



# Developments in vocational education and training policy in 2015–17

## LUXEMBOURG



Cedefop monitoring and analysis of VET policies

**Developments in vocational education and training  
policy in 2015-17**

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Cedefop (2018). *Developments in vocational education and training policy in 2015-17: Luxembourg*. Cedefop monitoring and analysis of VET policies.  
<http://www.cedefop.europa.eu/en/publications-and-resources/country-reports/vet-policy-developments-luxembourg-2017>

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This report was produced by Cedefop and reflects contributions from Cedefop's VET policy and systems team, and Cedefop experts working on common European tools and principles for education and training, and statistics. It is based on detailed information on VET policy implementation submitted by Cedefop's European network of expertise on VET (ReferNet) and other sources.

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# Aspects of vocational education and training context in 2015

In 2015, the share of students enrolled in vocational education and training (VET) programmes was 59.9% in Luxembourg (61% at upper secondary level, above the EU average of 47% <sup>(1)</sup>). However, completion rates in VET were low: only 29% of students used to complete their education in the expected time (64% on average in the OECD) (European Commission, 2017, p. 7). Despite frequent grade repetition, completion rates within two years after expected graduation time remained lower (64%) than the OECD average (79%). In upper-secondary vocational education, dual learning with work-based elements accounted for 22.7% of enrolments, less than the EU average (26.5%) (Table 1).

The overall rate of adult participation in lifelong learning was 18% in 2015. However, those most in need were under-represented: only 7% of adults with low educational attainment (international standard classification of education (ISCED) levels 0 to 2) participated in lifelong learning, compared to 15.5% of adults with medium-level educational attainment (ISCED 3 to 4) and 25.9% of those with high attainment (ISCED 5 to 8) (European Commission, 2017, pp. 7-8).

To address these challenges, revision of the VET Act (2008) was undertaken in 2015. Evaluation of the VET system was carried out in October 2015 by the University of Luxembourg. A revised VET Act was adopted in July 2016 and entered into force in September the same year.

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<sup>(1)</sup> Eurostat, data for 2015.

Table 1. Framework data: score on VET indicators in Luxembourg and in the EU: 2010, last available year and recent trend

Indicator label	2010		Last available year		Recent trend (per year)			
	LU <sup>f</sup>	EU <sup>f</sup>	Yr	LU <sup>f</sup>	EU <sup>f</sup>	Range	LU	EU
<b>Access, attractiveness and flexibility</b>								
IVET students as % of all upper secondary students	A	A	'14	59.8 <sup>b</sup>	48.0 <sup>b</sup> <sub>E1</sub>	'13-'14	-0.1	-0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	22.7 <sup>b</sup>	34.0 <sup>b</sup> <sub>E2</sub>	'13-'14	-0.6	0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	52.1	69.2 <sup>E3</sup>	'13-'14	-	13.5
Employees participating in CVT courses (%)	51.0	38.0 <sup>e</sup>	'10	51.0	38.0 <sup>e</sup>			
Employees participating in on-the-job training (%)	20.0	20.0 <sup>e</sup>	'10	20.0	20.0 <sup>e</sup>			
Adults in lifelong learning (%)			'15	18.0 <sup>b</sup>	10.7 <sup>b</sup>			
Enterprises providing training (%)	71.0	66.0 <sup>e</sup>	'10	71.0	66.0 <sup>e</sup>			
Female IVET students as % of all female upper secondary students	A	A	'14	57.6 <sup>b</sup>	42.7 <sup>b</sup> <sub>E1</sub>	'13-'14	0.1	-1.0
Employees of small firms participating in CVT courses (%)	34.0	25.0 <sup>e</sup>	'10	34.0	25.0 <sup>e</sup>			
Young VET graduates in further education and training (%)			'15	27.7 <sup>b</sup>	33.0 <sup>b</sup>			
Older adults in lifelong learning (%)		5.3	'15	10.0 <sup>b</sup>	6.9			
Low-educated adults in lifelong learning (%)			'15	7.0 <sup>b</sup> <sub>C</sub>	4.3 <sup>b</sup> <sub>C</sub>			
Unemployed adults in lifelong learning (%)			'15	22.0 <sup>b</sup>	9.5 <sup>b</sup>			
Individuals who wanted to participate in training but did not (%)	11.3 <sup>B</sup>	9.5 <sup>e</sup> <sub>B</sub>	'11	11.3	9.5 <sup>e</sup>			
Job-related non-formal education and training (%)	75.9 <sup>B</sup>	80.2 <sup>e</sup> <sub>B</sub>	'11	75.9	80.2 <sup>e</sup>			
<b>Skill development and labour market relevance</b>								
IVET public expenditure (% of GDP)			'12	30.50 <sup>b</sup>	0.56 <sup>b</sup> <sub>E4</sub>	'12-'13	-	0.13
IVET public expenditure per student (1 000 PPS units)			'13	13.0 <sup>b</sup>	6.4 <sup>b</sup> <sub>E5</sub>	'12-'13	-2.7	0.0
Enterprise expenditure on CVT courses as % of total labour cost	0.6	0.8 <sup>e</sup>	'10	0.6	0.8 <sup>e</sup>			
Average number of foreign languages learned in IVET			'14	2.1 <sup>b</sup>	1.0 <sup>b</sup> <sub>E6</sub>	'13-'14	0.0	0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	18.3 <sup>b</sup>	30.0 <sup>b</sup> <sub>E7</sub>	'13-'14	0.8	-0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	32.2	9.3 <sup>E8</sup>	'13-'14	16.0	0.4
Innovative enterprises with supportive training practices (%)	68.2	41.5 <sup>E9</sup>	'12	72.1	41.6 <sup>E9</sup>	'10-'12	2.0	0.0
Employment rate for IVET graduates (20- to 34-year-olds)			'15	89.2 <sup>b</sup>	77.2 <sup>b</sup>			
Employment premium for IVET graduates			'15	6.8 <sup>b</sup>	5.3 <sup>b</sup>			

Indicator label	2010		Last available year			Recent trend (per year)		
	LU <sup>f</sup>	EU <sup>f</sup>	Yr	LU <sup>f</sup>	EU <sup>f</sup>	Range	LU	EU
(over general stream)								
Employment premium for IVET graduates (over low-educated)			'15	14.3 <sup>b</sup>	23.7 <sup>b</sup>			
Workers helped to improve their work by training (%)			'15	79.8	83.7			
Workers with skills matched to their duties (%)	54.4	55.2	'15	55.0	57.3	'10-'15	▪ 0.1	▪ 0.4
<b>Overall transitions and labour market trends</b>								
Early leavers from education and training (%)		13.9	'15	9.3 <sup>b</sup>	11.0 <sup>c</sup>			
30- to 34-year-olds with tertiary attainment (%)		33.8	'15	52.3 <sup>b</sup>	38.7 <sup>c</sup>			
NEET rate for 18- to 24-year-olds (%)		16.6	'15	7.6 <sup>b</sup>	15.8			
Unemployment rate for 20- to 34-year-olds (%)		13.1	'15	8.6 <sup>b</sup>	12.9			
Employment rate of recent graduates (%)		77.4	'15	84.7 <sup>b</sup>	76.9 <sup>c</sup>			
Adults with lower level of educational attainment (%)		27.3	'15	24.0 <sup>b</sup>	23.5 <sup>c</sup>			
Employment rate for 20- to 64-year-olds (%)		68.6	'15	70.9 <sup>b</sup>	70.0			
Employment rate for 20- to 64-year-olds with lower level of educational attainment (%)		53.4	'15	58.4 <sup>b</sup>	52.6 <sup>c</sup>			
Medium/high-qualified employment in 2020 (% of total)			'16	85.9 <sup>d</sup>	82.8 <sup>d</sup>			

<sup>(A)</sup> UOE (UNESCO OECD Eurostat) back reconstruction of 2010 values based on ISCED (international standard classification of education) 2011 not yet available.

<sup>(B)</sup> AES (adult education survey) 2011, used as proxy for 2010 baseline.

<sup>(C)</sup> 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata.

<sup>(D)</sup> Forecast made in 2016.

<sup>(E1)</sup> Based on 28 countries; partial information for NL.

<sup>(E2)</sup> Based on 25 countries (missing: ES, PL, RO); partial information for NL.

<sup>(E3)</sup> Based on 27 countries (missing: NL); partial information for EL, IT.

<sup>(E4)</sup> Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK).

<sup>(E5)</sup> Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT).

<sup>(E6)</sup> Partial information for NL.

<sup>(E7)</sup> Based on 25 countries (missing: HR, IT, UK).

<sup>(E8)</sup> Based on 23 countries (missing: BE, IE, FR, CY, UK).

<sup>(E9)</sup> Based on 22 countries (missing: DE, IE, EL, NL, SI, UK).

<sup>(b)</sup> Break after 2010, therefore baseline data not included.

<sup>(u)</sup> Eurostat: 'low reliability'.

<sup>(z)</sup> Eurostat: 'not applicable'.

<sup>(e)</sup> Eurostat: 'estimated'.

NB: EU refers to EU-28, unless otherwise specified. Arrows ↗ or ↘ signal a positive or negative trend based on more than two data points and of magnitude 0.1 per year or more. Trends based on more than two data points but of smaller magnitude are indicated by →; trends based on two points only are marked ▪. Trends are estimated by means of regression models.

Source: Cedefop, 2017a, p. 89.

## CHAPTER 1.

# MTD 1 – All forms of work-based learning with special attention to apprenticeships

The changes undertaken in 2015 aimed at strengthening the links between VET and the labour market and introducing key concepts such as competence-based learning and a modular approach. The reform developed partnerships between the state and the social partners to improve the supply of apprenticeship places.

### 1.1. Major changes introduced since the 2008 VET reform

The revised VET Act of August 2016 introduced a final integrated project for the initial VET programme (CCP), to raise the quality and recognition of programmes on the labour market. Integrated projects combine theoretical knowledge and on-the-job practice. The revised act abolishes the intermediate integrated project for VET programmes in full-time or mixed-time tracks, where it was an organisational burden for technical secondary schools. For students who do not manage to complete within the normal training period, the apprenticeship phase can be automatically extended by one year by class council decision; a second year of extension will even be possible with the agreement of stakeholders.

### 1.2. Promoting apprenticeship

Campaigns by the employment service and the chamber of commerce have been launched to promote apprenticeships. The chamber's *Winwin* promotion campaign aims to incite companies to offer more training places for apprenticeship and uses apprentices and training companies as testimonials. A competence test, *TalentCheck* <sup>(2)</sup> (Section 2.3.1.2), developed in 2016 by the chamber of commerce, aims to help learners choose a suitable apprenticeship and training company (Section 2.3). A support bilingual (de/fr) web portal was set up.

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<sup>(2)</sup> <https://www.winwin.lu/fr/apprentice/talentcheck.html>

### 1.3. Expanding the offer of apprenticeship programmes

Since 2015-16, programmes leading to the technician diploma can be offered in the form of apprenticeships. The education ministry has also extended apprenticeship programmes for adults (Section 3.3).

### 1.4. *Hellofuture*

Due to the continuous developments in digital technology, Luxembourg industry is evolving and needs young talents in the industry and technology sector. In response, the *HelloFuture* project was initiated by the High Committee for Industry, in cooperation with the Government of Luxembourg, FEDIL (*The voice of Luxembourg's industry*) <sup>(3)</sup>, the chamber of commerce and Luxinnovation. The project intends to promote various school-based VET programmes, including workplace learning in the industry and technology sector. A *Hellofuture* website was set up, where companies offer available apprenticeship places and internships. Learners can publish their personal profile through which they can apply directly for any possible placement. In 2017 and 2018 a roadshow will visit 40 secondary general education schools, with actions that include promoting apprenticeship programmes and work-based IVET (initial vocational education and training) programmes through various interactive tools and direct contact with professionals from FEDIL. The launch of the *Hellofuture* project is accompanied by a media campaign to promote an up-to-date image of the industry, addressing young people between the ages of 14 and 30.

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<sup>(3)</sup> FEDIL is a multi-sector business federation representing the industry, construction and business services sectors.

## CHAPTER 2.

# MTD 2 – Quality assurance mechanisms in line with EQAVET and continuous information and feedback loops to IVET and CVET <sup>(4)</sup>

## 2.1. Baseline 2015

### 2.1.1. Quality assurance in line with EQAVET

A quality assurance national reference point (QANRP) was set up in 2010 within the Ministry of Education, Children and Youth. The national approach to quality assurance has been developed independently to European quality assurance in vocational education and training (EQAVET); it applies to IVET and related work-based learning programmes but does not apply to continuing vocational education and training (CVET). The department for coordination of educational and technological research and innovation (SCRIPT) – under the authority of the Education Ministry – and its school quality development agency (SQDA) monitor quality assurance of teaching in all public schools. This is done through specific reports drawn up by the schools to support school development and education quality. Schools have to carry out self-assessment based on school development plans, an evaluation and a support system developed by SQDA.

Social partners are strongly involved in the Luxembourgish VET system. The four professional chambers (chambers of commerce, of trades and skilled crafts,

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<sup>(4)</sup> Sources:

European Centre for the Development of Vocational Training (Cedefop):

<http://www.cedefop.europa.eu/en>

ReferNet: <http://www.cedefop.europa.eu/en/events-and-projects/networks/refernet>

Priorities reported by Directors General for vocational training (DGVTs) for the 2016-20 period;

EQAVET (2016 Secretariat survey, website, newsletters): <http://www.eqavet.eu>

2016 compendium of EQAVET NRP *Erasmus+* funding;

Council recommendations on the 2016 national reform programmes:

<http://www.consilium.europa.eu/en/policies/european-semester/2016/#>

Education and training monitor 2016 country reports:

[http://ec.europa.eu/education/policy/strategic-framework/et-monitor\\_en](http://ec.europa.eu/education/policy/strategic-framework/et-monitor_en)

of agriculture and of employees) are directly involved in the legislative process. They act as independent think tanks and are officially consulted on all laws and regulations regarding economic, financial and social policy. They usually take the initiative of proposing new training pathways for IVET following specific demand from the labour market.

The use of indicators at system level is monitored by SQDA. The statistics department of the Ministry of Education, Children, and Youth also monitors the system via the national database of students and teachers.

CVET is decentralised and its different segments have no common approach to quality assurance. The 2008 Reform (Law of 19 December) also includes provisions for CVET, such as a quality label for CVET providers. The training observatory, established in 2012 by the National Institute for the Development of Continuing Vocational Training (INFPC), provides the government and social partners with detailed statistics and reliable analyses on training issues on both CVET offers and practices.

#### **2.1.2. Continuous information and feedback loops**

A tripartite advisory committee on vocational training was created in 2012 to monitor labour market needs in terms of qualifications and introduce changes to VET accordingly. Training curricula are regularly revised by working groups on curriculum development composed of technical secondary school representatives of the professional chambers.

The national approach to quality assurance in VET includes a system that collects information from different sources (Ministry of Education, social security service, employment agency) on students who complete initial VET, their entry and early progression in the labour market, and comparison with other student categories. The training observatory of the National Institute for the Development of Continuing Vocational Training builds on these data to analyse the transition of young persons from VET to the labour market (Section 2.2.2).

Since 1997, the Luxembourg business federation has been conducting annual surveys on skill needs, alternatively in the industrial and in the information technology and communication sectors. It explores skills needed by enterprises to achieve a good balance between vocational training supply and labour market demand. The survey is the basis for publications which offer forecasts of enterprise skill requirements for replacements and new job openings, and associated qualification levels. The publication provides young people and their parents with insights into education paths and encourages public authorities, professional chambers and other VET actors to take account of enterprises' skill needs.

## 2.2. Main actions taken in 2015-17

### 2.2.1. Quality assurance in line with EQAVET

The VET Law of 2008, which lays down the basic objectives of VET and also covers the main aspects of quality assurance, is currently under revision, expected to be completed within the next two years. It takes into consideration the external review of the system carried out by the University of Luxembourg in 2015.

In the reporting period, the Luxembourg International University Institute (IUIL) <sup>(5)</sup> has developed a tool to analyse the quality of in-company training. The analysis addresses issues related to motivation of learners, the transfer of learning outcomes, and efficiency of proposed trainings. Recommendations to improve the organisation and impact of in-company continuing training are being issued <sup>(6)</sup>.

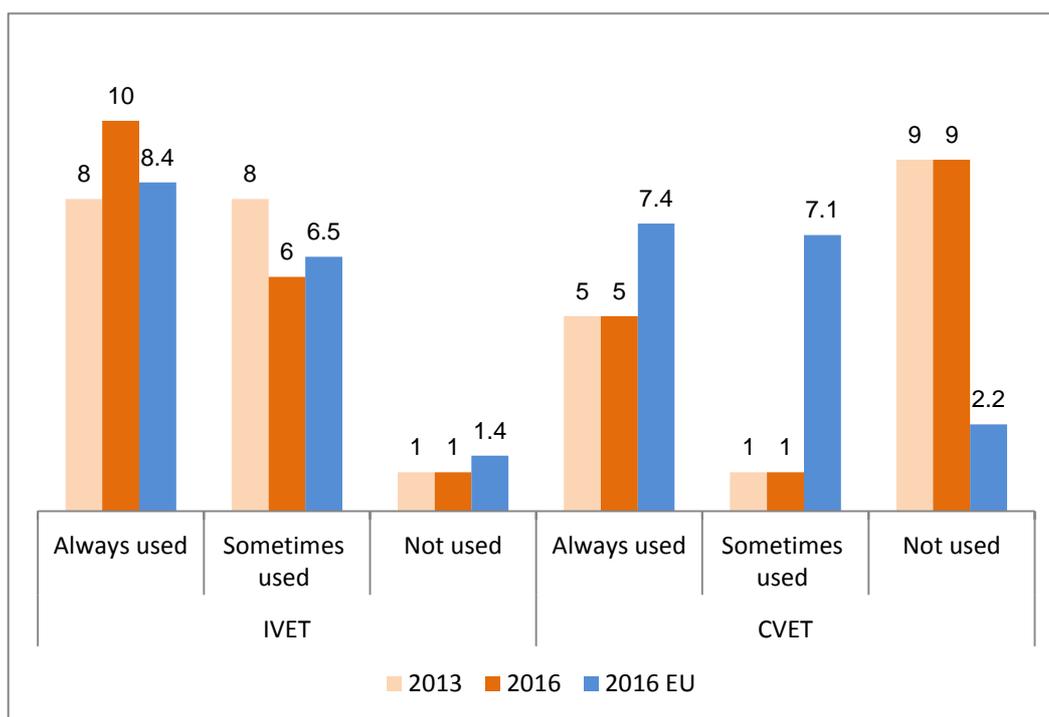
Systematic use of EQAVET indicators to monitor the VET system ('always used' item in Figure 1) in Luxembourg was above the EU average in IVET and below in CVET in 2016. In CVET – where the ministry's remit is limited – the use of EQAVET indicators is below the EU average. Compared to the 2013 data, there was a slight positive shift in the use of indicators in IVET as more indicators were marked as 'always used'. There was no change in CVET.

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<sup>(5)</sup> Not to be confused with the University of Luxembourg.

<sup>(6)</sup> <http://qualiform.iuil.lu>

Figure 1. Use of EQAVET indicators



NB: Of the 17 indicators suggested by the 2009 EQAVET recommendation, eight were 'always used' in IVET in 2013 in Luxembourg, compared to 10 in 2016 and 8.4 in the EU on average in 2016.

EU average was calculated based on available information for 31 out of 35 VET systems.

Source: Cedefop calculations based on data of EQAVET Secretariat surveys for 2013 and 2016.

### 2.2.2. Continuous information and feedback loops in initial VET

A study on transition from education and training to working life (*transition école – vie active*) carried out by the national training observatory showed that apprenticeship graduates (CATP now DAP, European qualifications framework (EQF) level 3; and CITP/CCM now CCP7, EQF level 2) find a first job more quickly than those from school-based VET (DT, EQF level 4). As a result, the Education Ministry plans to extend the offer of programmes leading to the vocational aptitude diploma (DAP, EQF level 3) and offer some of the technician programmes (DT, EQF level 4) as apprenticeships.

### 2.2.3. Continuous information and feedback loops in continuing VET

In the reporting period, a strategy <sup>(8)</sup> was developed to ease (re)integration of unemployed people into the labour market; this involved collaboration between

<sup>(7)</sup> Basic vocational programmes.

<sup>(8)</sup> Companies: partners for employment.

the union of Luxembourgish companies, the Employment Ministry and the national employment service. It includes surveys on recruitment needs and annual employer satisfaction surveys to ensure that the training provided is adequate.

## CHAPTER 3.

# MTD 3 – Access to VET and qualifications for all through more flexible/permeable systems, guidance and validation of non-formal and informal learning

The VET reform launched in 2015 has introduced several changes aimed at improving access to VET and qualifications for all. The possibility for learners to repeat failed modules in an additional year was set out. The evaluation and progression system has been simplified; previously, students could have accumulated unsuccessful modules over the years and would sometimes end up at the end of their training with up to 10 modules to catch up. Bridges between the various VET programmes have also been set up. To inform and motivate learners and parents better, report cards, which were only based on skills achievement, will also show marks and distinctions. In the technician programmes, students who fail with their final project will be allowed to follow a remedial session earlier, in October of the same year instead of February of the following year.

### 3.1. Guidance

#### 3.1.1. Revision of the guidance procedure and drafting a law on more efficient guidance

In February 2017, the Ministry of Education announced changes in guidance, seen as critical for students in grade 9 to opt for one of the many vocational programmes offered. To improve students' chances of success, the approach to guidance in the lower classes will be reviewed and better targeted to their skills, aspirations and interests. A new unit for curriculum development (*cellule de développement curriculaire*) in VET will actively participate in revising the guidance procedure.

The Law of June 2017 provides a legal basis for the functioning of the guidance house (*maison de l'orientation*). National targets will be defined but secondary schools will be permitted to choose the way that suits them best. In the frame of this draft law, a reference framework for school and professional guidance has been elaborated (*cadre de référence pour l'orientation scolaire et*

*professionnelle*) as a tool for secondary schools to structure and evaluate existing guidance actions and initiatives, and, if needed, introduce new initiatives. The obligation for each school to define its own educational and vocational guidance approach while meeting criteria defined in the reference framework was introduced in early 2017. Every secondary school has a guidance unit (*cellule d'orientation*) responsible for the orientation process set out in the school's development plan; it must comprise at least two members of the teaching staff, two educational or psychosocial staff and at least one guidance counsellor <sup>(9)</sup>.

### 3.1.2. Guidance-related projects

Initiatives have been taken within the *Youth guarantee* programme, supported by the European Social Fund (ESF) and *Erasmus+*. They mostly relate to guidance and/or empowering young people to manage their educational and occupational careers. The following projects date from 2015 and 2016:

- (a) workshops which, since October 2015:
  - (i) help young people discover their talents and competences, *Act! Jeunes* <sup>(10)</sup>;
  - (ii) work towards professional or education goals but without acquiring a specific qualification, *Act! Youth – upcycle your life*;
- (b) *Level up – build up your life* <sup>(11)</sup>, launched in November 2015 to familiarise 16- to 29-year-old NEETs (not in education, employment, or training) with the construction sector and related career opportunities, and support them in developing their personal plans/projects;
- (c) the *Building generation* <sup>(12)</sup> project, jointly funded by the ESF, a comprehensive initiative to inform young people about the different occupations, technological developments and job prospects in the construction sector, using different events, games, competitions;
- (d) jointly funded by the ESF, the *Your potential for your job* <sup>(13)</sup> project started in summer 2015 for 16- to 30-year-olds seeking a job or training. The goal is to help them clarify their aspirations, develop self-esteem and (self-) presentation skills through workshops and individual sessions;

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<sup>(9)</sup> <http://www.men.public.lu/catalogue-publications/secondaire/psychologie-orientation/170124-cadre-reference/fr.pdf>

<sup>(10)</sup> <http://www.gouvernement.lu/5260706/24-atelier-jeunes>

<sup>(11)</sup> <http://www.snj.public.lu/fr/news/highlight/build-your-life-un-atelier-cr%C3%A9atif-pour-jeunes-en-qu%C3%AAt-e-d%E2%80%99orientation-personnelle-et>

<sup>(12)</sup> <http://www.building-generation.lu>

<sup>(13)</sup> <https://www.4motion.lu/fr/content/d%C3%A4i-potential-fir-d%C3%A4i-beruff>

- (e) *TalentCheck* <sup>(14)</sup>, a competence test focusing on concentration, observation, arithmetic, languages, organisational and other skills, developed in 2016 by the chamber of commerce. It aims to help learners choose a suitable apprenticeship based on better insights into their own strengths and weaknesses. Companies can also use the results in their selection processes;
- (f) the *Erasmus+ 120 pictures and 120 trades for orientation* <sup>(15)</sup> project, launched in 2015. Using previously developed software, the project combines information on occupations with language learning. It addresses teachers, trainers helping young people elaborate personal goals, plus dropouts and apprentices;
- (g) the basic-check *Guidance tool* <sup>(16)</sup>, launched in June 2016 by the chamber of employees and the chamber of trades and skill crafts, is an aptitude test (linguistic reflection, spatial representation, logic numerical and practical questions) which analyses the knowledge and skills of the pupils in the third year of lower secondary education. It is a guidance tool that helps in making choices before learning a trade/profession. In addition to school results, it offers references and possible internships. The result indicates whether the candidate meets the conditions required for apprenticeship in the trade applied for.

## 3.2. Permeability and flexibility

### 3.2.1. Different schools for different pupils

In July 2016, the governing council approved draft legislation that set the outlines of a modern secondary school. The aim is to promote different schools for different pupils (*Ënnerschiddlech Schoule fir ënnerschiddlech Schüler*), and schools that exploit their pedagogical autonomy to open up prospects for the future. A publication *Modernised secondary schools* has been produced by the

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(14) <https://www.winwin.lu/fr/apprentice/talentcheck.html>

(15) <https://portal.education.lu/alj/Accueil/ArtMID/4459/ArticleID/552965/ERASMUS-120-photos-et-120-m233tiers-pour-l%E2%80%99orientation>

(16) <http://www.basic-check.lu>

Ministry of Education to present the main priorities of the reform, including *The promotion of talent* <sup>(17)</sup>.

Priority in technical secondary education is on the lower classes. Two-thirds of learners are enrolled in technical secondary education. The system in application to date has not allowed learners to follow courses at a higher level than the one they are enrolled in, such as following language courses at a higher level. To offer learners a more focused path which stimulates their potential, the organisation of the lower classes has been made more flexible. In second and third years of lower secondary education, languages and mathematics are offered in basic and advanced courses. The new system allows students to follow in each of these disciplines the level most suited to their individual profile, for example basic in maths and advanced in languages.

### **3.2.2. New on-the-job training programme in adult education**

A regulation <sup>(18)</sup> adopted in 2015 introduced a two-year on-the-job training programme for those working in the education or social sector (minimum age 21) who do not possess the qualifications required for a secondary level diploma for teachers/trainers in adult education. Its focus is on pedagogy, psychology, languages and professional practice.

## **3.3. Transparency, recognition, validation**

### **3.3.1. National qualification framework <sup>(19)</sup>**

The Luxembourg qualifications framework (CLQ) <sup>(20)</sup> is an eight-level framework, covering all types and levels of qualifications. It was linked to the EQF in 2012. Its implementation was relatively slow during 2013-14, partly reflecting the lack of a clear legislative basis and an agreed strategy shared by all stakeholders on how to proceed.

Being host to a large number of workers from neighbouring Belgium, Germany and France, Luxembourg sees the development of the CLQ as a way

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<sup>(17)</sup> <http://www.men.public.lu/catalogue-publications/secondaire/informations-generales-offre-scolaire/modernisation-lycee/lycee.pdf>

<sup>(18)</sup> <http://www.legilux.public.lu/leg/a/archives/2015/0162/a162.pdf>  
<http://www.men.public.lu/catalogue-publications/secondaire/psychologie-orientation/170124-cadre-reference/fr.pdf>

<sup>(19)</sup> Cedefop, 2017b.

<sup>(20)</sup> *Cadre Luxembourgeois des qualifications*.

to aid comparison and recognition. The high immigration rate and the large proportion of foreign workers make it necessary to pay attention to the coherence of the framework with those of neighbouring countries. In 2016, a Law on recognition of professional qualifications <sup>(21)</sup> was adopted; it signals official commitment to the framework and is an important step towards full operational status. The CLQ is expected to later on open up to qualifications awarded outside the official system.

### **3.3.2. Recognition of diplomas from third countries**

A regulation <sup>(22)</sup> adopted in 2015 provides for the recognition of diplomas or certificates acquired in third countries under certain conditions <sup>(23)</sup> as equivalent to the Luxembourg upper secondary education/secondary technical studies/appropriate technician diplomas.

### **3.3.3. Validation <sup>(24)</sup>**

Validation in Luxembourg is referred to as validation of prior experiential learning (*validation des acquis de l'expérience*, VAE) and is similar to the French model of VAE. It has been operational since 2010. Validation arrangements are rooted in the value of lifelong learning. One of the strengths of the systems is the common approach across sectors to validating for towards formal qualifications, except at levels 6 to 8 for which only partial qualifications can be obtained through validation. Any type of prior experiential learning relevant to the targeted qualification, whether it is the result of formal, non-formal or informal learning activities in education and training, the labour market or the third (non-governmental not-for-profit) sector, can be used to apply for validation.

The 2016 Law on recognition of professional qualifications <sup>(25)</sup> establishes the CLQ as the formal reference point for recognition of professional qualifications acquired outside Luxembourg. However, Luxembourg lacks an

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<sup>(21)</sup> Law of 18.11.2016:  
<http://data.legilux.public.lu/file/eli-etat-leg-memorial-2016-231-fr-pdf.pdf>

<sup>(22)</sup> <http://eli.legilux.public.lu/eli/etat/leg/rgd/2015/01/22/n5>

<sup>(23)</sup> Which are not covered respectively by the European convention on the equivalence of diplomas leading to admission to universities and the convention on the recognition of qualifications concerning higher education in the European region.

<sup>(24)</sup> Cedefop, 2017b; Cedefop et al., 2017.

<sup>(25)</sup> Law of 18.11. 2016:  
<http://data.legilux.public.lu/file/eli-etat-leg-memorial-2016-231-fr-pdf.pdf>

overarching legal framework with general principles for validation for all sectors. Changes in this direction are expected in the coming years.

### 3.4. Training, reskilling and upskilling vulnerable groups, jobseekers and employees

#### 3.4.1. Reintegrating vulnerable groups into the labour market

Measures have been taken to reintegrate the most vulnerable populations into the labour market, particularly job seekers over 45, workers with reduced work capacity, and disabled workers.

##### 3.4.1.1. *Professionalisation training (stage de professionnalisation, proposed in 2015, being implemented since early 2016)*

The public employment service (*agence pour le développement de l'emploi*, ADEM) may offer job seekers work placement with a potential employer for up to six weeks. Professionalisation training enables job seekers to illustrate their specific capacities while they acquire new competences. The employer must appoint a mentor to assist and guide the trainee throughout the training period. Trainees are entitled to a training allowance of EUR 323 per month paid by ADEM (along with other allowances they may receive from the state). At the end of the training, the employer informs ADEM of the job seeker's employment possibilities within the company. In the event of a permanent contract, the employment fund will reimburse the employer 50% of the minimum wage for unskilled workers during 12 months; for a permanent part-time contract, the reimbursement will be calculated in proportion to the working time.

##### 3.4.1.2. *Employment reintegration contract (contrat de réinsertion-emploi, CRE, proposed in 2015, being implemented since early 2016)*

The contract mainly alternates practical and theoretical training. It allows:

- (a) employers to pass on their experience and to give a real employment perspective to older job seekers, people with reduced working capacities or disabled persons;
- (b) job seekers to illustrate their specific capacities while at the same time acquiring new competences.

The employment reintegration contract is 12 months duration. To benefit from an employment reintegration contract, job seekers must have been registered with ADEM for at least one month. Anyone receiving an unemployment allowance, a tide-over allowance, a professional tide-over

allowance or income for severely disabled persons shall keep this allowance and receive an allowance of EUR 331.07 per month paid ADEM. At the end of the employment reintegration contract, the employer informs ADEM in writing of the job seeker's employment possibilities within the company.

#### **3.4.2. Training/upskilling jobholders**

In 2015, the federation of craftsmen launched skills/competence centres for CVET to help companies keep skilled employees abreast of developments in technology, management and economy. The centres cover trainings in construction engineering building and finishing trades (*centres de compétences génie technique du bâtiment et centre de compétences parachèvement*) <sup>(26)</sup>.

Several stakeholders, including the training institute of the chamber of commerce, the Higher Institute of Economy (*Institut Supérieur de l'Économie*) and the construction engineering competence centre collaborated to establish an ICT (information and communications technology) competence centre, the LIDIT (Luxembourg Institute for Digital Training). This aims to ensure continuous adequate skills supply to meet companies' technological, managerial and economic needs. The centre is to act as a sectoral technological observatory, establish a coherent integrated sectoral CVET system and cooperate with the employment service to train/upskill jobseekers <sup>(27)</sup>.

#### **3.4.3. Fit4 entrepreneurship**

In 2015, the chamber of commerce, working jointly with the chamber of trades and skilled crafts along with ADEM and the house of training, launched the *Fit4 entrepreneurship* <sup>(28)</sup> initiative for the unemployed. This is jointly funded by the ESF and is a coaching and training programme for jobseekers to provide them with the tools needed to create a company. It includes entrepreneurial skills assessment, training and coaching. It will be continued in 2017-18. The medium-term objective is to carry on this initiative as a permanent support system for jobseekers.

#### **3.4.4. Fit4 green jobs**

The *Fit4 green jobs* project targets people under the age of 30 to train them in new skills leading to jobs and techniques of the future in the construction sector. The national employment service is responsible for the project in cooperation

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<sup>(26)</sup> <http://www.fda.lu/medias/news/la-fda-presente-ses-centres-de-competences>

<sup>(27)</sup> <http://lidity.lu>

<sup>(28)</sup> <http://www.fit4entrepreneurship.lu/>

with the Institute for Construction Training (IFSB). *Fit4 green jobs* offers training programmes. ADEM makes a selection among the jobseekers which first undergo skills assessment before starting one of the nine training programmes offered. The first training courses started in January 2017. At the end, the learners will have technical and practical skills adapted to jobs in the construction sector in Luxembourg.

#### **3.4.5. *Fit4 coding***

*Fit4 coding* <sup>(29)</sup> is a training programme for jobseekers (especially dropouts or the unemployed in the process of professional reorientation) who wish to work in the IT sector. It enables them to apply for a position as developer/junior integrator in a web development agency, a large company, an SME (small and medium-sized enterprise) or a start-up. The programme started in July 2015 with an end date of December 2017. Future developments include stepping up marketing to promote attractiveness of training and job opportunities: e-mailing jobseekers, and info sessions at partners such as *Women in digital Luxembourg*. The initiative comprises an intensive training programme (490 hours) to prepare immediately operational web integration specialists and developers.

#### **3.4.6. *Fit4 financial markets***

In 2016-17, the house of training is operating the *Fit4 financial markets* project, the objective of which is to support jobseekers through their reintegration into the financial sector by adapting their skills and knowledge to the needs of the labour market. The initiative is jointly funded by the ESF and includes diagnosis followed by an individual interview. Based on the results of the diagnosis, the participant is oriented towards several training modules; mentoring is offered during the process. Candidates who have validated their technical knowledge and demonstrated their competence are eligible to obtain a quality label entitled *Fit 4 financial markets* validated by the financial marketplace <sup>(30)</sup>.

#### **3.4.7. Evening classes**

In cooperation with the employment service, the training centre of the chamber of employees offers free access evening classes to registered jobseekers. The

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<sup>(29)</sup> <http://www.adem.public.lu/fr/publications/demandeurs-emploi/2016/Fit4-Coding/Fit4coding.pdf>

<sup>(30)</sup> <http://www.fonds-europeens.public.lu/fr/projets-cofinances/fse/2014-2020/1016/index.html>

training is tailored to meet individual needs according to personal career development plans <sup>(31)</sup>.

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<sup>(31)</sup> <http://www.gouvernement.lu/5246768/21-adem-salaries>

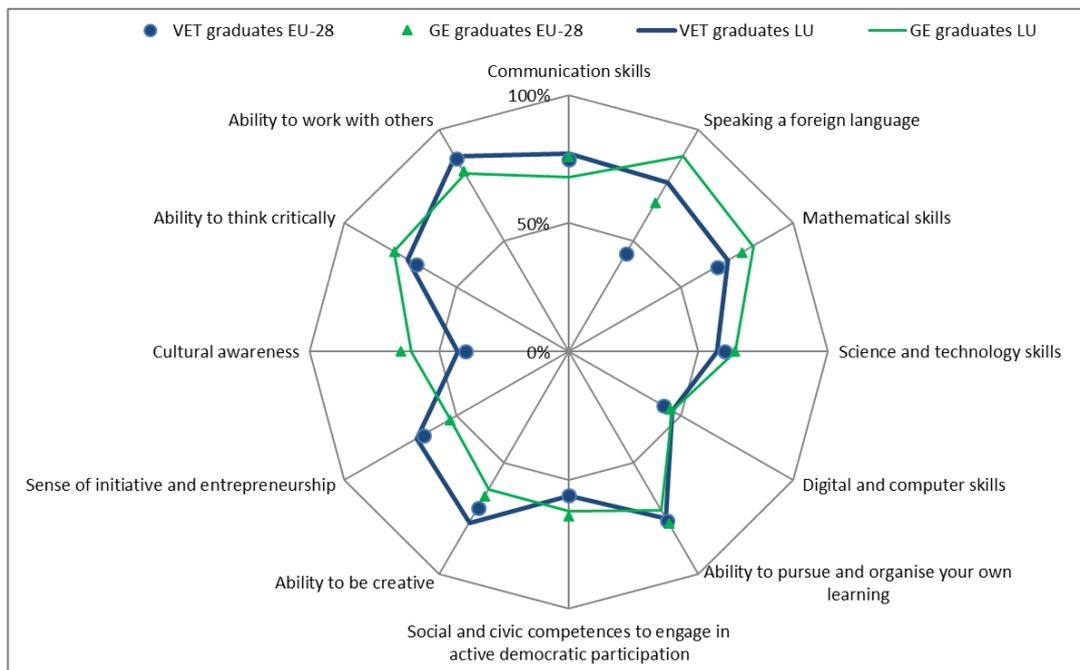
## CHAPTER 4.

# MTD 4 – Key competences in both IVET and CVET

Compared with general education graduates, those who completed VET programmes feel they have:

- (a) stronger:
  - (i) sense of initiative and entrepreneurship;
  - (ii) ability to be creative;
  - (iii) communication skills;
- (b) weaker:
  - (i) cultural awareness;
  - (ii) foreign language knowledge;
  - (iii) mathematical skills (Figure 2).

Figure 2. **Self-evaluation of acquired skills in general education and VET**



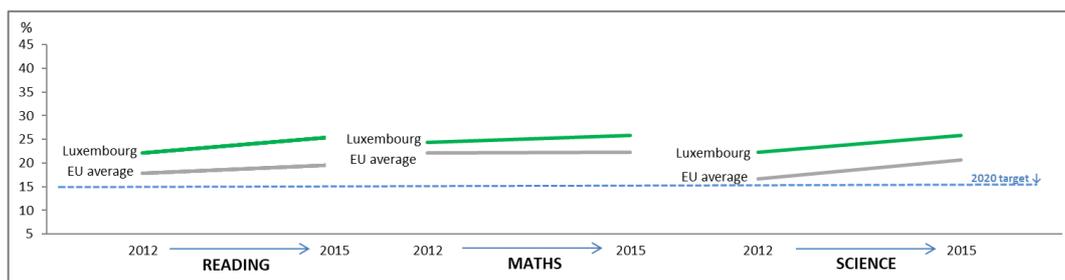
NB: GE stands for general education.

Respondents who attended upper secondary education. Interviewees were asked in summer 2016 about their overall recent experience in upper secondary education. Aggregated data do not take account of different types and sectors of VET and age groups of respondents.

Source: Cedefop, 2017c.

The context of key competences in 2015 was mainly characterised by an increasing share of young low achievers in reading, maths and science compared with the 2012 PISA (programme for international student assessment) results (Figure 3). Although this negative trend is also seen in the EU, the average share of low achievers is lower than Luxembourg, where 49% of the school population is from a migratory background, and schools are multilingual.

Figure 3. **Share of 15-year-olds with low achievement in reading, maths and science**



NB: Low achievement means failing level 2 on the PISA scale.

Source: OECD, 2014; OECD, 2016.

As VET enrolls 61% of all upper secondary learners in the country <sup>(32)</sup>, this trend necessarily also affects the key competences trained for in VET programmes (INFPC, 2016a).

#### 4.1. Key competences in initial VET

The 2015 reform of evaluation and progression in VET (Section 3) also covers key competences. In 2017, the government committed to a strategy to promote the Luxembourgish language. Several initiatives at the secondary education level, including technical secondary schools, are planned to:

- (a) promote Luxembourgish;
- (b) develop reading competences;
- (c) offer optional orthography, culture/literature, creative writing courses and compulsory Luxembourgish in international schools.

Several pilot projects promote key competences at national level. The following examples showcase how digital, maths, science and entrepreneurship

<sup>(32)</sup> Eurostat, data for 2015.

competences are being promoted as part of the national *Digital (4) education* strategy.

#### **4.1.1. *Bee creative***

Since 2015, the *Bee creative* project has offered equal access to ICT tools for all, including VET learners. It contributes to developing digital competences (programming, security, design, communication) by establishing so-called makerspaces: places where young people and adults can experiment with computers, robots, 3D printers, laser-cut machines and other equipment in workshops assisted by ICT experts. Makerspaces are currently available throughout the country and their number is growing.

#### **4.1.2. *MathemaTIC***

Almost 6 000 learners from 114 school have participated in the pilot phase (2015-16) of the *mathemaTIC* online maths teaching and learning platform. The platform applies digital technologies in pedagogy to improve the learning process in the classroom and allows teachers to follow learner performance and provide feedback in real time. It is available in several languages and the content is adapted to curricula. The pilot phase and the first implementation phase involved basic education learners. As of 2017-18, the second implementation phase will also involve VET learners.

#### **4.1.3. *Future hubs***

Since 2015, several secondary education programmes, including VET, have been labelled *future hubs* to promote the use of technologies and innovative learning in science, especially in the computer science. They focus on programming, management of big data, financial applications and development of games and offer DT and DAP diplomas <sup>(33)</sup>. The hub concept is about school as a meeting place, discovery and contact with modern technologies, where young people are fascinated by science and technology. An innovative pedagogical approach combines several disciplines and uses English as core language due to its domination in ICT.

#### **4.1.4. *Promotion of entrepreneurship in secondary education***

In 2016, the *Promotion of entrepreneurship in secondary education* project was launched. It promotes entrepreneurship profiles of schools in Luxembourg. Secondary schools, including VET, encourage learners to develop

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<sup>(33)</sup> For details on DT and DAT diplomas, see INFPC, 2016a, Section 2.

multidisciplinary skills, such as initiative and entrepreneurship, personal talents and ambitions, creativity and originality, and awareness of ecological, political and economic issues. Multidisciplinary skills are developed through challenges of teaching units <sup>(34)</sup> that learners are required to deal with. The challenges may take place at school or in a company. The pilot phase was scheduled to finish in July 2017. In 2017-18, pilot schools will implement the entrepreneurship profile. The education and economics ministries support the project and are represented in the steering committees of each participating school.

#### 4.2. Key competences in continuing VET

Several initiatives targeting adults are envisaged within the framework of promoting the Luxembourgish language; there will be a broad spectrum of Luxembourgish courses. Luxembourgish and citizenship training is part of the *Welcome and integration contract* (CAI). The centre for integration and social cohesion (LISKO) was established in 2016 and entrusted with supporting the social integration of refugees. An alternative qualification route, the *9+1* insertion classes (*9e plus intégration*), offering tailored training, was also set up in 2016 for adults without qualification intending to continue studies at higher level, VET or higher education. The scheme is targeted at English speaking adults arriving in the country without knowledge of official languages of Luxembourg. Since 2016, English speaking adults arriving in the country without knowledge of official languages of Luxembourg have received personalised training in maths and French for free. Sixty learners who had taken part in this training by the end of 2016 are now able to enrol in VET. Campaigns (for example, *Step by step to adult education*) provide learning opportunities that cover basic skills (writing, reading and maths) and enable access to VET and adult apprenticeships.

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<sup>(34)</sup> Around 40 challenges are available; they have been designed by a working group represented by entrepreneurs and teachers and supported by *Erasmus+*.

## CHAPTER 5.

# MTD 5 – Systematic initial and continuous professional development of VET teachers, trainers and mentors <sup>(35)</sup>

### 5.1. Initial training for teaching/training staff in VET schools

Up to 2015, teacher training was carried out through cooperation between the University of Luxembourg and the Institute for Continuing Training (*Institut de Formation Continue*, IFC). The induction phase for teaching staff in national education was two years. Luxembourg only has had its own university since 2003.

In its 2015 national reform programme, Luxembourg indicated its intention to reform the professional development of teachers and trainers. Legislation in 2015 established a Training Institute of National Education (*Institut de Formation de l'Education Nationale*, IFEN) to organise professional induction and continuing professional development (CPD) for teaching and socio-educational staff, including VET teachers. Its tasks include advising and supporting schools in developing CPD plans for their staff. This reform aimed to make initial training and CPD more coherent and improve the quality of teaching by harmonising the induction phase and focusing it on professional practice and didactics. A programme council composed of representatives of the ministry, the university, the National Institute of Public Administration, different professions/trades and heads of secondary schools to support these aims was still to become operational at the time of reporting.

To become a teacher, the candidate first has to take preliminary tests in the three national languages (German, French and Luxembourgish) followed by a competitive examination (*concours*) organised by the Ministry of Education. Then a three-year-induction phase is obligatory. During this phase, which combines theory and practice, participants already work as teachers. At the end of the programme they receive a certificate based on the evaluation of their portfolios. Reform of the induction phase was aligned with the overall reform for all public administration agents.

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<sup>(35)</sup> INFPC, 2016b.

A subsequent regulation in 2015 <sup>(36)</sup> set out the competences that teaching staff are to develop during the induction phase and in their first years on the job. These include competence-based teaching and assessment, and using ICT for teaching and learning. The regulation also specified issues related to assessment of candidate teachers.

Since the academic year 2016/17, a second route to the teaching profession has been available: a master programme in secondary education (EQF 7), jointly financed by the state, at the University of Luxembourg <sup>(37)</sup>. It offers didactics to students holding a bachelor's degree in a specific discipline, initially for German language and literature, French language and literature, and mathematics.

## 5.2. Continuing professional development for teaching/training staff in VET schools

The 2015 legislation establishing the Training Institute of National Education stipulates that the induction phase is followed by mandatory CPD schemes offered by IFEN to develop and refresh the competences of teaching staff. These include training leading to certificates, coaching, supervision, job shadowing and exchange networks. Subsequent regulations in 2015 and 2016, raised the CPD minimum to 48 hours in three years <sup>(38)</sup>. This includes training within schools' CPD plans for their staff (*Schulinterne Lehrer/innen-Weiterbildung*) supported by IFEN. The latter are not mandatory but help align teachers' training activities to the school's objectives.

In 2016, the centre for computerised administration of education (*Centre de gestion informatique de l'éducation*, CGIE) published a guide on mobile learning to help school leaders and teaching staff in secondary education and training use ICT in a targeted and systematic way. The guide draws on extensive research and consultation as well as national and international experience. Promoting the use of mobile devices and digital learning tools in high schools is part of the education ministry's *Digital (4) education* strategy, supporting the government's goal to reinforce the country's position in ICT. ICT is considered helpful to adapt

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<sup>(36)</sup> <http://www.legilux.public.lu/leg/a/archives/2015/0166/a166.pdf>;

<sup>(37)</sup> <http://www.gouvernement.lu/5812836/16-master-unilu>

<sup>(38)</sup> [https://ssl.education.lu/ifen/obligation-de-formation?\\$entry.menu\\_entry\\_parameter.getData%28%29=\\$entry.menu\\_entry\\_value.getData%28%29](https://ssl.education.lu/ifen/obligation-de-formation?$entry.menu_entry_parameter.getData%28%29=$entry.menu_entry_value.getData%28%29;);  
<https://ssl.education.lu/ifen/documents/10180/28142/Instr.FoCo.18.11.2015.pdf>

teaching and learning methods to the needs and pace of individual learners. The centre also organised (in cooperation with the coordination service for research and technological and pedagogical innovation, SCRIPT <sup>(39)</sup>) a 2017 conference on *high-level e-DUCATION* for the attention of national education decision-makers to encourage reflection on how synergies between pedagogy, didactics, mobile technologies and new learning strategies are likely to change teaching and learning.

Within the *Hellofuture* initiative (Section 1.4), education kits are planned to help teachers in their work to be able to deal with various subjects concerning industry in Luxembourg and to support learners in their educational and career choices and selection of apprenticeships or internships.

### 5.3. Initial training for VET trainers, mentors in enterprises (working with apprentices or regular staff)

The 2008 VET reform created a new professional category: the adult trainer. These were intended to work at the national CVET centre (CNFPC), in second chance schools or at the language learning institute. Training and admission requirements were regulated in 2011:

- (a) depending on the type of training they are to provide, candidates need to have bachelor or master degrees or a master craftsman certificate;
- (b) tests in two of the country's official languages and an entrance exam (*concours*) are prerequisites to entering a two-year induction period while teaching. Induction focuses on pedagogy combining theory and practice (240 hours), including specific features of adult teaching and learning and orientation and guidance for lifelong learning. The Institute for Continuing Training was responsible for the training.

In its national reform programme 2015, Luxembourg had referred to proposals by stakeholders, including social partners, to improve the training of trainer staff. The 2016 amendment of the 2011 adult trainer regulation requests candidates to have passed tests in all three official languages, instead of only two, before being admitted to the entrance exam for the induction phase<sup>40</sup>. It

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<sup>(39)</sup> While both CGIE and SCRIPT have been in place since the 1990s, the mission, organisation and tasks of SCRIPT were amended in early 2017.  
<http://legilux.public.lu/eli/etat/leg/loi/2017/03/14/a439/jo>.

<sup>(40)</sup> <http://legilux.public.lu/eli/etat/leg/rgd/2016/08/24/n3/jo>

confirmed the change in responsibility for adult trainer training from IFC to the National Education Training Institute established by legislation in 2015 (see above).

The 2008 reform also introduced training for in-company trainers. Professional chambers have been providing training to company tutors on legal issues, in pedagogy and assessment. This three-day training was mandatory for companies involved in apprenticeships. The chamber of employees offered a similar programme through its training centre. An information platform for (potential) tutors has also been available.

### **Conclusion**

The role of teachers and trainers, including those in VET, and the need to support their CPD, have been subject to important reform and debate in the country's policy framework. According to the information available to Cedefop, this has led to devising a more systematic and coherent approach for initial and continuing professional development for all (future) staff in national education, independent of their status. The reforms also align with a more general reform in public administration in 2015.

## Conclusion

Since 2015, Luxembourg has developed broad VET reform which strongly addresses the main lines of the Riga conclusions. Several steps have been taken to reinforce and expand work-based learning and apprenticeships, promote entrepreneurship, develop quality assurance mechanisms including information and feedback loops, also extensively using the EQAVET indicators. Improving access to VET and qualifications for all has been taken particularly seriously, with initiatives in guidance, flexibility and permeability, transparency / recognition / validation, and training/reskilling/upskilling the vulnerable, jobseekers and employees. Luxembourg has also been active over the last two years tackling the declining trend in key competences through launching a series of projects and actions in digital competences and languages. Important steps were also taken to update the training of VET teachers and trainers.

Information currently available to Cedefop at the time being suggest that the lack of an overarching legal framework with general principles for validation for all sectors could warrant further consideration. Another aspect that might be worth exploring is improving the monitoring and steering of the CVET sector, particularly harmonising quality assurance approaches.

## List of abbreviations

ADEM	<i>agence pour le développement de l'emploi</i> public employment service
AES	adult education survey
CGIE	<i>centre de gestion informatique de l'éducation</i> centre for computerised administration of education
CLQ	<i>cadre Luxembourgeois des qualifications</i> Luxembourg qualifications framework
CNFPC	national CVET centre
CPD	continuing professional development
CRE	<i>contrat de réinsertion-emploi</i> employment reintegration contract
CVET	continuing vocational education and training
DGVT	Director General for vocational education and training
EQAVET	European quality assurance in vocational education and training
EQF	European qualifications framework
ESF	European Social Fund
Eurostat	statistical office of the European Union
GDP	gross domestic product
GE	general education
ICT	information and communications technology
IFC	<i>Institut de Formation Continue</i> Institute for Continuing Training
IFSB	Institute for Construction Training
INFPC	National Institute for the Development of Continuing Vocational Training
ISCED	international standard classification of education
IUIL	Luxembourg International University Institute
IVET	initial vocational education and training
LIDIT	Luxembourg Institute for Digital Training
LISKO	centre for integration and social cohesion
NEETs	not in education, employment, or training
NQF	national qualifications framework
OECD	Organisation for Economic Cooperation and Development
PISA	programme for international student assessment
PPS	purchasing power standards
QANRP	quality assurance national reference point
SCRIPT	service for research and technological and pedagogical innovation

SME	small and medium-sized enterprise
STEM	science, technology, engineering and math programmes
SQDA	school quality development agency
UOE	UNESCO OECD Eurostat
VAE	<i>validation des acquis de l'expérience</i> validation of prior experiential learning
VET	vocational education and training

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