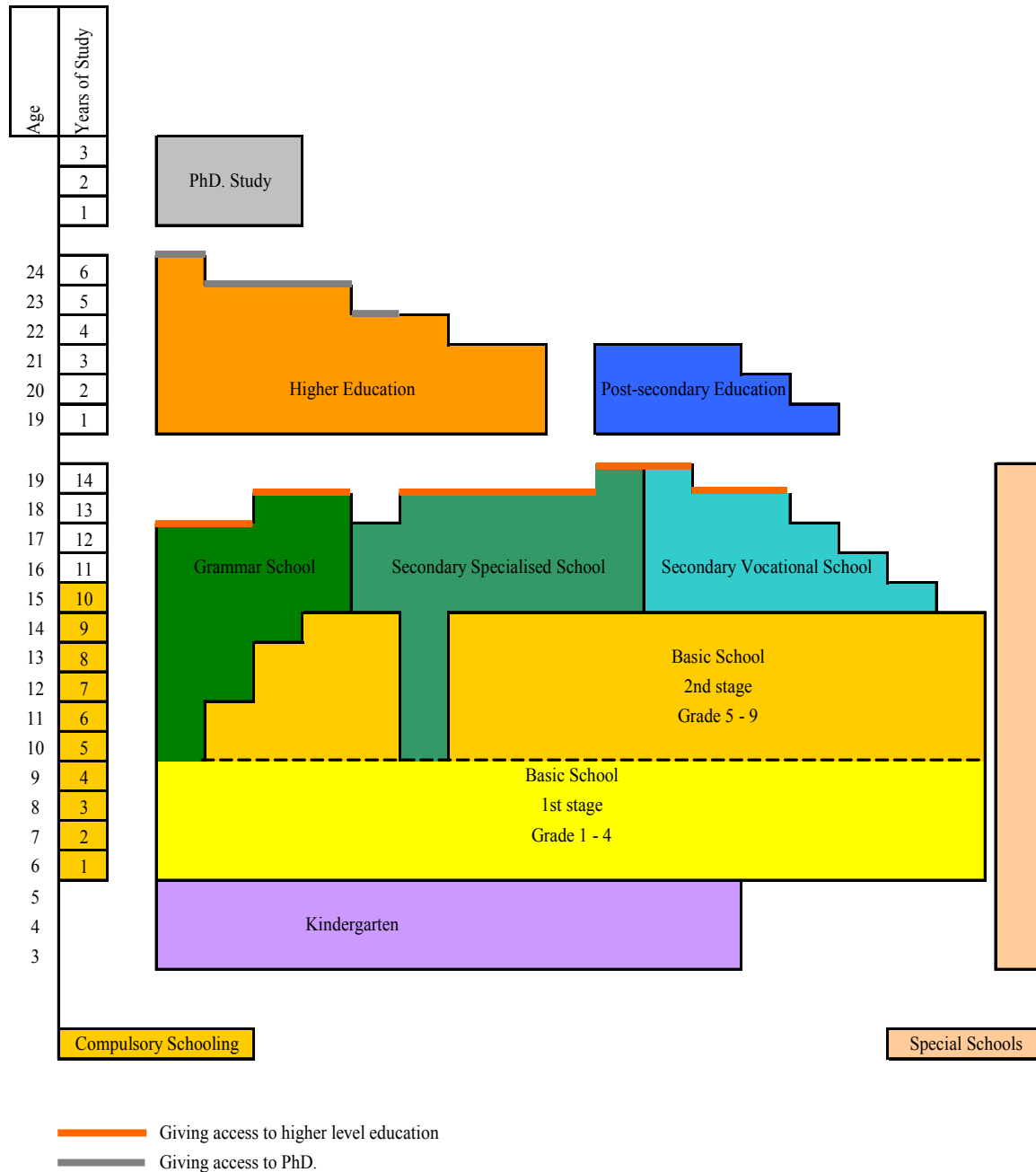
### **040106 Planning and forecasting**

The Institute of Information and Prognoses (ÚIPŠ, Ústav informácií a prognóz školstva) has a solid base of educational statistics. Thus prognoses of enrolments of students as well as unemployment rates of the three streams of secondary school graduates have been elaborated till the 2010/2011 school year. Similarly, regional educational authorities have an excellent overview about trends in enrolments in respective schools and the unemployment risks of their graduates. All regions have elaborated development plans within which these issues are addressed. Nevertheless, all these analyses are educationally driven; the links to economic development and future regional development profiling are insufficiently reflected. Educational statistics finish with the number of graduates and there is no evidence about their future assertion. In addition to the estimation of the mismatch between educational output and labour market needs and of the intersectoral drift, more detailed data about tracing graduates must be made available. Labour market intelligence know-how must be substantially improved.

Educational authorities are able to provide considerable data about students' (and parents') interests in IVET about the placement chances within the desired branch and employment chances after completing IVET. Consequently, proposals of changes in the networks of study and training branches including the introduction of new branches and the closing some outdated branches could be elaborated on yearly basis by the State Institute of Vocational Education (ŠIOV, Štátny inštitút odborného vzdelávania). Nevertheless, content and output related changes within secondary schools are insufficiently monitored. Schools fighting for students, predominantly due to the severe population decrease and the per capita funding scheme, have a tendency to lower their output standards and to concentrate on the input market needs (wishes of students) rather than on the output market. It is also understandable due to the fact that input market needs are easier to read for schools than labour market needs. No specialised institution is able to analyse labour market needs in terms of changing competences and skills expressed in operationalised and curriculum relevant terms. The substantially stronger involvement of employers' representatives is inevitable. In some sectors they proved to be able to estimate both the size of the required labour force and changes in the competences and skills of the labour force including the VET school graduates (see the automotive industry example in the article *No longer waiting for Godot. In: Cedefop Info No 3/2003*). Government level intervention might be inevitable to stimulate other sectors to similar action. It is however unclear whether a special commission to be established by the Ministry of Education SR (MŠ SR, Ministerstvo školstva SR) would be able to provide for the efficient stimulus. No doubt fiscal stimuli for elaboration and/or facilitation of this kind of analyses and prognoses would be welcomed, predominantly by weak sectors and regions/microregions lagging behind in development.

040107 Diagram of main pathways within IVET

Education System in Slovakia in 2003/2004



There is no IVET at lower secondary level in Slovakia except for two specific cases.

A dance conservatoire (tanečné konzervatórium) is a VET school, according to the Slovak legislation, offering education and training for talented children after completion of four years (elementary level) of basic school (ZŠ, základná škola). The dance conservatoire offers an eight-year programme finishing with a “maturita” school leaving exam (maturitná skúška) and “absolutorium” exam (absolventská skúška) and offering a double qualification entitling graduates to direct entry to the labour market and to applying to HEI. The first four years of the programme are considered lower secondary. As shown in the table below this is a very highly specialised school with a very low enrolment.

***Absolute number of participants at dance conservatoire (ISCED 2A VET)***

	2002						
	Age						
	Total	12 (and less)	13	14	15	16	17 (and more)
<b>Male</b>	31	23	5	3			
<b>Female</b>	54	36	11	7			
<b>Total</b>	85	59	16	10			

Source: Institute of Information and Prognoses of Education (Ústav informácií a prognóz školstva)

The second case concerns vocational schools (U, učilište) affiliated to secondary vocational schools (SOU, stredné odborné učilište) or associated secondary schools (ZSŠ, združená stredná škola) originating from the merging of schools, one of which is a secondary vocational school providing the kind of training offering maximum 2-year ISCED 2C content-related programmes. This IVET could also be considered as second chance training as it is offered to youngsters with difficulties in completing ZŠ. This is why they cannot enter upper secondary school and why they are only qualified for performing simple tasks. They are awarded a certificate of completion of training offered in accordance with a reduced and adjusted curricula. In the table below attendance data is offered (in total 2 977) together with a similarly low demanding IVET offered by the stream of special schools (a total of 451 special education needs students).

***Absolute number of participants at vocational schools affiliated to SOU and ZSŠ, and special schools\* (ISCED 2C VET)***

	2002						
	Age						
	Total	12 (and less)	13	14	15	16	17 (and more)
<b>Male</b>	2 473				538	1 127	808
<b>Female</b>	955				194	362	399
<b>Total</b>	3 428				732	1 489	1 207

Source: Institute of Information and Prognoses of Education

Note:

\* special education needs students from diverse special schools are included

There are also some vocational elements in the curricula of ZŠ. Worth mentioning is the compulsory subject Technical Education (technická výchova).

### **040201 Curricula**

The curricula of the dance conservatoire (tanečné konzervatórium) are subjected to the standard procedure of development and approval (see 040302).

For information on curricula at vocational schools (U, učilište) see 040502. For information on schools for special needs students see 040102. Curricula for practical schools (praktická škola) and special vocational schools for special education needs students (odborné učilište) are specially elaborated by the National Institute for Education (ŠPÚ, Štátny pedagogický ústav) in co-operation with the State Institute of Vocational Education (Štátny inštitút odborného vzdelávania), and approved by the Ministry of Education SR (MŠ SR, Ministerstvo školstva SR). Specialists are asked for ad hoc co-operation and a special commission is established for the development and innovation of curricula at special vocational schools for SEN students.

The instruction of the subject Technical Education (technická výchova) at basic school (ZŠ, základná škola) is regulated by measures of the MŠ SR, e.g. Decree No 143/1984 Coll. on basic school (Vyhláška č. 143/1984 Zb. o základnej škole), lastly amended in 1995, and the curriculum of ZŠ developed by the ŠPÚ. The number of weekly hours for this subject can be expanded (making use of the right to change up to 10% of the total weekly teaching hours). ZŠ can even adopt the status of the ZŠ with expanded technical education, for which detailed curricula prepared in advance, and approved by the MŠ SR are also offered.

### **040202 Learning outcomes**

IVET offered at the lower level of the dance conservatoire (tanečné konzervatórium) is not certified; graduates are only certified after completing the full programme.

For information on vocational schools (U, učilište) see 040503.

In the case of special education needs students, certification is as follows: a certificate on completion of the practical school (vysvedčenie o absolvovaní praktickej školy) is issued after the simple completion of the school. Certificates from special vocational schools differ depending on the extent of the disability of the individual trainee. In the case of severe disability and training for simple activities no exam is required; it is replaced by an overall assessment of total performance during the training indicated on the annual certificate (výročné vysvedčenie). If the trainee is able to accomplish over 60% of the practical training tasks he/she may apply for the examination and if successful, he/she may be awarded a final exam certificate (vysvedčenie o záverečnej skúške) and a certificate of apprenticeship (výučný list) for simple professions. However in contrast to certificates of apprenticeship issued by secondary vocational schools (SOU, stredné odborné učilište) this is not equivalent to a secondary vocational education certificate.



There are two kinds of vocational programmes, according to legislation: the so-called ISCED 3A study branches (študijný odbor) and ISCED 3C training branches (učebný odbor). Study branches are as a rule four-year programmes, exceptionally longer, training branches are as a rule three-year programmes, very rarely two-year programmes. Originally, from the institutional point of view, study branches were typical for secondary specialised schools (SOŠ, stredná odborná škola) and training branches for secondary vocational schools (SOU, stredné odborné učilište). As a result of several factors: increasing demands for a highly skilled labour force, the restructuring of the economy, broken links to enterprises and the decreasing population, SOU are gradually offering a larger share of study branches. Study branches offer double qualification while training branches only offer qualification for entering the labour market for blue-collar-professions unless the graduate continues in IVET within two-year follow-up courses offering ISCED 3A level qualification. All programmes can be offered in two forms: as full-time or part-time studies. The decision depends on the interest of the students and the labour market, and is made by the school in co-operation with the regional educational authorities.

Upper secondary IVET is almost exclusively school based. SOŠ and SOU known as “complex” SOU were designed to offer school based IVET. It is typical for some SOU training branches that quality practical training cannot be offered in schools only. Thus, despite the very strong reduction of opportunities for receiving practical training at the workplace, the so-called centres of practical training (SPV, stredisko praktického vyučovania) and workplaces of practical training (PPV, pracovisko praktického vyučovania) are established. In contrast to SPV, PPV are established by the entrepreneurs offering practical training to very few trainees, even for one trainee expected to work for him/her. SPV and PPV only offer practical training and students must receive theoretical IVET at SOU. SPV are currently typical for the service sector. PPV are further considered subsumed within SPV.

Relevant skills can also be acquired and refined by working at the centre of professional practice (stredisko odbornej praxe). This training regulated by the Ministry of Education SR (MŠ SR, Ministerstvo školstva SR) Decree No 279/1996 Coll. on centres of professional practice (Vyhláška MŠ SR č. 279/1996 Z.z. o strediskách odbornej praxe) could be considered a sort of workplace training. Students’ productive work is supervised by the SOŠ/SOU staff or by the centre’s instructor. Centres are not schools but school establishments, according to legislation; they can be affiliated to schools or independent from school, and even act as legal entities. The establishment of centres must be approved by the MŠ SR.

In 2003/2004, a total of 27 public and six private SPV and SOP with 2 829 trainees were reported by the Institute of Information and Prognoses of Education (ÚIPŠ, Ústav informácií a prognóz školstva).

Although SOŠ ISCED 3A and SOU ISCED 3A are legislatively equivalent and entitle graduates to apply to HEI, students interested in continuing their education at HEI (typically at technical universities) prefer SOŠ, while students primarily interested in entering the labour market prefer SOU with a window of opportunity for HEI, if appropriate. Nevertheless, due to the lack of theoretical education in contrast to SOŠ and grammar schools (G, gymnázium), SOU graduates score lower on academic ability tests and have high drop out rates from HEI.

VET schools were originally highly specialised and offered VET in a large number of specialisations and sub-specialisations. Since the 1990s the reduction of the number of specialisations has been in consideration, while the school profiles, predominantly in low population territories and concerning schools originally offering currently less attractive studies have softened. For further details concerning specific fields of study see 04030201.

According to § 2 (2) of the MŠ SR Decree No 80/1991 Coll. on secondary schools (Vyhláška MŠ SR č. 80/1991 Zb. o stredných školách), as amended, SOŠ consist of the following types of schools: secondary industrial schools, secondary geodetic schools, secondary agricultural schools, secondary forestry schools, secondary horticultural schools, secondary wine-and-fruit-growing schools, secondary health schools, commercial schools, commercial academies, hotel academies, social-law academies, schools of library and information studies, secondary pedagogical schools, specialised schools for girls, schools of applied art, conservatories, dance conservatories, secondary schools of art, and specialised schools.

There are several types of secondary industrial schools whose specialisations are indicated in their names, e.g. secondary industrial schools “of machinery”, “of construction”, etc.), all typically offering 4-year courses of study finishing with an ISCED 3A level “maturita”.

Similarly, there are several types of SOU whose specialisation are indicated in their names, e.g. secondary vocational schools “of agriculture”, “of chemistry”, “of construction“, “of food processing”, “of machinery“, etc.),

The Institute of Information and Prognoses of Education traditionally offers enrolment, attendance and graduation data, but not participation rates calculated with regard to respective age groups. Thus, the only participation rates from 2000 and 2002 are offered below.

***Absolute number of participants and participation rate in ISCED 3 VET programmes in 2000***

	2000							
	Age							
	Total	14 (and less)	15	16	17	18	19	20 (and more)
	<b>Absolute number</b>							
<b>Male</b>	107 181	68	20 366	32 317	30 951	15 950	3 584	3 945
<b>Female</b>	98 351	70	18 701	29 262	28 953	14 207	3 127	4 031
<b>Total</b>	205 532	138	39 067	61 579	59 904	30 157	6 711	7 976
	<b>Participation rate (%)</b>							
<b>Male</b>			45.61	71.95	67.93	34.82	7.85	
<b>Female</b>			43.62	67.75	66.71	32.58	7.08	
<b>Total</b>			44.63	69.89	67.34	33.73	7.47	

Source: Institute of Information and Prognoses of Education

***Absolute number of participants and participation rate in ISCED 3 VET programmes in 2002***

	2002							
	Age							
	Total	14 (and less)	15	16	17	18	19	20 (and more)
	<b>Absolute number</b>							
<b>Male</b>	115 882	11	17 998	31 021	31 989	22 550	7 674	4 639
<b>Female</b>	101 882	29	16 677	26 485	27 704	19 976	6 708	4 303
<b>Total</b>	217 764	40	34 675	57 506	59 693	42 526	14 382	8 942
	<b>Participation rate (%)</b>							
<b>Male</b>			43.02	70.60	70.70	49.90	16.85	
<b>Female</b>			41.13	62.96	63.87	45.88	15.37	
<b>Total</b>			42.09	66.87	67.36	47.93	16.12	

Source: Institute of Information and Prognoses of Education

Data in 2000 and 2002 are biased by the reform of basic school (expansion from eight years to nine years). This expansion was carried out within a period of three years regulated by administratively lowered entry capacities at secondary schools, and is visible in the slight decrease in the participation rates of 15-year olds and in the slight increase in the participation of 19-year olds in comparison of 2000 and 2002. The bias in upper secondary school related statistics ended in the 2003/2004 school year because all secondary school graduates were due to finish the nine-year basic school (ZŠ, základná škola).

Nevertheless, two traditional features are confirmed even within the data above. The dominance of VET education over general education and the higher participation rates of males over females in IVET.

#### **040301 Access requirements**

Accession to upper secondary schools is regulated by the Ministry of Education SR (MŠ SR, Ministerstvo školstva SR) Decree No 145/1996 Coll. on admission to secondary school (Vyhláška MŠ SR č. 145/1996 Z.z. o prijímaní na štúdium na stredných školách) as later amended by the MŠ SR Decree No 706/2004 Coll. Graduates of basic school (ZŠ, základná škola) or anyone else interested with completed basic education can apply to two different schools or programmes.

Admission tests relate to the so-called profile subjects officially announced by the MŠ SR (Ministry of Health SR in the case of secondary health schools) by 15<sup>th</sup> October of the respective school year at the latest. The school director is responsible for the elaboration of the criteria and content of the admission tests, which are elaborated in co-operation with the educational staff and discussed in a meeting of the entire educational staff and the education council (pedagogická rada), and must be made public by 20<sup>th</sup> March of the respective school year at the latest. The criteria according to which students may be accepted without passing admission exams can be agreed upon. There are two official dates of exams: Monday (and Tuesday, if needed) in the first full week in May, and Thursday (and Friday, if needed) of the same week. Specific exams may be required in advance for studies within programmes for talented students (e.g. in the Arts) and additional exams can be organised by schools wishing

to attract more students. The director must make public the ranking of applicants within three days. This ranking provides for guaranteed acceptance into the school provided the applicant is within the prior agreed upon (discussed among the education board, commented on by the school board (rada školy) and approved by the establisher of the school) and publicly announced number of places. The ranking is decisive for the decision of admittance made by the school director with the assistance of the admission committee unless the student's health status indicated in the medical report is considered inappropriate for the respective study programme. Applicants "below the line" may be admitted provided better-ranked students decide for the other school, where they also successfully passed the entrance exams. The director of the school must allow for the checking of the applicant's test and other tangible products by parents, the applicant's basic school class teacher and basic school subject teacher from the same school year.

Traditionally, grammar schools (G, gymnázium) and some attractive secondary specialised schools (SOŠ, stredná odborná škola) offer lower capacities than required by the number of interested students, while secondary vocational schools (SOU, stredné odborné učilište) facing a lack of students since 1990s organise specific recruitment activities at school and at appropriate basic schools. In 2005 enough places will be offered in all streams of secondary schools due to the long-term decrease in population, except for very high status schools (e.g. bilingual schools).

#### ***04030101 Promoting participation***

##### **Promoting participation**

There is very intense competition in the market of educational services due to the marked and long-lasting population decrease and the strict financing of schools on a per capita principle. Due to the high unemployment rate of graduates as well as the high total unemployment rate, young people have a tendency to study longer. They prefer four-year study branches over three-year training branches. For the same reason continuing in two-year follow-up studies after the three-year training branch are increasingly popular. Furthermore, three-year study branches do not allow for application to higher education. Hence, schools offering predominantly training branches run the risk of the lack of interest by students. These schools traditionally organise open door days, tours around the basic schools (ZŠ, základná škola), and media activities in order to attract students. They advertise in local media and point to admission without entrance exams. School counsellors (výchovný poradca) at secondary schools are usually involved in these activities, however they act as recruitment managers rather than individual student counsellors in contrast to school counsellors at ZŠ.

A very important source of information for future students and schools, and further promotional strategies come from the websites of four school computation centres (školské výpočtové stredisko) providing for detailed data about the number of places and number of applications in all secondary schools.

There are no specific measures to promote participation. It is up to the school primarily to take action and it is up to the school to find out the appropriate forms of co-operation with the school establisher who is highly motivated to attract students as well and entrepreneurs who might be at least positive towards this. It is worth stressing that the population in Slovakia is highly motivated to receive education and the "maturita" – ISCED 3A level is considered a must for nearly everyone except children from socially excluded families.

### **Obstacles to access**

Schools fighting for students and linked state budget contributions are ready to offer part-time studies whenever there is a demand for it. In contrast to higher education, where part-time studies are dramatically expanding, within secondary education the demand for part-time studies is significantly lower.

Due to the increasing costs of accommodation in dormitories and commuting, students are interested in distance learning. However, secondary schools are neither equipped for nor accustomed to this; hence face-to-face education and training is considered inevitable. To facilitate access the network of schools became richer, even beyond the limits of sound efficiency, in 1990s. This is why per capita financing was introduced.

The share of the secondary educated population in Slovakia is among the top in Europe and obstacles are visible in the access to higher education rather than those to secondary education. The exception applies to minorities, predominantly the Roma youth from socially disadvantaged families, who usually face difficulties in ZŠ. This is why specific measures were implemented to help Roma students successfully complete basic school and enter secondary school (see 0405).

Students with special needs have traditionally been served by the special school sub-system offering the same qualifications as mainstream schools within the adjusted learning environment. Integration into mainstream schools' special classes and even inclusion into regular classes is promoted by contributions 2.5 times higher than the standard per capita contribution.

### **Individual participant needs**

Compulsory education was set at 10 years for the specific purpose of pushing students to secondary education (and to signal the expansion of compulsory education to 12 years in the future). In all ZŠ there are school counsellors who should serve students within the process of making the choice about future education and the appropriate school. Nevertheless, parents and wider social circles are crucial with regard to this decision. The travelling distance from the households or wider family households and the language of instruction play an important role in this decision. Thus, the quality of the network of schools and the network of programmes is substantial.

Therefore, new schools and programmes mushroomed in 1990s driven predominantly by students' and parents' interests and causing the economically inefficient situation. The strict per capita funding introduced in the 2000s might however lead to the other extreme. Without any other intervention, diversity and meeting student individual needs might be sacrificed for the sake of savings.

Student councils may be established in all secondary schools in order to represent student needs. This is a platform for students to comment on problems and to initiate changes better fitting their education and training needs. Elected representatives of students and by the students' school board (žiacka školská rada) elected members of the school board (rada školy) as well as representatives of parents on the school board can also raise issues regarding individual student needs.

## 040302 Curricula

Two institutions established by the Ministry of Education SR (MŠ SR, Ministerstvo školstva SR) are responsible for curriculum designing.

The National Institute for Education (ŠPÚ, Štátny pedagogický ústav) is responsible for the general education curriculum including general subjects of VET schools, and the State Institute of Vocational Education (ŠIOV, Štátny inštitút odborného vzdelávania) is responsible for the VET curriculum. These institutions are responsible for elaboration of the so-called basic pedagogical documents (ZPD, základné pedagogické dokumenty) for respective study programmes consisting of the educational plan (učebný plán) setting respective number of teaching hours per week for subjects, the educational content related syllabi (učebné osnovy) and educational standards (vzdelávacie štandardy). ZPD contain graduate's profile and explicit comprehensive characteristics of the programme; nevertheless they are very detailed and extensive. ZPD for the training branch 36612 Bricklayer consist of 61 pages and represent one of the thinnest ZPD, while ZPD for the study branch 42106 Entrepreneurship in agriculture and respective sub-specialisations consist of 456 pages and represent one of the largest ZPD.

ZPD are elaborated under the supervision of the aforementioned institutes; however, this is done in close co-operation with teachers, predominantly those who are members of expert commissions at the ŠPÚ and expert commissions at the ŠIOV. There are 15 multi-partisan expert commissions (expertné komisie) covering respective sectors of the national economy, established at the national level affiliated to the ŠIOV providing for IVET study and ZPD training branches. The ŠIOV provides for the administrative infrastructure as well as methodological advice for changes in ZPD. (For further details on expert commission status and activities see 040105) Curricula changes agreed within expert commissions must be approved (and are subject to change) by the MŠ SR.

The expert commission for health sector studies is established under the responsibility of the Ministry of Health SR (MZ SR, Ministerstvo zdravotníctva SR). The VET part of the curriculum of secondary health schools is also elaborated, approved and respective documents issued by the MZ SR, following an agreement with MŠ SR. The general education part of the curriculum is backed and respective documents issued by the MŠ SR, following the agreement with MZ SR. A similar practice should be applied with regard to the secondary school of fire control established by the Ministry of Interior SR (MV SR, Ministerstvo vnútra SR) because the school belongs to the secondary specialised schools stream and offers ISCED 3A programme. Nevertheless, curriculum of this school is traditionally elaborated under the responsibility of the MV SR making use of experience of the education sector. Other three schools established by the MV SR, as well as the secondary school for justice ward established by the Ministry of Justice SR (MS SR, Ministerstvo spravodlivosti SR), provide only post-maturita studies with curricula fully developed under the responsibility of the respective ministries.

Schools may further adjust the curriculum approved at the central level. An upper limit of 10% of the weekly teaching hours may be changed, however no subject may be cancelled by application of this rule. 30% of the content may be adjusted to local/regional needs including regional labour market needs. Finally, the director of the school is responsible for making sure that the instruction adheres to set educational plans, syllabi and educational standards, according to the law.

Curricula renewal is a permanent process. Changes may be initiated by schools or any other players via the aforementioned institutes. In IVET the changes are fuelled by the importance of overcoming traditional VET fragmentation into sub-specialisations. The new ZPD are more widely constructed and overarch former sub-specialisations while offering more room for individual adjustment of the curricula up to 25% of weekly hours of instruction in upper grades. New basic pedagogical experiments contain explicitly stated competencies, among which new basic skills are embedded. Although the importance of new skills is fully recognised and the importance of the introduction of new methods such as e-learning is recommended and supported, progress in this field has been hampered by the lack of equipment and an insufficiently developed learning environment, as well as by rather traditional teacher and trainer training. A national project co-funded by the ESF aimed at the revision of the general subjects of VET schools was approved in 2004 and further changes in IVET are expected to be promoted by additional ESF projects; the call has been published and proposals are to be submitted by 20<sup>th</sup> May 2005.

Due to the massive investment and successful fulfilment of the PCs for Schools project (see *PCs for schools: from rhetoric to reality. In: Cedefop Info No 2/2004*) all basic and secondary schools were wired to the Internet by the end of 2004. Class-ready digital resources have however remained limited and computer assisted learning and e-learning is applied very selectively and used only by highly motivated individuals. Worth mentioning is a grant scheme for VET schools interested in CAD/CAM/CAE technologies launched by MŠ SR; with total amount of SKK 1 500 000 (EUR 37 500) allocated for 2005.

Currently, the innovation of curricula is predominantly educational sector impulse-driven, which may not primarily reflect business sector needs. Although social partners were invited to contribute to innovations and innovation mechanisms already set up by 15 multi-partisan expert commissions covering all sectors of the national economy, employers and trade unions have not yet been of substantial influence (except for the two aforementioned sectors).

### ***04030201 Content and delivery***

The main components of curricula are stipulated by law and known as the so-called basic pedagogical documents (ZPD, základné pedagogické dokumenty, see 040302). Within ZPD formal entry and exit formal requirements and a general description of the content and graduate's profile are set together with the setting of the time-table (in terms of total weekly teaching hours and the number of weeks/hours for theoretical and practical education and training), syllabi (učebné osnovy) of respective subjects, recommended and approved by the Ministry of Education SR (MŠ SR, Ministerstvo školstva SR). Within ZPD the knowledge and skills of graduates are explicitly stated reflecting diverse occupational and/or sectoral needs. Room for adjustment to individual needs is explicitly indicated within the increasing opportunities of choice in the last years of study through optional subjects. The right to change 10% of the weekly teaching hours and 30% of the content are explicitly stressed.

Traditionally very fragmented VET with more than one thousand specialisations and sub-specialisations has been in the process of restructuring and clustering since the 1990s. However, in the 2003/2004 school year, respective study and training branches could have referred to a total of 1 363 specialisations and sub-specialisations. This number includes 531 ISCED 3 + 4 programmes offered by specialised secondary schools (SOŠ, stredná odborná škola), 675 ISCED 3 programmes offered by secondary vocational schools (SOU, stredné

odborné učilište), 44 ISCED 2C programmes (see 0402) and 113 ISCED 5B programmes (see 040602). The tables below offer an overview of other specialisations and sub-specialisations broken down by the level of education in SOŠ and SOU.

*Number of specialisations and sub-specialisations at SOŠ in 2003/2004*

Clusters (skupiny odborov)	ISCED		
	3C	3A, 4	3C+3A,4
Physics and mathematics	0	1	1
Mining and mining geology	0	16	16
Metallurgy	0	15	15
Engineering and other metal-processing	0	24	24
Engineering and other metal-processing (SOU)	-	-	-
Electrotechnics	0	38	38
Technical chemistry of silicate chemistry	0	10	10
Technical chemistry (w/o silicate chemistry)	0	25	25
Food-processing	0	20	20
Textile and clothing	0	11	11
Processing of hides, plastics, rubber, shoes production	0	4	4
Wood-processing and musical instruments production	0	11	11
Pulp, paper processing and printing	0	4	4
Building, geological survey and cartography	0	32	32
Transport, post and telecommunication	0	34	34
Special technical specialisations	0	19	19
Agriculture and forestry	0	72	72
Veterinary sciences	0	11	11
Agriculture and forestry (SOU)	-	-	-
Healthcare	1	11	12
Economic sciences	0	1	1
Economics and organisation, retail and services	3	36	39
Economics and organisation, retail and services (SOU)	-	-	-
Legal sciences	0	3	3
Library and information sciences	0	12	12
Pedagogical sciences	0	1	1
Pedagogy	1	6	7
Arts, applied arts and folk crafts	0	86	86
Arts, applied arts and folk crafts (SOU)	-	-	-
Security services	0	9	9
Non-state security services	0	2	2
Secondary school military branches	0	12	12
<b>Total</b>	<b>5</b>	<b>526</b>	<b>531</b>

Source: Institute of Information and Prognoses of Education (Ústav informácií a prognóz školstva)



*Number of specialisations and sub-specialisations at SOU in 2003/2004*

Clusters (skupiny odborov)	ISCED		
	3C	3A	3C+3A
Physics and mathematics	-	-	-
Mining and mining geology	2	2	4
Metallurgy	6	4	10
Engineering and other metal-processing	1	1	2
Engineering and other metal-processing (SOU)	82	25	107
Electrotechnics	33	31	64
Technical chemistry of silicate chemistry	40	7	47
Technical chemistry (w/o silicate chemistry)	28	19	47
Food-processing	22	13	35
Textile and clothing	30	15	45
Processing of hides, plastics, rubber, shoes production	18	9	27
Wood-processing and musical instruments production	24	8	32
Pulp, paper processing and printing	12	7	19
Building, geological survey and cartography	27	11	38
Transport, post and telecommunication	7	27	34
Special technical specialisations	-	-	-
Agriculture and forestry	1	0	1
Veterinary sciences	-	-	-
Agriculture and forestry (SOU)	29	18	47
Health care	-	-	-
Economic sciences	-	-	-
Economics and organisation, retail and services	1	0	1
Economics and organisation, retail and services (SOU)	34	24	58
Legal sciences	-	-	-
Library and information sciences	-	-	-
Pedagogical sciences	-	-	-
Pedagogy	-	-	-
Arts, applied arts and folk crafts	-	-	-
Arts, applied arts and folk crafts (SOU)	21	36	57
Security services	-	-	-
Non-state security services	-	-	-
Secondary school military branches	-	-	-
<b>Total</b>	<b>418</b>	<b>257</b>	<b>675</b>

Source: Institute of Information and Prognoses of Education

Respective study branches (študijný odbor) and training branches (učebný odbor) are classified according to nine fields (starting with Natural science (1) and finishing with Military and Security (9)) and broken down into 60 clusters (starting with Mathematics and Physics (11) and finishing with Military Economics (98)).

A bit specific for this kind classification, clusters are in fact really considered as subsuming specialisations rather than referring to a specific field. As a consequence almost identical classes from the point of view of the field of study are identified as different, e.g. Engineering and other metal-processing is coded 23 while Engineering and other metal-processing originally aimed for SOU is coded 24. This is why in the table above “similar specialisations” in three cases are not counted together. Furthermore, while SOŠ never open programmes belonging to one of three SOU specific clusters SOU trying to attract students caused some overlaps in the table, e.g. with two specialisations from a non- SOU cluster.

Two additional digits added to the cluster code represent respective specialisations as listed in the register. The next digit represents the level of education to be achieved (0-9; according to the national classification of levels of education see 040103), e.g. 28604 represent an operator

in chemistry, meaning Technical chemistry (w/o silicate chemistry) with a code 28, an operator with a code 60 and the study branch completed with the “maturita” school leaving exam with a code 4. At the same time, code 4 specifies that this study is provided by SOU. The additional two digits in the code make a difference between respective sub-specialisations, e.g. a 2860401 is an operator in chemistry with sub-specialisation on industrial chemistry, while a 2860403 refers to a sub-specialisation in pharmaceutical production and a 2860403 refers to a sub-specialisation in environmental protection. Sticking to the original profiles of graduates, training branches and even study branches at SOU feature more practice oriented education and training compared to study branches at SOŠ.

In SOŠ, general subjects represent 42% to 45% of the instruction time. VET subjects represent 55% to 58% of the instruction time, out of which 25% to 30% is practical training.

In SOU in ISCED 3A branch curricula, general subjects represent 25% to 50% of the instruction time. VET subjects represent 50% to 75% of the instruction time, out of which 35% to 40% is practical training. In ISCED 3C branches general subjects represent 20% to 40% of the instruction time; VET subjects represent 60% to 80% of the instruction time, out of which 50% is practical training.

When looking at the distribution of the share of general and theoretical subjects within all VET programmes, the 40% to 60% category is the most frequent category - the modus. When looking at vocational subjects, the category 60% to-80% category is the modus.

Changes in the curriculum are in essence of two types: content related innovations aimed at adjustment of ZPD and structural changes where new ZPD and study programmes should replace the old ones, e.g. a new experimental programme (2880400) named Chemistry and the Environment has been developed, and after successful piloting it will replace 28604 Operator in Chemistry with all specialisations from 2860401 to 2860404. This example also explains that the total numbers in the table above also include temporarily redundant sub-specialisations. All eligible specialisations and sub-specialisations are explicitly listed in the annex to the MŠ SR Decree No 80/1991 Coll. on secondary schools (Vyhláška MŠ SR č. 80/1991 Zb. o stredných školách), later amended by Decree No 120/2003 Coll., so the number of regular specialisations and sub-specialisation differs from the currently active specialisations and sub-specialisations indicated in the table. The latest updated list is prepared for the 2004/2005 school year.

According to the analysis of the State Institute of Vocational Education (ŠIOV, Štátny inštitút odborného vzdelávania) 145 study and training branches have yet to be subjected to substantial revision and 79 are currently without students and will be revised in the event of revived interest. Furthermore 64 branches are considered obsolete and will be removed from the list. A total of 39 study and training branches will be substantially innovated in 2005.

The philosophy of the recent changes in curriculum could be characterised according to the ŠIOV, as follows:

In SOŠ the common feature of innovations in most of study branches is a wider graduate profile and transition to integrated branches where more room is created for acquisition and development of the students' key competences, such as foreign language competences and ICT literacy. General education is pronounced (however with no shift in weekly hours of instruction); in vocational subjects the stress is put on the acquisition of basic production and technology principles in order to increase the adaptability of students to the changing labour market.

Similarly, in SOU innovations of specialisations and sub-specialisations tend towards new study branches with wide profiles. At the same time normatives concerning capacities and equipment for theoretical education and practical training were elaborated. Within the

innovation of training branches as well as the elaboration of new curricula, the interest of employers and co-operation with employers has been accepted whenever offered.

In general, there are three sources supporting the trend to strengthen the general and theoretical elements within VET.

- The aforementioned elements are strengthened as a consequence of financing VET predominantly from public sources; the shift from practice to general and theoretical elements is cost saving;
- The practical element suffers from the lag in technology development; in order to prevent the provision of obsolete practical training the increase of instruction hours of general and theoretical elements is the substitution of the solution of the problem with practical training;
- The low predictability of labour market needs and a general call for flexibility cause a shift towards wider profiles with strengthened “general vocational” profiles focusing on general principles in technology and new literacy tools (ICT, foreign languages, information processing).

A detailed analysis of innovations is available in an unpublished report from 2004 prepared by ŠIOV. The final shape of the curricula infrastructure will be definitely set by the new Education Act that is under preparation and expected to be publicly discussed in mid 2005. A reduction of up to 22 clusters is under discussion.

#### ***04030202 Assessment***

Assessment within instruction is based on the following marking scale: excellent (1), laudable (2), good (3), satisfactory (4), failing (5) and follows the rules obligatory for teachers and trainers stipulated by the internal regulations of the respective schools and §§ 15 to 18 of the Ministry of Education SR (MŠ SR, Ministerstvo školstva SR) Decree No 80/1991 Coll. on secondary schools (Vyhláška MŠ SR č. 80/1991 Zb. o stredných školách), as amended. The form of assessment in terms of written, oral and practical form is left up to the teacher, however a combination of forms is encouraged. Students were traditionally assessed by oral examinations with a gradual tendency to increase the use of written forms; standardised tests are however very rare and available for general subjects only.

Continuous assessment is a precondition of overall assessment and is carried out at mid-term and at the end of the school year when students receive certificates which include grades in subjects and behaviour. In the last year of study students take examinations based on which students are provided with certificates as official documents entitling them to leave school and enter the labour market or apply for higher levels of education.

There were no specialised bodies for the assessment, certification, and awarding of diplomas and qualifications; full responsibility lay with the secondary schools, which simply followed a special decree of the MŠ SR. Since the 2004/2005 school year, an incremental reform of school leaving exams has been introduced by the new MŠ SR Decree No 510/2004 Coll. on completion of education at secondary schools and completion of training at vocational schools for SEN students, vocational schools and practical schools (Vyhláška MŠ SR č. No 510/2004 Z.z. o ukončovaní štúdia na stredných školách a ukončovaní prípravy v odborných učilištiach, učilištiach a praktických školách). The final objective is to provide for valid, nation-wide

comparable information about individuals' performance. With regard to respective subjects one to three levels (A, B, C) may be selected by the student. The level expresses the acquired "knowledge and skills", e.g. "Level B is the sum of requirements of the knowledge and skills of students framed by the syllabi (which means the centrally set characteristics of the respective subject matter) and target requirements (which were framed by the decree and operationalised by the Catalogue of Target Requirements by curricular authorities) on the basic level" (according to § 4(7)) of the aforementioned decree. The assignment of levels in respective subjects was decisively based on the number of weekly hours of instruction allocated for education and training in the curriculum. As a consequence, the low share subjects are only attributed with a level B. This naturally influences vocational subjects and has a negative impact on VET schools (see *Secondary VET schools not happy to be a B. In: Cedefop Info No 1/2005*).

### **04030203 Quality assurance**

No quality assurance system in VET has been introduced in terms of EU initiatives. Nevertheless there are some isolated activities of VET schools often initiated as a result of experience from international partnerships or influence from the business sector; in the former case, usually EFQM-based; in latter case ISO norm-linked. A national model of quality assurance is expected to become at least of a topic of expert discussion under pressure of the Copenhagen Declaration and the Maastricht Communiqué. However, it has not yet been recognised as an urgent policy agenda by the government. The issue of quality in VET is addressed in the traditional way with a detailed description of responsibilities among respective authorities.

With regard to input, schools and programmes have to adhere to the regulations of the Ministry of Education SR (MŠ SR, Ministerstvo školstva SR). Any new school's entry into/exit from the network of schools must be approved by the MŠ SR and any educational programme is in essence based on the curricula finally approved by the MŠ SR. Although executed by the MŠ SR officials, all decisions are based on the evaluation of experts and stakeholders, provided they are really interested in intervening in the procedure.

With regard to the process, the responsibility is fully on the school director who is responsible for the "professional and pedagogical level of educational work", according to § 5(2)e) of Act No 596/2003 Coll. on state administration in education and school self-government (Zákon č. 596/2003 Z.z. o štátnej správe v školstve a školskej samospráve). He/She is also responsible for the elaboration of the annual report on education. This report is submitted to the establisher after previous discussion with the school board (rada školy). The regional educational authority is responsible for the elaboration of the development plan of public schools and school establishments, which must be discussed with directors of schools and establishments and the territorial school board (územná školská rada). Within this document, the quality of VET should be addressed.

The State School Inspection (ŠŠI, Štátna školská inšpekcia) provides for the checking for the level of education equipment in schools and school establishments, according § 13. The Chief School Inspector is empowered to propose the revocation of a school's registration from the school network and/or dismissal of the director of the school as a consequence of serious insufficiencies. The ŠŠI is also responsible for the inspection of practical training.

With regard to output, quality should be guaranteed by the school leaving examination. The MŠ SR Decree No 510/2004 Coll. on completion of education at secondary schools and completion of training at vocational schools for SEN students, vocational schools and practical schools (Vyhláška MŠ SR č. No 510/2004 Z.z. o ukončovaní štúdia na stredných školách a ukončovaní prípravy v odborných učilištiach, učilištiach a praktických školách) which regulates the school leaving examination, supports the introduction of external assessment in order to increase the objectivity, reliability and validity (see 04030202) as well as social partners' involvement. Nevertheless, this decree is considered a better reflection of the general educational needs than VET needs. Specific tools in support of VET quality assurance are still to be developed.

### **040303 Learning outcomes**

All forms of completion of studies are certified. A variety of various certificates are partly based on traditional wording but could also indicate the level of education achieved. The list of Slovak wordings of respective certificates include: vysvedčenie o záverečnej skúške, vysvedčenie o maturitnej skúške, výučný list, absolventský diplom. The fulfilling of 10-year compulsory education is not certified, as it is not considered as indicating completion of study programmes but only an instrument for encouraging students to continue secondary education after completion of nine-year basic school (ZŠ, základná škola).

Within VET programmes distinguishing between study and training programmes is essential. Completion of study programmes regardless of the school always guarantees eligibility to apply for tertiary education. In contrast, graduation from training programmes does not allow for continuation in tertiary education as it is designed for direct entry to the labour market; graduates receive the certificate of apprenticeship (výučný list). Some specific details are explained in 04030301.

#### ***04030301 Qualifications/certification***

As explained earlier VET offered within study programmes always refer to the dominance of theory over practice while training programmes always means an essential share of practical training leading to the certificate of apprenticeship (výučný list). Due to the history and changes in programming, study programmes have respective VET stream specific features. Although being rated ISCED 3A, secondary vocational school (SOU, stredné odborné učilište) type study programmes feature less theory-dominated instruction than secondary specialised school (SOŠ, stredná odborná škola) type study programmes.

Graduates from SOU type-study programmes from SOU or associated secondary school (ZŠŠ, združená stredná škola) could receive two certificates – a certificate of apprenticeship and a “maturita” school-leaving certificate (vysvedčenie o maturitnej skúške) provided they successfully pass the respective exams (which is the case), in contrast to graduates from SOŠ-type study programmes from SOŠ, ZŠŠ and rarely also from SOU who receive only a “maturita” school-leaving certificate. All this might seem non-systemic and it is in fact the result of the years of development and adjustment to the input market needs (of parents and students). This problem should be addressed by the new law on upbringing and education scheduled for submission to the government in 2005.

Marginal cases (in terms of the volume of students as well as programmes, see 04030201) of short track study programmes at SOŠ lead to final exam certificate (vysvedčenie o záverečnej skúške) not entitling graduates to continue their studies in tertiary education, but indicating the adoption of competencies for simple professions, however not those requiring a certificate of apprenticeship.

Programme/Feature	Provider	ISCED	NC	NSC	Certificate
<b>SOŠ type study programme</b>	SOŠ, ZSŠ (SOU)	3A	FSVE	6	Maturita school-leaving certificate
<b>SOŠ type study programme Short track*</b>	SOŠ, ZSŠ (SOU)	3C	SVE	3	<b>Final exam certificate</b>
<b>SOU type study programme</b>	SOU, ZSŠ	3A	FSVE	4	Maturita school-leaving certificate+ Final exam certificate + Certificate of apprenticeship
<b>Training programme</b>	SOU, ZSŠ	3C	SVE	2	Final exam certificate + Certificate of apprenticeship

Notes:

\*less than 4-year programme; marginal case in volume of students and branches (5 in total in 2003/2004)

First indicated school among providers is the typical case, school in brackets indicates a very special case.

National classification: Full secondary vocational education, Secondary vocational education

National statistics classification (missing code 5 refers to general education, see also codes in 040103)

As the above table shows, in all cases students obtain formal qualification and not just a certificate of attendance. The same applies for special education needs students attending special SOŠ or special SOU. There are of course students among special education needs students who receive only a certificate of attendance but this happens within programmes for students with limited ability to learn; they are not rated as ISCED 3 level programmes. School leaving exams are always applied as a precondition to obtain formal qualification. Details of the exams are stipulated by the Ministry of Education SR (MŠ SR, Ministerstvo školstva SR) Decree No 510/2004 Coll. on completion of education at secondary schools and completion of training at vocational schools for SEN students, vocational schools and practical schools (Vyhláška MŠ SR č. No 510/2004 Z.z. o ukončovaní štúdia na stredných školách a ukončovaní prípravy v odborných učilištiach, učilištiach a praktických školách).

Traditionally VET programmes in Slovakia are rather narrow in profile and hence students cannot receive more than one type of qualification. It is however quite typical for the VET system that lots of VET graduates (those from ISCED 3A) receive both qualification for entering the labour market and entitlement to apply for higher education institution.

### ***04030302 Progression and transition (incl. statistics)***

With regard to access to regulated professions the Slovak legislation is fully harmonised with the EU, and Act No 477/2002 Coll. on the recognition of professional qualifications (Zákon č. 477/2002 Z.z. o uznávaní odborných kvalifikácií) was elaborated before EU accession. Entering the labour market is in practice left up to the graduate and his/her social network. Counsellors at schools could be asked for advice and diverse Internet based services could be used. The latter case is developing to the standard reaction while looking for the advice of any

kind of counsellors is rare. The exception is unemployed graduates who are served by job centres counsellors assisting them in the development of individual action plan. This plan refers to the personal and professional skills of the job seeker with the aim to increase his/her employability.

Due to the high share of ISCED 3 graduates and very low share of drop-outs (in both cases Slovakia belongs to the best EU countries exceeding 2010 benchmarks) no specific mechanisms are developed. Individual cases are treated individually. There is one exception – Roma minority youngsters from socially disadvantaged families. Predominantly for them schools of second chance are newly introduced on an experimental basis (see 0405).

#### **0404 APPRENTICESHIP TRAINING (INCL. STATISTICS)**

There is no apprenticeship in Slovakia despite the use in the common language of the term apprentice, referring to students of secondary vocational schools (SOU, stredné odborné učilište) or even when translating SOU into English. As explained earlier (see 040101) even SOU originally strongly linked to enterprises are now regular public schools maintained by regional educational authorities and those attending SOU are regular students according to law. In contrast to the 1980s where a vast majority of SOU students was contracted and co-funded in VET by enterprises, there were only 133 marginal students in public SOU and 1 113 in private SOU contracted in 2003/2004. Also this case, which could be considered similar to apprentice type training, is not considered apprentice type training by the law.

#### **0405 OTHER YOUTH PROGRAMMES AND ALTERNATIVE PATHWAYS (INCL. STATISTICS)**

There are three vulnerable groups from the insufficient qualification and/or low employability point of view.

- Special education needs students;
- Low achievers from basic school (ZŠ, základná škola);
- Roma minority youth from socially disadvantaged families.

While the first group is well served by a variety of programmes and their employability to a large extent depends on the efficiency of social sector measures: no barriers entry policy, stimulation for employment of disabled, financial incentives of sheltered workshops, etc. The two latter groups are education sector problems.

In 2002/2003 there were 2 681 and 296 participants enrolled at vocational schools (U, učilište) and similar programmes of associated secondary schools (ZSŠ, združená stredná škola), respectively. Young people graduating from these schools however, have no opportunity to improve their educational and qualification levels unless entering part-time studies at secondary vocational school (SOU, stredné odborné učilište) or those who failed to complete ZŠ could continue in secondary education after completing basic education within the second chance school. Nevertheless, these young people with bad experience with

mainstream school system usually are not interested in education and training and look for low-skilled jobs in the labour market. Vocational schools try to offer them at least something within practical training to be able to achieve simple jobs. These so-called “zero” branches (ISCED 2C) represent a net spread over almost all areas of study to help these young people. As can be seen from the following table and corresponding to low early school leavers statistics, the number of participants within this VET is very low.

***Absolute number of participants at vocational schools and associated secondary schools (ISCED 2C VET)***

	2002							
	Age							
	Total	14 (and less)	15	16	17	18	19	20 (and more)
<b>Male</b>	2 197		517	1 060	511	100	8	1
<b>Female</b>	780		178	339	216	42	3	2
<b>Total</b>	2 977		695	1 399	727	142	11	3

Source: Institute of Information and Prognoses of Education (Ústav informácií a prognóz školstva)

If interested participants at U can complete basic education making use of the individually adjusted education, and consequently finish ISCED 3 studies at SOU. This is one of reasons why U are affiliated to SOU.

The most urgent problem of Slovak education system is the failure of a significant part of Roma young people to achieve qualification enabling them to assert themselves in the labour market. No statistics are available about ethnic Roma, because many of them consider themselves as belonging to another nationality, usually Slovak or Hungarian. There were only 89 920 declared Roma (1,7 % of the total population in Slovakia) according to the 2001 Census in contrast to 350 000 ethnic Roma according to the demographic estimation. In segregated settlements there are about 100 000 ethnic Roma representing 28 % of the ethnic Roma, of which about half are children according to the National action plan on social inclusion 2004 – 2006. These children at high risk of not receiving basic education and of functional illiteracy need special treatment in order to adopt at least some marketable qualification. Usually not motivated to enter mainstream basic school many of them enter special basic schools for mentally handicapped and lose the opportunity to achieve ISCED 3 level-related better qualification.

Although it is in violation of the law and strictly forbidden by the Ministry of Education SR (MŠ SR, Ministerstvo školstva SR) many Roma enter non-demanding special basic school due to various practical reasons. A precondition for acquiring appropriate VET for Roma is receiving the appropriate general education. Many PHARE programmes and ESF programmes inspired and surveyed by the Office of the Plenipotentiary of the Government of the SR for Roma Communities (Úrad splnomocnenkyne vlády SR pre rómske komunity) work on both identification of appropriate instruments for increasing the level of education of Roma and on piloting specific programmes for them. The PHARE sponsored Roma Educational Centre (Rómske vzdelávacie centrum), an integral part of the Methodological and Pedagogical Centre in Prešov (Metodicko-pedagogické centrum v Prešove), is aimed at supporting the effective education of the Roma minority. The National action plan on social inclusion 2004 – 2006 has identified specific measures to address this issue.



In contrast to vocational schools that are part of the formal system stipulated by law, all project activities including second chance schools are still not components of the formal system. Two specific measures were adopted by the parliament amending the Education Act and affecting primary education: introduction of zero classes aimed at adjusting of Roma pupils to the requirement of mainstream basic schooling and introduction of teacher assistants into basic schools as sort of liaison officers and inter-cultural agents facilitating contacts between school and Roma communities. Furthermore, also with the support of ESF scholarships aimed at retaining students from socially disadvantaged families at basic and secondary schools were introduced.

#### **040501 Access requirements**

There are no specific requirements for entering vocational schools (U, učilište), unless explicitly stated within the relevant basic pedagogic documents (see 040302). For example it could be required that at least six grades of basic school must be completed, as it is in the case of training in wood processing.

Participation in diverse ad hoc activities co-financed by PHARE or ESF or other programmes depends on the targeting of respective projects and programmes.

#### **040502 Curricula**

Curricula at vocational schools (U, učilište) is derived from the respective area of study ISCED 3C training branch curricula by a reduction of theory to a minimum and the expansion of practical training (e.g. 5 week hours of general education and 26 week hours of vocational training, of which 24 is practical training, in the first year of training in wood processing). The curricula of respective “zero” branches are developed by the same procedure as those of other branches by expert commissions at the State Institute of Vocational Education (ŠIOV, Štátny inštitút odborného vzdelávania) approved by the Ministry of Education SR (MŠ SR, Ministerstvo školstva SR). Even in such a case, the relevant documentation contains about 40 pages strictly following the prescribed format.

Curricula for specific project activities are developed ad hoc by the project management and are not the part of the formal system.

#### **040503 Learning outcomes**

Graduates of vocational school (U, učilište) regular two years programme (e.g. two years training in wood processing) receive a certificate after the second year and successful completion of a final exam indicating the competence to perform simple tasks. It neither certifies the level of education nor apprenticeship. Its content is rated as ISCED 2C.

In a new experimental version training can last one to three years, each year leading to the certification of competence, which is e.g. a format of new pilot programme in construction.

#### 0406 VOCATIONAL EDUCATION AND TRAINING AT POST-SECONDARY (NON-TERTIARY) LEVEL (INCL. STATISTICS)

Two types of post-secondary programmes are offered by secondary schools, according to § 26 of Education Act No 29/1984 Coll. (Zákon č. 29/1984 Zb. o sústave základných a stredných škôl (školský zákon)), as amended:

- follow up study (for ISCED 3C programmes for graduates wishing to receive ISCED 3A “maturita” school leaving certificate (vysvedčenie o maturitnej skúške)) to receive a more highly valued full secondary vocational education and entitling graduates to apply for tertiary education; and
- “post-maturita” study (for ISCED 3A programmes for graduates wishing to complement their studies) in the following forms of studies: developing, refresher, specialising, qualifying.

According to the § 33 of Ministry of Education SR Decree No. 80/1990 Coll. on secondary schools (Vyhláška Ministerstva školstva SR č. 80/1990 Zb. o stredných školách)

- “post-maturita” developing study is at least of six months length, completed by the final exam and aimed at improving competence in connection with the earlier studied field; rating not exceeding ISCED 3A;
- “post-maturita” refresher study is at least of six months length completed by the final exam and aimed at the updating of earlier acquired knowledge and skills; rating not exceeding ISCED 3A;
- “post-maturita” specialising study is at least of 12 months length completed by the “absolutorium” exam aimed at improving competence with regard to specific activities in connection with the earlier studied field, and providing an initial vocational qualification at a higher level than secondary education; rating ISCED 5B.
- “post-maturita” qualifying study is at least of 12 months length completed by the “maturita” school leaving exam in respective subjects aimed at receiving qualification in other than the earlier studied field providing (additional) vocational specialisation; rating ISCED 4 level.

Follow up studies and “post-maturita” studies were traditionally organised as part-time studies, but can also be offered as full-time studies or in a combined form.

The numbers of follow up study participants are included in the statistics for ISCED 3 programmes in VET schools (See 0403.) Data according to age group is not available.

Detailed statistics concerning “post-maturita” studies broken by respective ages is available only for qualifying and specialising studies.

The table below offers the absolute number of participants of “post-maturita” qualifying studies (in Slovakia this is the only programme rated ISCED 4, according to UOE harmonised statistics) in 2002/2003.

***Absolute number of participants in ISCED 4 in 2002***

	2002												
	Age												
	Total	17 (and less)	18	19	20	21	22	23	24	25	26-29	30-34	35 (and more)
<b>Male</b>	2 580	1	183	487	369	284	343	219	144	96	257	110	87
<b>Female</b>	3 797	2	438	1 023	685	292	194	136	117	102	333	225	250
<b>Total</b>	6 377	3	621	1 510	1 054	576	537	355	261	198	590	335	337
<b>out of which full-time students</b>													
<b>Total</b>	4 324	3	562	1 347	896	440	327	256	151	101	167	41	33

Source: Institute of Information and Prognoses of Education

It is visible that this programme is attractive predominantly for fresh graduates with “maturita” who however consider receiving an additional “maturita” certificate more suitable for entering the labour market. It is more attractive for young females than males as is visible from the statistics of 18 and 19 year olds. Often females graduating from grammar school (G, gymnázium) and not entering higher education look for VET qualification.

Although originally intended as predominantly part-time studies, “post-maturita” qualifying studies become popular as full-time studies partly due to the high unemployment rate of youngsters.

The table below offers the absolute number of participants of “post-maturita” specialising studies in 2002/2003. In Slovakia this programme is rated ISCED 5B according to UOE harmonised statistics, although it is not recognised as tertiary education by the Higher Education Act.

***Absolute number of participants in ISCED 5B in 2002***

	2002												
	Age												
	Total	17 (and less)	18	19	20	21	22	23	24	25	26-29	30-34	35 (and more)
<b>Male</b>	1 174		127	282	260	143	79	55	33	31	79	34	51
<b>Female</b>	4 944		403	830	649	359	199	163	138	191	552	524	936
<b>Total</b>	6 118		530	1 112	909	502	278	218	171	222	631	558	987
<b>out of which full-time students</b>													
<b>Total</b>	3 470		517	1 090	879	459	216	121	62	50	71	3	2

Source: Institute of Information and Prognoses of Education

This programme is also attractive for fresh graduates, predominantly female, with “maturita” who wish to achieve a higher level of education and better qualification. These people would be very interested in non-university higher education, which is however still underdeveloped in Slovakia due to legislative obstacles which were only removed in 2002. As visible from the last line these studies are almost exclusively attended as full-time studies by young people less than 22 years of age with a gradual increase of part-timers in the older age groups.

The low absolute numbers in both tables above and the low share of tertiary educated indicate that the Slovak education system is secondary education focused. While Slovakia with 91.4% of at least upper secondary graduated aged 20 to 24 (Eurostat, 2004) achieved EU top ranking, school expectancy 15.3 (Eurostat 2003) which is the third lowest in the EU and 18 year olds participation rate 72.2% which is the sixth lowest in the EU indicates that the provision of post-secondary education could be considered a weak point of the education system.

#### **040601 Access requirements**

Detailed access requirements are as always stated in the respective basic pedagogical documents (see 040302); the rule is however simple. For follow up studies graduation from ISCED 3C is required as the basic requirement and for “post-maturita” studies graduation from ISCED 3A “maturita” programme.

#### **040602 Curricula**

Curricula development is subjected to the same procedure as ISCED 3 programme curricula, i.e. they must be approved by the Ministry of Education SR (MŠ SR, Ministerstvo školstva SR) after previous processing by respective expert group(s) affiliated to the State Institute of Vocational Education (ŠIOV, Štátny inštitút odborného vzdelávania), see 040302.

The following table presents the numbers of specialisations and sub-specialisations of “post-maturita” specialising studies, which are offered by secondary schools, however content related rated ISCED 5B as such are included in UOE harmonised statistics.

*Number of ISCED 5B specialisations and sub-specialisations at secondary specialised schools (SOŠ, stredná odborná škola) in the 2003/2004 school year*

Clusters (skupiny odborov)	ISCED 5B
Physics and mathematics	0
Mining and mining geology	1
Metallurgy	1
Engineering and other metal-processing	7
Electrotechnics	8
Technical chemistry of silicate chemistry	0
Technical chemistry (w/o silicate chemistry)	0
Food-processing	2
Textile and clothing	6
Processing of hides, plastics, rubber, shoes production	0
Wood-processing and musical instruments production	2
Pulp, paper processing and printing	0
Building, geological survey and cartography	3
Transport, post and telecommunication	1
Special technical specialisations	1
Agriculture and forestry	17
Veterinary sciences	1
Healthcare	14
Economic sciences	0
Economics and organisation, retail and services	11
Legal sciences	1
Library and information sciences	0
Pedagogical sciences	1
Pedagogy	0
Arts, applied arts and folk crafts	25
Security services	0
Non-state security services	0
Secondary school military branches	11
<b>Total</b>	<b>113</b>

Source: Institute of Information and Prognoses of Education (Ústav informácií a prognóz školstva)

## 040603 Learning outcomes

Learning outcome-related information is summarised in the following table.

Programme/Feature	ISCED	NC	NSC	Exam	Certificate
Follow up studies	3A	FSVE	4	“Maturita” school leaving exam	“Maturita” school-leaving certificate
“Post-maturita” developing study	3A	FSVE	6	“Post-maturita” exam	Final “post-maturita” exam certificate
“Post-maturita” refresher study	3A	FSVE	6	“Post-maturita” exam	Final “post-maturita” exam certificate
“Post-maturita” specialising study	5B	HPE	7	“Absolutorium” exam	“Absolutorium” diploma
“Post-maturita” qualifying study	4	FSVE	6	Vocational part of “maturita” school leaving exam	“Maturita” school-leaving certificate

Notes:

NC – National classification: Full secondary vocational education, Secondary vocational education

NSC - National statistics classification (see also codes in 040103)

A reform of higher education in 1990s started with Act No 172/1990 Coll. on higher education and was further accelerated by the Concept of further development of higher education in Slovakia for the 21<sup>st</sup> century (Konceptcia ďalšieho rozvoja vysokého školstva na Slovensku pre 21. storočie) adopted by the government in 2000, the Bologna process, and the new Higher Education Act No 131/2002 Coll. (Zákon č. 131/2002 Z.z. o vysokých školách), lastly amended by Act No 523/2004 Coll.

Although all programmes of tertiary education are considered to belong to IVET by some experts, other experts disagree, considering as IVET only those programmes leading to clearly identified professions (e.g. medical doctor, electrical engineer) and not diverse humanity related study programmes. There is no official definition of tertiary VET; this issue was addressed in detail earlier (see 0401).

Slovak tertiary education is still dominated by classical and technical universities as a consequence of legislation from the early 1990s not recognising non-university tertiary education. Since 2002 the establishment of non-university higher education institutions is legislatively backed, however only private institutions make use of this opportunity (see 040102).

All master's studies are considered equal from the legal point of view as well as from the social status regardless of the field of study. However, some graduates are more respected due to the status of their profession, such as medicine. Low status is attributed to bachelor's studies, which are still considered just half studies by those traditionally used to master's studies.

The statistical data below offers one alternative to the study distribution of graduates. Technology, economics and agriculture-related faculties graduates considered as hard-core IVET, represent about a half of all graduates. Nevertheless, many graduates of classical universities should also be considered hard-core IVET graduates. It must also be stressed that classical universities open IVET studies and even create new faculties (e.g. faculties of management) in order to meet students' demands.

***Distribution of graduates from bachelor's and master's studies of public HEI\*\* in 2004***

Faculty/Field*	Full-time		Part-time		Total
	All	of which female	All	of which female	
<b>Classical university faculties</b>	7 950	5 429	5 819	3 826	13 769
<b>Technology*</b>	5 783	1 755	638	214	6 421
<b>Economics *</b>	3 652	2 031	2 965	1 940	6 617
<b>Agriculture*</b>	1 244	542	351	160	1 595
<b>Arts*</b>	505	257	0	0	505
<b>Total</b>	19 134	10 014	9 773	6 140	28 907

Source: Institute of Information and Prognoses of Education (Ústav informácií a prognóz školstva)

\* faculty orientation

\*\* Slovak citizens only; PhD studies graduates are not included

The major problem of Slovak tertiary education is the lack of capacities and funding which results in a low share of secondary educated continuing in tertiary education. Instead of catching up the EU average in the share of adults with tertiary education, Slovakia is lagging behind. UOE harmonised data broken by age is not available for 1990 and 1995. A comparison of 2000 and 2002 signals a slight increase, however a more significant increase is desirable. It is worth stressing that about one third of participants in tertiary education are part-time students with in some cases a questionable quality of education and training.

*Absolute number of participants and participation rate in tertiary education (ISCED 5A +5B) in 2000*

2000												
Age												
	Total	17 (and less)	18	19	20	21	22	23	24	25	26-29	30 (and more)
<b>Absolute number</b>												
<b>Male</b>	65 304	11	6 655	9 699	10 057	9 985	9 241	6 285	3 408	1 968	3 916	4 079
<b>Female</b>	70 826	8	6 389	10 532	11 303	11 347	10 093	6 430	3 492	2 042	4 229	4 961
<b>Total</b>	136 130	19	13 044	20 231	21 360	21 332	19 334	12 715	6 900	4 010	8 145	9 040
<b>Participation rate (%)</b>												
<b>Male</b>				21.25	21.52	20.53	19.05	12.91	7.02	4.16		
<b>Female</b>				23.84	25.34	23.96	21.43	13.81	7.51	4.42		
<b>Total</b>				22.52	23.39	22.22	20.22	13.35	7.26	4.29		

Source: Institute of Information and Prognoses of Education

*Absolute number of participants and participation rate in tertiary education (ISCED 5A +5B) in 2002*

2002												
Age												
	Total	17 (and less)	18	19	20	21	22	23	24	25	26-29	30 (and more)
<b>Absolute number</b>												
<b>Male</b>	68 401	7	4 739	10 135	10 191	9 590	9 341	7 294	4 592	2 696	5 002	4 814
<b>Female</b>	79 522	6	5 665	11 353	11 935	11 484	10 828	7 984	4 767	2 739	5 987	6 774
<b>Total</b>	147 923	13	10 404	21 488	22 126	21 074	20 169	15 278	9 359	5 435	10 989	11 588
<b>Participation rate (%)</b>												
<b>Male</b>				22.25	21.93	20.70	19.86	14.98	9.52	5.58		
<b>Female</b>				26.00	27.08	25.84	24.05	16.86	10.19	5.95		
<b>Total</b>				24.09	24.44	23.22	21.91	15.91	9.85	5.76		

Source: Institute of Information and Prognoses of Education

In the best age of 25 years, there were only 1 109 participants in doctoral studies which represented 1.19% of the age cohort and 1 378 participants in doctoral studies which represented 1.46% of the age cohort in 2000 and 2002 respectively.

The full list of all higher education institutions with links to their websites is available at <http://www.uips.sk/vs/index.html>

## **040701 Access requirements**

Access requirements are fully up to discretion of respective faculties of public higher education institutions (HEI) with the only requirement stipulated by law being: achievement of a “maturita” school leaving certificate (vysvedčenie o maturitnej skúške). HEI usually apply entrance exams to select among applicants in particular in the fields where the number of applicants exceeds the capacity of respective schools. Schools may also decide to accept all applicants without entrance exams. Private schools and state schools (e.g. military or police) can also make use of specific requirements. Theological faculties, although listed as public, can differ from other public schools, as well as the Catholic University (Katolícka univerzita) may apply specific religious requirements. Selye University (Univerzita J. Selyeho) in Komárno aimed at serving primarily students of the Hungarian minority in Slovakia requires a sufficient command of Hungarian.

One of the goals of the reform of “maturita” school leaving exam (maturitná skúška) is to offer a valid and reliable assessment of the quality of graduates, which might be used in place of entrance exams provided higher education institution decides to accept it.

A precondition for admission to a PhD study programme is graduation from a master’s study programme and fulfilment of an entrance exam, which is content related fully regulated by the respective faculty.

Study is offered for free, however part-time students are often encouraged to offer some financial contributions to NGOs co-operating with schools in provision of the study. This practice is considered as a violation of the law, however it is difficult to treat it as such. Scholarships are awarded to students following a means tested approach. Nevertheless, the amount of funds available for scholarships is not considered sufficient. A draft-law introducing tuition fees complemented by more generous scholarships and low interest loans passed the first reading in the parliament, however is opposed by predominantly left-wing political parties. The government expects this measure to create wider access to higher education, predominantly for low-income family students.

## **040702 Curricula**

Following the Higher Education Act No 131/2002 Coll. (Zákon č. 131/2002 Z.z. o vysokých školách), as amended, the system of study branches was established by the decision of the Ministry of Education SR (MŠ SR, Ministerstvo školstva SR) dated 16 December 2002. There are 9 clusters with over 300 study branches in total. The precise numbers of branches are presented in brackets: education (10), humanities (43), social science including economics and law (55), natural science (60), technology (67), agriculture and veterinary medicine (35), health and social science (41), services (21), informatics and mathematics (21).

Curricula development is fully up to higher education institutions (HEI) with large autonomy for respective professors. Study programmes elaborated under the supervision of the guarantor of the programme and approved by the faculty self-governing bodies must be approved by the Accreditation Commission of the Slovak Republic Government (Akreditačná komisia Vlády Slovenskej republiky). This commission contains outstanding representatives of higher education institutions and science fields; a third of the members come from outside



HEI. Only accredited study programmes are eligible to admit students; losing accreditation could result in the transfer of students to other HEI for the completion of their studies by the state exam (štátna skúška). HEI are accredited by a specialised procedure and under specific conditions for bachelor's studies, master's studies and PhD studies. Thus, without persuasive backing by professional capacities HEI could be limited in only be granting bachelor's level studies.

There is no specific accreditation body for programmes, which might be considered IVET. Within Accreditation Commission's working groups created to facilitate the Accreditation Commission work, such a point however might be reflected by working group members on an individual basis. The findings of the Accreditation Commission are only recommendations and the final decision about accreditation is up to the Minister of Education.

An evaluation of HEI and the national quality assurance model is in the process of preparation. The Accreditation Commission is a member of the European Network for Quality Assurance in Higher Education (ENQA), the International Network for Quality Assurance Agencies in Higher Education (INQAAHE) and its Central and Eastern European sub-network (CEENQAAHE).

In addition to the Slovak Rectors' Conference (Slovenská rektorská konferencia) initiative, a private initiative, the Academic Ranking and Rating Agency (Akademická rankingová a ratingová agentúra), was launched in Autumn 2004, backed by the former Minister of Education, the former head of the Students' Council of HEI (Študentská rada vysokých škôl) and a member of the parliament, who is also the former rector of Comenius University (Univerzita Komenského).

### **040703 Learning outcomes**

Study programmes were restructured after the adoption of the Bologna agreement. As a result three levels of studies are offered by higher education institutions according to the national system of study branches. It depends however on the results of accreditation, the type and level of studies that are offered by respective institutions.

- First level study programmes are bachelor's study programmes; graduates are awarded the title Bachelor (Bc., bakalár);
- Second level study programmes are master's programmes; graduates are awarded the title
  - Engineer (Ing., inžinier) in study programmes focusing on engineering in diverse specialisations (including also agriculture, forestry, transport, etc.), and economics;
  - Architect Engineer (Ing. arch., inžinier architekt) in study programme of architecture;
  - Doctor of Medicine (MUDr., doktor všeobecného lekárstva) in study programmes in medicine;
  - Doctor of Veterinary Medicine (MVDr., doktor veterinárskeho lekárstva) in study programmes in veterinary medicine;
  - Doctor of Dentistry Medicine (MDDr., doktor zubného lekárstva) in study programmes in dentistry;

- Master of Art (Mgr. art., magister umenia) in artistic study programmes;
- Master (Mgr., magister) in other non-specified cases;
- The tertiary study programmes are diverse doctoral studies. Graduates are awarded the title PhD.

Titles are awarded after successful studying, in particular three to a maximum of four years in the first level, one to three years for the second level, and three to a maximum of four years (in part-time studies maximum of five years) in the third level, passing the final state exams and successful defence of the respective level work – theses.

**Bibliographical reference:**

1. Educational system in the Slovak Republic. Bratislava : ÚIPŠ, 2005, 42 p.  
[http://www.uips.sk/download/rs/Educational\\_system\\_in\\_Slovak\\_Republic.pdf](http://www.uips.sk/download/rs/Educational_system_in_Slovak_Republic.pdf)
2. Education in the Slovak Republic : a brief overview. Bratislava : MŠ SR, [2005], 27 p.
3. Herich, J.: Uplatnenie absolventov stredných škôl v praxi. [Assertion of secondary school graduates in practice.] Bratislava : ÚIPŠ, 2004.  
[http://www.uips.sk/download/rs/regionalny\\_vyvoj.zip](http://www.uips.sk/download/rs/regionalny_vyvoj.zip)
4. Mátej, Jozef et al: Dejiny českej a slovenskej pedagogiky. [History of Czech and Slovak pedagogy.] Bratislava : SPN 1976, 502 p. + 37 p. annexes. 67-455-76
5. National action plan of social inclusion 2004-2006. Bratislava : MPSVR SR, 2004, 67 p.  
[http://www.employment.gov.sk/mpsvrsr/internet/home/page\\_pdf.php?id=665&slID=02349692cb44a3df1440a774ec8793ff](http://www.employment.gov.sk/mpsvrsr/internet/home/page_pdf.php?id=665&slID=02349692cb44a3df1440a774ec8793ff)
6. No longer waiting for Godot. In: Cedefop Info No 3/2003.  
<http://www2.trainingvillage.gr/download/Cinfo/Cinfo32003/C33T2EN.html>
7. PCs for schools: from rhetoric to reality. In: Cedefop Info No 2/2004.  
<http://www2.trainingvillage.gr/download/Cinfo/Cinfo22004/C24K1EN.html>
8. Rosa, Vladislav, Turek, Ivan, Zelina, Miron: Milénium : Národný program výchovy a vzdelávania v Slovenskej republike na najbližších 15 až 20 rokov = Millenium : the National programme of training and education in the Slovak Republic for forthcoming 15 – 20 years. Bratislava : IRIS, 2002, ISBN 80-89018-36-X, 186 p.
9. Secondary VET schools not happy to be a B. In: Cedefop Info No 1/2005.  
<http://www2.trainingvillage.gr/download/Cinfo/Cinfo12005/C15F3EN.html>
10. Sieť stredných škôl. [Network of secondary schools.] Bratislava : ÚIPŠ, 2002, ISBN 80-7098-330-2, 360 p.
11. Správa z analýzy o stave a úrovni všeobecného a odborného vzdelávania v SOŠ a SOU v Slovenskej republike. [Report from the analysis on situation and standard of general and vocational education at SOŠ and SOU in the Slovak Republic.] Bratislava : ŠIOV, 2004 135 p. + annexes (mimeo)
12. Štatistická ročenka Slovenskej republiky 2003 = Statistical yearbook of the Slovak Republic 2003. Bratislava : VEDA, published on yearly basis. <http://www.statistics.sk/>
13. Štatistická ročenka školstva. [Statistical yearbook of education.] Bratislava : ÚIPŠ, published on yearly basis. <http://www.uips.sk/statis/index.html>
14. The information database on education systems in Europe : the education system in Slovakia (2001/2002). Eurydice database.  
<http://www.eurydice.org/Eurybase/Application/frameset.asp?country=SK&language=EN>
15. Vagač, Ľuboš (ed.): Millennium development goals : reducing poverty and social exclusion : Slovakia. Bratislava : UNDP, 2004, ISBN 92-95042-01-8, 72 p.  
[http://mdgr.undp.sk/DOCUMENTS/MDG\\_Slovak\\_GB.pdf](http://mdgr.undp.sk/DOCUMENTS/MDG_Slovak_GB.pdf)
16. Vantuch, Juraj, Brendzová, Danica: Place of tertiary professional and vocational education in the higher education system in the Slovak Republic. Seminar “The Place of Tertiary

Professional and Vocational Education in the Higher Education System”, Prague, 24-26 September 1999, 8 pages.

17. Vantuch, Juraj: Current status of vocational education and training in Slovakia : Vocational education and training on the verge of the Millennium. Bratislava : ŠIOV, 2002. ISBN 80-969021-2-1, 136 p.  
<http://www.siov.sk/siov/dokhtm/7sno/sno/archiv/vetrep01napubfin2.pdf>
18. Vantuch, Juraj et al.: Modernisation of vocational education and training in Slovakia. Bratislava : ŠIOV, 2001. ISBN 80-969021-0-5, 136 p.  
[http://www.siov.sk/siov/dokhtm/7sno/sno/archiv/national\\_vet\\_report\\_2000.zip](http://www.siov.sk/siov/dokhtm/7sno/sno/archiv/national_vet_report_2000.zip)
19. Vantuch, Juraj: Recent development in education, training and employment policy in Slovakia. Bratislava : ŠIOV, 2003. ISBN 80-969021-3-X, 53 p.  
<http://www.siov.sk/siov/dokhtm/7sno/sno/archiv/vetrep02napubfin2.pdf>
20. Vantuch, Juraj et al.: Recent developments in education, training and employment policy in Slovakia (2003 short country report). Report prepared for ETF. Bratislava : SNO, 2004, 44 p. (mimeo).
21. Vantuch, Juraj: Slovak Republic. In: T. Neville Postlethwaite (ed.) International Encyclopedia of National Systems of Education. Elsevier Science Ltd, Oxford, 1995, 9 p.
22. Vaňo, Boris (ed.), Jurčová, Danuša, Mészáros, Ján: Prognóza vývoja obyvateľstva SR do roku 2050. [Prognosis of the development of population in SR till 2050.] Bratislava : Infostat, 2002, 121 p. <http://www.infostat.sk/vdc/pdf/progniza2050vdc2.pdf>

#### **Web sites:**

Ministry of Education SR (MŠ SR, Ministerstvo školstva SR)

<http://www.education.gov.sk/>

National Institute for Education (ŠPÚ, Štátny pedagogický ústav)

<http://www.statpedu.sk/>

State Institute of Vocational Education (ŠIOV, Štátny inštitút odborného vzdelávania)

<http://www.siov.sk/>

Institute of Information and Prognoses (ÚIPŠ, Ústav informácií a prognóz školstva)

<http://www.uips.sk/>

Research Institute of Child Psychology and Pato-psychology (Výskumný ústav detskej psychológie a patopsychológie)

<http://vudpap.host.sk/>

State School Inspection (ŠŠI, Štátna školská inšpekcia)

<http://www.ssiba.sk/>

Slovak Rector's Conference (Slovenská rektorská konferencia)

<http://www.srk.sk/>

Board of Higher Education (Rada vysokých škôl)

<http://tpl.ukf.sk/rvs/>

Accreditation Commission of the Slovak Republic government (Akreditačná komisia Vlády Slovenskej republiky)

<http://www.akredkom.sk/>