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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

A major reform of the vocational education and training (VET) system has been implemented since 2008. It has introduced an output-oriented approach, where:

- teaching and evaluation methods are based on competences; for each VET programme a set of competences has been defined that pupils have to acquire to be able to exercise a trade or a profession;
- teaching is divided into units and modules focusing on work-related training; this strengthens links to economy and favours the integration of young people in the society.

The Luxembourg has a high share of residents with the mother tongue other than one of the three official languages (German, French and Luxembourgish). This multilingualism is strength but it challenges the education system, including acquisition of key competences, for example, communication in the official and foreign languages.

Due to small country size, curricula, programmes and initiatives promoting acquisition of key competences are decided at national level. The Education Ministry (MENJE) is responsible for all types of education, including VET.

VET curriculum includes general, general-specific and vocational units and modules. Key competences are integrated into each module through a number of professional, social and personal competences. General units/modules provide learners with competences in languages, citizenship and sports. General-specific units/modules provide basic competences that allow coping with work situations (i.e. mathematical competences, language competences, natural sciences competences). Vocational units/modules use active pedagogical methods and develop competences for specific work situations and teach how to apply the key competences.

Many actions/initiatives (including 74 curricular working groups) ensure that key competences are adequately integrated in the curricula at all levels. The working groups are represented by teachers and employers, and elaborate and adapt VET programmes to the needs of the labour market. Thus, key competences are defined in VET using a bottom-up approach. The Education Ministry regularly monitors modules with high (>50%) failure rate and asks VET schools to elaborate on the failure reasons. The results feed into the curricular working groups that can make the necessary changes in the curricula.

Evaluation frameworks define the standard and evaluation criteria and for each competence as well as the assessment methods. Learning plans specify the methodological, didactical and content related instructions. This approach promotes the integration of key competences in VET.

1. Key competence: communication in the mother tongue

The title(s) in the national context (if different)	Communication in national languages (Luxembourgish school is trilingual)
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)	The use of the three official languages (German, French and Luxembourgish) is determined by grand-ducal regulation. Learning of other languages or teaching in another language than official is determined by the laws regulating education programmes. The amount of language lessons in different programmes is defined for each school year in the <i>Grille horaire</i> grand-ducal regulation.
• national/regional curricula, standards and qualifications	Learning of German, French and Luxembourgish is integrated at all levels of education. All students begin learning official languages as of age seven. Another specificity of the Luxembourgish school system is that there are several teaching languages. Depending on the level, it is either German or French. Whereas German is the main language used in primary education and in the lower secondary education, most of the disciplines are taught in French in middle and upper secondary education. Pupils learn German since age six and French since age seven. This implies that, pupils are mostly taught in a foreign language, even though communication with the teachers is possible in Luxembourgish. Language learning is also a stand-alone module that is acquired in a school-based setting, but also a necessary competence to be successful in other subjects. Pupils have the opportunity to practice their learning skills also in vocational modules and in day-to-day working life. There are a limited hours of teaching in Luxembourgish. The CCP ^(a) programmes have no language modules in upper secondary VET. Instead, the language competences are promoted in the citizenship (often in German) and in vocational modules.
• training VET teachers trainers	Teacher training is offered by the Training Institute of National Education (IFEN) ^(b) . The training helps teaching learners to communicate in at least three languages. Different modules address the specific challenges of language teaching in multilingual and multicultural schools ^(c) .
• 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) 	<p>Students who arrive in the country without knowledge of German or French are offered a welcoming class. They follow intensive courses of French and introductory courses in Luxembourgish. The class council assesses students' skills and decides when it is time for him/her to integrate either in a class of technical secondary education, or in an integration class of the lower cycle or in a specific language class for the medium cycle.</p> <p>The specific language classes (<i>classes à régime linguistique spécifique</i>, RLS) are offered to students who speak French but lack sufficient knowledge of German at the medium and upper cycles.</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 available

- ^(a) Apprenticeship programme that prepares learners for the labour market and leads to the vocational capacity certificate (*certificat de capacité professionnelle, CCP*). It is designed for students with learning difficulties who cannot access studies leading to a vocational aptitude diploma (*diplôme d'aptitude professionnelle, DAP*) or a technician's diploma (*diplôme de technicien, DT*). This certificate attests that the holder has the social and basic practical skills for a trade/profession as a semi-skilled worker.
- ^(b) It coordinates and organises professional development for all teachers and trainers involved in primary and post-primary education, and advises and support schools in drawing up continuing training plans.
- ^(c) <https://ssl.education.lu/ifen/liste-formations?dispDomaine=101&idSsDomaine=1620>

Taking into account the complexity of the linguistic situation in Luxembourg, the Education Ministry recognises the need for adjustments in language learning and teaching. The Government will analyse if languages constitute a learning barrier in primary and secondary education, including an option for the learner to choose between French and German and focusing on oral communication skills. The Government is currently examining the possibility to postpone offering French in VET by one year. This will be optional and may be chosen by learners with learning difficulties. The linguistic training will enable integration of migrants into the school system.

2. Key competence: communication in foreign languages

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)	There are no new policy documents since 2011.	
• national/regional law(s), regulation(s)	The <i>Grille horaire</i> grand-ducal regulations define the number of lessons of foreign languages in VET programmes for each school year ^(a) .	
• national/regional curricula, standards and qualifications	Depending on their educational pathway, pupils learn up to four languages. Non-language subjects are taught in German and French. English is offered starting from the age of 12-14. The acquisition of foreign languages is integrated in general education as stand-alone modules at the different levels of VET. The CCP programmes have no language modules in upper secondary VET. Instead, their language competences are promoted in citizenship (often in German) and vocational modules.	
• training VET teachers trainers	The training Institute of National Education (IFEN) promotes quality assurance of teaching and continuing training of teachers, also in VET. Modules address specific challenges of foreign language learning and development in a multilingual and multicultural school context. https://ssl.education.lu/ifen/liste-formations?dispDomaine=101&idSsDomaine=1620	
• 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 available

^(a) For example, *Grille horaire 2014/15*. https://portal.education.lu/Portals/9/Documents/grilles1415_FP.pdf

3. Key competence: 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?		
• national/regional policy document(s)	No	
• national/regional law(s), regulation(s)	The <i>Grille horaire</i> grand-ducal regulations define the number of lessons of maths, science and technology in VET programmes for each school year. In many VET programmes maths, science and technology are stand-alone subjects.	
• national/regional curricula, standards and qualifications	Math, science and technology subjects are compulsory in VET, depending on the programme and qualification level. These key competences are integrated either in VET through general-specific (e.g., agriculture and horticulture) or vocational modules. In vocational modules, learners apply key competences acquired in general and specific modules. For some curricula, the key competences may only be integrated in vocational modules.	
• training VET teachers trainers	The training institute of national education (IFEN) promotes the quality assurance of teaching and continuing training of teachers, also in VET.	
• 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 available

4. Key competence: digital competence

The title(s) in the national context (if different)	Digital competences
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	Depending on the level of qualification and the training program, digital competences are taught in VET general-specific or vocational modules. Learners also use ICT tools in other subjects or vocational modules.
• training VET teachers trainers	Teachers follow pedagogical and didactical courses at the University of Luxembourg in order to efficiently use ICT tools in the classroom. Teachers learn to use interactive learning scenarios. In addition, the CGIE (<i>Centre de gestion informatique de l'Éducation</i>) organises non-compulsory continuing training and 'mobile learning days' for teachers.
• centralised assessment of the key competence in VET	European Computer Driving Licence (ECDL, globally recognised information and communication technology and digital literacy qualification) ^(a) is offered for teachers, learners, employees, unemployed by the Chamber of Employees. Computer-based one-day tests are compulsory for some VET qualifications, for example, <i>agent administratif et commercial</i> .
• other instruments (e.g. ways of working, teaching/learning methods)	<p>'Digital (4) education' national campaign promotes equal access to ICT tools for all learners regardless of their social origin and aims to fully use the potential of ICT to address the different needs of pupils. Main objectives of this campaign are to prepare young people to work in a complex and permanently changing environment and to promote new learning strategies and innovative pedagogic projects, using digital tools in schools. The campaign comprises several elements:</p> <ul style="list-style-type: none"> • Bee secure, a programme promoting a culture of information safety through coherent information made available to citizens; • EduSphere, a portal for teachers aiming to support teaching and learning; • MathemaTIC, a digital tool for learning math in the cycle 4 of primary education • Digital Classroom Lëtzebuerg (DCL), a programme to develop technical and technological competences, including: 'Office 365 for Education' allows 12 000 teachers, 45 000 pupils and 5 000 administrative staff to access a digital environment of production and collaboration; and 'Innovative Schools', a project promoting the use of digital tablets in class and the promotion of new learning strategies.

	<ul style="list-style-type: none"> • Bee creative, a programme aiming to improve digital competences (programming, security, design, communication) of young residents and to contribute to the digital culture.
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 available

(^a) <http://www.lifelong-learning.lu/Formation/c805c300-bada-4810-a111-00623475151a/en>

5. Key competence: learning to learn

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)	<p>Law on reforming VET (2008) emphasises the importance of social and self-competences that include the 'learning to learn' competence. The reform also introduced the learning counsellor and the tutor, who support an in-company training by actively following up the learning process of the apprentice and giving advice in case of learning difficulties.</p> <p><i>Grille horaire</i> 2015/16 defines learning-to-learn outcomes for VET qualifications, e.g. Florist.</p>
• national/regional curricula, standards and qualifications	The development of the learning to learn key competence is taught in vocational modules at all levels of VET training programmes (personal competences).
• training VET teachers trainers	<p>The training institute of national education (IFEN) offers teacher modules that tackle questions of learning difficulties, development of learning autonomy of learners, coaching and motivation of learners.</p> <p>A compulsory training for tutors in enterprises is offered at the Chamber of Commerce. It is a specific training for tutors who are in charge of apprentices on a day to day basis. The training promotes skills that help to transmit competences, motivate young people, including those with learning difficulties.</p> <p>http://www.lsc.lu/rechercher-une-formation/detail/?user_formation_pi1[showUID]=804</p>

• centralised assessment of the key competence in VET	No
• other instruments (e.g. ways of working, teaching/learning methods)	The learning-to-learn competence is integrated in VET. Self-assessment and documentation of the learning progress help pupils to reflect upon and thus improve their learning methods. A 'learning to learn' module as well as mentoring is available for VET learners with learning difficulties.
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 available

6. Key competence: interpersonal, intercultural and social competences, and civic 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)	From 2016/17, the Government plans replacing religious education with the education of values (<i>education aux valeurs</i>) in VET. The new 'life and society' course will promote open-mindedness, respect and tolerance towards multicultural diversity. These values are based on knowledge and mutual comprehension of cultures and religions, as well as of the values and convictions. The course will also transmit knowledge on traditions and rites, religious as well as non-religious, which make up modern societies to develop autonomous, open and responsible citizens. It will progressively confront pupil's personal experience and meaning quest with the major questions of humanity and society. Tackling responses given by different philosophical, religious, cultural and ethical strands will propose lines of thought to pupils to construct their personal points of reference, while respecting those of others and exercising their critical mind. The innovative course will place the learner in the centre and will depart from daily questions, reflections and experiences.
• national/regional law(s), regulation(s)	No

<ul style="list-style-type: none"> national/regional curricula, standards and qualifications 	<p>Social competences are integrated in vocational modules, mostly work-based. They are not compulsory for all VET programmes.</p> <p>Citizenship education (<i>éducation à la citoyenneté</i>) is a stand-alone subject integrated as school-based learning module in general modules of VET.</p>	
<ul style="list-style-type: none"> training VET teachers trainers 	<p>The Training institute of National Education (IFEN) of the Ministry of National Education promotes quality assurance of teaching and continuing training of teachers, also in VET.</p> <p>Modules relating to cooperation with parents, communication and mediation skills, as well as leadership and management are available in the training offer of the IFEN.</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) 	<p>Education to sustainable development (ESD) ^(a) is being implemented in VET. ESD is integrated in the continuing teacher training.</p> <p>To develop citizenship spirit of learners, the Training Institute of National Education (IFEN) assures:</p> <ul style="list-style-type: none"> promotion of media education at all levels of secondary VET; integration of media education in the training programs and definition of the competences that pupils have to acquire in VET; integration of media education in initial and teacher continuing training. <p>A reference 'Media education and media training in school' (<i>Medienerziehung und Medienbildung in der Schule</i>) document (2010) includes objectives of media education, including the development of competences for a responsible and critical communication.</p> <p>Since 2012, 'Media days' initiative brings VET and other teachers together to discuss various themes.</p> <p>Press Council with the support of the Education Ministry organises the annual press week. During this week, VET learners have one lesson a day dedicated to a specific theme. This pedagogic activity helps pupils to understand the functioning of print media and to discover the different facets of journalism and information. The acquisition of this multi-faceted competence is thus promoted via different learning methods, school- and out-of-school-based, as stand-alone modules and by study visits.</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	

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

(^a) Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. It contains within it two key concepts: the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organisation on the environment's ability to meet present and future needs. <http://www.iisd.org/topic/sustainable-development> [accessed 19.5.2016].

7. Key competence: entrepreneurship

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)	The government plan (2013, <i>Programme gouvernemental</i>) foresees developing transversal competences, including the entrepreneurship. It will also strengthen the cooperation between companies and schools at all levels of the educational system.
• national/regional law(s), regulation(s)	No
• national/ • regional curricula, standards and qualifications	Entrepreneurship is included as a module in administrative and commercial VET programmes (<i>diplôme de technicien administration et commerciale</i>). It is also part of some vocational modules (e.g., develop a commercial idea, plan the production and create a company; manage the production, commercialise a product and record transactions) in other curricula. Entrepreneurship is often promoted through visits in companies.
• training VET teachers trainers	Entrepreneurship training is offered to teachers by the Training Institute of National Education (IFEN), for example, through sessions at vehicle production plants .
• 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 available

Example of a VET programme at upper secondary level that ensures acquisition of entrepreneurship competence

The Jonk Entrepreneuren asbl association (Junior Achievement network) offers training companies' programmes for 16-17 year old (VET) learners. The aim is to allow learners to study the evolution and the success factors of a company. The training company simulates a real company, while a real company participates in the programme as a mentor. Another training company allows simulating external relations with banks, social security and other stakeholders.

8. Key competence: cultural expression

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 expression is rarely a stand-alone subject in VET. 'Theatrical discovery' and 'film universe' learning outcomes are integrated in the German and French language classes. Language modules also include discussions on culture: films, theatre, etc.
• training VET teachers trainers	External experts train VET teachers to accompany pupils in their cultural projects.
• centralised assessment of the key competence in VET	No
• other instruments (e.g. ways of working, teaching/learning methods)	The SCRIPT ^(a) pedagogic innovation division and the Education Ministry encourage and accompany projects and cultural initiatives of VET teachers, including: <ul style="list-style-type: none"> • the diversification and decentralisation of initiatives favouring cultural education; • material and financial support for cultural projects; • setting up school-cultural institution networks; • collection and the distribution of information on the pedagogic activities related to cultural expression competence.

	The acquisition of cultural competence is not necessarily school-based, as it can be acquired also during cultural excursions and visits.
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 available

(^a) Research and pedagogic and technological innovation coordination service (*Service de Coordination de la Recherche et de l'Innovation pédagogiques et technologique*, 1993, restructured in 2009) promotes innovation, pedagogic research and quality assurance of teaching in primary and secondary schools, including VET.

Conclusions

The acquisition of key competences is being acquired through general, specific and vocational modules. The shares of these modules vary by type of VET programme, level of qualification and field of studies. Key competences are also acquired through extracurricular activities and projects at school level and in partnership with stakeholders, e.g. associations and employers. The key competences are acquired in school- and work-based learning but the progress is not monitored at national level.