
KEY COMPETENCES
IN VOCATIONAL
EDUCATION AND TRAINING

CZECH
REPUBLIC



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The thematic perspectives series complements the general information on vocational education and training (VET) systems provided in 'VET in Europe' reports. The themes presented in the series feature high on the European agenda.

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Introduction

In the Czech Republic, upper secondary initial vocational education and training (IVET) is mainly school-based and provided by secondary vocational schools (SOU) and secondary technical schools (SOŠ). Learners enter IVET after completing nine years in compulsory general education, usually at age of 15-16.

Strategies promoting key competences

The lifelong learning strategy and its implementation plan 2009-15 (2009) emphasise the importance of key competences in initial and continuing education. They aim to provide material and technical assistance to schools and teachers to help them foster learners' functional literacy and other key competences including the ability to learn throughout life. The strategy and plan also promote:

- (a) modernising IT equipment for students and teachers;
- (b) practically oriented innovative, research, technical, artistic or other activities fostering creativity and innovative thinking that can potentially link theory taught in class with practice (for instance use of materials and equipment in laboratories, workshops);
- (c) project learning, including company simulations;
- (d) the Czech language as a basis for developing functional literacy (support for school libraries and co-operation with foreign partners, for instance to organise student exchanges).

A policy document adopted by the Government in 2013 on new VET measures by 2020 also promotes key competences, particularly career management, problem solving and communication skills and ability to work in teams. By increasing the share of training in companies it aims to improve the quality of VET, including key competences.

The policy priorities set out in the Education strategy 2020 (2014) include the aim for upper secondary VET students to acquire skills and knowledge (including basic skills) at a level allowing them to pursue a career and continue learning. The subsequent 2015-20 long-term development plan by the education ministry, Youth and Sports (hereinafter – education ministry), approved by the Government in 2015, suggests adjusting the national secondary education framework curricula – including those for VET – to emphasise learning outcomes. It promotes foreign language learning and development of universally applicable competences that help people to be flexible and adapt to changing social, economic and environmental circumstances. The plan also promotes civic education based on democratic principles, education towards active citizenship and respect for human rights. In 2015, preparatory work on the system of cyclic revisions of the national curricula was launched by the National Institute for Education. They will include revisions of key competences in 2016-20.

Key competences in VET curricula

A curricular reform triggered by the 2004 School Act ⁽¹⁾ has introduced key competences in VET through national framework curricula and the objectives and content that the Education ministry sets out for school-based curricula. Both national and school-based curricula have been implemented in 2007-12. During the reform new teaching materials were created to support key competence development. In 2009-15, many new educational programmes promoted key competences, including linguistic, financial, science, mathematical, ICT and reading skills.

Key competences are perceived as important for learners' personality development, their employability, personal and civic life and further learning. Their importance is emphasised in the strategic documents of the education ministry. Some key competences, e.g. problem solving, knowledge of foreign languages, responsibility, motivation to work, self-reliance are also required by employers.

National framework curricula define key competences in upper secondary VET as a set of knowledge, skills, attitudes and values for personal development, employment and active role in society. They are universally applicable in various situations and are developed through both general and vocational theory learning and complementary activities in VET, e.g. vocational skills competitions, learner projects and work placements provided by employers.

In order to help improve the provision of key competences, the education ministry and the regional authorities as founders of most secondary schools (including VET) launched the development programmes for schools. Special attention is paid to the teacher training in the area of key competences. It is provided as courses and seminars, methodological manuals and examples of good practice ⁽²⁾. Support is also provided for teacher internships in companies to improve the quality of VET, including acquisition of key competences.

The key competences as defined in the national curricula (RVPs) are incorporated in the school curricula (ŠVPs) by VET providers as stand-alone subjects (general subjects, vocational subjects, specialised subjects focusing on a specific key competence) and integrated in other subjects or student projects. The national curricula specify also the cross-subject topics (citizen in a democratic society, human and the

⁽¹⁾ Act no. 561/2004 on pre-school, basic, secondary, higher professional and other education (School Act) as amended.

⁽²⁾ For example, practical guidelines for incorporating key competences and cross-subject topics in school-based curricula within the ESF 'Kurikulum S' project (2009-12); methodological publications and models of co-operation between vocational schools and social partners within the ESF 'Pospolu' project (2012-15).

world of work, human and environment, ICT education) that help developing the key competences. Cross-subject topics are incorporated in the school educational programmes (ŠVPs): in the teaching process, subjects and extracurricular activities. They enable schools to respond promptly to social, political and school issues. To support implementation and assessment of cross-subject topics, several methodological reference books including examples of good practice have been published.

Monitoring of key competences

Key competences are not monitored centrally in upper secondary VET. School inspectorate carries out sample evaluation. Final examinations (for two-three-year programmes) and Maturita examination (for four-year programmes) also support evaluation of key competences. In 2015, the amendment to the School act (2004) introduced a new final examination in two- and three-year programmes offering vocational certificate. The examination is implemented by means of centrally prepared assignments for individual study fields. Assignments assess key competences, such as problem solving, mathematical competences, ability to work with information and ICT, labour market orientation, communication skills in Czech and a foreign language. Selection and integration of competences depend on the type of study field, form of examination (written, oral, practical, independent work with a defence) and the topic of partial assignments. In VET programmes concluded by Maturita examination, key competences (the Czech language, foreign language and mathematics) are centrally assessed within the so-called 'common part of Maturita examination'. Two exams are obligatory: the Czech language and foreign language or mathematics. The 'profile part' of Maturita examination assesses problem solving, mathematical, ICT and working with data competences depending on the study field. This part is organised by individual schools (not centrally) and involves two-three exams depending on the decision of the school director. The ESF 'Kurikulum S' and 'Pospolu' projects developed a model for the profile part of the Maturita examination in cooperation with schools. The model is recommended for the use in schools.

1. Key competence: communication in the mother tongue

The title(s) in the national context (if different)	Communication skills
The acquisition of the key competence at upper secondary VET is promoted at national/regional level	Yes
How is it promoted?	
• national/regional policy document(s)	No
• national/regional law(s), regulation(s)	No

<ul style="list-style-type: none"> national/regional curricula, standards and qualifications 	<p>Communication in the mother tongue skills are acquired within the subjects of the Czech language and literature. Reading literacy (work with a text and information) is promoted by means of other subjects – including the vocational subjects and media education. Learning outcomes (results) and content of education are defined by the national curricula (framework educational programmes) approved by the education ministry.</p>	
<ul style="list-style-type: none"> training VET teachers trainers 	<p>Teachers of secondary schools are obliged to participate in own continuous professional development. According to the Act on Pedagogical Staff, they have 12 days within the year for self-education. The content is neither prescribed nor specified, so they can participate both in seminars, summer schools, e-learning courses or develop themselves via self-studying.</p>	
<ul style="list-style-type: none"> centralised assessment of the key competence in VET 	<p>This key competence is verified within the Maturita examination, which concludes the educational path in the four-year educational programmes. Exam in the Czech language and literature is one of the mandatory part of this exam. It is performed in the form of didactic test, written works (essays) and oral exam at the board of examiners. It includes linguistic skills, knowledge of literature and level of reading literacy - the analysis of e.g. art, journalistic and other types of texts and practical communication skills. Assignment of didactic test and written works are prepared and evaluated centrally. Oral exam takes place in accordance with unified common guidelines. Preparation and management of Maturita examination is the responsibility of the Centre for Measurement in Education (CERMAT), which was established the education ministry.</p>	
<ul style="list-style-type: none"> other instruments (e.g. ways of working, teaching/learning methods) 	No	
The progress of improving key competence levels/learning outcomes among upper secondary VET students is monitored		No
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	
Key competence level improved among upper secondary VET students since (+/-) 2010		No data

2. Key competence: communication in foreign languages

The title(s) in the national context (if different)	Communication skills
The acquisition of the key competence at upper secondary VET is promoted at national/regional level	Yes
How is it promoted?	
• national/regional policy document(s)	No
• national/regional law(s), regulation(s)	No
• national/regional curricula, standards and qualifications	Communication in foreign languages is acquired within the subject of foreign language. At least one foreign language is compulsory for all pupils in upper secondary VET. The measures include fostering the acquisition of professional terminology in foreign languages. Learning outcomes and content of education are defined by the national curricula (framework educational programmes) approved by the education ministry.
• training VET teachers trainers	Since 2015, the National institute for further education (nidv.cz) organises training courses for teachers of foreign languages and vocational subjects at secondary technical schools with the purpose of promoting teaching of professional terminology. The education ministry supports the development of foreign languages via special national subsidiary programmes/subvention schemes. Teachers of secondary schools are obliged to participate in own continuous professional development. According to the Act on Pedagogical Staff, they have 12 days within the year for self-education. The content is neither prescribed nor specified, so they can participate both in seminars, summer schools, e-learning courses or develop themselves via self-studying.
• centralised assessment of the key competence in VET	This key competence is verified within the Maturita examination, which concludes the educational path in the four-years educational programmes. Exam is performed in the form of didactic test (which contains listening, reading and language usage skills), written works and oral exam at the board of examiners. Assignment of didactic test and written works are prepared and evaluated centrally oral exam takes place in accordance with unified common guidelines. Preparation and management of Maturita examination is the responsibility of the Centre for Measurement in Education (CERMAT), organisation established by the education ministry.
• other instruments (e.g. ways of working, teaching/learning methods)	International exchange programmes and language courses are often supported by Erasmus+; National Subvention Programmes (Subsidiary Schemes) of the education ministry supporting the education of foreign language at schools; thematic seminars and a methodical handbook on implementation of CLIL method in education.

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	No
• survey(s)	No
• benchmark(s)	No
• other instrument(s)	No
Key competence level improved among upper secondary VET students since (+/-) 2010	No data

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

The title(s) in the national context (if different)	Mathematical competence. Science and technology is not classified as a separate key competence in the national curricula.
The acquisition of the key competence at upper secondary VET is promoted at national/regional level	Yes
How is it promoted?	
• national/regional policy document(s)	
• national/regional law(s), regulation(s)	
• national/regional curricula, standards and qualifications	Mathematical competence is a functional use of mathematical skills in various life situations, to be able to read and create different forms of graphic representation (tables, diagrammes, charts, schemes, etc.), to apply effectively mathematical methods while solving practical tasks in common situations. Competences are developed within a separate subject – mathematics and in applied form also in other subjects, particularly the vocational ones. Science and technologies are developed mainly in vocational subjects according to the profile of the individual fields of education and in science subjects, especially in biology and ecology, physics and chemistry, which are mandatory in all educational programmes.
• training VET teachers trainers	Teachers of secondary schools are obliged to participate in own continuous professional development. According to the Act on Pedagogical Staff, they have 12 days within the year for self-education. The content is neither prescribed nor specified, so they can participate both in seminars, summer schools, e-learning courses or self-learning.

<ul style="list-style-type: none"> • centralised assessment of the key competence in VET 	<p>Exam in mathematics is part of the maturita examination. It is performed in the form of didactic test, which includes: acquisition of mathematical concepts and skills, mathematical modelling; definition and problem solving; mathematical communication; the use of aids. Pupil must choose between a test in mathematics and a foreign language. The tests are prepared and evaluated centrally by CERMAT.</p> <p>Science and technology skills are tested in coherence with the profile of the educational programmes in the so-called profile part of the maturita examination, which verifies vocational knowledge and skills.</p> <p>In the two-three-year educational programmes, math skills, science and technology are verified in the framework of centrally assigned final examinations that assess knowledge and skills of pupils. Final exams are performed in the oral, written and practical form. They are prepared and managed by the National Institute of Education.</p>
<ul style="list-style-type: none"> • other instruments (e.g. ways of working, teaching/learning methods) 	<p>The compulsory cross-subject topic Man and the Environment, which allows other methods of teaching is included in all educational programmes; pupils/student projects are commonly used.</p> <p>In order to promote pupils' interest in science and technical fields, the education ministry declared 2015 the year of technical education, and declared also support to polytechnic education, which deals with science and environmental topics. Other instruments are competitions of vocational skills, competitions for talented students, etc.</p>
The progress of improving key competence levels/learning outcomes among upper secondary VET students is monitored	No
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
Key competence level improved among upper secondary VET students since (+/-) 2010	No data

4. Key competence: digital competence

The title(s) in the national context (if different)	ICT competence and information literacy
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) 	Strategy for digital education 2020 further develops the priorities in the area of digital technologies set by the national education strategy 2020 (approved 2014). It opens education for new methods and ways of learning and teaching facilitated by digital technologies; improves ICT competences of pupils and students e.g. through changes within the content of ICT education; promotes computational thinking of pupils and students.
<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 	Requirements for ICT education are incorporated in the national curricula (i.e. in all framework educational programmes). Students learn to work with the software (occupation-relevant) and to use ICT for learning, decision making, and selection of appropriate means and methods of presenting the results of their work. Competencies are developed through a compulsory, stand-alone subject of Information and communication technologies (the minimum amount is one lesson per week in each year of the educational programme), and by the use of applied software in specialised vocational subjects, and also in general in subjects (as a source of information). All educational programmes comprise the compulsory cross- subject topic 'Education in ICT', which enables using other teaching methods, e.g. student projects.
<ul style="list-style-type: none"> training VET teachers trainers 	Teachers of secondary schools are obliged to participate in own continuous professional development. According to the Act on Pedagogical Staff, they have 12 days within the year for self-education. The content is neither prescribed nor specified, so they can participate both in seminars, summer schools, e-learning courses or develop themselves via self-studying.
<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 methods) 	VET teachers use digital technologies primarily while preparing for classes; less in teaching (e-books, educational games). When used in teaching, digital technologies usually help to make teaching more illustrative or they are used for presentations, while the pupils remain rather passive.
The progress of improving key competence levels/learning outcomes among upper secondary VET students is monitored	No
How is it monitored?	
<ul style="list-style-type: none"> through international or national statistical data 	No

• survey(s)	No
• benchmark(s)	No
• other instrument(s)	No
Key competence level improved among upper secondary VET students since (+/-) 2010	No data

Example of the Mechanical Engineering VET programme at upper secondary level that ensures acquisition of ICT competences and information literacy

The four-year full-time EQF level 4 programme was approved by the education ministry in 2007.

According to it, graduates should be able to use personal computers and basic applications, as well as other ICT equipment, and use adequate information sources and work with information efficiently; they should also be able to use a personal computer and other information and communication technologies adequately; use common basic software applications and systems; learn to use new applications; communicate by e-mail and use other means of online and offline communication; obtain information from a wide range of sources, including the Internet; work with information from different sources on different media (printed, electronic, audiovisual), using various information and communication technologies; recognise the necessity to ascribe different levels of credibility to different information sources and approach the obtained information critically, master media literacy.

5. Key competence: learning to learn

The title(s) in the national context (if different)	Learning competence
The acquisition of the key competence at upper secondary VET is promoted at national/regional level	Yes
How is it promoted?	
• national/regional policy document(s)	No
• national/regional law(s), regulation(s)	No
• national/regional curricula, standards and qualifications	Learning competence is a stand-alone competence in all educational programmes. It is not being developed in a separate subject but incorporated in all subjects according to the needs of students, especially of students with special educational needs. Problem solving competence is also supported by cross-subject topics that are part of educational programmes (see other key competences).

• training VET teachers trainers	Teachers of secondary schools are obliged to participate in own continuous professional development. According to the Act on Pedagogical Staff, they have 12 days within the year for self-education. The content is neither prescribed nor specified, so they can participate both in seminars, summer schools, e-learning courses or develop themselves via self-studying.
• centralised assessment of the key competence in VET	No
• other instruments (e.g. ways of working, teaching/learning methods)	No
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	No
• survey(s)	No
• benchmark(s)	No
• other instrument(s)	No
Key competence level improved among upper secondary VET students since (+/-) 2010	No data

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

The title(s) in the national context (if different)	Personal and social skills Civic competences and cultural awareness Problem solving skills
The acquisition of the key competence at upper secondary VET is promoted at national/regional level	Yes
How is it promoted?	
• national/regional policy document(s)	Concept for the development of civic education in schools (2015) launched the support for civic education in VET. The concept builds on the resolution of the lower house of the Parliament on crucial importance of civic education for the sustainability of a free and democratic State. The education ministry and other governmental bodies pay particular attention to legal education (human rights), familiarising the pupils with the problem of corruption, gender or multicultural education through reference books and courses for teachers in co-operation with NGOs.
• national/regional law(s), regulation(s)	No
• national/regional curricula, standards and qualifications	Problem solving skills, personal and social skills are developed in all subjects, including practical training by selecting appropriate

	<p>teaching methods and style (e.g. use of problem-solving and project-based learning, teamwork, leading pupils to responsibility, self-evaluation, responsibility, etc.). Social and personal skills are supported particularly by social sciences, health education, economic education, and in some programmes also psychology; these areas are included in school programmes as obligatory.</p> <p>The emphasis is placed on creating positive environment at school and in the classroom. Development of these competences is promoted also by obligatory cross-subject topic 'Citizen in a democratic society', partly also in cross-subject topics: Education in ICT and the Man and the world of work (e.g. work with information, problem solving, communication and negotiation when searching employment).</p> <p>Civic competences are acquired in social sciences (civic education and history), economic education and legal education as well as in cross-subject topics Citizen in a democratic society, Man and environment. Cultural awareness is acquired through aesthetic education that fosters a positive attitude towards material and spiritual values, promotes understanding of the importance of art and values of local, national, European and world culture. Civic competence involves also creating a positive attitude towards environment.</p>	
<ul style="list-style-type: none"> • training VET teachers trainers 	<p>Teachers of secondary schools are obliged to participate in own continuous professional development. According to the Act on Pedagogical Staff, they have 12 days within the year for self-education. The content is neither prescribed nor specified, so they can participate both in seminars, summer schools, e-learning courses or develop themselves via self-studying.</p> <p>The National Institute for Further Education (NIDV), non-profit civic organisations, universities and other institutions organise courses, conferences for teachers in the framework of their continuing education seminars, supporting civic, cultural and other skills.</p>	
<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 methods) 	National Subvention Programmes (Subsidiary Schemes) of the education ministry supporting the development of civic and other competencies.	
The progress of improving key competence levels/learning outcomes among upper secondary VET students is monitored		No
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	
Key competence level improved among upper secondary VET students since (+/-) 2010		No data

Example of the Mechanical Engineering VET programme at upper secondary level that ensures acquisition of civic competences and cultural awareness

The programme defines the following learning outcomes. Graduates should recognise and follow values and attitudes important for life in a democratic society, act in compliance with its sustainable development and support the values of national, European and global culture. They should be able to act responsibly, independently and use their initiative for not only their own interest but also the public's; observe the laws, respect the rights and personality of others (such as their specific cultural preferences), act against intolerance, xenophobia and discrimination; act in accordance with moral principles, the principles of social conduct and good manners, contribute to the application of democratic values; recognise their own cultural, national personal identity and actively tolerate the identity of others, while paying heed to the principles of plurality and multicultural coexistence; take active interest in domestic and international political and social events; comprehend the importance of environmental protection and act in the spirit of sustainable development; recognise the value of life, recognise their responsibility for their own lives and responsibility for the protection of the life and health of others; recognise and accept the traditions and values of their own nation, comprehend its past and contemporary situation within the European and global context; support the values of local, national, European and world cultures and have a positive attitude thereto; contribute to the creation of good interpersonal relations and prevention of personal conflicts, resist personal and cultural prejudices and stereotypes.

Social science

This educational content is obligatory for all secondary VET students. In the school curriculum it can be distributed into one or more subjects.

Minimum amount of lessons in the school education programme developed accordingly to the national four-year educational programme mechanical engineering should be 160.

The general aim of social science education at technical and vocational schools is to prepare the students for an active and responsible life within a democratic society. Social science education strives to exert a positive influence on the students' value orientation, so that they become decent human beings and responsible citizens of a democratic country, and act with prudence, not only for their own benefit, but also in the public interest. The social science curriculum aims at cultivating the students' historic awareness, teaching them to better understand the present through the past; it teaches them to discover their own identity and develop critical thinking, so that they do not let themselves be manipulated, and gain better understanding of the world they live in.

Cross-subject topic: Citizen in a Democratic Society

Democratic citizenship education is not taught only as a part of the social science component of secondary education; instead, it permeates through the entire education

process. To succeed in its implementation, it is necessary to establish an adequate democratic climate in schools, which will be open and welcoming to parents and the broader civic community in the schools' vicinity.

Education for responsible and proactive citizenship in democratic society will include the knowledge and skills from the following subject areas:

- (a) personality and its development;
- (b) communication, negotiation, resolution of conflicts;
- (c) society – the individual and social groups, culture, religion;
- (d) historical development (mainly in the 19th and 20th century);
- (e) state, political system, politics, contemporary world;
- (f) mass media;
- (g) morality, freedom, responsibility, tolerance, solidarity;
- (h) basic legal literacy for personal and public life.

7. Key competence: entrepreneurship

The title(s) in the national context (if different)	Employment and entrepreneurial competences; Financial Literacy
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 Strategy for Lifelong Learning in the Czech Republic (2007) aims at the development of functional literacy and key competences such as financial literacy. Entrepreneurship is not, however, explicitly mentioned. This strategy was followed by the Strategy for Lifelong Learning Implementation Plan, approved in 2009, which supports curriculum reform with an emphasis on increasing the functional literacy and the development of key competences, for example by setting up training (practice) companies.</p> <p>In 2010, the Government approved the national strategy for financial education based on which financial literacy has been incorporated in secondary VET. The aim is the increase the financial and consumer literacy of the Czech citizens. Financial literacy is included in all educational programmes at all types of schools as obligatory.</p> <p>New measures fostering VET (2013) promote co-operation between schools and employers and increase the share of practical training in companies.</p>
<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 	Employment and entrepreneurial competences are incorporated in the national and school curricula as subjects of civic education, legal education and economics and, the cross-subject topic Man and the world of work.

	Cross-subject topic prepares for the labour market orientation, the job search, including communication and negotiation to acquire basic business skills, etc. Financial literacy is included in the subjects mathematics, economics, civic education - a topic Man and the economy	
• training VET teachers trainers	NIDV and other institutions organise seminars, courses and e-learning programmes for teachers to promote financial literacy and entrepreneurship and participate in preparation of educational materials. Seminars and teaching materials were developed in 2014 through an open ESF call (No 54). Teachers of secondary schools are obliged to participate in own continuous professional development. According to the Act on Pedagogical Staff, they have 12 days within the year for self-education. The content is neither prescribed nor specified, so they can participate both in seminars, summer schools, e-learning courses or develop themselves via self-studying.	
• centralised assessment of the key competence in VET	Selected tasks and issues related to orientation in the world of work are also assessed in the framework of final examination of educational programmes concluded with vocational certificate. Part of centrally assigned tests is also a set of questions that measure and focus on how pupils are able to deal with common problems of work and civic life of adults; e.g. employment opportunities in the industry and in the region, knowledge of individual employers, labour and legal relations, basic conditions of private business.	
• other instruments (e.g. ways of working, teaching/learning methods)	Among other instruments, student projects, competitions in financial literacy and simulation companies are being applied. In 2014, 379 simulation companies were created in 109 schools and 290 temporarily sleeping companies involving 3561 VET students. Business simulation is one of the two nation-wide operating activities focused on developing entrepreneurial competences and creativity in VET. The teaching process makes use of economic practice. Learners need to respect regulations and fill in the actual forms. Junior Achievement also promoted entrepreneurship in VET through 77 real student companies in 2015.	
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	No	
• survey(s)	No	
• benchmark(s)	No	
• other instrument(s)	No	
Key competence level improved among upper secondary VET students since (+/-) 2010		No data

Example of the Mechanical Engineering VET programme at upper secondary level that ensures acquisition of employment and entrepreneurial competences

Entrepreneurship

According to the programme, graduates should be able to use their personal and professional skills and qualifications to succeed in the labour market, to build and develop their professional careers and to continue in lifelong learning. They should:

- (a) adopt a responsible attitude to their own career and to their education; be aware of the importance of lifelong learning and be prepared to adapt to changing work conditions;
- (b) be aware of their career options in their respective fields; decisively and responsibly decide about their future career and education development;
- (c) have a realistic view of the working terms, wages and other conditions in their field and about employers' requirements and expectations, and be able to compare and reconcile those with their own expectations;
- (d) be able to obtain and assess information about working and education opportunities, use the services of consulting and employment agencies and educational institutions;
- (e) communicate with prospective employers appropriately, present their professional skills and capabilities and their career goals;
- (f) know the general rights and obligations of employers and employees.

Economics

The aim of this educational area is to develop students' understanding of economics, the mechanics of market economy, fundamental business concepts and the principles of business management. Students will learn how to run their own business, and about the legal regulation of commerce. The educational area is closely related to the cross-subject topic Man and Labour, and to the standard of financial literacy for secondary education.

Economics education is obligatory for all students.

Minimum amount of lessons in the school educational programmes is 96 (except study programmes for economics fields).

Cross-curricular topic: man and labour

The topic Man and Labour contributes to the fulfilment of educational goals by developing the following general competences:

- (a) identification and formulation of their own priorities;
- (b) search, evaluation and application of information;

- (c) ability to make responsible decisions based on the evaluation of the information acquired;
- (d) verbal communication at important meetings and events;
- (e) written communication in business correspondence.

The topic is incorporated in the programme by integrating it in corresponding subjects (technical and general) defined by the educational programme. Students should obtain the necessary competences by means of self-discovery when dealing with specific problems, when working with specific information and when simulating specific interpersonal situations. The Employment Bureau should act as an important partner to schools, providing students with specific information, explanations and advice pertaining to various occupations, jobs and the labour market. Excursions and field trips to employers' organisations corresponding to graduates' career options are highly recommend as they will help students learn not just about the companies' professional activities, but also about the general personnel climate in the company, its organisation structure, stock of work, career prospects etc. The practical training in real work conditions also plays an important role.

8. Key competence: cultural expression

The title(s) in the national context (if different)	Civic competences and cultural awareness
The acquisition of the key competence at upper secondary VET is promoted at national/regional level	Yes
How is it promoted?	
• national/regional policy document(s)	No
• national/regional law(s), regulation(s)	No
• national/regional curricula, standards and qualifications	Cultural awareness is acquired through aesthetic education (subject of the Czech language and literature) that fosters a positive attitude towards material and spiritual values, promotes understanding of the importance of art and values of local, national, European and world culture.
• training VET teachers trainers	Teachers of secondary schools are obliged to participate in own continuous professional development. According to the Act on Pedagogical Staff, they have 12 days within the year for self-education. The content is neither prescribed nor specified, so they can participate both in seminars, summer schools, e-learning courses or develop themselves via self-studying.
• centralised assessment of the key competence in VET	Work with artistic text and literary knowledge are verified in the framework of the maturita examination (for more details see also Key competence in mother tongue).

• other instruments (e.g. ways of working, teaching/learning methods)	Culturally oriented out of school activities and learner projects.
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	No
• survey(s)	No
• benchmark(s)	No
• other instrument(s)	No
Key competence level improved among upper secondary VET students since (+/-) 2010	No data

Conclusions

Key competences are formulated in the national framework curricula and reflect those included in the common European framework 2006, their combinations vary. Communication skills, for example, comprise mother tongue and foreign languages. Mathematical skills, constitute a separate 'key competence category' and are not grouped together with science and technology. 'Personal and social skills' and 'civic competences and cultural awareness' also constitute two separate categories.

The national curricula define key competences as intended learning outcomes. The competences are formulated individually as well as jointly within particular educational areas and syllabi. They are integrated in VET programmes by providers as stand-alone subjects, cross-subject education and other forms of learning, for example, skills competitions organised by the ministries and employers.

While VET is mostly school-based, practical training of pupils in real work environment is regarded as essential for development of employment competences, labour market orientation and increasing attractiveness of a given field of study and profession. In 2012-15, the ESF 'Pospolu' project created pilot-tested models, case studies and methodological recommendations for better co-operation between VET schools and enterprises. The models illustrate how to implement national curricula in cooperation with employers. A methodological reference book supplemented by examples of good practice was published to support development of employment competences through the cross-subject topic 'man and the world of work' ⁽³⁾.

The progress in acquisition of key competences is not monitored in upper secondary VET. Key competences are examined together with vocational competences upon completion of studies, for example, in the 'common part' of Maturita examination (communication and mathematics). Regular revision of VET framework curricula will also encompass updating of key competences.

⁽³⁾ Průřezová témata ve výuce žáků středních škol. 1díl: Občan v demokratické společnosti. Informační a komunikační technologie. 2. díl. Člověk a životní prostředí a Člověk a svět práce. NÚV. Kurikulum S. Praha 2012 ISBN 978-80-87063-39-2 [Cross-subject topics in education of pupils of secondary schools. 1st Part. *Man in a Democratic Society. Information and Communication Technologies.* 2nd Part. *Man and Environment and Man and the World of Work.* NÚV. Curriculum S.]

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