

---

# Slovakia

## VET in Europe – Country report

---

**2012**

**Title:** Slovakia VET in Europe - Country Report 2012

**Authors:** Juraj Vantuch

Dagmar Jelinkova

State Institute of Vocational Education (ŠIOV)/Slovak National Observatory of VET (SNO)

[www.refernet.sk](http://www.refernet.sk)

This country report is part of a series of reports on vocational education and training produced for each EU Member State plus Norway and Iceland by members of ReferNet, a network established by Cedefop (European Centre for the Development of Vocational Training).

The opinions expressed in this report are not necessarily those of Cedefop.

Please note that ReferNet reports are based on a common structure and are available at: <http://www.cedefop.europa.eu/EN/Information-services/vet-in-europe-country-reports.aspx>

The preparation of this report has been co-financed by the European Union.

## Table of contents

CHAPTER 1 .....	4
1. External factors influencing VET .....	4
1.1 Country and its population .....	4
1.2 Economy .....	5
1.3 Labour market.....	7
1.4 Educational attainment .....	9
CHAPTER 2 .....	11
2. Providing vocational education and training in a lifelong learning perspective.....	11
2.1 National education and training system with Diagram .....	11
2.2 Government-regulated VET provision.....	19
2.3 Other forms of training .....	28
2.4 National challenge .....	32
CHAPTER 3 .....	35
3. Shaping VET qualifications.....	35
3.1 Designing qualifications, occupational and educational standards.....	35
3.2 Anticipating labour market needs.....	38
3.3 National challenge .....	39
CHAPTER 4 .....	41
4. Promoting participation in vocational education and training .....	41
4.1 Types and characteristics of promotion .....	41
4.2 Guidance and counselling, structures and services.....	42
4.3 National challenge .....	44
Acronyms and abbreviations .....	45
Bibliography.....	46
Websites.....	49
Annexes .....	50

## CHAPTER 1

# 1. External factors influencing VET

## 1.1 Country and its population

Slovakia as an independent country was established on 1 January 1993 after the dissolution of Czechoslovakia. It joined the OECD in 2000, NATO and EU in 2004, and adopted the euro in 2009. The country is composed of 8 state administration regions identical with 8 self-governing regions and 2 890 municipalities, out of which 138 are cities. Transfer of executive competences to self-governments started in the 1990s followed by decentralisation reforms in the education sector in the 2000s: maintaining schools by self-governments since 2002 and partial fiscal decentralization since 2005. Income of self-governing regions and municipalities however still depends substantially on centrally collected inhabitants' income tax, composing substantial part of their budgets. Similarly, financing and managing regional and local school networks have not yet been fully decentralised.

In 2011, the country had an area of 49 036.1 km<sup>2</sup> with 5 397 036 inhabitants, of which 54.4% living in urban areas (Census, 21 May 2011), and a population density of 110.2 inhabitants per km<sup>2</sup> as of 31 December 2011, according to the estimation of the Statistical Office. Slovakia is a multicultural country with two large minorities: Hungarians living in the south and Roma living scattered around the country and featuring strong population islands in the east. According to estimation of demography experts about 20% of ethnic Roma are estimated to live integrated into majority, 50% partially integrated living in own communities within municipalities and 30% segregated in external settlements with weak infrastructure. Only one fourth of ethnic Roma declared themselves as belonging to Roma nationality. Statistics offering declared nationality data according to censuses is in Annex 1. A share of ethnic Roma in total population is expected to culminate to 11% in 2035.

Since the end of 1970s Slovakia has experienced a huge decrease in live births. A dramatic decline from 100 240 in 1979 and 80 116 in 1989 accelerated to a total depth of 50 841 in 2002. It was followed by a gradual year-on-year increase amounting to 61 217 in 2009 and slightly above 60 000 live births since then. For 2015, over 680 000 less young people aged 0-24 is forecasted compared to 1989, with further deterioration till 2025, as can be seen from the latest national projection data in Annex 2.

Ageing index increased from 33.9% in 1970 to 82.6% in 2011. Gradual population ageing is presented in Annex 3 offering age group data from censuses and ageing indexes in time series. Further worsening can be seen from the unfavourable trend in old-age dependency ratio presented in the following table.

**Table 1: Projected old-age dependency ratio\*, 2010-60**

geotime	2010	2015	2020	2030	2040	2050	2060
EU27	25.92	28.48	31.37	38.33	45.52	50.16	52.55
SK	16.93	19.14	23.59	31.36	37.99	51.38	61.80

Source: Eurostat; [tsdde511]; last update 26-07-2011; date of extraction: 20-08-2012.

NB: \* the projected number of persons aged 65 and over expressed as a percentage of the projected number of persons aged between 15 and 64.

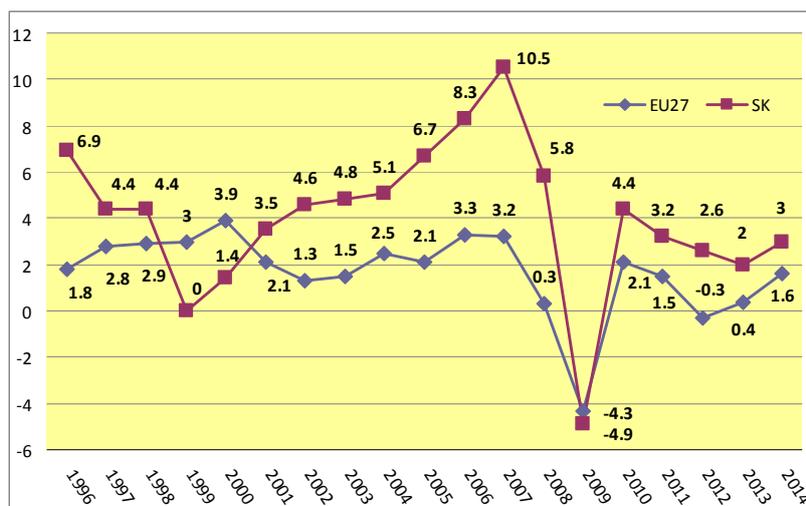
No substitution can be expected from migrants due to the traditionally very low numbers of asylum seekers, as can be seen from the data in Annex 4 indicating a huge, but only temporary increase of asylum seekers around the year of inclusion of Slovakia into EU. There were only 543 people granted asylum and 214 granted citizenship during 1993 to 2011. In 2011, 10 064 third countries citizens were granted residence, out of which only 5 998 received a permanent residence permit. In total 66 191 people had a valid residence permit by the end of 2011, out of which 51 332 had a permanent residence permit.

There were only 22 185 employed foreigners, out of which 17 027 from EEA and Switzerland, registered by the Centre of Labour, Social Affairs and Family (ÚPSVaR, Ústredie práce, sociálnych vecí a rodiny) in December 2011.

## 1.2 Economy

The Slovak economy grew significantly faster than the EU27 average with the exception of the end of 1990s hit by political turbulences, and the end of 2000s hit by the global financial and economic crisis. In both cases it recovered strongly.

**Figure 1: Real GDP growth rate**



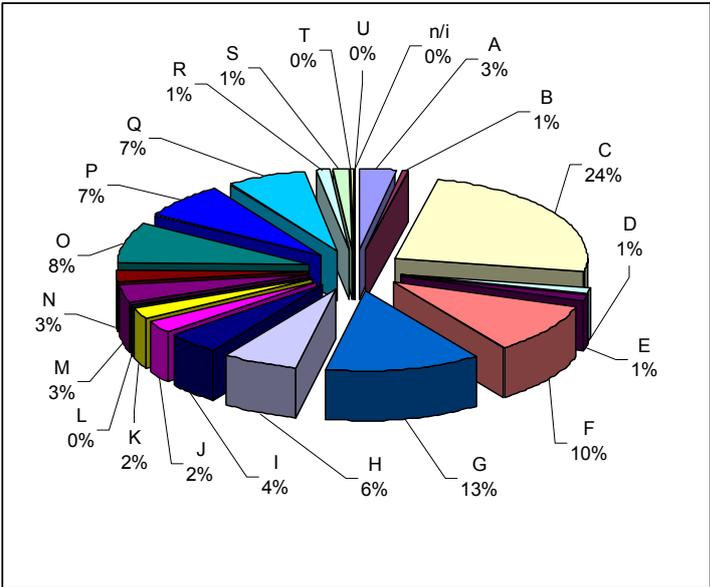
Source: Eurostat; 2012-14 forecasted.

The key industries able to attract foreign investors and create new jobs in the 2000s were the automotive and electronics industries, followed by metallurgy, chemical, and plastics production. The financial and IT sectors were the most important growing sectors complementary to labour intensive sectors. After the crisis year 2009, the Slovak economy recovered quickly as a consequence of a revival in the automotive sector. But the risky composition of national economy is now more visible. Detailed data on the GDP composition by branches in 2011 are offered in Annex 5.

The Slovak economy is among the most open in EU27 with total annual export and import accounting for 179% of GDP in 2011. Its openness and heavy dependence on export of slow moving goods (in particular cars and LCD panels) makes a small Slovak economy very sensitive to business cycles. During the 2008-10 crisis industry suffered most with about 110 000 places lost. Agriculture, the second most hit sector, lost over 21 000 jobs.

Since its independence Slovakia has been all the time characterised by a strong share of employed in industry, regardless the changes in other sectors, e.g., a growth in the service sector and a dramatic decrease of employed people in agriculture – from over 256 000 in 1992 to 71 700 in 2011. The following graph offers the composition of employment in economy by NACE sectors in 2011. Full data in 2007-11 are in Annex 6.

**Figure 2: Employment in national economy by NACE sectors in 2011**



Source: Statistical Office

NB: A Agriculture, forestry and fishing; B Mining and quarrying; C Manufacturing; D Electricity, gas, steam and air-condition supply; E Water supply, sewerage, waste management and remediation; F Construction; G Wholesale and retail trade; repair of motor vehicles and motorcycles; H Transportation and storage; I Accommodation and food service activities; J Information and communication; K Financial and insurance activities; L Real estate activities; M Professional, scientific and technical activities; N Administrative and support service activities; O Public administration and defence; compulsory social security; P Education; Q Health and social work activities; R Arts, entertainment and recreation; S Other service activities; T Activities of households as employers; U Activities of extraterritorial organisations; n/i not identified.

### 1.3 Labour market

The table below presents comparison of employment data for EU27 and Slovakia. The national 2020 target 72% is lower than EU target 75%, as the European target is apparently unrealistic for Slovakia.

**Table 2: Employment rate of age group 20-64 in 2011 by sex**

	EU27				Slovakia			
	Male	Female	Total	2020 target	Male	Female	Total	2020 target
2011	75.0	62.3	68.6	75	72.7	57.6	65.1	72

Source: Eurostat; LFS [lfsa\_ergaed]; last update: 06-08-2012; date of extraction: 16-08-2012.

Although the Slovak GDP already exceeded pre crisis data, employment data are still significantly lower compared to 2008 in all education levels. No significant improvement is expected soon despite a further albeit moderate grow forecasted. Low employment of low-educated (29.7% compared to 53% in EU27) indicates an urgent need of intervention.

**Table 3: Employment rates of 20 to 64 aged by highest level of education attained**

ISCED		2004	2005	2006	2007	2008	2009	2010	2011
ISCED 0-2	EU27	55.2	55.6	56.5	57.1	56.5	54.4	53.4	53.0
ISCED 0-2	SK	25.6	25.3	27.4	27.9	31.0	29.0	28.6	29.7
ISCED 3-4	EU27	69.1	69.6	70.6	71.5	71.8	70.4	69.9	69.9
ISCED 3-4	SK	67.0	67.4	68.4	69.9	71.0	67.9	65.9	66.3
ISCED 5-6	EU27	82.6	82.6	83.2	83.8	83.8	82.9	82.4	82.1
ISCED 5-6	SK	82.3	83.2	83.9	83.1	83.8	80.3	78.0	76.8
ISCED 0-6	EU27	67.3	68.0	69.0	69.9	70.3	69.0	68.6	68.6
ISCED 0-6	SK	63.5	64.5	66.0	67.2	68.8	66.4	64.6	65.1

Source: Eurostat; LFS [lfsa\_ergaed]; last update: 06-08-2012; date of extraction: 16-08-2012.

Employment rates by age groups and the highest level of education attained in 2004-11 are offered in Annex 7.

Similarly, the unemployment data indicate lasting high unemployment in all education levels with extremely high difference in unemployment of low level educated in EU27 and Slovakia (16.0% and 41.1% in 2011).

**Table 4: Unemployment rates of 20 to 64 aged by highest level of education attained**

		(%)							
ISCED		2004	2005	2006	2007	2008	2009	2010	2011
ISCED 0-2	EU27	11.6	11.4	10.9	10.1	10.8	14.1	15.4	16.0
ISCED 0-2	SK	50.8	51.5	46.8	43.5	38.2	40.1	43.0	41.1
ISCED 3-4	EU27	9.4	9.0	8.0	6.7	6.3	8.1	8.7	8.6
ISCED 3-4	SK	16.5	14.0	11.4	9.1	7.9	11.2	13.7	12.9
ISCED 5-6	EU27	5.1	5.0	4.6	4.0	3.9	5.0	5.4	5.6
ISCED 5-6	SK	5.9	5.0	3.3	4.1	3.6	4.3	5.8	5.8
ISCED 0-6	EU27	8.9	8.6	7.9	6.8	6.7	8.6	9.3	9.3
ISCED 0-6	SK	18.0	15.7	12.8	10.7	9.2	11.7	14.0	13.1

Source: Eurostat; LFS [lfsa\_ergaed]; last update: 18-10-2012; date of extraction: 03-11-2012.

Unemployment rates by age groups and the highest education level attained in 2004-11 are offered in Annex 8. More detailed national statistics on employment and unemployment rates of 15 to 64 aged offered in Annex 9 show that people with ISCED 3A general education have a lower employment rate than ISCED 3 VET educated. In 2011, it was significantly less (40.2%) compared to people with ISCED 3A VET education (70.8% with only a “maturita” school leaving certificate (vysvedčenie o maturitnej skúške), 73.7% with both “maturita” and a certificate of apprenticeship (výučný list), and 64.3% with only a certificate of apprenticeship). Apparently, graduates from general ISCED 3A programmes who failed to continue in tertiary education are in need of acquiring VET qualification.

The table above indicates a disproportionately high unemployment rate of ISCED 0-2 educated. This points to limited effectiveness of employment services suggesting that the low-skilled need different treatment than currently offered by education and subsequently labour market tools. Receiving qualification for manual works in Slovakia is linked to a comparably high level of general education. A certificate of apprenticeship (ISCED 3C) can be obtained after at least 3 years of upper secondary education. There is no “fool-blood” scheme allowing for certification of vocational skills for simple works (crafts) only. Thus, many low achievers from primary and secondary schools, in particular Roma, failing to achieve ISCED 3C level of education are hampered to obtain at least some confirmation of related skills payable at the labour market. Apparently, ISCED 3C programmes with unemployment over 16% (see Annex 8 for details), as well as retraining programmes need new impulses, *inter alia*, short-track vocational courses allowing for acquiring competences for qualifications needed by the labour market. This also contributes to extremely high long-term unemployment with no signals of improvement for years. A slight decrease in 2008 and 2009 was caused by an increase of absolute numbers of the unemployed during the crisis.

**Table 5: Long-term unemployment – annual average**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
EU27	3.9	4.0	4.2	4.3	4.1	3.7	3.1	2.6	3.0	3.9	4.1
SK	11.4	12.3	11.5	11.9	11.8	10.3	8.3	6.7	6.5	9.3	9.2

Source: Eurostat; LFS [une\_ltu\_a]; last update: 12-07-2012; date of extraction: 22-08-2012.

## 1.4 Educational attainment

The youth education attainment level is very high, with 93.3% of the population aged 20-24 having completed at least upper secondary education compared to the EU27 average of 79.5% in 2011. Females' figures (94%) were the second best and those of males (92.6%) the best in EU27. Comparison of educational attainment of adults aged 25-64 with EU27 indicates a very low share of low-educated, but also an unfavourably lower share of tertiary educated corresponding to the tradition of strong secondary education in both volume and content. Detailed national statistics comparing 2011, 2001 and 1991 Census data are in Annex 10.

**Table 6: Education attainment of people aged 25 to 64 by ISCED level in 2011**

	ISCED 0-2	ISCED 3-4	ISCED 5-6
EU27	26.6	46.6	26.8
SK	8.7	72.6	18.8

Source: Eurostat; [edat\_lfse\_05], [edat\_lfse\_06], [edat\_lfse\_07]; last update: 06-06-2012; date of extraction: 22-08-2012.

High education level of population is also confirmed by favourable early school leavers' data, as visible below. Slovakia already meets the EU 2020 benchmark (10%) as well as the 2020 national benchmark (6%).

**Table 7: Early leavers from education and training\* in 2002-11**

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
EU27	17.0	16.5 (b)	16.0	15.8	15.5	15.1	14.9	14.4	14.1	13.5
SK	6.7	5.3 (b)	6.8	6.3	6.6	6.5	6.0	4.9	4.7	5.0

Source: Eurostat; LFS [edat\_lfse\_14]; last update: 06-06-2012; date of extraction: 22-08-2012.

NB: \* Percentage of the population aged 18-24 with at most lower secondary education and not in further education or training; (b) – break in series (change in methodology).

Nevertheless, educational attainment as well as early school leavers data based on LFS and presented above do not reflect long-term unfavourable data of ethnic Roma, in particular those living in marginalised communities. There are no data available on ethnic Roma as it is forbidden to collect race and ethnicity data in Slovakia. Data from one of rare surveys indicate very low educational attainment of socially disadvantaged ethnic Roma.

**Table 8: Roma and non-Roma living in proximity aged 20 to 24 with at least upper secondary education compared to total population**

	Roma*			Non-Roma*			Total population		
	Male	Female	All	Male	Female	All	Male	Female	All
Share	22	18	20	89	71	79	92.6	94.0	93.3

(%)

Source: United Nations Development Programme (UNDP)/World Bank/European Commission Regional survey 2011 and Eurostat [tps00186]; calculated and tabled by authors.

NB: \* N=approximately 750 Roma households and 350 non-Roma households living in proximity; \*\* LFS.

Low education attainment of Roma, in particular those living in segregated settlements of low living standards, is one of the most serious challenges for both economy and society in Slovakia. According to estimations regarding contribution to a potential increase of employed workforce in Slovakia published in the report “Cost of non-inclusion: the key to integration is respect for diversity”, inclusion of the Roma in the Slovak society would bring from 7% to 11% of GDP annually. Nevertheless, low job creation and long-term unemployment rates of qualified people already seeking jobs indicate a long way to this kind of improvement in GDP.

## CHAPTER 2

# 2. Providing vocational education and training in a lifelong learning perspective

## 2.1 National education and training system with Diagram

### Short overview

Although slightly changed in the 1990s and in 2008, the Slovak education system is still substantially based on the Czechoslovak system as established by a fundamental reform from the 1970s. It featured a strong secondary VET originally designed for 85% of respective age cohort, complemented by a slim, strongly academically oriented general education stream and restrictive access to tertiary education. The education system was designed to supply qualified secondary VET graduates with at least ISCED 3C education level. Thus, the Slovak education system still features a high share of secondary VET graduates and a low share of early school leavers. Many secondary VET school graduates enter universities that dramatically expanded in number of institutions as well as students. Bachelor studies aimed at entering the labour market are however rare and students massively progress to master studies. Post-secondary studies offered by secondary VET schools leading to higher professional level of education (ISCED 5B), although originally highly valued by the labour market, has been weakening, in particular in comparison to university studies boom. Initially, only universities were recognised by legislation as higher education institutions, which hampered development of a non-university segment of tertiary education.

The following table presents a flow of population aged 15 in 2005 within the education system. Detailed data are available in Annex 11.

**Table 9: Distribution of respective age cohort in formal education by ISCED level**

(%)

Age	School year	ISCED								
		1	2	3A Gen	3C	3A VET	4A	5B	5A	All
20	2010/2011	0.0	0.4	1.2	1.8	<b>15.5</b>	1.3	1.7	<b>78.1</b>	100
19	2009/2010	0.0	0.4	<b>12.6</b>	4.1	<b>43.5</b>	0.3	0.8	<b>38.2</b>	100
18	2008/2009	0.0	0.7	<b>26.0</b>	<b>11.5</b>	<b>57.8</b>	0.0	0.0	3.9	100
17	2007/2008	0.1	2.0	<b>28.2</b>	<b>20.6</b>	<b>49.1</b>	0	0	0.0	100
16	2006/2007	0.2	6.0	<b>27.1</b>	<b>19.5</b>	<b>47.2</b>	0	0	0	100
15	2005/2006	0.3	<b>42.1</b>	<b>19.3</b>	<b>10.7</b>	<b>27.5</b>	0	0	0	100

Source: Institute of Information and Prognoses of Education (ÚIPŠ, Ústav informácií a prognóz školstva); UOE data; aggregate, not individualised data used); calculated and tabled by authors.

NB: 0.0 – less than 0.05, but more than zero; 0 – real zero; Gen – general.

## Explaining the Diagram

Pupils enter primary education at the so-called basic school usually at the age of 6 years. It is composed of two stages, the first lasting for four years and the second one for five years, within which pupils are taught all subjects by subject specialists. After completion of basic school, students, typically at the age of 15, make their choice of secondary school. They can decide for VET at secondary specialised schools, for conservatory or for grammar school.

Secondary specialised schools (SOŠ, stredná odborná škola) offer a variety of ISCED 3A programmes 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. Furthermore, they offer ISCED 3C programmes for blue-collar professions and rarely also ISCED 2C programmes. There are 62 names of SOŠ (corresponding to types of schools and their programmes). In specific cases, SOŠ offer post-secondary studies, content-related rated ISCED 4 and higher professional studies rated ISCED 5B. There are in total 451 VET programmes approved for the 2012/2013 school year and additional 55 programmes are tested as experimental. There is no genuine apprenticeship system in Slovakia although ISCED 3C students are often called apprentices. It refers to the late tradition and a stream of secondary vocational schools (SOU, stredné odborné učilište) that does not exist anymore. Since the 2008/2009 school year these schools have also been categorised and named secondary specialised schools (SOŠ).

Conservatories (konzervatórium) of two types: dance conservatory, and music and drama conservatory were originally subsumed under secondary specialised schools. Since 2008, they have been recognised as an autonomous stream explicitly stated in legislation and statistics. There are together 16 programmes approved for the 2012/2013 school year and 5 new programmes are tested.

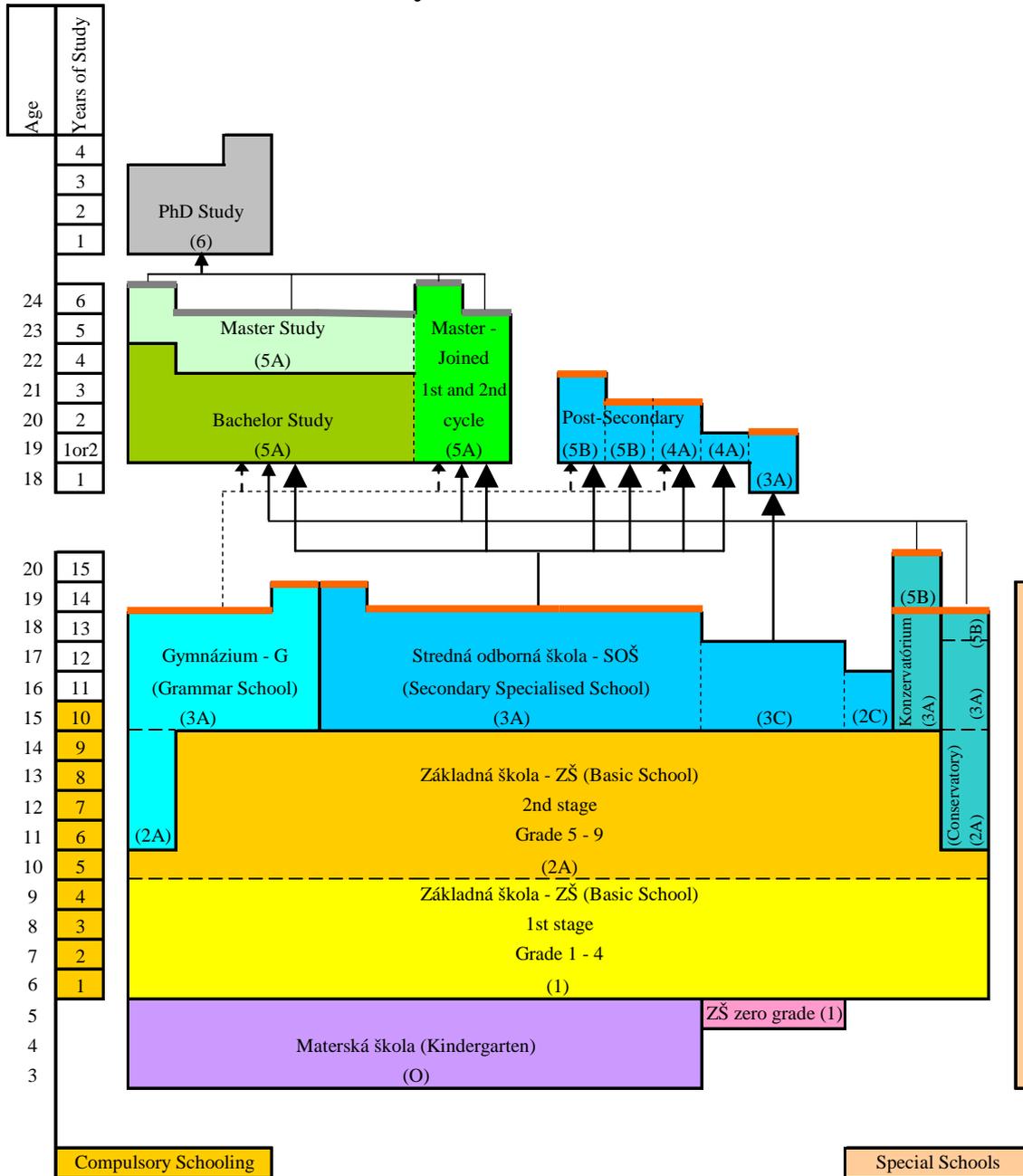
Grammar school (gymnázium) was originally created to focus at theoretical knowledge and academic skills. Standard courses of study last for 4 years. The bilingual version (with English, German, French, Spanish or Italian as a complementary language of instruction) lasts 5 years. The so-called long form of study (for pupils completing Grade 5 of basic school) lasts 8 years. Grammar school offers three programmes.

Compulsory education lasts 10 years and this usually means nine years of basic school and at least one year at secondary school. Such a construction is intended as in-built driver to prevent leaving education early. Although there is neither education level nor classification recognised in reference to the completion of compulsory education according to legislation, it is implicitly expected that students achieve at least ISCED 3C education level. An overview of education levels as set by national legislation with respective ISCED and NQF codes is offered in Annex 12.

Very rarely, grammar schools offer VET and VET schools offer general programmes.

Figure 3

Formal education system in Slovakia since 2008/2009



Private and church-affiliated schools emerged first in the 1990s and gradually increased substantially in numbers, as visible below.

**Table 10: Number of schools by types and ownerships in 2011/2012**

Schools in 2001/2012	Mainstream					Special education	
	Basic	Grammar	Secondary VET	Conser vatories	Higher education	Basic	Secondary
Public	2 048	151	365	6	20+3*	214+34	118
Private	39	41	89	9	12	16+4	3
Church	115	55	19	1	.	9	5
Total	2 202	247	473	16	35	239+38**	126

Source: ÚIPŠ.

NB: \* state schools (health, police, army); \*\* affiliated to health care institutions.

Special schools provide education and training to mentally and physically challenged students. Since the early 1990s, the trend to integrate SEN (Special education needs) students has been increasing and inclusion efforts are supported by legislation and fiscal reward.

**Table 11: Number of schools and individually integrated students with special needs**

	1996			2011		
	Basic	Secondary	All	Basic	Secondary	All
Schools	852	133	985	1 719	545	2 264
Autistics	.	.	.	189	41	230
Mentally handicapped	322	.	322	3 743	.	3 743
Hearing impaired	390	49	439	330	144	474
Visually impaired	373	85	458	244	107	351
Communication disorders	511	.	511	906	.	906
Physically challenged	914	218	1 132	930	342	1 272
Behavioural disorders	.	.	.	1 488	147	1 635
Learning disorders	.	.	.	12 057	4 694	16 751
Gifted	.	.	.	647	103	750
All students	2 510	352	2 862	20 534	5 578	26 112

Source: ÚIPŠ; tabled and recalculated by authors.

Despite this, a system of special schools continues to play an important role in assisting SEN students to cope with the demands of the society and the labour market. There are both general stream special schools (basic schools and grammar schools) and vocational stream schools. A lot of criticism is aired because of enrolment of socially disadvantaged and predominantly ethnic Roma from marginalized communities to special schools endangering them in achieving a qualification demanded on the labour market. Such

a practice violates the law as these schools are designed for handicapped children. Zero grades affiliated to basic schools are designed as preparatory for socially disadvantaged children (predominantly from Roma communities living in segregated settlements).

The formal education system is completed with a set of specialised facilities providing assistance to schools, parents and students (e.g., school service centres, school catering facilities, school clubs, centres of leisure, youth centres, in-country schools, pedagogical and psychological counselling centres) and offering additional specialised education (e.g., language schools, etc.). Basic schools of arts are state subsidised institutions offering paid education (with symbolic fees) in music, dance, fine arts, and drama for gifted and/or motivated children and adults. Centres of practical training (strediská praktického vyučovania) provide for the practical training of students who receive theoretical education at VET schools, having no option for delivery of appropriate school-based practical training.

## Financing

VET funding arrangements are very simple. IVET is dominantly funded from the state budget, as there is no tradition of typical apprenticeships in the country and the secondary VET is school-based. All VET schools including private and church-affiliated qualify for state budget contributions offered on a per capita principle. Private schools additionally collect fees from parents, church-affiliated schools do not, they can however benefit from donations of parish community. Private schools are not eligible for contributions from the state budget for capitals (even not in case of emergency – in contrast to public and church-affiliated schools). Public full-time tertiary education is for free financed by the state via specific allocation formulae; part-time education is for fee with limits set by Ministry of Education, Science, Research and Sport (MŠVVŠ, Ministerstvo školstva, vedy, výskumu a športu). Private institutions collect fees.

CVET is funded from the pocket of interested players, employers or individual participants. Labour market retraining is financed from the state budget and from the ESF.

There are no sophisticated instruments implemented to support co-financing or direct investment in education/learning by private subjects. All proposals for tax incentives in support of IVET and/or continuing VET for individuals were finally rejected or abolished after a short period.

Businesses still co-finance IVET only in a very limited way as regards systemic support. They can contribute to individual benefits of secondary VET students co-financing their training with some expenditures (costs of meals, accommodation, travelling, medical and psychological testing required by specific professions, as well as provision of work and protective equipment) in relation to a contract on their future employment. These expenditures are recognised as tax deductibles. Direct contributions of businesses to improvement of training are not recognised as tax deductibles. Therefore, only very profitable businesses are able to co-finance IVET in a larger extent. The VET Fund created in 2010 is dysfunctional, as it is based on voluntary contributions.

Schools are eligible to apply via affiliated NGO for tax credits equal to 2% of personal income tax (since 2001) and 2% of corporate tax (since 2004).

In Slovakia, investing in education has not been a priority, as visible from comparison with EU27.

**Table 12: Total public expenditure on education as % of GDP, for all levels of education**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
EU27	4.9	4.99	5.10	5.14	5.06	5.04	5.03	4.95	5.08	5.41
SK	4.1	3.99	4.31	4.30	4.19	3.85	3.80	3.62	3.61	4.09

Source: Eurostat; [educ\_thexp]; tabled by authors; last update: 16-06-2012.

Lagging behind the EU27 level is also better visible from the following table comparing GDP per capita and expenditures on educational institutions per capita. It can be seen as an indicator of political support for education: how much of the wealth of the country is invested by other European countries, and that even poorer countries than Slovakia invest comparably more in education. Only expenditures for elementary (ISCED 1) are on the EU27 average.

**Table 13: Annual expenditure on public and private educational institutions per student compared to GDP per capita by level of education**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
EU27 ISCED 5-6	:	37.5	37.5	36.8	35.6	37.1	36.4	36.3	36.8	38.9
SK ISCED 5-6	44.2	46.0	37.4	35.0	44.4	36.1	33.7	28.3	28.3	29.6 <sup>1</sup>
EU27 ISCED 2-4	:	26.0	25.9	25.9	25.2	26.4	26.0	25.1	25.9	27.9
SK ISCED 2-4	16.6	16.3	17.2	18.0	18.7	16.9	16.5	15.9	17.1	20.6 <sup>2</sup>
EU27 ISCED 1	:	18.4	19.0	19.7	19.7	19.7	20.3	20.6	21.1	22.6
SK ISCED 1	11.1	10.9	11.6	15.1	14.1	17.5	17.9	17.3	17.9	22.6 <sup>3</sup>

Source: Eurostat [educ\_thexp]; tabled by authors; last update: 16-06-2012.

NB: Expenditure at ISCED 5B is included under upper secondary level of education (ISCED 2-4); Expenditure for independent private educational institutions is not available for 2007 and 2008;

<sup>1</sup>second lowest in EU27; <sup>2</sup>second lowest in EU27; <sup>3</sup>seventeenth in EU27; : – not available.

## Managing IVET

IVET in Slovakia, with the exception of the health sector under the Ministry of Health (MZ, Ministerstvo zdravotníctva) and specific cases (fireman, police) under the Ministry of Interior (MV, Ministerstvo vnútra), is fully regulated by educational authorities (see chart in Annex 13). However, since adoption of Act on VET No. 184/2009 Coll.<sup>1</sup> influence of employers increased in all phases:

<sup>1</sup> Act No. 184/2009 Coll. is available in Slovak at <http://www.minedu.sk/data/att/594.pdf>.

- programming; as creation of state educational programmes as well as provision of IVET in regions is coordinated by social partners to better adjust to labour market needs;
- designing curricula; as curricula developed autonomously by respective schools based on state educational programmes must be discussed with employers to comply with labour market needs before their issuing;
- provision of practical training by VET schools; as work based training is preferred and conditions for provision of practical training within schools redefined;
- school leaving examination; as the position of delegates of guilds or professional associations to influence examination was strengthened.

The new VET governance gradually introduced since 2008 is represented by

- “Sectoral assignees” (e.g. chambers, employers’ associations) set for respective fields of study by legislation (see Annex 14) as defenders of employers’ interests and professional counterparts to education sector authorities and experts;
- Sectoral VET Councils established by employer representatives in cooperation with respective sectoral ministry and the Ministry of Labour, Social Affairs and Family (MPSVR, Ministerstvo práce, sociálnych vecí a rodiny) provides for sectoral expertise;
- 8 Regional VET councils composed of representatives of state, self-government, employers and employees, the most powerful bodies in preparing background documents, in particular VET regional strategies;
- National VET Council, an ultimate coordinating body affiliated to the government (see [www.radavladyoyp.sk](http://www.radavladyoyp.sk)) discussing all important documents (e.g., regional strategies, sectoral strategies); backed by own 15 working groups focusing on respective fields of education to support adjusting a network of VET programmes within respective fields of study to meet labour market needs.

## Curriculum

The curricular reform in VET is based on the policy paper “Concept of two-level model of educational programmes in VET in the Slovak Republic” approved by the government on 6 June 2007, and subsequently the Education Act No. 245/2008 Coll.<sup>2</sup>, introducing competence based state educational programmes representing requirements of the state. Individual VET schools are entitled to develop their own curriculum expressed by school educational programmes compatible with respective state educational programme and reflecting relevant labour market needs.

---

<sup>2</sup> Act No. 245/2008 Coll. is available in Slovak at <http://www.minedu.sk/data/att/4189.rtf>.

There are 31 fields of study recognised by legislation for secondary schools; a full list of these fields (some of them interlinked) is offered in Annex 14.

The following table offers numbers of state educational programmes developed by State Institute of Vocational Education (ŠIOV, Štátny inštitút odborného vzdelávania) for VET schools (secondary specialised schools of education sector), corresponding to respective fields of study.

**Table 14: State educational programmes (SEP) by ISCED levels since 2010/2011**

	ISCED 2C	ISCED 3C	ISCED 3A	ISCED 4A	ISCED 5B	Total
SEP	9	17	20	23	14	83

Source: ÚIPŠ.

NB: State educational programmes for conservatories, specialised secondary schools for SEN students, and schools of health and interior sectors developed outside State Institute of Vocational Education are not included.

## Teachers and trainers

IVET staff is dominantly bound to the education institutions. There are traditionally three categories of VET school teachers officially recognised by the education sector legislation: teachers of general subjects, teachers of vocational subjects and teachers of practical training. The latter category of teachers is involved in practical lessons at school, e.g., in laboratories and practical lessons connected to workplaces specified within curricula and aimed at applying theoretical knowledge gained during theoretical subjects. Trainers are responsible for assisting in gaining respective skills (predominantly manual) during practical training. Although VET in Slovakia is dominantly school-based, in some cases practical training is offered outside the school. Based on an agreement between a school and a company, practical training can be provided directly by the company in its own premises and by its own staff, but under the supervision of the school. These professionals are often called instructors to differentiate between them and trainers from schools.

No specific requirements are set for higher education teachers, but teachers without PhD are considered insufficiently qualified. Numbers of teachers in respective schools and levels are offered in Annex 15.

Teacher training is traditionally offered by universities. VET teachers, who are university graduates from other than teacher programmes look for receiving full teacher qualification by completing complementary pedagogical studies aimed at acquiring of pedagogical competence. All higher education institutions have redesigned their programmes in line with the Bologna process and submitted the reconstructed study programmes for accreditation. The reform also contributed to emergence of new programmes, *inter alia*, bachelor studies for VET trainers. Although formal requirements for secondary VET school trainers remained unchanged and tertiary education is not required in contrast to teachers, VET trainers enter universities to achieve a Bachelor degree, allowing them also better remuneration in public sector jobs (including schools). The traditional option

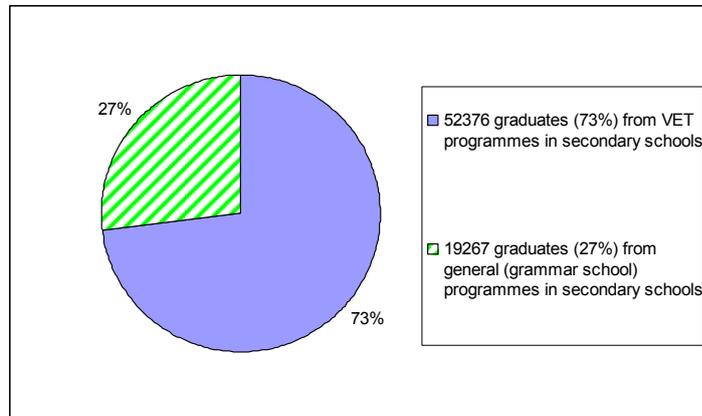
to acquire pedagogical competence via non tertiary complementary pedagogical studies has remained preserved, however, losing attractiveness for trainers.

Act No. 317/2009 Coll. on pedagogical staff and professional staff<sup>3</sup> introduced the credit system for standards driven continuing training. Accreditation of continuing training programmes is carried out by Accreditation Council for Continuing Training of Pedagogical and Professional Staff established in November 2009 as an advisory body to MŠVVŠ. The law also specifies personal and qualification prerequisites concerning all categories of pedagogical and professional staff for four career levels representing a career path: beginner, independent worker, worker with the first and the second attestation.

## 2.2 Government-regulated VET provision

In 2011/2012, there were in total 47 897 graduates (of which 21 298 female) from full-time secondary and post-secondary non tertiary VET programmes, compared to 19 023 graduates (of which 11 373 female) from full-time general (grammar school) programmes. In addition, there were in total 4 479 graduates (of which 3 081 female) from VET programmes, compared to 244 graduates (of which 143 female) from general (grammar school) programmes in part-time studies.

**Figure 4: Graduates from VET programmes and general programmes\* in 2011/2012**



Source: ÚIPŠ.

NB: \* full-time and part-time graduates together from all programmes and all secondary school including special schools.

The following table indicates that 77.3% of VET graduates from full-time courses have acquired at least ISCED 3A level of education opening them a door to higher education, and that former strong ISCED 3C programmes shrank to 22.7% of all graduates in 2011/2012. Furthermore, 8.8% of graduates are former ISCED 3C graduates who acquired an ISCED 3A “maturita” school-leaving certificate after additional 2 years of study. Thus, this data

<sup>3</sup> Act No. 317/2009 Coll. is available in Slovak at <http://www.minedu.sk/data/att/4126.pdf>.

demonstrate the weakness of training aimed at blue-collar professions and craftsmen, disproportionately higher participation of females at higher ISCED level programmes and marginality of post-secondary studies and of ISCED 2C studies.

**Table 15: VET graduates\* from full-time courses in 2011/2012**

Programme ISCED level	Total		Female		Female/total index
	N	%	N	%	
ISCED 5B	581	1.2	392	1.8	0.67
ISCED 4A	379	0.8	201	0.9	0.53
ISCED 3A follow-up**	4 193	8.8	1 677	7.9	0.40
ISCED 3A	31 868	66.5	15 449	72.5	0.48
ISCED 3C	9 856	20.6	3 255	15.3	0.33
ISCED 2C	1 020	2.1	324	1.5	0.32
Total	47 897	100	21 298	100	0.44

Source: ÚIPŠ.

NB: \* full-time graduates together from all schools: 567 graduates from conservatories, 422 from VET programmes offered by grammar schools and 1 274 graduates from special secondary schools for SEN students are added to 45 634 graduates from SOŠ; \*\* ISCED 3A follow-up programmes are intended for graduates from content based interlinked ISCED 3C programmes.

A detailed picture about VET graduates is offered in Annex 16 where all full-time VET programme graduates are presented by an ownership type of institutions (public, private and church-affiliated).

The most populated fields of study in 2011/2012 were as follows: economics and services (codes 62, 63, 64) with 20 357 graduates, engineering with 5 437 and electrotechnics with 5 182 graduates, representing together 64.7% of all graduates. Detailed data about all fields are presented in Annex 17.

## IVET programmes

All secondary, post-secondary and tertiary programmes are presented in an overview with main features (e.g., duration of studies, balance between general and vocational subjects, access to other pathways) in Annex 18.

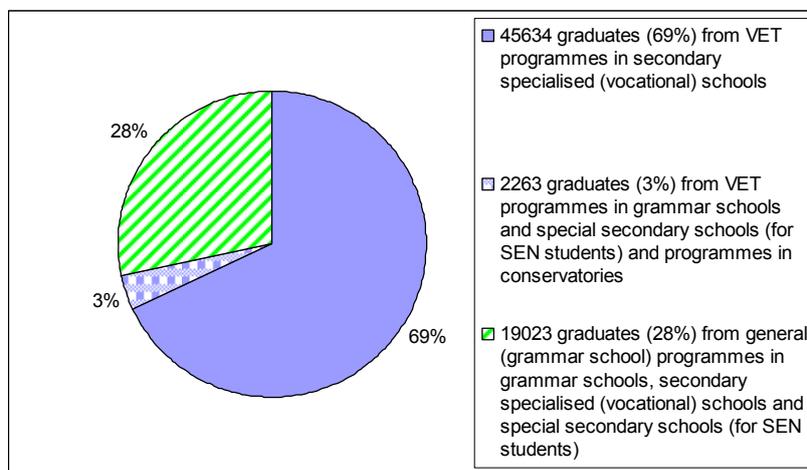
## Secondary level

There is no genuine IVET at lower secondary level except programmes offered in dance conservatory and in special schools for SEN students. A marginal two-year ISCED 2C programme is offered by secondary schools with training for simple and auxiliary works, completed by awarding lower secondary vocational education level.

Slovak upper secondary IVET is school-based with crucial position of secondary specialised schools offering predominantly ISCED 3A programmes. The following graph demonstrates that 69% of secondary school graduates in 2012 are from VET programmes at

secondary specialised schools, 3% from other schools, while remaining 28% represent general education stream.

**Figure 5: Distribution of graduates from full-time programmes at secondary schools in 2011/2012**



Source: ÚIPŠ.

After merging of two VET streams and renaming former secondary vocational schools in 2008, VET programmes of former two streams remained preserved, although all studies were redesigned according to the principles of a newly introduced curricular reform. ISCED 3A study branches offered with a strong focus on theory by former secondary specialised schools were renamed as “study branches with practice” (odbor s praxou) and ISCED 3A study branches of former secondary vocational schools offered with a stronger focus on practice by former secondary vocational schools were renamed as “study branches with vocational training” (odbor s odborným výcvikom). In study branches with practice students participate in the working process or assist there in the form of continuing activity for a period set by curricula; this usually happens in the summertime. In study branches with vocational training, vocational training is organised in alternance with theoretical education in school workshops or in places suitable for training that are contracted by schools during the whole school year. Graduates of these programmes receive a “maturita” school-leaving certificate, and also a certificate of apprenticeship provided school curricula contain at least 1 400 hours of practical training, of which 1 200 hours of specific vocational training.

VET schools also offer ISCED 3C programmes that have however gradually weakened, losing their attractiveness in competition with ISCED 3A programmes. The following data indicate a strong decline in number of ISCED 3C graduates in both absolute numbers and in a share.

**Table 16: Number of ISCED 3 graduates by programmes**

Programme ISCED level	2010		1999		2010/1999 index
	N	%	N	%	
ISCED 3A Gen	20 101	27.8	15 648	17.2	1.3
ISCED 3A VET	39 568	54.7	48 220	53.1	0.8
ISCED 3C VET	12 693	17.5	26 870	29.6	0.5
ISCED 3 Total	72 362	100.0	90 738	100.0	0.8

Source: Eurostat (UOE data).

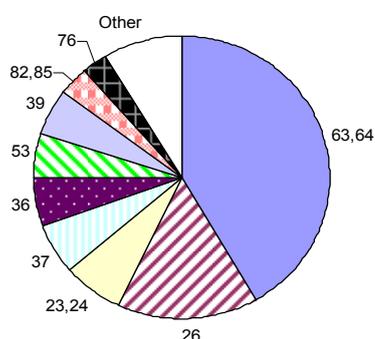
NB: Gen – general.

The 2011/2012 raw national data indicate even further decline in numbers of ISCED 3C graduates. As already mentioned there is no apprenticeship in Slovakia although ISCED 3C students are sometimes called apprentices. They are however regular secondary school students, according to law, and, as a rule, with no contract with employers. Practical training of ISCED 3C students was and is usually dominantly school-based. Even if organised outside the school, in centres of practical training or workplaces, it is ensured by a contract between the school and provider. In marginal cases student, if older than 15, sign a contract according to which he/she is in training for an employer. Nevertheless, even students who receive theoretical education in school and practical training at the workplace of respective entity (craftsman or enterprise) will remain considered students of the school-based VET system.

The following part is aimed at comparison of the composition of the most important VET programmes at public, private and church-affiliated schools. When looking on all full-time ISCED 3A students, a focus on economics and services (41.8%), followed by electrotechnics (15.2%) and engineering (6.6%) can be seen in public schools. The most populated programmes in private VET schools are economics and services (63.9%), arts (11.8%) and teacher training (8.1%). The most populated programmes in church-affiliated VET schools are teacher training (35.1%), health care (33.7%) and economics and services (22.3%). The detailed data are available in Annex 19.

Here is the distribution of nine most populated programmes in public schools in comparison of these programmes distribution in private and church-affiliated schools is: Private schools focus on attractive fields trying to satisfy students demand (economics and services, arts) disregarding the variety of programmes needed for economy. Church-affiliated schools also focus on economics and services to offer programmes very attractive for girls, but also other “pro-social” and “female” fields like health care and teacher training in support of church mission. Nevertheless, non-public schools feature a disproportionately low share of fields crucial for industries dominating in the national economy. E.g., 6.6% of students in public schools, only 0.9% in private schools and no students in church-affiliated schools are in engineering, and 15.2%, 4.8% and 5.6%, respectively, in electrotechnics.

**Figure 6: Public VET schools – a share of students in most populated ISCED 3A VET programmes**

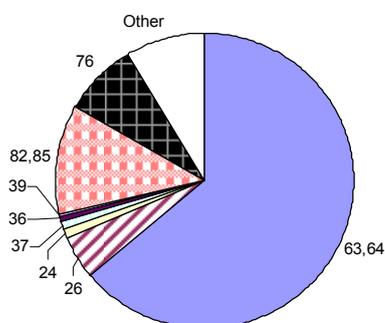


Code	Field of study	Students	%
63,64	Economics and services	45 720	41.8
26	Electrotechnics	16 666	15.2
23,24	Engineering and other metal-processing	7 241	6.6
37	Transport, post, telecommunications	6 466	5.9
36	Building, geodesy and cartography	5 846	5.3
53	Healthcare	5 611	5.1
39	Special technical specialisations	5 607	5.1
82,85	Arts and folk crafts	3 690	3.4
76	Teacher training	3 185	2.9
	Other	9 354	8.6
	Total	109 386	100

Source: ÚIPŠ.

NB: Only full-time students of VET programmes at VET schools are calculated.

**Figure 7: Private VET schools – a share of students in ISCED 3A VET programmes most populated in public VET schools**

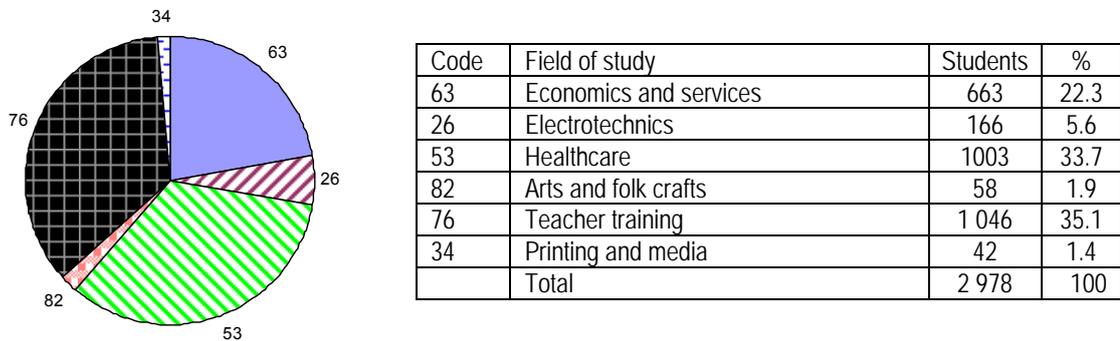


Code	Field of study	Students	%
63,64	Economics and services	6 884	63.9
26	Electrotechnics	518	4.8
24	Engineering and other metal-processing	98	0.9
37	Transport, post, telecommunications	85	0.8
36	Building, geodesy and cartography	60	0.6
39	Special technical specialisations	53	0.5
82,85	Arts and folk crafts	1 270	11.8
76	Teacher training	874	8.1
	Other	927	8.6
	Total	10 769	100

Source: ÚIPŠ.

NB: Only full-time students of VET programmes at VET schools are calculated.

**Figure 8: Church-affiliated VET schools – a share of students in ISCED 3A VET programmes most populated in public VET schools**

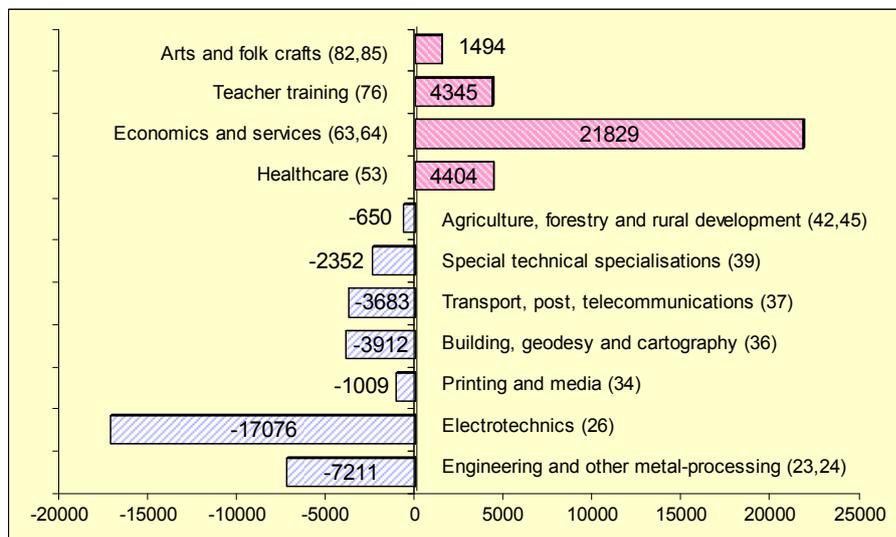


Source: ÚIPŠ.

NB: Only full-time students of VET programmes at VET schools are calculated.

The following graph depicts the difference between numbers of girls and boys in full-time ISCED 3A studies by selected fields of study in SOŠ.

**Figure 9: Difference between numbers of girls and boys in selected study fields\***



Source: ÚIPŠ.

NB: \* full-time ISCED 3A programmes in SOŠ, pink rows indicate a surplus of girls and blue rows indicate a surplus of boys; full data are in Annex 20.

This figure transparently illustrates the study fields attractive for girls. It also explains that a surplus of graduates from economics and services is gender specific and relates to attractiveness of technical VET for girls.

## Post-secondary level

All programmes described below are regulated in a same way as upper secondary programmes, as they are all offered by secondary specialised schools.

Traditionally, there are two kinds of post-secondary non tertiary programmes in Slovakia:

- follow-up programmes offered to ISCED 3C graduates; and
- three types of “post-maturita” programmes for ISCED 3A graduates (refresher programmes, specialising programmes, qualifying programmes).

In addition, ISCED 5B higher professional studies are offered by some secondary VET schools based on the experience initiated by the PHARE programme in the 1990s. There are only vocational programmes offered within post-secondary non tertiary education.

Follow-up programmes are offered to graduates from content based interlinked ISCED 3C programmes willing to receive a higher status ISCED 3A “maturita” school leaving certificate. As a rule, it lasts for two years and finishes with a “maturita” examination certifying an ISCED 3A level of education. This kind of programme is offered to adults of all ages. Quite often, 18-year old graduates of ISCED 3C programmes enter this programme in full-time study immediately after finishing the ISCED 3C programme. Older people prefer it in the form of part-time study.

Refresher programmes (upgrading skills and innovative) are of at least 6 months in length and are completed by a final exam. These studies aimed at updating of previously acquired knowledge and skills are rated ISCED 4A level of education. Refresher programmes are to be elaborated autonomously by schools in cooperation with other players to secure quality and to compete on the market.

Specialising programmes are of at least 2 years in length completed by an absolutorium exam. These studies are rated as an ISCED 5B level of education. These programmes are aimed at acquiring new specific knowledge and skills related to the previously received education and training within the same or similar branch of study. In contrast with qualifying programmes, graduates are also awarded a higher level of education according to the legislation, i.e., higher professional education level.

Qualifying programmes are of at least 2 years in length completed by a “maturita” school leaving examination. These studies are rated as an ISCED 4A level of education. These programmes are aimed at gaining an additional or new qualification as they obtain a second “maturita” school leaving certificate (in a branch other than the one studied earlier).

Higher professional programmes are of 3 years in length, completed by an absolutorium exam. In contrast to specialising programmes, no strong interlinking in content with previous study is required. Graduates are awarded a higher level of education also according to the legislation, i.e., higher professional education level. Higher professional study is however not recognised as tertiary education by national legislation, despite content related ISCED 5B rating.

## Tertiary level

All Slovak public higher education institutions were originally expected to provide university type education. The new Higher Education Act No. 131/2002 Coll.<sup>4</sup> stipulated the existence of non-university education and non-research based tertiary education and led to current categorisation of all higher education institutions, including private ones, into 23 universities (offering studies in all three cycles interrelated with research), 10 higher education institutions (offering bachelor, master, but not PhD studies) and 2 newly established professional higher education institutions (offering predominantly bachelor studies and doing only applied research).

International data offered below indicate a dramatic increase in numbers of students during the last decade, but also serious imbalance in provision of tertiary education. (See also a structural problem explained in the notice below the table.)

**Table 17: Students in higher education in Slovakia by programme orientation**

ISCED Year	ISCED 5A		ISCED 5B*		ISCED 5	ISCED 6
	N	%	N	%	Total	N
2000	123 136	95.6	5 605	4,4	128 741	7 173
2006	184 380	98.5	2 824	1.5	187 204	10 739
2007	204 645	98.9	2 241	1.1	206 886	11 066
2008	216 583	99.0	2 220	1.0	218 803	10 674
2009	222 519	99.1	2 061	0.9	224 580*	10 417
2010	221 362	99.0	2 215	1.0	223 577	10 949
2010 EU	16 682 956	86.4	2 629 514	13.6	19 312 470	n/a

Source: Eurostat (UOE); extracted on: 26-10-2012; last update: 18-09-2012.

NB: \* ISCED 5B higher professional studies mentioned earlier as developed within the PHARE programme and intended to create non-university tertiary education stream are included here, no ISCED 5B studies are however offered by higher education institutions.

An increase of tertiary students has translated in a surplus of students in social science and humanities while a remarkable increase of mathematics, science and technology students visible in the last decade is not substantial in its share. According to Eurostat, a share of ISCED 6 graduates from science, mathematics, computing, engineering, manufacturing & construction fields in total ISCED 6 graduates decreased strongly from 57.9% in 1998 to 35.9% in 2010 and was lower compared to EU27 (43.2%). It is however positive that the number of graduates in these fields per 1 000 of population aged 20-29 is with 18.3 over the EU27 average (12.5); and that almost one third (32.6%) of full-time PhD students in 2011 were in technology fields.

---

<sup>4</sup> Act No. 131/2002 Coll. is available in Slovak at <http://www.minedu.sk/data/att/612.pdf>.

According to national statistics, there were 212 030 students in higher education in 2011, of which 18.6% in private institutions and 32.3% in a part-time form of study; 4.4% of all students were foreigners. 58.6% of all students studied in social sciences, humanities and services, and this share was even 83% in private higher education institutions.

Data on 2011 graduates also illustrate disproportion compared to the national economy structure. Almost two thirds of these graduates graduated from social science and humanities and only 22.5% from mathematics, science and technology.

**Table 18: Full-time and part-time studies graduates by fields of study in 2011**

<b>Fields of study</b>	<b>N</b>	<b>%</b>
Agricultural, forestry and veterinary sciences	2 076	2.96
Science (including mathematics)	3 158	4.51
Social sciences, humanities and services	44 618	63.68
Technology	12 606	17.99
Sciences on culture and arts	1 696	2.42
Military and security sciences	1 568	2.24
Health	4 339	6.19
<b>Total</b>	<b>70 061</b>	<b>100</b>

Source: MŠVVŠ; Annual report on higher education 2011.

Conditions for admission to higher education studies are set autonomously by respective universities and/or their faculties. No entrance tests are obligatory. Regular students entering higher education are 19 years old, as this is a regular age of graduation from secondary school. 46.6% of 2010/2011 secondary graduates with a “maturita” school leaving certificate registered in higher education programmes in 2011. A share of new entrants of all ages in a population of 19 year olds was 62.2%.

Marginal registration fees are required to cover the costs of the admission procedure; however, no tuition fees are required for full-time studies at state/public universities. Students studying more than one study programme or studying longer than the officially programmed length of study are, however, payers. Part-time students also pay fees.

Interestingly, average wages of university (broken also by faculties) graduates are placed on the web (<http://www.absolventi.iedu.sk/Page/UplatnenieStudentovTabulka.aspx>). In 2011, the average income of 2009/2010 graduates from full-time master studies was EUR 814.

## 2.3 Other forms of training

### Learning opportunities for vulnerable groups

Slovakia is among the EU countries with the lowest number of drop-outs and early school leavers (5% in 2011) and therefore alternative programmes are quite marginal. Nevertheless, statistics would be different for the Roma ethnic minority; in particular the Roma population living in segregated settlements. Alarming situation is reported by practitioners and also documented by the following survey data.

**Table 19: Early school leaving rate of young Roma and non-Roma living in proximity**

	Non-Roma			Roma		
	Male	Female	All	Male	Female	All
ESL (aged 20-24)	11	29	21	78	82	80

Source: Own calculation based on data from UNDP/WB/EC Regional survey 2011.

NB: sample composed of about 750 Roma and 350 non-Roma households living in proximity; ESL – early school leavers.

There are specific programmes to assist integration of low-skilled, in particular Roma, or inexperienced graduates into the labour market. They are, however, organised within active labour market policies and usually co-financed by ESF. A specific Measure 3.1 “Enhancing educational level of members of marginalised Roma communities” targets Roma through Activity 3.1.3 aimed at continuing education of members of marginalised Roma communities and Activity 3.1.4 aimed at “continuing education” of people and the support of organisations engaged in reintegration into labour market of Roma. (Activities 3.1.1 and 3.1.2 refer to initial education.) Measure 3.2 “Enhancing education level of people with special educational needs (SEN)” contains similar activities, Activity 3.2.3 aimed at “continuing education” of SEN people and Activity 3.2.4 aimed at support of those working at their reintegration. (Activities 3.2.1 and 3.2.2 refer to initial education.)

Two activities can be perceived as system related interlinked with IVET: A “second chance schools” initiative is targeted at adults without completed lower secondary education. The objective of the programme is to bring them back to school and assist them in completing basic school, and obtain a lower secondary education level certificate. The Programme has not proved substantially successful in Slovakia so far, *inter alia*, due to low employability of general ISCED 2 graduates on the labour market and low job creations for them. It is inevitable to include VET components in this kind of activities. The active labour market policy instrument “Graduate practice” is offered to graduates from secondary and tertiary schools who had failed to enter employment. (See part on training for the unemployed below.)

In contrast to young people who also suffer from high unemployment, old people, in particular those living in less developed regions and dismissed from blue-collar working positions, are hardly employable. There is no programme worth mainstreaming that proved to improve their employability. ICT trainings for adults are successful in fighting digital divide, however, do not tackle their vulnerability in competition with younger unemployed.

### CVET programmes including training for the unemployed and adult learning

The main objective of CVET was traditionally considered within an economic frame as personal development driven by employers' requirements: to acquire higher qualification necessary for promotion, to increase employability, and in general to raise productivity, competitiveness, and economic efficiency, in particular via upgrading relevant skills. Little is however known about employer-provided training as no national statistics and national surveys are available.

The main objective of adult education was traditionally less focused on employment related aspects, and more on the quality of life of adults. It was considered as a complementary activity, in particular to satisfy personal and social needs and interests not necessarily related to the workplace.

Now, CVET and adult education are seen as an integral part of lifelong learning and their future development should be supported by the newest 2011 Lifelong learning strategy, adopted by the government in October 2011. Here are national data offering numbers of programmes, trainees and graduates.

**Table 20: Training programmes, trainees and graduates by type of training in 2011**

Type of training activity	Activities	%	Trainees	%	Graduates	%
Continuing professional training	8 615	39.1	133 623	44.6	92 149	45.3
Training for partial qualification	5 671	25.8	68 188	22.8	57 515	28.3
Interest and cultural education	2 112	9.6	34 233	11.4	13 088	6.4
Civics	362	1.6	7 043	2.4	4 229	2.1
Education for older people	171	0.8	3 719	1.2	1 030	0.5
Other	4 983	22.6	50 754	16.9	34 161	16.8
Not available (data missing)	102	0.5	2 134	0.7	1 312	0.6
<b>Total</b>	<b>22 016</b>	<b>100</b>	<b>299 694</b>	<b>100</b>	<b>203 484</b>	<b>100</b>

Source: ÚIPŠ.

NB: 6 397 bodies registered by the Ministry of Interior as training providers were addressed, 1 145 institutions responded positively, of which 518 reported provision of educational activities in 2011, 270 institutions offered programmes accredited by MŠVVŠ.

Provision of training was covered by 11 276 trainers (lecturers), of which 2 663 (23.62%) with pedagogical qualification, and 1 575 administrators, thus by 12 851 staff people in total. Although numbers of graduates are about the same, the number of offered activities tripled in comparison to 2010.

Three most important sources of financing learning are EU funds, private companies (including enterprises) and trainees themselves, as can be seen from the data below.

**Table 21: Distribution of sources of financing of CVET/LLL\* in 2011**

<b>Fields of study</b>	<b>N</b>	<b>%</b>
Trainees	10 560 686.06	19.23
Private companies	16 319 293.37	29.71
Public sector	2 269 385.97	4.13
of which: labour offices	384 111.02	0.70
municipalities	356 754.12	0.65
self-governing regions	933 424.88	1.70
other sources	595 095.95	1.08
State budget	7 430 337.28	13.53
Foundations	323 395.78	0.59
EU funds	16 600 989.35	30.22
Others	1 425 153.84	2.59
<b>Total</b>	<b>54 929 241.65</b>	<b>100.00</b>

Source: ÚIPŠ.

NB: \* data from well-disciplined institutions: 581 declared provision of education of which 554 submitted also data on financing); data cover also provision of training for unemployed and does not cover part-time studies in formal education offered to adult learners.

The Act on LLL No. 568/2009 Coll.<sup>5</sup>, in force since 2010, specified accreditation procedures opening doors to acquiring formal qualifications via alternatives to IVET. This act also stipulates provision of a proof of lecturers' "capability" for programme accreditation. The application procedure explicitly requires submission of a certificate on completion of training focused on lecturing competences or a proof of practice of a lecturer within this educational institution. Certification of lecturing competences will be covered the National Lifelong Learning Institute (NÚCŽV, Národný ústav celoživotného vzdelávania) taking over a certification agenda from the Slovak Association of Adult Education Institutions (AIVD, Asociácia inštitúcií vzdelávania dospelých) and upgrading it from an unofficial to formal procedure.

### **Training offered within employment services**

Unemployed people are served by public employment services provided by the headquarters of ÚPSVaR and its network of labour offices spread throughout the country. Employment services are regulated by Act No. 5/2004 Coll. on employment services<sup>6</sup>. In

<sup>5</sup> Act No. 568/2009 Coll. is available in Slovak at <http://www.minedu.sk/data/att/4125.pdf>.

<sup>6</sup> Act No. 5/2004 Coll. is available in Slovak at [http://www.employment.gov.sk/zakon-5\\_2004zz.pdf](http://www.employment.gov.sk/zakon-5_2004zz.pdf).

addition, employed people can also be entitled to be served by labour offices, provided they are at risk of dismissal. Disadvantaged groups served preferably are identified by § 8(1) of this act (see Annex 21). Active labour market policies (ALMP) directly related to CVET can be seen from the table below (see explanation of tools below the table): policies are presented in comparison of recent years with the year 2004.

**Table 22: People affected via active labour market policies in 2004 and 2007 to 2011**

ALMP tool	2004	2007	2008	2009	2010	2011
§ 46	27 208	8 890	12 143	17 924	8 824	1 332
§ 47	- *	12 537	13 863	29 921	20 381	0
§ 51	14 462	8 937	7 451	11 764	21 176	18 592
Total**	273 354	304 249	264 801	208 016	251 966	137 114

Source: ÚPSVaR.

NB: § 46 Education and training for the labour market of the unemployed job seekers and employed job seekers; § 47 Education and training for the labour market of employee; § 51 Contribution for the graduate practice;  
\* the tool not implemented; \*\* the number of people affected by all active labour market policy tools.

First two training instruments (§ 46 and § 47) are widely used also abroad, the third is a country specific response to high youth unemployment: Graduates eligible for Graduate practice (§ 51) are given a contribution equal to the subsistence minimum for a period of six months in the case they were accepted by an organisation offering them an opportunity to improve professional skills and gain practical experience from employment during 20 hours weekly. Although widely applied, and comparably only slightly reduced in 2011, this instrument is assumed to have high deadweight and needs redesigning already announced for 2013. Furthermore, new specific instruments to address youth unemployment initiated by the European Commission and co-financed by EU funding are also announced to be implemented in 2013.

In contrast to training of job seekers (§ 46), training of employees (§ 47) was introduced in pre-crisis years with comparably low level of unemployment and availability of unspent ESF means from other activities. It was aimed at improving skills of employees and later offered as prevention from mass dismissals in the years of crisis. State deficit consolidation efforts stopped provision of this training and also led to strong reduction of training of job seekers compared to 2010, and dramatic reduction compared to 2004.

**Table 23: Share of retraining tools in all ALMP expenditures in 2004 and 2008 to 2011**

Tool	2004	2008	2009	2010	2011	(%)
§ 46	10.7	3.0	3.6	1.6	0.1	
§ 47	-*	6.9	18.9	9.2	0**	

Source: ÚPSVaR; tabled and calculated by authors.

NB: \* tool not existing; \*\* tool not applied.

The data above also indicate low trust of policy makers in effectiveness of training. Instead, contributions for self-employment were offered generously, permanently increasing since 2004. Although containing a training component aimed at elaboration of a business plan for starting a new business, this tool is not included in the table. Furthermore, this measure also needs a serious revision as its efficiency is very questionable. A disproportionately low share of retraining and a disproportionately high share of contributions for self-employment in total ALMP beneficiaries and total spending on ALMP in comparison to EU27 reflects higher attractiveness of other tools over retraining for both: administrators and unemployed.

ALMP expenditures in Slovakia are very low, heavily depending on EU funds (over 50% in 2011) and not responding to unemployment level. In addition to three earlier presented tools a new one – costs of benefits for disabled trainees, is offered to illustrate a low profile of retraining activities in the ALMP portfolio and its vulnerability in competition with other tools.

**Table 24: Budget assigned for active labour market policies in 2004 and 2008 to 2011**

<b>Tool</b>	<b>2004</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
§ 46	5 455 898.5	3 725 446.92	5 841 204.64	3 034 974.09	182 565.62
§ 47	- *	8 501 069.87	30 642 710.81	17 483 907.28	0
§ 48b	- *	401 026.46	251 399.11	125 396.74	3 248.80
§ 51	5 152 065.6	4 815 714.30	10 989 976.03	20 005 283.85	18 772 951.22
<b>Total**</b>	<b>50 789 976.9</b>	<b>123 688 504.51</b>	<b>162 181 943.50</b>	<b>190 438 447.16</b>	<b>180 592 762.36</b>

(EUR)

Source: ÚPSVaR.

NB: EUR 1 = SKK 38.796 as of 31 December 2004; 2008 to 2011 data offered in EUR by the ÚPSVaR; § 46 Education and training for the labour market of the unemployed job seekers and employed job seekers; § 47 Education and training for the labour market of employee; § 48b Provision of benefits during training for the labour market and preparation for assertion at the labour market of disabled citizen (1 693, 1 066, 466 and 11 people affected in 2008, 2009, 2010 and 2011, respectively; § 51 Contribution for the graduate practice; \* not implemented; \*\* including also additional tools listed in the act.

## 2.4 National challenge

### IVET

A demographic decline, financing per capita and no counterbalancing measure aimed at rewarding quality of graduates changed the strategy of school managers. Schools are dominantly input market oriented trying to attract as much students as possible to secure the richest possible budget. Financing per capita introduced without quality check of graduates resulted in gradual deterioration of their quality, as schools subordinated pedagogy to economy. Quality and employability of graduates became secondary. Insufficient financing from the state budget deepens the modernisation debt. In particular, the quality of VET graduates is endangered by lagging behind the technology development.

Here are the major challenges and objectives for IVET:

- Investment in education:
- Investment in education (the OECD lowest and among the lowest in EU27, and below levels of comparable countries) must be increased;
- Assuring quality of school graduates:
- Learning environment must be improved and supply of learning materials and aids must be secured as a precondition for relevance of any evaluation (self-evaluation, inspection and employers' supervision);
- A self-evaluation model developed within the ESF project by an expert team of State School Inspection can partly contribute to improvement, and regional authorities should be invited to support implementation of this model. In addition State School Inspection should create an inspection framework interrelated with self-evaluation and rethink introducing a risk-based inspection model.
- Qualification standards are expected to be revised within an ESF project to be run in 2013 by State Institute of Vocational Education, aimed at interlinking the National Qualifications System with the National System of Occupations (see also Chapter 3);
- Adjusting networks of secondary schools and programmes to both regional labour market needs and needs of personal development of students is a perennial challenge for authorities. This is however hampered by insufficient knowledge of future skills needs and underdeveloped research related to labour market development. Not existing graduates' progression tracking statistics and only anecdotal evidence on placement of graduates in the labour market is a major systemic deficiency.
- Post-secondary VET and tertiary VET should be revised. Reviewing the Bologna process implementation and introducing labour market needs adjusted bachelor studies is the major challenge for higher education institution.

## CVET/LLL

Slovakia failed to reach the 2010 LLL participation benchmark 12.5% with an extremely low share of participation 2.8% compared to 9.1% average in EU27 countries in 2010. The national benchmark 15% in 2015 set in 2007 also seems to be unrealistic, as no sign of substantial improving is visible so far (3.9% in 2011). Thus, ET 2020 benchmark 15% is also at risk under the current trend.

- The LLL strategy adopted by the government in 2011 was complemented by the Action plan adopted by MŠVVŠ in February 2012 to address four LLL strategy priorities. The Action plan Measure 4.1 envisages identification of fiscal instrument to enhance participation of adults in LLL. A fiscal incentive is considered an appropriate impulse for change by educators, however, heavily opposed by economists and unlikely introduced in times of fiscal prudence.

- Although a focus on key competences can be seen in the 2007 LLL strategy, a new LLL strategy adopted in 2011 highlighted their importance again with the criticism that the earlier strategy covered this issue “only at low level” and did not develop “the method of their acquisition”. The Action plan to the 2011 LLL strategy indicated in its Measure 4.2 creating a multimedia platform in support of autonomous improvement of key competences by means of learning opportunities provided by this platform. The following key competences are explicitly stressed: communication in foreign languages, digital competence, social and civic competences and entrepreneurship. However, a respective ESF national project has not yet been launched.
- The Accreditation Commission affiliated to MŠVVŠ, which is responsible for accreditation of educational programmes, as well as the Accreditation Commission affiliated to the Ministry of Health concentrate on assessment of input conditions that are in detail regulated by Act on LLL No. 568/2009 Coll. But, the output quality is as a rule left up to the market power and clients. Quality of provision of CVET/LLL and informing about the quality of respective learning opportunities is still seen a serious problem. A new ESF national project mentioned above should address this by creating an electronic communication platform.
- Training activities of traditional adult learning or retraining of jobseekers and a lot of CVET (with the exception of specific CVET regulated sectorally) are still completed with certificates of attendance only, as the development of learning outcome based National Qualifications System is still pending (see more in Chapter 3).

## CHAPTER 3

### 3. Shaping VET qualifications

For a long time there was no explicit definition of the term “qualification” in the Slovak legislation. Act on LLL No. 568/2009 Coll. established the terminology specifying partial and full qualification as a compliance with respective qualification standard (in terms of knowledge, skills and abilities required by respective working activity or even occupation). Nevertheless, the former approach understanding qualification as the conjunction of achieved education level, sometimes complemented by specific qualifying conditions (vocational capabilities), and optionally also working experience, all officially recognised, still prevails.

Furthermore, there is a tradition in both general education and IVET to speak preferably about level of education, and so all educational background documents refer to “educational” requirements to be achieved for graduation rather than to “qualification” requirements. Of course, in IVET programmes education and training for profession is more pronounced compared to other programmes. However, graduates from VET schools are said to only receive their “first” qualification, in order to leave space for additional requirements (e.g., of other sectors legislation) for gaining “qualification” *per se*.

Recently, with establishment of National System of Occupations and first efforts to redesign existing national qualifications into learning outcome based National Qualifications System (NQS) with qualifications requirements available in one place (on-line platform), discussions about clarification of difference between education level and qualification becomes more important again. There are many qualifications regulated by sectoral legislation often acquired within CVET and continuing professional development featuring different approaches: some already learning outcome based and some rather traditional, based on education content. NQS fundamental contribution can also be seen in covering also other than education sector qualifications.

Nevertheless, for the sake of simplicity, we will ignore details and speak about qualifications also with regard to development of IVET programmes: a table of types of qualifications awarded by the IVET system is in Annex 22.

#### 3.1 Designing qualifications, occupational and educational standards

According to the Act on LLL designing qualification means meeting requirements needed for enlisting into NQS. A precondition for this is elaboration of qualification and assessment standards. However, NQS seems to be restricted to the education sector so far, and progress in describing qualifications is very slow yet. Thus, designing a new qualification in practice means designing a new IVET programme. This is based on a procedure that is very strictly regulated by educational authorities:

**Initiation** – a new programme development is usually initiated by employers in need of specialists not supplied to the labour market or also by schools looking for new opportunities to survive in a competitive market with a decreasing number of learners. As a rule, employers and a particular school in the neighbourhood approach the education authority.

**Inception** – a project must be submitted to MŠVVŠ asking for approval of experimental study. This experimental study proposal must be backed by supportive declaration of establisher (self-governing region) and must be discussed with a school board, local/regional employers and the respective institution representing employers set as the so-called sectoral assignee by legislation (see Annex 14). A new school educational programme (containing *inter alia* graduate's profile and detailed curricula) must be elaborated as well as project implementation documentation (time schedule, personal and financial capacities). A cooperating reliable guarantor willing to supervise and evaluate the experiment must be engaged. The project is discussed by the respective working group of the National VET Council and in case of positive recommendation it is approved by MŠVVŠ. This programme is officially registered, but can only be applied by schools (1 to 3) participating in the experiment.

**Evaluation** – every year the guarantor (often the State Institute of Vocational Education) evaluates progress of the project and informs MŠVVŠ about any changes or adjustments emerging during the experiment. This phase is finished by final evaluation by the guarantor. It must be done by the end of a calendar year, in which the full experimental programme was completed. An explicit statement recommending or not recommending a new study programme must be expressed.

**Mainstreaming** - in case of positive evaluation by the guarantor the ministry enlists, without any further delay, the evaluated programme into the network of study programmes. After this, any establisher can ask MŠVVŠ for approval to offer the new programme in its school. Schools that were not involved in the experiment must develop their own school educational programmes, as only a framework of the original school educational programme is made public.

Occupational standards are being developed within ESF projects aimed at creation of National System of Occupations (NSO) run by Trexima Ltd. under the supervision of MPSVR. 369 occupational standards elaborated in cooperation with social partners were officially approved and made public at the NSO portal ([www.sustavapovolani.sk](http://www.sustavapovolani.sk)) by October 2012. In addition to the Register of Occupations complying with ISCO-08 and containing occupational standards, this interactive platform also contains the Register of Competences (with databases identifying relevant knowledge, skills and general abilities for occupational standards).

20 sectoral councils have been created to assist in developing occupational standards. A full list of sectoral councils operating within the NSO project with the lists of members is available at the aforementioned NSO portal. A field specialist from the State Institute of Vocational Education is a member of respective council to take care on coherence with IVET. The Alliance of Sectoral Councils coordinates sectoral councils activities and finally approves

occupational standards developed by respective councils. It is presided by the nominee of MPSVR (currently it is a representative of employers) and comprise representatives of all ministries, all self-governing regions and other social partners, as well as heads of all sectoral councils.

Prior to the 2008 curricular reform, education was based on curricula backed by detailed educational documentation, which had to be approved by MŠVVŠ. Since 2008, education has been based on MŠVVŠ-approved state educational programmes (StEP) developed for entire groups of related fields of education, based on which individual schools prepare their own school-specific school educational programmes (SchEP).

Thus, educational standards are set by state educational programmes covering all study and training branches and are composed of the so-called content standards and the so-called performance standards, as set by the Education Act No. 245/2008 Coll. Performance standards can be seen as learning outcomes that students are supposed to attain during the study and demonstrate when completing the study. They are expressed in particular in relation to vocational competences (the required body of knowledge, the required skills, the required personal predispositions, characteristics and abilities). In addition, general competences and key competences are expressed in StEPs for ISCED 3A and 3C programmes. The so-called assessment standards are considered a supportive tool for evaluation of achieving performance standards and are to be elaborated by respective schools within their SchEPs.

The 2008 curricular reform preceded creation of NSO and NQS, thus progress in both will also affect educational and assessment standards developed and used earlier. Although an ESF project aimed at creation of learning outcomes based NQS is pending, MŠVVŠ, pushed by the Act on LLL No. 568/2009 Coll., started to work on descriptions of qualifications in terms of national qualification and assessment standards. A current list of “LLL qualifications” is placed at <http://www.isdv.fri.uniza.sk/Qualifications.aspx>.

Since the 2008 curricular reform, the influence of employers on designing standards has significantly increased as a consequence of new VET governance (National VET Council, Regional VET Councils, Sectoral Councils and “sectoral assignees”, see part Managing IVET in 2.1) set by Act No. 184/2009 Coll. on VET. Nevertheless, just with completing NQS a feedback loop between respective standards will become fully institutionalised. Now, ensuring the labour market relevance of knowledge, skills and competence development in VET is based on natural personal feedback offered by involved specialists; in particular, those in sectoral councils in the labour sector concerning occupational standards and those in the aforementioned bodies of new VET governance in the education sector concerning education and qualification standards. The future will certainly bring an overarching solution.

### 3.2 Anticipating labour market needs

There have been no reliable instruments developed for anticipation of labour market needs so far. There is no institution and there are no specialists focusing on qualitative anticipation of skills needs. There were only ad-hoc sectoral/regional data collected, without efforts to develop regular national instruments to be used periodically to monitor labour market supply and demand.

Sectoral VET Councils were expected to play a crucial role, *inter alia*, in anticipation of sectoral skill needs and translating them into the so-called “plans of labour market needs” in terms of numbers of graduates in respective study/training branches for the following five years. Nevertheless, results were disappointing as “plans of labour market needs” submitted to the National VET Council were of limited validity and reliability. It is not surprising, as all data available for their elaboration were based on estimations of insiders only, as no professional surveys’ data were available. In recognition of this weak point an amendment of legislation was agreed and responsibility for anticipation of labour market needs was shifted to MPSVR. Committees for Employment Issues affiliated to each of 46 labour offices should carry out an analysis of labour market developments. Furthermore, unemployment data of graduates of all schools broken by programmes must be made available on the web. It must be, however, stressed that any analysis focusing on registered unemployment data offers only a biased picture. Until official instrument collecting data on transition from VET to work (e.g., tracking graduates for three years after graduation) is introduced no relevant data for analysis will be available, as all education sector data stop with graduation from schools.

Many efforts were undertaken, co-financed by ESF, with insufficient results due to weak project management, but also due to the lack of research capacity and expertise. While it is understandable that there was no experience in this field during the command economy period it is hard to understand why the relevant research capacities were not created after 1989. No skills surveys are conducted and even no translation from school to work data are collected.

The only significant exception is forecasting based on an econometric model of the Institute of Economic Research of Slovak Academy of Sciences. In reflection of the EU “New Skills for New Jobs” initiative and under the strong influence of Cedefop’s Skillsnet project MPSVR commissioned forecasting of labour demand for three categories of education (ISCED 0-3C interpreted as low; ISCED 3A, 4, 5B interpreted as medium and ISCED 5A, 6 interpreted as high). According to second scenario out of three (low, medium, high) a year on year increase about 4-5 % in higher education demand is expected for the whole period till 2020. After a few years of stagnation caused by the crisis a year on year increase demand of about 1-2 % is forecasted for medium level. Low level educated demand is expected to decrease, with an accelerated decrease close to the end of the period, dropping from 39.3 % share in demand in 2008 down to 22.9 % in 2020. In contrast, labour demand for higher educated is expected to increase up to 26.0 % in 2020. Forecasting of employment by NACE groups was offered as well. A further decrease in employment in agriculture (A-B) and public services (L-Q) and a slight increase in market services (G-I) and financial services (J-K) is

forecasted for 2020. Manufacturing is expected to stay the second strongest branch with 24.3% after market services with 31.2% share in total employment.

In 2012, the Institute for Forecasting of Slovak Academy of Sciences started to offer labour market short-term forecasts on quarterly basis.

### 3.3 National challenge

Although Slovakia welcomed the Copenhagen declaration, its participation in post-Copenhagen activities is very limited. Preoccupied with local developments, in particular creation of new legislation, Slovakia is lagging behind in implementation of almost all Copenhagen instruments.

- A delay in launching an ESF funded project aimed at development of learning outcome based National Qualifications System (NQS) is a fundamental failure of MŠVVŠ in harsh contrast with progress in development of National System of Occupations (NSO) under the supervision of MPSVR. The ESF project aimed at development of NQS interlinked with existing NSO should finally start in 2013 run by State Institute of Vocational Education.
- Slovakia decided to adopt eight-level National Qualifications Framework (NQF) and managed to set an initial version of descriptors for all levels. A conversion table between ISCED and NQF was suggested by MŠVVS, however, without full support from professional community. Creation of NQF was embedded into the Act on LLL No. 568/2009 Coll. by its amendment in force since November 2012, but the referencing process is in its very start. A revision of NQF initial documents in closer cooperation with employers is envisaged for 2013.
- Although importance of improving quality assurance is pronounced by high voice by experts and authorities, impact of EQAVET on Slovakia is marginal so far.
- An ECVET feasibility study for Slovakia was elaborated by Slovak National Observatory of VET commissioned by Slovak Academic Association for International Cooperation within the project “National Forum as tool for improving LLL strategies”. An ECVET National Framework for Slovakia was proposed with a focus on learning outcome based mobilities instead of implementation of a credit points system complementary to the credit system applied in higher education. The standpoint of authorities is missing yet.
- Recognition of non-formal and informal learning is currently almost impossible. The Act on LLL No. 568/2009 Coll., and in particular its amendment in force since November 2012, opened the door to flexibility in learning and acquiring qualifications through CVET, however, with only limited implementation so far due to delay in the development of NQS hampering acquiring qualification or partial qualification. Thus, certifying vocational capabilities required for permission to start up some trades is offered rather than awarding (partial) qualification according to the Act on LLL by authorised institutions (schools and, as a novelty, professional associations like chambers or guilds).

Despite strong progress in reforming VET since 2008 two weak points have remained unaddressed and must be therefore permanently stressed:

- Low investment in education causes lower quality of equipment and low attractiveness of IVET for young professionals to become teachers or trainers. Thus, even best shaped qualification documents are insufficient provided a quality training staff is not available.
- Low investment in VET research and labour market analyses hampers understanding of labour market needs. Data on transition of graduates into work and national employers' surveys are the most urgently missing tools to identify skills needs and skill gaps at workplace level.

## CHAPTER 4

# 4. Promoting participation in vocational education and training

## 4.1 Types and characteristics of promotion

### IVET

A long-term population decline, higher attractiveness of secondary general education, and a financing scheme based on per capita contributions from the state budget pushed VET schools to regular campaigning to attract students. Promotion activities, such as school open days, local/regional career days, advertisement in media, touring basic schools to meet students and their parents, are in increase in number and quality. In recognition of the need of professionalisation of campaigning, a specific instrument - grant giving scheme focused on promotion of VET programmes featuring the graduate unemployment rate up to 7% nationwide was introduced by MŠVVŠ in 2012. The maximum amount for one project is EUR 2 500. A minimum of 5% of the total costs must come from applicant's own resources and 10% of the total costs must come from the employer requiring VET in programmes featuring shortages in graduates.

A decline in interest in secondary technical VET and increasing enrolment in humanities and social science tertiary studies is attributed by some experts to low attention paid by basic schools to develop technology skills of pupils. Since 1995, a competition focused on the technical skills of lower secondary pupils have been organised by specialists from Constantine the Philosopher University in Nitra to offset this unfavourable development. The Technology Olympiad is aimed at raising the interest of pupils in technology, encouraging their creativity and making them active in learning technology during their out-of-school activities, and also motivate them in further studies in technically oriented study programmes. The competition consists of two parts: a knowledge test covering topics taught in the subject Technology, and a practical assignment requiring the constructing of some kind of product from materials. A dedicated "EduTech Portal" for basic school technology teachers with information on the Olympiad has been created.

Fairs with a focus on VET have a long tradition, e.g., the largest and oldest ones JUVYR (standing for Junior and Production) in Bratislava - 21 years, Young Creator in Nitra - 20 years. There are also other fairs with shorter tradition and regional influence with a wider scope, e.g. PRO EDUCO in Košice. The long-term tradition in diverse skills competitions got an important impulse towards "professionalisation" of competitions with emerging of Euroskills. MŠVVŠ as well as employers strengthened support for competitions to generate national representatives for Euroskills. Earmarked funding from the state budget will be offered to State Institute of Vocational Education to cover organisational costs of competitions with international dimension since 2013.

Scholarships for socially disadvantaged students can also be seen as promoting participation in VET. This policy is intended to cover at least part of costs for education (e.g., travel costs, food, accommodation, learning aids, etc.) to prevent from dropping out from schools of students whose parents are in material need or below subsistence minimum.

Incentives for enterprises to invest in IVET set by the Act on VET No. 184/2009 Coll. are limited to some expenditures related to a contracted student, as explained earlier. Although employers call for less restrictive application of tax deducting instrument to improve learning environment (e.g., better school equipment or provision of more sophisticated practical training), no further tax related incentives can be expected due to a current period of fiscal austerity. Instead, ESF projects aimed at support of work based practical training are discussed.

## **CVET and LLL**

The first of four key priorities of 2011 Lifelong learning strategy is as follows: Lifelong learning will be attractive to every citizen of the Slovak Republic and supported by all stakeholders involved. Since 2012, adoption of fiscal incentives in support of individual CVET/LLL (refused in 2008 within adoption of the Act on LLL No. 568/2009 Coll.) has been put on the table again. The 2012 Action Plan for implementation of Lifelong Learning Strategy in the Measure 4.1 envisages identification of fiscal instrument to enhance participation of adults in LLL. Nevertheless, the fiscal consolidation seems to postpone adoption of relevant measures again. The only substantial resources in support of CVET are linked to ESF funded projects, that are however specific and administratively demanding. Operational Programme Education, Measure 2.1 “Support for continuing education is aimed at increasing employability” by improvement of key competences of inhabitants. In contrast to rich opportunities within IVET, stronger policies aimed at easing access to CVET are urgently needed

A new instrument is available for making adults sensitive to benefits of VET. A searchable database of accredited training programmes is offered by MŠVVŠ, replacing a simple list of training providers and their programmes. This database is a component of Information System of Continuing Education set up following the Act on LLL.

The National Lifelong Learning Institute, a national LLL contact point, implements a 2012-13 project “Promotion of the national lifelong learning and lifelong guidance strategy”. Project Activity 3 is aimed at creating the regional communication strategy.

## **4.2 Guidance and counselling, structures and services**

The provision of career guidance and counselling for learning, career and employment is the responsibility of two sectors: education and labour.

The following two types of facilities provide guidance and counselling in the education sector: Centres of educational and psychological counselling and prevention and Centres of special education guidance and counselling. The following are specialist offering services:

educational counsellors in primary and secondary schools; school psychologists; school special pedagogues; therapeutic pedagogues; social pedagogues and prevention coordinators. All this is explicitly listed in the Education Act No. 245/2008 Coll. as composing the guidance and counselling system in the education sector.

Guidance and counselling services offered by the aforementioned specialists and facilities are targeted on primary and secondary school students. Educational counsellors are regular teachers and therefore quality of their career guidance is often disputed. New programmes have been accredited since 2010 aimed at their training, based on a new credit based continuing professional development model set by Act No. 317/2009 Coll. on pedagogical staff and professional staff.

Students in higher education are served by Career information and guidance centres, which were established with the support of ESF in many universities throughout the country. To offer young people at least some of relevant information on the labour market for their career decisions MŠVVŠ launched two websites informing on unemployment rates of graduates of individual secondary schools and on average incomes of graduates of respective higher education institutions.

Two institutions were established to capitalise on international experience:

- Euroguidance Centre Slovakia, hosted by the National LLL Programme Agency, focusing on guidance practitioners and policy makers from both the education and employment sectors providing quality information on lifelong guidance;
- National Forum for Lifelong Guidance, an advisory board to MŠVVŠ hosted by National Institute for Lifelong Learning serving as the secretariat of this board.

The most important players in the labour sector offering career guidance and counselling for unemployed are Offices of labour, social affairs and family, Agencies of supported employment (focusing on long-term unemployed and people with disabilities), and partly also Agencies of temporary employment.

There is no formal qualification required for offering career information and guidance in Offices of labour, social affairs and family. For career counsellors working at the Counselling services units of Offices of labour, social affairs and family a master level of university degree is required without any further specification. Similarly to education counsellors in primary and secondary schools, further professionalization is needed.

Guidance and counselling for adults *per se* is institutionally less developed. Nevertheless, establishing a network of 16 career guidance centres covering all eight regions in Slovakia is envisaged based on an agreement of experts and policy makers.

Services offered on Internet are of increasing importance, in particular for youth. Besides commercial job seeking platforms (the most important being [www.profesia.sk](http://www.profesia.sk)), there are also other instruments envisaged related to the development of the National System of Occupations and National Qualifications System. A National System of Occupation portal, [www.sustavapovolani.sk](http://www.sustavapovolani.sk), offers information on employers' requirements on job performance, and an earlier developed Integrated System of Type Positions ([www.istp.sk](http://www.istp.sk)) allows clients in

its module “Analysis of individual potential” to gain specific information relating to their prospects on the labour market.

### 4.3 National challenge

Despite many activities in place, specialised financial instruments are needed to engage businesses in both promotion and co-financing VET. Nevertheless, an opposite trend is visible. A gradual restriction of the earlier mentioned tax incentive originally allowing for assigning 2% of income tax of employers and corporations was decided in 2009. It stipulates a gradual replacement of tax money by direct gifts. This results in lower income of VET school budgets from this source.

Furthermore, guidance and counselling services must be improved in quality and targeting to make a difference between reflecting children and youth desires, their natural abilities and talents, and their employability. Unfortunately, the implementation of policy papers and legislation addressing career guidance and counselling is very slow.

- The 2007 Strategy of lifelong learning and lifelong guidance for the first time stressed and addressed interrelations between lifelong learning and lifelong guidance. Nevertheless, just a little progress is visible in practice. A currently visible change in wording from “lifelong guidance” to “guidance in lifelong learning” is criticised by experts fearing reduction of activities just to learning. This also relates to insufficient coherence in sectoral policies.
- Act No. 568/2009 Coll. on LLL explicitly declared in its § 23 that the system of monitoring and forecasting labour market “education needs” is to be maintained by MŠVVŠ as a tool for “guidance in lifelong learning” to inform career guidance services, as well as authorities and providers of lifelong learning. Unfortunately, no substantial improvement is visible. The provision of monitoring and forecasting data for career guidance services is still insufficient in volume and quality.

## Acronyms and abbreviations

AIVD	Asociácia inštitúcií vzdelávania dospelých v SR (Association of Adult Education Institutions in the SR)
ALMP	Active labour market policy
CVET	Continuing vocational education and training
EEA	European Economic Area
EQAVET	European Quality Assurance Reference Framework for VET
ESF	European Social Fund
EU; EU27	European Union, 27 EU member states
GDP	Gross domestic product
ICT; IT	Information communication technology; Information technology
ISCED	International Standard Classification of Education
ISCO	International Standard Classification of Occupations
ISTP	Integrovaný systém typových pozícií (Integrated System of Type Positions)
IVET	Initial vocational education and training
LFS	Labour Force Survey
LLL	Lifelong learning
MPSVR	Ministerstvo práce, sociálnych vecí a rodiny (Ministry of Labour, Social Affairs and Family)
MŠVVŠ	Ministerstvo školstva, vedy, výskumu a športu (Ministry of Education, Science, Research and Sport)
MV	Ministerstvo vnútra (Ministry of Interior)
MZ	Ministerstvo zdravotníctva (Ministry of Health)
NACE	General Classification of Economic Activities of the European Community
NGO	Non-governmental organisation
NQF	National Qualifications Framework
NQS	National Qualifications System
NÚCŽV	Národný ústav celoživotného vzdelávania (National Institute for LLL)
SEN	Special education needs
SKK	Slovak crown (currency)
SK	Slovakia
SOŠ	Stredná odborná škola (secondary specialised school)
SOU	Stredné odborné učilište (secondary vocational school)
SchEP	School educational programme
StEP	State educational programme
ŠIOV	Štátny inštitút odborného vzdelávania (State Institute of Vocational Education)
ŠÚ	Štatistický úrad (Statistical Office)
UOE	UNESCO, OECD, Eurostat
ÚIPŠ	Ústav informácií a prognóz školstva (Institute of Information and Prognoses of Education)
ÚPSVaR	Ústredie práce sociálnych vecí a rodiny (Central Office of Labour, Social Affairs and Family)
VET	Vocational education and training

## Bibliography

- Blecha, B., Vaňo, B. (2007). *Prognóza vývoja obyvateľstva SR do roku 2025 (aktualizácia) [Prognosis of the development of population in SR till 2025 (update)]*. Bratislava: Infostat. Available from Internet: <http://www.infostat.sk/vdc/pdf/prognóza07.pdf>
- Centre of Labour, Social Affairs and Family (2006). *Realizácia nástrojov aktívnej politiky trhu práce v roku 2005 [Implementation of active labour market policy tools in 2005]*. Bratislava: ÚPSVaR.
- Centre of Labour, Social Affairs and Family (2008). *Realizácia nástrojov aktívnej politiky trhu práce za rok 2007 [Implementation of active labour market policy tools in 2007]*. Bratislava: ÚPSVaR.
- Centre of Labour, Social Affairs and Family (2009). *Realizácia nástrojov aktívnej politiky trhu práce za rok 2008 [Implementation of active labour market policy tools in 2008]*. Bratislava: ÚPSVaR.
- Centre of Labour, Social Affairs and Family (2011). *Realizácia nástrojov aktívnej politiky trhu práce za rok 2010 [Implementation of active labour market policy tools in 2010]*. Bratislava: ÚPSVaR. Available from Internet: [http://www.upsvar.sk/statistiky/aktivne-opatrenia-tp-statistiky/aktivne-opatrenia-trhu-prace-2010.html?page\\_id=13325](http://www.upsvar.sk/statistiky/aktivne-opatrenia-tp-statistiky/aktivne-opatrenia-trhu-prace-2010.html?page_id=13325)
- Institute of Information and Prognoses of Education. *Štatistická ročenka školstva [Statistical yearbook of education]*. Bratislava: ÚIPŠ, prepared on annual basis. Available from Internet: <http://www.uips.sk/statistiky/statisticka-rocenka>
- Juhaščíková, I., Škápik, P., Štukovská, Z. (2012a). *Základné údaje zo Sčítania obyvateľov, domov a bytov 2011: obyvateľstvo podľa najvyššieho dosiahnutého vzdelania [Basic data from the 2011 Population and housing census: population by the highest level of education]*. Bratislava: ŠÚ SR. ISBN 978-80-8121-210-9. Available from Internet: <http://portal.statistics.sk/files/ev-v5-obyvateľstvo-podla-vzdelania.pdf>
- Juhaščíková, I., Škápik, P., Štukovská, Z. (2012b). *Základné údaje zo Sčítania obyvateľov, domov a bytov 2011: obyvateľstvo podľa národnosti [Basic data from the 2011 Population and housing census: population by nationality]*. Bratislava: ŠÚ SR. ISBN 978-80-8121-206-2. Available from Internet: [http://portal.statistics.sk/files/ev\\_narodnost\\_12\\_7\\_v12.pdf](http://portal.statistics.sk/files/ev_narodnost_12_7_v12.pdf)
- Jurásková, M., Kriglerová, E., Rybová, J. (2004). *Atlas rómskych komunít na Slovensku 2004 [Atlas of Roma communities in Slovakia 2004]*. Bratislava: ÚV SR. ISBN-80-88991-27-7.
- Marcinčin, A., Marcinčinová, L. (2009). *Cost of non-inclusion: the key to integration is respect for diversity*. Bratislava: OSF. Available from Internet: [http://www.osf.sk/kniznica\\_a\\_open\\_gallery/publikacie/2010/the\\_cost\\_of\\_non-inclusion/](http://www.osf.sk/kniznica_a_open_gallery/publikacie/2010/the_cost_of_non-inclusion/)
- Ministry of Education (2006a). *Návrh koncepcie dvojúrovňového modelu vzdelávacích programov v oblasti odborného vzdelávania a prípravy v Slovenskej republike [Concept of two-level model of educational programmes in VET in the Slovak Republic]*. Bratislava: MŠ SR. Available from Internet: <http://www.rokovania.sk/Rokovanie.aspx/BodRokovaniaDetail?idMaterial=6443>
- Ministry of Education (2006b). *Stratégia celoživotného vzdelávania a celoživotného poradenstva = Strategy of lifelong learning and lifelong guidance*. Bratislava: MŠ SR. Available from Internet: <http://www.rokovania.sk/Rokovanie.aspx/BodRokovaniaDetail?idMaterial=6639> = [http://old.minedu.sk/data/USERDATAEN/LifLearn/LLL\\_Strategy.rtf](http://old.minedu.sk/data/USERDATAEN/LifLearn/LLL_Strategy.rtf)

- Ministry of Education (2007). *Operačný program Vzdelávanie = Operational programme Education*. Bratislava: MŠ SR. Available from Internet: <http://www.nsrr.sk/operacne-programy/vzdelavanie/> > Slovenská verzia <http://www.nsrr.sk/operacne-programy/vzdelavanie/> > English version
- Ministry of Education, Science, Research and Sport (2011). *Stratégia celoživotného vzdelávania 2011 [2011 Strategy of lifelong learning]*. Bratislava: MŠVVŠ SR. Available from Internet: <http://www.minedu.sk/data/files/1899.pdf>
- Ministry of Education, Science, Research and Sport (2012). *Akčný plán Stratégie celoživotného vzdelávania 2011 [Action plan to 2011 Strategy of lifelong learning]*. Bratislava: MŠVVŠ SR. Available from Internet: <http://www.minedu.sk/data/files/1898.pdf>
- Ministry of Labour, Social Affairs and Family (2007). *Operačný program Zamestnanosť a sociálna inklúzia = Operational programme Employment and social inclusion*. Bratislava: MPSVR SR. Available from Internet: <http://www.nsrr.sk/operacne-programy/zamestnanost-a-socialna-inkluzia/> > Slovenská verzia <http://www.nsrr.sk/operacne-programy/zamestnanost-a-socialna-inkluzia/> > English version
- Ministry of Labour, Social Affairs and Family (2012). *Správa o sociálnej situácii obyvateľstva Slovenskej republiky za rok 2011 [Report on social situation of inhabitants in SR for 2011]*. Bratislava: MPSVR SR. Available from Internet: <http://www.rokovania.sk/Rokovanie.aspx/BodRokovaniaDetail?idMaterial=21149>
- Office of the Plenipotentiary of the Government of the Slovak Republic for Roma communities (2012). *Strategy of the Slovak Republic for the integration of Roma up to 2020*. Bratislava: ÚSSRRK. Available from Internet: [http://ec.europa.eu/justice/discrimination/files/roma\\_slovakia\\_strategy\\_en.pdf](http://ec.europa.eu/justice/discrimination/files/roma_slovakia_strategy_en.pdf)
- Potaňčoková, M., Vaňo, B., Pilinská, V., Jurčová, D. (2008). *Slovakia: Fertility between tradition and modernity*. Demographic Research, Vol. 19, Art. 25, p. 973-1018. Available from Internet: <http://www.demographic-research.org/volumes/vol19/25/19-25.pdf>
- Radvanský, M. et al. (2012). *Makroekonomická prognóza vývoja Slovenskej republiky so zameraním na vývoj dopytu po práci [Macroeconomic forecast of the development in labour demand in Slovakia]*. Bratislava: EÚ SAV. Available from Internet: <http://www.ekonom.sav.sk/uploads/journals/ES07.pdf>
- Srnánková, L., Omastová, M., Lehoňan, J. (2012). *Informačný systém o ďalšom vzdelávaní v SR: štatistické výstupy - rok 2011 [Information system on further education in the SR: statistical data - year 2011]*. Bratislava: ÚIPŠ. Available from Internet: <http://www.uips.sk/sub/uips.sk/images/MK/DaVzdel/2011/isdv2011.pdf>
- State Institute of Vocational Education (2011). *Metodika tvorby školských vzdelávacích programov pre stredné odborné školy [Methodology of development of school educational programmes for secondary specialised schools]*. Bratislava: ŠIOV.
- UNDP-WB-European Commission [2011]. *UNDP-WB-European Commission regional Roma survey 2011*. Available from Internet: <http://europeandcis.undp.org/data/show/BCADB1F6-F203-1EE9-BA47EE304170652A>
- Vaňo, B. (2002). *Prognóza vývoja rómskeho obyvateľstva v SR do roku 2025 [Prognosis of the development of Roma population in SR till 2025]*. Bratislava: Infostat. Available from Internet: <http://www.infostat.sk/vdc/pdf/prognoza2025rom.pdf>
- Vantuch, J. et al. (2008). *VET policy report: Slovak Republic 2008: progress in the policy priority areas for vocational education and training*. Bratislava: ŠIOV/SNO. Available from Internet: [http://libserver.cedefop.europa.eu/vetelib/eu/pub/cedefop/policyreport/2008\\_PR\\_SK.pdf](http://libserver.cedefop.europa.eu/vetelib/eu/pub/cedefop/policyreport/2008_PR_SK.pdf)

- Vantuch, J. et al. (2010a). *A bridge to the future: European policy for vocational education and training 2002-10: national policy report - Slovakia*. Bratislava: ŠIOV/SNO. ISBN 978-80-89247-23-3. Available from Internet: [http://www.refernet.sk/images/news/files/Policy-Report\\_SK\\_2010\\_A%20Bridge%20to%20the%20Future\\_final.pdf](http://www.refernet.sk/images/news/files/Policy-Report_SK_2010_A%20Bridge%20to%20the%20Future_final.pdf)
- Vantuch, J. et al. (2010b). *Slovakia: VET in Europe: country report 2010*. Thessaloniki: Cedefop (VET in Europe – Country Reports 2010). Available from Internet: [http://libserver.cedefop.europa.eu/vetelib/eu/pub/cedefop/vetreport/2010\\_CR\\_SK.pdf](http://libserver.cedefop.europa.eu/vetelib/eu/pub/cedefop/vetreport/2010_CR_SK.pdf)
- Vantuch, J. et al. (2011). *Slovakia: VET in Europe: country report 2011*. Thessaloniki: Cedefop (VET in Europe – Country Reports 2011). Available from Internet: [http://libserver.cedefop.europa.eu/vetelib/2011/2011\\_CR\\_SK.pdf](http://libserver.cedefop.europa.eu/vetelib/2011/2011_CR_SK.pdf)
- Vantuch, J., Jelinkova, D. (2012). *European credit system for vocational education and training: feasibility study for the Slovak Republic*. Bratislava: SNO. Available from Internet: [http://web.saaic.sk/naforfil/modules/dokumenty/ECVET\\_feasibility\\_study\\_for\\_Slovakia.doc](http://web.saaic.sk/naforfil/modules/dokumenty/ECVET_feasibility_study_for_Slovakia.doc)
- Vantuch, J., Jelínková, D., Jurkovičová, A. (2011). *Skills and competences in health and social work sector*. Bratislava: SNO. Available from Internet: <http://www.refernet.sk/images/news/files/Skills%20and%20competences%20in%20health%20and%20social%20work%20sector%20in%20Slovakia.pdf>
- World Bank Europe and Central Asia (ECA) (2012). Policy advice on the integration of Roma in the Slovak Republic: Employment and social protection, financial inclusion, education, housing, health, monitoring and evaluation, EU financing: Overview of main findings. Available from Internet: <http://www.employment.gov.sk/policy-advice-on-the-integration-of-roma-in-the-slovak-republic.pdf>

## Websites

Asociácia inštitúcií vzdelávania dospelých v SR (Association of Adult Education Institutions in the SR), [www.aivd.sk](http://www.aivd.sk)

Asociácia zamestnávateľských zväzov a združení Slovenskej republiky (Federation of Employers' Associations of Slovak Republic), [www.azzz.sk](http://www.azzz.sk)

Komora veterinárnych lekárov Slovenskej republiky (Slovak Veterinary Chamber), [www.kvlrsr.sk](http://www.kvlrsr.sk)

Ministerstvo práce, sociálnych vecí a rodiny (Ministry of Labour, Social Affairs and Family), [www.employment.gov.sk](http://www.employment.gov.sk)

Ministerstvo školstva, vedy, výskumu a športu (Ministry of Education, Science, Research and Sport), [www.minedu.sk](http://www.minedu.sk)

Ministerstvo vnútra (Ministry of Interior), [www.minv.sk](http://www.minv.sk)

Ministerstvo zdravotníctva (Ministry of Health), [www.health.gov.sk](http://www.health.gov.sk)

Národný ústav celoživotného vzdelávania (National Institute for Lifelong Learning), [www.nuczv.sk](http://www.nuczv.sk)

Republiková únia zamestnávateľov (National Union of Employers), [www.ruzsr.sk](http://www.ruzsr.sk)

Slovenská akademická asociácia pre medzinárodnú spoluprácu (Slovak Academic Association for International Cooperation), [www.saaic.sk](http://www.saaic.sk)

Slovenská banská komora (Slovak Chamber of Mines), [www.banskakomora.sk](http://www.banskakomora.sk)

Slovenská lesnícka komora (Slovak Chamber of Foresters), [www.slsk.szm.com](http://www.slsk.szm.com)

Slovenská komora fyzioterapeutov (Slovak Chamber of Physiotherapists), [www.komorafyzioterapeutov.sk](http://www.komorafyzioterapeutov.sk)

Slovenská komora medicínsko-technických pracovníkov (Slovak Chamber of Medical-Workers), [www.sekmtp.sk](http://www.sekmtp.sk)

Slovenská komora ortopedických technikov (Slovak Chamber of Orthopaedic Technicians), [www.skort.sk](http://www.skort.sk)

Slovenská komora sestier a pôrodných asistentiek (Slovak Chamber of Nurses and Midwives), [www.sksapa.sk](http://www.sksapa.sk)

Slovenská komora zubných technikov (Slovak Chamber of Dental Technicians), [www.skzt.sk](http://www.skzt.sk)

Slovenská obchodná a priemyselná komora (Slovak Chamber of Commerce and Industry), <http://web.sopk.sk>

Slovenská poľnohospodárska a potravinárska komora (Slovak Chamber of Agriculture and Food), [www.sppk.sk](http://www.sppk.sk)

Slovenská živnostenská komora (Slovak Chamber of Trades), [www.szk.sk](http://www.szk.sk)

Štátny inštitút odborného vzdelávania (State Institute of Vocational Education), [www.siov.sk](http://www.siov.sk)

Štatistický úrad (Statistical Office), [www.statistics.sk](http://www.statistics.sk)

Ústav informácií a prognóz školstva (Institute of Information and Prognoses of Education), [www.uips.sk](http://www.uips.sk)

Ústredie práce sociálnych vecí a rodiny (Central Office of Labour, Social Affairs and Family), [www.upsvar.sk](http://www.upsvar.sk)

## Annexes

### Annex 1.

#### Population by nationality in Censuses 1991, 2001, 2011

Population Nationality	2011		2001		1991	
	N	%	N	%	N	%
Slovak	4 352 775	80.65	4 614 854	85.79	4 519 328	85.69
Hungarian	458 467	8.49	520 528	9.68	567 296	10.76
Roma**	105 738	1.96	89 920	1.67	75 802	1.44
Czech	30 367	0.56	44 620	0.83	52 884	1.00
Ruthenian	33 482	0.62	24 201	0.45	17 197	0.33
Ukrainian	7 430	0.14	10 814	0.20	13 281	0.25
Other	26 284	0.49	20 016	0.37	19 765	0.37
Undeclared	382 493*	7.09	54 502	1.01	8 782	0.17
Total	5 397 036	100	5 379 455	100	5 274 335	100

Source: Statistical Office.

\* 2001 Census suffered from medial anti-campaign asking people not to provide sensitive data; \*\* collecting statistical data based on ethnicity is forbidden; every inhabitant is free to indicate his/her nationality; thus, within census many ethnic Roma announced nationality other than Roma.

### Annex 2.

#### Age-specific demographic trends by age groups until 2025

Year	Total	0-24			25-64			65+		
		Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>1989</b>	5287663	2145137	1094119	1051018	2362473	1168836	1193637	780053	323540	456513
<b>1989 (%)</b>	100	40.6	20.7	19.9	44.7	22.1	22.6	14.8	6.1	8.6
<b>2010</b>	5423703	1579076	807547	771529	3168744	1574793	1593951	675883	253500	422383
<b>2015 (%)</b>	100	26.8	13.7	13.1	59.1	29.5	29.6	14.2	5.5	8.7
<b>2025</b>	5521745	1381445	705247	676198	3092830	1564758	1528072	1047470	429349	618121
<b>2025 (%)</b>	100	25.0	12.8	12.3	56.0	28.3	27.7	19.0	7.8	11.2

Source: Statistical Office (1989 data) and INFOSTAT 2007 update of Demographic prognosis 2002.

Annex 3.

**Population age groups and the ageing index according to Censuses 1970-2011**

Year	Population total	Age group								Ageing index
		0-14		15-64		65+		Undeclared		
		N	%	N	%	N	%	N	%	
2011	5 397 036	826 516	15.3	3 886 327	72.0	682 873	12.7	1 320	0.02	82.6
2001	5 379 455	1 015 493	18.9	3 705 515	68.9	610 923	11.4	47 524	0.9	60.2
1991	5 274 335	1 313 961	24.9	3 415 721	64.8	543 180	10.3	1 473	0.0	41.3
1980	4 991 168	1 302 072	26.1	3 162 504	63.4	519 388	10.4	7 204	0.1	39.9
1970	4 537 290	1 232 721	27.2	2 883 333	63.5	418 340	9.2	2 896	0.1	33.9

Source: Statistical Office; censuses.

NB: Ageing index =  $(65+/0-14)*100$ .

Annex 4.

**Immigration to Slovakia in 1993-2011**

Year	Asylum seekers	Asylum granted	Citizenship granted
1993	96	41	0
1994	140	58	0
1995	359	80	0
1996	415	72	4
1997	645	69	14
1998	506	53	22
1999	1 320	26	2
2000	1 556	11	0
2001	8 151	18	11
2002	9 743	20	59
2003	10 358	11	42
2004	11 395	15	20
2005	3 549	25	2
2006	2 849	8	5
2007	2 642	14	18
2008	909	22	4
2009	822	14	1
2010	541	15	3
2011	491	12	7
Total	53 724	543	214

Source: Ministry of Interior, <http://www.minv.sk/?statistiky-20>; tabled by authors.

## Annex 5.

**Gross Domestic Product by branches of NACE Rev. 2***(million EUR at current prices)*

<b>NACE</b>	<b>1995</b>	<b>2000</b>	<b>2005</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Total	19319.00	31177.08	49314.22	61449.71	66842.40	62795.17	65743.47	69058.19
A	993.47	1240.00	1591.14	2233.53	2504.58	1781.15	1876.79	1988.24
B,C,D,E	5375.00	8033.90	12876.24	16592.15	17413.71	14280.68	18291.28	20370.84
F	910.42	2006.09	3030.72	4682.27	6069.51	5567.68	5737.81	5854.67
G,H,I	3855.18	6327.26	10233.61	12219.67	13646.80	12277.17	11209.73	11317.77
J	494.79	986.15	1718.51	2291.29	2446.65	2635.84	2715.65	2892.46
K	1077.74	620.59	1887.47	1952.98	1999.96	2332.44	2168.33	2167.21
L	1228.99	2251.94	2842.75	3316.81	3635.07	3783.72	3608.08	3679.10
M,N	750.80	1730.34	2599.73	3665.92	4299.92	4554.41	3726.41	3795.12
O,P,Q	2309.98	4016.36	5839.04	6862.10	7310.72	8016.67	8428.01	8578.18
R,S,T,U	323.85	587.66	1185.50	1570.67	1311.53	1845.59	2000.55	1948.45
Taxes	1998.81	3376.78	5509.53	6062.34	6203.94	5719.82	5980.85	6466.16

Source: Statistical Office; Methodology ESA95 by quarterly NA.

NB: A - Agriculture, forestry and fishing; B,C,D,E - Industry total, F - Construction; G,H,I - Wholesale and retail trade, repair of mot. vehicles and motorcycles, transportation and storage, accommodation and food service activities; J - Information and communication; K - Financial and insurance activities; L - Real estate activities; M,N - Professional, scientific and technical activities, administrative and support service activities; O,P,Q - Public administration and defence, compulsory social security, education, human health and social work activities; R,S,T,U - Arts, entertainment and recreation, repair of household goods and other services. Taxes - Net taxes on products.

## Annex 6.

**Employed by economic activities (SK NACE Rev.2) in 2008-11***(thousands)*

<b>NACE category</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
Economy in total	2 433.8	2 365.8	2 317.5	2 351.4
A Agriculture, forestry and fishing	96.3	84.9	75.0	71.7
B Mining and quarrying	14.1	10.9	13.9	11.8
C Manufacturing	639.9	565.2	530.0	568.0
D Electricity, gas, steam and air-condition supply	29.9	30.7	27.0	26.8
E Water supply, sewerage, waste management and remediation	35.2	33.4	31.1	28.4
F Construction	257.6	257.2	258.3	243.7
G Wholesale and retail trade; repair of motor vehicles and motorcycles	292.3	312.7	306.3	304.0
H Transportation and storage	158.4	151.3	145.4	152.6
I Accommodation and food service activities	107.6	107.1	103.6	100.8
J Information and communication	45.8	48.8	55.9	58.4
K Financial and insurance activities	55.5	50.0	47.8	53.4
L Real estate activities	13.0	13.0	13.8	10.8
M Professional, scientific and technical activities	76.5	82.0	75.4	78.3
N Administrative and support service activities	60.2	58.6	59.5	61.2
O Public administration and defence; compulsory social security	167.0	178.4	189.0	193.0
P Education	164.0	162.0	165.0	164.2
Q Health and social work activities	151.2	149.8	157.1	159.9
R Arts, entertainment and recreation	24.6	28.7	26.8	26.9
S Other service activities	38.6	35.2	31.2	29.9
T Activities of households as employers	5.7	5.1	4.8	6.4
U Activities of extraterritorial organisations	0.7	0.8	0.9	1.0
Not identified	0.3	0.3	0.3	0.5

Source: Statistical Office.

## Annex 7.

**Employment rates by age groups and highest level of education attained in 2004-11**

(%)

Age	ISCED		2004	2005	2006	2007	2008	2009	2010	2011
15-24	0-2	EU27	24.7	24.7	24.8	25.3	24.9	22.7	21.4	20.7
	0-2	SK	2.1	1.9	2.1	2.5	2.5	1.9	2.0	2.2
	3-4	EU27	46.9	47.0	48.0	48.8	49.2	46.2	44.9	44.3
	3-4	SK	47.3	45.1	44.9	47.8	45.1	39.5	36.4	35.9
	5-6	EU27	60.8	60.2	60.3	61.6	61.9	58.1	56.9	55.5
	5-6	SK	59.6	69.1	65.8	62.0	57.0	42.7	30.8	24.0
	0-6	EU27	35.7	36.0	36.6	37.3	37.4	35.0	34.0	33.6
	0-6	SK	26.3	25.6	25.9	27.6	26.2	22.8	20.6	20.2
25-49	0-2	EU27	66.2	66.1	66.9	67.5	67.1	64.1	62.8	62.1
	0-2	SK	37.0	30.4	34.1	32.7	37.1	33.4	32.1	32.9
	3-4	EU27	79.0	79.2	80.3	81.3	81.8	80.3	79.7	79.8
	3-4	SK	77.4	77.9	79.8	80.8	82.6	79.7	77.4	77.7
	5-6	EU27	87.8	87.8	88.4	88.9	89.0	88.0	87.4	87.1
	5-6	SK	88.0	88.8	89.6	88.1	88.1	85.9	84.6	83.6
	0-6	EU27	77.7	78.0	79.0	79.8	80.2	78.6	78.1	78.0
	0-6	SK	75.2	75.5	77.7	78.5	80.5	78.1	76.0	76.2
50-64	0-2	EU27	41.3	42.5	43.5	44.2	43.8	43.3	43.1	43.3
	0-2	SK	17.3	22.6	24.3	26.2	28.6	28.0	27.7	28.2
	3-4	EU27	55.2	56.7	57.9	59.1	59.5	59.4	59.6	60.4
	3-4	SK	50.5	52.5	52.8	55.0	57.4	55.5	54.7	55.4
	5-6	EU27	72.9	73.6	74.1	74.8	74.6	74.5	74.5	74.8
	5-6	SK	71.0	71.8	73.9	74.7	78.6	75.8	75.5	76.1
	0-6	EU27	51.7	53.3	54.4	55.6	56.5	56.5	56.7	57.5
	0-6	SK	45.0	48.8	50.5	52.2	55.0	53.8	53.5	54.7

Source: Eurostat; [ifsa\_ergaed]; last update: 06-08-2012; date of extraction: 16-08-2012.

## Annex 8.

## Unemployment rates by age and highest level of education attained

(%)

Age	ISCED		2004	2005	2006	2007	2008	2009	2010	2011
15-24	0-2	EU27	21.4	21.8	21.3	20.0	21.2	26.1	27.5	28.2
	0-2	SK	73.7	76.8	74.0	66.2	62.5	64.6	67.3	63.7
	3-4	EU27	17.9	17.3	15.5	13.4	12.9	17.1	18.1	18.6
	3-4	SK	28.6	25.2	21.4	15.3	14.6	24.3	30.6	30.8
	5-6	EU27	12.8	14.3	13.5	11.4	11.7	15.5	16.3	16.7
	5-6	SK	24.5 (u)	17.3 (u)	16.2 (u)	19.0 (u)	15.5 (u)	22.4	27.5	23.9 (u)
	0-6	EU27	18.6	18.6	17.3	15.5	15.6	19.9	20.9	21.3
	0-6	SK	32.8	30.1	26.6	20.3	19.0	27.3	33.6	33.2
25-49	0-2	EU27	11.8	11.7	11.2	10.4	11.1	14.8	16.3	17.0
	0-2	SK	51.7	57.4	51.4	50.3	44.3	48.3	50.4	48.7
	3-4	EU27	8.5	8.2	7.3	6.1	5.7	7.5	8.2	8.1
	3-4	SK	15.0	13.0	10.6	8.8	7.7	10.4	12.8	11.9
	5-6	EU27	5.0	4.8	4.3	3.7	3.7	4.8	5.3	5.5
	5-6	SK	5.1	4.2	2.7	3.5	3.3	3.7	5.0	5.7
	0-6	EU27	8.3	8.1	7.3	6.4	6.3	8.2	8.9	9.0
	0-6	SK	16.4	14.6	11.9	10.2	8.8	10.9	13.0	12.2
50-64	0-2	EU27	8.0	7.7	7.5	6.9	7.2	9.1	10.2	10.8
	0-2	SK	40.3	34.1	31.0	28.5	24.5	25.4	27.5	25.6
	3-4	EU27	8.1	7.6	6.9	5.7	5.2	6.2	6.7	6.5
	3-4	SK	15.1	11.8	10.1	7.8	6.3	8.6	10.7	10.5
	5-6	EU27	3.8	3.8	3.6	3.2	2.8	3.4	3.6	3.6
	5-6	SK	4.3 (u)	5.2	2.8 (u)	2.9 (u)	:	2.5 (u)	4.6	3.8
	0-6	EU27	7.1	6.7	6.3	5.5	5.2	6.3	6.9	6.9
	0-6	SK	16.6	13.5	11.2	9.4	7.6	9.3	11.2	10.5

Source: Eurostat; [ifsa\_ergaed]; last update: 06-08-2012; date of extraction: 16-08-2012.

NB: u unreliable; : not available.

## Annex 9.

**Employment and unemployment of 15-64 aged by education in 2004-11**

(%)

	2004	2005	2006	2007	2008	2009	2010	2011
<b>Employment rate</b>								
ISCED 2	14.2	13.5	14.8	15.0	16.3	14.7	14.5	15.2
ISCED 3C (CoA)	64.9	65.0	67.1	68.6	70.4	67.4	64.0	64.3
ISCED 3C (without CoA)	65.7	70.2	70.3	71.1	76.7	75.0	69.5	69.7
ISCED 3A (MSLC) + CoA	72.1	72.6	75.5	78.3	79.3	74.0	71.8	73.7
ISCED 3A (MSLC) GEN	42.8	41.9	41.4	41.9	41.8	38.9	39.0	40.2
ISCED 3A (MSLC) VET	70.9	71.9	72.3	73.9	74.2	71.7	70.8	70.8
ISCED 5B	72.7	75.3	77.4	71.6	71.7	73.1	67.5	79.8
ISCED 5A – Bc	77.8	71.1	73.2	74.7	65.7	57.1	50.7	48.3
ISCED 5A – M	83.0	84.2	84.7	84.5	86.5	84.3	83.6	83.0
ISCED 6	95.3	97.3	96.8	78.2	84.3	85.7	83.7	83.6
Without school education*	-	-	-	-	-	-	1.2	-
Total	56.9	57.7	59.4	60.7	62.3	60.1	58.8	59.5
<b>Unemployment rate</b>								
ISCED 2	51.1	53.1	48.0	44.6	39.3	41.6	44.1	42.1
ISCED 3C (CoA)	20.5	18.7	15.4	12.3	10.8	14.0	17.6	16.8
ISCED 3C (without CoA)	19.6	12.7	13.7	10.9	7.3	11.1	16.8	16.2
ISCED 3A (MSLC) + CoA	16.8	15.4	12.7	8.2	8.4	15.1	18.9	12.2
ISCED 3A (MSLC) GEN	14.2	12.9	9.5	9.2	7.7	12.9	13.1	14.6
ISCED 3A (MSLC) VET	12.5	10.0	8.1	6.3	5.7	8.6	10.2	10.0
ISCED 5B	11.1	8.5	3.0	7.8	5.8	5.6	10.3	5.7
ISCED 5A – Bc	5.4	6.8	4.7	3.9	4.7	7.7	10.8	7.8
ISCED 5A – M	5.6	4.8	3.2	3.8	3.4	3.8	5.1	5.6
ISCED 6	-	-	-	3.7	2.1	2.4	2.5	4.2
Without school education*	-	-	100.0	100.0	75.0	50.0	36.4	100.0
Total	18.1	16.2	13.3	11.0	9.6	12.1	14.4	13.5

Source: Statistical Office.

NB: CoA – Certificate of Apprenticeship, MSLC – “Maturita” School Leaving Certificate, GEN - general education stream, VET - vocational stream, Bc – 1st cycle studies, M - 2 cycle studies.

\* including children up to 16 years; in 1991 including children up to 15 years; \*\* in 1991 ISCED 3A (MSLC) + CoA and ISCED 3A (MSLC) VET calculated together and all ISCED 5A and 6 cycles calculated together.

## Annex 10.

**Education attainment of people aged 25 to 64 by ISCED level in 2011**

<b>Educational attainment</b>		<b>2011</b>	<b>2001</b>	<b>1991</b>
Total	N	5 397 036	5 379 455	5 274 335
	%	100	100	100
ISCED 2	N	808 490	1 132 995	1 512 818
	%	15.0	21.1	28.7
ISCED 3C (CoA)	N	721 999	1 060 854	1 004 657
	%	13.4	19.7	19.0
ISCED 3C (without CoA)	N	522 039	203 290	110 060
	%	9.7	3.8	2.1
ISCED 3A (MSLC) + CoA	N	191 208	251 992	788 890**
	%	3.5	4.7	
ISCED 3A (MSLC) VET	N	1 089 751	846 029	15.0
	%	20.2	15.7	
ISCED 3A (MSLC) GEN	N	235 014	253 408	168 973
	%	4.4	4.7	
ISCED 5B	N	80 616	26 648	5 852
	%	1.5	0.5	
ISCED 5A – Bc	N	122 782	17 917	306 920**
	%	2.3	0.3	
ISCED 5A – M	N	584 544	382 013	5.8
	%	10.8	7.1	
ISCED 6	N	40 642	23 394	5.8
	%	0.7	0.4	
Without school education*	N	846 321	1 095 382	1 341 004
	%	15.7	20.4	25.4
Undeclared	N	153 630	85 533	35 161
	%	2.8	1.6	0.7

Source: Statistical Office; Census.

NB: CoA – Certificate of Apprenticeship, MSLC – “Maturita” School Leaving Certificate, GEN – general education stream, VET – vocational stream, Bc – 1st cycle studies, M – 2 cycle studies.

\* including children up to 16 years; in 1991 including children up to 15 years; \*\* in 1991 ISCED 3A (MSLC) + CoA and ISCED 3A (MSLC) VET calculated together and all ISCED 5A and 6 cycles calculated together.

## Annex 11.

**Distribution of respective age cohort in formal education by ISCED level**

	1	2	3A Gen	3C	3A VET	4A	5B	5A	All in education	Population	Not in education
2010/2011 20 years	3	127	446	653	5550	461	603	28006	35849	78938	43089
2010/2011 20 years (%)	0.01	0.35	1.24	1.82	15.48	1.29	1.68	78.12	100.00	100	54.59
2009/2010 19 years	8	216	6293	2057	21660	161	378	19025	49798	78911	29113
2009/2010 19 years (%)	0.02	0.43	12.64	4.13	43.50	0.32	0.76	38.20	100.00	100	36.88
2008/2009 18 years	26	470	16997	7546	37825	14	11	2576	65465	78861	13396
2008/2009 18 years (%)	0.04	0.72	25.96	11.53	57.78	0.02	0.02	3.93	100.00	100	16.97
2007/2008 17 years	54	1457	20104	14691	35041	0	0	28	71375	78799	7424
2007/2008 17 years (%)	0.08	2.04	28.17	20.58	49.09	0	0	0.04	100.00	100	9.4
2006/2007 16 years	125	4458	20189	14500	35119	0	0	0	74391	78799	4408
2006/2007 16 years (%)	0.17	5.99	27.14	19.49	47.21	0	0	0	100.00	100	5.58
2005/2006 15 years	263	32867	15047	8333	21479	0	0	0	77989	78796	807
2005/2006 15 years (%)	0.34	42.14	19.29	10.68	27.54	0	0	0	100.00	100	1.02
2004/2005 14 years	438	73173	3814	2	34	0	0	0	77461	78794	1333
2004/2005 14 years (%)	0.57	94.46	4.92	0.00	0.04	0	0	0	100.00	100	1.69
2003/2004 13 years	825	77100	2	0	0	0	0	0	77927	78783	856
2003/2004 13 years (%)	1.06	98.94	0.00	0	0	0	0	0	100.00	100	1.08
2002/2003 12 years	1729	76357	0	0	0	0	0	0	78086	78780	694
2002/2003 12 years (%)	2.21	97.79	0	0	0	0	0	0	100.00	100	0.88
2001/2002 11 years	4328	73705	0	0	0	0	0	0	78033	78052	19
2001/2002 11 years (%)	5.55	94.45	0	0	0	0	0	0	100.00	100	0.02
2000/2001 10 years	32821	44454	0	0	0	0	0	0	77275	77308	33
2000/2001 10 years (%)	42.47	57.53	0	0	0	0	0	0	100.00	100	0.04

Source: UIPŠ (UOE data), calculated and tabled by authors.

NB: Distribution covers the same population (10 years old in 2000) in flow, it is not based on individualised flow data, as these are not collected.

0.00 - less than 0.05 but more than zero; 0 - real zero, Gen – general.

\*Share in total population (%) not in formal education.

## Annex 12.

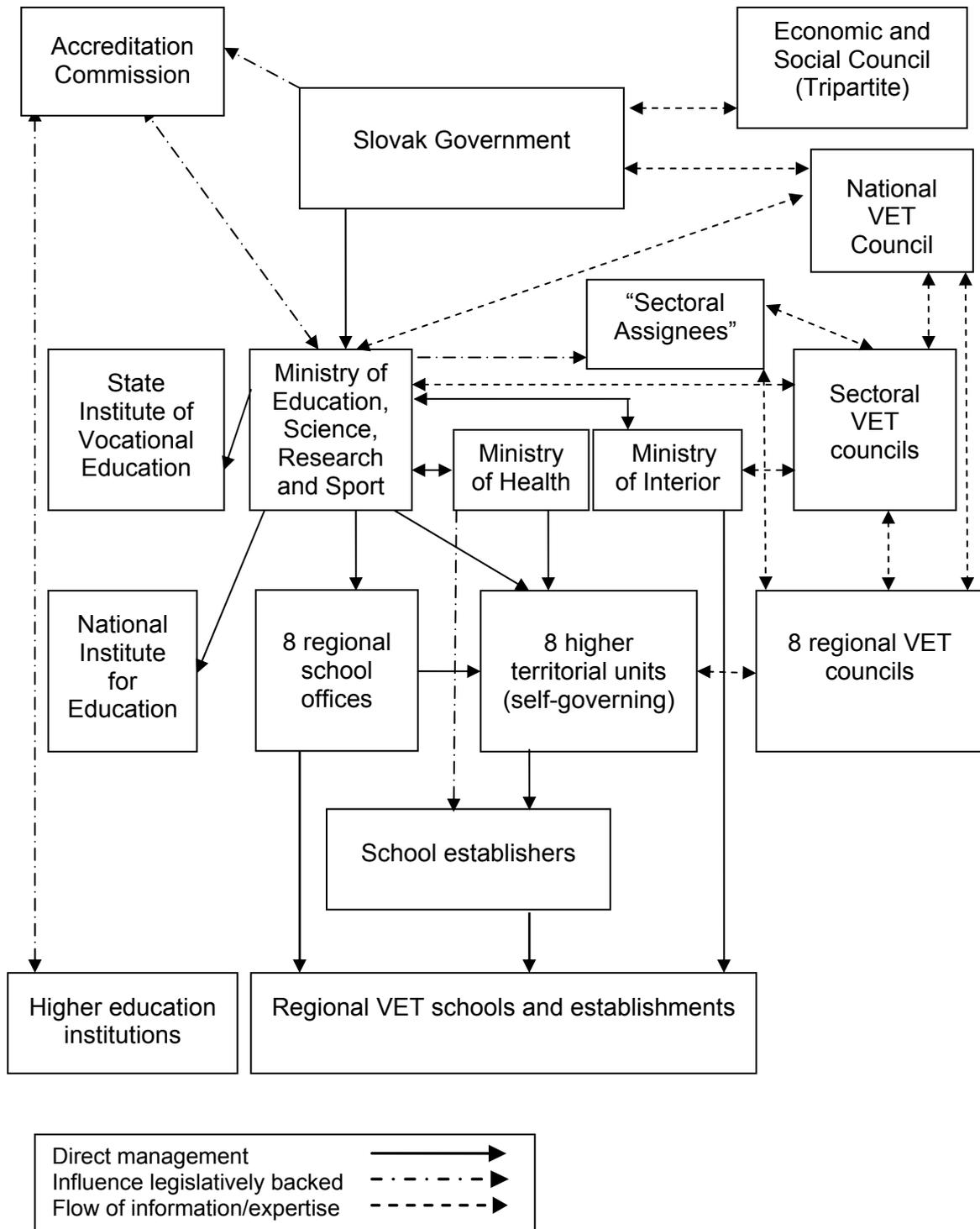
**Education levels (according to Act No. 245/2008 Coll.)**

<b>Level</b>	<b>Type of study at school</b>	<b>NQF*</b>
Pre-primary	Kindergarten – ISCED 0	
Primary	1 <sup>st</sup> stage of basic school – ISCED 1	1
Lower secondary	2 <sup>nd</sup> stage of basic school – ISCED 2	2
Lower secondary vocational	Secondary specialised (vocational) school, 2-year programme with a final exam – ISCED 2C (extraordinarily with a Certificate of Apprenticeship)	2
Secondary vocational	Secondary specialised (vocational) school, 3 to 4-year programme with a final exam (usually also with a Certificate of Apprenticeship) – ISCED 3C	3
Full secondary general (Upper secondary)	Grammar school 4 to 8-year programme with a “maturita” school leaving certificate – ISCED 3A	4
Full secondary vocational (Upper secondary)	Secondary specialised (vocational) school 4 to 5-year programme with a “maturita” school leaving certificate (in some cases also with a Certificate of Apprenticeship) – ISCED 3A Conservatory after 4 <sup>th</sup> year – ISCED 3A	4
	Secondary specialised (vocational) school follow-up study (usually 2 years) for ISCED 3C secondary vocational education graduates; completed by a “maturita” school leaving exam – ISCED 3A	4
	Secondary specialised (vocational) school post-maturita developing and refresher study (at least 6 months) completed by a final exam – ISCED 3A	5**
	Secondary specialised (vocational) school “post-maturita” qualifying study (at least 2 years) completed by 2 <sup>nd</sup> “maturita” school leaving exam – ISCED 4A	5
Higher professional (post-secondary or tertiary)	Secondary specialised (vocational) school “post-maturita” specialising study completed by absolutorium – ISCED 5B	5
	Secondary specialised (vocational) school higher professional study (2 to 3 years) with absolutorium Conservatory after 6 <sup>th</sup> year – ISCED 5B	5

NB: \* preliminary categorisation adopted by Ministry of Education, Science, Research and Sport, not yet embedded in legislation; \*\* not valid for programmes shorter than 2 years long.

Annex 13.

**IVET management**



## Annex 14.

**Groups of study fields referring to VET programmes at secondary VET schools and employer representatives (sectoral assignees)**

<b>Code</b>	<b>Field of study and employer representatives : “sectoral assignees”</b>
11	Physical-mathematical sciences – not set
21	Mining, geology and geological technology – Slovak Chamber of Mines (Slovenská banská komora) in cooperation with National Union of Employers (Republiková únia zamestnávateľov)
22	Metallurgy – National Union of Employers in cooperation with Slovak Chamber of Commerce and Industry (Slovenská obchodná a priemyselná komora)
23,24	Engineering and other metal-processing I, II – Slovak Chamber of Commerce and Industry in cooperation with Federation of Employers' Associations of Slovak Republic (Asociácia zamestnávateľských zväzov a združení Slovenskej republiky) and Slovak Chamber of Trades (Slovenská živnostenská komora)
26	Electrotechnics – Slovak Chamber of Commerce and Industry in cooperation with Federation of Employers' Associations of Slovak Republic and National Union of Employers
27	Technical chemistry of silicate – Federation of Employers' Associations of Slovak Republic in cooperation with Slovak Chamber of Commerce and Industry
28	Technical and applied chemistry – Federation of Employers' Associations of Slovak Republic in cooperation with Slovak Chamber of Commerce and Industry and Slovak Chamber of Agriculture and Food (Slovenská poľnohospodárska a potravinárska komora)
29	Food-processing – Slovak Chamber of Agriculture and Food in cooperation with National Union of Employers, Federation of Employers' Associations of Slovak Republic and with Slovak Chamber of Trades
31	Textile and clothing – not set
32	Processing of hides, plastics, rubber, shoes production – Slovak Chamber of Commerce and Industry in cooperation with National Union of Employers and Federation of Employers' Associations of Slovak Republic
33	Wood-processing – National Union of Employers in cooperation with Slovak Chamber of Commerce and Industry and Slovak Chamber of Trades
34	Printing and media – Federation of Employers' Associations of Slovak Republic in cooperation with Slovak Chamber of Commerce and Industry
36	Building, geodesy and cartography – National Union of Employers in cooperation with Slovak Chamber of Commerce and Industry, Slovak Chamber of Trades and Federation of Employers' Associations of Slovak Republic
37	Transport, post and telecommunication – Federation of Employers' Associations of Slovak Republic in cooperation with Slovak Chamber of Commerce and Industry and National Union of Employers
39	Special technical specialisations – not set
42,45	Agriculture, forestry and rural development I, II – Slovak Chamber of Agriculture and Food in cooperation with Slovak Chamber of Foresters (Slovenská lesnícka komora) and Federation of Employers' Associations of Slovak Republic
43	Veterinary sciences – Slovak Chamber of Agriculture and Food in cooperation with

	Federation of Employers' Associations of Slovak Republic and Slovak Veterinary Chamber (Komora veterinárnych lekárov Slovenskej republiky)
53	Healthcare branches at secondary health schools – Slovenská komora medicínsko-technických pracovníkov (Slovak Chamber of Medical - Technician Workers), a successor of Slovak Chamber of Laboratory Technicians, Assistants and Technicians (Slovenská komora laborantov, asistentov a technikov), Slovak Chamber of Physiotherapists (Slovenská komora fyzioterapeutov), Slovak Chamber of Orthopaedic Technicians (Slovenská komora ortopedických technikov), Slovak Chamber of Nurses and Midwives (Slovenská komora sestier a pôrodných asistentiek), Slovak Chamber of Dental Technicians (Slovenská komora zubných technikov) in cooperation with Federation of Employers' Associations of Slovak Republic
62	Economic sciences – National Union of Employers in cooperation with Federation of Employers' Associations of Slovak Republic, Slovak Chamber of Commerce and Industry and Slovak Chamber of Trades
63,64	Economics and organisation, retail and services I, II – National Union of Employers in cooperation with Federation of Employers' Associations of Slovak Republic, Slovak Chamber of Commerce and Industry and Slovak Chamber of Trades
68	Legal sciences – not set
72	Mass-media, library and information sciences – not set
75	Pedagogical sciences – not set
76	Teacher training – not set
82	Arts and folk crafts I, II – Slovak Chamber of Trades in cooperation with Federation of Employers' Associations of Slovak Republic
92	Security services – not set
99	Special fields (for SEN students) – not applicable

NB: Fields of study with similar name refer to programmes originally offered by different types of schools. Fields of study coded 23, 42, 63, 82 were predominantly offered by secondary specialised schools, now they include predominantly ISCED 3A programmes with vocational practice and ISCED 4A and 5B programmes, whereas programmes within fields of study coded 24, 45, 64, 85 were originally offered predominantly by secondary vocational schools, now they include predominantly ISCED 3A programmes with vocational training, ISCED 3A follow-up programmes, ISCED 3C programmes and ISCED 2C programmes. "Professional assignees" are set by legislation as representatives of employers serving as counterpart to education sector specialists and authorities in cooperation concerning VET programming, processing and assessment.

## Annex 15.

**Number of teachers in 2011/2012 school year**

Type of school	Full-time teachers		Part-time teachers	
	Total	Female	Total	Female
Kindergartens	14 248	14 231	0	0
Basic schools	30 267	26 022	5 304	3 007
Basic schools of arts	3 572	2 419	2 662	1 627
Language schools	150	128	412	352
Grammar schools	6 374	4 744	1 463	934
Conservatories	480	295	531	297
Secondary specialised schools	12 807	9 167	2 952	1 935
Secondary schools under other ministries*	1 56	50	0	0
Special schools	4 860	4 181	520	361
Schools affiliated to health institutions	241	228	20	19
Higher education institutions (HEI)	10 538	4 674	1 520	546
HEI of other ministries*	399	202	189	76

Source: ÚIPŠ.

NB: \* schools under other ministry than Ministry of Education, Science, Research and Sport.

## Annex 16.

**Full-time VET graduates in 2011/2012 by schools and ownership type of schools****VET graduates at VET school\* full-time courses in 2011/2012**

Programme ISCED level	Public		Private		Church-affiliated		Total	
	Total	Female	Total	Female	Total	Female	Total	Female
ISCED 5B	299	215	27	17	18	17	344	249
ISCED 4A	342	182	30	15	-	-	372	197
ISCED 3A follow-up**	3 680	1 468	358	153	93	47	4 131	1 668
ISCED 3A	28 191	13 211	2 250	1 310	737	609	31 178	15 130
ISCED 3C	7 794	2 460	940	382	165	30	8 899	2 872
ISCED 2C	660	208	38	10	12	6	710	224
Total	40 966	17 744	3 643	1 887	1 025	709	45 634	20 340

Source: ÚIPŠ.

NB: - programmes not offered.

\* secondary specialised schools VET graduates only; 278 graduates who were offered grammar school programmes at secondary specialised schools are not included; students of VET programmes offered exceptionally by grammar schools are not included (see respective table below); \*\* ISCED 3A follow-up programmes are intended for graduates from content based interlinked ISCED 3C programmes.

### Graduates of full-time VET programmes in grammar schools in 2011/2012

Programme ISCED level	Public		Church-affiliated		Total	
	Total	Female	Total	Female	Total	Female
ISCED 3A follow-up*	34	0	-	-	34	0
ISCED 3A	306	80	-	-	306	80
ISCED 3C	65	1	-	-	65	1
ISCED 2C	13	5	4	1	17	6
Total	418	86	4	1	422	87

Source: ÚIPŠ.

NB: 5B and 4A programmes are not offered, private grammar schools do not offer any VET programmes; programmes not offered.

\* ISCED 3A follow-up programmes are intended for graduates from content based interlinked ISCED 3C programmes.

### Graduates of full-time programmes in conservatories\* in 2011/2012

Programme ISCED level	Public		Private		Church-affiliated		Total	
	Total	Female	Total	Female	Total	Female	Total	Female
ISCED 5B	189	114	36	22	12	7	237	143
ISCED 4A	216	134	93	63	21	14	330	211
Total	405	248	129	85	33	21	567	354

Source: ÚIPŠ.

NB: \* Conservatories offer only 5B and 3A programmes.

### Graduates of full-time VET programmes in special secondary schools for SEN students in 2011/2012

Programme ISCED level	Public		Private		Church-affiliated		Total	
	Total	Female	Total	Female	Total	Female	Total	Female
ISCED 4A	7	4	-	-	-	-	7	4
ISCED 3A follow-up**	28	9	-	-	-	-	28	9
ISCED 3A	50	27	-	-	4	1	54	28
ISCED 3C	892	382	0	0	0	0	892	382
ISCED 2C	278	89	3	1	12	4	293	94
Total	1 255	511	3	1	16	5	1 274	517

Source: ÚIPŠ.

NB: 5B programmes are not offered; - programmes not offered.

## Annex 17.

**Graduates from full-time VET programmes of secondary schools\* in 2011/2012**

<b>Code</b>	<b>Field of study</b>	<b>Number of graduates</b>	<b>Of which female</b>
21	Mining, geology and geological technology	0	0
22	Metallurgy	80	0
23	Engineering and other metal-processing I	909	11
24	Engineering and other metal-processing II	4 528	32
26	Electrotechnics	5 182	36
27	Technical chemistry of silicate	22	15
28	Technical and applied chemistry	267	157
29	Food-processing	949	673
31	Textile and clothing	408	372
32	Processing of hides, plastics, rubber, shoes production	22	11
33	Wood-processing	965	42
34	Printing and media	410	113
36	Building, geodesy and cartography	3 056	257
37	Transport, post and telecommunication	2 031	430
39	Special technical specialisations	1 747	575
42	Agriculture, forestry and rural development I	794	390
43	Veterinary sciences	173	135
45	Agriculture and forestry and rural development II	736	237
53	Healthcare branches at secondary health schools	1 760	1 443
62	Economic sciences	20	7
63	Economics and organisation, retail and services I	10 575	7 847
64	Economics and organisation, retail and services II	9 762	6 066
68	Legal sciences	109	77
72	Mass-media, library and information sciences	178	64
76	Teacher training	1 173	1 091
82	Arts and folk crafts I	1 842	1 187
85	Arts and folk crafts II	128	19
92	Security services	8	5
99	Special fields (for SEN students)	63	6
	<b>Total</b>	<b>47 897</b>	<b>21 298</b>

Source: ÚIPŠ.

NB: \* SOŠ, conservatories, grammar schools, special secondary schools and classes for SEN students at mainstream schools. In addition, in part-time studies, there were in total 4 479 graduates (of which 3 081 female) from VET programmes, compared to 244 graduates (of which 143 female) from grammar school programmes. Fields of study with similar name refer to programmes originally offered by different types of schools. Fields of study coded 23, 42, 63, 82 were predominantly offered by SOŠ, now they include predominantly ISCED 3A programmes with vocational practice and ISCED 4A and 5B programmes, whereas programmes within fields of study coded 24, 45, 64, 85 were originally offered predominantly by secondary vocational schools, now they include predominantly ISCED 3A programmes with vocational training, ISCED 3A follow-up programmes, ISCED 3C programmes and ISCED 2C programmes.

## Annex 18.

## Types of IVET programmes at secondary post-secondary and tertiary levels

Programme level	Sector	Balance between general and vocational subjects	NQF	ISCED	Duration of studies	Access to other pathways
<b>Lower secondary</b>						
Dance conservatory	Arts	n/a	2	2A	4 years*	Conservatory ISCED 3**
Training for simple and auxiliary working***	***	General subjects below 10 % ****	2	2C	2 or 3 years	Labour market; Complementary studies*****
Training for mentally disabled***	***	13 % *****	2	2C	3 years	None
Practical school (for mentally strongly disabled)	-	Diverse*****	2	2C	3 years	None
<b>Upper secondary</b>						
Study branch with practice	(1)	43-48 % / 57-52 % <sup>#</sup>	4	4	4 or 5 years	4A, 5B, 5A
Study branch with vocational training	(2)	43-48 % / 57-52 % <sup>#</sup>	4	4	4 or 5 years	4A, 5B, 5A
Training branch	(3)	about 25 % / 75 % <sup>##</sup>	3	3	3years <sup>###</sup>	3A (follow-up)
<b>Post-secondary</b>						
Follow-up study branch	(A)	44-47 % / 56-53 % <sup>###</sup>	4	3A	2 years	4A, 5B, 5A
Qualifying	(B)	100 %	4	4A	2 years	5B, 5A
Specialising	(C)	100 %	5	5B	2 years	5A
Higher professional	(C)	100 %	5	5B	3 years	5A
Refresher	(B)	100 %	5 <sup>####</sup>	4A	6 month+	4A, 5B, 5A
<b>Tertiary</b>						
Bachelor study	All	n/a <sup>□□</sup>	6	5A	3 - 4	2 <sup>nd</sup> cycle
Master study	All	n/a <sup>□□</sup>	7	5A	1 - 3	3 <sup>rd</sup> cycle
Continual (Integrated) study	Exc <sup>□</sup>	n/a <sup>□□</sup>	7	5A	5 - 6	3 <sup>rd</sup> cycle
PhD study	All	n/a <sup>□□</sup>	8	6	3 - 4 <sup>□□□</sup>	-

NB: NQF level is indicated according to the preliminary categorisation adopted by Ministry of Education, Science, Research and Sport, not yet embedded in legislation.

\* Dancing branch is designed as 8 years programme, however after 4 years a respective level of education is achieved and continuing in other secondary school programme is possible;

\*\* Or any secondary school, if not able or interested to continue;

\*\*\* Engineering and other metal processing; Technical chemistry of silicate chemistry; Food-processing; Textile and clothing; Processing of hides, plastics, rubber, shoes production Wood-processing and musical instruments production; Building, geodesy and cartography; Agriculture and forestry and rural development; Economics and organisation, retail and services.

\*\*\*\* 126 out of 1 890 total hours within 2 years programme and 192 out of 2 880 hours within 3 year programmes;

\*\*\*\*\* Programme specially designed to complete lower secondary (general) education as it is not possible for them to continue in secondary education to achieve ISCED 3 level; they are however expected to enter labour market and they also prefer to do so;

\*\*\*\*\* e.g. 384 out of 2 976 (13 %) in 3 years lasting Metallurgy programme;

\*\*\*\*\* Depends on allocation of free and disposable working hours; basic distribution is as follows: 24 - general, 24 - vocational, 15 – free/optional, 15 - disposable of total 78 week hours in three years programme;

# 57 %/43 % in study branches with practice at a bilingual school due to more hours of the foreign language; similarly in cases of both types of study branch at schools with minority language of instruction (Hungarian);

## a share of general subjects is slightly higher at schools with minority language of instruction (Hungarian);

### exceptionally there are two combined programmes lasting 4 year: butcher/cook and pastry maker/cook and one experimental programme beekeeper lasting one year;

#### Not valid for programmes lasting less than 2 years;

▣ There is no bachelor programme in Speech disorders (Logopedy), Veterinary, Medical and Theological studies;

▣▣ n/a – not available, it is fully up to individual schools to decide upon this and it varies from programme to programme;

▣▣▣ 5 years in part-time studies;

(1) Mining, geology and geological technology, Metallurgy, Engineering and other metal-processing, Electrotechnics, Technical chemistry of silicate chemistry, Applied chemistry, Food-processing, Textile and clothing, Processing of hides, plastics, rubber, shoes production, Wood-processing and musical instruments production, Printing industry and media, Building, geodesy and cartography, Transport, post and telecommunication, Special technical specialisations, Agriculture and forestry and rural development, Veterinary sciences, Economics and organisation, retail and services, Library and information sciences, Pedagogy, Arts and artistic crafts, Healthcare (supervised by the Ministry of Health);

(2) As (1) except Mining, geology and geological technology, Technical chemistry of silicate chemistry, Veterinary sciences, Library and information sciences, Pedagogy, Healthcare;

(3) As (1) plus Information technology and except Metallurgy, Special technical specialisations, Veterinary sciences, Pedagogy;

(A) The same as in case of upper secondary study branch with practice listed under (1) except the following: Special technical specialisations, Veterinary sciences, Library and information sciences, Pedagogy, Healthcare (supervised by the Ministry of Health);

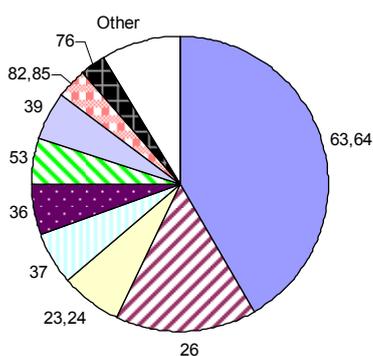
(B) The same as in case of upper secondary study branch with practice listed under (1) plus Physics and mathematics, Economic sciences, Legal sciences; Furthermore, Special technical specialisations and Security services supervised by the Ministry of Interior;

(C) Mining, geology and geological technology, Engineering and other metal-processing, Electrotechnics, Food-processing, Textile and clothing, Transport, post and telecommunication, Special technical specialisations, Agriculture and forestry and rural development, Veterinary sciences, Economics and organisation, retail and services, Legal sciences, Pedagogical science, Arts and artistic crafts, Healthcare (supervised by Ministry of Health).

Annex 19.

**Composition of most populated VET fields of study (ISCED 3A) in public, private and church-affiliated secondary VET schools**

**Public VET schools – a share of students in most populated ISCED 3A VET programmes**

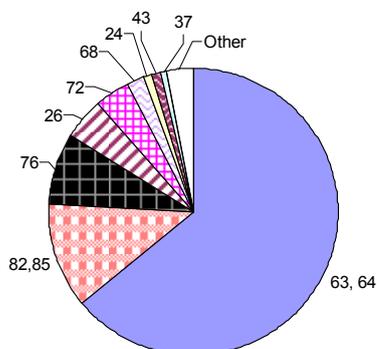


Code	Field of study	Students	%
63,64	Economics and services	45 720	41.8
26	Electrotechnics	16 666	15.2
23,24	Engineering and other metal-processing	7 241	6.6
37	Transport, post, telecommunications	6 466	5.9
36	Building, geodesy and cartography	5 846	5.3
53	Healthcare	5 611	5.1
39	Special technical specialisations	5 607	5.1
82,85	Arts and folk crafts	3 690	3.4
76	Teacher training	3 185	2.9
	Other	9 354	8.6
	Total	109 386	100

Source: ÚIPŠ.

NB: Only full-time students of VET programmes at VET schools are calculated.

**Private VET schools – a share of students in most populated ISCED 3A VET programmes**

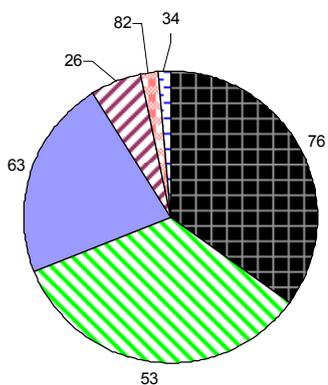


Code	Field of study	Students	%
63,64	Economics and services	6 884	63.9
82,85	Arts and folk crafts	1 270	11.8
76	Teacher training	874	8.1
26	Electrotechnics	518	4.8
72	Mass-media, library and information	421	3.9
68	Legal sciences	208	1.9
24	Engineering and other metal-processing	98	0.9
43	Veterinary sciences	93	0.9
37	Transport, post, telecommunications	85	0.8
	Other	927	8.6
	Total	10 769	100

Source: ÚIPŠ.

NB: Only full-time students of VET programmes at VET schools are calculated.

**Church-affiliated VET schools – a share of students in most populated ISCED 3A VET programmes**



Code	Field of study	Students	%
76	Teacher training	1 046	35.1
53	Healthcare	1003	33.7
63	Economics and services	663	22.3
26	Electrotechnics	166	5.6
82	Arts and folk crafts	58	1.9
34	Printing and media	42	1.4
	Total	2 978	100

Source: ÚIPŠ.

NB: Only full-time students of VET programmes at VET schools are calculated.

## Annex 20.

**Students in full-time ISCED 3A programmes at VET schools by fields of study in 2011/2012**

<b>Code</b>	<b>Field of study</b>	<b>Number of students</b>	<b>Of which female</b>
21	Mining, geology and geological technology	18	5
22	Metallurgy	342	43
23	Engineering and other metal-processing I	2 768	23
24	Engineering and other metal-processing II	4 571	41
26	Electrotechnics	17 350	137
28	Technical and applied chemistry	992	631
29	Food-processing	261	135
31	Textile and clothing	230	227
33	Wood-processing	944	51
34	Printing and media	2 175	583
36	Building, geodesy and cartography	5 906	997
37	Transport, post and telecommunication	6 551	1 434
39	Special technical specialisations	5 660	1 654
42	Agriculture, forestry and rural development I	2 925	1 256
43	Veterinary sciences	805	601
45	Agriculture and forestry and rural development II	559	161
53	Healthcare branches at secondary health schools	6 614	5 509
63	Economics and organisation, retail and services I	41 406	29 929
64	Economics and organisation, retail and services II	11 861	7 619
68	Legal sciences	208	144
72	Mass-media, library and information sciences	801	249
76	Teacher training	5 105	4 725
82	Arts and folk crafts I	4 819	3 246
85	Arts and folk crafts II	199	10
92	Security services	63	19
	<b>Total</b>	<b>123 133</b>	<b>59 429</b>

NB: Fields of study with similar name refer to programmes originally offered by different types of schools. Fields of study coded 23, 42, 63, 82 were predominantly offered by secondary specialised schools, now they include predominantly ISCED 3A programmes with vocational practice and ISCED 4A and 5B programmes, whereas programmes within fields of study coded 24, 45, 64, 85 were originally offered predominantly by secondary vocational schools, now they include predominantly ISCED 3A programmes with vocational training, ISCED 3A follow-up programmes, ISCED 3C programmes and ISCED 2C programmes.

## Annex 21.

### **Disadvantaged groups according to Act No. 5/2004 Coll. on employment services**

- A citizen below 25 years of age, who has completed his/her systematic vocational preparation in full-time study courses less than two years ago and failed to acquire his/her first regularly paid employment (hereinafter referred to as “graduate”);
- A citizen older than 50 years;
- A citizen maintained on the register of job seekers for at least 12 months in the last 16 months (hereinafter referred to as “long-term unemployed citizen”);
- A citizen who did not perform gainful activity not even prepared for a profession in the framework of systematic vocational preparation or further education for at least 24 months, due to an inability to harmonise duties at work with his/her parental obligations;
- A citizen, who is a parent, or a person, pursuant to a special regulation, who cares for three or more children, or a lone citizen caring of a child;
- A citizen who has lost the ability to carry out his/her current employment for health reasons and who is not a disabled citizen;
- A citizen moving or having moved within the territories of Member States of the European Union, or a citizen staying in the territory of a Member State of the European Union in order to carry out an employment;
- A disabled citizen;
- A citizen with reduced ability (minimum 20 %, maximum 40 %) to perform economic activity;
- An immigrant who has been granted asylum;
- A citizen unemployed due to diverse non-subjective reasons (e.g. organisational change, at risk of occupational disease, etc.);
- A citizen who has dropped out from secondary school;
- A citizen with specific status in relation with penitentiary or other institutional care.

## Annex 22.

**Types of qualifications awarded in IVET**

<b>Education pathway/programme</b>	<b>Certificate</b>
<b>Secondary VET programmes</b>	
2-year (extraordinarily 3-year) ISCED 2C training branch with a final exam*	A certificate on final exam, extraordinarily also a Certificate of Apprenticeship
3 to 4-year ISCED 3C training branch with a final exam	A certificate on final exam and a Certificate of Apprenticeship
4 to 5-year ISCED 3A study branch with vocational training ( <i>odbor s odborným výcvikom</i> ) with a “maturita” school leaving exam	A “maturita” school leaving exam certificate (in some cases also with a Certificate of Apprenticeship)
4 to 5-year ISCED 3A study branch with practice ( <i>odbor s praxou</i> ) with a “maturita” school leaving exam	A “maturita” school leaving exam certificate (in some cases also with a Certificate of Apprenticeship)
6-year ISCED 5B study branch at conservatory	A “maturita” school leaving exam certificate after 4 <sup>th</sup> year with the option to leave conservatory or stay for two additional years to receive absolutorium diploma
8-year study branch at dance conservatory (containing both lower and upper secondary levels)**	A “maturita” school leaving exam certificate, a certificate on absolutorium exam and absolutorium diploma after 8 <sup>th</sup> year
<b>Post-secondary non tertiary VET programmes</b>	
At least 6 month developing and refresher study with a final “post-maturita” exam	A certificate on final “post-maturita” exam
2-year follow-up study branch with a “maturita” school leaving exam	A “maturita” school leaving exam certificate
At least 2-year qualifying study with a vocational component of “maturita” school leaving exam (2 <sup>nd</sup> “maturita”)	A “maturita” school leaving exam certificate (for vocational component)
At least 2-year specialising study with an absolutorium exam	A certificate on absolutorium exam and an absolutorium diploma
3 year higher professional study with an absolutorium exam	A certificate on absolutorium exam and an absolutorium diploma
Conservatory in final classes (5 <sup>th</sup> -6 <sup>th</sup> year of continuing training)***	A certificate on absolutorium exam and an absolutorium diploma
<b>Tertiary programmes</b>	
1 <sup>st</sup> level (Bachelor)	A certificate on a state exam and a Bachelor diploma
2 <sup>nd</sup> level (Master)	A certificate on a state exam and a Magister, Engineer, Doctor diploma
3 <sup>rd</sup> level (PhD)	A certificate on a state exam and a PhD diploma
<b>Specific VET programmes for mentally challenged students</b>	
Practical school	A final certificate (stating the area of activity the pupil is able to perform)
Vocational school	3 types of certificates based on the level on meeting respective standards (trained, fully trained, and trained with qualification); the highest level resulting in receiving a certificate on final exam and a Certificate of Apprenticeship

NB: \* for basic school low achiever or those who even did not complete basic school (due to repeating classes);

\*\* a specific case; the programme focused for pupils completing Grade 5 of basic school; it is an upper secondary level from the graduates age point of view, however, graduates are trained in a high level (ISCED 5B);

\*\*\* programme can only be entered after receiving “maturita” from the same conservatory programme.