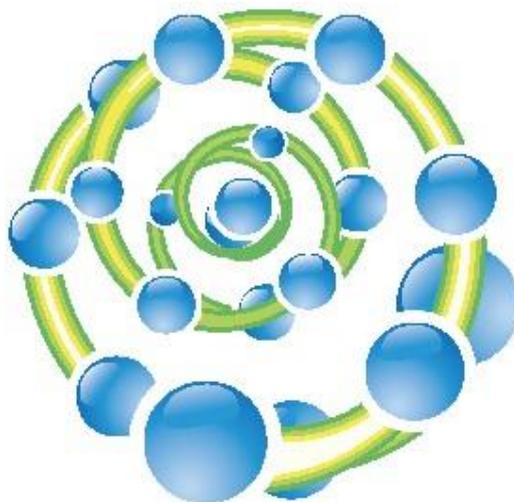


Key competences in VET

Slovakia



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Table of contents

Introduction	4
1. Key competence: communication in the mother tongue	10
1.1 Description of policy developments.....	10
2. Key competence: communication in foreign languages	13
2.1 Description of policy developments.....	13
3. Key competence: competences in maths, science and technology	16
3.1 Description of policy developments.....	16
4. Key competence: digital competence	18
4.1 Description of policy developments.....	18
5. Key competence: learning to learn	21
5.1 Description of policy developments.....	21
6. Key competence: interpersonal, intercultural and social competences, and civic competence	23
6.1 Description of policy developments.....	23
6.2 Financial literacy as a component of social and civic competences – an example of a VET programme at upper secondary level	25
7. Key competence: entrepreneurship	27
7.1 Description of policy developments.....	27
7.2 Entrepreneurship – an example of a VET programme at upper secondary level.....	30
8. Key competence: cultural expression	32
8.1 Description of policy developments.....	32
8.2 Cultural awareness and expression – an example of a VET programme at upper secondary level	34
Conclusions	35
Acronyms	36
Bibliography	37

Introduction

For years, Slovakia offered a typical example of an education system containing school based IVET. Only since the 2015/16 school year some modification of dual IVET has been implemented. Thus, there is a long tradition of a strong general education component embedded into all VET programmes and therefore weakness in adjusting practical training to labour market needs is dominating over the risk of provision of insufficient basic skills. Significantly, 'competences' started to be discussed with the emergence in pedagogical discourse of skills/competences going beyond the traditional basic skills. This resulted in enrichment of the list of key competences by transversal features.

Six key competences corresponding to 'communication abilities', 'personal and interpersonal abilities', 'the abilities to solve problems in a creative and critical way', 'working with modern information technologies', 'health awareness'¹ and 'forming a civil society' were identified² in the influential policy document, the 'National Programme of Training and Education in the Slovak Republic for Forthcoming 15 to 20 Years (a 'Millennium project')', adopted by the parliament in 2001. Subsequently, a 'Standard of Secondary VET' was approved by the Ministry of Education (MŠ, Ministerstvo školstva) on 10 July 2002, followed by a manual for the development of the state curricula in 2003. Although the both aforementioned documents referred to the 'Millennium' and to the importance of reflection of key competences contained there, a different list of key competences was suggested: 'communication and social-interaction competences'; 'intrapersonal and interpersonal competences'; 'ability to solve problems creatively'; 'entrepreneurial competences'; 'IT competence'; and 'ability to be a democratic citizen'.³ In June 2007, the government adopted the Resolution No. 489/2007 aimed at future decentralisation of curriculum development⁴ within the so-called two-level approach to curricula development that has been introduced into practice by the Education Act No. 245/2008 Coll. since the 2008/09 school year.

83 state educational programmes (StEPs) were developed by the State Institute of Vocational Education (ŠIOV, Štátny inštitút odborného vzdelávania) replacing the content-based 'basic pedagogical documents'. Thus, addressing respective key competences, general competences and vocational competences became dominant over the traditional

¹ In contrast to others, this title is given by authors as a long description was used without a clearly identified title in this case. It can also be disputed whether it can be classified as key competence, as the description was dominantly content-based.

² Millennium, p. 128 – 129.

³ Quite significantly, the term capability (spôsobilosť) was used in titles of these six competences instead of the term competence. This is caused by terminological difficulties and unambiguous understanding of the term competence. There are still alternative approaches in using the term competence visible in the current pedagogical discourse.

⁴ The respective policy document is titled 'The Concept of Two-Level Model of Educational Programmes in VET in the Slovak Republic'.

content-based programming of IVET and teaching according to the explicitly set detailed syllabi.

Table 1. State educational programmes by ISCED levels after 2008 curricular reform

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

Source: ŠIOV.

NB: Without StEPs outside the ŠIOV's responsibility (health programmes managed by the Ministry of Health and Arts programmes of conservatories that were under the responsibility of the National Institute for Education (ŠPÚ, Štátny pedagogický ústav) at that time).

StEPs were subsequently complemented by school educational programmes (SchEPs) elaborated autonomously by schools. As the 2008 StEPs addressed in detail all the aforementioned six key competences, all SchEPs had to explicitly address all of them as well.

Although the 'European Recommendation on Key Competences for Lifelong Learning' adopted by the European Parliament and the Council in 2006 was often quoted by respective curriculum programming documents⁵ and the international key competences agenda influenced the 2008 curricular reform in Slovakia, eight 'European Reference Framework' key competences were reflected and subsequently translated into curricular documents embedded into six key competences. This is presented by the following example covering all ISCED 3A level VET programmes:

StEPs at the ISCED 3A level include key, general and vocational competences. The key competences are cross-sectional, and can be developed in both general and vocational teaching subjects. The key competences were divided into the aforementioned six categories⁶:

a) **Communication and social-interaction competences** (with a total of 18 performance standards defined), for instance:

A graduate has to

- process written text information (synopsis, excerpts, diary) and materials by purpose of notification and with regard to users' needs;
- understand and adopt methods of information and communication technologies including online learning opportunities;

⁵ E.g. the 2008 SchEP for the study field 28 Technical and Applied Chemistry, ISCED 3A level, available at http://www9.siov.sk/ext_dok-svp-isced-3a-28/11564c.

⁶ Examples of ISCED 3A VET programmes related elaboration of requirements referring to individual key competences are discussed later within respective chapters.

- become familiar with motivational educational programmes, which are aimed at solving problems and providing accessible opportunities for lifelong learning, which creates the possibility for virtual communication between local communities;

b) **Intrapersonal and interpersonal competences** (with a total of 18 performance standards defined), for instance:

A graduate has to

- develop own activity, autonomy, self-knowledge, self-confidence and reproductive thinking;
- submit individually proposals to perform work he/she is responsible for;
- work independently and get involved in collective works, manage simpler works in a smaller team, be responsible for the work of others;
- set goals and priorities in accordance with his/her personal abilities, interests, career change and living conditions;

c) **Ability to solve problems creatively** (with a total of 8 performance standards defined), for instance:

A graduate has to

- obtain by independent study any new information directly related to clarification of unknown areas of problems;
- deliver information to people (notifying, reporting, talking, teaching);
- cooperate with other people in solving problems;

d) **Entrepreneurial competences** with a total of 27 performance standards defined), for instance:

A graduate has to

- respect the law and responsibility;
- monitor and evaluate own success in learning, accept results of assessment of his/her learning from other people;
- have insight in the employment opportunities available on the labour market in the particular field, make purposeful and responsible decisions on one's own profession and path of learning;

e) **IT competence** (with a total of 10 performance standards defined), for instance:

A graduate has to

- choose quantitative mathematical methods (conventional, specialized and specific) that are appropriate to solve a given task or situation;
- communicate by e-mail, use online and offline communication tools;
- record, sort and store information so that it can be used at work;
- protect the information against deterioration or rigging;

f) **Ability to be a democratic citizen** (with a total of 19⁷ performance standards defined), for instance:

A graduate has to

- act responsibly, independently and proactively, not just in his/her interest, but also in the public interest;
- take an active interest in political and social events in the country and the world;
- respect the traditions and values of the nation, understanding its past and present in the European and global context;
- supporting the values of the local, national, European and global culture and maintain a positive attitude towards them.

As demonstrated above, respective key competences related requirements were set by StEPs in too much detail. At the same time, they were often insufficiently clarified and also not easy for operationalisation. As a rule, instruments for assessing the adoption of respective key competences by students have not been developed due to the lack of time in a preparatory phase of the curricular reform. It was up to schools to develop their own procedures and instruments to assess acquiring respective key competences. Furthermore, the only national guidelines and tools referred to school-leaving exams focused more on traditional content (subject) based approach. To assist schools in responding the new challenge a national ESF project⁸ aimed at training pedagogues in curriculum development and elaboration (redesigning) of their own SchEPs was launched in 2009 with duration until 2014.

Dissatisfaction with the original philosophy of programming led to the change. In 2008, individual StEPs were prepared for the field of study as a whole making the difference only between ISCED levels. The specific StEPs were elaborated separately for respective ISCED level programmes and were not sensitive to requirements of specific programmes within the study field. A change in programming IVET has been introduced since the 2013/14 school year. Only 23 state educational programmes are offered now covering VET fields as a whole (however addressing programmes at all ISCED levels together and containing specific framework requirements for individual branches).

Furthermore, the difficulties in translation of specific key competences and in particular of respective detailed requirements into practice in schools also contributed to the revision of key competences related parts of new StEPs. Impact analyses conducted by ŠIOV indicated that many schools considered requirements of StEPs concerning key competences as not responding to employers' demand, imposing the disproportionate

⁷ Two additional performance standards were added later and became valid from 2010/11.

⁸ The National ESF project titled 'Teacher Training with Regard to Developing School Educational Programmes' conducted by ŠIOV.

burden on students, and difficult to reach in particular in former ISCED 3C programmes.

The following are conclusions justifying the need to revise StEPs:

‘Corrections of key competences resulted from the survey in which respondents assessed addressing key competences in StEPs as excessively demanding and difficult to be acquired due to their scope and abilities of students. Key competences as tackled in the revised StEPs are focused on preparing graduates for lifetime employment...’⁹

Since the 2013/14 school year, only ‘three overarching key competences’ have been reflected in new StEPs and subsequently in SchEPs:

- a) **Act independently in a social and working life;**
- b) **Use interactively knowledge, ICT, communicate in a state language, mother tongue and foreign language;**
- c) **Ability¹⁰ to work in heterogeneous groups.**

No new specific manual for elaboration of SchEPs has been prepared. Instead, an annex to StEPs titled ‘Recommended Principles for Creation of School Educational Programme’ offers comprehensive assistance to schools capitalising on the earlier experience. A specific part of this annex deals with key competences:

‘Follow these rules when working with key competences:

- Concerning specific school subject, select one (or two) performance standards of key competences that are considered a natural priority in this subject and that are relevant to the content of teaching;
- Selected key competences should reflect bottlenecks or frequent features of sensitive areas of the development of students’ personalities;
- Selected key competences should result from discussion in a School Subject Commission in order to cover the greatest number of key competences appropriately;
- For each class (students group) one priority key competence is to be identified that will be addressed by all teachers within their subjects taught in that particular class;
- For each key competence, methodology and implementation practice has to be agreed;
- Each key competence identified in SchEP must be assessed.’¹¹

A new approach to key competences – pronouncing employability, excluded some of key competences from new StEPs. The aforementioned 23 state educational programmes do

⁹ See Hrušovská, M. (ed.) (2014) available at http://distančne.vzdelavanie.siov.sk/pluginfile.php/19390/mod_folder/content/0/Metodick%C3%BD_materi%C3%A1I_%C5%A0VP_SO%C5%A0.pdf?forcedownload=1.

¹⁰ Although all three items are categorised as key competences, the term competence is not used. The term ability (schopnosť) is used in the third key competence and the term capability (spôsobilosť) in the case of two first competences. We have omitted the term capability here as redundant.

not regulate a general component of VET studies anymore. General education components of respective VET programmes were elaborated by the National Institute for Education (ŠPÚ, Štátny pedagogický ústav) and they have been offered in separate documents structured by ISCED levels and respective subjects¹². Thus, also some key competences, in particular those correlating with basic skills (e.g. communication in the mother tongue, communication in foreign languages, competences in maths, etc.), are covered under the responsibility of ŠPÚ.

Lifelong learning strategy papers address adoption of key competences also outside IVET. The LLL Strategy¹³ adopted by the government in 2011 put focus on key competences under the influence of the EU Recommendation and emphasised creativity and career management skills. The Action Plan to the 2011 LLL Strategy¹⁴ indicated in its Measure 4.2 creation of a specialised multimedia platform. This platform was suggested to offer learning opportunities for development of key competences autonomously. The following key competences were explicitly stressed: communication in foreign languages, digital competence, social and civic competences, and entrepreneurship. However, this strategy has never materialised and the platform has not been created.

It can be wrapped up that no sufficient attention has been paid so far to key competences within other segments of VET than secondary IVET: Key competences have been addressed by programming documents (StEPs) and subsequently a methodology for translating key competences into practice has been elaborated. The manual for creation of SchEPs¹⁵ was published by ŠIOV and later a renewed methodology was prepared within the national ESF project 'Teacher Training with Regard to Developing School Educational Programmes'¹⁶. Nevertheless, more classroom-ready materials and best practice examples of translation of theory into practice would be welcomed by practitioners.

¹¹ See e.g. Annex 3, point f) of the StEP for the study field 28 Technical and Applied Chemistry available at http://www9.siov.sk/ext_dok-svp_28/28692c.

¹² See at <http://www9.siov.sk/svp-na-sos-pre-vseobecne-vzdelavanie/21653s>.

¹³ The strategy is available at <http://www.minedu.sk/data/files/1899.pdf>.

¹⁴ The action plan is available at <http://www.minedu.sk/data/files/1898.pdf>.

¹⁵ See Jakubová, G. (2008) available at <http://www9.siov.sk/metodika-tvorby-skolskych-vzdelavacich-programov-pre-sos/10692s>.

¹⁶ See Jakubová, G., Jurkovičová, A. (eds.) (2011) available at http://distančne.vzdelavanie.siov.sk/pluginfile.php/6531/mod_folder/content/0/Metodiky%20pre%20tvorbu%20%C5%A0kVP/Metodika%20-%20Stredn%C3%A9%20odborn%C3%A9%20%C5%A1koly.pdf?forcedownload=1. Chapter 3.8.4 focuses on translation of key competences in educational strategies in SchEP.

1. Key competence: communication in the mother tongue

1.1 Description of policy developments

The title(s) in the national context (if different)	Use interactively knowledge, ICT, communicate in a state language, mother tongue and foreign language
The acquisition of the key competence at upper secondary VET is promoted at national/regional level	Yes
How is it promoted?	
<ul style="list-style-type: none"> ○ national/regional policy document(s) 	The first important policy paper addressing key competences including competences in the mother tongue was the 'National Programme of Training and Education in the Slovak Republic for Forthcoming 15 to 20 Years (a 'Millennium project')', adopted by the parliament in 2001. Since then a focus on key competences is permanently stressed within curricula programming documents.
<ul style="list-style-type: none"> ○ national/regional law(s), regulation(s) 	Communication in the mother tongue is promoted by the regular educational policy predominantly stipulated by the Education Act No. 245/2008 Coll. In all secondary VET programmes (including 'dual IVET') mother tongue lessons are obligatory, as visible in 'framework teaching plans' contained in national curricula (state educational programmes StEPs). Furthermore, communication in the mother tongue is subsumed in requirements within respective StEPs valid since the 2013/14 school year. Acquiring key competences in the mother tongue is an obligatory part of curricula and therefore it is the subject of inspection by the State School Inspection (ŠŠI, Štátna školská inšpekcia). It is tackled within their annual 'Report on the Status and Level of Education in Schools and School Facilities in the Slovak Republic'. ¹⁷
<ul style="list-style-type: none"> ○ national/regional curricula, standards and qualifications 	The statement in a heading is taken from StEP. StEPs set obligatory requirements that must be reflected within school educational programmes (SchEPs) prepared by individual schools autonomously. Thus, the aforementioned wider competence has been valid since the 2013/14 school year. It is further detailed as follows: 'A student is required to effectively use mother tongue and foreign language in an oral and written form, be proficient in reading literacy and mathematical literacy, and revise basic skills and develop own personality'. This is valid for both school-based IVET, as well as for newly introduced 'dual' IVET with a higher share of practical training offered under the supervision of companies (having learning contracts with individual students). As explained in more detail in the introduction

¹⁷ Reports are available from www.ssiba.sk/Default.aspx?text=g&id=2&lang=sk.

	<p>section, the current ‘clustering of key competences’ resulted from the monitoring of the earlier practice. StEPs valid in 2008 – 13 distinguished six competences. Communication in the mother tongue was earlier embedded within the key competence ‘Communication and social-interaction competences’.</p> <p>Although the EU recommendation is regularly mentioned within the national curriculum programming documents, communication in the mother tongue has never been explicitly addressed as an ‘isolated’ competence. It is always ‘clustered’.</p>
<ul style="list-style-type: none"> ○ training VET teachers trainers 	<p>‘Communication in the mother tongue’ is not explicitly seen as a key competence within initial and in-service training of teachers. In addition to traditional subject matter related training, a focus on ‘communication skills, persuasiveness and reasoning’ as well as ‘reading literacy’ is gradually in increase, the former as a consequence of putting stress on making use of knowledge and skills in practice, the latter as a consequence of the OECD and PISA agenda.</p>
<ul style="list-style-type: none"> ○ centralised assessment of the key competence in VET 	<p>There is no centralised assessment of the key competence in VET in terms of specific centralised testing or examination. Nevertheless, reading literacy is the subject of annual inspection by the ŠŠI. A new policy is in the pipeline. It should be based on a new strategy paper ‘The National Strategy for Enhancing the Level and Continuous Development of Reading Literacy’, prepared by a specialised task force and approved by the Ministry of Education, Science, Research and Sport (MŠVVŠ, Ministerstvo školstva, vedy, výskumu a športu). Comparably lower attention is paid to ‘oral component’ of communication in the mother tongue competence.</p> <p>Indirectly, communication in the mother tongue is assessed by national tests in Grade 5 and 9 of basic school and within an external part of ‘maturita’ school leaving examination at upper secondary level, all developed and administered by the National Institute for Certified Educational Measurements (NÚCEM, Národný ústav certifikovaných meraní vzdelávania). This national testing refers to the subject ‘Mother Tongue and Literature’ (depending on a language of instruction) rather than to the ‘competence’ itself.</p>
<ul style="list-style-type: none"> ○ other instruments (e.g. ways of working, teaching/learning methods) 	<p>Teaching/learning methods are fully up to individual schools. ŠŠIOV has developed a manual to assist schools in elaboration of their school curricula (SchEPs) as well as in translation of key competences related requirements into practice.</p>
<p>The progress of improving key competence levels/learning outcomes among upper secondary VET students is monitored</p>	<p>Yes, however, not explicitly with a specialised instrument. It is the subject of supervision by the ŠŠI, predominantly relevant subjects related.</p>
<p>How is it monitored?</p>	

<ul style="list-style-type: none"> ○ through international or national statistical data 	<p>There are no specific data except those mentioned above resulting from the national testing conducted by the NÚCEM.</p> <p>In the Slovak language and literature, secondary VET schools (including conservatories) achieved a success rate (in terms of correctly answered items) 44.8%, compared to 66.1% at conservatories in the 'maturita' school leaving exams in 2015.¹⁸</p>
<ul style="list-style-type: none"> ○ survey(s) 	No
<ul style="list-style-type: none"> ○ benchmark(s) 	No
<ul style="list-style-type: none"> ○ other instrument(s) 	No
<p>Key competence level improved among upper secondary VET students since (+/-) 2010</p>	<p>The ŠŠI monitors the progress in developing communication competences on a 5-item scale (very good, good, average, lacking sufficiency, insufficient) with regard to theoretical education and within practical training at secondary VET schools. In 2014/15 a slight decrease was observed compared to 2011/12 in both theoretical education and practical training in all four cases rated as 'average'.¹⁹</p>

¹⁸ Similarly, results for schools with other than the Slovak language of instruction are available at the NÚCEM's website at

www.nucem.sk/documents/25/maturita_2015/vsledky_vyhodnotenia/Prezentacia_MS_2015_final_040615.pdf.

¹⁹ ŠŠI (2015), p. 132, graphs 70 and 71, to be available at

<http://www.ssiba.sk/Default.aspx?text=g&id=2&lang=sk>.

2. Key competence: communication in foreign languages

2.1 Description of policy developments

The title(s) in the national context (if different)	Use interactively knowledge, ICT, communicate in a state language, mother tongue and foreign language
The acquisition of the key competence at upper secondary VET is promoted at national/regional level	Yes
How is it promoted?	
<ul style="list-style-type: none"> ○ national/regional policy document(s) 	A fundamental strategy paper was ‘Concept Paper for Teaching Foreign Languages in Basic and Secondary Schools’ ²⁰ . Subsequently, a policy paper with the same title ²¹ based on the aforementioned strategy paper was adopted by the government on 12 September 2007. The following was stated: ‘The general objective is to ensure that all students at the end of secondary school achieve the level B1/B2 of the Common European Framework of Reference for Languages (CEFR) in the first foreign language and the level A2/B1 of CEFR in the second foreign language.’
<ul style="list-style-type: none"> ○ national/regional law(s), regulation(s) 	Communication in the foreign language is promoted by regular educational policy predominantly stipulated by the Education Act No. 245/2008 Coll. in all secondary VET programmes (including ‘dual IVET’). The 2007 policy paper was translated into the 2008 curricular reform and subsequently into StEPs valid in 2008 – 13. Since 2013, only one foreign language has been obligatory in most of secondary VET programmes in contrast to the 2007 policy recommendation and the EU recommendation.
<ul style="list-style-type: none"> ○ national/regional curricula, standards and qualifications 	Learning of two languages was obligatory for all ISCED 3A secondary programmes, according to national curricula (state educational programmes, StEPs) valid in 2008 – 13. It was not obligatory for VET programmes to be completed with only a certificate of apprenticeship. Nevertheless, VET schools as a rule offered second foreign language making use of free lesson hours left in framework plans at discretion of schools. Many schools did it to facilitate transition from these programmes to ‘follow-up’ programmes leading to a ‘maturita’ school leaving certificate with two obligatory foreign languages. Similarly to communication in the mother tongue, communication in foreign languages was also subsumed under a wider cluster of competences ‘Communication and social-interaction competences’. It was the first of six competences explicitly addressed by StEPs and subsequently by school educational programmes (SchEPs). The philosophy of clustering competences has also been

²⁰ See Butašová at al. (2007) available at <http://www2.statpedu.sk/buxus/docs/predmety/konvcjcsreu.pdf>.

²¹ See MŠ SR, ŠPÚ (2007) available at <http://www2.statpedu.sk/buxus/docs/predmety/kvcudzj.pdf>.

	<p>preserved in the newest national curricula. Since the 2013/14 school year communication in the foreign language is addressed within the second 'cluster' of competences 'Use interactively knowledge, ICT, communicate in a state language, mother tongue and foreign language'. In contrast to the earlier more detailed setting of requirements, only the following is stated in the newest StEPs for ISCED 353 level: 'A graduate has to communicate in <i>one foreign language</i> in a written and oral form', and for ISCED 354, 454 levels: 'A graduate has to <i>reliably</i> communicate <i>in foreign language</i> in a written and oral form'.²²</p> <p>Since the 2013/14 school year second foreign language is not obligatory for training branches offering a certificate of apprenticeship and it is obligatory only for some study branches with a 'maturita' school leaving certificate²³.</p> <p>More detailed requirements relate to respective subjects (foreign language lessons in VET schools). StEPs indicate within the 'framework teaching plans' minimum weekly hours of foreign languages, while subject related standards for respective foreign languages are available in separate documents²⁴ elaborated by the National Institute for Education (ŠPÚ). Although communication in the foreign language is predominantly covered by specific subject, importance of adoption of specialised vocational terminology leads to some cross-curricular activities.</p>
<ul style="list-style-type: none"> ○ training VET teachers trainers 	<p>Subject related training (predominantly concerning English as a second language) belongs to traditional in-service training activities. Gradually, Content and Language Integrated Learning (CLIL) is pronounced over traditional teaching techniques.</p>
<ul style="list-style-type: none"> ○ centralised assessment of the key competence in VET 	<p>A 'maturita' school leaving exam contains the so-called external part consisting of criterion-referenced tests. Tests are developed and administered by the National Institute for Certified Educational Measurements (NÚCEM). A 'maturita' school-leaving certificate in VET schools corresponds to at least B1 of CERF, in contrast to a certificate from grammar school corresponding to B2 of CERF.</p> <p>The communication in foreign language competence is an obligatory part of curricula. It is therefore a subject of inspection by the State School Inspection (ŠŠI). It is however tackled with regard to respective subject matter (stand-alone subject) rather than the key competence.</p>
<ul style="list-style-type: none"> ○ other instruments (e.g. ways of working, teaching/learning) 	<p>Acquisition of this key competence is assisted in many in-service training activities and it is also</p>

²² Crucial differences are indicated by Italics.

²³ Fields related to economics and organisation, retail and services and to mass-media, library and information sciences.

²⁴ Standards for individual subjects are available from <http://www9.siov.sk/svp-na-sos-pre-vseobecne-vzdelavanie/21653s>.

methods)	contained in many Erasmus+ and earlier Lifelong Learning Programme projects. Development of specialised vocabularies and glossaries is a traditional component of international cooperation between schools. International programmes are generally seen as an important contribution to professionalization of teachers and trainers.
The progress of improving key competence levels/learning outcomes among upper secondary VET students is monitored	Yes, however, not explicitly with a specialised instrument. It is a subject of supervision by the ŠŠI. Partly, data from the 'maturita' school leaving exam can be reflected. Annually, success data in percentage are published, however, it is not possible to make use of these data for progress monitoring, e.g. comparison of results in 2010 and 2015 (see the example of data below).
How is it monitored?	
<ul style="list-style-type: none"> ○ through international or national statistical data 	There are no specific data except those from the external part of 'maturita' school leaving exam, annually published by the NÚCEM. In the English language, secondary VET schools (including conservatories) achieved a success rate (in terms of correctly answered items) 76.0% in B2 and 51.4% in B1 level in 2015. ²⁵
<ul style="list-style-type: none"> ○ survey(s) 	No
<ul style="list-style-type: none"> ○ benchmark(s) 	No benchmark, except for B2/B1/A2 of CERF, as indicated earlier.
<ul style="list-style-type: none"> ○ other instrument(s) 	No
Key competence level improved among upper secondary VET students since (+/-) 2010	There has been no evidence about developments since 2010. There are no hard data allowing for reliable progress assessment between 2010 and 2015. Sometimes, the aforementioned external 'maturita' school leaving exam statistics indicating a share of success (in percentage in a respective graduate cohort is used for year-on-year comparison). This is, however, methodologically not correct.

²⁵ Similarly, results in other foreign language tests are available at the NÚCEM's website, see e.g. Kelecsényi, P. (ed.) (2015) at www.nucem.sk/documents/25/maturita_2015/vsledky_vyhodnotenia/Prezentacia_MS_2015_final_040615.pdf.

3. Key competence: competences in maths, science and technology

3.1 Description of policy developments

The title(s) in the national context (if different)	Competences in maths, science and technology
The acquisition of the key competence at upper secondary VET is promoted at national/regional level	Yes
How is it promoted?	
<ul style="list-style-type: none"> national/regional policy document(s) 	<p>The 'Manifesto of the Government of the Slovak Republic of May 2012'²⁶ declares improving competences in maths, science and technology (MST) as a priority. It states the following: 'In order to raise pupils' interest in technical fields of study, the Government will more vehemently promote teaching of mathematics and natural sciences.'</p> <p>This priority translated into a crucial strategy paper²⁷ elaborated by the Ministry of Education, Science, Research and Sport and adopted (however without any fiscal commitment) by the government. Since then, mathematics and application of mathematics as a cross-curricular feature has been stressed.</p>
<ul style="list-style-type: none"> national/regional law(s), regulation(s) 	<p>To improve competences in MST, national curricula at secondary education have been changed. Furthermore, improving performance in MST is in the heart of many national ESF projects. Improvement of competences in MST within lower secondary education is considered a crucial step for improvement of competences in MST in upper secondary students²⁸, and therefore, a specialised national project addressed changing learning environment in order to raise an interest in technology of lower secondary students.²⁹</p>
<ul style="list-style-type: none"> national/regional curricula, standards and qualifications 	<p>Competence in MST is embedded in respective subjects of secondary VET curricula and it is insufficiently addressed as an interrelated overarching competence. Competences in MST have neither been explicitly tackled within national curricula (state educational programmes, StEPs) valid in 2008 – 13, nor in the currently valid StEPs. Only mathematical literacy is addressed within one of three 'clustered' key competences. The key competence 'Use interactively knowledge, ICT, communicate in a state language, mother tongue and foreign language' contains the following requirement:</p>

²⁶ See the Manifesto available in English at www.vlada.gov.sk/data/files/2169_manifesto-entrans.pdf.

²⁷ A Report on the State of Education in Slovakia and on Systemic Steps to Support its Further Development, available at www.minedu.sk/data/att/5250.pdf.

²⁸ It is partly based on a very weak performance of 15 years old students in Maths and Science in PISA, but also by gradually increasing dissatisfaction of employers with competences in MST of upper secondary school graduates.

²⁹ The national ESF project 'Supporting Vocational Guidance of Basic School Pupils, Designing Polytechnic Education Focused on Development of Working Skills, and Working with Pupils with Gifts in Technology'; a dedicated project website is available at www.zsodborne.sk.

	'A student is required to effectively use mother tongue and foreign language in an oral and written form, be proficient in reading literacy and mathematical literacy, and revise basic skills and develop own personality.'
<ul style="list-style-type: none"> ○ training VET teachers trainers 	Training of VET teachers and trainers focuses on specific subject related training rather than on interrelated competences in MST themselves. Training targeting development of technological skills/competence can be often seen as a proxy for training targeting development of competences in MST.
<ul style="list-style-type: none"> ○ centralised assessment of the key competence in VET 	There has been no centralised assessment of competences in MST so far. There is only subject related national testing in mathematics in Grade 5 and 9 of basic school and within non-obligatory 'maturita' school leaving examination.
<ul style="list-style-type: none"> ○ other instruments (e.g. ways of working, teaching/learning methods) 	No. Applicability of mathematics, science and theory in technology is highlighted, however, there is still insufficient progress in translation of relevant policies into practice.
The progress of improving key competence levels/learning outcomes among upper secondary VET students is monitored	Yes, it is however monitored only indirectly, e.g. by State School Inspection (ŠŠI) and predominantly with regard to achieving subject-related standards.
How is it monitored?	
<ul style="list-style-type: none"> ○ through international or national statistical data 	No
<ul style="list-style-type: none"> ○ survey(s) 	No
<ul style="list-style-type: none"> ○ benchmark(s) 	No
<ul style="list-style-type: none"> ○ other instrument(s) 	No. In practice, a traditional instrument (ŠŠI) dominates.
Key competence level improved among upper secondary VET students since (+/-) 2010	There is no evidence allowing for assessment of changes in 2010 – 15.

4. Key competence: digital competence

4.1 Description of policy developments

The title(s) in the national context (if different)	Use interactively knowledge, ICT, communicate in a state language, mother tongue and foreign language
The acquisition of the key competence at upper secondary VET is promoted at national/regional level	Yes
How is it promoted?	
<ul style="list-style-type: none"> ○ national/regional policy document(s) 	<p>A crucial policy document is the ‘Concept Paper for Informatisation and Digitalisation of the Education Sector with a View up to 2020’³⁰ called ‘Digipedia 2020’. It was adopted by the government on 24 September 2014. The first of four objectives of this policy document is aimed at enhancing competences of students, pedagogues and researchers induced by the digital age.</p> <p>Three of five key measures are relevant to this issue suggesting to</p> <ul style="list-style-type: none"> – systemically support the development of key and digital competences (including adaptability and flexibility); – support the development if digital skills of students and pedagogical staff in specialised contexts; – train pedagogical staff to cope with challenges of digitalisation of education/learning. <p>Nine specific measures were identified and translation of these specific measures into legislation is envisaged. Furthermore, the paper highlights the importance of promotion of digitalisation by a Digital Leader (a former minister of education and current speaker of the parliament), as recommended by the EU.³¹</p>
<ul style="list-style-type: none"> ○ national/regional law(s), regulation(s) 	<p>There are no specific national/regional regulations, however, all regions except the Bratislava Region (that does not qualify for the Convergence Objective) benefit substantially from EU projects, e.g. the project ‘Electronisation of the Education System of Regional Education’, called in brief ‘Digiškola’ (‘Digischool’).³²</p>
<ul style="list-style-type: none"> ○ national/regional curricula, standards and qualifications 	<p>In national curricula (state educational programmes, StEPs) valid in 2008 – 13, the IT competence was explicitly identified as one of six key competences, and 10 related performance standards were set. Since 2013/14, IT competence requirements are embedded within the wider ‘clustered’ key competence: ‘Use interactively knowledge, ICT,</p>

³⁰ The concept paper is available at

www.rokovania.sk/Rokovanie.aspx/BodRokovaniaDetail?idMaterial=23907.

³¹ It is very likely that diverse forms of massive promotion contributed to the Special Eurobarometer 417 top results of Slovakia: ‘Respondents in Slovakia are most likely to say that electronic and digital learning methods are important (32%)’, (p. 24), see more at

http://ec.europa.eu/public_opinion/archives/ebs/ebs_417_en.pdf.

³² A project dedicated portal is available at www.digiskola.sk.

	<p>communicate in a state language, mother tongue and foreign language'. Only two broad requirements are explicitly mentioned in contrast to the earlier national curricula</p> <ul style="list-style-type: none"> – working with electronic mail; – working with diverse advanced ICT instruments. <p>Similarly to other key competences, ICT competences related standards were translated into relevant subjects.</p>
<ul style="list-style-type: none"> ○ training VET teachers trainers 	<p>Training of teachers and trainers was pronounced with a high voice within the aforementioned 'Digipedia 2020' and importance of digital training is visible from diverse European projects.</p> <p>Within the ESF project 'Professional and Career Growth of Teaching Staff' run by the Methodological-Pedagogical Centre (MPC, Metodicko-pedagogické centrum), in-service training programmes specialised on IT competences were developed, e.g. 'Information-Communication Skills of Pedagogical Staff and Professional Staff', while a digital component is also contained in other programmes.³³</p> <p>Within the ERDF project 'Electronisation of the Education System of Regional Education' run by the MPC regional schools were equipped with information technology. Digital classrooms establishment, provision of electronic services and training of multipliers contributed to improvement of digital learning environment in participating schools (including VET schools) spread nation-wide, with the exception of the Bratislava Region. 250 learning objects were made available at the project portal.³⁴</p> <p>Within the national ESF project 'Modern Education – Digital Education for General Subjects'³⁵ run by the Slovak Centre of Scientific and Technical Information (CVTI SR, Centrum vedecko-technických informácií SR) 14,200 learning objects were developed to be used in basic and secondary schools, including VET schools. Affiliated specialised training for pedagogical staff was offered to pedagogical staff.</p> <p>Complementary to the previous project focusing on general subjects, the ESF project 'Development of Secondary VET' run by ŠIOV focused on development of digital objects for VET subjects (see more later). VET school pedagogical staff was trained via a dedicated portal containing learning instruments.³⁶</p>
<ul style="list-style-type: none"> ○ centralised assessment of the key competence in VET 	<p>There has been no centralised assessment of this key competence so far.</p>
<ul style="list-style-type: none"> ○ other instruments (e.g. ways of working, teaching/learning methods) 	<p>The aforementioned ESF project 'Development of Secondary VET' can be instrumental for substantial improvement of digital skills of students and pedagogical staff through changing the learning</p>

³³ A full list of all offered in-service training programmes is available at www.mpc-edu.sk/vzdelavacia-cinnost/akreditovane-vzdelavacie-programy-v-plnom-zneni-k-23-7-2015.

³⁴ A dedicated portal is available at <http://dvo.digiskola.sk/#>.

³⁵ A dedicated portal is available at www.digitalnevzdelavanie.sk.

³⁶ A dedicated portal is available at <http://rsov.iedu.sk>.

	environment in VET schools. 33,285 digital products (pieces of vocational subjects contents) have been developed for programmes in seven fields of study: Chemistry – 879; Electrical engineering – 5,627; Agriculture – 1,702; Food processing – 1,522; Wood processing – 2,166; Construction – 4,085; Mechanical engineering – 7,304; (Total – 33,285).
The progress of improving key competence levels/learning outcomes among upper secondary VET students is monitored	Yes
How is it monitored?	
○ through international or national statistical data	No
○ survey(s)	No
○ benchmark(s)	No
○ other instrument(s)	Digital competences (in particular complying with national curricula requirements) are a regular subject of inspection by the State School Inspection (ŠŠI).
Key competence level improved among upper secondary VET students since (+/-) 2010	Despite a slight improvement in 2014/15 compared to 2011/12, development of ICT competences in secondary VET schools was rated as 'insufficient'. ³⁷

³⁷ ŠŠI (2015), p. 132, graph 70, to be available at <http://www.ssiba.sk/Default.aspx?text=g&id=2&lang=sk>.

5. Key competence: learning to learn

5.1 Description of policy developments

The title(s) in the national context (if different)	No explicitly identified key competence. Learning to learn was neither identified in national curricula (state educational programmes, StEPs) valid in 2008 – 13, nor it has been identified in StEPs valid since 2013/2014. Nevertheless, the State School Inspection (ŠŠI) monitors developing some key competences that can be seen as strongly correlating with learning to learn competence (see more below).
The acquisition of the key competence at upper secondary VET is promoted at national/regional level	Not explicitly
How is it promoted?	
<ul style="list-style-type: none"> ○ national/regional policy document(s) 	Learning to learn is permanently present in the pedagogical discourse and considered as one of the most important features of young professionals. There are however difficulties with operationalisation of this term. Some aspects are tackled within other skills and competences (see more about ŠŠI below). There is no specific policy document addressing learning to learn competence. Even, this competence is still insufficiently handled by researchers and theorists at universities. Learning strategies and individual learning styles are dominantly addressed, however no comprehensive learning to learn theory and subsequent recommendation for implementation into practice exists in Slovakia.
<ul style="list-style-type: none"> ○ national/regional law(s), regulation(s) 	No
<ul style="list-style-type: none"> ○ national/regional curricula, standards and qualifications 	In StEPs valid in 2008 – 13, the following was stated in a part related to entrepreneurship: ‘Students should acquire generic skills like learning to learn, adapting to changes and using information flows.’ In StEPs valid since 2013/14, ability to learn, and identifying serious deficiencies in the quality of own learning, work performance and personal growth are highlighted within the key competence ‘Ability to work in heterogeneous groups’. It is significant for a new approach to key competences explained earlier that ability to learn is discussed in a specific context and in relation to working and further personal progress.
<ul style="list-style-type: none"> ○ training VET teachers trainers 	There is no specific accredited continuing education programme targeting ‘learning to learn’. Nevertheless, several programmes dealing with classroom pedagogy target interrelated features, e.g. sensitivity to learning styles.
<ul style="list-style-type: none"> ○ centralised assessment of the key competence in VET 	No
<ul style="list-style-type: none"> ○ other instruments (e.g. ways of working, teaching/learning) 	Learning to learn competence of young people is often disputed and a decline is signalled. It is

methods)	however usually derived from a weak performance of young people compared to older people in international studies (e.g. PIAAC) and from a decline in quality of graduates as perceived and interpreted by teachers.
The progress of improving key competence levels/learning outcomes among upper secondary VET students is monitored	No
How is it monitored?	
○ through international or national statistical data	There are no national statistical data. There are no international data available or discussed.
○ survey(s)	No
○ benchmark(s)	No
○ other instrument(s)	No
Key competence level improved among upper secondary VET students since (+/-) 2010	There is no direct evidence about learning to learn quality of VET students. Nevertheless, there are results of monitoring of three specific competences of VET school students – cognitive competences, competence to LLL and working attitudes and skills that are observed by ŠŠI inspectors in lessons of theoretical education as well as of practical training. Results of comparison of the 2014/15 and 2011/12 school years are as follows: Developing cognitive competences within practical training was rated ‘good’ and stable, while in cognitive competence in theoretical education it was rated as ‘average’ and declining. Competence to LLL was rated ‘average’ with a slight improvement within practical training and as ‘average’ and slight declining in theoretical education. Working attitudes and skills are slightly decreasing, but rated as ‘good’ in both practical training and theoretical education. ³⁸

³⁸ ŠŠI (2015), p. 132, graph 70 and 71, to be available at <http://www.ssiba.sk/Default.aspx?text=g&id=2&lang=sk>.

6. Key competence: interpersonal, intercultural and social competences, and civic competence

6.1 Description of policy developments

The title(s) in the national context (if different)	This key competence is currently embedded into the following two competences 'Act independently in a social and working life' 'Ability to work in heterogeneous groups'
The acquisition of the key competence at upper secondary VET is promoted at national/regional level	Yes
How is it promoted?	
<ul style="list-style-type: none"> ○ national/regional policy document(s) 	The 'Manifesto of the Government of the Slovak Republic of May 2012' ³⁹ declares the following: 'An emphasis will be placed at all levels of the school system on educating children in line with national, historical and cultural values and traditions, and knowledge of and respect for civil, national and Christian traditions and values. Patriotism will be encouraged through modern educational forms and methods, and more attention will be paid to education on the Holocaust and racially and ethnically motivated violence.' Thus, the Manifesto emphasizes 'civic' related part of this competence, highlighting at the same time some intercultural aspects.
<ul style="list-style-type: none"> ○ national/regional law(s), regulation(s) 	A strong overlap between the development of this competence with objectives envisaged by the fundamental legislation can be seen from the following examples of objectives contained in § 4 of the Education Act No. 245/2008 Coll. ⁴⁰ : – prepare for a responsible life in a free society, in the spirit of understanding and tolerance, equality of men and women, friendship among nations, nationalities and ethnic groups, and religious tolerance; – learn how to develop and cultivate one's personality and become a lifelong learner, work in a team and assume responsibility; – learn to control and regulate own behaviour, care for and protect own health, including healthy nutrition, and the environment, and respect the universal human ethical values.
<ul style="list-style-type: none"> ○ national/regional curricula, standards and qualifications 	This key competence related requirements were elaborated very thoroughly in national curricula (state educational programmes, StEPs) valid in 2008 – 13 within two explicitly identified key competences: 'Intrapersonal and interpersonal competences' and 'Ability to be a democratic citizen'. Within the first case, the following two requirements are the most relevant ⁴¹ :

³⁹ See the Manifesto available in English at www.vlada.gov.sk/data/files/2169_manifesto-entrans.pdf.

⁴⁰ The Education Act No. 245/2008 Coll. is available at www.minedu.sk/data/att/8684.pdf.

⁴¹ Within StEPs for ISCED 3A programmes.

	<p>A graduate has to</p> <ul style="list-style-type: none"> – create, clarify and apply the system of values and attitudes; – contribute to creation of accommodating interpersonal relationships, prevent personal conflicts, prejudice and stereotypes in approaching others. <p>Within the second case, 19 requirements were set in 2008 and additional two in 2010. All of these requirements are more or less relevant. The following three examples selected as interesting are presented below:</p> <p>A graduate has to</p> <ul style="list-style-type: none"> – know and respect that there does not exist just one view of the world; – identify, recognize and promote alternative visions in relation to sustainable development, human health and the health of our planet; – act in accordance with moral principles and rules of social behaviour, contribute to the implementation of democratic values. <p>Three examples above partly explain why it was difficult for schools to address some of national curricula requirements and why the currently valid national curricula have been reduced. Since 2013/14 some behavioural aspects of the competence are reflected among the requirements related to the ‘clustered’ competence ‘Ability to work in heterogeneous groups’:</p> <p>A graduate has to</p> <ul style="list-style-type: none"> – feature empathy and self-reflection; – express his/her feelings and prevent negativism; – motivate positively himself/herself and others. <p>It is significant that this approach is group behaviour centred rather than individual behaviour centred, in contrast to the earlier curricula.</p> <p>Nevertheless, many behavioural aspects related to this key competence are hard to handle by both curricula and a school practice. Thus, it can be stated that this key competence has been gradually covered predominantly by the subject ‘Civic Education’, traditionally related to this issue.</p>
<ul style="list-style-type: none"> ○ training VET teachers trainers 	<p>In addition to traditional subject centred (Civics) in-service training, diverse student centred programmes occur. Specific and required by schools are programmes related to prevention from bullying. Often, within ‘larger’ programmes’ components tackling behavioural issues, values and attitudes are included.</p>
<ul style="list-style-type: none"> ○ centralised assessment of the key competence in VET 	<p>No. There is no specialised instrument of centralised assessment.</p>
<ul style="list-style-type: none"> ○ other instruments (e.g. ways of working, teaching/learning methods) 	<p>Civic competence is traditionally tackled within the subject ‘Civic Education’ that is taught in all VET programmes and which is therefore also monitored by the State School Inspection (ŠŠI). In addition, ŠŠI also monitors development of civic and social</p>

	competence based on its own monitoring instrument (see more below). Furthermore, with regard to the development of this competence, 'traditional' education is substantially complemented by diverse extra-curricular activities (competitions, youth initiatives and NGO managed projects) offering emotionalised experience. ⁴²
The progress of improving key competence levels/learning outcomes among upper secondary VET students is monitored	There is no evidence about progress, as there are no relevant reliable data available.
How is it monitored?	
o through international or national statistical data	No
o survey(s)	No
o benchmark(s)	No
o other instrument(s)	No
Key competence level improved among upper secondary VET students since (+/-) 2010	Results of ŠŠI monitoring comparing the 2014/15 and 2011/12 school years are as follows: Development of civic and social competences of VET school students is rated as 'average' and in a harsh decline within practical training, and as 'lacking sufficiency' and even declining in theoretical education. ⁴³ There is no evidence allowing for assessment of changes in 2010 – 15. An interesting case concerns financial literacy as a component of social and civic competence (see part 6.2 below). A test of financial literacy ⁴⁴ will be used by the ŠŠI to monitor financial literacy in grammar school and all types of VET schools in 2016.

6.2 Financial literacy as a component of social and civic competences – an example of a VET programme at upper secondary level

Lacking experience of regular people to deal with financial services and an increasing number of conflicts between providers of financial services and regular citizens apparently not knowledgeable about financial issues, resulted in a vivid public discourse and subsequently developed, also under the influence of OECD and the EU, into a policy agenda. A strategy paper concerning education in financial issues and managing personal financing was adopted by the government in July 2008. A specialised working group composed of specialists in financing, specialists in education and representatives of diverse stakeholders on a governmental level identified seven domains of learning and 16 learning outcomes to be achieved in regional schooling. The 'National Standard for Financial Literacy' (NSFL) was elaborated in 2008, refreshed to cope with a feedback

⁴² See e.g. the IUVENTA homepage available in English at www.iuventa.sk/en/IUVENTA/Our-Mission.alej.

⁴³ ŠŠI (2015), p. 132, graph 70 and 71, to be available at <http://www.ssiba.sk/Default.aspx?text=g&id=2&lang=sk>.

from practice in 2014⁴⁵ and complemented by a set of methodological documents also in 2014⁴⁶, to facilitate transition of the national standard into school practice.

The following is the story of an outstanding VET school originally underestimating and subsequently responding adequately to this challenge. Commercial Academy in Trnava is a leader of the 2015 School League Table in the category of VET schools⁴⁷, but it originally failed to respond accordingly to the NSFL assuming that commercial academies and their students are naturally good enough in financial issues, and believing that the NSFL had already been reflected by the then curricula. In 2012, a State School Inspection (ŠŠI) monitored implementation of the NSFL and stated that the school failed to fully reflect the NSFL in its school curricula (SchEP)⁴⁸. After this, the school director created a task force in order to fully implement the NSFL. This resulted in rewriting the school curricula and in reflection of all respective NSFL requirements in relevant subjects, not only in economy related, but also others (e.g. Civic Education, Ethics and Informatics). Now, two authorities, ŠIOV and ŠŠI, indicate this school as outstanding also in developing students' financial literacy as part of their social and civic competences.

⁴⁴ This test was developed by NÚCEM and a database of tasks related to financial literacy has been also offered to schools for testing students continuously.

⁴⁵ The NSFL is available from www.iedu.sk/VSEOBECNE_INFORMACIE/FINANCNA_GRAMOTNOST/NARODNY_STANDARD/Stranky/default.aspx.

⁴⁶ Documents are available from www.iedu.sk/VSEOBECNE_INFORMACIE/financna_gramotnost/metodika/Stranky/default.aspx.

⁴⁷ Prepared annually by the Institute for Economic and Social Reforms (INEKO), Available at www.ineko.sk/clanky/pozrite-si-najnovsie-rebricky-zakladnych-a-strednych-skol.

⁴⁸ As already explained earlier schools are free to create autonomously a state educational programme reflecting requirements of the national curricula set by respective state educational programme.

7. Key competence: entrepreneurship

7.1 Description of policy developments

The title(s) in the national context (if different)	Entrepreneurship
The acquisition of the key competence at upper secondary VET is promoted at national/regional level	Yes
How is it promoted?	
<ul style="list-style-type: none"> ○ national/regional policy document(s) 	<p>‘Strategy of the Slovak Republic for Youth for the Years 2014 – 2020’⁴⁹ stresses within its Chapter 5.3 titled ‘Creativity and entrepreneurship’ that ‘entrepreneurship, creativity and innovation are among young people’s key competences helping develop their potential...’. The strategy indicates four strategic goals in support of entrepreneurship. Strategic goal No. 2 ‘Entrepreneurial literacy’ suggests five measures, <i>inter alia</i> to</p> <ul style="list-style-type: none"> – incorporate into education entrepreneurship-targeted experiential programmes or projects; – encourage introduction of entrepreneurial education at all levels of education; – clearly define outcomes of education in the field of entrepreneurship for teachers; – adapt the existing, effective and successful methods for education in the field of entrepreneurship into formal and non-formal education. <p>Entrepreneurship is permanently promoted by the Ministry of Education, Science, Research and Sport (see information on Pedagogical-Organisational Guidelines (POGs) below).</p> <p>Furthermore, entrepreneurship is high on the agenda of the Ministry of Economy. ‘Innovation Strategy of the SR for 2014 – 2020’⁵⁰ elaborated by the Ministry of Economy suggested <i>inter alia</i> tax incentives for entrepreneurs to stimulate cooperation with VET schools and changes in curricula to support entrepreneurship.</p> <p>‘Research and Innovation Strategy for Smart Specialisation of the Slovak Republic (RIS3)’⁵¹ stated that ‘it is necessary to initiate and coordinate information campaigns and programmes aimed at motivating young people to entrepreneurship...’⁵². Elaboration of specialised measures is expected from an Action Plan that is however pending.</p>
<ul style="list-style-type: none"> ○ national/regional law(s), regulation(s) 	Entrepreneurship is explicitly addressed by the Pedagogical-Organisational Guidelines (POGs) that

⁴⁹ The strategy is available in English at www.minedu.sk/data/files/3890_strategy_sr_for_youth-2014-2020_final-en.pdf.

⁵⁰ See [MH SR (2013)] available at https://lt.justice.gov.sk/Attachment/Vlastn%C3%BD%20materi%C3%A1l_doc.pdf?instEID=-1&attEID=51522&docEID=287000&matEID=5788&langEID=1&tStamp=20130102100012757

⁵¹ The strategy is available in English at www.eu2020.gov.sk/data/files/4664_ris3_1311_en.doc.

⁵² Ibid, p. 52.

	<p>are annually issued by the Ministry of Education, Science, Research and Sport a few months before a start of a new school year, <i>inter alia</i> to indicate educational policy priorities and highlight forthcoming duties of stakeholders in education. Six items related to entrepreneurship were listed in POGs 2014⁵³ and ten in POGs 2015⁵⁴. These guidelines should have been translated into school curricula or reflected by participation in internal or external experiential activities, e.g. competitions and fairs (including regional ones) promoted by district labour offices.</p>
<ul style="list-style-type: none"> ○ national/regional curricula, standards and qualifications 	<p>Entrepreneurship is targeted by specialised subjects, Economic Practice – Training Firm, and Applied Economics. Both of these subjects are based on the learning by doing methodology that is embedded into an official subject, in contrast to other study fields where out-of-classroom experiential activities are more often applied. Entrepreneurship can also be supported by Training Firm activities within afternoon extra-curricular activities, and/or by participation in diverse external experiential activities (e.g. Junior Achievement Business Day).</p> <p>In contrast to Training Firms (see more in part 7.2) that simulate all administrative activities and also make trainees familiar with the administration of businesses, Junior Achievement activities focus dominantly on developing a spirit of entrepreneurship.</p> <p>In national curricula (state educational programmes, StEPs) valid in 2008 – 13 entrepreneurship competences were explicitly addressed within 27 detailed requirements in StEPs for study branches (with a ‘maturita’ school leaving certificate) and 18 detailed requirements for training branches (with a certificate of apprenticeship). Nevertheless, since 2013/14 specific entrepreneurship related items have been seen as vocational skills and therefore they are not discussed among key competences. Entrepreneurship is explicitly mentioned among goals of education, and several entrepreneurship related standards are set in some education domains. The following is an example of standards set for the Economic Domain for study branches in the field 28 Technical and Applied Chemistry:</p> <p>A graduate has to</p> <ul style="list-style-type: none"> – describe the basic terms and characteristics of entrepreneurship; – explain the main principles of legislation related to entrepreneurship in the Slovak Republic; – explain the concepts of trade, trade license, unauthorized trading; – design a simple business plan.
<ul style="list-style-type: none"> ○ training VET teachers trainers 	<p>Entrepreneurship is targeted within in-service training of teachers and trainers. A specialised</p>

⁵³ See POG 2014, available at www.minedu.sk/data/att/6148.pdf, p. 16.

⁵⁴ See POG 2015, available at www.minedu.sk/data/att/8352.pdf, p. 18.

	<p>continuing programme accredited by the Ministry of Education, Science, Research and Sport 'Development of Entrepreneurial Skills in Primary and Secondary Schools' was developed within the ESF project 'Professional and Career Growth of Teaching Staff' run by the Methodological-Pedagogical Centre (MPC, Metodicko-pedagogické centrum). A 40-hour programme (10 credits) is aimed at improving the ability of teachers and trainers to implement methodologies targeting the development of entrepreneurship and motivation of students to run business in the future. Graduates of this programme should master 'heuristic techniques addressing development of interests, knowledge, skills and attitudes of students'.⁵⁵</p> <p>There are also programmes developed by other players than public in-service training institution⁵⁶, e.g.</p> <ul style="list-style-type: none"> - 'Supporting Entrepreneurship and Designing Business Projects in Secondary School Curricula' and 'Methodology in Support of Designing Business Plans by Secondary Students', both developed by the University of Economics; - 'New Trends in Supporting Entrepreneurship via Training Firms', developed by the Foundation for Support of VET.
<ul style="list-style-type: none"> o centralised assessment of the key competence in VET 	<p>There is no specialised instrument for centralised assessment of this key competence. The State School Inspection (ŠŠI) is however entitled to assess complying of school educational programmes (SchEP) with StEP. Entrepreneurship is not a subject of observation of teachers' and students' performance and is not explicitly addressed by the annual report on the state and level of education in schools and school facilities.</p>
<ul style="list-style-type: none"> o other instruments (e.g. ways of working, teaching/learning methods) 	<p>There is diversity in selection of ways. Some schools preferred creation of a specific subject (often embedding a Training Firm experience). Some prefer running Training Firm as an out-of-classroom activity and some prefer diverse experiential activities often supported by NGOs, <i>inter alia</i> by the aforementioned Junior Achievement supportive activities, among which an international certificate 'Entrepreneurial Skills Pass' and 'Junior Achievement Business Day' competition are worth of stressing.</p>
<p>The progress of improving key competence levels/learning outcomes among upper secondary VET students is monitored</p>	<p>There is no appropriate specialised instrument for assessing improvement, as also visible from the 2014 Youth Report⁵⁷. The progress is however indirectly monitored by judges in diverse competitions and observed within experiential learning activities.</p>
<p>How is it monitored?</p>	

⁵⁵ A programme description is available at www.mpc-edu.sk/library/files/rozvoj_podnikatelskych_zrucnosti.pdf.

⁵⁶ See the list of accredited programmes at www.minedu.sk/data/att/9215.pdf.

⁵⁷ See IUVENTA (2014) available at www.minedu.sk/data/files/3888_sprava_o_mladezi.pdf, part VI 'Creativity and Entrepreneurship'.

○ through international or national statistical data	No relevant statistical data have been available so far. Data on 'Entrepreneurial Skills Pass' holders could be used for some basic analyses in the future.
○ survey(s)	The 2014 Youth Report compares 2009 and 2013 Eurobarometer data. ⁵⁸ No specialised surveys have been conducted.
○ benchmark(s)	No
○ other instrument(s)	See below.
Key competence level improved among upper secondary VET students since (+/-) 2010	Yes, however based on anecdotal evidence only. Improvement in entrepreneurship is visible in increasing entrepreneurial skills of students within diverse competitions and fairs (e.g. Training Firms fairs and Junior Achievement activities), according to experts' (judges') observations.

7.2 Entrepreneurship – an example of a VET programme at upper secondary level

The following is an example of how entrepreneurship is supported by upper secondary schools affiliated Training Firms. In Training Firms students learn how to start, establish, manage and close own business. Activities are based on simulation of all processes accompanying a firm's functioning by the Slovak Centre of Training Firms (www.sccf.sk). The Centre simulates activities of Business Registry at the Court, Trade Office, Tax Office, Commercial Bank, Social Insurance and Health Management Agency. Through these simulations students are exposed to an environment fully corresponding to the real business world. Training Firm activities are based on international know-how supported by EURO PEN – PEN International, a specialised not-for-profit association providing administrative support to Training Firm movement across the world. In Slovakia, the number of Training Firms has increased from 35 in 1998 to over 700 in 2015. Diverse new activities have gradually occurred, accompanying Training Firms lives, e.g.

- partnerships of Training Firms with real economy firms (e.g. VillaBetula, s. r. o., affiliated to Hotel Academy in Liptovský Mikuláš, with Villa Betula company in Liptovská Sielnica);
- participation in competitions (regional, sectoral and international), but also in commercial exhibitions, as real businessmen recognise the value of performance of students from Training Firms;⁵⁹
- international cooperation; it is very vivid and the expertise of some Training Firms has also been utilised in the official international aid offered by Slovakia to Kenya. The

⁵⁸ Ibid, p. 25, e.g. 'Entrepreneurship in the EU and beyond' survey data (Flash Eurobarometer 354) are commented.

Pontis Foundation awarded the prize to the Training Firm Andy Group, s. r. o., affiliated to the Andy Warhol Commercial Academy in Medzilaborce for its Slovak – Kenyan cooperation activities in 2015.

Success of Training Firms at secondary VET schools led to the decision to expand Training Firms also to grammar schools and upper secondary classes of basic schools. The national ESF project titled 'Enhancing Entrepreneurial Competences and Financial Literacy via Simulated Environment of Training Firms' will be carried out within a new 2014 – 20 programming period.

The quality of the development of entrepreneurship in Slovak secondary schools can also be visible in recent success of Slovak Training Firms at the international fair in Prague, where VillaBetula, s. r. o., ranked 1st, Omega Lang, s. r. o., ranked 2nd, and Protect Yourself, s. r. o., ranked 4th among 109 Training Firms from nine countries.

⁵⁹ 18th International Training Firms Fair held in Bratislava in 2015 was fully sponsored by the Union of Construction Entrepreneurs in Slovakia; one of successful Training Firms will participate at the commercial construction sector exhibition 'CONECO 2016' at the expense of the organiser.

8. Key competence: cultural expression

8.1 Description of policy developments

The title(s) in the national context (if different)	Cultural competences
The acquisition of the key competence at upper secondary VET is promoted at national/regional level	Yes
How is it promoted?	
<ul style="list-style-type: none"> ○ national/regional policy document(s) 	<p>The 'Manifesto of the Government of the Slovak Republic of May 2012'⁶⁰ declares emphasizing of education to cultural values. It states the following: 'An emphasis will be placed at all levels of the school system on educating children in line with national, historical and cultural values and traditions,...'. Interrelated with the cultural expression competence, a policy paper on media education titled the 'Concept Paper for Media Education in the Slovak Republic in the Lifelong Learning Context'⁶¹ was prepared by the Ministry of Culture and approved by the government on 16 December 2009. Specialised projects for VET schools and conservatories reflecting specificities of these schools were promoted within this policy paper and specific objectives suggested.</p>
<ul style="list-style-type: none"> ○ national/regional law(s), regulation(s) 	<p>A fundamental law regulating regional schooling including VET schools - the Education Act No. 245/2008 Coll.⁶², stipulates among objectives of education (§ 4) 'to acquire ... cultural competences'. Curriculum decentralisation reform allows for adjusting national curricula (state educational programmes, StEPs) to specific needs of schools and regions. This is widely used in particular with regard to cultural issues in appropriate subjects. This is widely used in lower secondary and upper secondary general education. The only subjects in technical VET schools providing the opportunity to improve cultural competences of VET students are Civic Education, Ethics and Religion.</p>
<ul style="list-style-type: none"> ○ national/regional curricula, standards and qualifications 	<p>Within StEPs valid in 2008 – 13, the following requirements concerning key competences addressed cultural expression:</p> <p>A graduate has to</p> <ul style="list-style-type: none"> – be aware of own cultural, national and personal identity, approach the identity of others with tolerance; – support the values of the local, national, European and global culture and maintain a positive attitude towards them. <p>Both requirements are contained among requirements in the key competence titled 'Ability to</p>

⁶⁰ See the Manifesto available in English at www.vlada.gov.sk/data/files/2169_manifesto-entrans.pdf.

⁶¹ See MK SR (2009) available at www.rokovania.sk/Rokovanie.aspx/BodRokovaniaDetail?idMaterial=17718.

⁶² The Education Act No. 245/Coll. is available at www.minedu.sk/data/att/8684.pdf.

	be a democratic citizen'. In StEPs valid since 2013/14 only intercultural competences are mentioned within the 'clustered' key competence titled 'Ability ⁶³ to work in heterogeneous groups'.
<ul style="list-style-type: none"> ○ training VET teachers trainers 	Programmes for pedagogical staff of VET schools offered by Methodological-Pedagogical Centre (MPC) within in-service training only rarely target cultural awareness. This kind of programmes is designed for basic school and grammar school teachers. Nevertheless, we have found four programmes offered also for VET school staff, e.g. 60-hour (14 credits) programme aimed at methodology for translation of new curricula document requirements into practice concerning interactive performance in arts education. Furthermore, four in-service programmes are aimed at media education, e.g. 105-hour (24 credits) programme aimed at activation methods with a special focus on media literacy influence on a value system (of students).
<ul style="list-style-type: none"> ○ centralised assessment of the key competence in VET 	There is no centralised assessment in place.
<ul style="list-style-type: none"> ○ other instruments (e.g. ways of working, teaching/learning methods) 	As already indicated, media education is the most vivid among education/learning activities relevant to this key competence. A dedicated portal of the International Media Education Centre (IMEC) in support of media education is maintained by the Faculty of Mass Media Communication of the University of Ss. Cyril and Methodius in Trnava (www.medialnavychova.sk). The IMEC portal offers support for schools and young people, <i>inter alia</i> , by best practice promotion.
The progress of improving key competence levels/learning outcomes among upper secondary VET students is monitored	Yes, partly.
How is it monitored?	
<ul style="list-style-type: none"> ○ through international or national statistical data 	No
<ul style="list-style-type: none"> ○ survey(s) 	A survey published in 2013 stated insufficient translation of national curricula concerning media education into school practice at secondary schools. ⁶⁴
<ul style="list-style-type: none"> ○ benchmark(s) 	No
<ul style="list-style-type: none"> ○ other instrument(s) 	No
Key competence level improved among upper secondary VET students since (+/-) 2010	There is no evidence allowing for assessment of changes in 2010 – 15.

⁶³ Although all three items are categorised as key competences, the term competence is not used. The term ability (schopnosť) is used in the third key competence and the term capability (spôsobilosť) in the case of two first competences. We have omitted the term capability here as redundant.

⁶⁴ See Kačínová, V., Kolčáková, V. (2013) available at http://issuu.com/medialnavychova.sk/docs/vyskumna_sprava_ss_original-1.

8.2 Cultural awareness and expression – an example of a VET programme at upper secondary level

The following is an example of the key competence ‘cultural awareness and expression’ addressed via media education related activities.

The EU definition of the key competence ‘cultural awareness and expression’ reads as follows: ‘Appreciation of the importance of the creative expression of ideas, experiences and emotions in a range of media, including music, performing arts, literature, and the visual arts.’ Taking into account this definition we can understand the importance of the holistic approach, the importance of experiential learning combining all three domains of learning (cognitive, affective, and psychomotor) and the importance of emphasising student’s own performance.

The aforementioned survey of International Media Education Centre (IMEC) indicated difficulties in translation of media education into school practice despite strategy papers and national curricula requirements. For VET schools, regardless whether providing work-based or school-based training, it is more difficult compared to general school education. A ‘learning by doing’ approach is inevitable and combining learning outcomes in all three domains of learning should be preferred.

The following example of 2014 Erasmus+ project ‘From Passive Consumers to Active Creators’⁶⁵ is a promising example of the attempt to embed media education into lessons as well as out-of-school activities.

Secondary Specialised School of Industry in Svidník (Eastern Slovakia) offers school-based IVET with practical training offered in own facilities and/or out of school, provided an institutional agreement between school and some enterprise is signed. This was a typical case before adoption of Act No. 61/2015 Coll. on VET introducing a specific ‘dual’ alternative since the 2015/16 school year.

This school is leading an international consortium of schools working together on class-ready materials for lessons and on performance activities allowing students to combine emotional experience with production. Media education can be introduced in three ways – within a specialised subject, as a cross-curricular activity, and as an extra-curricular activity. Examples of the already developed materials stress the holistic approach and also refer to explicitly identified learning outcomes in all three domains.

⁶⁵ The project number is 2014-1-SK01-KA201-000472. The school website is available at www.spssvidnik.sk. A project website is available at <http://mediaerasmus.weebly.com> and the resource home page European Media Education Lab is available at www.europeanmediaeducationlab.com.

Conclusions

National documents on programming VET refer to the 'Recommendation of the European Parliament and of the Council on Key Competences for Lifelong Learning', and a compliance with eight key competences of a European Reference Framework is declared in state educational programmes (StEPs). Nevertheless, curricula documents in Slovakia valid in 2008 – 13 addressed only six key competences that are only partly covering eight key competences of a European Reference Framework. All respective six competences were represented by detailed specific requirements that should have been accordingly reflected by schools when preparing their own school educational programmes (SchEPs). The State School Inspection (ŠŠI) is entitled to monitor whether all national curricula requirements were reflected in SchEPs and subsequently translated into school practice. The new national curricula (StEPs) valid since 2013/14 address explicitly only three key competences. These three competences are in fact clusters composed of several interrelated key competences. In contrast to the earlier national curricula requirements, fewer items were identified to be reflected by SchEPs.

As reported, some of eight key competences of a European Reference Framework are covered directly and some indirectly. It is significant that specific subjects related key competences seem to be easier to cover by schools compared to transversal ones. Nevertheless, increase in cross-curricular and extra-curricular activities is observed supported by NGOs.

As a rule, there are difficulties to monitor progress in acquiring key competences and there are difficulties in both setting measurable standards (benchmarks) and measuring progress in achievement of competences.

The only progress monitoring of key competences is available from ŠŠI's observations during regular inspections. An observation form for ŠŠI inspectors focuses however on five key competences (cognitive competences, competences to LLL, communicative competences, working attitudes and skills, and civic and social competences) to be developed within practical training in VET schools and six competences (in addition the ICT competence) to be developed within theoretical education. This monitoring is education process centred and observers from ŠŠI assess separately teachers' performance and students' performance.

No doubt, more time and concerted effort is needed to master outcome centred programming IVET. Schools need more assistance in translation of requirements expressed in national curricula into school practice. This is very transparently visible also in the case of key competences.

Acronyms

CVTI SR	Centrum vedecko-technických informácií SR (Slovak Centre of Scientific and Technical Information SR)
ESF	European Social Fund
ERDF	European Regional Development Fund
EU	European Union
ICT; IT	Information communication technology; Information technology
ISCED	International Standard Classification of Education
IVET	Initial vocational education and training
LLL	Lifelong learning
MF	Ministerstvo financií (Ministry of Finance)
MH	Ministerstvo hospodárstva (Ministry of Economy)
MK	Ministerstvo kultúry (Ministry of Culture)
MPC	Metodicko-pedagogické centrum (Methodological-Pedagogical Centre)
MST	Maths, science and technology
MŠ	Ministerstvo školstva (Ministry of Education)
MŠVVŠ	Ministerstvo školstva, vedy, výskumu a športu (Ministry of Education, Science, Research and Sport)
NGO	Non-governmental organisation
NÚCEM	Národný ústav certifikovaných meraní vzdelávania (National Institute for Certified Educational Measurements)
PIAAC	Programme for the International Assessment of Adult Competencies
PISA	Programme for International Student Assessment
OECD	Organisation for Economic Co-operation and Development
SchEP	School educational programme
SR	Slovak Republic
StEP	State educational programme
ŠIOV	Štátny inštitút odborného vzdelávania (State Institute of Vocational Education)
ŠPÚ	Štátny pedagogický ústav (National Institute for Education)
ŠŠI	Štátna školská inšpekcia (State School Inspection)
VET	Vocational education and training

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