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On the way to 2020: data for vocational education and training policies

Country statistical overviews – 2016 update

CEDEFOP

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Europe 123, 570 01 Thessaloniki (Pylea), GREECE
PO Box 22427, 551 02 Thessaloniki, GREECE
Tel. +30 2310490111, Fax +30 2310490020
E-mail: info@cedefop.europa.eu
www.cedefop.europa.eu

Foreword

This report provides an update of Cedefop's statistical overview of vocational education and training (VET) and lifelong learning in European countries. It covers challenges and opportunities arising from developments in the statistical infrastructure. It details the situation of each country and, to best possible extent, their progress on 36 indicators selected for policy relevance and contribution to Europe 2020 objectives. Key areas of education and training policy in Europe are covered using national evidence: access, attractiveness and flexibility of initial and continuous VET; investment, skill developments and labour market relevance in VET; and labour market transitions and employment trends.

The report is the fourth edition of the Cedefop publication, *On the way to 2020: data for vocational education and training policies: country statistical overviews*. It results from Cedefop's continuing efforts to update, review and improve key indicators as new and better quality data become available. It helps disseminate relevant data on VET in a concise and user-friendly way.

There is new evidence from the European statistical system (ESS), including recent updates from the EU labour force survey (EU-LFS) and UNESCO-OECD-Eurostat (UOE) joint data collection on education. Latest data from Cedefop skills supply and demand forecasts and from the Eurofound European working conditions survey (EWCS) are also included.

Data is based on international statistics, including 36 selected indicators, providing policy-relevant and useful information on European VET priorities and lifelong learning policies. This information is supplemented by a chart and short text highlighting key findings in each country.

This publication should be regarded as a tool to help policymakers reflecting on the situation and progresses in each country. Statistical reporting through the lens of internationally comparable data can inform monitoring design, implementation and fine-tuning of VET policies.

Joachim James Calleja
Director

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Introduction

Aim

European policy-making and analysis in vocational education and training (VET) need to be informed and supported by sound qualitative and quantitative information.

This report, as a follow up to Cedefop publication *On the way to 2020: data for vocational education and training policies: country statistical overviews* (Cedefop, 2015a) updates and complements a concise set of core statistical indicators, quantifying key aspects of VET and lifelong learning to help describe, monitor and compare European countries and their progress.

The indicators, selected for their policy relevance as well as their importance for achieving the objectives of the Europe 2020 strategy, have been updated. They consider fresh data as well as emerging challenges and opportunities for statistical reporting which have stemmed from recent developments in the statistical infrastructure. Indicators now incorporate new hard evidence from the European statistical system, including the most recent updates from the EU labour force survey and the UOE data collection on education. Latest data from Cedefop skills supply and demand forecasts and from the Eurofound European working conditions survey (EWCS) are also considered. Indicators are now expressed within the methodological context set by ISCED 2011 and its implementation in international surveys and data collection.

Taking 2010 as the baseline year, to coincide with the launch of the strategy and the revised European VET policy framework, 36 core indicators are published as 'statistical overviews' of each country: the 28 European Union (EU) Member States and, where data are available, for the former Yugoslav Republic of Macedonia, Iceland, Norway, Switzerland and Turkey. The format is intended to be easy to use and data are supplemented with a commentary highlighting interesting points for each country.

The core indicators do not claim to assess national systems or policies. Statistics have their limitations: they can oversimplify complex issues; to be understood properly they must be read in context; and there are inevitable time lags. The core indicators are headline figures for summary overviews. Detailed monitoring requires much more data, detailed breakdowns and thorough analysis.

Selecting and grouping core indicators

The key questions for any framework of indicators are what they should show and which data sources to use. Their selection here is driven by policy relevance as well as availability, periodicity, comparability and data quality. European VET policy objectives, priorities and benchmarks are wide-ranging (see box) and evolving over time. Context issues that influence VET, such as demographic trends, general education and labour market and socioeconomic situations, are also important.

Box: **European VET policy: quantitative benchmarks and qualitative priorities**

Needing to modernise education and training systems, the European Union (EU) launched the Copenhagen process in 2002 to strengthen cooperation in VET. To build on progress, in 2010, at Bruges, the European Commission, the Member States and social partners established a new framework for European VET policy for 2011-20, with qualitative priorities to support the Europe 2020 ([a]) strategy for smart, sustainable and inclusive growth. The European strategy also provides for a number of quantitative benchmarks.

Quantitative benchmarks

The quantitative benchmarks are target EU averages for 2020: they are not national goals. Member States consider how and to what extent they can contribute to the collective achievement of the European benchmarks. Accordingly, Member States can also set their own national targets for 2020 ([b]).

Europe 2020 benchmarks for employment, education and training are:

- an employment rate of at least 75% for 20 to 64 year-olds;
- early leavers from education and training below 10%;
- at least 40% of 30 to 34 year-olds completing tertiary-level education.

Quantitative benchmarks for education and training on the quantitative targets set in *Education and training 2020* (Council of the European Union, 2009) are:

- at least 15% of adults in lifelong learning ([c]);
- low-achieving 15-year-olds in reading, mathematics and science below 15%;
- at least 95% of children between the age of four and starting compulsory primary education should participate in early childhood education;
- at least 40% of 30 to 34 year-olds completing tertiary-level education ([d]);
- early leavers from education and training ([e]) below 10%.

Other quantitative benchmarks agreed for 2020 (Council of the European Union, 2011; 2012) are:

- employed graduates (20 to 34 year-olds) leaving education and training no more than three years before the reference year should be at least 82% ([f]);
- at least 20% of higher education graduates with a period of related study or training (including work placements) abroad ([g]);
- at least 6% of 18 to 34 year-olds with an initial VET qualification should have had a related study or training period (including work placements) ([h]).

Qualitative priorities

Europe 2020 and *Education and training 2020* also set priority areas which Member States agreed to work on to improve. These were supplemented by the Bruges communiqué (Council of the European Union and European Commission; 2010), which set out strategic objectives in VET for 2011-20 followed by 22 short-term deliverables, or intermediate objectives, for 2011-14, contributing to European goals for 2020. After a review of progress during 2011-14, a new set of five medium-term deliverables for 2015-20 was formulated in the Riga conclusions (Council of the European Union and European Commission; 2015). The qualitative priorities of European VET policy can be summarised as:

- making initial VET an attractive learning option with high relevance to labour market needs and pathways to higher education;
- easily accessible continuing VET for people in different life situations simplifying skill development and career changes;
- widening accessibility to VET, making it more inclusive;
- flexible systems based on recognition of learning outcomes, including diplomas, and supporting individual learning pathways;
- supporting permeability and making it easier to move between different parts of the education and training system;
- cross-border mobility as an integral part of VET practice;
- skill development;
- strengthening key competences (European Parliament and Council of the European Union; 2006), including language learning ([l]) and entrepreneurship;
- promoting work-based learning;
- improving VET quality, including professional development of VET teachers, trainers and mentors and the use of quality assurance mechanisms;
- encouraging investment in VET;
- technological innovation.

([a]) See *Europe 2020: a strategy for smart, sustainable and inclusive growth* (European Commission, 2010).
([b]) See http://ec.europa.eu/europe2020/pdf/targets_en.pdf
([c]) The percentage of the population aged 25 to 64 participating in education and training during the four weeks prior to the survey (Eurostat, labour force survey).
([d]) Percentage of those aged 30 to 34 who successfully completed tertiary-level education at ISCED 5-8 (UNESCO-OECD-Eurostat database).
([e]) The share of the population aged 18 to 24 with only lower secondary education or less and no longer in education or training (Eurostat, labour force survey).
([f]) Often referred to as the employability benchmark and measured as the share of the employed population aged 20 to 34 who have at least an educational attainment at upper secondary level, graduated up to three years before and are not currently enrolled in any further education or training activity (Eurostat, labour force survey).
([g]) The period of study or training should represent a minimum of 15 European credit transfer scheme credits or last a minimum of three months.
([h]) The period of study or training should last a minimum of two weeks, or less if documented by Europass.
([i]) Work continues to develop a language learning benchmark (Council of the Ministers responsible for higher education; 2009).

The *New skills agenda* (European Commission, 2016) also acknowledged the value and the role of VET. It promotes it as a possible first choice, to pursue the objectives of improving the quality and relevance of skills formation, making

skills more visible, improving skills intelligence and information for better career choices (idem).

These policy perspectives and context issues have been considered key references for screening the European and international statistical infrastructure and its recent developments ([1]). Other technical factors have driven the selection of indicators. First, the indicators should be expressed in quantitative statistical terms. Qualitative progress, for example legislative or other policy changes introduced by Member States to reform VET, is important but best covered in policy reports rather than a restricted set of indicators. Second, quantitative indicators should be based on available, periodic and good-quality data, which are suitable for monitoring. Third, the indicators should focus on VET and its contribution to European VET policy and Europe 2020 employment, education and training benchmarks. Fourth, their number should be limited to generate a concise, easy to consult statistical product. Finally, the indicators should be complementary.

The list of core indicators considered in this publication is derived from background methodological work which started in 2012, has continued over time and was intensified in 2016, to account for the most recent developments in statistics. The number of indicators in this report is set at 36 ([2]). The definition of each core indicator and its data source are in the annex

The core indicators do not have a one-to-one relationship with different policy themes; such a link is not always helpful as some themes overlap. Others are too complex to be reduced to one or two indicators, or data are unavailable or poor quality. To ensure coherence and relevance to European VET policy as a whole, the indicators have been grouped under the three broad headings discussed below.

([1]) The European and international statistical infrastructure is understood here as the combination of data collections, surveys and related data production processes carried out at European and international levels to provide statistical information on VET and/or lifelong learning.

([2]) As a result of the background methodological work carried out in 2012, more than 140 ideal, quantitative or quantitative, indicators were identified. From the identified 140, 31 core indicators were initially selected with an additional one added in the second edition and another in the third. In this fourth edition one indicator has been dropped and four have been added, making a total of 36.

Access, attractiveness and flexibility

Core indicators in this group cover participation in initial and continuing VET by various target groups, chosen as the best proxy for the attractiveness of VET as a learning option. Current data do not capture the esteem associated with participating in initial VET, nor the extent to which students did not enrol in it even if they wished to (one indicator in this respect is available and used for CVET). One indicator in this group considers the extent to which students enrol initial vocational programmes providing direct access to tertiary education, aiming to provide insight into permeability and flexibility of initial VET systems. Indicators for initial VET duly consider school and work-based learning ([3]). The core indicators for continuing VET cover employer-sponsored training, both on courses and on the job. Participation in on-the-job training provides some insight into the flexibility of employer training arrangements and the importance of work-based continuing training in enterprises. Participation in courses is further specified for employees of small enterprises ([4]).

Core indicators under this heading also include the proportion of enterprises providing training, giving a clearer picture of opportunities and participation.

Participation by adults in lifelong learning is a core indicator as it is a specific European policy benchmark. Core indicators also consider particular breakdowns of participation rates by age, labour market status and educational attainment, to give an impression of how inclusive the VET system is and to reflect policy priorities for adult learners (aged 25 to 64), the unemployed, people with low levels of education (ISCED 0-2) and older workers (aged 50 to 64) ([5]).

([3]) The primary source of these data on initial VET is the annual UOE data collection. As for work-based learning in initial VET, alternative sources, the continuing vocational training survey (CVTS) and the labour cost survey, which also provide figures on apprenticeships, were considered, but these are less frequent. CVTS3 and CVTS4 data on initial VET were not regarded as of sufficient quality for a core indicator. Expected possible developments in the labour force survey may provide data on apprenticeships in the future, but they are not yet collected.

([4]) Although these are not the only forms of employer-provided training, courses and on-the-job training are the most important according to participation levels, as derived from the third and fourth continuing vocational training survey, which is the most relevant data source.

([5]) All indicators on lifelong learning come from the EU labour force survey, which is the current reference source for the benchmark.

One indicator is included to account for the share of job-related learning carried out by adults as part of their non-formal education and training. Even though not expressed in head-count terms, and even though not properly accounting for the formal component, this is intended to provide an indication of the contribution of CVET to lifelong learning.

Skill development and labour market relevance

This group includes core indicators on VET expenditure, the level of which can be related to the importance that governments, employers and individuals attribute to VET as a means for developing skills. Such investment, although important, is difficult to measure accurately: available data do not provide a comprehensive and integrated picture of public, private and individual expenditure on VET. For instance, public expenditure on initial VET understates the contribution of employers, particularly in countries with dual system initial VET such as Germany. The core indicators on public expenditure on initial VET ([6]) and enterprise expenditure on Continuing VET (training courses) ([7]) are the best available. Specific data on individual investment in VET are lacking. Being from different sources, the figures cannot be properly aggregated.

Other core indicators under this heading provide insights into VET's contribution to different types of learning and educational attainment. The skills covered by the core indicators are all of policy interest and relevance: studies of science, technology, engineering and maths subjects, language learning and technological innovation ([8]). One indicator specifically aims to reflect VET's contribution, particularly short-cycle tertiary VET contribution, to the Europe 2020 objective of raising graduations at tertiary level ([9]).

In considering labour market relevance, the core indicators focus on possible labour market benefits arising for those participating in initial and continuing VET.

Core indicators on the benefit of IVET consider employment rates of 20 to 34 year-old IVET graduates who are no longer in formal or non-formal education

([6]) Data from the UOE data collection.

([7]) Data from the continuing vocational training survey.

([8]) Data on field of study and on language learning come from the UOE data collection and data on technological innovation come from the community innovation survey.

([9]) Due to unfavourable ISCED and LFS developments, the indicator used to this end had to be substituted in this edition.

([10]). Employment rates are preferred over more traditional unemployment rates not only because, from a technical perspective, they reduce problems of sample sizes, but also because they are positive measures and are used for the European Commission's employability benchmark and the Europe 2020 employment benchmark. The age group selection and the exclusion of those in further formal or non-formal education and training are also in line with the employability benchmark. Data for young people better suit information needs related to the policy priority on transitions from school, work-based initial VET or other learning to work. Focus on the young may also give earlier indications of the impact of initial VET reform.

Core indicators compare employment rates of initial VET graduates aged 20 to 34 with two groups of the same age; first with that of general education graduates and then with the rate of those with low levels of education. All the indicators exclude individuals in further formal or non-formal education and training. The aim of the comparisons is to examine any added value of studying initial VET compared to general education or leaving school early, somehow controlling for varying labour market conditions in different countries.

Core indicators under this heading also include continuing VET impact on a person's ability to perform their job, providing data on the extent to which employees believe that continuing VET has enabled them to do their job better. This indicator is preferred to one on training impact on career prospects as other factors can affect them more than VET. The final indicator in this group looks at whether employees believe that they have the right skills for their job, to derive some idea about skill mismatch among workers ([11]).

Overall transitions and labour market trends

Core indicators in this group do not relate strictly to VET, but more broadly to education, training and the labour market. They provide information on the context in which the VET system operates, which is important from a policy perspective.

([10]) Data have become available from the core section of the labour force survey, so they can be updated annually; they are published regularly by Eurostat on their website. The indicator has been fine tuned in this edition. Previous editions only excluded those in further formal education and originated from Cedefop's calculations based on the 2009 ad hoc module of EU labour force survey.

([11]) Data are selected from the European working condition survey.

Core indicators here include other Europe 2020 benchmarks not covered elsewhere, such as early leavers from education and training, tertiary-level educational attainment for 30 to 34 year-olds, and adult employment rates. The benchmark on recent graduate employment rate (often referred to as the employability benchmark) is also considered here. These are complemented with indicators on other policy priorities such as the unemployment rate for the young, the proportion of 18 to 24 year-olds not in education training or employment, as well as the proportion of the adult population with low education levels and their employment rate ([12]). A particular version of the youth unemployment rate is adopted: while it is generally calculated and presented for those aged 15 to 24, the rate selected here focuses on 20 to 34 year-olds. This is to done to extend the age group, also considering later entrances to the labour market due to increasingly longer stay in initial education and training, and to exclude the age group 15 to 19, where active labour market participation is relatively low (with many individuals in education and training). The final indicator in this group is the projected share of total employment which will be accounted for by individuals with medium- or high-level qualifications in 2020 ([13]).

Recent developments in the statistical infrastructure

The list of indicators, and their presentation in the tables of this report, has been influenced by recent developments in the relevant European and statistical infrastructure. These are summarised here below and further discussed in the next section:

(a) ISCED 2011: adoption of ISCED-2011 ([14]) (replacing ISCED 97) ([15]) and its implementation in main surveys and data collection (2014);

(b) UOE data collection: new EU UOE regulation ([16]) and new 2014 UOE data collection manual ([17]);

([12]) All these indicators come from the EU labour force survey.

([13]) Data from Cedefop's skills forecast.

([14]) International standard classification of education, 2011 (UNESCO-UIS, 2012).

([15]) International standard classification of education, 1997 (UNESCO, 2006).

([16]) European Commission, 2013a; replacing, reinforcing and enriching former gentlemen's agreements.

([17]) UNESCO-UIS, OECD and Eurostat, 2014; replacing the 2013 version of the manual UNESCO-UIS, OECD and Eurostat, 2013; and previous ones.

(c) EU-LFS: collection in core EU labour force survey (European Commission, 2013b), since 2014, of information on the orientation (general/vocational) of formal education, particularly for the highest level of education;
(d) CVTS: adoption of the regulation for the fifth continuing vocational training survey (European Commission, 2014a);
(e) AES: adoption of the regulation for the adult education survey 2016 (European Commission, 2014b);
(f) EU-LFS 2016 AHM-2016 ad hoc module of the LFS on the situation of young people in the labour market: adoption of the list of variables and definition (European Commission, 2015) of the explanatory notes (Eurostat, 2016d);
(g) PIAAC: release of first OECD PIAAC survey results (2013) ([18]);
(h) EWCS: Eurofound sixth wave of the European working condition survey (2015) ([19]);
(i) ESJS: release of first Cedefop European skills and jobs survey results ([20]).

Challenges and opportunities for statistics

One of the key recent developments in the statistical infrastructure has been the adoption of ISCED 2011. This is the 2011 version of the international standard classification of education (UNESCO-UIS, 2012) which has been implemented in main European and international statistical sources since 2014 as a data collection year ([21]). While an in depth discussion of the changes between ISCED 97 and ISCED 2011 is out of the scope of this introduction, it is important to recall briefly the main ones and their impact on statistics and indicators, including those considered in this publication.

([18]) PIAAC stands for programme for the international assessment of adult competencies and it is an OECD programme. The reference here is to the publication *OECD skills outlook 2013: first results from the adults skills survey* (OECD, 2013).

([19]) Information available at: http://www.eurofound.europa.eu/surveys/european-working-conditions-surveys/sixth-european-working-conditions-survey-2015

([20]) ESJS stands for European skills and jobs survey. The reference here is to the publications *Skills, qualification and Jobs in the EU: the making of a perfect match?* (Cedefop, 2015c).

([21]) This means that first data based on ISCED 2011 were available for reference year 2014 if originating from LFS; year 2013 if originating from the UOE enrolments graduates templates; year 2012 if originating from the UOE expenditure template.

ISCED 2011 has dedicated further attention to levels of education (first digit of the classification), particularly at and within tertiary education. This was associated with two levels (5 and 6 of ISCED 97) and it is now associated with four levels (5-8 of ISCED 2011). ISCED 2011 has given more prominence to the orientation (general versus vocational) of the education, identifying it with the second digit of the classification. The vocational stream of education is properly distinguished and defined at ISCED 2011 level 2 (lower secondary education), 3 (upper secondary education), 4 (post-secondary non tertiary) and 5 (short-cycle tertiary education). At higher levels, a distinction is also present between academic versus professional education, but this is not yet supported by an internationally agreed definition. In ISCED 2011, the orientation has now only two categories: general and vocational education, whereas ISCED 97 provided for a third category, pre-vocational education. Under ISCED 2011, this category has been dropped and, based on previous and current definitions, it is expected to be mainly classified as general education (although, correctly, an automatic conversion rule is not provided for in ISCED-2011) ([22]). ISCED 2011 has also a third tier of classification (the third digit) which further distinguishes education based on level completion and access to higher levels of education. There is also more attention to the distinction between educational programmes and attainment at any given level of education. ISCED has become a much more hierarchical classification of education and the three digits approach (level, orientation, completion and access to higher levels) paves the way to collection of data simultaneously accounting for the three different dimensions. ISCED 2011 has also been complemented with an update version of the classification of fields of study (ISCED fields of education and training), often shortened as ISCED-F 2013 (UNESCO-UIS, 2013).

These developments have been reflected, to varying extents, in the main surveys and data collections.

The UOE data collection on education has become even more information rich. Enrolment data on number of students and graduates are now collected with higher level of detail: they are available for general and vocational orientation at various levels (including ISCED 2011 level 5) and in some instances they can be further distinguished based on the third digit of the classification. In the EU, this

([22]) An automatic rule has been adopted in the UOE data collection: ‘Programmes of 'pre-vocational' orientation in ISCED-97 should be reported as 'general' in this data collection’ (UNESCO-UIS, OECD and Eurostat, 2016).

data collection now covers, on a mandatory basis, enrolments in combined school- and work-based vocational programmes and data on expenditure on initial VET. Although only on a voluntary basis, at EU level, the UOE also collects separate data on tertiary professional and academic education. In the absence of an internally agreed definition, it uses national ones. Key aggregates, such as students, graduates and expenditure can be broken by various characteristics, although not all, and the number of breakdowns has also increased. ISCED-F 2013 has been properly implemented in the UOE, with the collection of many detailed breakdowns by field of study, where broad, narrow and detailed fields are all duly considered.

Household surveys have also benefited from higher prominence given to initial VET. In the LFS (Eurostat, 2016a) for instance, since 2014, information on the highest level of education is now annually available in a way which distinguishes whether this is general or vocational. This is major achievement, even though the distinction is only for young people and only at medium level of education (ISCED 3 and 4, neglecting ISCED 5). This development already supports the production of annual indicators on young VET graduates, including their situation on the labour market and/or participation in further education and training; Eurostat has started disseminating part of in its online database. Similar developments and under similar constraints (age and ISCED level) have occurred in both the survey on income and living conditions (EU-SILC ([23])) and in the adult education survey (AES). In such domains, the production of further evidence, specifically on young VET graduates, is possible in principle. While this could be done in the context of in-depth research work (for instance looking at the relationship between variables and possibly making use of advanced multivariate techniques), the production of country-specific descriptive indicators should be carefully evaluated, considering that these sources have smaller sample sizes than the LFS. Information on the field of study is also collected in the EU-LFS but a regretful loss of information has occurred: collection of information has been restricted only to young people and further limited to the generic broad field of study.

ISCED developments and their implementation also implied methodological changes which affected, to varying extents, comparability over time of the data.

([23]) See list of educational variables in the EU-SILC at: http://ec.europa.eu/eurostat/documents/1012329/6070906/Personal+data+-+Education_1.pdf/5f2b0736-61ea-46f4-bf9d-dc77765d522d

There is some general, but not perfect and one-to-one, correspondence between single levels of education as considered in ISCED 97 and ISCED 2011, particularly at ISCED 3 and 4. There is no perfect correspondence between the dimension of orientation and its categories as considered in the latest versions of the ISCED. This is based on Eurostat assessment as reported in various documents (Eurostat, 2013; 2015b; 2016b; 2016c; 2016e), as well as Cedefop's own assessment of other relevant material on the topic (European Commission, 2008; Eurostat, 2008; 2015a).

In the context of the UOE data collection, ISCED changes and the consequent revision of the UOE methodology resulted in 'ISCED levels for which a direct correspondence between ISCED 97 and ISCED 2011 does not exist. These are: ISCED levels 3 to 5, at two-digit level of detail and ISCED 6 and 7 at one-digit of detail, when relevant' (Eurostat, 2013, p. 14). This undermines the comparability over time of key UOE statistics and indicators, including those related to VET, particularly at upper secondary level. As a consequence, Eurostat started publishing the UOE data collected under ISCED 2011 in separate new folders. It also launched an initiative, based on countries' voluntary participation, to collect a selection of past data based on the new ISCED 2011. The aim is to have key indicators-based data comparable over time and derive information on trends.

The situation is less problematic with statistics and indicators originating from the LFS, particularly those considering educational attainment, where figures are generally computed and presented for three aggregates: high or tertiary (ISCED 5 and above), medium (ISCED 3 and 4) or low educational attainment (ISCED 2 or below). An assessment of comparability over time of such indicators is available as part of Eurostat relevant metadata (Eurostat, 2016b): 'at this level of aggregation data are directly comparable for all available countries with the exception of Austria' ([24]). When considering both level and orientation of education, LFS statistics have been available from the core section of the survey since 2014. They were also collected as part of the 2009 ad hoc module on entry of young people into the labour market. However, it has been

([24]) The level shift break in Austria is due to the reclassification of a programme spanning levels: the qualification acquired on successful completion of higher technical and vocational colleges is allocated in ISCED 2011 to level 5; under ISCED 97 the same qualification was reported on level 4, but earmarked as equivalent to tertiary education.

assessed by Cedefop that a proper comparison is not possible between data originating from the core section (under ISCED 2011) and the ad hoc module (under ISCED 97). This is mainly due to variations in the categorisation of prevocational qualifications over time as well as to technical differences in LFS weighting factors and sample sizes between core and ad hoc observations.

Other important changes have concerned the CVTS, which was further streamlined. Despite this, it will be possible to use its fifth wave to derive the most important statistics originating from it, with some notable exceptions. The main ones are participation of employees in guided on-the-job training (which will be no longer possible based on headcounts) and the indicators related to skills deemed important by employers (which will continue to be available but will not be comparable over time). Other minor changes concerned the EWCS with implications on comparability over time for some of the indicators used in this report.

The AES has been confirmed: in the 2016 round, technical improvements have been adopted to capture better the participation of individuals in the non-formal job related and employer sponsored component of adult education and training. Also, a section on prevalence and characteristics of guidance and counselling has been added.

The 2016 ad hoc module of the LFS on the situation of young people on the labour market has adopted variables related to work-based learning as part of the highest level of education and other important variables, quantifying drop-out of young people from upper secondary VET and skills match.

The orientation of education has also been derived in the PIAAC dataset, based on the title of the highest qualification held by interviewees, to support statistics for VET graduates on their skills levels (proficiency) in the domains of literacy, numeracy and problem solving in a technologically rich environment. More specific data on self-perceived skills match and skills developments for the employed have become available from the Cedefop skills and jobs survey, including possible breakdowns by level, orientation and work-based nature of highest level of education.

Persisting gaps

ISCED 2011 has better considered VET at tertiary level of education. However an operational definition only exists at ISCED 5 and this is only implemented in the UOE data collection on education systems. The need is felt for VET at ISCED 5 to be considered also in the LFS (and in other household surveys) and more generally for establishing an internationally agreed definition of it at higher education levels.

At medium education levels, for the time being, household surveys, including the LFS only capture education orientation for young people, preventing the possibility to derive a more complete picture for all adults, including older cohorts. The OECD experience (and data regularly published in *Education at a glance*) shows that this can be extended, at least in LFS, to support analysis for all adults, including older cohorts.

Another major perceived gap is the absence of stable, regular and frequent LFS data on work-based learning in initial VET. This prevents the calculation of important indicators such as those on individuals having achieved their highest level of education through work-based learning and their situation on the labour market. Related information from LFS ad hoc modules is available but has various issues: it is too infrequent to meet policy needs; it tends to be collected in ways and sections somehow far from the ideal (the ideal being the core section on educational attainment of the LFS in compliance with the approaches used there); and it is subject to methodological changes over time (preventing appropriate comparisons). Indicators on apprentice numbers, with quality and periodicity suitable for monitoring policy developments, are also lacking.

Given the absence of panel data, which could allow tracking of individual trajectories, cross-sectional variables from the adult education survey (AES) could be used to assess usefulness and outcomes of adult learning based on self-reported assessment by interviewees. Variables targeting individual satisfaction with learning activities have been dropped from the AES but those on the use of acquired skills have been improved. These are important dimensions of VET quality.

Absence of longitudinal and more objective data is a limitation. Better exploitation of the longitudinal component of the EU-SILC, and/or of the EU-LFS waves approach, could be a way forward, especially for CVET.

To identify VET contribution to lifelong learning better there is a need to single it out from other types of learning. Developments could include measuring employer-sponsored training and or job-related learning not only as a component of non-formal education and training but also as a component of the formal part, ideally in the LFS or, more pragmatically speaking, in AES.

Improving, complementing and maintaining core indicators

Opportunities, challenges and persisting gaps have been considered for improving, complementing and updating the core indicators.

From the 33 indicators used in the previous version of the country statistical overviews (Cedefop, 2015a), 26 reappear unchanged in the present update. New data are presented for 20 of those. Results from the fifth wave of the CVTS (four indicators) or the third wave of the AES (two indicators) were not yet available.

Four of the remaining seven indicators were previously available for a single year, as they were based on the EU-LFS 2009 ad hoc module. A common feature of these four indicators is that they focus on young VET graduates (those having a medium-level vocational qualification as their highest level of education) ([25]). Since 2014, they can be updated annually: new data are presented in this report. While the definition of indicator 1080 (young VET graduates in further education and training) has remained unchanged, the operationalisation of indicator 2080, 2090 and 2100 (employment rate of IVET graduates and related employment premium over those from the general stream and over those with low educational attainment) have slightly changed: calculations now exclude those in 'further formal or non-formal education and training' and not only those in further formal education. This is to bring the data more in line with the employability benchmark and to exploit data validated by Eurostat ([26]).

The indicator of IVET public expenditure per student has been improved by expressing it in PPS ([27]) units instead of euros. This rescaling makes comparisons across countries more meaningful.

Due to methodological changes in the EWCS, it was necessary to adapt the operationalisation of indicator 2110 (workers helped to improve their work by training). The indicator considered in this update targets the same concept, but it is now based on answers from a two points agreement scale rather than five. There are available data for 2015, but the indicator values are no longer comparable with the previous (2010) ones.

([25]) No 1080: young VET graduates in further education and training (%); No 2080: employment rate for IVET graduates (20-34 year-olds); No 2090: employment premium for IVET graduates (over general stream); No 2100: employment premium for IVET graduates (over low-educated).

([26]) Indicators 2080, 2090 and 2100 are calculated and published by Eurostat.

([27]) 'The purchasing power standard, abbreviated as PPS, is an artificial currency unit. Theoretically, one PPS can buy the same amount of goods and services in each country.' http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Purchasing_power_standard_(PPS)

This update continues to present one indicator to reflect VET contribution to the Europe 2020 objective of raising educational attainment at tertiary level. In the 2014 update of the country statistical overviews, the percentage of 30 to 34 year-olds with tertiary VET attainment (ISCED 97 5b) was included in the list of indicators (as indicator 2060). An attractive feature of this indicator was that it was closely related to indicator 3020 (the percentage of 30 to 34 year-olds with tertiary attainment, which is an important benchmark and came from the same source). Calculations and updates of indicator 2060 are no longer possible: ISCED 2011 no longer considers ISCED 5b education; at the time of writing, there was no internationally agreed definition of professional education at ISCED 6 and 7 and the EU-LFS data on educational attainment at ISCED 5 do not distinguish between general and vocational education. Therefore, an alternative new indicator (No 2065) has been used, based on the UOE data collection. It considers the annual outflow of graduates from short-cycle tertiary VET programmes which are 'sufficient for level completion' (ISCED 2011 code 554). Their number is expressed as a percentage of the number of graduates from tertiary level first programmes (including both short and long first programmes at ISCED 5-7). It measures, therefore, the contribution of short-cycle tertiary VET to the achievement of first time graduations at tertiary level regardless of age.

Three new indicators have been added to the adapted set of 33.

Indicator 1075 (percentage of employees of small firms participating in CVT courses) has been added, considering their persisting lower participation rates (Cedefop, 2015b), and with a view to cover better an often neglected target group affected by disadvantage. Indicator 3065 (employment rate for 20 to 64 year-olds with lower level of educational attainment) has been added to devote further attention to low-educated adults (the set of indicators now account for their prevalence as well as their employment patterns). Indicator 1025 uses a new opportunity created by the transition to ISCED 2011: it expresses the number of students enrolled in vocational programmes providing direct access to tertiary education as percentage of all upper secondary IVET students. It gives some insights into permeability and flexibility of initial VET systems.

Undermined comparability over time has had a broader influence on the way in which the indicator set is presented.

Several indicators derived from the UOE data collection and the EU-LFS have been affected by the transition from ISCED 97 to ISCED 2011 (UNESCO-UIS, 2012), with the actual impact depending on two factors: the level of aggregation involved and the consideration given to education orientation.

For indicators originating from the UOE, recent data (collected under ISCED 2011) cannot generally be compared against the 2010 baseline values

(collected under ISCED 97); this is why this report does not show 2010 values for them. It is expected, however, that some values relevant for the 2010 baselines will become available by 2017.

Unless orientation of education is involved in indicator definitions, recent data originating from the EU-LFS and collected under ISCED 2011, can generally be compared with 2010 values (collected under ISCED 97), with the exception of some indicators for Austria) ([28]). Indicators 1080, 2080, 2090 and 2100 (on educational and labour market outcomes of VET graduates), include orientation in their definition and new data cannot be compared against those from the 2009 ad hoc module. The latter were previously used to proxy 2010 baselines and are now ignored.

Apart from general methodological issues, a further challenge, compared to the previous edition, was a higher incidence of additional and country-specific breaks in series in the revised Eurostat online tables at the time of data retrieval.

As a result, the time frame used in the 2014 country tables (Cedefop, 2015a) had to be adapted.

The columns hosting data prior to 2010 has been removed. The columns hosting 2010 values relevant for the baselines are kept, but, in this update, they present a higher number of empty cells, part of which will be filled in future updates. Columns presenting developments over time have also been kept, but they now use a different approach. If 2010 baseline data are not available, developments are presented considering an alternative interval, based on a flexible range of years, including the last year available. Also, developments are considered in a way which exploits as many data points as possible, not only the simple difference of indicator values at two points in time.

Core indicators presented in this edition can be supplemented by other readily available data. For example, the core indicator gives the forecast for the share of total employment which will be accounted for by individuals with medium- or high-level qualifications, but there are data providing breakdowns by

([28]) Eurostat metadata 'educational attainment level and transition from education to work (based on EU-LFS)' (24.8.2016; latest update 4 February 2016):

'Introduction of the ISCED 2011 classification: data up to 2013 are based on ISCED 97, as from 2014 ISCED 2011 is applied. Online tables present data for three aggregates ('less than primary, primary and lower secondary education', 'upper secondary and post-secondary non-tertiary education', 'tertiary education'), and at this level of aggregation data are directly comparable for all available countries except Austria.' http://ec.europa.eu/eurostat/cache/metadata/en/edat1_esms.htm

sector, occupation and education level. Other examples of supplementary information include participation in, and graduation from, short-cycle tertiary-level VET (ISCED 5), outflows of graduates from upper secondary VET, annual expenditure on VET education institutions. Possible indicators on tertiary level professional education (ISCED 6 and 7) from the UOE data collection have not been derived nor presented, as the underlying data is based on national definitions. They could, however, be used to understand better the country context. For reasons related to stability, regularity and periodicity of relevant information from ESJS and PIAAC, no indicator from these sources was included in this report. However, these sources could be used to derive other complementary indicators such as, for instance, levels of skills possessed by individuals of literacy, numeracy and problem solving in a technologically rich environment (as measured by PIAAC); and self-perceived skills match and skills developments (as measured by Cedefop ESJS for employed persons).

Updated core indicators are planned.

Reading the country statistical overviews

The country statistical overviews cover the EU Member States and selected EFTA and candidate countries ([29]). The core indicators are presented in the same format for each country in a statistical overview.

A chart compares the situation of the country with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for a country is 100, then its performance equals the EU average. If the index is 90, the country's performance is 90% of (or 10% below) the EU average. If the index is 200, the country's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its index is below that of the EU average. If country-level data for a given indicator are not available or of limited reliability, they are not shown in the chart.

([29]) The selection of the candidate and EFTA countries is driven by data availability. Countries were excluded when available data were scarce for drawing a reasonably complete statistical overview. Of the countries whose ministers signed the Bruges communiqué, only Liechtenstein is not covered.

Data on which the index scores are calculated are presented in a country table, which also shows trends over time. Comments are provided to help read the data and highlight key points. In addition to country data, comments also refer to EU averages and, in some instances, to EU benchmarks (targets set for the EU averages and to be met by 2020), as well as to 2020 national targets. This is done to contextualise country data and to offer a basis for comparisons. There is no intention to identify EU averages or EU benchmarks as concrete target values for the countries. Even national targets, which could be more naturally interpreted in this sense, should be read with caution because they are objectives to be met by 2020 and not at present. A technical definition of each indicator is in the annex, which also includes the years used to calculate each indicator.

To provide some idea of trends, data from the baseline year 2010 are compared in the table with the most recent update (if available). For 2010 and the last available year, country data are shown alongside the EU average. For most indicators the last available year is 2013, 2014 or 2015, but there is no update for some indicators. Not all data or indicators are updated annually: some originate from surveys with a five year periodicity. In some cases, comparisons are not possible owing to changes in data series. Where a break in series occurs between the 2010 baseline and the last available year, the baseline data are not presented in the table.

In the right hand part of the table, recent trends are shown for both the country and the EU. The recent trend measure can be interpreted as the estimated average yearly variation of the indicator in recent years. It is based on a linear regression of the indicator over time (of which it represents the slope), and is expressed in the same unit of measure as the indicator itself (in most cases percentage point increase or decrease per year). This is a more sophisticated measure of developments over time than the simple change (simple difference between two data points). The recent trend is estimated using all relevant and reliable data points for the time series: these include the last year (most recent data) available and all the reliable data points since the baseline year; or, if there is at least one break in series between the two years, all reliable data points since the year in which the last (most recent) break in series occurred. This ensures that the trends consider the longest and most recent reliable time series available for the indicator and that for each time series as

many data points as possible are taken into account ([30]). The range of data points involved in the trend calculation may vary not only between indicators but also between countries. The country trend estimate is shown alongside the corresponding EU trend estimate ([31]).

EU average data are based on 28 countries. In some cases, EU averages were not directly available from the Eurostat online database and have been estimated as weighted averages of available country data (as indicated in the footnotes of the country tables). Countries for which data were not available in all years have been excluded.

Country tables do not present data when they are not available and offer additional information on data points which can be affected by quality issues (flags and footnotes).

One footnote (A) to country table states 'UOE back reconstruction of 2010 values based on ISCED 2011 not yet available'. This is to signify that some UOE comparable data for the 2010 baselines are expected from the ad hoc data collection Eurostat has launched, but they are not yet available. Another footnote (C) states '2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata'. This is to signify that due to implementation of ISCED 2011 in LFS and Eurostat online tables policy, a b flag is systematically used by Eurostat in association with 2014 data. This is, however, just a programming option which has to be read in combination with other relevant metadata stating that, given the level of aggregation considered in the tables, data can be compared. The 2014 b flag is therefore assessed redundant and ignored.

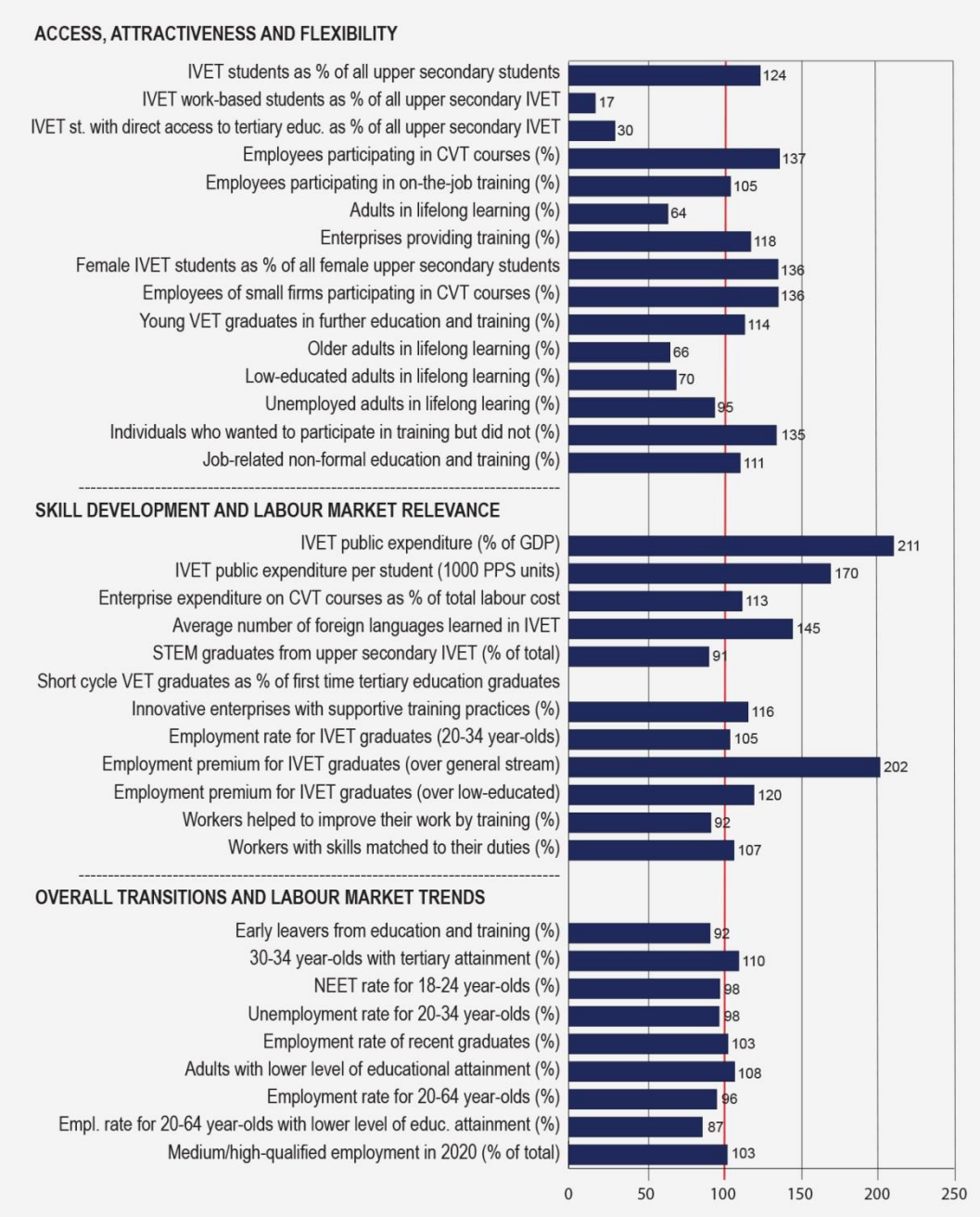
([30]) The aim is to summarise the recent variation in the indicator in an average yearly change measure. The trend has been calculated using a linear least squares estimator. This estimator uses the information in every reliable data point within the range, minimising the influence of measurement error.

([31]) The same range of data points has been used for both (EU and country) estimates. When necessary, the country range of data points has been limited further to make this possible.

Part I
Member States of the European Union

1. Belgium

VET indicators for Belgium for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Belgium's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Belgium with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Belgium is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Belgium's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

The percentage of all upper secondary students participating in IVET in Belgium is 59.7%, higher than the corresponding EU average of 48% (in 2014). Only 5.9% of upper secondary IVET students are in combined work- and school-based programmes compared with an estimated 34% for the EU as a whole. Participation in programmes giving direct access to tertiary education from upper secondary IVET is more limited in Belgium (20.9% of the students) than in the EU (69.2%). Belgium has proportionally fewer people involved in lifelong learning (6.9%) than the EU (10.7%) (data for 2015). Participation in employer-sponsored CVT courses (2010 CVTS data) is higher (52% of all employees in all enterprises surveyed) than in the EU (38%). The share of enterprises providing training is also higher (78% for Belgium compared with 66% for the EU as a whole). Older people and those with relatively low-level education are less likely to be enrolled in lifelong learning in Belgium than in the EU as a whole. The share of unemployed participating in lifelong learning in Belgium has increased recently, bringing it close to the EU average (which has declined in the same period). Participation of these three groups in lifelong learning (older, unemployed and low educated adults) is slightly below the level of 2010.

Skill development and labour market relevance

The main differences between Belgium and the EU in skill development and labour market relevance are set out below.

Public expenditure on IVET at ISCED 3-4 accounted for 1.18% of GDP, higher than in the EU (0.56%) (data for 2013). Belgium also has higher expenditure per student (10 900 PPS units) than the EU as a whole (6 400 PPS units). Belgian upper secondary IVET students learn 1.4 foreign languages on average, while the EU average is one (in 2014).

The employment rate for IVET graduates (aged 20 to 34) at ISCED 3-4 at 80.8% is higher than the EU average of 77.2%. IVET graduates in Belgium enjoy a positive premium on their employment rate compared to graduates from general education at the same ISCED level, as well as to graduates at a lower ISCED level. They have an employment rate 10.7 percentage points higher than their counterparts from general education (above the EU average premium of 5.3 percentage points) and 28.5 percentage points higher than those with lower-level qualifications (also above the EU average premium of 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in formal or non-formal further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated.

The share of early leavers from education and training (10.1%) is slightly lower than the EU average (11%). Although this figure showed an average decrease of 0.5 percentage points per year between 2010 and 2015, it is still above the national target (9.5%) and the EU-average target set by the Europe 2020 strategy (10%).

The percentage of 30 to 34 year-olds with tertiary-level education is 42.7%, higher than the EU-average of 38.7%. Belgium is above the Europe 2020 average target (40%), but has not yet surpassed the national target (47%). Also, in contrast with the recent positive trend in the EU (of 1% per year between 2010 and 2015), there has been a slight reduction of 0.2 percentage points per year in Belgium.

The percentage of adults with low-level educational attainment is higher than in the EU (25.3% compared with 23.5% in the EU). The unemployment rate for 20 to 34 year-olds has increased recently (with on average 0.5 percentage points per year between 2011 and 2015) and is close to the EU-average of 12.9%. Also, the NEET rate at 15.5% is only slightly below the EU-average of 15.8%.

Score on VET indicators in Belgium and in the EU, 2010, last available year and recent trend

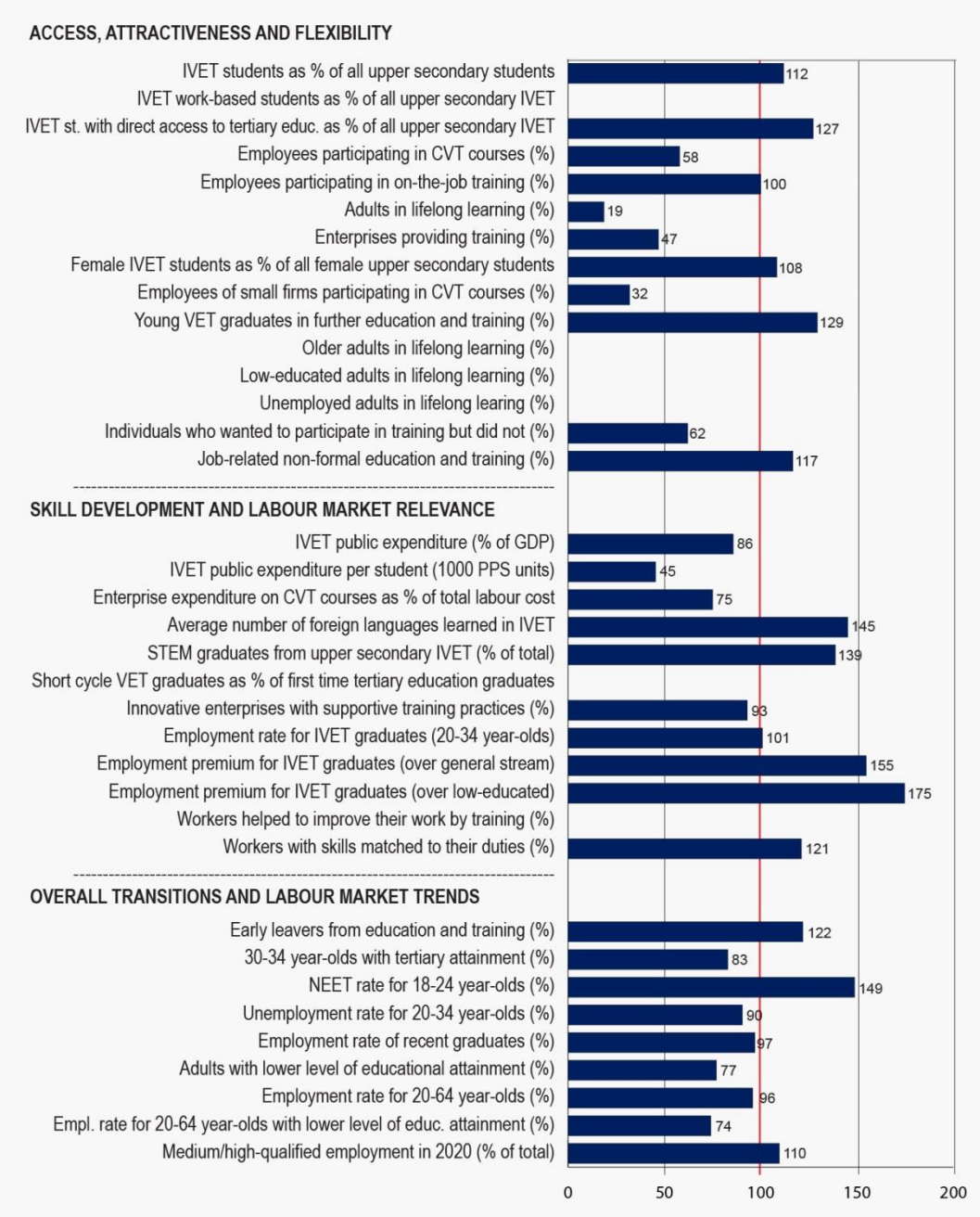
Indicator label	2010		Last available year			Recent trend (per year)			
	BE	EU	Yr	BE	EU	Range	BE		EU
Access, attractiveness and flexibility									
IVET students as % of all upper secondary students	A	A	'14	59.7 b	48.0 b E1	'13-'14	▪	-0.5	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	5.9 b	34.0 b E2	'13-'14	▪	0.0	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	20.9	69.2 E3	'13-'14	▪	0.2	▪ -1.4
Employees participating in CVT courses (%)	52.0	38.0 e	'10	52.0	38.0 e				
Employees participating in on-the-job training (%)	21.0	20.0 e	'10	21.0	20.0 e				
Adults in lifelong learning (%)	7.4		'15	6.9	10.7 b	'13-'15	→	0.0	→ 0.0
Enterprises providing training (%)	78.0	66.0 e	'10	78.0	66.0 e				
Female IVET students as % of all female upper secondary students	A	A	'14	58.0 b	42.7 b E1	'13-'14	▪	-0.5	▪ -1.0
Employees of small firms participating in CVT courses (%)	34.0	25.0 e	'10	34.0	25.0 e				
Young VET graduates in further education and training (%)			'15	37.7 b	33.0 b	'14-'15	▪	-0.3	▪ -0.3
Older adults in lifelong learning (%)	4.6	5.3	'15	4.5	6.9	'10-'15	→	0.0	↗ 0.4
Low-educated adults in lifelong learning (%)	3.2		'15	3.0 C	4.3 b C	'13-'15	→	0.0	↘ -0.1
Unemployed adults in lifelong learning (%)	9.7		'15	9.0	9.5 b	'13-'15	↗	0.3	↘ -0.4
Individuals who wanted to participate in training but did not (%)	12.8 B	9.5 eB	'11	12.8	9.5 e				
Job-related non-formal education and training (%)	89.3 B	80.2 eB	'11	89.3	80.2 e				
Skill development and labour market relevance									
IVET public expenditure (% of GDP)			'13	1.18 b	0.56 b E4				
IVET public expenditure per student (1000 PPS units)			'13	10.9 b	6.4 b E5	'12-'13	▪	0.7	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	0.9	0.8 e	'10	0.9	0.8 e				
Average number of foreign languages learned in IVET			'14	1.4 b	1.0 b E6	'13-'14	▪	0.1	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	27.3 b	30.0 b E7	'13-'14	▪	1.2	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	b	9.3 E8				
Innovative enterprises with supportive training practices (%)	60.0	41.5 E9	'12	48.4	41.6 E9	'10-'12	▪	-5.8	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	80.8 b	77.2 b	'14-'15	▪	0.5	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	10.7 b	5.3 b	'14-'15	▪	1.9	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	28.5 b	23.7 b	'14-'15	▪	3.2	▪ -0.1
Workers helped to improve their work by training (%)			'15	77.3	83.7				
Workers with skills matched to their duties (%)	61.2	55.2	'15	61.5	57.3	'10-'15	▪	0.1	▪ 0.4
Overall transitions and labour market trends									
Early leavers from education and training (%)	11.9	13.9	'15	10.1 C	11.0 C	'10-'15	↘	-0.5	↘ -0.6
30-34 year-olds with tertiary attainment (%)	44.4	33.8	'15	42.7 C	38.7 C	'10-'15	↘	-0.2	↗ 1.0
NEET rate for 18-24 year-olds (%)		16.6	'15	15.5 b	15.8	'11-'15	↗	0.1	↘ -0.3
Unemployment rate for 20-34 year-olds (%)		13.1	'15	12.6 b	12.9	'11-'15	↗	0.5	↘ -0.1
Employment rate of recent graduates (%)		77.4	'15	79.5 b C	76.9 C	'11-'15	↘	-0.4	→ 0.0
Adults with lower level of educational attainment (%)	29.5	27.3	'15	25.3 C	23.5 C	'10-'15	↘	-0.8	↘ -0.8
Employment rate for 20-64 year-olds (%)		68.6	'15	67.2 b	70.0	'11-'15	→	0.0	↗ 0.4
Employment rate for 20-64 year-olds with lower level of educational attainment (%)		53.4	'15	45.6 bC	52.6 C	'11-'15	↘	-0.4	↘ -0.1
Medium/high-qualified employment in 2020 (% of total)			'16	85.3 D	82.8 D				

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

2. Bulgaria

VET indicators for Bulgaria for the most recent year available
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Bulgaria's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Bulgaria with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Bulgaria is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Bulgaria's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

The percentage of all upper secondary students participating in IVET in Bulgaria is 53.7%, higher than the EU average of 48% (in 2014). The situation differs for adult participation in lifelong learning; at 2% this is much lower than the estimated EU average 10.7% (in 2015). Since 2010, the percentage of adults participating in lifelong learning has increased little in Bulgaria and remains much below the target of 15% set by the strategic framework *Education and training 2020*.

Data from the 2010 CVTS give an indication of the limited extent to which employers provide training to their staff: 31% of enterprises compared with the EU average of 66%. Consistent with this finding, the survey reports that relatively few employees undertake CVT courses (22% in Bulgaria compared with 38% across the EU). In contrast, participation by young IVET graduates in further education and training at 42.8% is higher than the EU average of 33% (in 2015).

Skill development and labour market relevance

Public expenditure on IVET (ISCED 3-4) per student at 2 900 PPS units is significantly lower than the EU average of 6 400 PPS units. Expenditure as a percentage of GDP at 0.48% is lower than the EU average of 0.56% (data for 2013).

The percentage graduating from upper secondary VET with STEM qualifications is higher at 41.6% than the EU average of 30.7%. The percentage of enterprises providing training to support innovation at 38.7% in 2012 is below

the EU average of 41.6%, but is higher than the percentage in 2010 (at 34%). The percentage of workers with skills matched to their duties is relatively high at 69.4% compared with 57.3% across the EU (data for 2015).

The employment rate for IVET graduates (aged 20 to 34) at ISCED 3-4 at 77.9% is slightly higher than the EU average of 77.2%. IVET graduates in Bulgaria enjoy a positive premium on their employment rate compared to graduates from general education at the same ISCED level, as well as to graduates at lower ISCED level. They have an employment rate 8.2 percentage points higher than their counterparts from general education (above the EU average premium of 5.3 percentage points) and 41.4 percentage points higher than those with lower-level qualifications (also above the EU average premium of 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in formal or non-formal further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated.

The rate of early leaving from education and training at 13.4% is higher than the EU average of 11%. In contrast with the EU as a whole, the overall trend from 2010 to 2015 in the rate of early leaving in Bulgaria has been upward (at 0.2% per year), keeping it above the Europe 2020 average target of 10% and the national target of 11%.

The percentage of 30 to 34 year-olds who have completed tertiary-level education is lower than the EU average of 38.7%. At 32.1% this indicator remains below the national target (36%) and below the Europe 2020 average target (40%). The percentage of adults with low educational attainment (18.1%) is below the average found across the EU (23.5%). The NEET rate for 18 to 24 year-olds is much higher at 23.5% than the EU average of 15.8%. But after a recent decrease (at 0.9% per year between 2011 and 2015) the unemployment rate for 20 to 34 year-olds at 11.7% is lower than the EU average of 12.9%. Also, the average trend between 2010 and 2015 in the employment rate of recent graduates has been positive (at 1.2% per year), bringing the employment rate at 74.6% close to the EU average of 76.9.

Score on VET indicators in Bulgaria and in the EU, 2010, last available year and recent trend

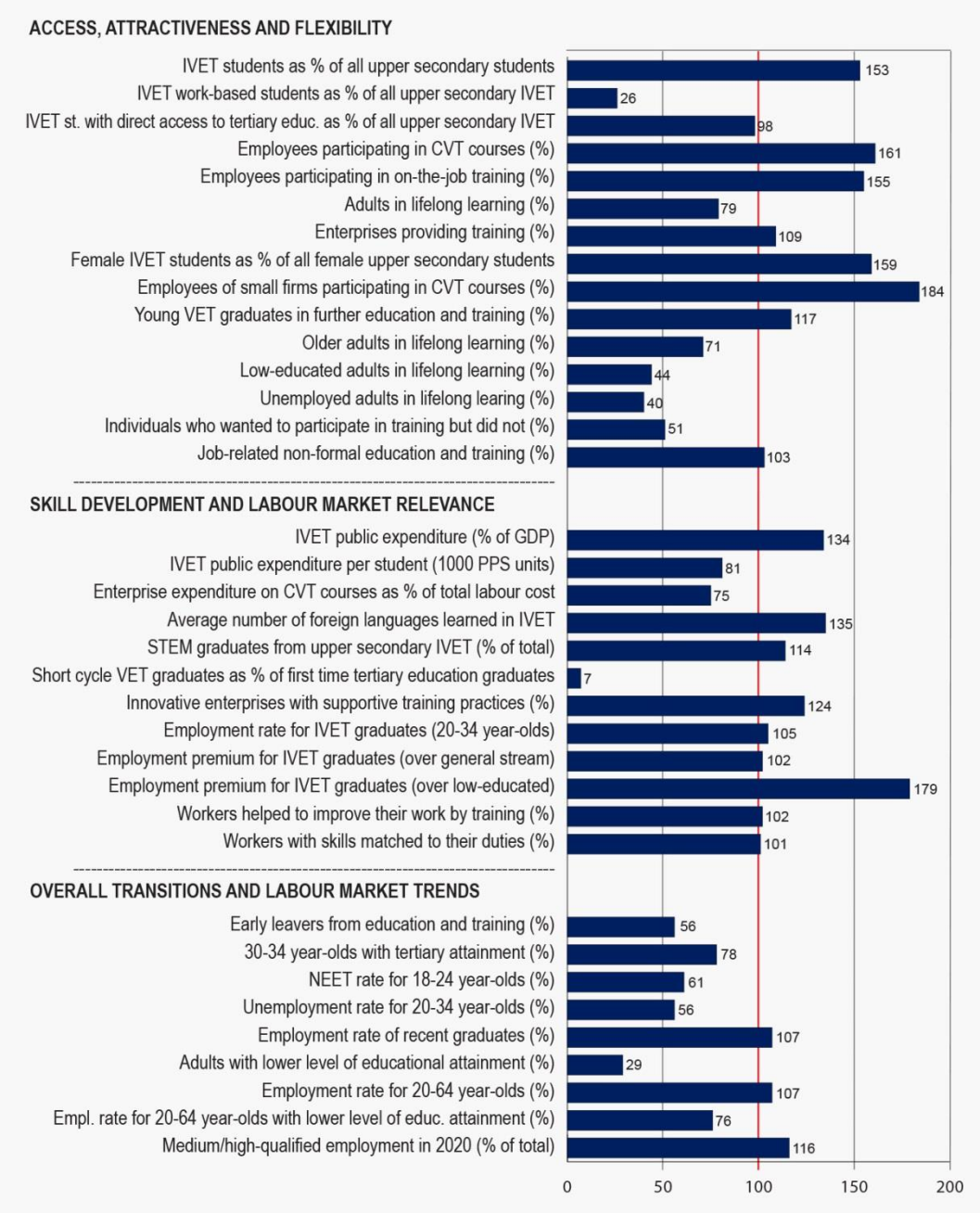
Indicator label	2010		Last available year			Recent trend (per year)		
	BG	EU	Yr	BF	EU	Range	BG	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	53.7 b	48.0 b E1	'13-'14	▪ 1.3	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	0.0 z	34.0 b E2	'13-'14	▪ 0.0	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	88.1	69.2 E3	'13-'14	▪ -4.2	▪ -1.4
Employees participating in CVT courses (%)	22.0	38.0 e	'10	22.0	38.0 e			
Employees participating in on-the-job training (%)	20.0	20.0 e	'10	20.0	20.0 e			
Adults in lifelong learning (%)	1.6		'15	2.0	10.7 b	'13-'15	→ 0.0	→ 0.0
Enterprises providing training (%)	31.0	66.0 e	'10	31.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	46.3 b	42.7 b E1	'13-'14	▪ 2.5	▪ -1.0
Employees of small firms participating in CVT courses (%)	8.0	25.0 e	'10	8.0	25.0 e			
Young VET graduates in further education and training (%)			'15	42.8 b	33.0 b	'14-'15	▪ 0.3	▪ -0.3
Older adults in lifelong learning (%)		5.3	'15	b u	6.9			
Low-educated adults in lifelong learning (%)	u		'15	u C	4.3 b C			
Unemployed adults in lifelong learning (%)	u		'15	u	9.5 b			
Individuals who wanted to participate in training but did not (%)	5.9 B	9.5 e B	'11	5.9	9.5 e			
Job-related non-formal education and training (%)	93.6 B	80.2 e B	'11	93.6	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.48 b	0.56 b E4	'12-'13	▪ 0.04	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	2.9 b	6.4 b E5	'12-'13	▪ 0.3	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	0.6	0.8 e	'10	0.6	0.8 e			
Average number of foreign languages learned in IVET			'14	1.4 b	1.0 b E6	'13-'14	▪ -0.1	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	41.6 b	30.0 b E7	'13-'14	▪ 0.7	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	0.0 z	9.3 E8	'13-'14	▪ 0.0	▪ 0.4
Innovative enterprises with supportive training practices (%)	34.0	41.5 E9	'12	38.7	41.6 E9	'10-'12	▪ 2.4	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	77.9 b	77.2 b	'14-'15	▪ 0.3	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	8.2 b	5.3 b	'14-'15	▪ -5.1	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	41.4 b	23.7 b	'14-'15	▪ -2.4	▪ -0.1
Workers helped to improve their work by training (%)			'15	94.3 u	83.7			
Workers with skills matched to their duties (%)	64.3	55.2	'15	69.4	57.3	'10-'15	▪ 1.0	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)	12.6	13.9	'15	13.4 C	11.0 C	'10-'15	↗ 0.2	↘ -0.6
30-34 year-olds with tertiary attainment (%)	28.0	33.8	'15	32.1 C	38.7 C	'10-'15	↗ 1.0	↗ 1.0
NEET rate for 18-24 year-olds (%)	26.0	16.6	'15	23.5	15.8	'10-'15	↘ -0.5	↘ -0.1
Unemployment rate for 20-34 year-olds (%)		13.1	'15	11.7 b	12.9	'11-'15	↘ -0.9	↘ -0.1
Employment rate of recent graduates (%)	69.7	77.4	'15	74.6 C	76.9 C	'10-'15	↗ 1.2	↘ -0.2
Adults with lower level of educational attainment (%)	20.9	27.3	'15	18.1 C	23.5 C	'10-'15	↘ -0.5	↘ -0.8
Employment rate for 20-64 year-olds (%)		68.6	'15	67.1 b	70.0	'11-'15	↗ 1.0	↗ 0.4
Employment rate for 20-64 year-olds with lower level of educational attainment (%)		53.4	'15	39.0 b C	52.6 C	'11-'15	↗ 0.7	↘ -0.1
Medium/high-qualified employment in 2020 (% of total)			'16	90.8 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

3. Czech Republic

VET indicators for the Czech Republic for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

The performance of the Czech Republic on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in the Czech Republic with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for the Czech Republic is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, the performance of the Czech Republic is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

Participation levels in VET are relatively high. In 2014, the percentage of upper secondary students participating in IVET at 73.4% is much higher than the EU average of 48%. In contrast, the share of IVET students involved in combined work- and school-based programmes (8.8%) is below the estimated EU average (34%). Adult participation in lifelong learning (8.5%) is lower than the EU average of 10.7% (data for 2015). The participation rates in lifelong learning of low educated adults (1.9%) and unemployed adults (3.8%) are more substantially below the EU average (4.3% and 6.9% respectively). Enterprise provision of training and employee participation in CVT courses – derived from 2010 CVTS data – are both higher than the EU average. For example, 61% of employees participated in CVT courses compared with 38% in the EU, and 72% of employers report providing training compared with 66% in the EU. Similar differences can be found for participation in on-the-job training (31% for the Czech Republic, 20% for the EU as a whole). The share of employees of small firms participating in CVT courses (46%) is above the EU average (25%).

Skill development and labour market relevance

The Czech Republic has high values in several indicators in this group. Public expenditure on IVET as a percentage of GDP (0.75%), is higher than the estimated EU average (0.56%), though the amount spent per student, 5 200 PPS

units, is below the EU average estimated at 6 400 PPS units. The share of STEM graduates from upper secondary VET is higher than the EU average (35.4% and 29.2% respectively). The percentage of short-cycle VET graduates among first time tertiary education graduates (0.6%) is below the EU average (9.3%). The employment rate for IVET graduates (aged 20 to 34) (81.2%) is approximately in line with the EU average (77.2%) (data for 2015). IVET graduates in the Czech Republic enjoy a positive premium on their employment rate compared to graduates from general education at the same ISCED level (of magnitude similar to the EU average), as well as to graduates at a lower ISCED level (of a considerable magnitude). Their employment rate is 42.5 percentage points higher than that of those with lower-level qualifications (above the corresponding EU average premium of 23.7 percentage points). All these data relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated. There has been a slight increase in the percentage of early leavers from education and training in the Czech Republic between 2013 and 2015 (0.4% yearly) to the current value of 6.2%. This is still well below the EU average (11%) and the Europe 2020 average target (10%), but above the national target (5.5%). The unemployment rate for 20 to 34 year-olds at 7.2% is below the EU average of 12.9%. Fewer adults have low-level education than in the EU (6.8% compared with 23.5% in the EU). The share of 30 to 34 year-olds with tertiary-level education has increased from 24.1 in 2011 to 30.1% in 2015, but is still below the EU average of 38.7%, the Europe 2020 average target of 40% and the national target of 32%. Both the employment rate of recent graduates (82.2%) and that for 20 to 64 year-olds (74.8%) are higher in the Czech Republic than for the EU as a whole (76.9% and 70% respectively). In contrast, the employment rate for 20 to 64 year-olds with lower level of educational attainment (40.2%) is below the EU average (52.6%).

Score on VET indicators in the Czech Republic and in the EU, 2010, last available year and recent trend

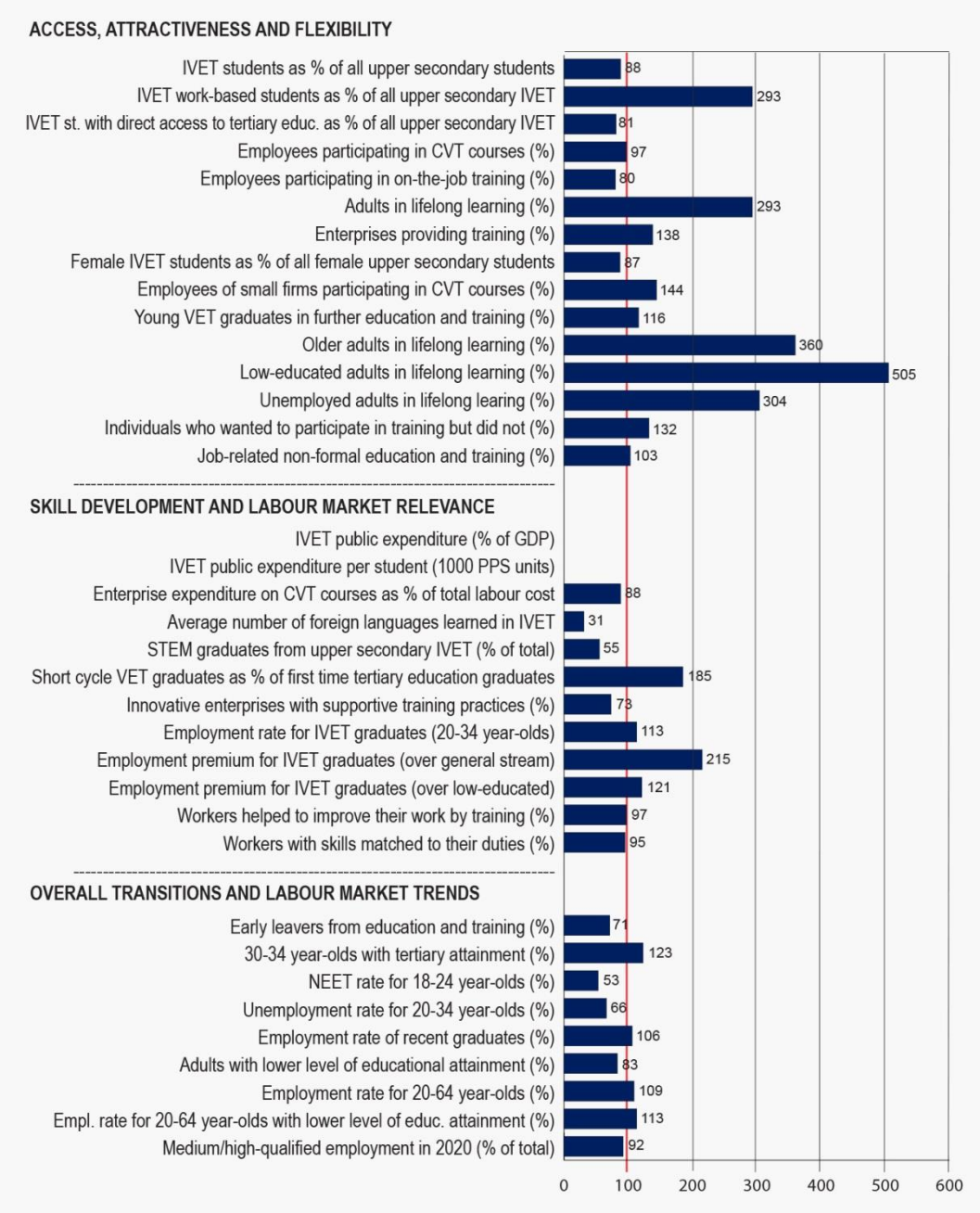
Indicator label	2010		Last available year			Recent trend (per year)		
	CZ	EU	Yr	CZ	EU	Range	CZ	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	73.4 b	48.0 b E1	'13-'14	▪ -0.3	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	8.8 b	34.0 b E2	'13-'14	▪ 0.0	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	67.9	69.2 E3	'13-'14	▪ -0.8	▪ -1.4
Employees participating in CVT courses (%)	61.0	38.0 e	'10	61.0	38.0 e			
Employees participating in on-the-job training (%)	31.0	20.0 e	'10	31.0	20.0 e			
Adults in lifelong learning (%)			'15	8.5 b	10.7 b	'13-'15	↘ -0.8	→ 0.0
Enterprises providing training (%)	72.0	66.0 e	'10	72.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	67.9 b	42.7 b E1	'13-'14	▪ -0.4	▪ -1.0
Employees of small firms participating in CVT courses (%)	46.0	25.0 e	'10	46.0	25.0 e			
Young VET graduates in further education and training (%)			'15	38.8 b	33.0 b	'14-'15	▪ -2.1	▪ -0.3
Older adults in lifelong learning (%)		5.3	'15	4.9 b	6.9	'13-'15	↘ -0.4	↗ 0.1
Low-educated adults in lifelong learning (%)			'15	1.9 b C	4.3 b C	'13-'15	↘ -0.3	↘ -0.1
Unemployed adults in lifelong learning (%)			'15	3.8 b	9.5 b	'13-'15	↘ -0.8	↘ -0.4
Individuals who wanted to participate in training but did not (%)	4.8 B	9.5 e B	'11	4.8	9.5 e			
Job-related non-formal education and training (%)	82.5 B	80.2 e B	'11	82.5	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.75 b	0.56 b E4	'12-'13	▪ -0.05	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	5.2 b	6.4 b E5	'12-'13	▪ 0.0	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	0.6	0.8 e	'10	0.6	0.8 e			
Average number of foreign languages learned in IVET			'14	1.3 b	1.0 b E6	'13-'14	▪ 0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	34.2 b	30.0 b E7	'13-'14	▪ 1.8	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	0.6	9.3 E8	'13-'14	▪ 0.0	▪ 0.4
Innovative enterprises with supportive training practices (%)	47.1	41.5 E9	'12	51.4	41.6 E9	'10-'12	▪ 2.2	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	81.2 b	77.2 b	'14-'15	▪ 2.3	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	5.4 b	5.3 b	'14-'15	▪ 5.1	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	42.5 b	23.7 b	'14-'15	▪ 5.7	▪ -0.1
Workers helped to improve their work by training (%)			'15	85.5	83.7			
Workers with skills matched to their duties (%)	61.4	55.2	'15	57.9	57.3	'10-'15	▪ -0.7	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)		13.9	'15	6.2 b C	11.0 C	'13-'15	↗ 0.4	↘ -0.5
30-34 year-olds with tertiary attainment (%)		33.8	'15	30.1 b C	38.7 C	'11-'15	↗ 1.5	↗ 1.0
NEET rate for 18-24 year-olds (%)		16.6	'15	9.7 b	15.8	'13-'15	↘ -1.1	↘ -0.7
Unemployment rate for 20-34 year-olds (%)		13.1	'15	7.2 b	12.9	'11-'15	↘ -0.4	↘ -0.1
Employment rate of recent graduates (%)		77.4	'15	82.2 b C	76.9 C	'13-'15	↗ 0.9	↗ 0.7
Adults with lower level of educational attainment (%)		27.3	'15	6.8 b C	23.5 C	'11-'15	↘ -0.2	↘ -0.8
Employment rate for 20-64 year-olds (%)		68.6	'15	74.8 b	70.0	'11-'15	↗ 1.0	↗ 0.4
Employment rate for 20-64 year-olds with lower level of educational attainment (%)		53.4	'15	40.2 b C	52.6 C	'11-'15	↗ 0.3	↘ -0.1
Medium/high-qualified employment in 2020 (% of total)			'16	96.1 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

4. Denmark

VET indicators for Denmark for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Denmark's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Denmark with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Denmark is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Denmark's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

The percentage of upper secondary students in IVET (42.2%) is lower than the EU average (48%) but nearly all IVET students are engaged in combined work- and school-based programmes (99.7% compared with 34% in the EU, data for 2014). The share of upper secondary IVET students in programmes giving direct access to tertiary education (56%) is below the EU average (69.2%). Data for 2015 show that adult participation in lifelong learning is almost three times the EU average (31.3% compared to 10.7%), and twice the average target (15%) set by the strategic framework *Education and training 2020*. Older adults, those with low-level education, and the unemployed are three to five times more likely to participate in lifelong learning than their counterparts across the EU, though there has been a slight reduction in participation rates recorded by these groups between 2010 and 2015. The percentage of adults who wanted to train, but did not, is slightly higher in Denmark (12.5%) than in the EU as a whole (9.5%).

Skill development and labour market relevance

The percentage of students graduating from IVET in STEM subjects is below the EU average (16.5% in Denmark and 30% in the EU, data for 2014). Graduates from short-cycle VET programmes accounts for a large share of first time graduates at tertiary level (17.3%), well above the EU average (9.3%). Based on 2015 data, the employment rate for IVET graduates (aged 20 to 34) at ISCED 3-4 (87.4%) is higher than the EU average (77.2%). IVET graduates in Denmark

enjoy a positive premium on their employment rate compared to graduates from general education at the same ISCED level, as well as to graduates at a lower ISCED level. Their employment rate is 11.4 percentage points higher than that for graduates from general education (well above the EU average premium of 5.3 percentage points) and 28.6 percentage points higher than that for graduates with lower-level qualifications (also above the EU average premium of 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

Denmark scores favourably in nearly all indicators in this group. The rate of early leavers from education and training showed a 3.2 percentage point decrease between 2010 and 2015; at 7.8%, this is lower than the EU average of 11%. This value for Denmark is below both the average target set by the Europe 2020 strategy and the national target of 10%. The percentage of 30 to 34 year-olds with tertiary-level education (47.6%) is higher than the EU average (38.7%), and surpasses both the Europe 2020 average target and the national target, both of which are set at 40%. The percentage of adults with low-level education in Denmark is lower than the EU average (19.6% compared with 23.5%). The employment rate for 20 to 64 year-olds (76.5%) is higher than the EU average (70%). The unemployment rate for 20 to 34 year-olds is 8.6%, lower than the EU average (12.9%). The NEET rate is almost half that in the EU (8.4% compared with 15.8%).

Score on VET indicators in Denmark and in the EU, 2010, last available year and recent trend

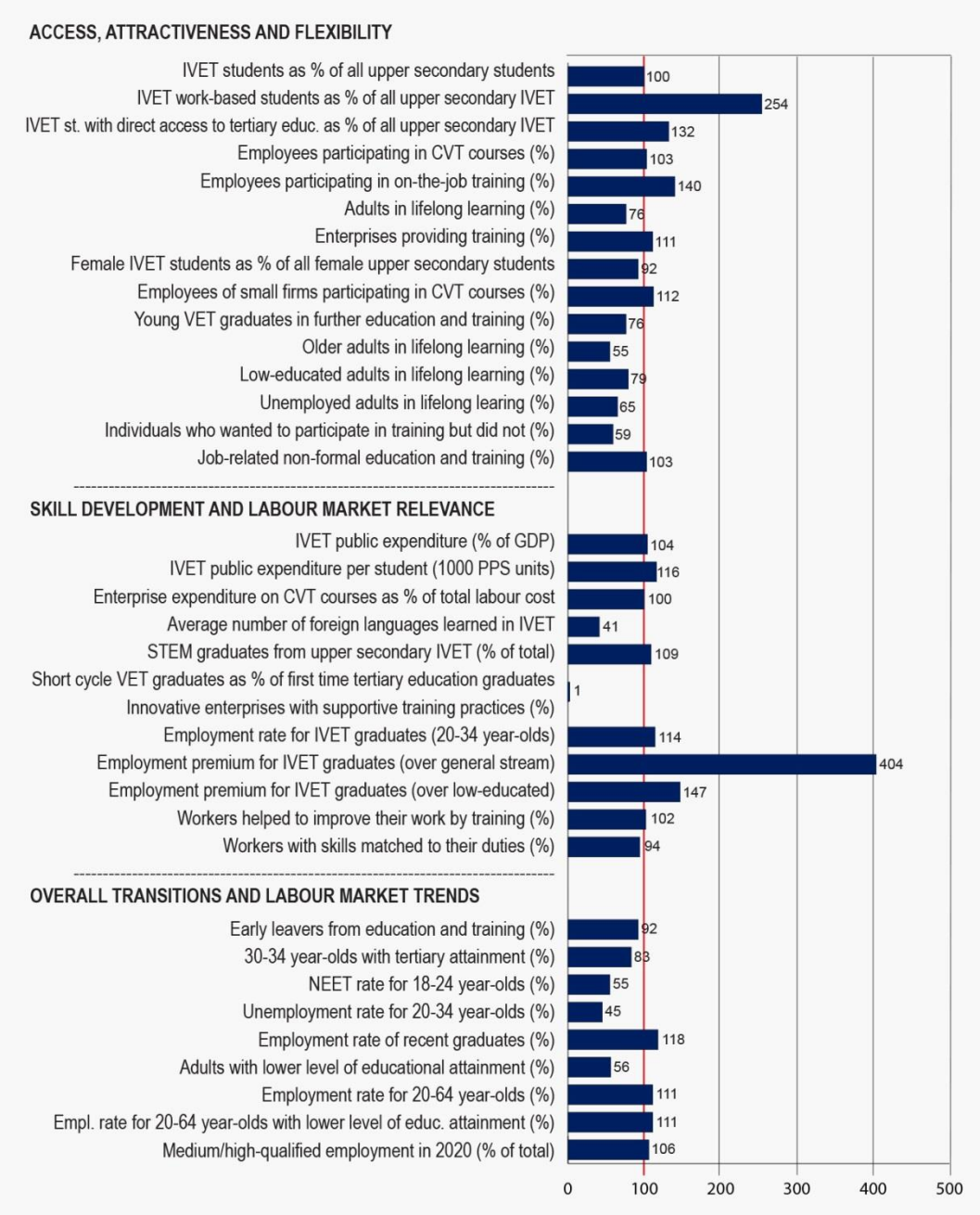
Indicator label	2010		Last available year			Recent trend (per year)		
	DK	EU	Yr	DK	EU	Range	DK	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	42.2 b	48.0 b E1	'13-'14	▪ -1.1	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	99.7 b	34.0 b E2	'13-'14	▪ 0.1	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	56.0	69.2 E3	'13-'14	▪ 1.0	▪ -1.4
Employees participating in CVT courses (%)	37.0	38.0 e	'10	37.0	38.0 e			
Employees participating in on-the-job training (%)	16.0	20.0 e	'10	16.0	20.0 e			
Adults in lifelong learning (%)	32.6		'15	31.3	10.7 b	'13-'15	↘ -0.1	→ 0.0
Enterprises providing training (%)	91.0	66.0 e	'10	91.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	37.2 b	42.7 b E1	'13-'14	▪ -1.6	▪ -1.0
Employees of small firms participating in CVT courses (%)	36.0	25.0 e	'10	36.0	25.0 e			
Young VET graduates in further education and training (%)			'15	38.3 b	33.0 b	'14-'15	▪ -6.2	▪ -0.3
Older adults in lifelong learning (%)	26.7	5.3	'15	24.9	6.9	'10-'15	↘ -0.3	↗ 0.4
Low-educated adults in lifelong learning (%)	23.6		'15	21.7 C	4.3 b C	'13-'15	↘ -0.2	↘ -0.1
Unemployed adults in lifelong learning (%)	33.6		'15	28.9	9.5 b	'13-'15	↘ -2.3	↘ -0.4
Individuals who wanted to participate in training but did not (%)	12.5 B	9.5 e B	'11	12.5	9.5 e			
Job-related non-formal education and training (%)	83.0 B	80.2 e B	'11	83.0	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	b	0.56 b E4			
IVET public expenditure per student (1000 PPS units)			'13	b	6.4 b E5			
Enterprise expenditure on CVT courses as % of total labour cost	0.7	0.8 e	'10	0.7	0.8 e			
Average number of foreign languages learned in IVET			'14	0.3 b	1.0 b E6	'13-'14	▪ 0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	16.5 b	30.0 b E7	'13-'14	▪ 0.4	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	17.3	9.3 E8	'13-'14	▪ -0.3	▪ 0.4
Innovative enterprises with supportive training practices (%)	29.5	41.5 E9	'12	30.3	41.6 E9	'10-'12	▪ 0.4	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	87.4 b	77.2 b	'14-'15	▪ 1.3	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	11.4 b	5.3 b	'14-'15	▪ 0.4	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	28.6 b	23.7 b	'14-'15	▪ 1.3	▪ -0.1
Workers helped to improve their work by training (%)			'15	81.1	83.7			
Workers with skills matched to their duties (%)	59.6	55.2	'15	54.5	57.3	'10-'15	▪ -1.0	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)	11.0	13.9	'15	7.8 C	11.0 C	'10-'15	↘ -0.6	↘ -0.6
30-34 year-olds with tertiary attainment (%)	41.2	33.8	'15	47.6 C	38.7 C	'10-'15	↗ 1.2	↗ 1.0
NEET rate for 18-24 year-olds (%)	8.3	16.6	'15	8.4	15.8	'10-'15	↘ -0.1	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	9.7	13.1	'15	8.6	12.9	'10-'15	↘ -0.3	↗ 0.1
Employment rate of recent graduates (%)	83.5	77.4	'15	81.7 C	76.9 C	'10-'15	↘ -0.3	↘ -0.2
Adults with lower level of educational attainment (%)	24.4	27.3	'15	19.6 C	23.5 C	'10-'15	↘ -0.9	↘ -0.8
Employment rate for 20-64 year-olds (%)	75.8	68.6	'15	76.5	70.0	'10-'15	↗ 0.1	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	62.6	53.4	'15	59.2 C	52.6 C	'10-'15	↘ -0.7	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	76.2 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

5. Germany

VET indicators for Germany for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Germany's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Germany with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Germany is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Germany's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

Data for 2014 show that students in initial vocational education and training account for 47.8% of all upper secondary students. This is close to the EU average of 48%. However, the percentage of IVET students enrolled in combined work- and school-based programmes is much higher in Germany (86.4%) than in the EU as a whole (34%). The share of upper secondary IVET in programmes giving direct access to tertiary education (91.5%) is also well above the EU average (69.2%). In 2015 the percentage of young VET graduates participating in further education and training was lower in Germany (25.2%) than in the EU on average (33%). The percentage of adults engaged in lifelong learning (8.1%) is slightly lower than the EU average (10.7% in 2015), and is below the average target (15%) set by the strategic framework *Education and training 2020*. Levels of participation in lifelong learning for older adults, for the unemployed, and for those with relatively low qualifications are all lower in Germany than for the EU as a whole. CVTS data for 2010 reveal that enterprises are more likely to provide training than in the EU as a whole (73% versus 66%), and that employees are more likely to participate in on-the-job training (28% versus 20%).

Skill development and labour market relevance

Some differences between Germany and the EU average can be noted in this group of indicators. In 2013, public expenditure on IVET (ISCED 3-4) as % of GDP was slightly higher in Germany (0.58%) than in the EU generally (0.56%).

Expenditure per student was also higher (7400 PPS units compared with 6400 PPS units). German upper secondary IVET students learn 0.4 foreign languages on average, while the EU average is one language (in 2014). With professional education provided at levels higher than ISCED 5, the number of short-cycle tertiary VET graduates is low: when expressed as a share of first time graduates from tertiary education it stands at 0.1%, well below the EU average (9.3%). Based on 2015 data, the employment rate for IVET graduates (aged 20 to 34) at ISCED 3-4 (88%) is above the EU average (77.2%). IVET graduates in Germany enjoy a positive premium on their employment rate compared to graduates from general education at the same ISCED level and those at a lower ISCED level. Their employment rate is 21.4 percentage points higher than that for their counterparts from general education (well above the EU average premium of 5.3 percentage points). Their employment rate is also 34.8 percentage points higher than that for graduates with lower-level qualifications (also above the EU average premium of 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated. In Germany, the share of early leavers from education and training is 10.1% while the EU average rate is 11%. The employment rate for 20 to 64 year-olds (78%), and the employment rate of recent graduates (90.4%) are both substantially higher than the EU averages (70% and 76.9%, respectively). The same holds for the employment rate of 20 to 64 year-olds with lower level of educational attainment (58.5% in Germany and 52.6% in the EU). The unemployment rate for 20 to 34 year-olds is lower in Germany than in the EU (5.9% compared with 12.9%). So is the NEET rate for 18 to 24 year-olds (8.7% in Germany, 15.8% in the EU) which, from 2011 to 2015, fell in both Germany and across the EU. A relatively low share of adults has only low-level education (13.2% versus 23.5% in the EU). At 32.3% the share of 30 to 34 year-olds who have completed tertiary-level education is lower than the EU average of 38.7%.

Score on VET indicators in Germany and in the EU, 2010, last available year and recent trend

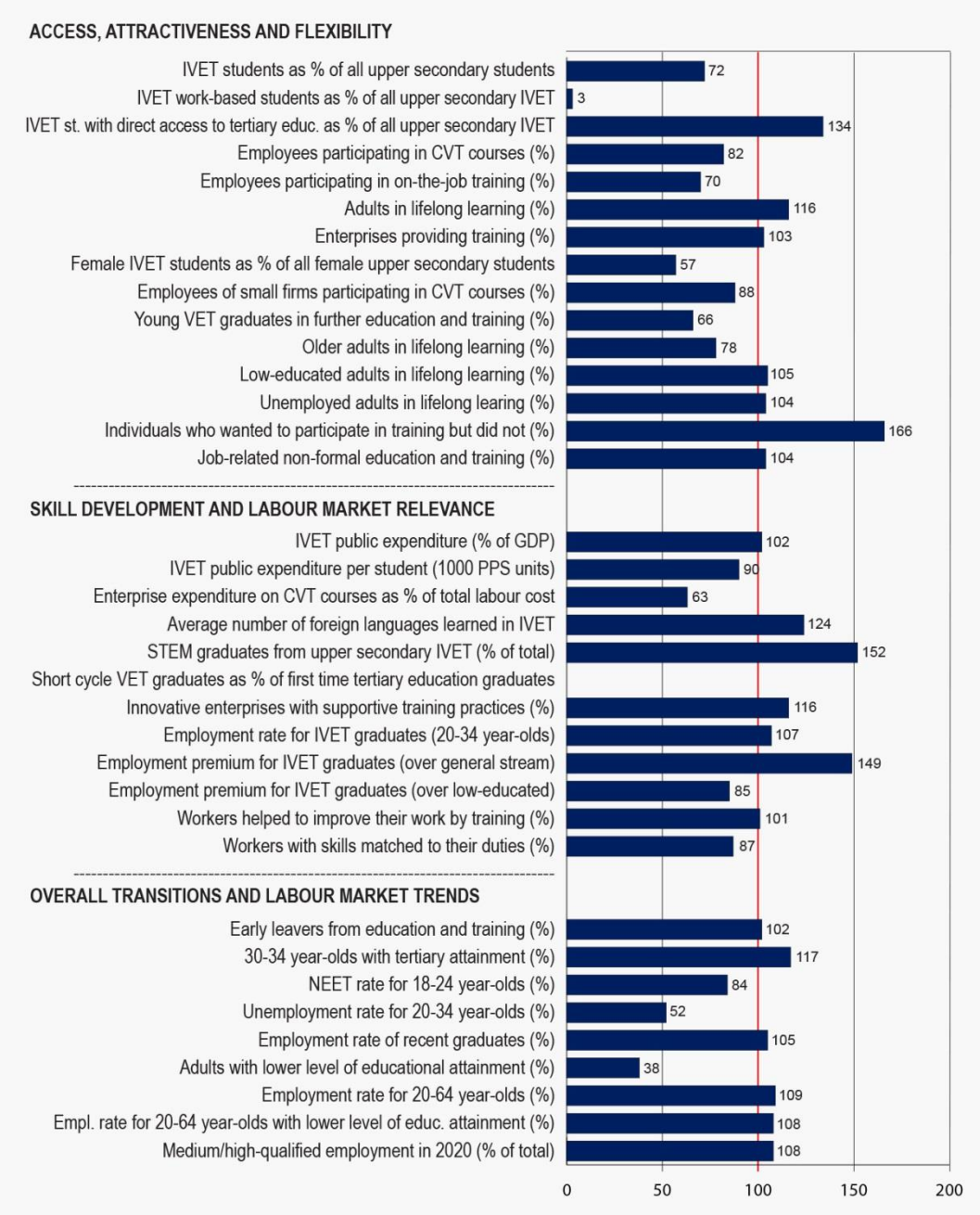
Indicator label	2010		Last available year			Recent trend (per year)		
	DE	EU f	Yr	DE	EU f	Range	DE	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	47.8 b	48.0 b E1	'13-'14	▪ 0.3	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	86.4 b	34.0 b E2	'13-'14	▪ 0.2	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	91.5	69.2 E3	'13-'14	▪ -0.1	▪ -1.4
Employees participating in CVT courses (%)	39.0	38.0 e	'10	39.0	38.0 e			
Employees participating in on-the-job training (%)	28.0	20.0 e	'10	28.0	20.0 e			
Adults in lifelong learning (%)	7.8		'15	8.1	10.7 b	'13-'15	↗ 0.1	→ 0.0
Enterprises providing training (%)	73.0	66.0 e	'10	73.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	39.5 b	42.7 b E1	'13-'14	▪ 0.4	▪ -1.0
Employees of small firms participating in CVT courses (%)	28.0	25.0 e	'10	28.0	25.0 e			
Young VET graduates in further education and training (%)			'15	25.2 b	33.0 b	'14-'15	▪ 0.9	▪ -0.3
Older adults in lifelong learning (%)	3.7	5.3	'15	3.8	6.9	'10-'15	→ 0.0	↗ 0.4
Low-educated adults in lifelong learning (%)	2.9		'15	3.4 C	4.3 b C	'13-'15	↗ 0.2	↘ -0.1
Unemployed adults in lifelong learning (%)			'15	6.2 b	9.5 b	'13-'15	↗ 0.1	↘ -0.4
Individuals who wanted to participate in training but did not (%)	5.6 B	9.5 e B	'11	5.6	9.5 e			
Job-related non-formal education and training (%)	82.9 B	80.2 e B	'11	82.9	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.58 b	0.56 b E4	'12-'13	▪ -0.02	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	7.4 b	6.4 b E5	'12-'13	▪ 0.1	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	0.8	0.8 e	'10	0.8	0.8 e			
Average number of foreign languages learned in IVET			'14	0.4 b	1.0 b E6	'13-'14	▪ 0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	32.6 b	30.0 b E7	'13-'14	▪ 0.2	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	0.1	9.3 E8	'13-'14	▪ 0.0	▪ 0.4
Innovative enterprises with supportive training practices (%)		41.5 E9	'12		41.6 E9			
Employment rate for IVET graduates (20-34 year-olds)			'15	88.0 b	77.2 b	'14-'15	▪ 0.4	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	21.4 b	5.3 b	'14-'15	▪ 0.4	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	34.8 b	23.7 b	'14-'15	▪ -0.7	▪ -0.1
Workers helped to improve their work by training (%)			'15	85.1	83.7			
Workers with skills matched to their duties (%)	50.7	55.2	'15	54.0	57.3	'10-'15	▪ 0.7	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)	11.8	13.9	'15	10.1 C	11.0 C	'10-'15	↘ -0.4	↘ -0.6
30-34 year-olds with tertiary attainment (%)	29.7	33.8	'15	32.3 C	38.7 C	'10-'15	↗ 0.5	↗ 1.0
NEET rate for 18-24 year-olds (%)		16.6	'15	8.7 b	15.8	'11-'15	↘ -0.4	↘ -0.3
Unemployment rate for 20-34 year-olds (%)		13.1	'15	5.9 b	12.9	'11-'15	↘ -0.2	↘ -0.1
Employment rate of recent graduates (%)		77.4	'15	90.4 b C	76.9 C	'11-'15	↗ 0.5	→ 0.0
Adults with lower level of educational attainment (%)	13.9	27.3	'15	13.2 C	23.5 C	'10-'15	↘ -0.1	↘ -0.8
Employment rate for 20-64 year-olds (%)		68.6	'15	78.0 b	70.0	'11-'15	↗ 0.4	↗ 0.4
Employment rate for 20-64 year-olds with lower level of educational attainment (%)		53.4	'15	58.5 b C	52.6 C	'11-'15	↗ 0.2	↘ -0.1
Medium/high-qualified employment in 2020 (% of total)			'16	87.8 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

6. Estonia

VET indicators for Estonia for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Estonia's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below.

The chart compares the situation in Estonia with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Estonia is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Estonia's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

Compared to the EU average (48% in 2014), IVET students in Estonia comprise a lower share of the student population at upper secondary level (34.7%). Only a small proportion of these IVET students are in combined work- and school-based programmes (1.1% compared to 34% in the EU in 2014). In contrast, the share of upper secondary IVET enrolled in programmes giving direct access to tertiary education (92.9%) is high and also well above the EU average (69.2%). Adult participation in lifelong learning (12.4%) is also above the EU average (10.7%) in 2015 but below the average target (15%) set by the strategic framework *Education and training 2020*. Data from the 2010 CVTS show that 68% of enterprises provided training compared with 66% in the EU, but participation of employees in CVT courses was slightly less favourable (31% in Estonia, 38% in the EU).

Skill development and labour market relevance

The percentage of STEM graduates from upper secondary VET at 45.4% is higher than the EU average of 30% (in 2014). Based on 2015 data, the employment rate for IVET graduates (aged 20 to 34) at ISCED 3-4 (82.7%) is higher than the EU average (77.2%). The employment rate of IVET graduates is 7.9 percentage points higher than that for graduates from general education (5.3% at EU average). It is also higher than that for graduates with lower-level qualifications: compared to the latter, they enjoy a considerable employment

premium of 20.1 percentage points, though lower than the corresponding EU average premium of 23.7 points. These figures should be interpreted with some caution due to sample size issues. All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 (unless otherwise stated) where there are mixed results. Levels of early leaving from education and training in Estonia are just above the EU average (11.2% in Estonia, 11% in the EU as whole): this is unfavourably above the Europe 2020 average target of 10% and the related national target of 9.5%. The share of 30 to 34 year-olds with tertiary-level education is higher than in the EU (45.3% compared with 38.7%) and the Europe 2020 average target and the national target (both set at 40%). Estonia has a relatively small percentage of adults with lower-level educational attainment (8.9% compared with the EU average of 23.5%). The NEET rate is slightly lower than the EU on average (13.3% versus 15.8%) as is the unemployment rate for 20 to 34 year-olds (11.2% versus 15.1%). Both indicators have decreased between 2010 and 2015 in Estonia. The employment rate of recent graduates increased between 2010 and 2015 to 80.6%. This is higher than the EU average (76.9%).

Score on VET indicators in Estonia and in the EU, 2010, last available year and recent trend

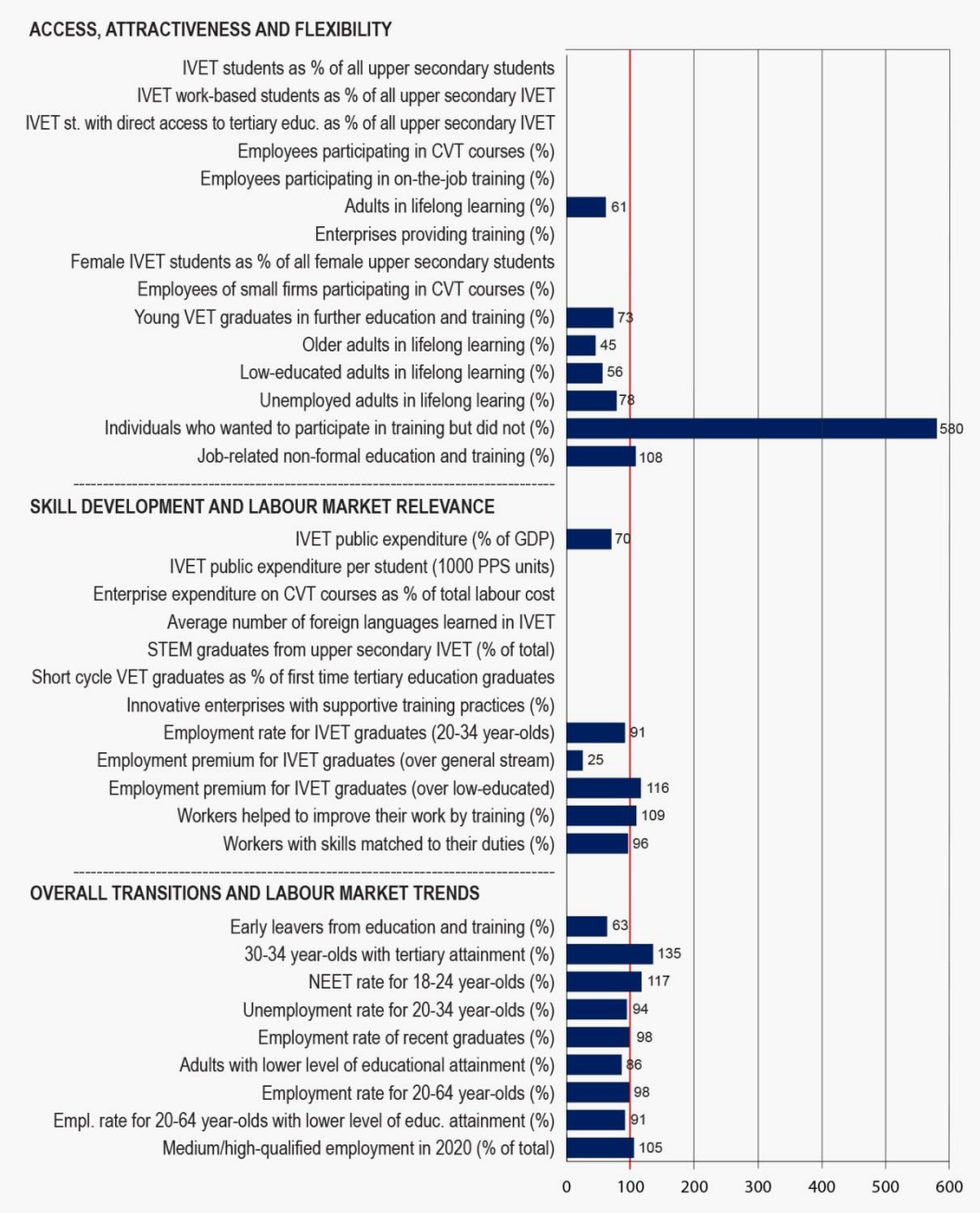
Indicator label	2010		Last available year			Recent trend (per year)		
	EE	EU	Yr	EE	EU	Range	EE	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	34.7 b	48.0 b E1	'13-'14	▪ 0.2	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	1.1 b	34.0 b E2	'13-'14	▪ 0.4	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	92.9	69.2 E3	'13-'14	▪ -0.7	▪ -1.4
Employees participating in CVT courses (%)	31.0	38.0 e	'10	31.0	38.0 e			
Employees participating in on-the-job training (%)	14.0	20.0 e	'10	14.0	20.0 e			
Adults in lifelong learning (%)	11.0		'15	12.4	10.7 b	'13-'15	↘ -0.1	→ 0.0
Enterprises providing training (%)	68.0	66.0 e	'10	68.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	24.4 b	42.7 b E1	'13-'14	▪ 0.7	▪ -1.0
Employees of small firms participating in CVT courses (%)	22.0	25.0 e	'10	22.0	25.0 e			
Young VET graduates in further education and training (%)			'15	21.7 b	33.0 b	'14-'15	▪ 4.0	▪ -0.3
Older adults in lifelong learning (%)	5.9	5.3	'15	5.4	6.9	'10-'15	↘ -0.1	↗ 0.4
Low-educated adults in lifelong learning (%)	2.0 u		'15	4.5 C	4.3 b C	'13-'15	→ 0.0	↘ -0.1
Unemployed adults in lifelong learning (%)	7.1		'15	9.9	9.5 b	'13-'15	↘ -1.7	↘ -0.4
Individuals who wanted to participate in training but did not (%)	15.8 B	9.5 e B	'11	15.8	9.5 e			
Job-related non-formal education and training (%)	83.6 B	80.2 e B	'11	83.6	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.57 b	0.56 b E4	'12-'13	▪ -0.07	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	5.8 b	6.4 b E5	'12-'13	▪ -0.4	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	0.5	0.8 e	'10	0.5	0.8 e			
Average number of foreign languages learned in IVET			'14	1.2 b	1.0 b E6	'13-'14	▪ -0.3	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	45.4 b	30.0 b E7	'13-'14	▪ -4.6	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	0.0 z	9.3 E8	'13-'14	▪ 0.0	▪ 0.4
Innovative enterprises with supportive training practices (%)	52.6	41.5 E9	'12	48.3	41.6 E9	'10-'12	▪ -2.2	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	82.7 b	77.2 b	'14-'15	▪ 3.5	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	7.9 b	5.3 b	'14-'15	▪ -0.6	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	20.1 b	23.7 b	'14-'15	▪ 7.1	▪ -0.1
Workers helped to improve their work by training (%)			'15	84.6	83.7			
Workers with skills matched to their duties (%)	52.6	55.2	'15	49.9	57.3	'10-'15	▪ -0.5	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)	11.0	13.9	'15	11.2 C	11.0 C	'10-'15	↗ 0.1	↘ -0.6
30-34 year-olds with tertiary attainment (%)	40.2	33.8	'15	45.3 C	38.7 C	'10-'15	↗ 1.1	↗ 1.0
NEET rate for 18-24 year-olds (%)	18.6	16.6	'15	13.3	15.8	'10-'15	↘ -0.8	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	19.5	13.1	'15	6.8	12.9	'10-'15	↘ -2.3	↗ 0.1
Employment rate of recent graduates (%)	64.5	77.4	'15	80.6 C	76.9 C	'10-'15	↗ 2.9	↘ -0.2
Adults with lower level of educational attainment (%)	10.7	27.3	'15	8.9 C	23.5 C	'10-'15	↘ -0.5	↘ -0.8
Employment rate for 20-64 year-olds (%)	66.8	68.6	'15	76.5	70.0	'10-'15	↗ 1.7	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	44.2	53.4	'15	56.8 C	52.6 C	'10-'15	↗ 2.9	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	89.8 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

7. Ireland

VET indicators for Ireland for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Ireland's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Ireland with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Ireland is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Ireland's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

Participation in IVET at upper secondary level of education (ISCED 3) is currently negligible or not even applicable in Ireland. This is based on international definitions and available information (2014) and represents a peculiar situation. However, there are VET graduates in the young population reflecting the output of the VET systems in previous years and at ISCED 4.

The percentage of adults participating in lifelong learning in 2016 in Ireland (6.5%) is lower than the EU average (10.7%) and below the average target (15%) set by the strategic framework *Education and training 2020*. Participation rates in lifelong learning for older adults, adults with low-level qualifications, and unemployed adults are also lower than in the EU.

Skill development and labour market relevance

In 2013, public expenditure on IVET (ISCED 3-4) as % of GDP was markedly lower in Ireland (0.39%) than in the EU generally (0.56%). Based on 2015 data, the employment rate of IVET graduates (aged 20 to 34) at ISCED 3-4 (70.5%) is lower than the EU average (77.2%). The employment rate of IVET graduates is 1.3 percentage points higher than that for their counterparts from general education (a positive employment premium) but lower than the EU average premium of 5.3 percentage points; the employment rate of IVET graduates is 27.6 percentage points higher than that for those with lower-level qualifications (this premium is both positive and above the EU average of 23.7 percentage

points). All employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated. During 2010-15, the NEET rate for 18 to 24 year-olds and the unemployment rate for 20 to 34 year-olds has decreased by 1.2% and 1.3% yearly, respectively. The NEET rate (18.5%) is above the EU average (15.8%), while the unemployment rate for 20 to 34 year-olds (12.1%) is below the EU average (12.9%). The employment rate for 20 to 64 year-olds is 68.7% in Ireland and 70% across the EU. The share of recent graduates in employment has increased by 1% yearly between 2010 and 2015 to 75.3% (76.9% at EU average) but this level is still below the EU target of 82%. Educational attainment of young people compares relatively well in the EU context. The share of 30 to 34 year-olds with tertiary-level education is higher than the EU average (52.3% versus 38.7%); the share of early leavers from education and training is lower than the average (6.9% versus 11%) below both the EU target (10%) and the country target (8%).

Score on VET indicators in Ireland and in the EU, 2010, last available year and recent trend

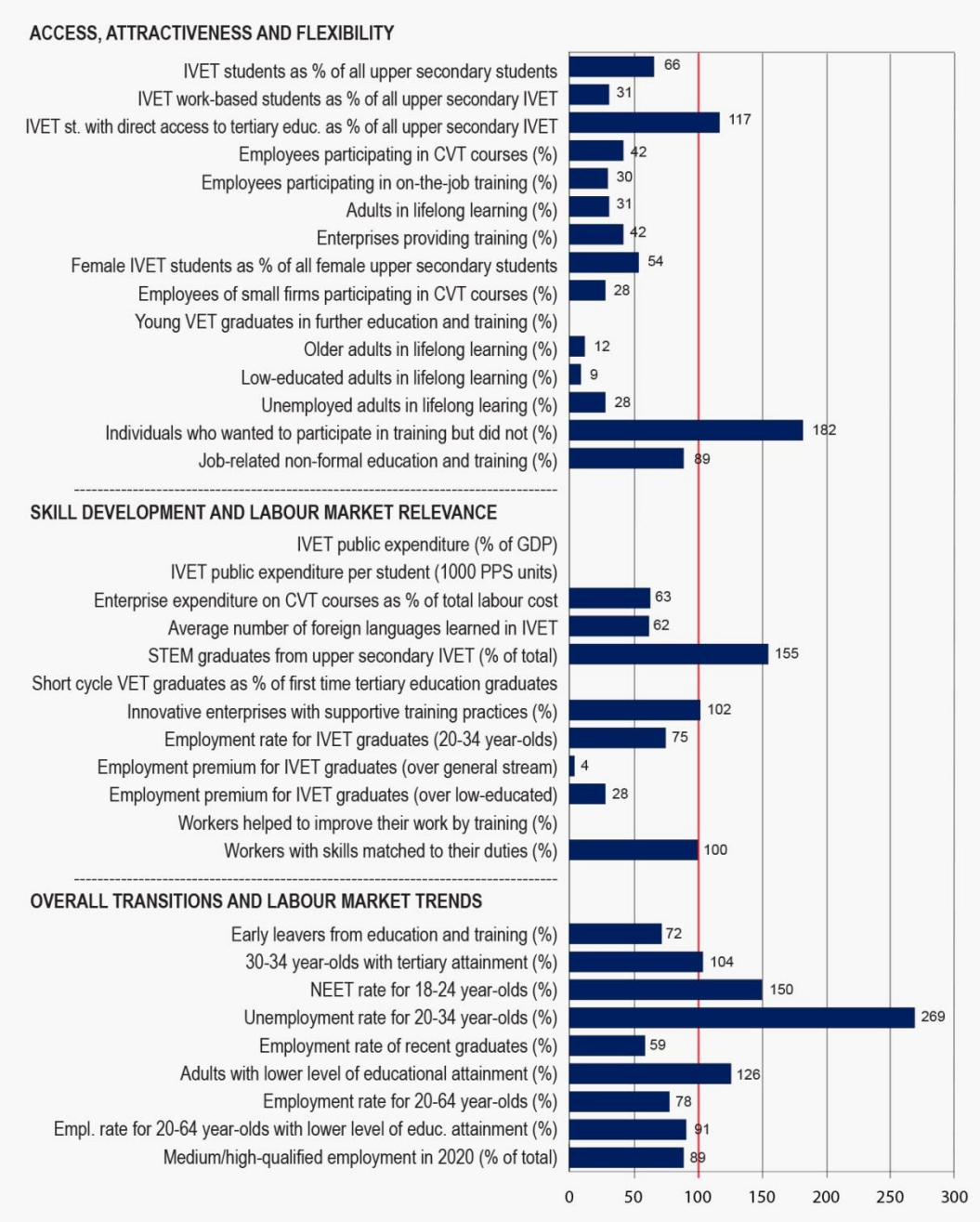
Indicator label	2010		Last available year			Recent trend (per year)		
	IE	EU	Yr	IE	EU	Range	IE	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	0.0 b z	48.0 b E1			
IVET work-based students as % of all upper secondary IVET	A	A	'14	z	34.0 b E2			
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	z	69.2 E3			
Employees participating in CVT courses (%)		38.0 e	'10		38.0 e			
Employees participating in on-the-job training (%)		20.0 e	'10		20.0 e			
Adults in lifelong learning (%)	7.0		'15	6.5	10.7 b	'13-'15	↘ -0.6	→ 0.0
Enterprises providing training (%)		66.0 e	'10		66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	0.0 b z	42.7 b E1	'13-'14	▪ -2.0	▪ -1.0
Employees of small firms participating in CVT courses (%)		25.0 e	'10		25.0 e			
Young VET graduates in further education and training (%)			'15	24.1 b	33.0 b	'14-'15	▪ -2.1	▪ -0.3
Older adults in lifelong learning (%)	3.9	5.3	'15	3.1	6.9	'10-'15	↘ -0.1	↗ 0.4
Low-educated adults in lifelong learning (%)	2.8		'15	2.4 C	4.3 b C	'13-'15	↘ -0.5	↘ -0.1
Unemployed adults in lifelong learning (%)	7.4		'15	7.4	9.5 b	'13-'15	↗ 0.2	↘ -0.4
Individuals who wanted to participate in training but did not (%)	55.1 B	9.5 e B	'11	55.1	9.5 e			
Job-related non-formal education and training (%)	86.6 B	80.2 e B	'11	86.6	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.39 b	0.56 b E4			
IVET public expenditure per student (1000 PPS units)			'13	b	6.4 b E5			
Enterprise expenditure on CVT courses as % of total labour cost		0.8 e	'10		0.8 e			
Average number of foreign languages learned in IVET			'14		1.0 b E6			
STEM graduates from upper secondary IVET (% of total)	A	A	'14	z	30.0 b E7			
Short-cycle VET graduates as % of first time tertiary education graduates			'14	b	9.3 E8			
Innovative enterprises with supportive training practices (%)		41.5 E9	'12		41.6 E9			
Employment rate for IVET graduates (20-34 year-olds)			'15	70.5 b	77.2 b	'14-'15	▪ 0.9	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	1.3 b	5.3 b	'14-'15	▪ -1.1	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	27.6 b	23.7 b	'14-'15	▪ -3.9	▪ -0.1
Workers helped to improve their work by training (%)			'15	91.1	83.7			
Workers with skills matched to their duties (%)	55.4	55.2	'15	54.9	57.3	'10-'15	▪ -0.1	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)	11.5	13.9	'15	6.9 C	11.0 C	'10-'15	↘ -1.0	↘ -0.6
30-34 year-olds with tertiary attainment (%)	50.1	33.8	'15	52.3 C	38.7 C	'10-'15	↗ 0.6	↗ 1.0
NEET rate for 18-24 year-olds (%)	24.1	16.6	'15	18.5	15.8	'10-'15	↘ -1.3	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	17.5	13.1	'15	12.1	12.9	'10-'15	↘ -1.2	↗ 0.1
Employment rate of recent graduates (%)	71.0	77.4	'15	75.3 C	76.9 C	'10-'15	↗ 1.0	↘ -0.2
Adults with lower level of educational attainment (%)	27.2	27.3	'15	20.2 C	23.5 C	'10-'15	↘ -1.5	↘ -0.8
Employment rate for 20-64 year-olds (%)	64.6	68.6	'15	68.7	70.0	'10-'15	↗ 0.9	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	46.7	53.4	'15	48.1 C	52.6 C	'10-'15	↗ 0.4	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	86.7 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

8. Greece

VET indicators for Greece for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Greece's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Greece with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Greece is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Greece's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

The chart illustrates that Greece has relatively low figures on many indicators in this group compared with the EU average. The share of upper secondary students enrolled in IVET is low (31.5% compared to 48% for the EU). Female enrolment figures differ even more: 23% of females in upper secondary education are enrolled in IVET compared to 42.7% in the EU in 2014. The percentage of IVET students enrolled in combined work- and school-based programmes is also much lower in Greece (10.5%) than in the EU as a whole (34%). In contrast, the share of upper secondary IVET with direct access to tertiary education (81.2%) is well above the EU average (69.2%). The percentage of adults involved in lifelong learning in 2015 (3.3%) is lower than the EU average (10.7%), and far below the average target (15%) set by the strategic framework *Education and training 2020*. Participation in lifelong learning by adults with low-level education (0.4%), unemployed adults (2.7%) and older adults (0.8%) is also lower in Greece than the EU. Based on 2010 CVTS data, employee participation in CVT courses (especially in small firms) and on-the-job training suggest that employer-sponsored training is less frequent than in the EU generally. The proportion of individuals who wanted to train but did not (17.3%) is higher than the EU average (9.5%) (based on 2011 data).

Skill development and labour market relevance

Data are missing for several indicators of this group; where data are available, indicators for Greece are mostly below EU averages. The average number of foreign languages learned in upper secondary IVET is lower in Greece (0.6) than in the EU (1). The share of STEM graduates from upper secondary IVET (46.4%) is well above the EU average (30%) (2014 data). Based on 2015 data, the employment rate of 20 to 34 year-old IVET graduates at medium level of education (ISCED 3-4) differs strongly from the EU average (58.2% in Greece and 77.2% in the EU). Also, their employment rate is 0.2 percentage points higher than that of their counterparts from general education at the same ISCED levels; this is positive, but considerably lower than the EU average (5.3 percentage points). The employment rate of IVET graduates is 6.7 percentage points higher than those with lower-level qualifications (also a positive, though much lower than the EU average of 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated. The NEET rate in Greece (23.7%) and the unemployment rate for 20 to 34 year-olds (34.8%) are much higher than the corresponding EU averages (15.8% and 12.9%, respectively). The latter indicator increased by an average 3.1 percentage points (yearly) between 2010 and 2015. At 45.2%, the employment rate of recent graduates is markedly below the corresponding value for the EU as a whole (76.9%). This rate has also decreased by an average 2.5 percentage points (yearly) between 2010 and 2015. This percentage is also well below the EU target of 82%. In sum, all unemployment- and employment-related indicators have changed substantially in an unfavourable direction between 2010 and 2015. Educational attainment for young people compares favourably within the EU context. The share of 30 to 34 year-olds who have completed tertiary-level education (40.4%) is higher than the EU average (38.7%). Due to an increase between 2010 and 2015, it achieves both the Europe 2020 average target (40%) and the national target (32%). The early leaver rate from training and education is lower than the EU average (7.9% compared to 11%) and it decreased more than in the EU between 2010 and 2015 (1.2 percentage points yearly and 0.6 percentage points yearly respectively). At 7.9%, it achieves both the Europe 2020 average target (10%) and the national target (9.7%). However, the share of adults with lower level of education continues to be higher (29.6%) than in the EU (23.5%).

Score on VET indicators in Greece and in the EU, 2010, last available year and recent trend

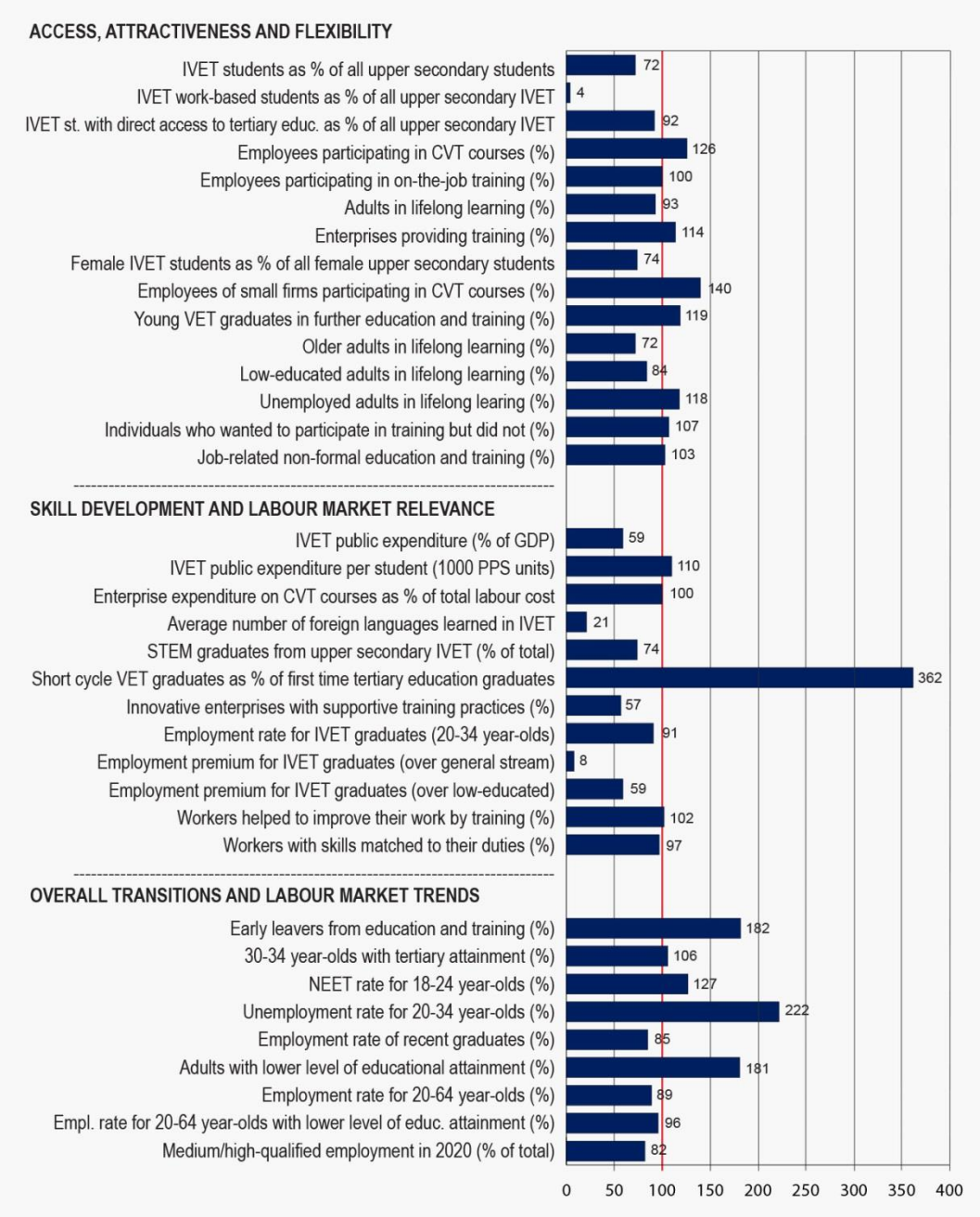
Indicator label	2010		Last available year			Recent trend (per year)		
	EL	EU	Yr	EL	EU	Range	EL	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	31.5 b	48.0 b E1	'13-'14	▪ -2.2	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	10.5 b	34.0 b E2	'13-'14	▪ 1.3	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	81.2	69.2 E3			
Employees participating in CVT courses (%)	16.0	38.0 e	'10	16.0	38.0 e			
Employees participating in on-the-job training (%)	6.0	20.0 e	'10	6.0	20.0 e			
Adults in lifelong learning (%)	3.3		'15	3.3	10.7 b	'13-'15	↗ 0.1	→ 0.0
Enterprises providing training (%)	28.0	66.0 e	'10	28.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	23.0 b	42.7 b E1	'13-'14	▪ -4.1	▪ -1.0
Employees of small firms participating in CVT courses (%)	7.0	25.0 e	'10	7.0	25.0 e			
Young VET graduates in further education and training (%)			'15		33.0 b			
Older adults in lifelong learning (%)	0.8	5.3	'15	0.8	6.9	'10-'15	→ 0.0	↗ 0.4
Low-educated adults in lifelong learning (%)	0.5		'15	0.4 C	4.3 b C	'13-'15	→ 0.0	↘ -0.1
Unemployed adults in lifelong learning (%)	3.7		'15	2.7	9.5 b	'13-'15	↘ -0.2	↘ -0.4
Individuals who wanted to participate in training but did not (%)	17.3 B	9.5 e B	'11	17.3	9.5 e			
Job-related non-formal education and training (%)	71.2 B	80.2 e B	'11	71.2	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	b	0.56 b E4			
IVET public expenditure per student (1000 PPS units)			'13	b	6.4 b E5			
Enterprise expenditure on CVT courses as % of total labour cost	0.5	0.8 e	'10	0.5	0.8 e			
Average number of foreign languages learned in IVET			'14	0.6 b	1.0 b E6	'13-'14	▪ 0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	46.4 b	30.0 b E7	'13-'14	▪ 2.3	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	0.0 z	9.3 E8	'13-'14	▪ 0.0	▪ 0.4
Innovative enterprises with supportive training practices (%)		41.5 E9	'12	42.5	41.6 E9			
Employment rate for IVET graduates (20-34 year-olds)			'15	58.2 b	77.2 b	'14-'15	▪ 5.2	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	0.2 b	5.3 b	'14-'15	▪ 2.2	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	6.7 b	23.7 b	'14-'15	▪ 4.1	▪ -0.1
Workers helped to improve their work by training (%)			'15	87.4 u	83.7			
Workers with skills matched to their duties (%)	44.6	55.2	'15	57.2	57.3	'10-'15	▪ 2.5	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)	13.5	13.9	'15	7.9 C	11.0 C	'10-'15	↘ -1.2	↘ -0.6
30-34 year-olds with tertiary attainment (%)	28.6	33.8	'15	40.4 C	38.7 C	'10-'15	↗ 2.5	↗ 1.0
NEET rate for 18-24 year-olds (%)	20.3	16.6	'15	23.7	15.8	'10-'15	↗ 0.7	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	19.5	13.1	'15	34.8	12.9	'10-'15	↗ 3.1	↗ 0.1
Employment rate of recent graduates (%)	58.6	77.4	'15	45.2 C	76.9 C	'10-'15	↘ -2.5	↘ -0.2
Adults with lower level of educational attainment (%)	37.3	27.3	'15	29.6 C	23.5 C	'10-'15	↘ -1.5	↘ -0.8
Employment rate for 20-64 year-olds (%)	63.8	68.6	'15	54.9	70.0	'10-'15	↘ -1.9	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	57.8	53.4	'15	48.1 C	52.6 C	'10-'15	↘ -2.0	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	73.8 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

9. Spain

VET indicators for Spain for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Spain's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Spain with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Spain is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Spain's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

Based on 2014 data, the percentage of all upper secondary students participating in IVET in Spain is 34.4%, below the EU average of 48%. This discrepancy is the result of a drop of between 2012 and 2014, on which the implementation of changes in definitions and methodologies can have had an impact. At 1.4%, a very small share of IVET students are involved in combined work- and school-based training compared with the EU average of 34%. Spain has proportionally fewer adults (9.9%) involved in lifelong learning than the EU as a whole (10.7%). and is below the EU average target (15%) set by the strategic framework *Education and training 2020*. The proportions of older adults and adults with relatively low qualifications participating in lifelong learning are below the corresponding EU averages. However, participation of unemployed adults in lifelong learning is higher than in the EU: 11.2% compared with 9.5%. Based on 2010 CVTS data, employer provision of training is also high: the percentage of enterprises providing training to their staff was 75% in Spain compared with 66% across the EU; the percentage of employees receiving employer-sponsored CVT courses was 48%, also higher than the EU average of 38%. The same results held for employees of small firms (35% in Spain compared to 25% for the EU average).

Skill development and labour market relevance

In 2013, public expenditure on IVET (ISCED 3-4) as % of GDP was markedly lower in Spain (0.33%) than in the EU generally (0.56%). Short-cycle VET (ISCED 5)

provides an important contribution to raising educational attainment at tertiary level. Graduates from short-cycle VET programmes accounted for 33.7% of all first time graduates at tertiary level, well above the EU average (9.3%). In contrast, training to support innovation is provided by 23.6% of innovative enterprises, which is much lower than the EU average of 41.6% (data for 2012). The % of STEM graduates from upper secondary was at 22.3% in 2014, below the EU average of 30%. The average number of foreign languages learned in IVET equals 0.2 in 2014, lower than the EU average of 1. The employment rate of IVET graduates at ISCED 3-4 aged 20 to 34 is 70.2%, lower than the EU average of 77.2% (data for 2015). IVET graduates in Spain enjoy a positive premium on their employment rate compared to graduates from general education at the same ISCED level, and compared to graduates at a lower ISCED level. Their employment rate is 0.4 percentage points higher than that of their counterparts from general education (though this is lower than the EU average premium of 5.3 percentage points); their employment rate is 14 percentage points higher than for graduates with lower-level qualifications (again a positive premium but lower than the EU average premium of 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated. At 20%, the share of early leavers from education and training is significantly higher than the EU average of 11%. Although this percentage has decreased over recent years (by an average of -1.6 percentage points yearly between 2010 and 2015), it is still above the Europe 2020 average target (10%) and also the national target (15%). The unemployment rate of 20 to 34 year-olds has increased substantially from 24.8% in 2010 to 33.6% in 2013. Despite a more recent drop, it stood at to 28.7% in 2015, still significantly higher than the EU average of 12.9%. The employment rate of recent graduates has decreased substantially from 70.6% in 2010 to 59.9% in 2013. Despite a recent increase, up to 65.2% in 2015, it is much lower than the EU average of 76.9%. The employment rate for 20 to 64 year-olds (62%) is also lower than in the EU (70%), and has been decreasing much faster between 2010 and 2015 in Spain (-0.3% estimated yearly average change) than in the EU as a whole (0.3% yearly). The percentage of adults who have low-level educational attainment (42.6%) is higher than the EU average (23.5%). More favourably, the percentage of 30 to 34 year-olds with tertiary-level educational attainment at 40.9% is higher than the EU average of 38.7%. This percentage is above the Europe 2020 average target (40%) and close to Spain's national target (44%), but decreased between 2014 and 2015. The NEET rate in Spain (20.1%) is above the EU average (15.8%).

Score on VET indicators in Spain and in the EU, 2010, last available year and recent trend

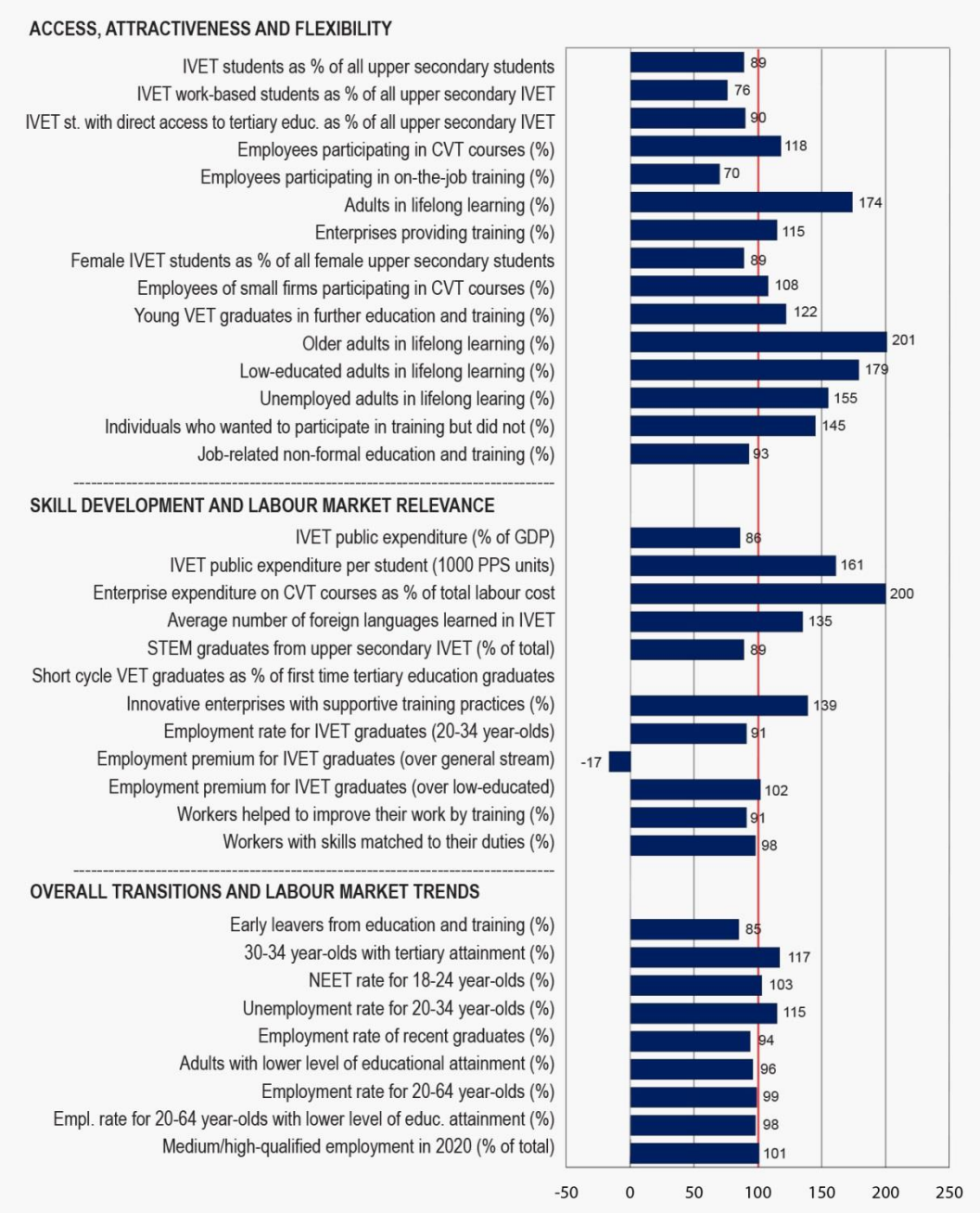
Indicator label	2010		Last available year			Recent trend (per year)		
	ES	EU	Yr	ES	EU	Range	ES	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	34.4 b	48.0 b E1	'13-'14	▪ 0.9	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	1.3 b	34.0 b E2			
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	63.5	69.2 E3	'13-'14	▪ 0.6	▪ -1.4
Employees participating in CVT courses (%)	48.0	38.0 e	'10	48.0	38.0 e			
Employees participating in on-the-job training (%)	20.0	20.0 e	'10	20.0	20.0 e			
Adults in lifelong learning (%)			'15	9.9 b	10.7 b	'14-'15	▪ -0.2	▪ -0.1
Enterprises providing training (%)	75.0	66.0 e	'10	75.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	31.7 b	42.7 b E1	'13-'14	▪ 0.7	▪ -1.0
Employees of small firms participating in CVT courses (%)	35.0	25.0 e	'10	35.0	25.0 e			
Young VET graduates in further education and training (%)			'15	39.2 b	33.0 b	'14-'15	▪ -0.9	▪ -0.3
Older adults in lifelong learning (%)		5.3	'15	5.0 b	6.9	'14-'15	▪ 0.1	▪ 0.1
Low-educated adults in lifelong learning (%)	4.9		'15	3.6 C	4.3 b C	'13-'15	↘ -0.5	↘ -0.1
Unemployed adults in lifelong learning (%)			'15	11.2 b	9.5 b	'14-'15	▪ -0.8	▪ -0.3
Individuals who wanted to participate in training but did not (%)	10.2 B	9.5 e B	'11	10.2	9.5 e			
Job-related non-formal education and training (%)	82.5 B	80.2 e B	'11	82.5	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.33 b	0.56 b E4	'12-'13	▪ -0.01	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	7.0 b	6.4 b E5	'12-'13	▪ -0.9	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	0.8	0.8 e	'10	0.8	0.8 e			
Average number of foreign languages learned in IVET			'14	0.2 b	1.0 b E6	'13-'14	▪ 0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	22.3 b	30.0 b E7	'13-'14	▪ 1.3	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	33.7	9.3 E8	'13-'14	▪ -0.5	▪ 0.4
Innovative enterprises with supportive training practices (%)		41.5 E9	'12	23.6 b	41.6 E9			
Employment rate for IVET graduates (20-34 year-olds)			'15	70.2 b	77.2 b	'14-'15	▪ 3.0	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	0.4 b	5.3 b	'14-'15	▪ -3.3	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	14.0 b	23.7 b	'14-'15	▪ 0.9	▪ -0.1
Workers helped to improve their work by training (%)			'15	85.4	83.7			
Workers with skills matched to their duties (%)	53.1	55.2	'15	55.5	57.3	'10-'15	▪ 0.5	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)	28.2	13.9	'15	20.0 C	11.0 C	'10-'15	↘ -1.6	↘ -0.6
30-34 year-olds with tertiary attainment (%)	42.0	33.8	'15	40.9 C	38.7 C	'10-'15	↘ -0.1	↗ 1.0
NEET rate for 18-24 year-olds (%)		16.6	'15	20.1 b	15.8	'14-'15	▪ -2.0	▪ -0.7
Unemployment rate for 20-34 year-olds (%)	24.8	13.1	'15	28.7	12.9	'10-'15	↗ 1.0	↗ 0.1
Employment rate of recent graduates (%)	70.6	77.4	'15	65.2 C	76.9 C	'10-'15	↘ -1.0	↘ -0.2
Adults with lower level of educational attainment (%)	47.1	27.3	'15	42.6 C	23.5 C	'10-'15	↘ -0.9	↘ -0.8
Employment rate for 20-64 year-olds (%)	62.8	68.6	'15	62.0	70.0	'10-'15	↘ -0.3	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	52.5	53.4	'15	50.6 C	52.6 C	'10-'15	↘ -0.6	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	67.7 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

10. France

VET indicators for France for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

France's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in France with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for France is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, France's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

The share of upper secondary students in vocational programmes in France (42.7%) is slightly below the EU average of 48% (data for 2014). At upper secondary level, participation in combined work- and school-based vocational programmes is below the EU average (25.8% in France; 34% across the EU, although with variations across countries). Data for 2015 reveal that the share of adults who participate in lifelong learning is higher (18.6%) than the EU as whole (10.7%). The figure for France exceeds the average target (15%) set by the strategic framework *Education and training 2020*. The percentages of older, low-educated and unemployed adults participating in lifelong learning are all higher than the corresponding EU averages. The share of young VET students in further education and training is higher in France (40.3%) compared to the EU as a whole (33%).

Skill development and labour market relevance

Data for 2013 on VET expenditure give relatively high scores for France. Public expenditure on IVET is 10 300 PPS units per student, compared to 6 400 PPS units for the EU as a whole. When these expenses are expressed as a percentage of GDP, VET expenditures for France (0.48%) are below the EU average (0.56%). In 2010, company total monetary expenditure on CVT courses was 1.6% of labour cost; this was 0.8% for the EU as a whole. In 2010, company expenditure on CVT courses was 1.6% of labour cost; this was 0.8% for the EU

as a whole. The average number of foreign languages learned in IVET in France (1.3) is above the EU average (1). The percentage of upper secondary IVET graduates in STEM subjects (26.6%) is slightly below the EU average (30% in 2014). The share of enterprises which provide training to support innovation (57.9%) exceeded the EU average share in 2012 (41.6%). Based on 2015 data, the employment rate for IVET graduates (aged 20 to 34) at ISCED 3-4 (70.4%) is below the EU average (77.2%). IVET graduates in France enjoy a positive premium on their employment rate compared to graduates from a lower ISCED level, but not compared to graduates from general education at the same ISCED level. Their employment rate is 0.9 percentage points lower than that of their counterparts from general education (lower than the EU average premium of 5.3 percentage points). The employment rate of IVET graduates is 24.1 percentage points higher than the employment rate of graduates with lower-level qualifications (close to the EU average premium of 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in further education.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated. The percentage of early leavers from education and training (9.3%) is lower than the EU average (11%). France is both below the Europe 2020 average target (10%), and its national target (9.5%). The percentage of 30 to 34 year-olds with tertiary-level education is relatively high (45.1%), and has been rising from 2006 to 2015, although at a slower rate than the EU average (0.6 percentage points on a yearly estimated average compared to 0.8). This percentage achieves the EU target (40%) but is below the country target (50%). The share of adults with lower levels of educational attainment (22.5%) is slightly below the EU average (23.5%). This rate has decreased by an estimated yearly average of 1.2 percentage points between 2013 and 2015. The employment rate for 20 to 64 year-olds (69.5%) is close to the EU average (70%) as is the NEET rate (for 18 to 24 year-olds) (16.3% compared to a 15.8%). Other labour market indicators for young people are less favourable in France than in the EU as a whole: employment rate for recent graduates (72.3% against EU average of 76.9%), the unemployment rate for 20 to 34 year-olds (14.9% against EU average of 12.9%). Also, some trends are identified. Between 2013 and 2015, the employment rate of recent graduates and the employment rate for 20 to 64 year-olds with lower level educational attainment have decreased at an estimated yearly rate of 2 and 1.2 percentage points, respectively.

Score on VET indicators in France and in the EU, 2010, last available year and recent trend

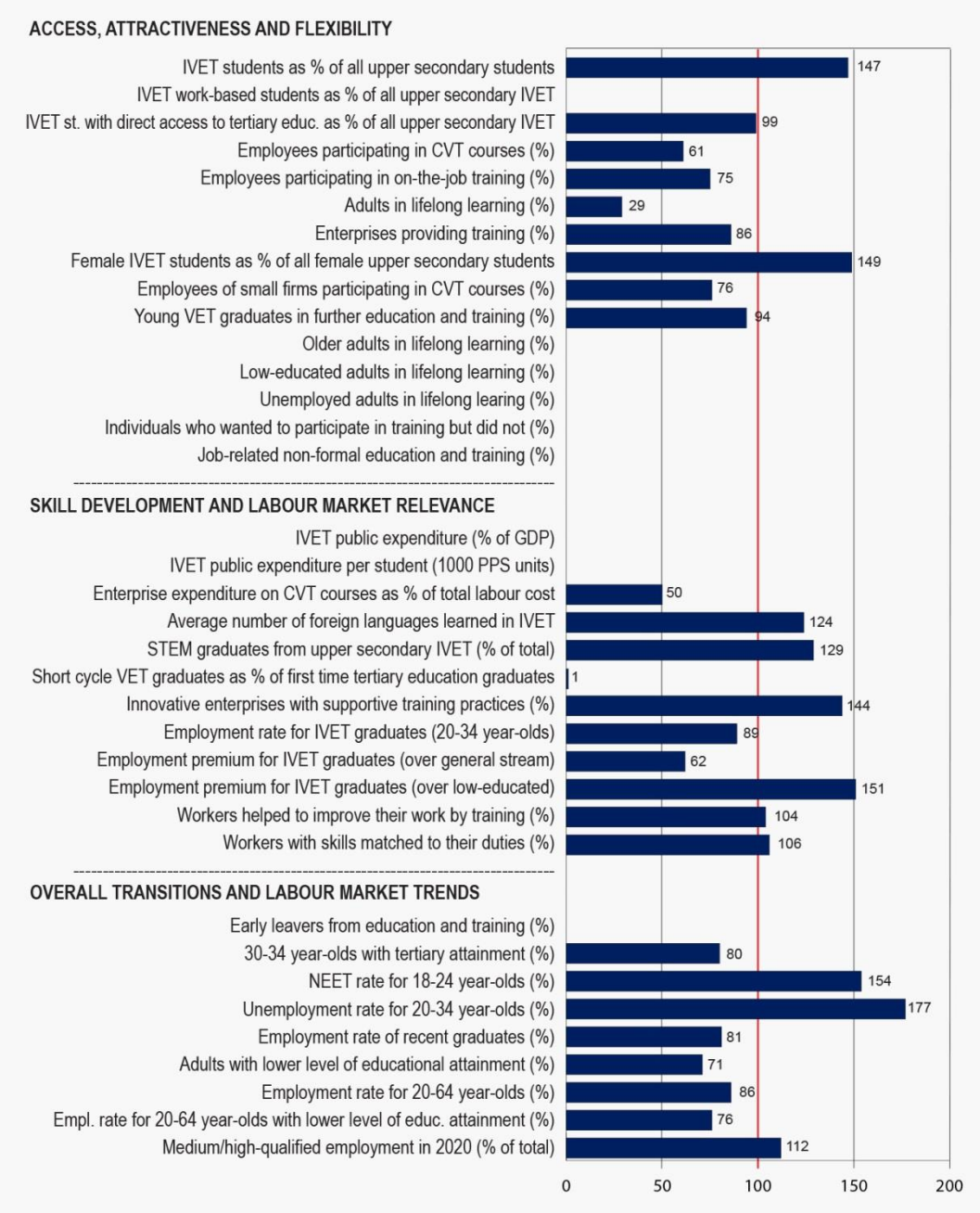
Indicator label	2010		Last available year			Recent trend (per year)		
	FR	EU	Yr	FR	EU	Range	FR	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	42.7 b	48.0 b E1	'13-'14	▪ -0.3	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	25.8 b	34.0 b E2	'13-'14	▪ -1.4	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	62.2	69.2 E3	'13-'14	▪ 1.2	▪ -1.4
Employees participating in CVT courses (%)	45.0	38.0 e	'10	45.0	38.0 e			
Employees participating in on-the-job training (%)	14.0	20.0 e	'10	14.0	20.0 e			
Adults in lifelong learning (%)			'15	18.6 b	10.7 b	'14-'15	▪ 0.2	▪ -0.1
Enterprises providing training (%)	76.0	66.0 e	'10	76.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	37.8 b	42.7 b E1	'13-'14	▪ 0.2	▪ -1.0
Employees of small firms participating in CVT courses (%)	27.0	25.0 e	'10	27.0	25.0 e			
Young VET graduates in further education and training (%)			'15	40.3 b	33.0 b	'14-'15	▪ 0.4	▪ -0.3
Older adults in lifelong learning (%)		5.3	'15	13.9 b	6.9	'14-'15	▪ 0.2	▪ 0.1
Low-educated adults in lifelong learning (%)			'15	7.7 b C	4.3 b C	'13-'15	↘ -0.2	↘ -0.1
Unemployed adults in lifelong learning (%)			'15	14.7 b	9.5 b	'14-'15	▪ 0.2	▪ -0.3
Individuals who wanted to participate in training but did not (%)	13.8 B	9.5 e B	'11	13.8	9.5 e			
Job-related non-formal education and training (%)	74.9 B	80.2 e B	'11	74.9	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.48 b	0.56 b E4			
IVET public expenditure per student (1000 PPS units)			'13	10.3 b	6.4 b E5			
Enterprise expenditure on CVT courses as % of total labour cost	1.6	0.8 e	'10	1.6	0.8 e			
Average number of foreign languages learned in IVET			'14	1.3 b	1.0 b E6	'13-'14	▪ 0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	26.6 b	30.0 b E7	'13-'14	▪ -1.1	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14		9.3 E8			
Innovative enterprises with supportive training practices (%)	60.3	41.5 E9	'12	57.9	41.6 E9	'10-'12	▪ -1.2	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	70.4 b	77.2 b	'14-'15	▪ -3.1	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	-0.9 b	5.3 b	'14-'15	▪ -2.6	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	24.1 b	23.7 b	'14-'15	▪ 1.0	▪ -0.1
Workers helped to improve their work by training (%)			'15	76.1	83.7			
Workers with skills matched to their duties (%)	59.9	55.2	'15	56.2	57.3	'10-'15	▪ -0.7	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)		13.9	'15	9.3 b C	11.0 C	'13-'15	↘ -0.2	↘ -0.5
30-34 year-olds with tertiary attainment (%)		33.8	'15	45.1 b C	38.7 C	'13-'15	↗ 0.6	↗ 0.8
NEET rate for 18-24 year-olds (%)		16.6	'15	16.3 b	15.8	'14-'15	▪ 1.2	▪ -0.7
Unemployment rate for 20-34 year-olds (%)		13.1	'15	14.9 b	12.9	'14-'15	▪ 0.1	▪ -1.2
Employment rate of recent graduates (%)		77.4	'15	72.3 b C	76.9 C	'13-'15	↘ -2.0	↗ 0.7
Adults with lower level of educational attainment (%)		27.3	'15	22.5 b C	23.5 C	'13-'15	↘ -1.2	↘ -0.7
Employment rate for 20-64 year-olds (%)		68.6	'15	69.5 b	70.0	'13-'15	→ 0.0	↗ 0.8
Employment rate for 20-64 year-olds with lower level of educational attainment (%)		53.4	'15	51.3 b C	52.6 C	'13-'15	↘ -1.2	↗ 0.6
Medium/high-qualified employment in 2020 (% of total)			'16	83.7 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

11. Croatia

VET indicators for Croatia for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Croatia's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Croatia with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Croatia is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Croatia's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

Croatia has a relatively high proportion of upper secondary students participating in IVET (70.7% compared with 48% in the EU in 2014). Of all women in upper secondary education, 63.8% are involved in IVET, above the corresponding rate in the EU as a whole (42.7%). At 3.1%, Croatia has proportionately fewer adults involved in lifelong learning than the EU average of 10.7% (2015 data). This level is markedly below the average target (15%) set by the strategic framework *Education and training 2020*. Data from CVTS 2010 indicate the extent to which employees and enterprises engage in CVET. In 2010 23% of all Croatian employees participated in CVT courses compared with 38% in the EU; 15% of them took part in of employer-sponsored on-the-job training, compared with 20% across the EU. In 2010 19% of Croatian employees of small firms participated in CVT courses compared with 25% in the EU. The percentage of enterprises providing training is 57%, lower than the EU average of 66%.

Skill development and labour market relevance

Data for many of the indicators related to skill development and labour market relevance are unavailable. Enterprise total monetary expenditure on CVT courses, as a percentage of total labour costs (0.4%), is half that for Europe as a whole, which combines with the relatively low levels of enterprise participation in training recorded in the 2010 CVTS. Croatian innovative enterprises are more likely to provide training to support innovation: 60% of innovative enterprises

compared with 41.6% in the EU (based on CIS data for 2012). The share of first time tertiary education graduates made up by short-cycle VET graduates (0.1%) is well below the EU average (9.3%) (2014 data). The average number of foreign languages and the percentage STEM graduates from upper secondary IVET is above the EU average (1.2 and 38.7% in Croatia, compared to one and 30% for the EU as whole), based on data from 2014. The employment rate for IVET graduates (20 to 34 year-olds) (69%) is below the EU average (77.2%). IVET graduates in Croatia enjoy a positive premium on their employment rate compared to graduates from general education at the same ISCED level, as well as to graduates at a lower ISCED level. Their employment rate is 3.3 percentage points higher than that of their counterparts from general education (lower than the EU average premium of 5.6 percentage points). The employment rate of IVET graduates is 35.8 percentage points higher than the employment rate of graduates with lower-level qualifications (higher than the EU average premium of 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

The share of early leavers from education and training at 2.8% is much lower than the EU average of 11%, and the Europe 2020 average target of 10%. It is also favourably lower than the national target (4%). In contrast, the percentage of 30 to 34 year-olds with tertiary-level education is lower than in the EU (30.9% compared with 38.7%), and stands below the Europe 2020 average target (40%) and the national target (35%). As a result of a steady reduction since 2006, the share of adults who have completed relatively low-level of education at 16.7% is lower than the EU average of 23.5%. Labour market conditions for young people have been deteriorating. The employment rate of recent graduates (62.6%) is much lower than the EU average (76.9%), following a drop between 2010 and 2015, estimated as a yearly average of 1.5 percentage points. The unemployment rate for 20 to 34 year-olds has been increasing at a yearly rate of 1.1 percentage points to 22.9%, higher than the EU average of 12.9% (yearly slight increase of 0.1% in the same period). The NEET rate is 24.3%, also substantially higher than the EU figure of 15.8%. This rate has increased during 2000-15 by an estimated one percentage point on a yearly basis. The employment rate for 20 to 64 year-olds has dropped with a particularly marked decrease for those with low levels of education.

Score on VET indicators in Croatia and in the EU, 2010, last available year and recent trend

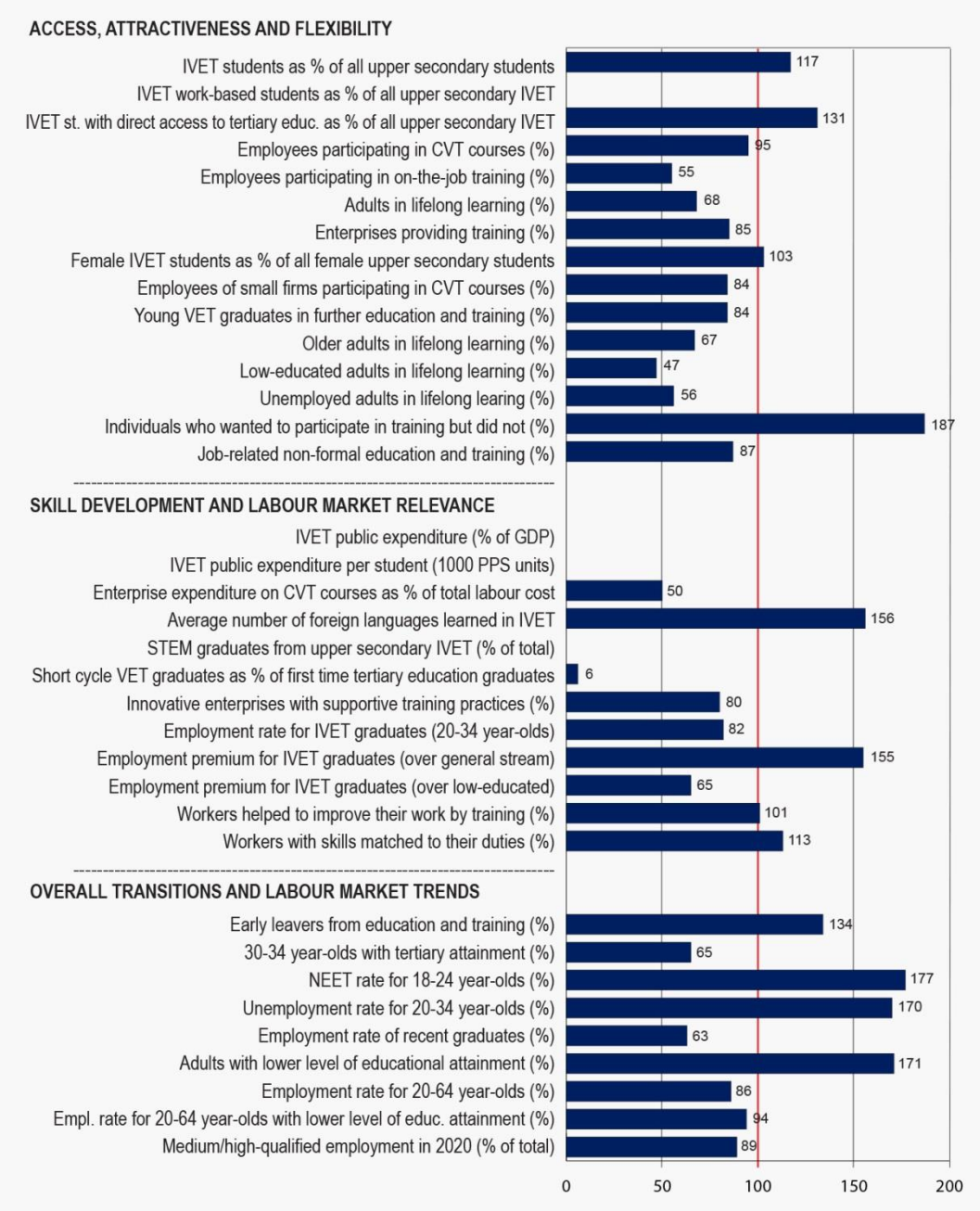
Indicator label	2010		Last available year			Recent trend (per year)		
	HR	EU	Yr	HR	EU	Range	HR	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	70.7 b	48.0 b E1	'13-'14	▪ -0.3	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	0.0 z	34.0 b E2	'13-'14	▪ 0.0	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	68.5	69.2 E3	'13-'14	▪ 0.2	▪ -1.4
Employees participating in CVT courses (%)	23.0	38.0 e	'10	23.0	38.0 e			
Employees participating in on-the-job training (%)	15.0	20.0 e	'10	15.0	20.0 e			
Adults in lifelong learning (%)	3.0		'15	3.1	10.7 b	'13-'15	→ 0.0	→ 0.0
Enterprises providing training (%)	57.0	66.0 e	'10	57.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	63.8 b	42.7 b E1	'13-'14	▪ -0.4	▪ -1.0
Employees of small firms participating in CVT courses (%)	19.0	25.0 e	'10	19.0	25.0 e			
Young VET graduates in further education and training (%)			'15	30.9 b	33.0 b	'14-'15	▪ -0.8	▪ -0.3
Older adults in lifelong learning (%)	0.1 u	5.3	'15	0.3 u	6.9			
Low-educated adults in lifelong learning (%)			'15	u C	4.3 b C			
Unemployed adults in lifelong learning (%)	2.4 u		'15	2.4 u	9.5 b			
Individuals who wanted to participate in training but did not (%)	B	9.5 e B	'11		9.5 e			
Job-related non-formal education and training (%)	B	80.2 e B	'11		80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	b	0.56 b E4			
IVET public expenditure per student (1000 PPS units)			'13	b	6.4 b E5			
Enterprise expenditure on CVT courses as % of total labour cost	0.4	0.8 e	'10	0.4	0.8 e			
Average number of foreign languages learned in IVET			'14	1.2 b	1.0 b E6	'13-'14	▪ 0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	38.7 b	30.0 b E7			
Short-cycle VET graduates as % of first time tertiary education graduates			'14	0.1	9.3 E8	'13-'14	▪ 0.0	▪ 0.4
Innovative enterprises with supportive training practices (%)	54.3	41.5 E9	'12	60.0	41.6 E9	'10-'12	▪ 2.9	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	69.0 b	77.2 b	'14-'15	▪ 1.1	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	3.3 b	5.3 b	'14-'15	▪ -1.7	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	35.8 b	23.7 b	'14-'15	▪ 3.3	▪ -0.1
Workers helped to improve their work by training (%)			'15	87.3	83.7			
Workers with skills matched to their duties (%)	51.1	55.2	'15	60.7	57.3	'10-'15	▪ 1.9	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)	5.2	13.9	'15	2.8 u C	11.0 C	'10-'14	↘ -0.5	↘ -0.7
30-34 year-olds with tertiary attainment (%)	24.5	33.8	'15	30.9 C	38.7 C	'10-'15	↗ 1.7	↗ 1.0
NEET rate for 18-24 year-olds (%)	20.6	16.6	'15	24.3	15.8	'10-'15	↗ 1.0	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	16.8	13.1	'15	22.9	12.9	'10-'15	↗ 1.1	↗ 0.1
Employment rate of recent graduates (%)	71.6	77.4	'15	62.6 C	76.9 C	'10-'15	↘ -1.5	↘ -0.2
Adults with lower level of educational attainment (%)	22.7	27.3	'15	16.7 C	23.5 C	'10-'15	↘ -1.3	↘ -0.8
Employment rate for 20-64 year-olds (%)	62.1	68.6	'15	60.5	70.0	'10-'15	↘ -0.3	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	46.2	53.4	'15	39.8 C	52.6 C	'10-'15	↘ -1.4	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	92.7 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

12. Italy

VET indicators for Italy for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Italy's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Italy with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Italy is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Italy's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

Italy scores highly compared with the EU average for participation in IVET: the share of IVET students as a percentage all upper secondary students is higher (56.1%) than the EU average (48%) The share of upper secondary IVET with direct access to tertiary education (90.7%) is also well above the EU average (69.2%) (data for 2014). However, data for 2015 show that Italy has fewer adults involved in lifelong learning (7.3%) than the EU as a whole (10.7%). At 7.3% Italy is still below the average target of 15% set by the *Education and training 2020* strategic framework. Older adults, those with low-levels of educational attainment, and unemployed adults are less likely to engage in lifelong learning compared to the EU average. All three rates have been increasing in recent years (2010-15 for the former and 2013-15 for the latter two) resulting in a yearly average increase estimated at 0.5 percentage points of adult participation in lifelong learning. The incidence of, and participation in, employer-sponsored training – derived from the 2010 CVTS data – have increased compared with 2005, but still stand below the EU averages. In 2010, 36% of employees participated in CVT courses compared with 38% in the EU, and 56% of employers reported providing training compared with the EU average of 66%. Differences in employee participation in on-the-job training are more pronounced: 11% for Italy compared with 20% for the EU as a whole. The percentage of individuals who wanted to train, but did not do so is also relatively large in Italy (17.8%) compared with the EU (9.5% in 2011).

Skill development and labour market relevance

Graduates from short-cycle VET programmes account for a small percentage of all first time graduates at tertiary level (0.5%), which is well below the EU average (9.3%). Enterprise expenditure on CVT courses as percentage of total labour costs also shows a big difference: Italy scores 0.4% compared with 0.8% for the EU (data from CVTS 2010). Italian upper secondary IVET students learn 1.5 foreign languages on average, while the EU average is one language (in 2014). Other indicators from the 2015 EWCS reveal that the percentage of workers with skills matched to their duties is higher than the EU average (65% compared to 57.3%). Based on 2015 data, the employment rate of IVET graduates (aged 20 to 34) at ISCED 3-4 (63.1%) is lower than the EU average (77.2). Their employment rate is 8.2 percentage points higher than for counterparts from general education: they enjoy a positive employment premium and this is above the corresponding EU average premium of 5.3 percentage points. Their employment rate is also 15.3 percentage points higher than that of graduates with lower-level qualifications (but this is lower than the EU average premium of 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated. Comparative indicators for early leavers from education and training (14.7% in Italy, 11% in the EU), the unemployment rate for 20 to 34 year-olds (22% in Italy, 12.9% in the EU), and the NEET rate for 18 to 24 year-olds (27.9% in Italy, 15.8% in the EU) are all relatively high. The percentage of early leavers decreased from 18.8% in 2010 to 14.7% in 2015, reaching the national target of 16% but not yet achieving the EU target of 10%. Both the unemployment rate for 20 to 34 year-olds and the NEET rate increased between 2010 and 2015 much faster than the EU-average. The employment rate of recent graduates decreased by a yearly estimated average of 2.6 percentage points between 2010 and 2015. At 48.5%, this is much lower than the EU average (76.9%). The percentage of 30 to 34 year-olds who have completed tertiary-level education is much lower than the EU-average (25.3% versus 38.7%), and below the national target (26-27%) and the Europe 2020 average target (40%). Between 2010 and 2015, this percentage increased.

Score on VET indicators in Italy and in the EU, 2010, last available year and recent trend

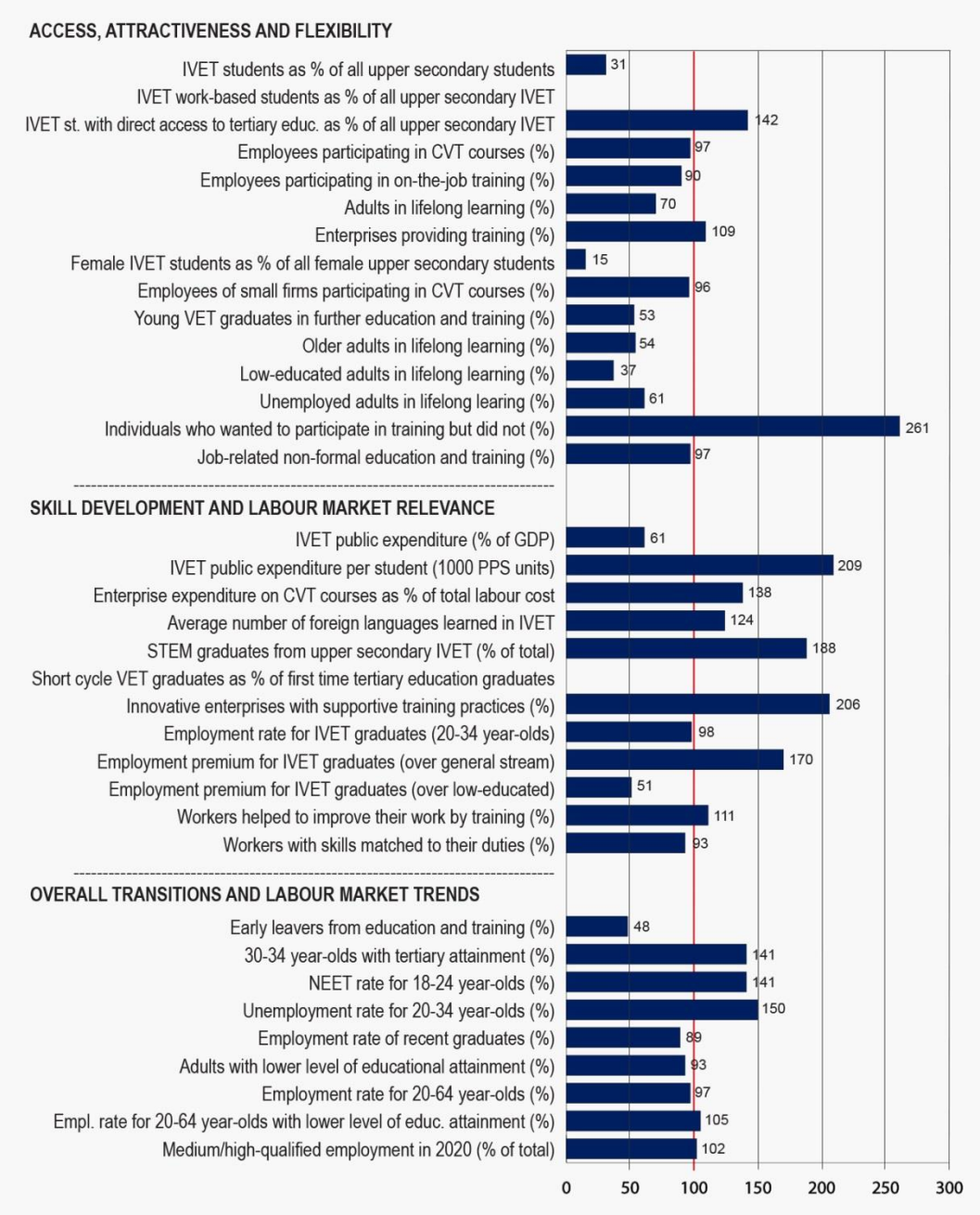
Indicator label	2010		Last available year			Recent trend (per year)			
	IT	EU	Yr	IT	EU	Range	IT		EU
Access, attractiveness and flexibility									
IVET students as % of all upper secondary students	A	A	'14	56.1 b	48.0 b E1	'13-'14	▪	-3.3	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	0.0 z	34.0 b E2	'13-'14	▪	0.0	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	90.7	69.2 E3				
Employees participating in CVT courses (%)	36.0	38.0 e	'10	36.0	38.0 e				
Employees participating in on-the-job training (%)	11.0	20.0 e	'10	11.0	20.0 e				
Adults in lifelong learning (%)	6.2		'15	7.3	10.7 b	'13-'15	↗	0.5	→ 0.0
Enterprises providing training (%)	56.0	66.0 e	'10	56.0	66.0 e				
Female IVET students as % of all female upper secondary students	A	A	'14	44.1 b	42.7 b E1	'13-'14	▪	-4.7	▪ -1.0
Employees of small firms participating in CVT courses (%)	21.0	25.0 e	'10	21.0	25.0 e				
Young VET graduates in further education and training (%)			'15	27.9 b	33.0 b	'14-'15	▪	0.4	▪ -0.3
Older adults in lifelong learning (%)	3.0	5.3	'15	4.6	6.9	'10-'15	↗	0.4	↗ 0.4
Low-educated adults in lifelong learning (%)	1.3		'15	2.0 C	4.3 b C	'13-'15	↗	0.3	↘ -0.1
Unemployed adults in lifelong learning (%)	6.3		'15	5.3	9.5 b	'13-'15	↗	0.1	↘ -0.4
Individuals who wanted to participate in training but did not (%)	17.8 B	9.5 e B	'11	17.8	9.5 e				
Job-related non-formal education and training (%)	69.9 B	80.2 e B	'11	69.9	80.2 e				
Skill development and labour market relevance									
IVET public expenditure (% of GDP)			'13	b	0.56 b E4				
IVET public expenditure per student (1000 PPS units)			'13	b	6.4 b E5				
Enterprise expenditure on CVT courses as % of total labour cost	0.4	0.8 e	'10	0.4	0.8 e				
Average number of foreign languages learned in IVET			'14	1.5 b	1.0 b E6	'13-'14	▪	0.1	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	b	30.0 b E7				
Short-cycle VET graduates as % of first time tertiary education graduates			'14	0.5	9.3 E8	'13-'14	▪	0.1	▪ 0.4
Innovative enterprises with supportive training practices (%)	31.9	41.5 E9	'12	33.4	41.6 E9	'10-'12	▪	0.8	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	63.1 b	77.2 b	'14-'15	▪	0.4	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	8.2 b	5.3 b	'14-'15	▪	2.2	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	15.3 b	23.7 b	'14-'15	▪	-0.7	▪ -0.1
Workers helped to improve their work by training (%)			'15	84.9	83.7				
Workers with skills matched to their duties (%)	62.3	55.2	'15	65.0	57.3	'10-'15	▪	0.5	▪ 0.4
Overall transitions and labour market trends									
Early leavers from education and training (%)	18.6	13.9	'15	14.7 C	11.0 C	'10-'15	↘	-0.8	↘ -0.6
30-34 year-olds with tertiary attainment (%)	19.9	33.8	'15	25.3 C	38.7 C	'10-'15	↗	1.1	↗ 1.0
NEET rate for 18-24 year-olds (%)	24.1	16.6	'15	27.9	15.8	'10-'15	↗	0.9	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	14.6	13.1	'15	22.0	12.9	'10-'15	↗	1.9	↗ 0.1
Employment rate of recent graduates (%)	57.8	77.4	'15	48.5 C	76.9 C	'10-'15	↘	-2.6	↘ -0.2
Adults with lower level of educational attainment (%)	44.9	27.3	'15	40.1 C	23.5 C	'10-'15	↘	-1.0	↘ -0.8
Employment rate for 20-64 year-olds (%)	61.0	68.6	'15	60.5	70.0	'10-'15	↘	-0.2	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	49.9	53.4	'15	49.4 C	52.6 C	'10-'15	↘	-0.2	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	73.5 D	82.8 D				

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

13. Cyprus

VET indicators for Cyprus for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

The performance of Cyprus on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Cyprus with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Cyprus is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, the performance of Cyprus is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

Participation in IVET in Cyprus is relatively low compared with the EU average in 2014. The percentage of upper secondary students enrolled in IVET programmes (15.1%) is significantly lower than the EU average (48%). For women the difference is even greater (6.3% for Cyprus; 42.7% for the EU). The share of upper secondary IVET enrolled in programmes providing direct access to tertiary education (98%) is well above the EU average (69.2%), but the percentage of young VET graduates actually participating in further education and training is lower (17.7% in Cyprus and 33% for the EU in 2015). In 2015, the percentage of adults participating in lifelong learning is 7.5%, lower than the EU average of 10.7% and the EU average target of 15%. Older adults, those with low-levels of educational attainment, and unemployed adults are less likely to engage in lifelong learning compared to the EU average. Data from the 2010 CVTS suggest that the share of enterprises providing training in Cyprus is higher than the EU average (72% Cyprus, 66% the EU) while employee participation in training (CVTS courses and on the job training) is slightly below, but almost on par with, the corresponding EU averages. The proportion of individuals who wanted to train but did not is higher in Cyprus at 24.8% compared with 9.5% in the EU (data for 2011).

Skill development and labour market relevance

Figures for Cyprus are particularly high for several indicators in this group. The percentage of innovative enterprises providing supportive training (85.5%) is much

higher than the EU average (41.6%) (based on 2012 data). The same is true of the proportion of STEM graduates from upper secondary IVET (56.4% compared with 30% for the EU as a whole in 2014). Based on 2015 data, the employment rate of IVET graduates (aged 20 to 34) at ISCED levels 3-4 (75.7%) is slightly below the EU average (77.2%). IVET graduates in Cyprus enjoy a positive premium on their employment rate compared to graduates from general education at the same ISCED level, as well as to graduates at lower ISCED level. Their employment rate is 9 percentage points higher than that of their counterparts from general education (higher than the EU average premium of 5.3%) and the employment rate of IVET graduates is 12.2 percentage points higher than that of graduates with lower-level qualifications (lower than the EU average premium of 23.7%). These employment figures relate to 2015 and exclude young people in further education and training. Public expenditure on IVET as a percentage of GDP in 2013 (0.34%) is below the EU average (0.56%) but expenditure per student is higher (13 600 PPS units in Cyprus and 6 400 PPS units in the EU).

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated. The unemployment rate for 20 to 34 year-olds is higher than the EU average (19.4% versus 12.9%), and the employment rate for recent graduates is much lower (68.8% versus 76.9%). The unemployment rate for 20 to 34 year-olds appears to have grown more rapidly in Cyprus than in the EU between 2010 and 2015 (by an estimated average of 2.5 and 0.1 percentage points yearly, respectively). This increase has occurred mainly between 2010 and 2013, followed by a slight decrease from 21.7% to 19.4% between 2013 and 2015. The same is observed for the NEET-rate. The employment rate for recent graduates has dropped substantially (by 16.3 percentage points) between 2010 and 2013 and recovered somewhat between 2013 and 2015 to 68.8%. The share of early leavers from education and training has decreased by an estimated yearly average of 1.5 percentage points between 2010 and 2015. At 5.3% this share is lower than the Europe 2020 average and national target (both set at 10%). The share of 30 to 34 year-olds with tertiary-level education already exceeds the Europe 2020 average target (40%); at 54.6%, this share has also surpassed the national target (46%). The employment rate for 20 to 64 year-olds has been decreasing between 2010 and 2015 at an estimated yearly rate of 1.6 percentage points. This trend is even more pronounced for 20 to 64 year-olds with lower level of educational attainment, facing a yearly reduction in employment rate of 2.7%, over the same period.

Score on VET indicators in Cyprus and in the EU, 2010, last available year and recent trend

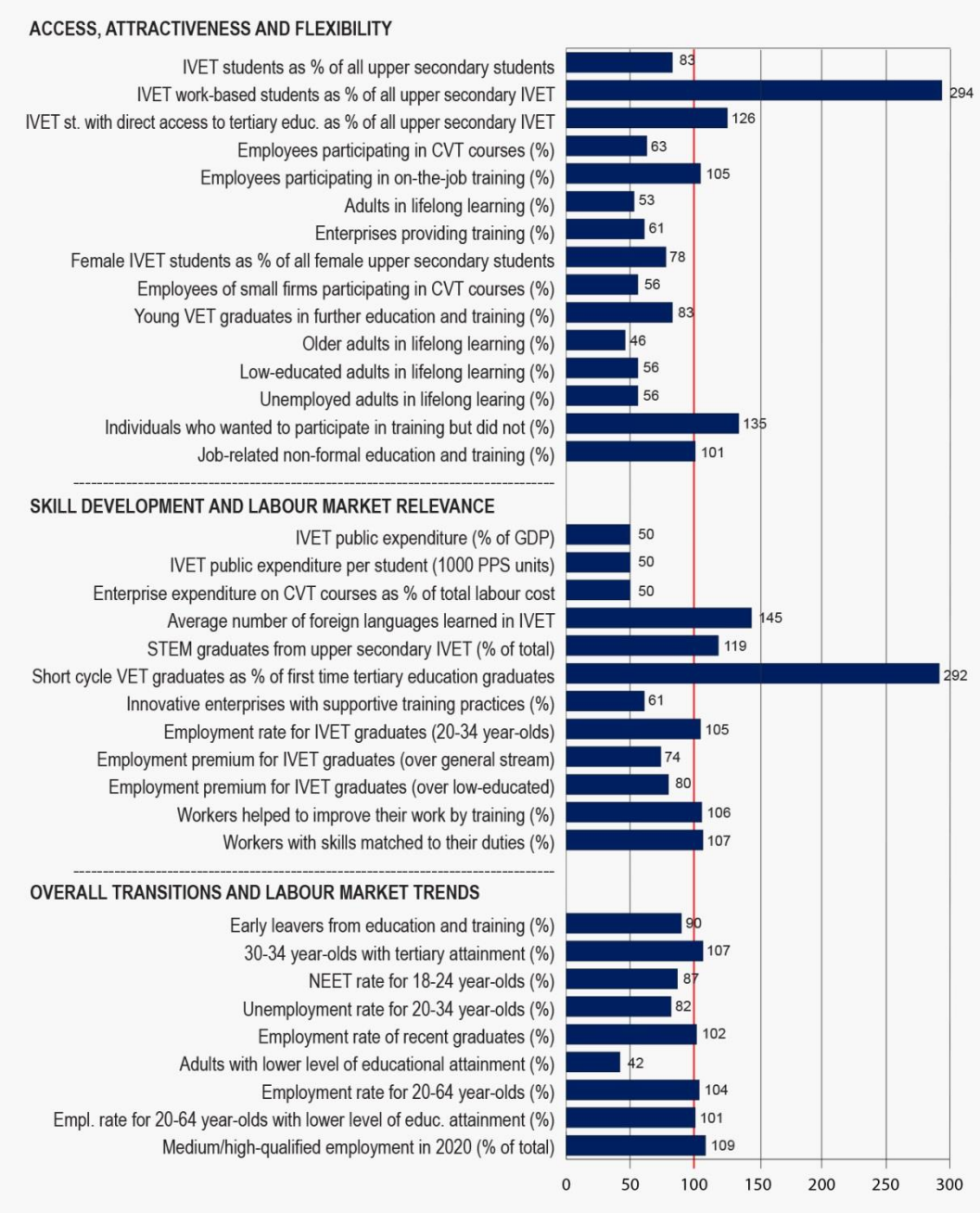
Indicator label	2010		Last available year			Recent trend (per year)		
	CY	EU	Yr	CY	EU	Range	CY	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	15.1 b	48.0 b E1	'13-'14	▪ 1.5	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	0.0 z	34.0 b E2	'13-'14	▪ 0.0	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	98.0	69.2 E3	'13-'14	▪ 0.1	▪ -1.4
Employees participating in CVT courses (%)	37.0	38.0 e	'10	37.0	38.0 e			
Employees participating in on-the-job training (%)	18.0	20.0 e	'10	18.0	20.0 e			
Adults in lifelong learning (%)	8.1		'15	7.5	10.7 b	'13-'15	↗ 0.1	→ 0.0
Enterprises providing training (%)	72.0	66.0 e	'10	72.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	6.3 b	42.7 b E1	'13-'14	▪ 1.1	▪ -1.0
Employees of small firms participating in CVT courses (%)	24.0	25.0 e	'10	24.0	25.0 e			
Young VET graduates in further education and training (%)			'15	17.7 b	33.0 b	'14-'15	▪ -3.8	▪ -0.3
Older adults in lifelong learning (%)	3.8	5.3	'15	3.7	6.9	'10-'15	↘ -0.1	↗ 0.4
Low-educated adults in lifelong learning (%)	1.1 u		'15	1.6 C	4.3 b C	'14-'15	▪ 0.2	▪ -0.2
Unemployed adults in lifelong learning (%)	6.1 u		'15	5.8	9.5 b	'13-'15	↘ -0.1	↘ -0.4
Individuals who wanted to participate in training but did not (%)	24.8 B	9.5 e B	'11	24.8	9.5 e			
Job-related non-formal education and training (%)	77.5 B	80.2 e B	'11	77.5	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.34 b	0.56 b E4	'12-'13	▪ 0.00	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	13.4 b	6.4 b E5	'12-'13	▪ -0.9	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	1.1	0.8 e	'10	1.1	0.8 e			
Average number of foreign languages learned in IVET			'14	1.2 b	1.0 b E6	'13-'14	▪ 0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	56.4 b	30.0 b E7	'13-'14	▪ -0.1	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14		9.3 E8			
Innovative enterprises with supportive training practices (%)	90.7	41.5 E9	'12	85.5	41.6 E9	'10-'12	▪ -2.6	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	75.7 b	77.2 b	'14-'15	▪ 3.3	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	9.0 b	5.3 b	'14-'15	▪ 6.7	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	12.2 b	23.7 b	'14-'15	▪ 6.5	▪ -0.1
Workers helped to improve their work by training (%)			'15	92.7	83.7			
Workers with skills matched to their duties (%)	46.8	55.2	'15	53.5	57.3	'10-'15	▪ 1.3	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)	12.7	13.9	'15	5.3 C	11.0 C	'10-'15	↘ -1.5	↘ -0.6
30-34 year-olds with tertiary attainment (%)	45.3	33.8	'15	54.6 C	38.7 C	'10-'15	↗ 1.8	↗ 1.0
NEET rate for 18-24 year-olds (%)	16.7	16.6	'15	22.2	15.8	'10-'15	↗ 1.3	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	8.8	13.1	'15	19.4	12.9	'10-'15	↗ 2.5	↗ 0.1
Employment rate of recent graduates (%)	78.4	77.4	'15	68.8 C	76.9 C	'10-'15	↘ -2.0	↘ -0.2
Adults with lower level of educational attainment (%)	26.0	27.3	'15	21.9 C	23.5 C	'10-'15	↘ -0.8	↘ -0.8
Employment rate for 20-64 year-olds (%)	75.0	68.6	'15	67.9	70.0	'10-'15	↘ -1.6	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	66.8	53.4	'15	55.1 C	52.6 C	'10-'15	↘ -2.7	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	84.1 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

14. Latvia

VET indicators for Latvia for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Latvia's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Latvia with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Latvia is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Latvia's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

The percentage of upper secondary students enrolled in IVET in Latvia (39.6% in 2014) is lower than the EU average (48%), though all IVET students are reported to be enrolled in combined work- and school-based programmes (compared with 34% in the EU, data for 2014). The share of upper secondary IVET in programmes providing direct access to tertiary education (87.4%) is also well above the EU average (69.2%). The share of adults participating in lifelong learning (5.7% in 2015) is lower than the EU average (10.7%): Latvia remains below the average target (15%) set by the strategic framework *Education and training 2020*. Similarly, lifelong learning participation rates for particular subgroups of adults (older (3.2%), low-educated (2.4%), and unemployed people (5.3%)) are relatively low when compared with the EU (6.9%, 4.3%, and 9.5% respectively). The share of adults in lifelong learning has decreased between 2013 and 2015 at a yearly rate of 0.5%, partly due to a decreasing share of unemployed adults in lifelong learning (-1.2% per year). Based on 2010 CVTS data, the percentage of enterprises providing training (40%) is below the EU average (66%), and the percentage of employees participating in CVT courses at 24% is also below the EU average of 38%, this difference between Latvia and the EU as a whole is even more pronounced for employees of small firms (14% compared to 25%). In contrast, employee participation in on-the-job training is almost on par (1 percentage point higher).

Skill development and labour market relevance

Indicators on skill development and labour market relevance show a mixed picture. At 0.28%, IVET expenditure as a share of overall GDP is below the EU average

of 0.56%. This is also reflected in the lower spend per student (3200 PPS units compared with the EU average of 6400 PPS units) (data on expenditure refer to 2013 and to IVET at ISCED 3-4). The average number of foreign languages learned in IVET in Latvia (1.4) is above the EU average (1). The percentage of graduates in STEM subjects from upper secondary-level IVET is higher than the EU average (35.8% and 30% respectively). Graduates from short-cycle VET account for a large share of first time graduates at tertiary level (27.3%, which is well above the EU average of 9.3%). Data from 2012 reveal that enterprises are less likely to provide training to support innovation (25.4% compared with 41.6% in the EU). Based on 2015 data, the employment rate of IVET graduates (aged 20 to 34) at ISCED 3-4 (81.2%) is higher than the EU average (77.2%). IVET graduates in Latvia enjoy a positive premium on their employment rate compared to graduates from general education at the same ISCED level, as well as to graduates at a lower ISCED level. Their employment rate is 3.9 percentage points higher than that of their counterparts from general education (slightly below the EU average premium of 5.3 percentage points); their employment rate is 18.9 percentage points higher than that of graduates with lower-level qualifications (also below the EU average premium of 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated. The percentage of early leavers from education and training (9.9%) is below the EU average (11%): it is also below both the Europe 2020 average target (10%) and the national target (13.4%). The percentage of 30 to 34 year-olds with tertiary-level education is higher than the EU average (41.3% compared with 38.7%) and the percentage of people with low-level education is relatively low (9.9% compared with 23.5% in the EU). By 2013, 30 to 34 year-olds in tertiary-level education (40.7%) had surpassed the national target (34-36%) as well as the Europe 2020 average target (40%). At 41.3%, this finding remains valid in 2015. The employment rate for 20 to 64 year-olds (72.5%) is slightly higher than the EU average (70%). This rate has been increasing between 2010 and 2015 at an estimated yearly rate of 1.6 percentage points. The employment rate of recent graduates (78.8%) is also higher than the EU-average (76.9%) and has increased at a yearly rate of 2.8% since 2010 (compared to a yearly reduction of 0.2% in the EU average). The NEET rate (13.8%) is below the EU average (15.8%) and has been decreasing steadily. The unemployment rate of 20 to 34 year-olds (10.6%) is lower than the EU average (12.9%) and has decreased by an estimated yearly average of 2.4 percentage points since 2010.

Score on VET indicators in Latvia and in the EU, 2010, last available year and recent trend

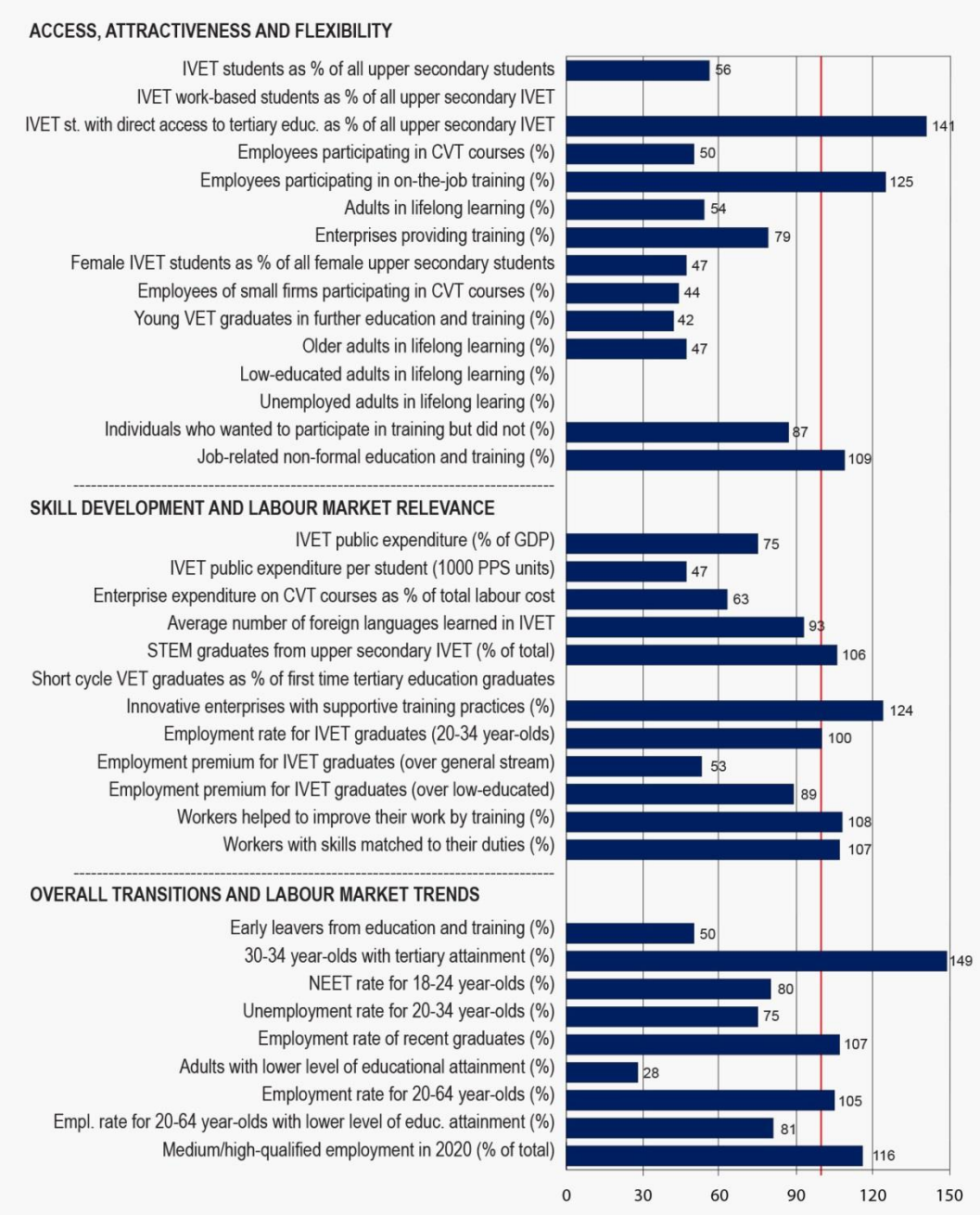
Indicator label	2010		Last available year			Recent trend (per year)		
	LV	EU	Yr	LV	EU	Range	LV	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	39.6 b	48.0 b E1	'13-'14	▪ 0.6	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	100.0 b	34.0 b E2	'13-'14	▪ 0.0	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	87.4	69.2 E3	'13-'14	▪ -0.9	▪ -1.4
Employees participating in CVT courses (%)	24.0	38.0 e	'10	24.0	38.0 e			
Employees participating in on-the-job training (%)	21.0	20.0 e	'10	21.0	20.0 e			
Adults in lifelong learning (%)	5.4		'15	5.7	10.7 b	'13-'15	↘ -0.5	→ 0.0
Enterprises providing training (%)	40.0	66.0 e	'10	40.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	33.1 b	42.7 b E1	'13-'14	▪ 0.9	▪ -1.0
Employees of small firms participating in CVT courses (%)	14.0	25.0 e	'10	14.0	25.0 e			
Young VET graduates in further education and training (%)			'15	27.3 b	33.0 b	'14-'15	▪ 8.0	▪ -0.3
Older adults in lifelong learning (%)	2.3	5.3	'15	3.2	6.9	'10-'15	↗ 0.1	↗ 0.4
Low-educated adults in lifelong learning (%)	u		'15	2.4 C	4.3 b C	'13-'15	↘ -0.1	↘ -0.1
Unemployed adults in lifelong learning (%)	6.7		'15	5.3	9.5 b	'13-'15	↘ -1.2	↘ -0.4
Individuals who wanted to participate in training but did not (%)	12.8 B	9.5 e B	'11	12.8	9.5 e			
Job-related non-formal education and training (%)	81.1 B	80.2 e B	'11	81.1	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.28 b	0.56 b E4	'12-'13	▪ 0.00	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	3.2 b	6.4 b E5	'12-'13	▪ -1.1	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	0.4	0.8 e	'10	0.4	0.8 e			
Average number of foreign languages learned in IVET			'14	1.4 b	1.0 b E6	'13-'14	▪ 0.5	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	35.8 b	30.0 b E7	'13-'14	▪ -6.2	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	27.3	9.3 E8	'13-'14	▪ 2.5	▪ 0.4
Innovative enterprises with supportive training practices (%)	35.7	41.5 E9	'12	25.4	41.6 E9	'10-'12	▪ -5.2	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	81.2 b	77.2 b	'14-'15	▪ 3.2	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	3.9 b	5.3 b	'14-'15	▪ -0.2	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	18.9 b	23.7 b	'14-'15	▪ -2.9	▪ -0.1
Workers helped to improve their work by training (%)			'15	88.5	83.7			
Workers with skills matched to their duties (%)	47.2	55.2	'15	61.2	57.3	'10-'15	▪ 2.8	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)	12.9	13.9	'15	9.9 C	11.0 C	'10-'15	↘ -0.7	↘ -0.6
30-34 year-olds with tertiary attainment (%)	32.6	33.8	'15	41.3 C	38.7 C	'10-'15	↗ 1.7	↗ 1.0
NEET rate for 18-24 year-olds (%)	22.6	16.6	'15	13.8	15.8	'10-'15	↘ -1.7	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	22.8	13.1	'15	10.6	12.9	'10-'15	↘ -2.4	↗ 0.1
Employment rate of recent graduates (%)	63.4	77.4	'15	78.8 C	76.9 C	'10-'15	↗ 2.8	↘ -0.2
Adults with lower level of educational attainment (%)	11.4	27.3	'15	9.9 C	23.5 C	'10-'15	↘ -0.4	↘ -0.8
Employment rate for 20-64 year-olds (%)	64.3	68.6	'15	72.5	70.0	'10-'15	↗ 1.6	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	45.1	53.4	'15	53.2 C	52.6 C	'10-'15	↗ 1.4	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	90.3 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

15. Lithuania

VET indicators for Lithuania for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Lithuania's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Lithuania with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Lithuania is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Lithuania's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

IVET students comprise a relatively low share of the upper secondary student population (26.7% compared with 48% in the EU in 2014). The share of upper secondary IVET students enrolled in programmes giving direct access to tertiary education (97.8%) is well above the EU average (69.2%). But the percentage of young VET graduates participating in further education and training is markedly below the EU average (13.8% in Lithuania and 33% for the EU in 2015). Data for 2015 also show that the percentage of adults participating in lifelong learning (5.8%) is just more than half the EU average (10.7%) and is well below the average target (15%) set by the strategic framework *Education and training 2020*. Based on 2010 CVTS data, the percentage of employers providing training (52%) is lower than the EU average (66%), but has increased from 46% in 2005. The percentage of employees participating in CVT courses at 19% is half the EU average of 38% (even more pronounced for employees of small firms), but the percentage of employees participating in on-the-job training at 25% is higher than the EU average of 20%.

Skill development and labour market relevance

Data for 2013 show that public expenditure on IVET as a percentage of GDP (0.42%) is below the EU average (0.56%). This is also reflected in the relatively low spend per student (3 000 PPS units compared to 6 400 PPS units in the EU). These expenditure data refer to 2013 and to IVET at ISCED levels 3-4. The

average number of foreign languages learned by upper secondary IVET students (0.9) is below the EU average (1 in 2014). The percentage of graduates in STEM subjects from upper secondary IVET (31.9%) is slightly above the EU average (30%). Data from 2015 show that the employment rate for IVET graduates (aged 20 to 34) at ISCED 3-4 (76.9%) is just below the EU average (77.2%). IVET graduates in Lithuania enjoy a positive premium on their employment rate compared to graduates from general education at the same ISCED level, and to graduates at a lower ISCED level. Their employment rate is 2.8 percentage points higher than that of their counterparts from general education (this is below the corresponding EU average premium of 5.3 percentage points); it is 21.2 percentage points higher than that of graduates with lower-level qualifications (this is also a lower premium than the EU average of 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated. The percentage of early leavers from education and training (5.5%) is lower than the EU average (11%) and below the national target (9%) and the Europe 2020 average target (10%). Educational attainment is relatively high: the percentage of 30 to 34 year-olds who have completed tertiary-level education (57.6%) is above the EU average (38.7%). This value rose by an estimated yearly average of 2.7 percentage points since 2010 and now it is above the Europe 2020 average target (40%) and the national target (48.7%). The percentage of adults with only lower-level educational attainment is relatively low (6.5% compared with 23.5% in the EU). Of 20 to 64 year-olds, 73.3% are employed, which is greater than the EU average (70%). Between 2010 and 2015, this percentage has been increasing by an estimated 1.7 percentage points per year. The employment rate for 20 to 64 year-olds with lower level of educational attainment has also been increasing at a yearly rate of 2.8% in the same period. The NEET rate and the unemployment rate for 20 to 34 year-olds are both low relative to EU averages: the NEET rate is 12.6% compared with 15.8% across the EU and the unemployment rate is 9.7% versus 12.9% for the EU. Both rates decreased much faster in Lithuania between 2010 and 2015 than those for the EU as a whole over the same period. The employment rate of recent graduates has been rising at a yearly estimated average of 2.2 percentage points to stand at 82.1% in 2015, compared to 76.9 for the EU average, achieving the EU target of 82%.

Score on VET indicators in Lithuania and in the EU, 2010, last available year and recent trend

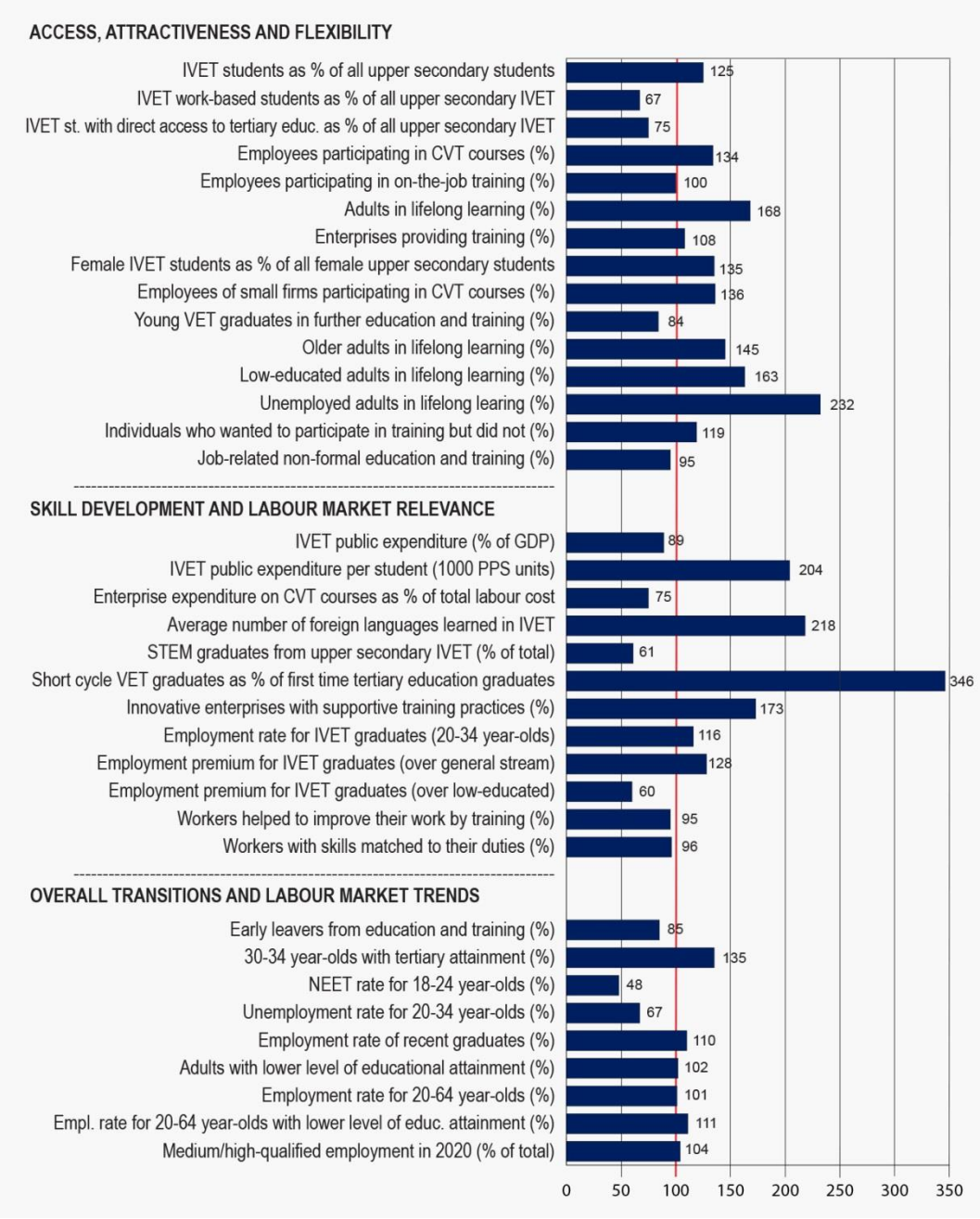
Indicator label	2010		Last available year			Recent trend (per year)		
	LT	EU	Yr	LT	EU	Range	LT	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	26.7 b	48.0 b E1	'13-'14	▪ -0.9	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	0.0 z	34.0 b E2	'13-'14	▪ 0.0	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	97.8	69.2 E3	'13-'14	▪ 0.0	▪ -1.4
Employees participating in CVT courses (%)	19.0	38.0 e	'10	19.0	38.0 e			
Employees participating in on-the-job training (%)	25.0	20.0 e	'10	25.0	20.0 e			
Adults in lifelong learning (%)	4.4		'15	5.8	10.7 b	'13-'15	↘ -0.1	→ 0.0
Enterprises providing training (%)	52.0	66.0 e	'10	52.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	20.2 b	42.7 b E1	'13-'14	▪ -0.3	▪ -1.0
Employees of small firms participating in CVT courses (%)	11.0	25.0 e	'10	11.0	25.0 e			
Young VET graduates in further education and training (%)			'15	13.8 b	33.0 b	'14-'15	▪ 0.2	▪ -0.3
Older adults in lifelong learning (%)	1.2 u	5.3	'15	3.3	6.9	'11-'15	↗ 0.1	↗ 0.5
Low-educated adults in lifelong learning (%)	u		'15	u C	4.3 b C			
Unemployed adults in lifelong learning (%)	3.3 u		'15	u	9.5 b			
Individuals who wanted to participate in training but did not (%)	8.3 B	9.5 e B	'11	8.3	9.5 e			
Job-related non-formal education and training (%)	87.8 B	80.2 e B	'11	87.8	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.42 b	0.56 b E4	'12-'13	▪ 0.04	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	3.0 b	6.4 b E5	'12-'13	▪ -0.1	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	0.5	0.8 e	'10	0.5	0.8 e			
Average number of foreign languages learned in IVET			'14	0.9 b	1.0 b E6	'13-'14	▪ 0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	31.9 b	30.0 b E7	'13-'14	▪ -2.0	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	0.0 z	9.3 E8	'13-'14	▪ 0.0	▪ 0.4
Innovative enterprises with supportive training practices (%)	60.6	41.5 E9	'12	51.5	41.6 E9	'10-'12	▪ -4.6	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	76.9 b	77.2 b	'14-'15	▪ 2.9	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	2.8 b	5.3 b	'14-'15	▪ 1.2	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	21.2 b	23.7 b	'14-'15	▪ -1.5	▪ -0.1
Workers helped to improve their work by training (%)			'15	90.8	83.7			
Workers with skills matched to their duties (%)	60.5	55.2	'15	61.3	57.3	'10-'15	▪ 0.2	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)	7.9	13.9	'15	5.5 C	11.0 C	'10-'15	↘ -0.5	↘ -0.6
30-34 year-olds with tertiary attainment (%)	43.8	33.8	'15	57.6 C	38.7 C	'10-'15	↗ 2.7	↗ 1.0
NEET rate for 18-24 year-olds (%)	18.1	16.6	'15	12.6	15.8	'10-'15	↘ -1.0	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	21.9	13.1	'15	9.7	12.9	'10-'15	↘ -2.4	↗ 0.1
Employment rate of recent graduates (%)	73.7	77.4	'15	82.1 C	76.9 C	'10-'15	↗ 2.2	↘ -0.2
Adults with lower level of educational attainment (%)	8.1	27.3	'15	6.5 C	23.5 C	'10-'15	↘ -0.3	↘ -0.8
Employment rate for 20-64 year-olds (%)	64.3	68.6	'15	73.3	70.0	'10-'15	↗ 1.7	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	29.6	53.4	'15	42.7 C	52.6 C	'10-'15	↗ 2.8	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	95.8 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

16. Luxembourg

VET indicators for Luxembourg for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Luxembourg's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Luxembourg with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Luxembourg is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Luxembourg's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

Participation in IVET and CVET in Luxembourg is relatively high. Participation in IVET by upper secondary students (59.8%) is above the EU average (48% in 2014). In upper secondary vocational education, combined work- and school-based programmes account for 22.7% of enrolments (34% in the EU). The share of upper secondary IVET programmes providing direct access to tertiary education (52.1%) is below the EU average (69.2%). The percentage of employees receiving CVT training courses, as reported by their employer (derived from the 2010 CVTS data), is relatively high compared with the EU average (51% versus 38%). The same holds for employees of small firms participating in CVT courses (34% versus 25%). Indicators on participation of adults in lifelong learning in 2015 for various target groups (such as the unemployed (22%), older adults (10%) and low-educated adults (4%)) are all well above the EU average, though figures are based on small sample sizes and should be interpreted with caution. The overall rate of adult participation in lifelong learning now stands at 18% in Luxembourg. This figure is above the EU average of 10.5% and close to the average target (15%) set by the strategic framework *Education and training 2020*.

Skill development and labour market relevance

Luxembourg is above average for several indicators in this group. At ISCED levels 3-4, public expenditure on IVET per student (13000 PPS units) is significantly higher than the EU average (6400 PPS units) (data for 2013). Graduates from short-cycle tertiary VET programmes account for a large share of first-time tertiary graduates (32.2%), well above the EU average (9.3%). The same is true for the percentage of innovative enterprises providing supportive training (72.1% versus 41.6% in the EU in 2012). The share of graduates in STEM subjects from upper secondary vocational education is 18.3% (30% in the EU in 2014). The average number of foreign languages learned by upper secondary IVET students (2.1) is above the EU average (1 in 2014). The employment rate of IVET graduates (aged 20 to 34) at ISCED 3-4 (89.2%) is higher than the EU average (77.2%) (data for 2015). IVET graduates in Luxembourg enjoy a positive premium on their employment rate compared to graduates from general education at the same ISCED level, as well as to graduates at a lower ISCED level. Their employment rate is 6.8 percentage points higher than that of their counterparts from general education (this is higher than the EU average premium of 5.3 percentage points); it is also 14.3 percentage points higher than that of graduates with lower-level qualifications (23.7 percentage points in the EU as a whole). All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated. A generally favourable picture emerges for Luxembourg, but most data are based on a small sample size and should be interpreted with caution. Early leavers from education and training in Luxembourg (9.3%) are below the EU average (11%). This is below both EU (10%) and country (10%) targets. The percentage of 30 to 34 year-olds with tertiary attainment is higher than in the EU overall (52.3% versus 38.7%). At this level, this percentage meets the EU average target (40%) but is still below the country target (66%). The unemployment rate of 20 to 34 year-olds (8.6%) is lower (EU 12.9%), the NEET rate (7.6%) is lower (EU 15.8%), and the employment rate of 20 to 64 year-olds (70.9%) is slightly higher (EU 70%). This relationship is more pronounced for the employment rate of 20 to 64 year-olds with lower level of educational attainment (58.4% in Luxembourg compared to 52.6% for Europe as whole).

Score on VET indicators in Luxembourg and in the EU, 2010, last available year and recent trend

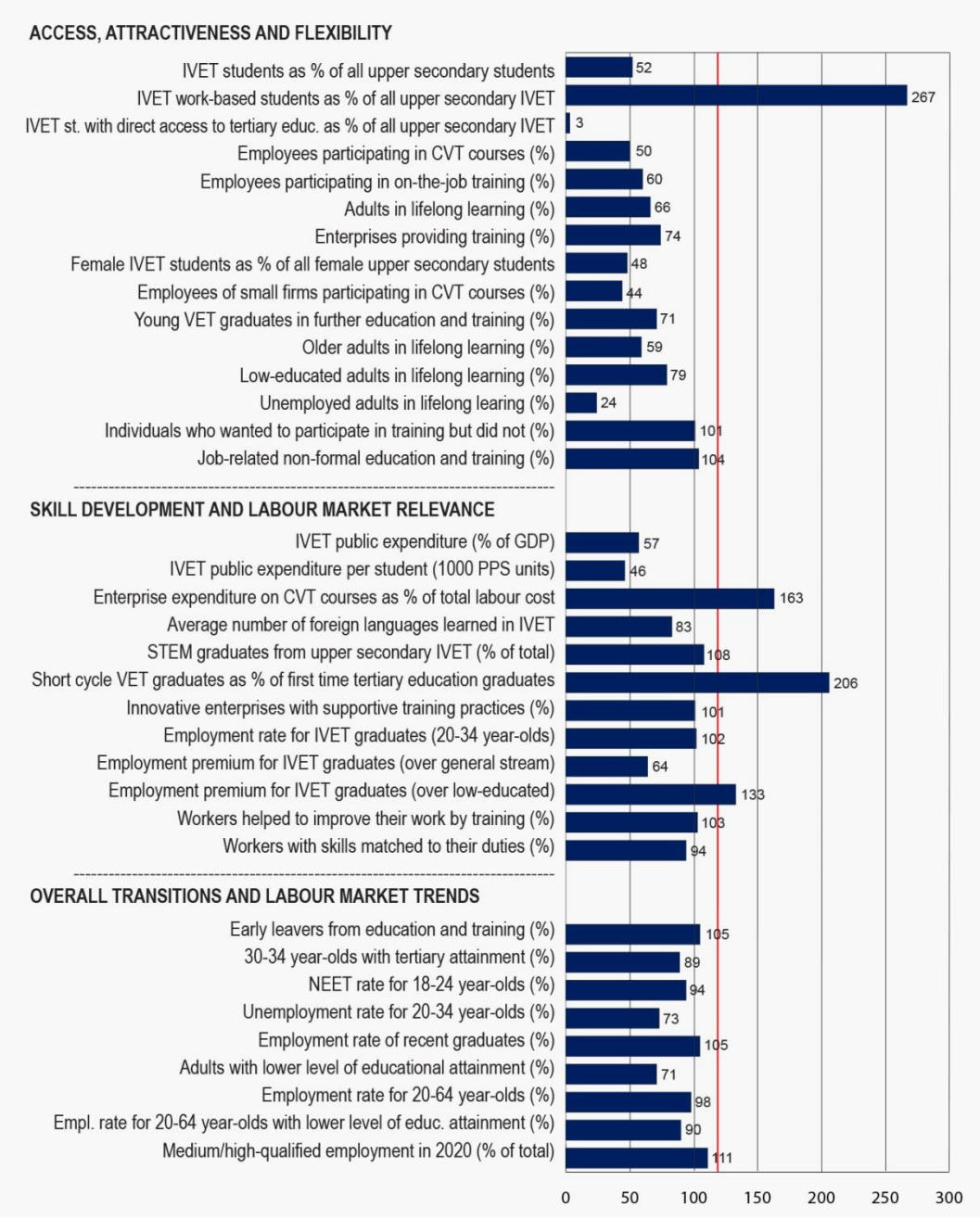
Indicator label	2010		Last available year			Recent trend (per year)		
	LU	EU	Yr	LU	EU	Range	LU	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	59.8 b	48.0 b E1	'13-'14	▪ -0.1	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	22.7 b	34.0 b E2	'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 E3	'13-'14	▪ -13.5	▪ -1.4
Employees participating in CVT courses (%)	51.0	38.0 e	'10	51.0	38.0 e			
Employees participating in on-the-job training (%)	20.0	20.0 e	'10	20.0	20.0 e			
Adults in lifelong learning (%)			'15	18.0 b	10.7 b			
Enterprises providing training (%)	71.0	66.0 e	'10	71.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	57.6 b	42.7 b E1	'13-'14	▪ 0.1	▪ -1.0
Employees of small firms participating in CVT courses (%)	34.0	25.0 e	'10	34.0	25.0 e			
Young VET graduates in further education and training (%)			'15	27.7 b	33.0 b			
Older adults in lifelong learning (%)		5.3	'15	10.0 b	6.9			
Low-educated adults in lifelong learning (%)			'15	7.0 b C	4.3 b C			
Unemployed adults in lifelong learning (%)			'15	22.0 b	9.5 b			
Individuals who wanted to participate in training but did not (%)	11.3 B	9.5 e B	'11	11.3	9.5 e			
Job-related non-formal education and training (%)	75.9 B	80.2 e B	'11	75.9	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.50 b	0.56 b E4	'12-'13	▪ -0.13	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	13.0 b	6.4 b E5	'12-'13	▪ -2.7	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	0.6	0.8 e	'10	0.6	0.8 e			
Average number of foreign languages learned in IVET			'14	2.1 b	1.0 b E6	'13-'14	▪ 0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	18.3 b	30.0 b E7	'13-'14	▪ 0.8	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	32.2	9.3 E8	'13-'14	▪ 16.0	▪ 0.4
Innovative enterprises with supportive training practices (%)	68.2	41.5 E9	'12	72.1	41.6 E9	'10-'12	▪ 2.0	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	89.2 b	77.2 b			
Employment premium for IVET graduates (over general stream)			'15	6.8 b	5.3 b			
Employment premium for IVET graduates (over low-educated)			'15	14.3 b	23.7 b			
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
Overall transitions and labour market trends								
Early leavers from education and training (%)		13.9	'15	9.3 b C	11.0 C			
30-34 year-olds with tertiary attainment (%)		33.8	'15	52.3 b C	38.7 C			
NEET rate for 18-24 year-olds (%)		16.6	'15	7.6 b	15.8			
Unemployment rate for 20-34 year-olds (%)		13.1	'15	8.6 b	12.9			
Employment rate of recent graduates (%)		77.4	'15	84.7 b C	76.9 C			
Adults with lower level of educational attainment (%)		27.3	'15	24.0 b C	23.5 C			
Employment rate for 20-64 year-olds (%)		68.6	'15	70.9 b	70.0			
Employment rate for 20-64 year-olds with lower level of educational attainment (%)		53.4	'15	58.4 b C	52.6 C			
Medium/high-qualified employment in 2020 (% of total)			'16	85.9 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

17. Hungary

VET indicators for Hungary for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Hungary's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Hungary with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Hungary is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Hungary's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

The share of all upper secondary students enrolled in vocational programmes in Hungary (25.1%) is a little over half the EU average (48% in 2014). This should be interpreted with caution, being related to the characteristics of the VET system, on the one hand, and interpretation and implementation of internationally agreed definitions on the other hand. Where students are working towards a vocational qualification, they are more likely to be engaged in combined work- and school-based programmes than in the EU (90.8% versus 34%). The share of upper secondary IVET enrolled in programmes providing direct access to tertiary education (1.8%) is markedly below the EU average (69.2%). The percentage of young VET graduates participating in further education and training is lower than the EU average (23.4% in Hungary and 33% for the EU in 2015). Data for 2015 on the share of adults participating in lifelong learning reveal a relatively low score (7.1% compared with 10.7% in the EU). Older people (4.1%), those with relatively low-level education (3.4%) and the unemployed (2.3%) are also much less likely to be in receipt of lifelong learning in Hungary than in the EU as a whole. At 7.1%, the share of adults in lifelong learning is well below the EU target of 15%. At 49%, the share of employers providing training is less than the EU average of 66%, and only 19% of employees benefit from employer-sponsored CVT courses (only 11% for employees of small firms), compared to 38% in the EU (25% for small firms) (CVTS 2010 data).

Skill development and labour market relevance

Public expenditure on IVET as a percentage of GDP (0.32%) is less than the EU average (0.56%) (2013 data for ISCED levels 3-4). The amount spent per student (2 900 PPS units) is also significantly lower than average (6 400 PPS units). Graduates from short-cycle VET programmes account for a large share of first-time graduates from tertiary education (19.2%), well above the EU average (9.3%). Based on 2015 data, the employment rate for IVET graduates (aged 20 to 34) at ISCED 3-4 (79.1%) is slightly above the EU average (77.2%). IVET graduates in Hungary enjoy a positive premium on their employment rate compared to graduates from general education at the same ISCED level, as well as to graduates at a lower ISCED level. Their employment rate is 3.4 percentage points higher than that of their counterparts from general education (this is lower than the EU average premium of 5.3 percentage points); their employment rate is 31.6 percentage points higher than that of graduates with lower-level qualifications (above the EU average premium of 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated. The percentage of early leavers from education and training (11.6%) is almost on par with the EU average (11%); it is higher than the Europe 2020 average target and the national target (both at 10%). The share of 30 to 34 year-olds who have completed tertiary-level education is 34.8%, slightly lower than the EU average 38.7%, but has been increasing at an estimated yearly average rate of 1.7 percentage points between 2010 and 2015. This is still short of the Europe 2020 average target (40%), but over the national target (30.3%). The percentage of 30 to 34 year-olds achieving tertiary-level education has been rising at almost twice the average rate of the EU (1%). The percentage of adults with low-level education is comparatively low (16.8% versus 23.5% in the EU). The employment rate for 20 to 64 year-olds (68.9%) is just below the EU average (70%), but has increased in Hungary at an average yearly rate of 1.9 percentage points between 2010 and 2015. This trend is even more pronounced for the employment rate for 20 to 64 year-olds with lower level of educational attainment, increasing at a yearly rate of 2.3% in the same period. The unemployment rate for 20 to 34 year-olds (9.4%) is below the EU average (12.9%) and decreased at an average yearly rate of one percentage point between 2010 and 2015. The NEET rate is slightly lower compared with the EU (14.8% versus 15.8%).

Score on VET indicators in Hungary and in the EU, 2010, last available year and recent trend

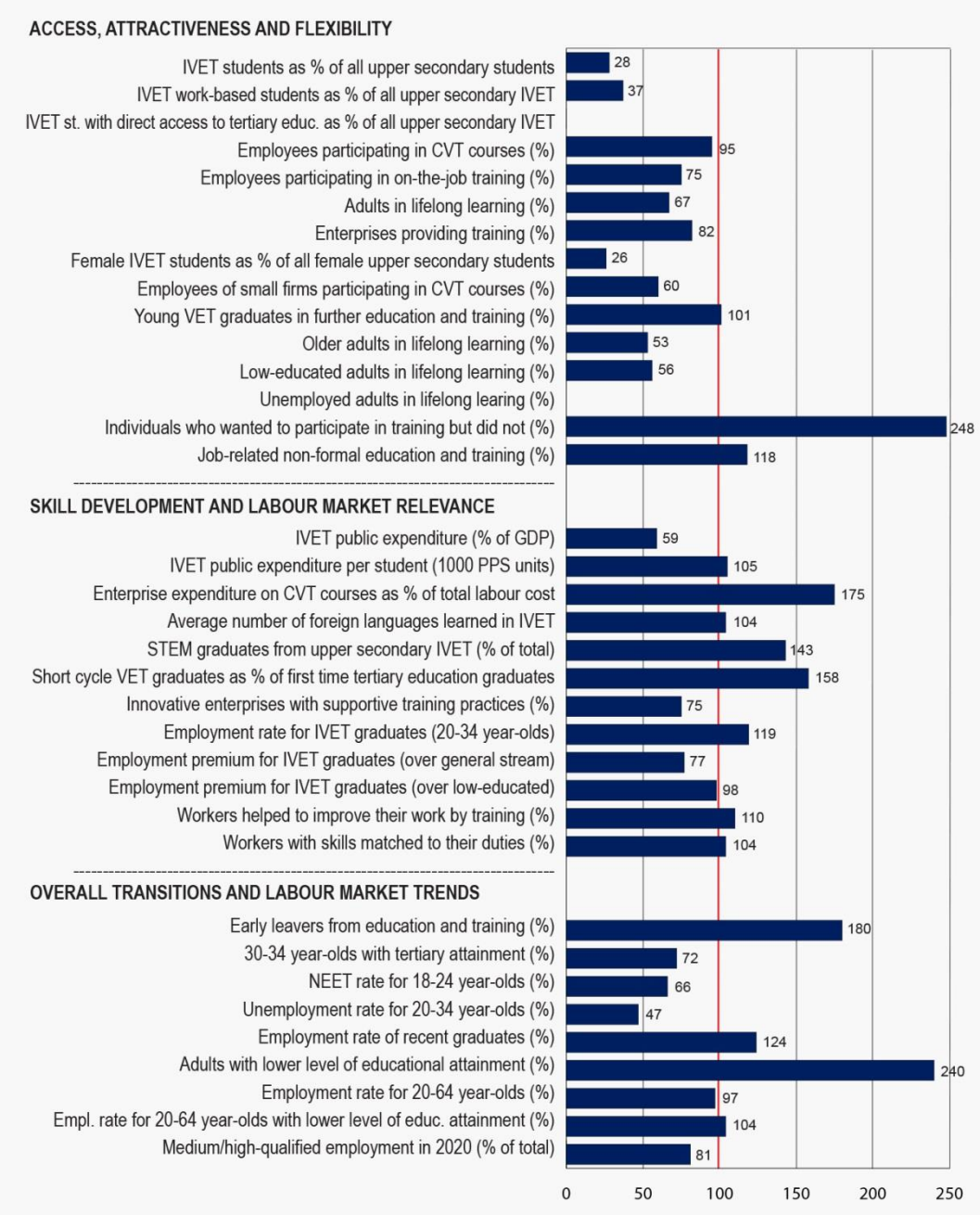
Indicator label	2010		Last available year			Recent trend (per year)		
	HU	EU	Yr	HU	EU	Range	HU	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	25.1 b	48.0 b E1	'13-'14	▪ -1.4	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	90.8 b	34.0 b E2	'13-'14	▪ 17.4	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	1.8	69.2 E3	'13-'14	▪ -1.6	▪ -1.4
Employees participating in CVT courses (%)	19.0	38.0 e	'10	19.0	38.0 e			
Employees participating in on-the-job training (%)	12.0	20.0 e	'10	12.0	20.0 e			
Adults in lifelong learning (%)			'15	7.1 b	10.7 b			
Enterprises providing training (%)	49.0	66.0 e	'10	49.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	20.6 b	42.7 b E1	'13-'14	▪ -1.7	▪ -1.0
Employees of small firms participating in CVT courses (%)	11.0	25.0 e	'10	11.0	25.0 e			
Young VET graduates in further education and training (%)			'15	23.4 b	33.0 b			
Older adults in lifelong learning (%)		5.3	'15	4.1 b	6.9			
Low-educated adults in lifelong learning (%)			'15	3.4 b C	4.3 b C			
Unemployed adults in lifelong learning (%)			'15	2.3 b	9.5 b			
Individuals who wanted to participate in training but did not (%)	9.6 B	9.5 e B	'11	9.6	9.5 e			
Job-related non-formal education and training (%)	83.4 B	80.2 e B	'11	83.4	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.32 b	0.56 b E4	'12-'13	▪ -0.06	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	2.9 b	6.4 b E5	'12-'13	▪ -0.3	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	1.3	0.8 e	'10	1.3	0.8 e			
Average number of foreign languages learned in IVET			'14	0.8 b	1.0 b E6	'13-'14	▪ 0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	32.2 b	30.0 b E7	'13-'14	▪ -0.7	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	19.2	9.3 E8	'13-'14	▪ -1.3	▪ 0.4
Innovative enterprises with supportive training practices (%)	37.6	41.5 E9	'12	41.8	41.6 E9	'10-'12	▪ 2.1	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	79.1 b	77.2 b			
Employment premium for IVET graduates (over general stream)			'15	3.4 b	5.3 b			
Employment premium for IVET graduates (over low-educated)			'15	31.6 b	23.7 b			
Workers helped to improve their work by training (%)			'15	86.6	83.7			
Workers with skills matched to their duties (%)	47.0	55.2	'15	53.7	57.3	'10-'15	▪ 1.3	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)		13.9	'15	11.6 b C	11.0 C			
30-34 year-olds with tertiary attainment (%)	26.1	33.8	'15	34.3 C	38.7 C	'10-'15	↗ 1.7	↗ 1.0
NEET rate for 18-24 year-olds (%)		16.6	'15	14.8 b	15.8			
Unemployment rate for 20-34 year-olds (%)	14.7	13.1	'15	9.4	12.9	'10-'15	↘ -1.0	↗ 0.1
Employment rate of recent graduates (%)		77.4	'15	80.4 b C	76.9 C			
Adults with lower level of educational attainment (%)	18.8	27.3	'15	16.8 C	23.5 C	'10-'15	↘ -0.4	↘ -0.8
Employment rate for 20-64 year-olds (%)	59.9	68.6	'15	68.9	70.0	'10-'15	↗ 1.9	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	36.1	53.4	'15	47.1 C	52.6 C	'10-'15	↗ 2.3	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	91.5 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

18. Malta

VET indicators for Malta for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Malta's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Malta with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Malta is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Malta's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

Based on 2014 data, the share of upper secondary students enrolled in IVET programmes in Malta is 13.3%. Malta has proportionately fewer adults involved in lifelong learning than the EU as a whole (7.2% compared with an EU average of 10.7% in 2013). This percentage is below the average target (15%) set by the strategic framework *Education and training 2020*.

Skill development and labour market relevance

Data from 2013 show that public expenditure on IVET as a percentage of GDP (0.33%) is below the EU average (0.56%). Similarly, data from 2012 show that the share of enterprises providing training to support innovation is relatively low (31.2% of innovative enterprises) compared to the EU average (41.6%).

Based on 2015 data, the employment rate of IVET graduates (aged 20 to 34) at ISCED 3-4 (91.7%) is higher than the EU average (77.2%). IVET graduates in Malta have an employment rate 4.1 percentage points higher than their counterparts from general education; for the EU as a whole, the average premium is 5.3 percentage points. Similarly, IVET graduates in Malta have an employment rate 23.2 percentage points higher than those with lower-level qualifications (almost on par with the corresponding EU average premium of 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated.

The percentage of early leavers from education and training (19.8%) is much higher than the EU average (11%), the Europe 2020 average and national target (both set at 10%). This figure has decreased by 0.7 percentage points between 2011 and 2015. The percentage of 30 to 34 year-olds who have completed tertiary-level education (27.8%) is lower than the EU average (38.7%). The figure for Malta remains lower than both the national target (33%) and the Europe 2020 average target (40%). There is a much higher share of adults with low-level education in Malta compared with the EU (56.5% versus 23.5%).

The employment rate for 20 to 64 year-olds (67.8%) is lower than the EU average of 70%, while the 95.1% employment rate of recent graduates is much higher (76.9% in the EU). The NEET rate is lower than the EU average (10.4% compared to 15.8%) as is the unemployment rate for 20 to 34 year-olds which is much lower at (6%) than in the EU (12.9%). The employment rate of 20 to 64 year-olds with a low level of educational attainment is higher in Malta (54.7%) than in the EU (52.6%), and has increased.

Score on VET indicators in Malta and in the EU, 2010, last available year and recent trend

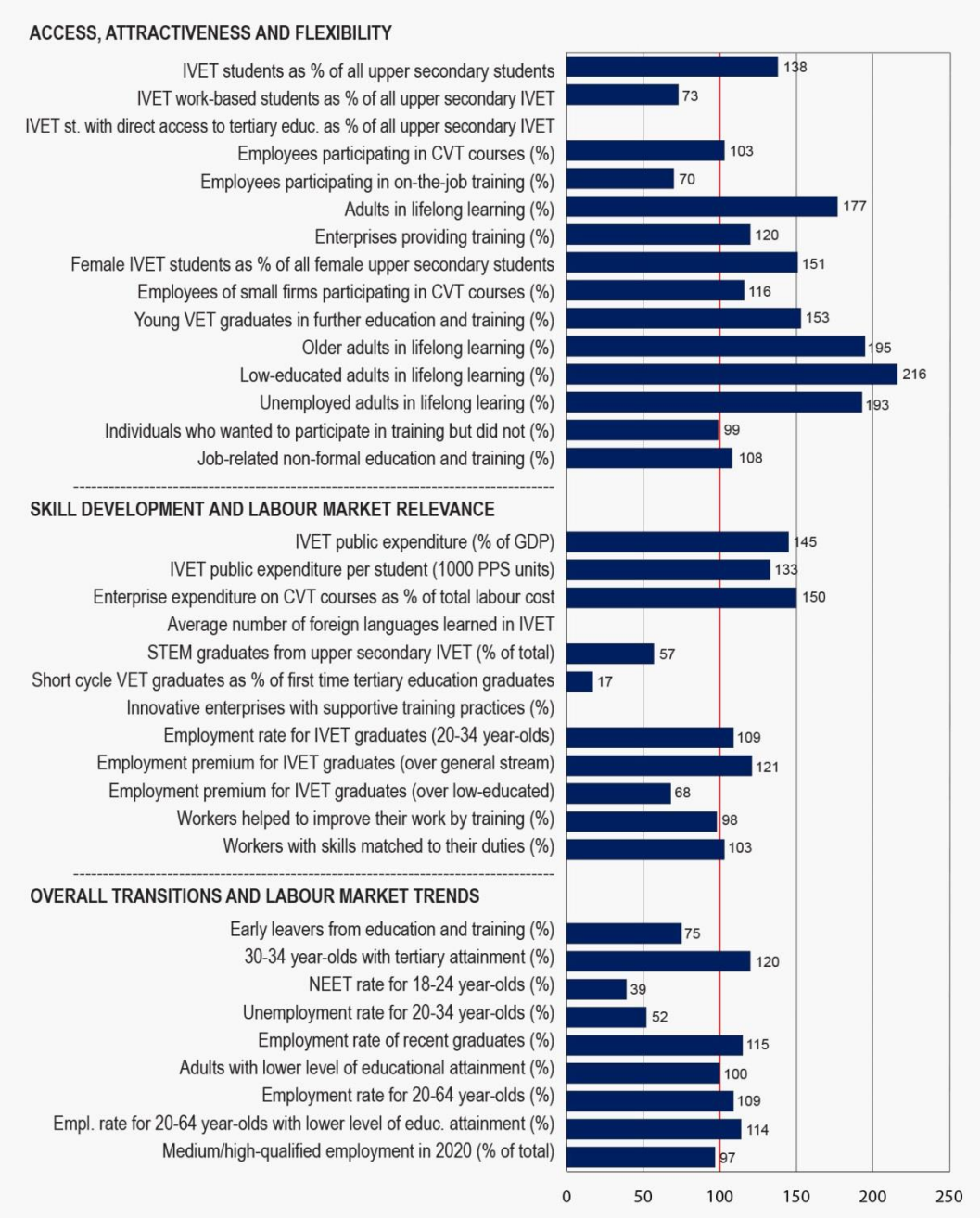
Indicator label	2010		Last available year			Recent trend (per year)		
	MT	EU	Yr	MT	EU	Range	MT	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	13.3 b	48.0 b E1	'13-'14	▪ 0.4	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	12.7 b	34.0 b E2	'13-'14	▪ 6.6	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	0.0	69.2 E3	'13-'14	▪ 0.0	▪ -1.4
Employees participating in CVT courses (%)	36.0	38.0 e	'10	36.0	38.0 e			
Employees participating in on-the-job training (%)	15.0	20.0 e	'10	15.0	20.0 e			
Adults in lifelong learning (%)	6.2		'15	7.2	10.7 b	'13-'15	↘ -0.2	→ 0.0
Enterprises providing training (%)	54.0	66.0 e	'10	54.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	11.0 b	42.7 b E1	'13-'14	▪ 0.1	▪ -1.0
Employees of small firms participating in CVT courses (%)	15.0	25.0 e	'10	15.0	25.0 e			
Young VET graduates in further education and training (%)			'15	33.4 b	33.0 b	'14-'15	▪ 2.7	▪ -0.3
Older adults in lifelong learning (%)	3.2	5.3	'15	3.7	6.9	'10-'15	↗ 0.1	↗ 0.4
Low-educated adults in lifelong learning (%)			'15	2.4 b C	4.3 b C	'13-'15	↘ -0.1	↘ -0.1
Unemployed adults in lifelong learning (%)	15.7		'15	6.4 u	9.5 b			
Individuals who wanted to participate in training but did not (%)	23.6 B	9.5 e B	'11	23.6	9.5 e			
Job-related non-formal education and training (%)	94.4 B	80.2 e B	'11	94.4	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.33 b	0.56 b E4	'12-'13	▪ 0.03	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	6.7 b	6.4 b E5	'12-'13	▪ 0.5	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	1.4	0.8 e	'10	1.4	0.8 e			
Average number of foreign languages learned in IVET			'14	1.0 b	1.0 b E6	'13-'14	▪ 0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	42.9 b	30.0 b E7	'13-'14	▪ -8.7	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	14.7	9.3 E8	'13-'14	▪ -3.5	▪ 0.4
Innovative enterprises with supportive training practices (%)	36.9	41.5 E9	'12	31.2	41.6 E9	'10-'12	▪ -2.9	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	91.7 b	77.2 b	'14-'15	▪ -0.7	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	4.1 b	5.3 b	'14-'15	▪ -3.5	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	23.2 b	23.7 b	'14-'15	▪ 0.8	▪ -0.1
Workers helped to improve their work by training (%)			'15	91.9	83.7			
Workers with skills matched to their duties (%)	55.3	55.2	'15	59.5	57.3	'10-'15	▪ 0.8	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)		13.9	'15	19.8 b C	11.0 C	'11-'15	↘ -0.7	↘ -0.6
30-34 year-olds with tertiary attainment (%)		33.8	'15	27.8 b C	38.7 C	'11-'15	↗ 1.0	↗ 1.0
NEET rate for 18-24 year-olds (%)	10.4	16.6	'15	10.4	15.8	'10-'15	↘ -0.1	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	6.4	13.1	'15	6.0	12.9	'10-'15	↘ -0.1	↗ 0.1
Employment rate of recent graduates (%)		77.4	'15	95.1 b C	76.9 C	'11-'15	↗ 0.8	→ 0.0
Adults with lower level of educational attainment (%)		27.3	'15	56.5 b C	23.5 C	'11-'15	↘ -2.0	↘ -0.8
Employment rate for 20-64 year-olds (%)		68.6	'15	67.8 b	70.0	'11-'15	↗ 1.6	↗ 0.4
Employment rate for 20-64 year-olds with lower level of educational attainment (%)		53.4	'15	54.7 b C	52.6 C	'11-'15	↗ 1.2	↘ -0.1
Medium/high-qualified employment in 2020 (% of total)			'16	67.5 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

19. Netherlands

VET indicators for the Netherlands for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

The performance of the Netherlands on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in the Netherlands with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for the Netherlands is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, the performance of the Netherlands is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

The Netherlands has relatively high scores within this group of indicators. The percentage of IVET students in upper secondary education (66.4%) is higher than the EU average (48% in 2014). VET graduates are more likely to continue in further education and training (50.4%) than in the EU (33%, data for 2015). Participation in lifelong learning is also relatively high at 18.9% compared with 10.7% in the EU (data for 2015). Older adults are also more likely to participate in lifelong learning (13.5% versus 6.9% in the EU), as are lower-educated people (9.3% versus 4.3% in the EU), and the unemployed (18.3% versus 9.5% in the EU); all three figures have increased. The Netherlands also scores highly regarding the proportion of job-related adult learning (87% of non-formal adult learning activities) as compared to the EU average (80.2% in 2011).

Skill development and labour market relevance

The performance of the Netherlands on this set of indicators is mixed.

Levels of expenditure on training (IVET and CVET) are relatively high. The level of expenditure on IVET, at 0.81% of GDP, is higher than the EU average of 0.56%. The average level of expenditure per student at 8 500 purchasing power standard (PPS) units is higher than the EU average of 6 400 PPS units. Expenditure on CVT by enterprises – as a percentage of labour costs – is

relatively high at 1.2% compared to 0.8% in the EU (data drawn from CVTS 2010).

The percentage of those graduating from upper secondary school with a STEM qualification (17.1%) is lower than the EU average (30%).

A relatively high percentage of those aged 20 to 34 graduating from the VET stream at medium education level are likely to be in employment (84.1% compared with 77.2% in the EU) (data from 2015). In the Netherlands, IVET graduates enjoy a positive premium on their employment rate compared to graduates from general education. Their employment rate is 6.4 percentage points higher than that of their counterparts from general education (this employment premium is higher than the EU average premium of 5.3 percentage points); the employment rate of IVET graduates is also 16 percentage points higher than that of graduates with lower-level qualifications (the corresponding EU average premium is 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated.

The Netherlands scores favourably on nearly all indicators in this group. The percentage of early leavers from education at 8.2% is lower than the EU average of 11% and below the Europe 2020 average target of 10%, but still higher than the national target of 8%. The percentage of 30 to 34 year-olds who have achieved tertiary-level education is higher than the EU average: 46.3% in the Netherlands versus 38.7% in the EU. This is higher than both the national target and the Europe 2020 average target of 40%.

The percentage of young people who are NEET at 6.2% is much lower than the EU average of 15.8%, and the employment rate of recent graduates (88.2%) is higher than in the EU (76.9%). The employment rate of 20 to 64 year-olds with a low level of educational attainment is higher in the Netherlands (59.8%) than in the EU (52.6%), but has decreased.

Score on VET indicators in the Netherlands and in the EU, 2010, last available year and recent trend

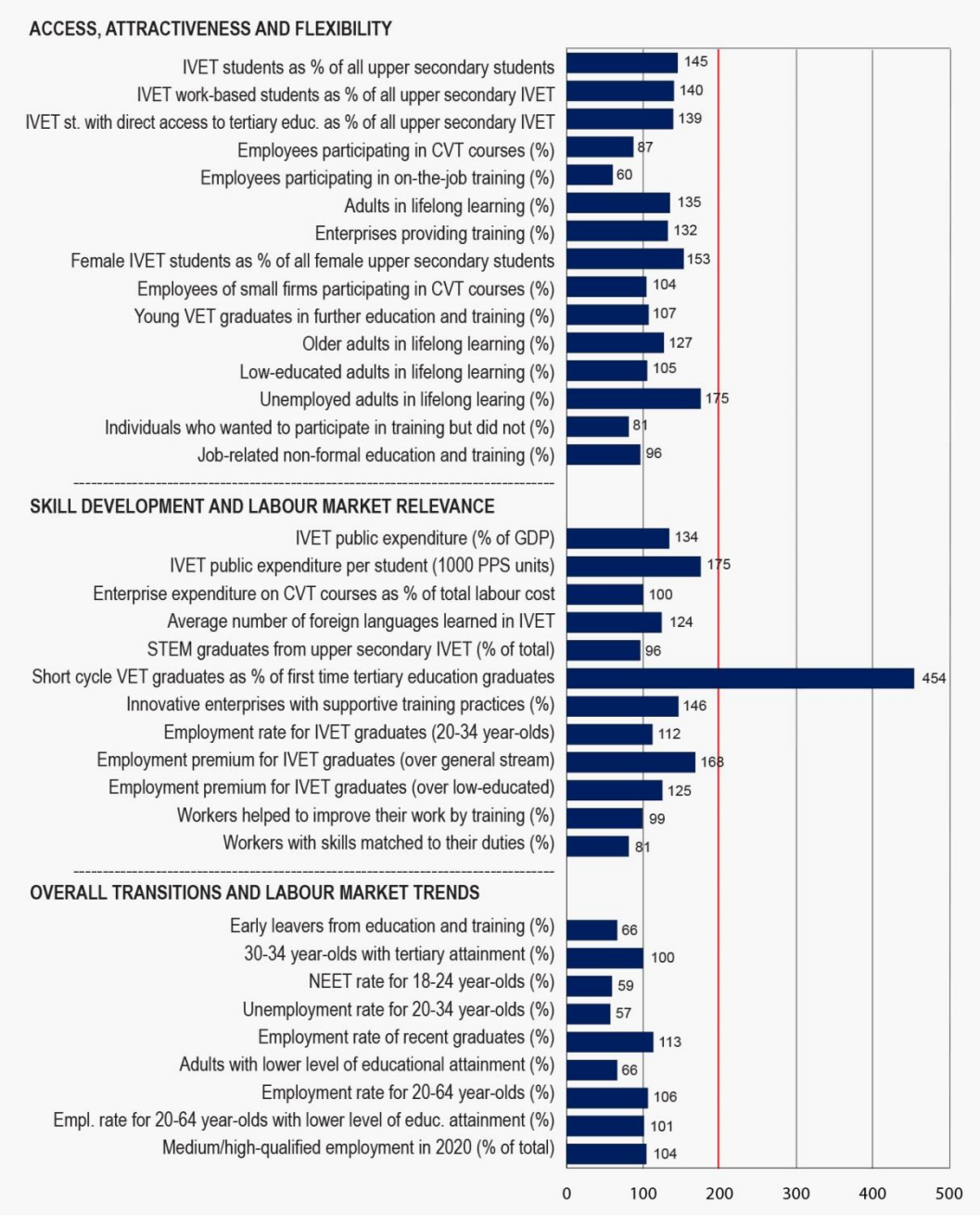
Indicator label	2010		Last available year			Recent trend (per year)		
	NL	EU	Yr	NL	EU	Range	NL	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	66.4 F	48.0 b E1	'13-'14	▪ -0.6	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	24.8 F	34.0 b E2	'13-'14	▪ -3.5	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14		69.2 E3			
Employees participating in CVT courses (%)	39.0	38.0 e	'10	39.0	38.0 e			
Employees participating in on-the-job training (%)	14.0	20.0 e	'10	14.0	20.0 e			
Adults in lifelong learning (%)			'15	18.9 b	10.7 b	'13-'15	↗ 0.5	→ 0.0
Enterprises providing training (%)	79.0	66.0 e	'10	79.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	64.7 F	42.7 b E1	'13-'14	▪ -0.5	▪ -1.0
Employees of small firms participating in CVT courses (%)	29.0	25.0 e	'10	29.0	25.0 e			
Young VET graduates in further education and training (%)			'15	50.4 b	33.0 b	'14-'15	▪ 2.0	▪ -0.3
Older adults in lifelong learning (%)	10.1	5.3	'15	13.5	6.9	'10-'15	↗ 0.7	↗ 0.4
Low-educated adults in lifelong learning (%)			'15	9.3 b C	4.3 b C	'13-'15	↗ 0.1	↘ -0.1
Unemployed adults in lifelong learning (%)			'15	18.3 b	9.5 b	'13-'15	↗ 0.6	↘ -0.4
Individuals who wanted to participate in training but did not (%)	9.4 B	9.5 e B	'11	9.4	9.5 e			
Job-related non-formal education and training (%)	87.0 B	80.2 e B	'11	87.0	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.81 b	0.56 b E4	'12-'13	▪ 0.01	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	8.5 b	6.4 b E5	'12-'13	▪ 0.2	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	1.2	0.8 e	'10	1.2	0.8 e			
Average number of foreign languages learned in IVET			'14	b	1.0 b E6			
STEM graduates from upper secondary IVET (% of total)	A	A	'14	17.1 b	30.0 b E7	'13-'14	▪ -0.1	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	1.6	9.3 E8	'13-'14	▪ 0.1	▪ 0.4
Innovative enterprises with supportive training practices (%)	39.2	41.5 E9	'12		41.6 E9			
Employment rate for IVET graduates (20-34 year-olds)			'15	84.1 b	77.2 b	'14-'15	▪ 0.6	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	6.4 b	5.3 b	'14-'15	▪ -5.3	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	16.0 b	23.7 b	'14-'15	▪ -5.3	▪ -0.1
Workers helped to improve their work by training (%)			'15	81.8	83.7			
Workers with skills matched to their duties (%)	56.3	55.2	'15	59.2	57.3	'10-'15	▪ 0.6	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)		13.9	'15	8.2 b C	11.0 C	'13-'15	↘ -0.5	↘ -0.5
30-34 year-olds with tertiary attainment (%)		33.8	'15	46.3 b C	38.7 C	'13-'15	↗ 1.5	↗ 0.8
NEET rate for 18-24 year-olds (%)		16.6	'15	6.2 b	15.8	'13-'15	↘ -0.6	↘ -0.7
Unemployment rate for 20-34 year-olds (%)		13.1	'15	6.8 b	12.9	'11-'15	↗ 0.4	↘ -0.1
Employment rate of recent graduates (%)		77.4	'15	88.2 b C	76.9 C	'13-'15	↗ 1.1	↗ 0.7
Adults with lower level of educational attainment (%)		27.3	'15	23.6 b C	23.5 C	'13-'15	↘ -0.3	↘ -0.7
Employment rate for 20-64 year-olds (%)		68.6	'15	76.4 b	70.0	'13-'15	↗ 0.2	↗ 0.8
Employment rate for 20-64 year-olds with lower level of educational attainment (%)		53.4	'15	59.8 b C	52.6 C	'13-'15	↘ -0.3	↗ 0.6
Medium/high-qualified employment in 2020 (% of total)			'16	80.0 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

20. Austria

VET indicators for Austria for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Austria's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Austria with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Austria is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Austria's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

Levels of participation in IVET and lifelong learning are high. The share of upper secondary students enrolled in vocational programmes (69.8%) is well above the corresponding EU average (48%) (data for 2014). Data for 2015 show that Austria has a relatively high share of its adult population participating in lifelong learning (14.4% compared with 10.7% in the EU), even more so for the unemployed (16.6% versus 9.5% for the EU as a whole). Employers are more likely to report the provision of training (87% of employers do so, compared to 66% in the EU; based on 2010 CVTS data). In contrast, the shares of employees participating in employer-sponsored CVT courses (33% compared with 38% percent in the EU) and on-the-job training (12% compared with 20%) are both lower than in the EU as a whole (based on 2010 CVTS data).

Skill development and labour market relevance

Indicators of skill development and labour market relevance tend to show higher levels than the corresponding EU averages. Public expenditure on IVET at ISCED 3-4 accounted for 0.75% of GDP, higher than in the EU (0.56%) (data for 2013). Austria also has a relatively high percentage of innovative enterprises providing supportive training in the workplace (60.7% compared with 41.6% in the EU, based on data for 2012).

The employment rate for young IVET graduates (aged 20 to 34) at ISCED levels 3 and 4 (86.8%) is also higher than the EU average (77.2%) (data for

2015). IVET graduates in Austria enjoy a positive premium on their employment rate compared to graduates from general education. Their employment rate is 8.9 percentage points higher than that of their counterparts from general education (higher than the EU average premium of 5.3 percentage points); their employment rate is also 29.6 percentage points higher than that of graduates with lower-level qualifications (above the EU average premium of 23.7 percentage points).

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated.

Data indicate a favourable situation concerning educational attainment and labour market. The share of early leavers from education and training (7.3%) is lower than the EU average (11%). This percentage is below both the Europe 2020 average target (10%) and the national target (9.5%). The share of 30 to 34 year-olds who have completed tertiary education is 38.7% in both Austria and the EU. The NEET rate (9.3%) and the unemployment rate of 20 to 34 year-olds (7.4%) are below the averages for the EU (15.8% and 12.9% respectively). The employment rate for 20 to 64 year-olds (74.3%) and that of recent graduates (86.9%) are both relatively high compared with the EU (70% and 76.9% respectively). The share of adults with a low level of educational attainment is relatively small (15.4% in Austria, 23.5% in the EU). The employment rate of 20 to 64 year-olds with a low level of educational attainment is slightly higher (53.1%) than in the EU (52.6%), but has decreased.

Score on VET indicators in Austria and in the EU, 2010, last available year and recent trend

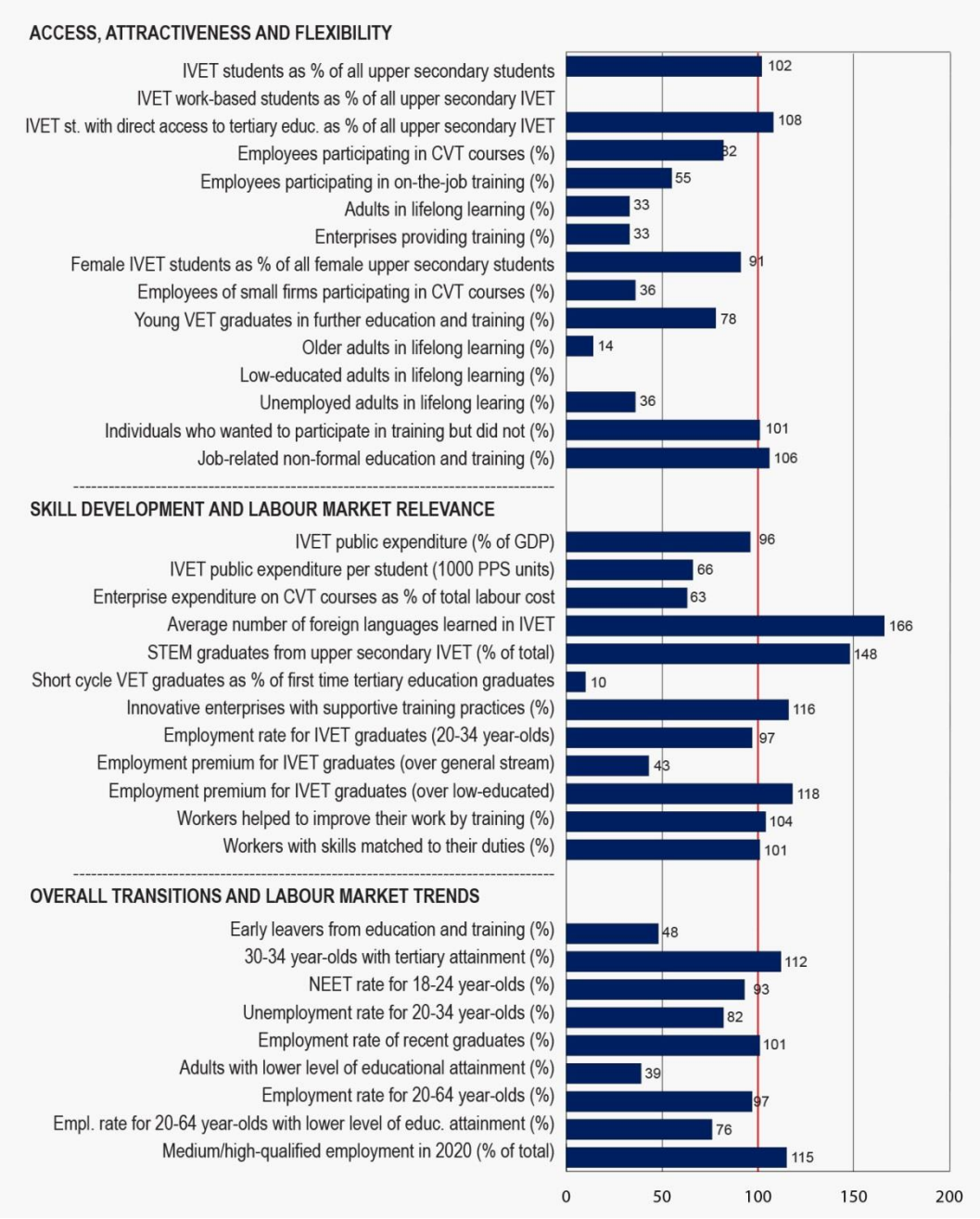
Indicator label	2010		Last available year			Recent trend (per year)		
	AT	EU	Yr	AT	EU	Range	AT	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	69.8 b	48.0 b E1	'13-'14	▪ -0.4	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	47.7 b	34.0 b E2	'13-'14	▪ -0.4	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	95.9	69.2 E3	'13-'14	▪ 0.0	▪ -1.4
Employees participating in CVT courses (%)	33.0	38.0 e	'10	33.0	38.0 e			
Employees participating in on-the-job training (%)	12.0	20.0 e	'10	12.0	20.0 e			
Adults in lifelong learning (%)	13.8		'15	14.4	10.7 b	'13-'15	↗ 0.2	→ 0.0
Enterprises providing training (%)	87.0	66.0 e	'10	87.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	65.4 b	42.7 b E1	'13-'14	▪ -0.5	▪ -1.0
Employees of small firms participating in CVT courses (%)	26.0	25.0 e	'10	26.0	25.0 e			
Young VET graduates in further education and training (%)			'15	35.5 b	33.0 b	'14-'15	▪ 1.2	▪ -0.3
Older adults in lifelong learning (%)	8.1	5.3	'15	8.8	6.9	'10-'15	↗ 0.1	↗ 0.4
Low-educated adults in lifelong learning (%)	4.6		'15	4.5 C	4.3 b C	'13-'15	↘ -0.1	↘ -0.1
Unemployed adults in lifelong learning (%)	19.8		'15	16.6	9.5 b	'13-'15	↘ -2.5	↘ -0.4
Individuals who wanted to participate in training but did not (%)	7.7 B	9.5 e B	'11	7.7	9.5 e			
Job-related non-formal education and training (%)	76.7 B	80.2 e B	'11	76.7	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.75 b	0.56 b E4	'12-'13	▪ 0.00	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	11.2 b	6.4 b E5	'12-'13	▪ 0.2	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	0.8	0.8 e	'10	0.8	0.8 e			
Average number of foreign languages learned in IVET			'14	1.2 b	1.0 b E6	'13-'14	▪ 0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	28.7 b	30.0 b E7	'13-'14	▪ 0.6	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	42.4	9.3 E8	'13-'14	▪ 2.2	▪ 0.4
Innovative enterprises with supportive training practices (%)	59.1	41.5 E9	'12	60.7	41.6 E9	'10-'12	▪ 0.8	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	86.8 b	77.2 b	'14-'15	▪ 0.5	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	8.9 b	5.3 b	'14-'15	▪ 2.2	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	29.6 b	23.7 b	'14-'15	▪ 0.7	▪ -0.1
Workers helped to improve their work by training (%)			'15	83.2	83.7			
Workers with skills matched to their duties (%)	58.5	55.2	'15	46.3	57.3	'10-'15	▪ -2.4	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)		13.9	'15	7.3 b	11.0 C	'14-'15	▪ 0.3	▪ -0.2
30-34 year-olds with tertiary attainment (%)		33.8	'15	38.7 b	38.7 C	'14-'15	▪ -1.3	▪ 0.8
NEET rate for 18-24 year-olds (%)	9.1	16.6	'15	9.3	15.8	'10-'15	↗ 0.1	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	6.7	13.1	'15	7.4	12.9	'10-'15	↗ 0.3	↗ 0.1
Employment rate of recent graduates (%)	88.0	77.4	'15	86.9 C	76.9 C	'10-'15	↘ -0.5	↘ -0.2
Adults with lower level of educational attainment (%)	17.6	27.3	'15	15.4 C	23.5 C	'10-'15	↘ -0.4	↘ -0.8
Employment rate for 20-64 year-olds (%)	73.9	68.6	'15	74.3	70.0	'10-'15	↗ 0.1	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	54.9	53.4	'15	53.1 C	52.6 C	'10-'15	↘ -0.5	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	86.2 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

21. Poland

VET indicators for Poland for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Poland's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Poland with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Poland is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Poland's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

The percentage of all upper secondary students participating in IVET in Poland is 49.2%, close to the EU average of 48%. The share of female upper secondary students participating in IVET is 38.8%, lower than the EU average of 42.7%. Young VET graduates are less likely to participate in further education and training (25.9%) than in the EU as a whole (33%) (data for 2015).

Adult participation in lifelong learning is much lower in Poland (3.5%) than across the EU (10.7%) (data for 2015). For older (1%) and lower-educated adults (0.6%), participation level differences are even more substantial: participation rates are less than a fifth of EU average rates. According to 2010 CVTS data, 22% of employers reported providing training compared with 66% in the EU, and 31% of all Polish employees undertook employer sponsored CVT courses compared with 38% in the EU.

Skill development and labour market relevance

Public expenditure on IVET as a percentage of GDP is 0.54%, lower than the EU average of 0.56% (2013 data). The amount spent per student (4 200 purchasing power standard (PPS) units) is also below the EU average of 6 400 PPS units. STEM graduates account for 44.5% of all graduates from upper secondary VET which is above the corresponding EU average of 30%. At 48.1%, the share of Polish innovative enterprises with supportive training is also relatively high compared with the EU average of 41.6%. The average number of foreign

languages learned by students in upper secondary level IVET (1.6) is higher than the EU average of one.

The employment rate for IVET graduates aged 20 to 34 at ISCED levels 3-4 is 77.4%, higher than the EU average of 76.9%. IVET graduates in Poland enjoy a positive premium on their employment rate compared to graduates from general education. Their employment rate is 2.3 percentage points higher than their counterparts from general education (although their premium is lower than the EU average of 5.3 percentage points), and 28 percentage points higher than those with lower-level qualifications (above the EU average premium of 23.7 percentage points). All these employment data relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated.

The rate of early leaving from education and training is 5.3%, much lower than the EU average of 11%. Poland is already below the Europe 2020 average target (10%), but not yet below its national target of 4.5%. At 43.4%, the share of 30 to 34 year-olds who have completed tertiary-level education is higher than the EU average of 38.7%. It has increased faster than in the EU as a whole: it is higher than the Europe 2020 average target (40%) but below the national target (45%). The percentage of adults with low-level education (9.2%) is less than the EU average of 23.5%.

The unemployment rate is 10.6% (12.9% in the EU) and the NEET rate is 14.7% (15.8% in the EU), both slightly lower than in the EU. The employment rate for 20 to 64 year-olds (67.8%) is lower than that of the EU (70%). The employment rate of 20 to 64 year-olds with a low level of educational attainment is lower in Poland (39.8%) than in the EU (52.6%), and has remained unchanged from the 2010 level.

Score on VET indicators in Poland and in the EU, 2010, last available year and recent trend

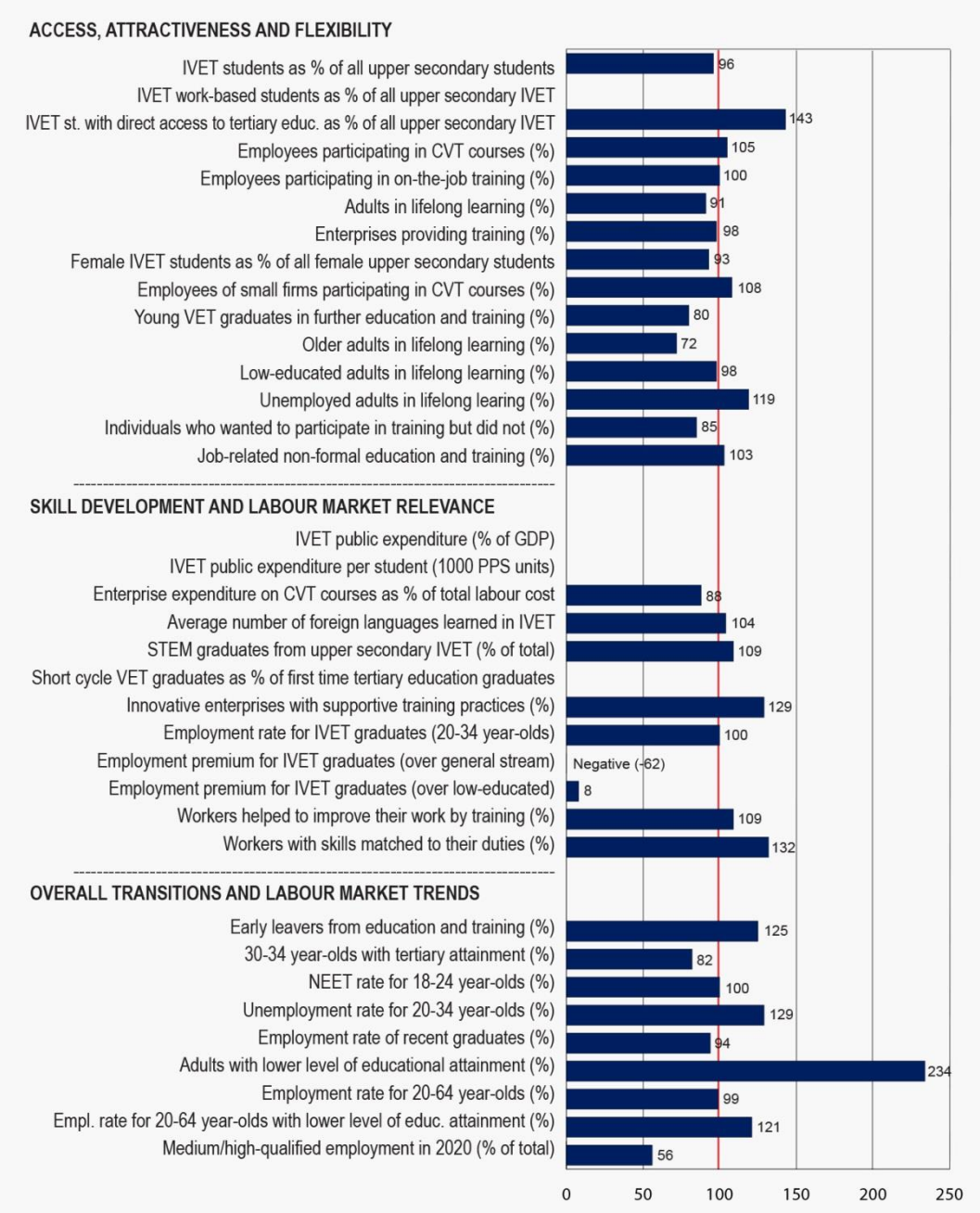
Indicator label	2010		Last available year			Recent trend (per year)		
	PL	EU	Yr	PL	EU	Range	PL	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	49.2 b	48.0 b E1	'13-'14	▪ 0.4	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	b	34.0 b E2			
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	74.7	69.2 E3	'13-'14	▪ 0.7	▪ -1.4
Employees participating in CVT courses (%)	31.0	38.0 e	'10	31.0	38.0 e			
Employees participating in on-the-job training (%)	11.0	20.0 e	'10	11.0	20.0 e			
Adults in lifelong learning (%)			'15	3.5 b	10.7 b	'13-'15	↘ -0.4	→ 0.0
Enterprises providing training (%)	22.0	66.0 e	'10	22.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	38.8 b	42.7 b E1	'13-'14	▪ 0.8	▪ -1.0
Employees of small firms participating in CVT courses (%)	9.0	25.0 e	'10	9.0	25.0 e			
Young VET graduates in further education and training (%)			'15	25.9 b	33.0 b	'14-'15	▪ -0.8	▪ -0.3
Older adults in lifelong learning (%)		5.3	'15	1.0 b	6.9	'13-'15	↘ -0.1	↗ 0.1
Low-educated adults in lifelong learning (%)			'15	0.6 b u C	4.3 b C	'13-'14	▪ -0.1	▪ 0.0
Unemployed adults in lifelong learning (%)			'15	3.4 b	9.5 b	'13-'15	↘ -0.4	↘ -0.4
Individuals who wanted to participate in training but did not (%)	9.6 B	9.5 e B	'11	9.6	9.5 e			
Job-related non-formal education and training (%)	85.2 B	80.2 e B	'11	85.2	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.54 b F	0.56 b E4	'12-'13	▪ -0.01	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	4.2 b F	6.4 b E5	'12-'13	▪ 0.2	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	0.5	0.8 e	'10	0.5	0.8 e			
Average number of foreign languages learned in IVET			'14	1.6 b	1.0 b E6	'13-'14	▪ 0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	44.5 b	30.0 b E7	'13-'14	▪ 4.9	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	1.0	9.3 E8	'13-'14	▪ -0.2	▪ 0.4
Innovative enterprises with supportive training practices (%)	55.4	41.5 E9	'12	48.1	41.6 E9	'10-'12	▪ -3.7	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	74.6 b	77.2 b	'14-'15	▪ 1.9	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	2.3 b	5.3 b	'14-'15	▪ -0.4	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	28.0 b	23.7 b	'14-'15	▪ 0.6	▪ -0.1
Workers helped to improve their work by training (%)			'15	87.3	83.7			
Workers with skills matched to their duties (%)	59.8	55.2	'15	58.2	57.3	'10-'15	▪ -0.3	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)		13.9	'15	5.3 b C	11.0 C	'13-'15	↘ -0.1	↘ -0.5
30-34 year-olds with tertiary attainment (%)	34.8	33.8	'15	43.4 C	38.7 C	'10-'15	↗ 1.7	↗ 1.0
NEET rate for 18-24 year-olds (%)		16.6	'15	14.7 b	15.8	'13-'15	↘ -0.8	↘ -0.7
Unemployment rate for 20-34 year-olds (%)	13.1	13.1	'15	10.6	12.9	'10-'15	↘ -0.4	↗ 0.1
Employment rate of recent graduates (%)		77.4	'15	77.4 b C	76.9 C	'13-'15	↗ 2.1	↗ 0.7
Adults with lower level of educational attainment (%)	11.5	27.3	'15	9.2 C	23.5 C	'10-'15	↘ -0.5	↘ -0.8
Employment rate for 20-64 year-olds (%)	64.3	68.6	'15	67.8	70.0	'10-'15	↗ 0.7	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	39.2	53.4	'15	39.8 C	52.6 C	'10-'15	→ 0.0	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	95.6 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

22. Portugal

VET indicators for Portugal for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Portugal's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Portugal with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Portugal is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Portugal's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

In 2014, the percentage of upper secondary students enrolled in IVET (46%) is only slightly lower than lower than the EU average of 48%. CVTS data for 2010 show that employee participation in CVT courses (40%) has surpassed the EU average of 38%; enterprise provision of training (65%) and employee participation in on-the-job training (20%) are also close, or equal to the EU average (66% and 20% respectively).

At 9.7%, adult participation in lifelong learning is close to the EU average of 10.7%. The percentage of young VET graduates in further education and training is below the EU average (26.4% in Portugal against 33% in the EU, based on 2015 data).

Skill development and labour market relevance

At 53.6% (41.6% in the EU) Portugal scores higher than the EU in the percentage of innovative enterprises with supportive training practices, and also in the percentage of workers with skills matched to their duties (75.7% compared with 57.3% in the EU).

The employment rate of IVET graduates (aged 20 to 34) at 77.4% is slightly higher than the EU average of 77.2% (based on 2015 data). IVET graduates have an employment rate 3.3 percentage points lower than their counterparts from general education; on average, and in most countries, there is a positive premium attached to IVET. IVET graduates have an employment rate 2

percentage points higher than those with lower-level qualifications, but this positive employment premium is lower than that observed across the EU (23.7 percentage points). All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated.

The share of early leavers from education and training at 13.7% is higher than the EU average of 11%. Although it has been strongly decreasing between both 2006-10 and 2010-15, the figure for the indicator is still higher than the Europe 2020 average target and the national target (both set at 10%). The percentage of 30 to 34 year-olds who have completed tertiary-level education is 31.9%, relatively low compared with the EU average of 38.7%, and it is still well below the Europe 2020 average target and the national target (both set at 40%). Educational attainment of adults is low and the difference between Portugal and the EU average in the share of adults who have lower-level education is substantial (54.9% compared with 23.5% in the EU). Portugal is on par with the European average in the NEET rate for 18 to 24 year-olds (15.8%) and above the European average in the unemployment rate of 20 to 34 year-olds (16.7% compared to 12.9% in the EU). At 72.2%, the employment rate of recent graduates is below the European average of 76.9%. The employment rate of 20 to 64 year-olds with a low level of educational attainment is higher in Portugal (63.5%) than in the EU (52.6%), but has decreased.

Score on VET indicators in Portugal and in the EU, 2010, last available year and recent trend

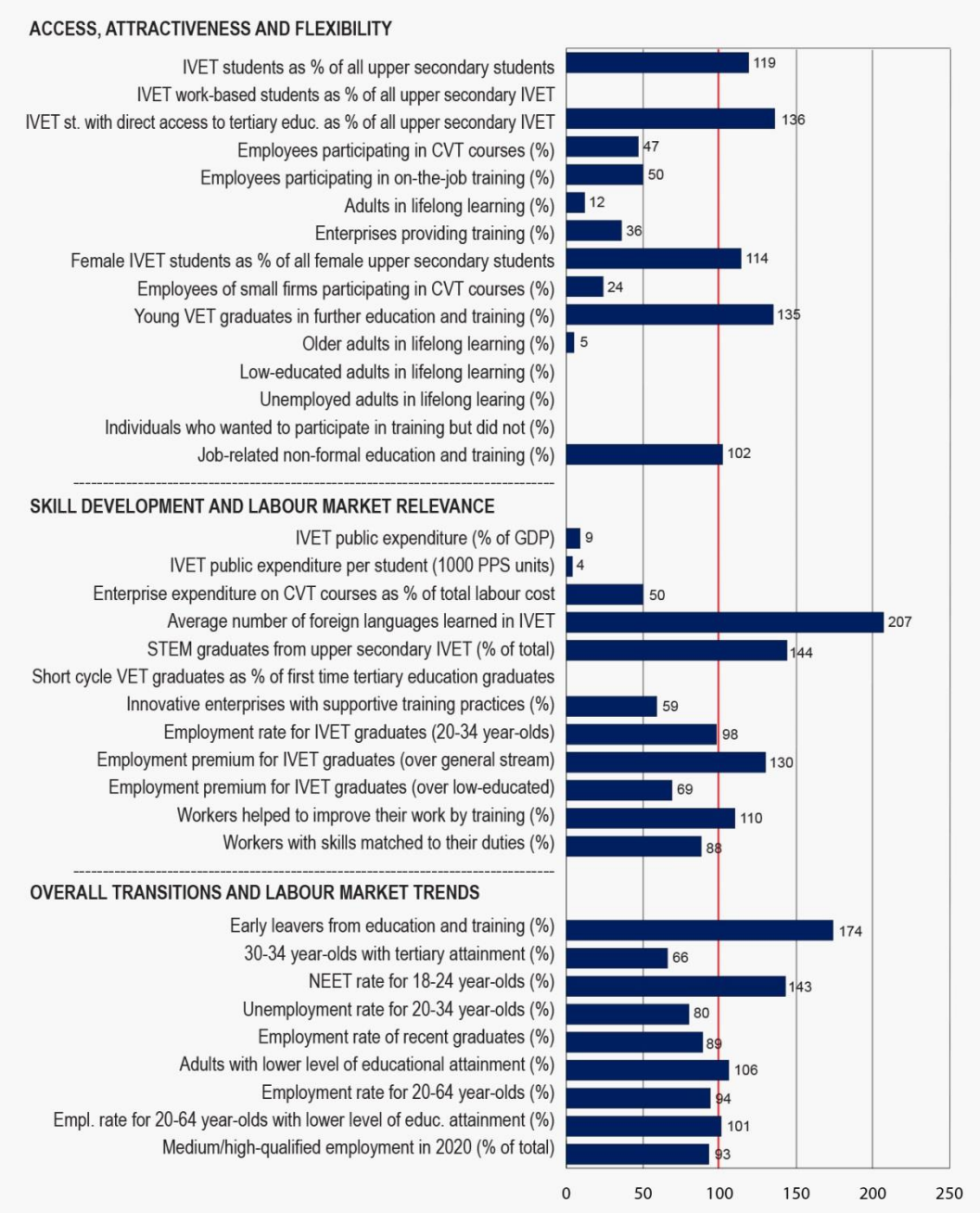
Indicator label	2010		Last available year			Recent trend (per year)		
	PT	EU	Yr	PT	EU	Range	PT	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	46.0 b	48.0 b E1	'13-'14	▪ 0.2	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	0.0 z	34.0 b E2	'13-'14	▪ 0.0	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	99.1	69.2 E3	'13-'14	▪ -0.4	▪ -1.4
Employees participating in CVT courses (%)	40.0	38.0 e	'10	40.0	38.0 e			
Employees participating in on-the-job training (%)	20.0	20.0 e	'10	20.0	20.0 e			
Adults in lifelong learning (%)			'15	9.7 b	10.7 b	'13-'15	→ 0.0	→ 0.0
Enterprises providing training (%)	65.0	66.0 e	'10	65.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	39.9 b	42.7 b E1	'13-'14	▪ -0.2	▪ -1.0
Employees of small firms participating in CVT courses (%)	27.0	25.0 e	'10	27.0	25.0 e			
Young VET graduates in further education and training (%)			'15	26.4 b	33.0 b	'14-'15	▪ -0.3	▪ -0.3
Older adults in lifelong learning (%)		5.3	'15	5.0 b	6.9	'11-'15	↘ -0.2	↗ 0.5
Low-educated adults in lifelong learning (%)			'15	4.2 b C	4.3 b C	'13-'15	↘ -0.2	↘ -0.1
Unemployed adults in lifelong learning (%)			'15	11.3 b	9.5 b	'13-'15	↘ -0.5	↘ -0.4
Individuals who wanted to participate in training but did not (%)	8.1 B	9.5 e B	'11	8.1	9.5 e			
Job-related non-formal education and training (%)	82.3 B	80.2 e B	'11	82.3	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	b	0.56 b E4			
IVET public expenditure per student (1000 PPS units)			'13	b	6.4 b E5			
Enterprise expenditure on CVT courses as % of total labour cost	0.7	0.8 e	'10	0.7	0.8 e			
Average number of foreign languages learned in IVET			'14	1.0 b	1.0 b E6	'13-'14	▪ 0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	32.8 b	30.0 b E7	'13-'14	▪ 2.1	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	0.0 z	9.3 E8	'13-'14	▪ 0.0	▪ 0.4
Innovative enterprises with supportive training practices (%)	56.6	41.5 E9	'12	53.6	41.6 E9	'10-'12	▪ -1.5	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	77.4 b	77.2 b	'14-'15	▪ 2.3	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	-3.3 b	5.3 b	'14-'15	▪ 0.9	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	2.0 b	23.7 b	'14-'15	▪ -1.7	▪ -0.1
Workers helped to improve their work by training (%)			'15	91.1	83.7			
Workers with skills matched to their duties (%)	67.8	55.2	'15	75.7	57.3	'10-'15	▪ 1.6	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)		13.9	'15	13.7 b C	11.0 C	'11-'15	↘ -2.2	↘ -0.6
30-34 year-olds with tertiary attainment (%)		33.8	'15	31.9 b C	38.7 C	'11-'15	↗ 1.4	↗ 1.0
NEET rate for 18-24 year-olds (%)		16.6	'15	15.8 b	15.8	'11-'15	↘ -0.2	↘ -0.3
Unemployment rate for 20-34 year-olds (%)		13.1	'15	16.7 b	12.9	'11-'15	↘ -0.3	↘ -0.1
Employment rate of recent graduates (%)		77.4	'15	72.2 b C	76.9 C	'11-'15	↘ -0.5	→ 0.0
Adults with lower level of educational attainment (%)		27.3	'15	54.9 b C	23.5 C	'11-'15	↘ -2.7	↘ -0.8
Employment rate for 20-64 year-olds (%)		68.6	'15	69.1 b	70.0	'11-'15	↗ 0.2	↗ 0.4
Employment rate for 20-64 year-olds with lower level of educational attainment (%)		53.4	'15	63.5 b C	52.6 C	'11-'15	↘ -0.3	↘ -0.1
Medium/high-qualified employment in 2020 (% of total)			'16	46.0 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

23. Romania

VET indicators for Romania for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded.
All data in the table have been rounded.

Romania's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Romania with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Romania is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Romania's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

Students in IVET programmes account for a relatively high share of all upper secondary students (57.2% compared with 48% in the EU in 2014). Adult participation in lifelong learning is 1.3%, much lower than the EU-average of 10.7% (data for 2015). The unemployed are less likely to engage in lifelong learning (2.1%) compared with the EU average (9.5%). The same holds for older people (0.3% versus 6.9% in the EU), and low-educated adults (0.3% versus 4.3% in the EU). Data from CVTS 2010 indicate the extent to which employees and enterprises engage in CVET. In 2010, 24% of employers reported providing training compared with 66% in the EU; 18% of employees undertook employer sponsored CVT courses compared with 38% in the EU. A smaller share of employees engaged in on-the-job training: 10% in Romania and 20% in the EU.

Skill development and labour market relevance

Enterprise total monetary expenditure on CVT as a proportion of total labour costs (0.4%) is half that for Europe as a whole (data for 2010). The average number of foreign languages learned in upper secondary IVET education is relatively high (two compared with one in the EU overall).

The employment rate for IVET graduates aged 20 to 34 is 75.6%, a little below the EU average of 77.2%. IVET graduates in Romania enjoy a positive premium on their employment rate compared to graduates from general education. It is 6.9 percentage points higher than that of their counterparts from

general education and higher than the EU average premium of 5.3 percentage points. They also have an employment rate 16.4 percentage points higher than those with lower-level qualifications (lower than the EU average of 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated.

The share of early leavers from education and training is 19.1%, much higher than the EU average of 11%, the Europe 2020 average target (10%) and the national target (11.3%). While the percentage of 30 to 34 year-olds with tertiary-level education has increased significantly (from 18.3% in 2010 to 25.6% in 2015), it is still below the EU average of 38.7%, the Europe 2020 average target (40%) and the national target (26.7%).

The employment rate of recent graduates (68.1%) is lower than in the EU (76.9%); this rate has also shown a 0.9 percentage points average yearly reduction since 2010, which is greater than in the EU (0.2 percentage points per year). The NEET rate (22.6%) is higher than in the EU overall (15.8%), but the general unemployment rate of 20 to 34 year-olds (10.3%) is lower (12.9% in the EU. The employment rate of 20 to 64 year-olds with a low level of educational attainment is higher in Romania (53.3%) than in the EU (52.6%), and is equal to the 2010 employment rate.

Score on VET indicators in Romania and in the EU, 2010, last available year and recent trend

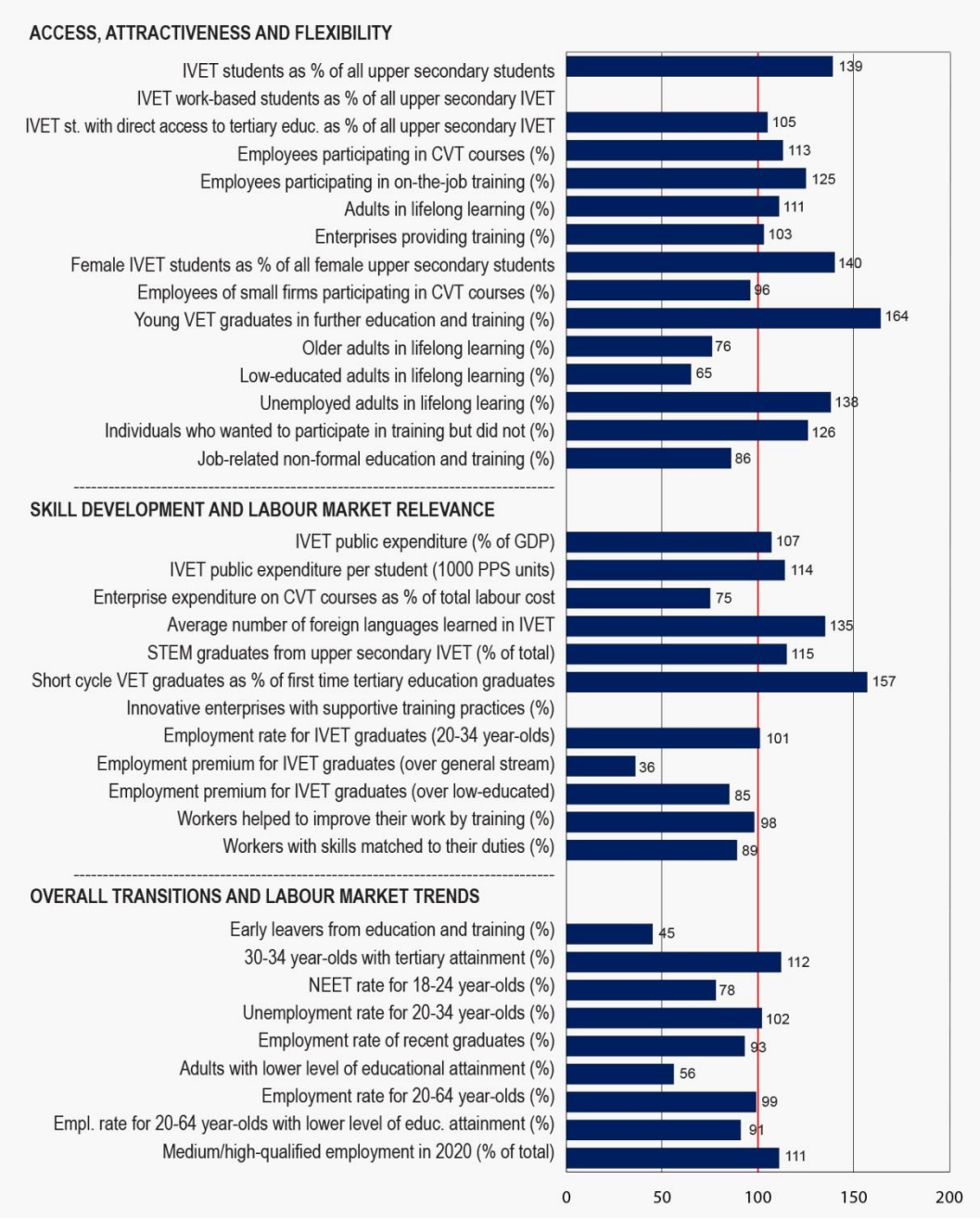
Indicator label	2010		Last available year			Recent trend (per year)			
	RO	EU	Yr	RO	EU	Range	RO		EU
Access, attractiveness and flexibility									
IVET students as % of all upper secondary students	A	A	'14	57.2 b	48.0 b E1	'13-'14	▪	-2.8	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	b	34.0 b E2				
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	94.2	69.2 E3	'13-'14	▪	-1.9	▪ -1.4
Employees participating in CVT courses (%)	18.0	38.0 e	'10	18.0	38.0 e				
Employees participating in on-the-job training (%)	10.0	20.0 e	'10	10.0	20.0 e				
Adults in lifelong learning (%)	1.4		'15	1.3	10.7 b	'13-'15	↘	-0.3	→ 0.0
Enterprises providing training (%)	24.0	66.0 e	'10	24.0	66.0 e				
Female IVET students as % of all female upper secondary students	A	A	'14	48.8 b	42.7 b E1	'13-'14	▪	-2.7	▪ -1.0
Employees of small firms participating in CVT courses (%)	6.0	25.0 e	'10	6.0	25.0 e				
Young VET graduates in further education and training (%)			'15	44.6 b	33.0 b	'14-'15	▪	-3.5	▪ -0.3
Older adults in lifelong learning (%)		5.3	'15	0.3	6.9	'11-'15	→	0.0	↗ 0.5
Low-educated adults in lifelong learning (%)			'15	0.3 u C	4.3 b C	'13-'14	▪	-0.1	▪ 0.0
Unemployed adults in lifelong learning (%)			'15	2.1 u	9.5 b				
Individuals who wanted to participate in training but did not (%)	u B	9.5 e B	'11	u	9.5 e				
Job-related non-formal education and training (%)	81.7 B	80.2 e B	'11	81.7	80.2 e				
Skill development and labour market relevance									
IVET public expenditure (% of GDP)			'13	0.05 b	0.56 b E4	'12-'13	▪	0.01	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	0.3 b	6.4 b E5	'12-'13	▪	0.1	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	0.4	0.8 e	'10	0.4	0.8 e				
Average number of foreign languages learned in IVET			'14	2.0 b	1.0 b E6	'13-'14	▪	0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	43.1 b	30.0 b E7	'13-'14	▪	-4.5	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	0.0 z	9.3 E8	'13-'14	▪	0.0	▪ 0.4
Innovative enterprises with supportive training practices (%)	36.3	41.5 E9	'12	24.6	41.6 E9	'10-'12	▪	-5.9	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	75.6 b	77.2 b	'14-'15	▪	-1.9	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	6.9 b	5.3 b	'14-'15	▪	-0.4	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	16.4 b	23.7 b	'14-'15	▪	-1.7	▪ -0.1
Workers helped to improve their work by training (%)			'15	91.8	83.7				
Workers with skills matched to their duties (%)	40.4	55.2	'15	50.4	57.3	'10-'15	▪	2.0	▪ 0.4
Overall transitions and labour market trends									
Early leavers from education and training (%)	19.3	13.9	'15	19.1 C	11.0 C	'10-'15	→	0.0	↘ -0.6
30-34 year-olds with tertiary attainment (%)	18.3	33.8	'15	25.6 C	38.7 C	'10-'15	↗	1.5	↗ 1.0
NEET rate for 18-24 year-olds (%)	20.7	16.6	'15	22.6	15.8	'10-'15	↗	0.3	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	10.6	13.1	'15	10.3	12.9	'10-'15	→	0.0	↗ 0.1
Employment rate of recent graduates (%)	71.2	77.4	'15	68.1 C	76.9 C	'10-'15	↘	-0.9	↘ -0.2
Adults with lower level of educational attainment (%)	26.1	27.3	'15	25.0 C	23.5 C	'10-'15	→	0.0	↘ -0.8
Employment rate for 20-64 year-olds (%)	64.8	68.6	'15	66.0	70.0	'10-'15	↗	0.3	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	55.3	53.4	'15	53.3 C	52.6 C	'10-'15	→	0.0	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	77.4 D	82.8 D				

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

24. Slovenia

VET indicators for Slovenia for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Slovenia's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Slovenia with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Slovenia is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Slovenia's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

Participation in IVET is high and above the EU average as measured by the percentage of upper secondary students enrolled in vocational programmes (66.8% in Slovenia, 48% in the EU in 2014). Among female upper secondary students, enrolment in VET is lower (59.7%) but still above the EU average (42.7%).

The percentage of adults participating in lifelong learning (11.9%) is higher than the EU average (10.7% in 2015), even though it has been even higher (16.4% in 2010). The percentage of unemployed adults participating in lifelong learning is favourably higher (13.1% for Slovenia, 9.5% for the EU), but the percentage of older adults in lifelong learning (5.2%) is lower than the EU average (6.9%). Similarly, the percentage of low-educated adults in lifelong learning is lower (at 2.8% in 2015) than in the EU (4.3%).

Skill development and labour market relevance

The percentage of VET graduates in STEM subjects is slightly higher than the EU average (34.6% in Slovenia compared with 30% in the EU in 2014).

Based on 2015 data, the employment rate for IVET graduates aged 20 to 34 (78.1%) is also slightly higher than the EU average (77.2%). IVET graduates in Slovenia enjoy a positive premium on their employment rate compared to graduates from general education. It is 1.9 percentage points higher than that of their counterparts from general education (lower than the EU average premium of

5.3 percentage points) and 20.2 percentage points higher than that of graduates with lower-level qualifications (EU average premium is 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated.

The percentage of early leavers from education and training (5%) is much lower than the EU average (11%), and is at the 2020 national target (5%). Levels of educational attainment overall are high. The percentage of 30 to 34 year-olds with tertiary-level education (43.4%) is above the EU average (38.7%); this figure has increased from 34.8% in 2010. The 2015 level just exceeds both the Europe 2020 average target and the national target (both set at 40%). The percentage of adults with low-level education (13.2%) is below the EU (23.5%).

The employment rates for 20 to 64 year-olds (69.1%) and recent graduates (71.5%) are slightly less than the EU averages (60% and 76.9% respectively). The NEET rate (12.4%) is below that of the EU (15.8%). The unemployment rate for 20 to 34 year-olds (13.2%) is slightly higher than the EU average (12.9%). The unemployment rate of 20 to 34 year-olds and the NEET rate have both risen since 2010 and at a higher speed than the EU averages. The employment rate of 20 to 64 year-olds with a low level of educational attainment is lower in Slovenia (48%) than in the EU (52.6%), and has decreased.

Score on VET indicators in Slovenia and in the EU, 2010, last available year and recent trend

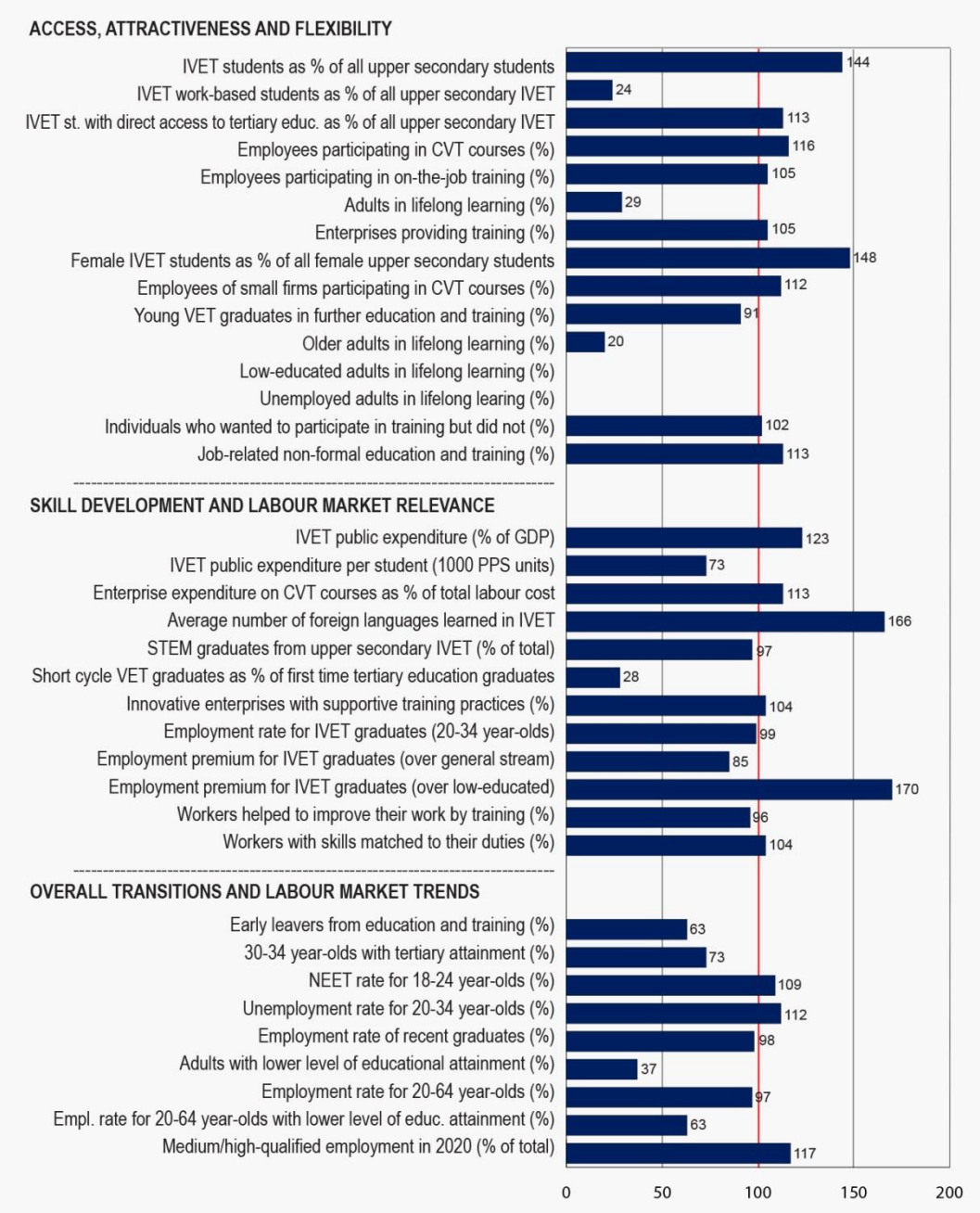
Indicator label	2010		Last available year			Recent trend (per year)			
	SI	EU	Yr	SI	EU	Range	SI		EU
Access, attractiveness and flexibility									
IVET students as % of all upper secondary students	A	A	'14	66.8 b	48.0 b E1	'13-'14	▪	0.9	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	0.0 z	34.0 b E2	'13-'14	▪	0.0	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	72.9	69.2 E3	'13-'14	▪	-0.3	▪ -1.4
Employees participating in CVT courses (%)	43.0	38.0 e	'10	43.0	38.0 e				
Employees participating in on-the-job training (%)	25.0	20.0 e	'10	25.0	20.0 e				
Adults in lifelong learning (%)	16.4		'15	11.9	10.7 b	'13-'15	↘	-0.3	→ 0.0
Enterprises providing training (%)	68.0	66.0 e	'10	68.0	66.0 e				
Female IVET students as % of all female upper secondary students	A	A	'14	59.7 b	42.7 b E1	'13-'14	▪	1.1	▪ -1.0
Employees of small firms participating in CVT courses (%)	24.0	25.0 e	'10	24.0	25.0 e				
Young VET graduates in further education and training (%)			'15	54.1 b	33.0 b	'14-'15	▪	-4.5	▪ -0.3
Older adults in lifelong learning (%)	7.8	5.3	'15	5.2	6.9	'10-'15	↘	-0.5	↗ 0.4
Low-educated adults in lifelong learning (%)	3.5		'15	2.8 C	4.3 b C	'13-'15	↘	-0.1	↘ -0.1
Unemployed adults in lifelong learning (%)	18.6		'15	13.1	9.5 b	'13-'15	→	0.0	↘ -0.4
Individuals who wanted to participate in training but did not (%)	12.0 B	9.5 e B	'11	12.0	9.5 e				
Job-related non-formal education and training (%)	69.1 B	80.2 e B	'11	69.1	80.2 e				
Skill development and labour market relevance									
IVET public expenditure (% of GDP)			'13	0.60 b	0.56 b E4	'12-'13	▪	0.13	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	7.3 b	6.4 b E5	'12-'13	▪	4.2	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	0.6	0.8 e	'10	0.6	0.8 e				
Average number of foreign languages learned in IVET			'14	1.3 b	1.0 b E6	'13-'14	▪	0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	34.6 b	30.0 b E7	'13-'14	▪	1.8	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	14.7	9.3 E8	'13-'14	▪	-0.1	▪ 0.4
Innovative enterprises with supportive training practices (%)	44.4	41.5 E9	'12		41.6 E9				
Employment rate for IVET graduates (20-34 year-olds)			'15	78.1 b	77.2 b	'14-'15	▪	0.7	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	1.9 b	5.3 b	'14-'15	▪	-8.8	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	20.2 b	23.7 b	'14-'15	▪	-5.1	▪ -0.1
Workers helped to improve their work by training (%)			'15	82.2	83.7				
Workers with skills matched to their duties (%)	47.8	55.2	'15	51.0	57.3	'10-'15	▪	0.6	▪ 0.4
Overall transitions and labour market trends									
Early leavers from education and training (%)	5.0	13.9	'15	5.0 C	11.0 C	'10-'15	→	0.0	↘ -0.6
30-34 year-olds with tertiary attainment (%)	34.8	33.8	'15	43.4 C	38.7 C	'10-'15	↗	1.5	↗ 1.0
NEET rate for 18-24 year-olds (%)	8.9	16.6	'15	12.4	15.8	'10-'15	↗	0.8	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	10.9	13.1	'15	13.2	12.9	'10-'15	↗	0.7	↗ 0.1
Employment rate of recent graduates (%)	80.7	77.4	'15	71.5 C	76.9 C	'10-'15	↘	-1.8	↘ -0.2
Adults with lower level of educational attainment (%)	16.7	27.3	'15	13.2 C	23.5 C	'10-'15	↘	-0.6	↘ -0.8
Employment rate for 20-64 year-olds (%)	70.3	68.6	'15	69.1	70.0	'10-'15	↘	-0.3	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	50.5	53.4	'15	48.0 C	52.6 C	'10-'15	↘	-0.3	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	91.7 D	82.8 D				

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

25. Slovakia

VET indicators for Slovakia for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Slovakia's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Slovakia with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Slovakia is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Slovakia's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

Slovakia has a relatively high proportion of upper secondary students participating in IVET (69% compared with 48% in the EU; data for 2014). Within upper secondary vocational education, the share of IVET students involved in combined work- and school-based programmes (8%) is lower than the EU average (34%); this value increased by one percentage point between 2013 and 2014. Slovakia scores well below the EU average regarding the share of adults involved in lifelong learning (3.1% compared with 10.7% in the EU in 2015); this is lower than the average target of 15% set by the strategic framework *Education and training 2020*. The general picture from 2010 CVTS data on the training activities of employers show better results. Employees are slightly more likely to be in receipt of employer-sponsored CVT courses (44% in Slovakia, 38% in the EU) and the percentage of companies providing training is also slightly higher than the EU average (69% versus 66% in the EU). 2011 AES data show that non-formal education and training is more often job-related (90.5%) compared with the situation across the EU (80.2%).

Skill development and labour market relevance

Public expenditure on IVET as a percentage of GDP (0.69%) is higher than the EU average (0.56%), but the amount spent per student (4 700 purchasing power standard (PPS) units) is much below the EU average (6 400 PPS units).

The employment rate of IVET graduates aged 20 to 34 at 76.7% is slightly lower than the EU average of 77.2% (data for 2015). IVET graduates in Slovakia enjoy a positive premium on their employment rate compared to graduates from general education. It is 4.5 percentage points higher than that of their counterparts from general education (even though this premium is lower than the EU average premium of 5.3 percentage points), and 40.3 percentage points higher than that of graduates with lower-level qualifications (well above the EU average premium of 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated.

The rate of early leaving from education and training (6.9%) is much lower than for the EU as a whole (11%). Slovakia has proportionately fewer people with a low-level of education (8.6%) compared with the EU average (23.5%). In contrast, the share of 30 to 34 year-olds with tertiary-level education is lower (28.4%) than the EU average (38.7%). Although this percentage has increased over recent years in Slovakia, it is still below the Europe 2020 average target and the national target (both set at 40%). The unemployment rate of 20 to 34 year-olds (14.5% compared with 12.9% in the EU) and the NEET rate of 18 to 24 year-olds (17.2% compared with 15.8% in the EU) are both slightly higher than in the EU. The employment rate of 20 to 64 year-olds with a low level of educational attainment is lower in Slovakia (33.2%) than in the EU (52.6%), but has increased.

Score on VET indicators in Slovakia and in the EU, 2010, last available year and recent trend

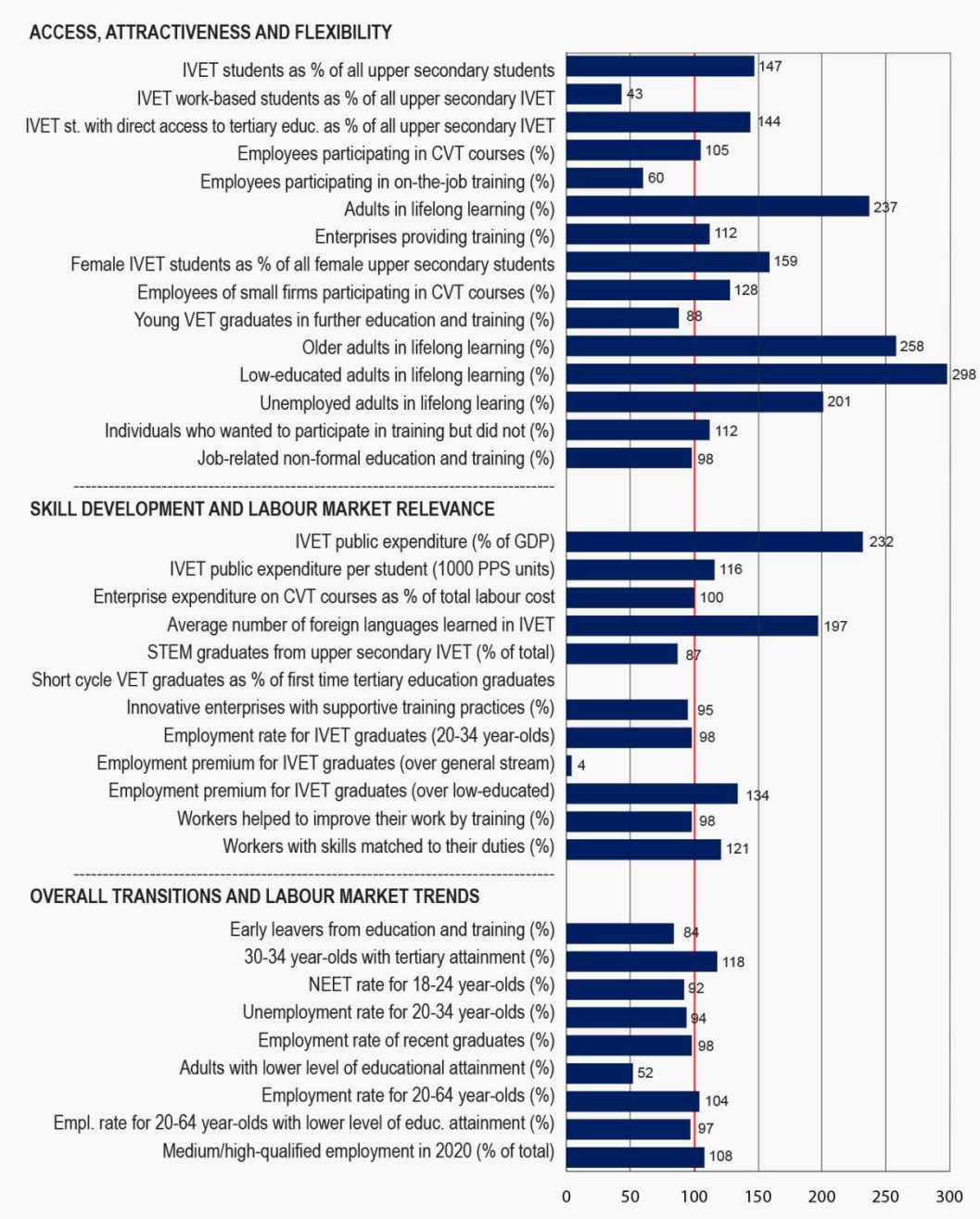
Indicator label	2010		Last available year			Recent trend (per year)			
	SK	EU	Yr	SK	EU	Range	SK		EU
Access, attractiveness and flexibility									
IVET students as % of all upper secondary students	A	A	'14	69.0 b	48.0 b E1	'13-'14	▪	0.9	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	8.0 b	34.0 b E2	'13-'14	▪	1.0	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	78.5	69.2 E3	'13-'14	▪	-1.1	▪ -1.4
Employees participating in CVT courses (%)	44.0	38.0 e	'10	44.0	38.0 e				
Employees participating in on-the-job training (%)	21.0	20.0 e	'10	21.0	20.0 e				
Adults in lifelong learning (%)			'15	3.1 b	10.7 b	'13-'15	→	0.0	→ 0.0
Enterprises providing training (%)	69.0	66.0 e	'10	69.0	66.0 e				
Female IVET students as % of all female upper secondary students	A	A	'14	63.0 b	42.7 b E1	'13-'14	▪	0.7	▪ -1.0
Employees of small firms participating in CVT courses (%)	28.0	25.0 e	'10	28.0	25.0 e				
Young VET graduates in further education and training (%)			'15	30.2 b	33.0 b	'14-'15	▪	-1.7	▪ -0.3
Older adults in lifelong learning (%)		5.3	'15	1.4 b	6.9	'11-'15	↘	-0.1	↗ 0.5
Low-educated adults in lifelong learning (%)			'15	b u C	4.3 b C				
Unemployed adults in lifelong learning (%)			'15	1.0 b u	9.5 b				
Individuals who wanted to participate in training but did not (%)	9.7 B	9.5 e B	'11	9.7	9.5 e				
Job-related non-formal education and training (%)	90.5 B	80.2 e B	'11	90.5	80.2 e				
Skill development and labour market relevance									
IVET public expenditure (% of GDP)			'13	0.69 b	0.56 b E4				
IVET public expenditure per student (1000 PPS units)			'13	4.7 b	6.4 b E5				
Enterprise expenditure on CVT courses as % of total labour cost	0.9	0.8 e	'10	0.9	0.8 e				
Average number of foreign languages learned in IVET			'14	1.6 b	1.0 b E6	'13-'14	▪	-0.1	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	29.2 b	30.0 b E7	'13-'14	▪	0.0	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	2.6	9.3 E8	'13-'14	▪	0.4	▪ 0.4
Innovative enterprises with supportive training practices (%)	61.3	41.5 E9	'12	43.3	41.6 E9	'10-'12	▪	-9.0	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	76.7 b	77.2 b	'14-'15	▪	2.9	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	4.5 b	5.3 b	'14-'15	▪	0.7	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	40.3 b	23.7 b	'14-'15	▪	-4.6	▪ -0.1
Workers helped to improve their work by training (%)			'15	80.2	83.7				
Workers with skills matched to their duties (%)	52.3	55.2	'15	59.9	57.3	'10-'15	▪	1.5	▪ 0.4
Overall transitions and labour market trends									
Early leavers from education and training (%)		13.9	'15	6.9 b C	11.0 C	'11-'15	↗	0.5	↘ -0.6
30-34 year-olds with tertiary attainment (%)		33.8	'15	28.4 b C	38.7 C	'11-'15	↗	1.4	↗ 1.0
NEET rate for 18-24 year-olds (%)		16.6	'15	17.2 b	15.8	'11-'15	↘	-0.4	↘ -0.3
Unemployment rate for 20-34 year-olds (%)		13.1	'15	14.5 b	12.9	'11-'15	↘	-0.8	↘ -0.1
Employment rate of recent graduates (%)		77.4	'15	75.2 b C	76.9 C	'11-'15	↗	1.4	→ 0.0
Adults with lower level of educational attainment (%)		27.3	'15	8.6 b C	23.5 C	'11-'15	→	0.0	↘ -0.8
Employment rate for 20-64 year-olds (%)		68.6	'15	67.7 b	70.0	'11-'15	↗	0.6	↗ 0.4
Employment rate for 20-64 year-olds with lower level of educational attainment (%)		53.4	'15	33.2 b C	52.6 C	'11-'15	↗	0.9	↘ -0.1
Medium/high-qualified employment in 2020 (% of total)			'16	96.8 D	82.8 D				

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

26. Finland

VET indicators for Finland for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Finland's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Finland with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Finland is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Finland's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

The share of all upper secondary school students enrolled in IVET (70.4%) is much higher than the EU average (48% in 2014). Enrolment among women is also higher (68% versus 42.7%). The share of students in upper secondary VET enrolled in combined work- and school-based programmes (14.5%) is lower than the EU average (34% in 2014). Adult participation in lifelong learning (25.4%) is much higher than the EU average (10.7% in 2015) and well above the average target (15%) set by the strategic framework *Education and training 2020*. Older adults (17.8%), adults with low-level education (12.8%) and the unemployed (19.1%) are all more likely to participate in lifelong learning in Finland than across the EU, and their participation rates have been rising.

Data for 2010 indicate that enterprises are more likely to engage in training than in the EU (74% versus 66%), but employees are less likely to participate in on-the-job training (12% versus 20%). Participation in employer-sponsored CVT courses, however, is slightly above the EU average (40% versus 38% in 2010).

Skill development and labour market relevance

Data from 2013 show that public expenditure on IVET as a percentage of GDP is noticeably higher in Finland (1.30%) than in the EU (0.56%), even though expenditure per student (7 400 purchasing power standard (PPS) units) is close to the EU average (6 400 PPS units). The percentage of graduates in STEM subjects (26.2%) from upper secondary VET is slightly lower than the EU

average (30% in 2014). The percentage of innovative enterprises with supportive training practices is also lower than in the EU (39.7% versus 41.6% in the EU, based on data for 2012). While 69.3% of workers in Finland report that their skills match their duties, only 57.3% do so across the EU.

Based on 2015 data, the employment rate of IVET graduates aged 20 to 34 (75.5%) is slightly lower than that in the EU (77.2%). IVET graduates in Finland enjoy a positive premium on their employment rate compared to graduates from general education, though at just 0.2 percentage points higher; this premium is lower than the EU average of 5.3 percentage points. IVET graduates also enjoy a positive premium on their employment rate 31.8 percentage points higher than that of graduates with lower-level qualifications (this is higher than the EU average employment premium of 23.7 percentage points). These employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated.

The share of early leavers from education and training (9.2%) is lower than across the EU on average (11%): Finland is below the Europe 2020 average target (10%) but still exceeds its national target (8%). Educational attainment is relatively high: 45.5% of the 30 to 34 year-olds have tertiary-level education. This is above the EU average (38.7%). The percentage of people with low-level education (12.3%) is lower than the EU average (23.5%). The employment rate for 20 to 64 year-olds (72.9% for Finland; 70% for the EU) is higher, and the NEET rate and the 20 to 34 year-olds unemployment rate are both lower than for the EU. However, the employment rate for recent graduates is lower for Finland (75.5%) than for the EU (76.9%). The employment rate of 20 to 64 year-olds with a low level of educational attainment is lower in Finland (50.8%) than in the EU (52.6%), and has decreased.

Score on VET indicators in Finland and in the EU, 2010, last available year and recent trend

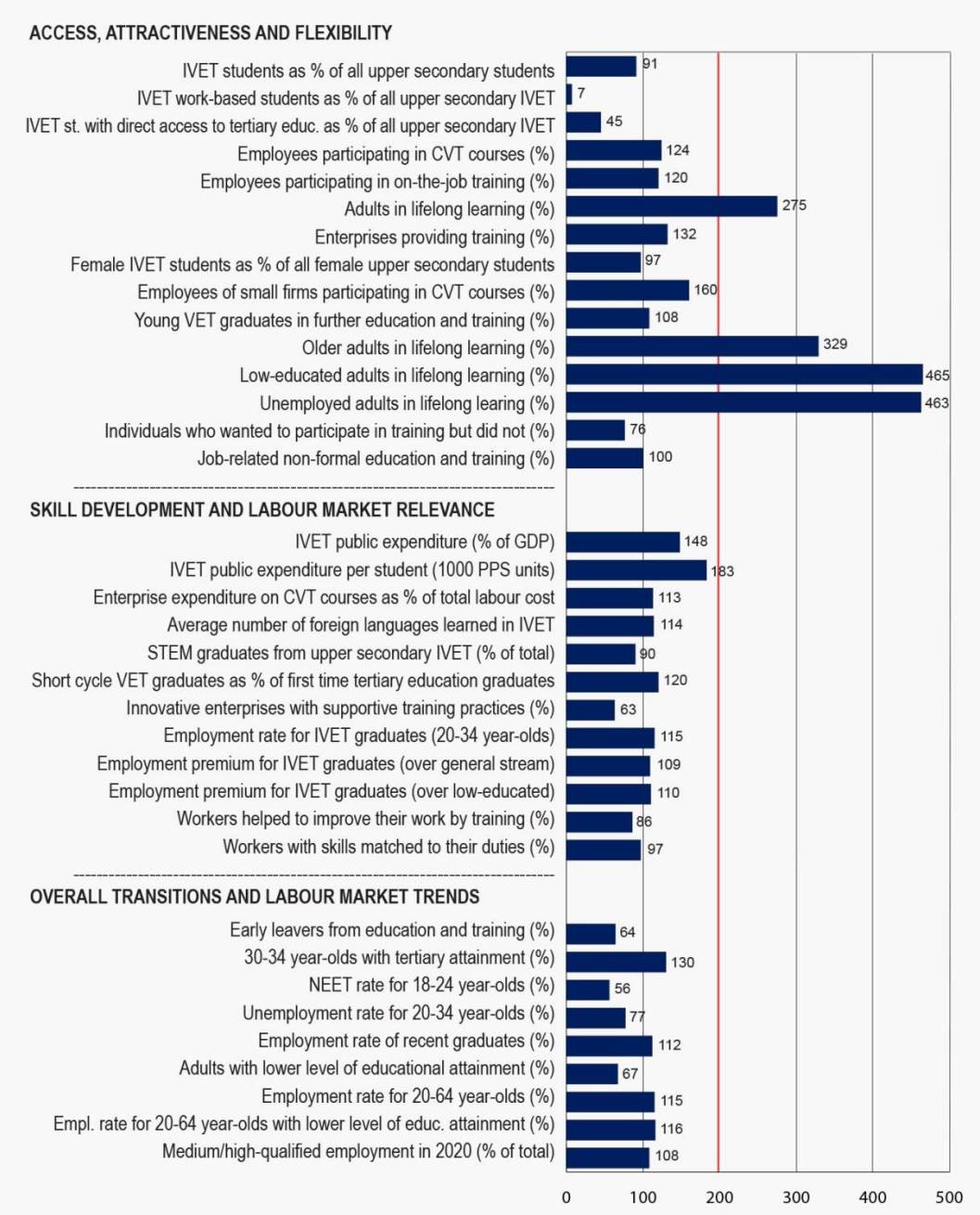
Indicator label	2010		Last available year			Recent trend (per year)			
	FI	EU	Yr	FI	EU	Range	FI		EU
Access, attractiveness and flexibility									
IVET students as % of all upper secondary students	A	A	'14	70.4 b	48.0 b E1	'13-'14	▪	0.3	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	14.5 b	34.0 b E2	'13-'14	▪	-0.8	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	100.0	69.2 E3	'13-'14	▪	0.0	▪ -1.4
Employees participating in CVT courses (%)	40.0	38.0 e	'10	40.0	38.0 e				
Employees participating in on-the-job training (%)	12.0	20.0 e	'10	12.0	20.0 e				
Adults in lifelong learning (%)	23.0		'15	25.4	10.7 b	'13-'15	↗	0.2	→ 0.0
Enterprises providing training (%)	74.0	66.0 e	'10	74.0	66.0 e				
Female IVET students as % of all female upper secondary students	A	A	'14	68.0 b	42.7 b E1	'13-'14	▪	0.4	▪ -1.0
Employees of small firms participating in CVT courses (%)	32.0	25.0 e	'10	32.0	25.0 e				
Young VET graduates in further education and training (%)			'15	29.1 b	33.0 b	'14-'15	▪	-3.1	▪ -0.3
Older adults in lifelong learning (%)	15.3	5.3	'15	17.8	6.9	'10-'15	↗	0.5	↗ 0.4
Low-educated adults in lifelong learning (%)	9.8		'15	12.8 C	4.3 b C	'13-'15	↗	0.8	↘ -0.1
Unemployed adults in lifelong learning (%)	16.8		'15	19.1	9.5 b	'13-'15	↗	0.3	↘ -0.4
Individuals who wanted to participate in training but did not (%)	10.6 B	9.5 e B	'11	10.6	9.5 e				
Job-related non-formal education and training (%)	78.7 B	80.2 e B	'11	78.7	80.2 e				
Skill development and labour market relevance									
IVET public expenditure (% of GDP)			'13	1.30 b	0.56 b E4	'12-'13	▪	0.00	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	7.4 b	6.4 b E5	'12-'13	▪	0.0	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	0.8	0.8 e	'10	0.8	0.8 e				
Average number of foreign languages learned in IVET			'14	1.9 b	1.0 b E6	'13-'14	▪	0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	26.2 b	30.0 b E7	'13-'14	▪	-1.5	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	0.0 b	9.3 E8				
Innovative enterprises with supportive training practices (%)	34.7	41.5 E9	'12	39.7	41.6 E9	'10-'12	▪	2.5	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	75.9 b	77.2 b	'14-'15	▪	-1.7	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	0.2 b	5.3 b	'14-'15	▪	-2.7	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	31.8 b	23.7 b	'14-'15	▪	-0.2	▪ -0.1
Workers helped to improve their work by training (%)			'15	81.7	83.7				
Workers with skills matched to their duties (%)	63.4	55.2	'15	69.3	57.3	'10-'15	▪	1.2	▪ 0.4
Overall transitions and labour market trends									
Early leavers from education and training (%)	10.3	13.9	'15	9.2 C	11.0 C	'10-'15	↘	-0.2	↘ -0.6
30-34 year-olds with tertiary attainment (%)	45.7	33.8	'15	45.5 C	38.7 C	'10-'15	↘	-0.1	↗ 1.0
NEET rate for 18-24 year-olds (%)	12.5	16.6	'15	14.6	15.8	'10-'15	↗	0.5	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	10.3	13.1	'15	12.1	12.9	'10-'15	↗	0.4	↗ 0.1
Employment rate of recent graduates (%)	79.7	77.4	'15	75.5 C	76.9 C	'10-'15	↘	-0.7	↘ -0.2
Adults with lower level of educational attainment (%)	17.0	27.3	'15	12.3 C	23.5 C	'10-'15	↘	-0.9	↘ -0.8
Employment rate for 20-64 year-olds (%)	73.0	68.6	'15	72.9	70.0	'10-'15	↘	-0.1	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	53.9	53.4	'15	50.8 C	52.6 C	'10-'15	↘	-0.7	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	89.5 D	82.8 D				

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

27. Sweden

VET indicators for Sweden for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Sweden's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Sweden with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Sweden is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Sweden's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

The share of upper secondary students in IVET (43.7%) is slightly below the EU average (48%) in 2014 and decreased by 3.1 percentage points since 2013. The percentage of female students in upper secondary education participating in IVET is closer to the EU average (41.3% compared to 42.7% in 2012), and this value also decreased in both Sweden (by 3.3 percentage points) and the EU (by one percentage point) since 2013.

Data for 2013 show that Sweden compares favourably with EU averages on participation in lifelong learning: the percentage of adults in lifelong learning (29.4%) is much higher than the EU average (10.7%) and well above the average target (15%) set by the strategic framework *Education and training 2020*. Older people (22.7%), unemployed adults (44%) and those with relatively low-level education (20%) are all much more likely to participate in education and training than is the case across the EU (the figures for Sweden are around three to four times greater than the corresponding EU averages). The share of adults, in 2011, who wanted to participate in training but did not do so (7.2%), is lower than the EU average (9.5%). Data from the same source (AES) show that non-formal education and training is largely job-related (80.1%, on par with the EU average of 80.2%). Data for 2015 show that the percentage of young VET graduates in further education and training is relatively high (35.7%) compared to the EU average (33%).

Skill development and labour market relevance

For many indicators in this group, Sweden records values close to the EU average, but there are some differences. Public expenditure on IVET as a percentage of GDP is higher (0.83%) than in the EU overall (0.56%) (based on 2013 data). This is also reflected in greater average expenditure per student; 11 700 purchasing power standard (PPS) units compared with the 6 400 PPS units in the EU.

The employment rate of IVET graduates aged 20 to 34 (88.7%) is higher than the EU average (77.2%). IVET graduates in Sweden enjoy a positive premium on their employment rate compared to graduates from general education at 5.8 percentage points higher than that of their counterparts from general education and higher than the EU average premium of 5.3 percentage points. Their employment rate is 26 percentage points higher than that of graduates with lower-level qualifications (higher than the EU average of 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated.

Sweden performs favourably on these indicators. The percentage of early leavers from education and training (7%) is lower than the EU average (11%) and lower than the Europe 2020 average target and the national target (both set at 10%). The share of 30 to 34 year-olds who have completed tertiary-level education (50.2%) is higher than the EU average (38.7%) and exceeds the Europe 2020 average target (40%) and the national target (40-45%). A relatively small share of adults in Sweden has low-level education (15.7% compared with 23.5% in the EU).

The employment rate for 20 to 64 year-olds (80.5%) and the employment rate of recent graduates (85.9%) are both higher than the corresponding EU averages (70% and 76.9%, respectively). In Sweden, the NEET rate (8.8%) is much lower than in the EU (15.8%). The unemployment rate for 20 to 34 year-olds (9.9%) is also lower than the EU average (12.9%). The employment rate of 20 to 64 year-olds with a low level of educational attainment is higher in Sweden (60.9%) than in the EU (52.6%), but has decreased.

Score on VET indicators in Sweden and in the EU, 2010, last available year and recent trend

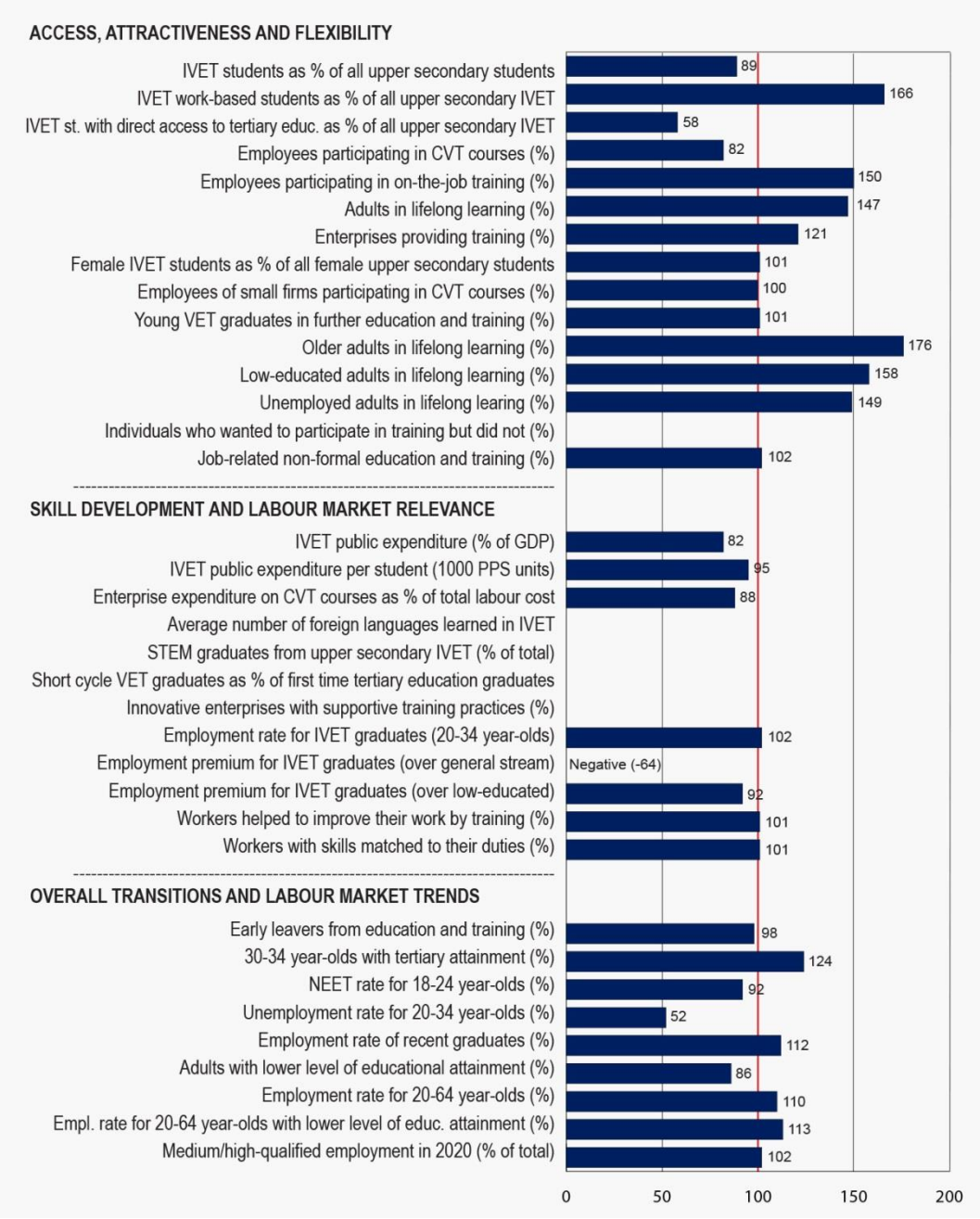
Indicator label	2010		Last available year			Recent trend (per year)		
	SE	EU	Yr	SE	EU	Range	SE	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	43.7 b	48.0 b E1	'13-'14	▪ -3.1	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	2.5 b	34.0 b E2	'13-'14	▪ 0.0	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	31.3	69.2 E3	'13-'14	▪ 10.5	▪ -1.4
Employees participating in CVT courses (%)	47.0	38.0 e	'10	47.0	38.0 e			
Employees participating in on-the-job training (%)	24.0	20.0 e	'10	24.0	20.0 e			
Adults in lifelong learning (%)	24.7		'15	29.4	10.7 b	'13-'15	↗ 0.5	→ 0.0
Enterprises providing training (%)	87.0	66.0 e	'10	87.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	41.3 b	42.7 b E1	'13-'14	▪ -3.3	▪ -1.0
Employees of small firms participating in CVT courses (%)	40.0	25.0 e	'10	40.0	25.0 e			
Young VET graduates in further education and training (%)			'15	35.7 b	33.0 b	'14-'15	▪ -1.6	▪ -0.3
Older adults in lifelong learning (%)	18.3	5.3	'15	22.7	6.9	'10-'15	↗ 0.9	↗ 0.4
Low-educated adults in lifelong learning (%)	16.0		'15	20.0 C	4.3 b C	'13-'15	→ 0.0	↘ -0.1
Unemployed adults in lifelong learning (%)	40.8		'15	44.0	9.5 b	'13-'15	↘ -0.8	↘ -0.4
Individuals who wanted to participate in training but did not (%)	7.2 B	9.5 e B	'11	7.2	9.5 e			
Job-related non-formal education and training (%)	80.1 B	80.2 e B	'11	80.1	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.83 b	0.56 b E4	'12-'13	▪ -0.02	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	11.7 b	6.4 b E5	'12-'13	▪ 0.5	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	0.9	0.8 e	'10	0.9	0.8 e			
Average number of foreign languages learned in IVET			'14	1.1 b	1.0 b E6	'13-'14	▪ 0.0	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	27.0 b	30.0 b E7	'13-'14	▪ -0.7	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	11.2	9.3 E8	'13-'14	▪ -1.6	▪ 0.4
Innovative enterprises with supportive training practices (%)	23.5	41.5 E9	'12	26.4	41.6 E9	'10-'12	▪ 1.4	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	88.7 b	77.2 b	'14-'15	▪ 0.7	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	5.8 b	5.3 b	'14-'15	▪ 1.4	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	26.0 b	23.7 b	'14-'15	▪ -0.4	▪ -0.1
Workers helped to improve their work by training (%)			'15	71.6	83.7			
Workers with skills matched to their duties (%)	53.1	55.2	'15	55.7	57.3	'10-'15	▪ 0.5	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)	6.5	13.9	'15	7.0 C	11.0 C	'10-'15	↗ 0.1	↘ -0.6
30-34 year-olds with tertiary attainment (%)	45.3	33.8	'15	50.2 C	38.7 C	'10-'15	↗ 1.0	↗ 1.0
NEET rate for 18-24 year-olds (%)	10.6	16.6	'15	8.8	15.8	'10-'15	↘ -0.3	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	11.7	13.1	'15	9.9	12.9	'10-'15	↘ -0.2	↗ 0.1
Employment rate of recent graduates (%)	83.0	77.4	'15	85.9 C	76.9 C	'10-'15	↗ 0.5	↘ -0.2
Adults with lower level of educational attainment (%)	18.8	27.3	'15	15.7 C	23.5 C	'10-'15	↘ -0.6	↘ -0.8
Employment rate for 20-64 year-olds (%)	78.1	68.6	'15	80.5	70.0	'10-'15	↗ 0.4	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	62.8	53.4	'15	60.9 C	52.6 C	'10-'15	↘ -0.6	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	89.0 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

28. United Kingdom

VET indicators for the United Kingdom for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

The performance of the United Kingdom on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in the United Kingdom with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for the United Kingdom is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, the performance of the United Kingdom is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

The share of upper secondary students enrolled in IVET is lower (42.7%) than the EU average (48% in 2014). This is mostly due to male participation, as female participation in IVET– as a share of all female upper secondary students – at 43% is higher than the EU average of 42.7%.

The percentage of adults participating in lifelong learning in 2015 (15.7%) is higher than the corresponding EU average (10.7%) and above the average target (15%) set by the strategic framework *Education and training 2020*. The percentage of older adults (12.1%), people with low-level education (6.8%), and the unemployed (14.2%) participating in lifelong learning is higher in the UK than in the EU.

Employers in the UK are more likely to report the provision of training (80% compared to 66% in the EU, based on 2010 CVTS data). The UK also has a higher percentage of employees participating in on-the-job training (30% compared with the EU average of 20%) but a lower percentage of employees participating in employer-sponsored CVT courses (31% compared to 38% across the EU).

Skill development and labour market relevance

Public expenditure on VET as a percentage of GDP at 0.46% is lower than the corresponding EU average of 0.56% (data for 2013).

Based on 2015 data, the employment rate of IVET graduates aged 20 to 34 (79%) is higher than the EU average (77.2%). IVET graduates in the UK have an employment rate 3.4 percentage points lower than their counterparts from general education (the EU average is the opposite, with an employment rate 5.3 percentage points higher for IVET graduates); IVET graduates in the UK have an employment rate 21.9 percentage points higher than those with lower-level qualifications, against the EU average premium of 23.7 percentage points. All these employment figures relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated.

The percentage of early leavers from education and training (10.8%) is slightly lower than the corresponding EU average (11%) and above the Europe 2020 average target (10%). The percentage of 30 to 34 year-olds who have completed tertiary-level education (47.8%) is higher than the EU average (38.7%) and above the Europe 2020 average target (40%). The employment rate for 20 to 64 year-olds (76.9%) is higher than in the EU overall (70%), as is the employment rate of recent graduates (85.8%, compared with the EU average of 76.9%). The NEET rate (14.5%) is lower (15.8% for the EU). The unemployment rate for 20 to 34 year-olds (6.8%) is below the EU average (12.9%). The employment rate of 20 to 64 year-olds with a low level of educational attainment is higher in the UK (59.7%) than in the EU (52.6%), but has increased.

Score on VET indicators in the United Kingdom and in the EU, 2010, last available year and recent trend

Indicator label	2010		Last available year			Recent trend (per year)		
	UK	EU	Yr	UK	EU	Range	UK	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	42.7 b	48.0 b E1	'13-'14	▪ -1.1	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	56.4 b	34.0 b E2	'13-'14	▪ -1.2	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	40.4	69.2 E3	'13-'14	▪ -9.7	▪ -1.4
Employees participating in CVT courses (%)	31.0	38.0 e	'10	31.0	38.0 e			
Employees participating in on-the-job training (%)	30.0	20.0 e	'10	30.0	20.0 e			
Adults in lifelong learning (%)	20.1		'15	15.7	10.7 b	'13-'15	↘ -0.5	→ 0.0
Enterprises providing training (%)	80.0	66.0 e	'10	80.0	66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	43.0 b	42.7 b E1	'13-'14	▪ -1.2	▪ -1.0
Employees of small firms participating in CVT courses (%)	25.0	25.0 e	'10	25.0	25.0 e			
Young VET graduates in further education and training (%)			'15	33.2 b	33.0 b	'14-'15	▪ -1.9	▪ -0.3
Older adults in lifelong learning (%)	14.5	5.3	'15	12.1	6.9	'10-'15	↘ -0.3	↗ 0.4
Low-educated adults in lifelong learning (%)			'15	6.8 b C	4.3 b C	'13-'15	↘ -0.6	↘ -0.1
Unemployed adults in lifelong learning (%)	19.5		'15	14.2	9.5 b	'13-'15	↘ -1.3	↘ -0.4
Individuals who wanted to participate in training but did not (%)	B	9.5 e B	'11		9.5 e			
Job-related non-formal education and training (%)	81.6 B	80.2 e B	'11	81.6	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.46 b	0.56 b E4	'12-'13	▪ -0.07	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	6.1 b	6.4 b E5	'12-'13	▪ -0.5	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost	0.7	0.8 e	'10	0.7	0.8 e			
Average number of foreign languages learned in IVET			'14	z	1.0 b E6			
STEM graduates from upper secondary IVET (% of total)	A	A	'14	b	30.0 b E7			
Short-cycle VET graduates as % of first time tertiary education graduates			'14	b	9.3 E8			
Innovative enterprises with supportive training practices (%)		41.5 E9	'12		41.6 E9			
Employment rate for IVET graduates (20-34 year-olds)			'15	79.0 b	77.2 b	'14-'15	▪ 1.0	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	-3.4 b	5.3 b	'14-'15	▪ -0.3	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	21.9 b	23.7 b	'14-'15	▪ 2.7	▪ -0.1
Workers helped to improve their work by training (%)			'15	84.9	83.7			
Workers with skills matched to their duties (%)	52.6	55.2	'15	57.8	57.3	'10-'15	▪ 1.0	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)		13.9	'15	10.8 b C	11.0 C	'11-'15	↘ -1.0	↘ -0.6
30-34 year-olds with tertiary attainment (%)		33.8	'15	47.8 b C	38.7 C	'11-'15	↗ 0.5	↗ 1.0
NEET rate for 18-24 year-olds (%)	17.8	16.6	'15	14.5	15.8	'10-'15	↘ -0.7	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	9.9	13.1	'15	6.8	12.9	'10-'15	↘ -0.7	↗ 0.1
Employment rate of recent graduates (%)		77.4	'15	85.8 b C	76.9 C	'11-'15	↗ 1.1	→ 0.0
Adults with lower level of educational attainment (%)		27.3	'15	20.3 b C	23.5 C	'11-'15	↘ -0.8	↘ -0.8
Employment rate for 20-64 year-olds (%)		68.6	'15	76.9 b	70.0	'11-'15	↗ 0.9	↗ 0.4
Employment rate for 20-64 year-olds with lower level of educational attainment (%)		53.4	'15	59.7 b C	52.6 C	'11-'15	↗ 1.1	↘ -0.1
Medium/high-qualified employment in 2020 (% of total)			'16	84.6 D	82.8 D			

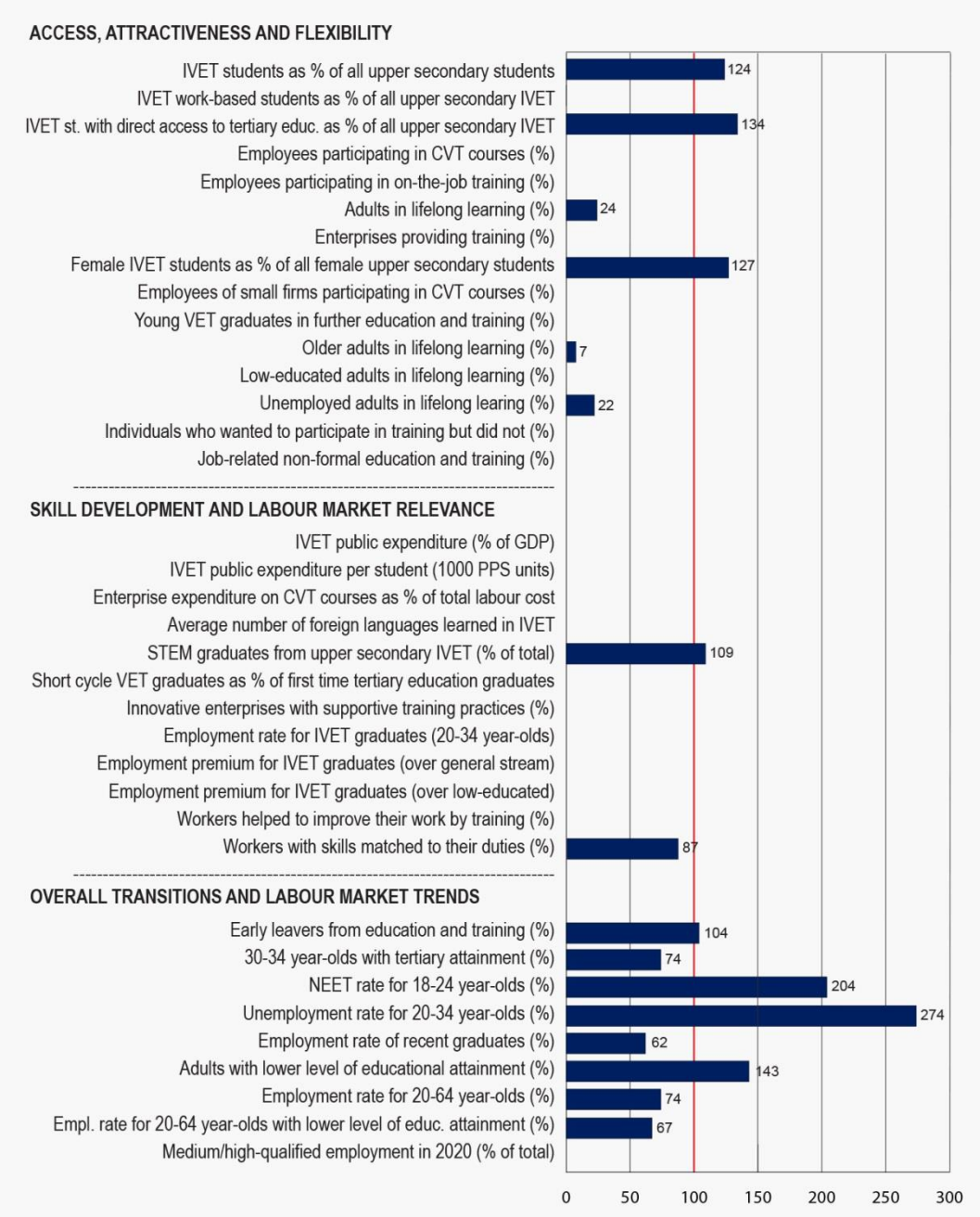
EU refers to EU-28, unless otherwise specified. Arrows ↗ or ↘ signal a positive or negative trend based on more than two data points and of magnitude 0.1 per year or more. Trends based on more than two data points but of smaller magnitude are indicated by →; trends based on two points only are marked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

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

Part II
Selected EFTA and candidate countries

29. The former Yugoslav Republic of Macedonia

VET indicators for the former Yugoslav Republic of Macedonia for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

The performance of the former Yugoslav Republic of Macedonia on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in the former Yugoslav Republic of Macedonia with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for the former Yugoslav Republic of Macedonia is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, the performance of the former Yugoslav Republic of Macedonia is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

Limited data are available for the former Yugoslav Republic of Macedonia.

In 2014, the percentage of students in upper secondary education participating in IVET was relatively high at 59.6% compared with the EU average of 48%; the same is true for the share of female students in upper secondary education undertaking IVET (54.3% versus 42.7% for the EU). Participation in upper secondary VET giving direct access to tertiary education is more usual with 93% of students against the EU 69.2%. The percentage of adults participating in lifelong learning (2.6%) is significantly lower than the corresponding EU average of 10.7% (data for 2015). Participation rates in lifelong learning among several subgroups, such as older people (0.4%), adults with low levels of educational attainment (0.2%), and the unemployed (2.1%), are below the EU average (though these rates should be interpreted with caution as they were based on data with small sample sizes).

Skill development and labour market relevance

In 2014, 32.7% of IVET upper secondary graduates obtained a qualification in STEM subjects compared with 30% in the EU. The share of workers confirming that their skills are matched to their duties is lower in 2015 (at 49.8%) than in 2010 (at 62%); it is also lower than the EU average of 57.3% in 2015.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated.

The share of early leavers from education and training has been decreasing at an estimated average rate of 0.7 percentage points per year since 2010 (which is slightly faster than the EU rate of 0.6 per year). It now stands at 11.4% in 2015, a little above the EU average of 11%. Greater differences are observable for other indicators. The percentage of 30 to 34 year-olds with tertiary-level education (28.6%) is lower than that of the EU (38.7%); with an estimated average increase of 2.1 percentage points per year (against 1per year in the EU), this gap has been narrowing. The share of adults with a low level of educational attainment is relatively high at 33.6% compared with 23.5% in the EU. The employment rate of 20 to 64 year-olds at 51.9% is much lower than the EU average of 70%. The employment rate of recent graduates is 48%, lower than the 76.9% in the EU as whole. The NEET rate (32.3%) is twice the EU average (15.8%). The unemployment rate for 20 to 34 year-olds has gone down in the former Yugoslav Republic of Macedonia. Nevertheless, in 2015 (35.5%) it is still more than two and a half times the EU average (12.9%).

Score on VET indicators in the former Yugoslav Republic of Macedonia and in the EU, 2010, last available year and recent trend

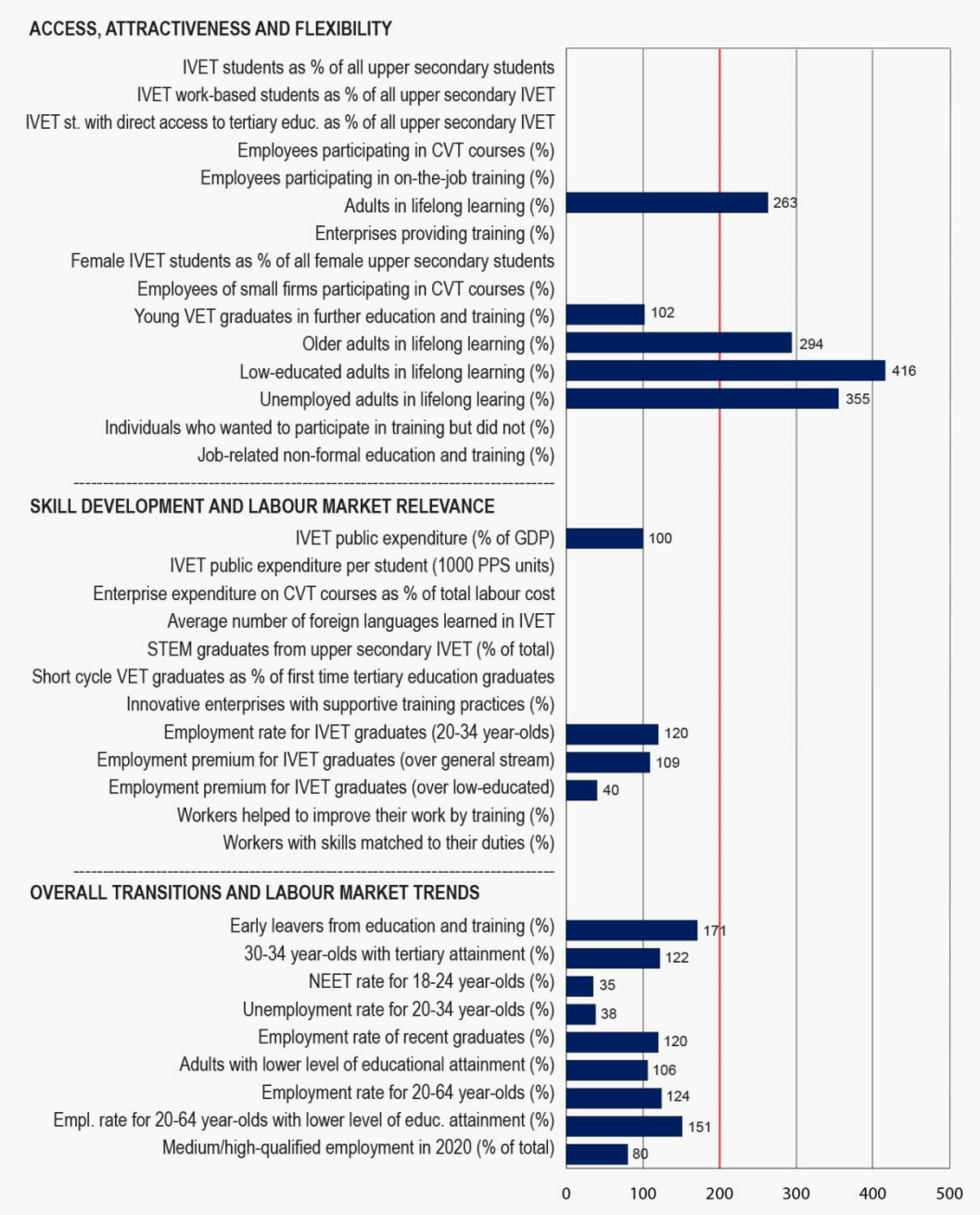
Indicator label	2010		Last available year			Recent trend (per year)			
	MK	EU	Yr	MK	EU	Range	MK		EU
Access, attractiveness and flexibility									
IVET students as % of all upper secondary students	A	A	'14	59.6 b	48.0 b E1	'13-'14	▪	-0.2	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	0.0 b	34.0 b E2	'13-'14	▪	0.0	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	93.0	69.2 E3	'13-'14	▪	0.7	▪ -1.4
Employees participating in CVT courses (%)		38.0 e	'10		38.0 e				
Employees participating in on-the-job training (%)		20.0 e	'10		20.0 e				
Adults in lifelong learning (%)	3.5		'15	2.6	10.7 b	'13-'15	↘	-0.5	→ 0.0
Enterprises providing training (%)		66.0 e	'10		66.0 e				
Female IVET students as % of all female upper secondary students	A	A	'14	54.3 b	42.7 b E1	'13-'14	▪	0.1	▪ -1.0
Employees of small firms participating in CVT courses (%)		25.0 e	'10		25.0 e				
Young VET graduates in further education and training (%)			'15		33.0 b				
Older adults in lifelong learning (%)	0.7	5.3	'15	0.4	6.9	'10-'15	↘	-0.1	↗ 0.4
Low-educated adults in lifelong learning (%)	0.2 u		'15	0.2 u C	4.3 b C	'13-'14	▪	-0.1	▪ 0.0
Unemployed adults in lifelong learning (%)	1.6		'15	2.1	9.5 b	'13-'15	↘	-0.7	↘ -0.4
Individuals who wanted to participate in training but did not (%)	B	9.5 e B	'11		9.5 e				
Job-related non-formal education and training (%)	B	80.2 e B	'11		80.2 e				
Skill development and labour market relevance									
IVET public expenditure (% of GDP)			'13	b	0.56 b E4				
IVET public expenditure per student (1000 PPS units)			'13	b	6.4 b E5				
Enterprise expenditure on CVT courses as % of total labour cost		0.8 e	'10		0.8 e				
Average number of foreign languages learned in IVET			'14	b	1.0 b E6				
STEM graduates from upper secondary IVET (% of total)	A	A	'14	32.7 b	30.0 b E7	'13-'14	▪	-0.1	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	0.0 z	9.3 E8	'13-'14	▪	0.0	▪ 0.4
Innovative enterprises with supportive training practices (%)		41.5 E9	'12		41.6 E9				
Employment rate for IVET graduates (20-34 year-olds)			'15		77.2 b				
Employment premium for IVET graduates (over general stream)			'15		5.3 b				
Employment premium for IVET graduates (over low-educated)			'15	b	23.7 b				
Workers helped to improve their work by training (%)			'15	94.5 u	83.7				
Workers with skills matched to their duties (%)	62.0	55.2	'15	49.8	57.3	'10-'15	▪	-2.4	▪ 0.4
Overall transitions and labour market trends									
Early leavers from education and training (%)	15.5	13.9	'15	11.4 C	11.0 C	'10-'15	↘	-0.7	↘ -0.6
30-34 year-olds with tertiary attainment (%)	17.1	33.8	'15	28.6 C	38.7 C	'10-'15	↗	2.1	↗ 1.0
NEET rate for 18-24 year-olds (%)	33.1	16.6	'15	32.3	15.8	'10-'15	↘	-0.2	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	39.7	13.1	'15	35.5	12.9	'10-'15	↘	-0.8	↗ 0.1
Employment rate of recent graduates (%)	47.9	77.4	'15	48.0 C	76.9 C	'10-'15	↘	-0.3	↘ -0.2
Adults with lower level of educational attainment (%)	37.5	27.3	'15	33.6 C	23.5 C	'10-'15	↘	-0.7	↘ -0.8
Employment rate for 20-64 year-olds (%)	48.1	68.6	'15	51.9	70.0	'10-'15	↗	0.9	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	32.7	53.4	'15	35.0 C	52.6 C	'10-'15	↗	0.7	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	D	82.8 D				

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

30. Iceland

VET indicators for Iceland for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Iceland's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Iceland with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Iceland is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Iceland's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

Data for Iceland are not available for several indicators on access, attractiveness and flexibility.

Available data show that a relatively high share of Iceland's adult population participates in lifelong learning (28.1% compared with 10.7% across the EU). This is also reflected in the participation rates of specific groups: older people (20.3% versus 6.9% in the EU), adults with low levels of education (17.9% versus 4.3% in the EU); and unemployed adults (33.7% versus 9.5% in the EU) are all more likely to participate in lifelong learning than their counterparts in the EU.

Skill development and labour market relevance

Public expenditure on VET as a percentage of GDP at 0.56% is equal to the corresponding EU average (data for 2013).

The employment rate for IVET graduates aged 20 to 34 is 92.4%, significantly above the EU average (77.2%) (data for 2015). IVET graduates in Iceland enjoy a positive premium on their employment rate compared to graduates from general education. Their employment rate is 5.8 percentage points higher than their counterparts from general education (and higher than the EU average of 5.3 percentage points) and 9.5 percentage points higher than those with lower-level qualifications (below the EU average premium of 23.7

percentage points). All these employment data relate to 2015 and exclude young people in further education and training.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated.

The rate of early leaving from education and training is 18.8%, much higher than the EU average of 11%. At 47.1% the country has a relatively high share of 30 to 34 year-olds who have completed tertiary-level education compared with the EU average of 38.7%. The proportion of adults aged 25 to 64 who have a low level of educational attainment is, however, higher (25%) than in the EU (23.5%).

The employment rate for 20 to 64 year-olds is 86.5%, which is high compared with the EU average of 70%. The same is true for the employment rate of recent graduates: 92% in Iceland compared with 76.9% in the EU. The NEET rate at 5.6% and the unemployment rate of 20 to 34 year-olds at 4.9% are both lower than the corresponding EU averages (15.8% and 12.9%, respectively). The employment rate of 20 to 64 year-olds with a low level of educational attainment is higher in Iceland (79.5%) than in the EU (52.6%), and has increased. A favourable trend is observable in all of the employment- and unemployment-related indicators in the period since 2010, in contrast to the general trend across the EU.

Score on VET indicators in Iceland and in the EU, 2010, last available year and recent trend

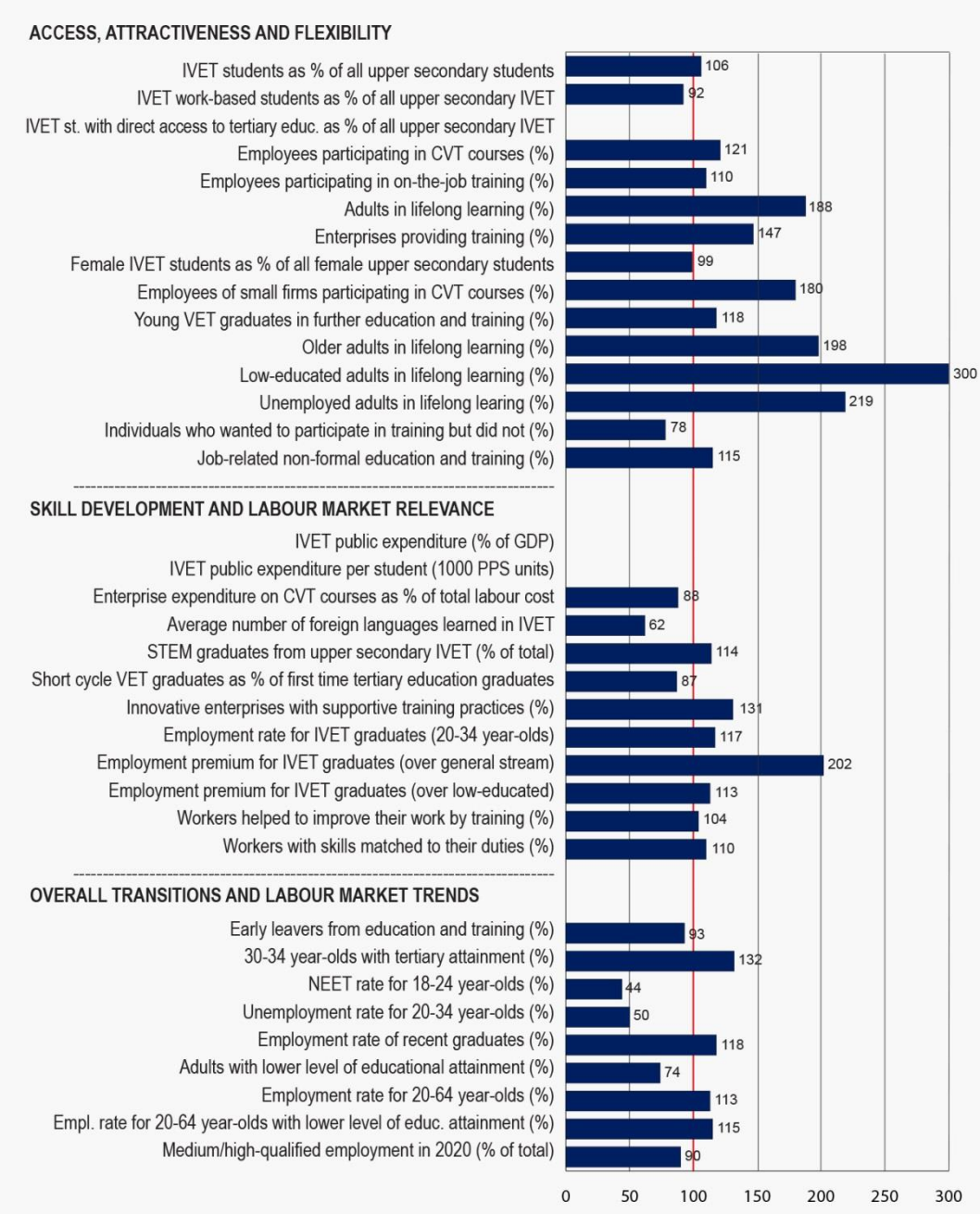
Indicator label	2010		Last available year			Recent trend (per year)		
	IS	EU	Yr	IS	EU	Range	IS	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	b	48.0 b E1			
IVET work-based students as % of all upper secondary IVET	A	A	'14	b	34.0 b E2			
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14		69.2 E3			
Employees participating in CVT courses (%)		38.0 e	'10		38.0 e			
Employees participating in on-the-job training (%)		20.0 e	'10		20.0 e			
Adults in lifelong learning (%)	25.4		'15	28.1	10.7 b	'13-'15	↗ 0.9	→ 0.0
Enterprises providing training (%)		66.0 e	'10		66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	b	42.7 b E1			
Employees of small firms participating in CVT courses (%)		25.0 e	'10		25.0 e			
Young VET graduates in further education and training (%)			'15	33.8 b	33.0 b	'14-'15	▪ 2.8	▪ -0.3
Older adults in lifelong learning (%)	18.7	5.3	'15	20.3	6.9	'10-'15	↗ 0.2	↗ 0.4
Low-educated adults in lifelong learning (%)	16.1		'15	17.9 C	4.3 b C	'13-'15	→ 0.0	↘ -0.1
Unemployed adults in lifelong learning (%)	27.3		'15	33.7	9.5 b	'13-'15	↗ 0.8	↘ -0.4
Individuals who wanted to participate in training but did not (%)	B	9.5 e B	'11		9.5 e			
Job-related non-formal education and training (%)	B	80.2 e B	'11		80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.56 b	0.56 b E4	'12-'13	▪ 0.00	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	b	6.4 b E5			
Enterprise expenditure on CVT courses as % of total labour cost		0.8 e	'10		0.8 e			
Average number of foreign languages learned in IVET			'14	b	1.0 b E6			
STEM graduates from upper secondary IVET (% of total)	A	A	'14	b	30.0 b E7			
Short-cycle VET graduates as % of first time tertiary education graduates			'14		9.3 E8			
Innovative enterprises with supportive training practices (%)		41.5 E9	'12		41.6 E9			
Employment rate for IVET graduates (20-34 year-olds)			'15	92.4 b	77.2 b	'14-'15	▪ 1.6	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	5.8 b	5.3 b	'14-'15	▪ -1.1	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	9.5 b	23.7 b	'14-'15	▪ -2.6	▪ -0.1
Workers helped to improve their work by training (%)			'15		83.7			
Workers with skills matched to their duties (%)		55.2	'15		57.3			
Overall transitions and labour market trends								
Early leavers from education and training (%)	22.6	13.9	'15	18.8 C	11.0 C	'10-'15	↘ -0.6	↘ -0.6
30-34 year-olds with tertiary attainment (%)	40.9	33.8	'15	47.1 C	38.7 C	'10-'15	↗ 1.1	↗ 1.0
NEET rate for 18-24 year-olds (%)	8.4	16.6	'15	5.6	15.8	'10-'15	↘ -0.5	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	11.3	13.1	'15	4.9	12.9	'10-'15	↘ -1.2	↗ 0.1
Employment rate of recent graduates (%)	83.8	77.4	'15	92.0 C	76.9 C	'10-'15	↗ 1.3	↘ -0.2
Adults with lower level of educational attainment (%)	33.5	27.3	'15	25.0 C	23.5 C	'10-'15	↘ -1.5	↘ -0.8
Employment rate for 20-64 year-olds (%)	80.4	68.6	'15	86.5	70.0	'10-'15	↗ 1.3	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	74.9	53.4	'15	79.5 C	52.6 C	'10-'15	↗ 1.1	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	66.6 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

31. Norway

VET indicators for Norway for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Norway's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Norway with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Norway is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Norway's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

The percentage of upper secondary students in IVET (50.7% in 2014) is slightly higher than the EU average (48%). The same indicator for female upper secondary students in IVET is slightly below the EU average (42.3% in Norway and 42.7% across the EU). Students in combined work- and school-based programmes accounted for 31.2% of students in upper secondary IVET, which is only slightly lower than the EU estimated average of 34%.

For several other indicators, the values for Norway are markedly higher than EU averages. The percentage of adults participating in lifelong learning (20.4%) is nearly twice the EU average (10.5%, data for 2013). Older adults, the unemployed, and those with relatively low qualifications are all much more likely to participate in lifelong learning than is the case across the EU (based on 2015 data). Data for 2011 show that non-formal education and training is nearly exclusively job-related (91.9% compared with 80.2% across the EU).

The share of individuals who want to participate in training but who do not do so is lower in Norway (7.4%) than in the EU as a whole (9.5% in 2011).

Skill development and labour market relevance

Data for Norway are not available for several indicators on skill development and labour market relevance. Available data show that Norway's figures are slightly higher than the EU average for some of these indicators. The share of STEM graduates from upper secondary VET (34.3%) is higher than the EU average

(30%) (2014 data). The share of workers who improved their work through training is 1.6 percentage points higher in Norway (86.8%) than across the EU as a whole (83.7%) (in 2010). Workers are more likely to report that their skills are matched to their duties in their jobs (63%) compared to the EU average (57.3% in 2015).

For other indicators in this group, Norway's figures are notably lower than the EU average. The average number of foreign languages learned by students in upper secondary IVET is 0.6 while the EU average is one. Data from 2010 show that companies are considerably more likely to provide training to support their innovation processes (at 54.4% it is 12.8 percentage points higher than the 41.6% EU average). The score for Norway on this indicator has slightly decreased between 2010 and 2012 by two percentage points.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated.

The percentage of early leavers from education and training (10.2%) is lower than the EU average (11%) and the share of 30 to 34 year-olds who have completed tertiary-level education (50.9% compared to the EU average of 38.7%) is higher. The same is true of the employment rate for 20 to 64 year-olds (79.1% for Norway, 70% for the EU).

The NEET rate for 18 to 24 year-olds (7%) is much lower than the EU rate (15.8%). It increased by 0.1 percentage points from 2010 to 2015, while the EU average fell by 0.1 percentage points. Similarly, the unemployment rate for 20 to 34 year-olds (6.4%) is lower than the EU average (12.9%). The employment rate of 20 to 64 year-olds with a low level of educational attainment is higher in Norway (60.5%) than in the EU (52.6%), but has decreased.

Score on VET indicators in Norway and in the EU, 2010, last available year and recent trend

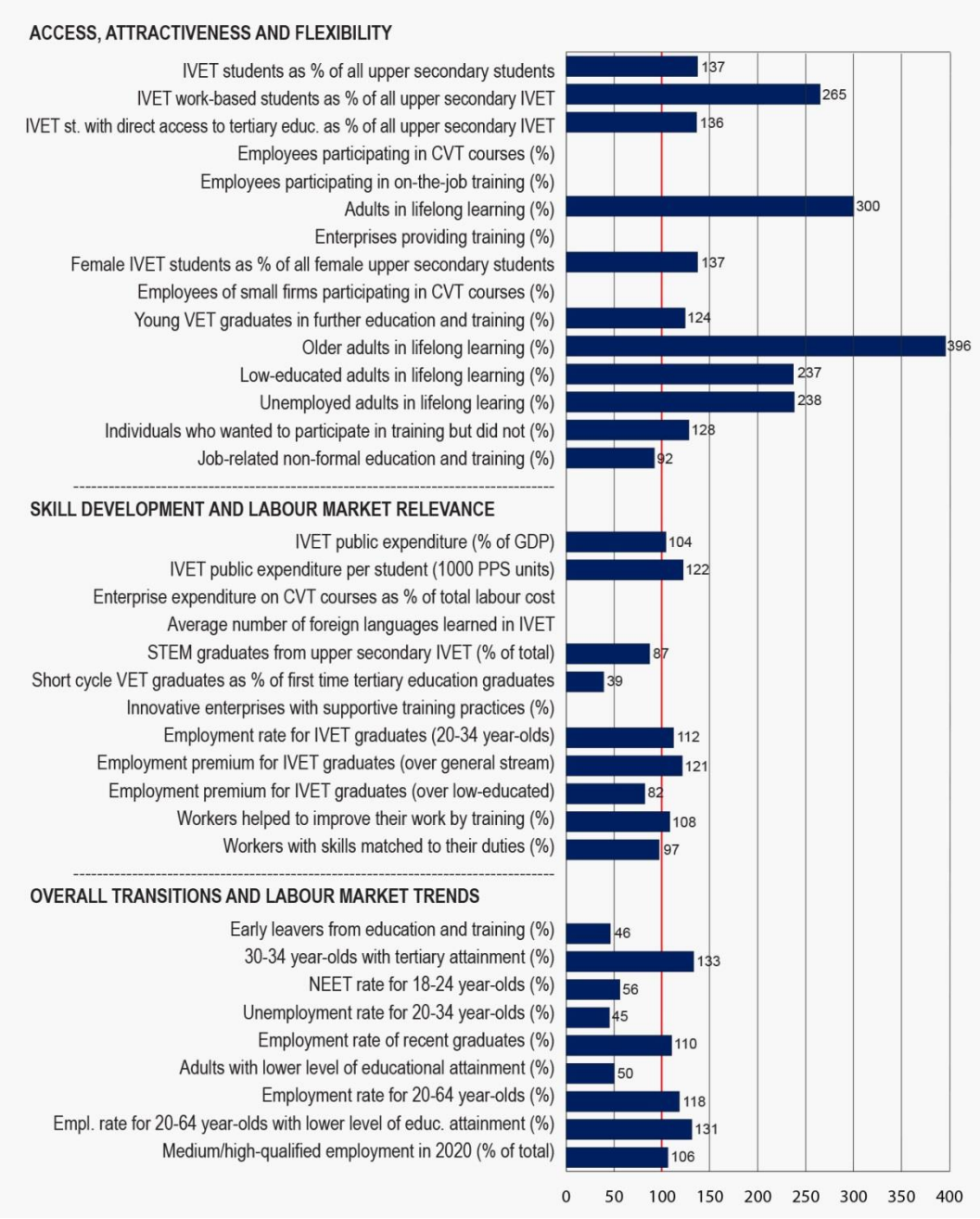
Indicator label	2010		Last available year			Recent trend (per year)			
	NO	EU	Yr	NO	EU	Range	NO		EU
Access, attractiveness and flexibility									
IVET students as % of all upper secondary students	A	A	'14	50.7 b	48.0 b E1	'13-'14	▪	-1.1	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	31.2 b	34.0 b E2	'13-'14	▪	1.6	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	0.0 z	69.2 E3	'13-'14	▪	0.0	▪ -1.4
Employees participating in CVT courses (%)	46.0	38.0 e	'10	46.0	38.0 e				
Employees participating in on-the-job training (%)	22.0	20.0 e	'10	22.0	20.0 e				
Adults in lifelong learning (%)	18.2		'15	20.1	10.7 b	'13-'15	↘	-0.4	→ 0.0
Enterprises providing training (%)	97.0	66.0 e	'10	97.0	66.0 e				
Female IVET students as % of all female upper secondary students	A	A	'14	42.3 b	42.7 b E1	'13-'14	▪	-1.8	▪ -1.0
Employees of small firms participating in CVT courses (%)	45.0	25.0 e	'10	45.0	25.0 e				
Young VET graduates in further education and training (%)			'15	39.0 b	33.0 b	'14-'15	▪	-30.4	▪ -0.3
Older adults in lifelong learning (%)	12.1	5.3	'15	13.7	6.9	'10-'15	↗	0.3	↗ 0.4
Low-educated adults in lifelong learning (%)	10.4		'15	12.9 C	4.3 b C	'13-'15	↗	0.2	↘ -0.1
Unemployed adults in lifelong learning (%)	18.9		'15	20.8	9.5 b	'13-'15	↘	-1.6	↘ -0.4
Individuals who wanted to participate in training but did not (%)	7.4 B	9.5 e B	'11	7.4	9.5 e				
Job-related non-formal education and training (%)	91.9 B	80.2 e B	'11	91.9	80.2 e				
Skill development and labour market relevance									
IVET public expenditure (% of GDP)			'13	b	0.56 b E4				
IVET public expenditure per student (1000 PPS units)			'13	b	6.4 b E5				
Enterprise expenditure on CVT courses as % of total labour cost	0.7	0.8 e	'10	0.7	0.8 e				
Average number of foreign languages learned in IVET			'14	0.6 b	1.0 b E6	'13-'14	▪	-0.3	▪ 0.0
STEM graduates from upper secondary IVET (% of total)	A	A	'14	34.3 b	30.0 b E7	'13-'14	▪	-0.3	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	8.1	9.3 E8	'13-'14	▪	-0.1	▪ 0.4
Innovative enterprises with supportive training practices (%)	58.5	41.5 E9	'12	54.4	41.6 E9	'10-'12	▪	-2.0	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	90.7 b	77.2 b	'14-'15	▪	12.0	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	10.7 b	5.3 b	'14-'15	▪	21.3	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	26.8 b	23.7 b	'14-'15	▪	13.8	▪ -0.1
Workers helped to improve their work by training (%)			'15	86.8	83.7				
Workers with skills matched to their duties (%)	61.6	55.2	'15	63.0	57.3	'10-'15	▪	0.3	▪ 0.4
Overall transitions and labour market trends									
Early leavers from education and training (%)	17.4	13.9	'15	10.2 C	11.0 C	'10-'15	↘	-1.5	↘ -0.6
30-34 year-olds with tertiary attainment (%)	47.3	33.8	'15	50.9 C	38.7 C	'10-'15	↗	0.8	↗ 1.0
NEET rate for 18-24 year-olds (%)	6.9	16.6	'15	7.0	15.8	'10-'15	↗	0.1	↘ -0.1
Unemployment rate for 20-34 year-olds (%)		13.1	'15	6.4 b	12.9	'13-'15	↗	0.6	↘ -1.1
Employment rate of recent graduates (%)		77.4	'15	90.9 C	76.9 C	'12-'15	↗	0.3	↗ 0.4
Adults with lower level of educational attainment (%)	19.1	27.3	'15	17.3 C	23.5 C	'10-'15	↘	-0.4	↘ -0.8
Employment rate for 20-64 year-olds (%)	79.6	68.6	'15	79.1	70.0	'10-'15	↘	-0.1	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	64.3	53.4	'15	60.5 C	52.6 C	'10-'15	↘	-0.9	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	74.5 D	82.8 D				

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

32. Switzerland

VET indicators for Switzerland for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Switzerland's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Switzerland with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Switzerland is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Switzerland's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

Switzerland has higher levels of participation in IVET and in adult education and training than the EU average.

The share of upper secondary students enrolled in IVET programmes is 65.7%, higher than the EU average of 48% (data for 2014). Combined work- and school-based programmes account for 90.2% of students in upper secondary IVET, much higher than the EU average of 34%. Participation in lifelong learning is 32.1%, almost three times as much as the EU-average of 10.7% (data for 2015). Older people in Switzerland are more likely to participate in lifelong learning (27.4% versus 6.9% in the EU), as are adults with low levels of educational attainment (10.2% versus 4.3% in the EU), and the unemployed (22.6% versus 9.5% in the EU).

Skill development and labour market relevance

At 7 800 purchasing power standard (PPS) units, public expenditure on IVET per student is higher than the EU average of 6 400 PPS units, which is also reflected in IVET public expenditure as a percentage of GDP (0.58% against 0.56% for the EU).

The employment rate for IVET graduates (aged 20 to 34) is 86.4%, higher than the EU average of 77.2% (data for 2015). IVET graduates in Switzerland enjoy a positive premium on their employment rate compared to graduates from general education. Their employment rate is 6.4 percentage points higher than

that of their counterparts from general education (above the corresponding EU average premium of 5.3 percentage points), and 19.5 percentage points higher than that of those with lower qualifications (slightly below the corresponding EU average premium of 23.7 percentage points). All these employment figures relate to 2015 and exclude young people in further education.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated.

Switzerland generally scores favourably compared with the EU average in this category. Both the rate of early leaving from education and training at 5.1% (11% in the EU) and the share of adults with low-level education at 11.8% (23.5% in the EU) are substantially below the corresponding EU averages. The percentage of 30 to 34 year-olds who have completed tertiary-level education is relatively high (51.4% versus 38.7% in the EU). The NEET rate at 8.8% (15.8% in the EU) and the unemployment rate of 20 to 34 year-olds at 5.8% (12.9% in the EU) are both lower than in the EU. The employment rate for 20 to 64 year-olds is 82.8%, higher than the EU-average of 70%, as is the employment rate of recent graduates at 84.9% compared with 76.9% in the EU. The employment rate of 20 to 64 year-olds with a low level of educational attainment is higher (69%) than in the EU (52.6%), but has decreased.

Score on VET indicators in Switzerland and in the EU, 2010, last available year and recent trend

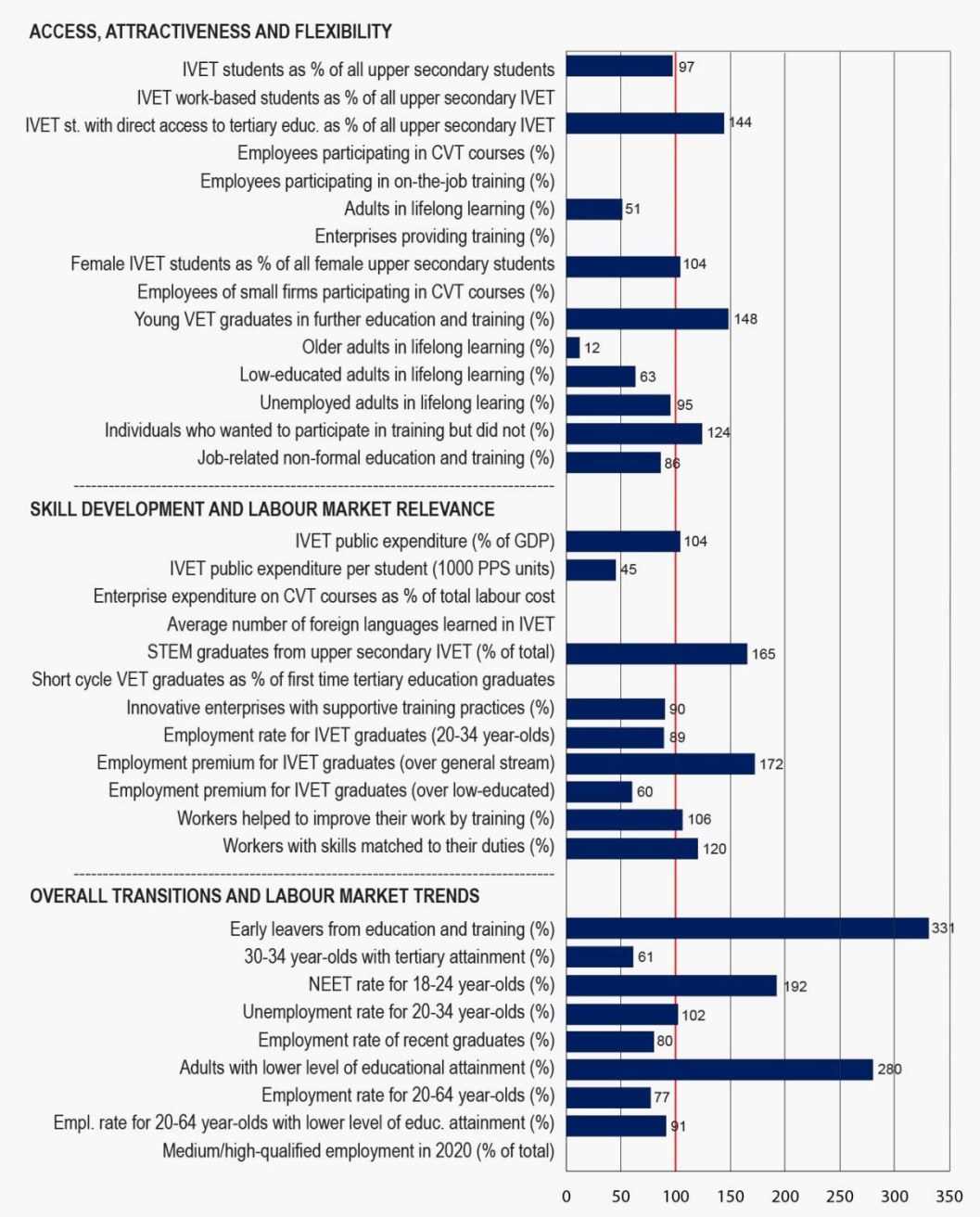
Indicator label	2010		Last available year			Recent trend (per year)		
	CH	EU	Yr	CH	EU	Range	CH	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	65.7 b	48.0 b E1	'13-'14	▪ -0.3	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	90.2 b	34.0 b E2	'13-'14	▪ 5.7	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	94.2	69.2 E3	'13-'14	▪ -0.2	▪ -1.4
Employees participating in CVT courses (%)		38.0 e	'10		38.0 e			
Employees participating in on-the-job training (%)		20.0 e	'10		20.0 e			
Adults in lifelong learning (%)	30.6		'15	32.1	10.7 b	'13-'15	↗ 0.9	→ 0.0
Enterprises providing training (%)		66.0 e	'10		66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	58.5 b	42.7 b E1	'13-'14	▪ -0.2	▪ -1.0
Employees of small firms participating in CVT courses (%)		25.0 e	'10		25.0 e			
Young VET graduates in further education and training (%)			'15	41.1 b	33.0 b	'14-'15	▪ 1.3	▪ -0.3
Older adults in lifelong learning (%)	25.9	5.3	'15	27.4	6.9	'10-'15	↗ 0.4	↗ 0.4
Low-educated adults in lifelong learning (%)	10.3		'15	10.2 C	4.3 b C	'13-'15	↗ 0.2	↘ -0.1
Unemployed adults in lifelong learning (%)	24.7		'15	22.6	9.5 b	'13-'15	↘ -2.0	↘ -0.4
Individuals who wanted to participate in training but did not (%)	12.2 B	9.5 e B	'11	12.2	9.5 e			
Job-related non-formal education and training (%)	73.6 B	80.2 e B	'11	73.6	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.58 b	0.56 b E4	'12-'13	▪ -0.01	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	7.8 b	6.4 b E5	'12-'13	▪ 0.0	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost		0.8 e	'10		0.8 e			
Average number of foreign languages learned in IVET			'14	b	1.0 b E6			
STEM graduates from upper secondary IVET (% of total)	A	A	'14	25.9 b	30.0 b E7	'13-'14	▪ -0.7	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14	3.6	9.3 E8	'13-'14	▪ -0.7	▪ 0.4
Innovative enterprises with supportive training practices (%)		41.5 E9	'12		41.6 E9			
Employment rate for IVET graduates (20-34 year-olds)			'15	86.4 b	77.2 b	'14-'15	▪ 0.5	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	6.4 b	5.3 b	'14-'15	▪ -4.7	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	19.5 b	23.7 b	'14-'15	▪ 2.6	▪ -0.1
Workers helped to improve their work by training (%)			'15	90.6	83.7			
Workers with skills matched to their duties (%)		55.2	'15	55.7	57.3			
Overall transitions and labour market trends								
Early leavers from education and training (%)	6.6	13.9	'15	5.1 C	11.0 C	'10-'15	↘ -0.3	↘ -0.6
30-34 year-olds with tertiary attainment (%)	44.2	33.8	'15	51.4 C	38.7 C	'10-'15	↗ 1.6	↗ 1.0
NEET rate for 18-24 year-olds (%)	7.9	16.6	'15	8.8	15.8	'10-'15	↗ 0.2	↘ -0.1
Unemployment rate for 20-34 year-olds (%)	6.4	13.1	'15	5.8	12.9	'10-'15	→ 0.0	↗ 0.1
Employment rate of recent graduates (%)	87.6	77.4	'15	84.9 C	76.9 C	'10-'15	↘ -0.3	↘ -0.2
Adults with lower level of educational attainment (%)	14.2	27.3	'15	11.8 C	23.5 C	'10-'15	↘ -0.6	↘ -0.8
Employment rate for 20-64 year-olds (%)	81.1	68.6	'15	82.8	70.0	'10-'15	↗ 0.3	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	69.6	53.4	'15	69.0 C	52.6 C	'10-'15	↘ -0.1	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	88.2 D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

33. Turkey

VET indicators for Turkey for the last available year
Index numbers (EU=100)



NB: The index numbers are derived from data summarised in the table but which have not been rounded. All data in the table have been rounded.

Turkey's performance on a range of indicators selected to monitor progress in VET and lifelong learning across the European Union (EU) is summarised below. The chart compares the situation in Turkey with that of the EU, based on the most recent data available (this differs by indicator). Data in the chart are presented as an index where the EU average equals 100. If the index for a selected indicator for Turkey is 100, then its performance equals the EU average. If the index is 90, its performance is 90% of (or 10% below) the EU average. If the index is 200, Turkey's performance is twice (or 200%) the EU average. For some indicators, such as early leavers from education and training, a country is performing better if its score is below that of the EU average.

Data on which the index is calculated are presented in the table, which also shows developments over time. A technical definition of each indicator is provided in the annex.

Key points

Access, attractiveness and flexibility

The share of Turkish upper secondary students enrolled in vocational programmes (46.4%) is slightly below the corresponding EU average (48%) (data for 2014).

Adult participation in lifelong learning at 5.5% is relatively low compared to the EU average of 10.7%. This difference is also reflected in the participation rates of various subgroups. The rates for older people (0.8%), low-educated adults (2.7%), and unemployed people (9%) enrolled in lifelong learning are all lower than the respective EU averages (6.9%, 4.3% and 9.5%). Young VET graduates are more likely to participate in further education (49%) than in the EU as a whole (33%).

As far as data are available, the percentage of low-educated adults in lifelong learning reflects a positive trend between 2010 and the most recent update.

Skill development and labour market relevance

Public expenditure on VET as a percentage of GDP at 0.58% is higher than the corresponding EU average of 0.56% (data for 2013). The share of STEM graduates from upper secondary VET (49.6%) is higher than the EU average (30%).

The employment rate for IVET graduates at ISCED 3-4 aged 20 to 34 years at 68.7% is relatively low compared to the EU average of 77.2%. IVET graduates

in Turkey enjoy a positive premium on their employment rate compared to graduates from general education. The employment rate of IVET graduates is 9.1 percentage points higher than that of their counterparts from general education (higher than the EU average of 5.3 percentage points) and 14.2 percentage points higher than that of graduates with lower-level qualifications (lower than the EU average of 23.7 percentage points). All these employment data relate to 2015 and exclude young people in further education.

Overall transitions and labour market trends

In this section all data refer to 2015 unless otherwise stated.

The share of early leavers from education and training is higher in Turkey (36.4%) than the EU average (11.9%), but this indicator has shown steady improvement over the recent years. At 23.6%, the share of 30 to 34 year-olds with tertiary-level education is also below the EU average of 38.7%. The NEET rate (30.4%) is almost twice as high as in the EU (15.8%). The unemployment rate for 20 to 34 year-olds between 2014 and 2015 has increased from 12.8% to 13.2% while decreasing in the EU from 14.1% to 12.9%, giving Turkey a rate above the EU average. Employment rates for 20 to 64 year-olds and recent graduates are lower than in the EU, but have increased. The share of adults with a low level of educational attainment is much higher (65.8%) than in the EU (23.5%). The employment rate of 20 to 64 year-olds with a low level of educational attainment is lower (47.8%) than in the EU (52.6%), but has increased.

Score on VET indicators in Turkey and in the EU, 2010, last available year and recent trend

Indicator label	2010		Last available year			Recent trend (per year)		
	TR	EU	Yr	TR	EU	Range	TR	EU
Access, attractiveness and flexibility								
IVET students as % of all upper secondary students	A	A	'14	46.4 b	48.0 b E1	'13-'14	▪ 0.9	▪ -0.9
IVET work-based students as % of all upper secondary IVET	A	A	'14	0.0 z	34.0 b E2	'13-'14	▪ 0.0	▪ 0.1
IVET students with direct access to tertiary education as % of all upper secondary IVET			'14	99.4	69.2 E3	'13-'14	▪ -0.2	▪ -1.4
Employees participating in CVT courses (%)		38.0 e	'10		38.0 e			
Employees participating in on-the-job training (%)		20.0 e	'10		20.0 e			
Adults in lifelong learning (%)			'15	5.5 b	10.7 b	'14-'15	▪ -0.2	▪ -0.1
Enterprises providing training (%)		66.0 e	'10		66.0 e			
Female IVET students as % of all female upper secondary students	A	A	'14	44.6 b	42.7 b E1	'13-'14	▪ 0.9	▪ -1.0
Employees of small firms participating in CVT courses (%)		25.0 e	'10		25.0 e			
Young VET graduates in further education and training (%)			'15	49.0 b	33.0 b	'14-'15	▪ 0.1	▪ -0.3
Older adults in lifelong learning (%)		5.3	'15	0.8 b	6.9	'14-'15	▪ 0.0	▪ 0.1
Low-educated adults in lifelong learning (%)	1.3		'15	2.7 C	4.3 b C	'13-'15	↗ 0.1	↘ -0.1
Unemployed adults in lifelong learning (%)			'15	9.0 b	9.5 b	'14-'15	▪ -0.2	▪ -0.3
Individuals who wanted to participate in training but did not (%)	11.8 B	9.5 e B	'11	11.8	9.5 e			
Job-related non-formal education and training (%)	68.8 B	80.2 e B	'11	68.8	80.2 e			
Skill development and labour market relevance								
IVET public expenditure (% of GDP)			'13	0.58 b	0.56 b E4	'12-'13	▪ 0.11	▪ -0.03
IVET public expenditure per student (1000 PPS units)			'13	2.9 b	6.4 b E5	'12-'13	▪ 0.4	▪ 0.0
Enterprise expenditure on CVT courses as % of total labour cost		0.8 e	'10		0.8 e			
Average number of foreign languages learned in IVET			'14	b	1.0 b E6			
STEM graduates from upper secondary IVET (% of total)	A	A	'14	49.6 b	30.0 b E7	'13-'14	▪ -1.9	▪ -0.4
Short-cycle VET graduates as % of first time tertiary education graduates			'14		9.3 E8			
Innovative enterprises with supportive training practices (%)	42.0	41.5 E9	'12	37.2	41.6 E9	'10-'12	▪ -2.4	▪ 0.0
Employment rate for IVET graduates (20-34 year-olds)			'15	68.7 b	77.2 b	'14-'15	▪ 1.4	▪ 0.3
Employment premium for IVET graduates (over general stream)			'15	9.1 b	5.3 b	'14-'15	▪ 1.7	▪ -1.0
Employment premium for IVET graduates (over low-educated)			'15	14.2 b	23.7 b	'14-'15	▪ 1.7	▪ -0.1
Workers helped to improve their work by training (%)			'15	88.9	83.7			
Workers with skills matched to their duties (%)	64.5	55.2	'15	68.9	57.3	'10-'15	▪ 0.9	▪ 0.4
Overall transitions and labour market trends								
Early leavers from education and training (%)	43.1	13.9	'15	36.4 C	11.0 C	'10-'15	↘ -1.3	↘ -0.6
30-34 year-olds with tertiary attainment (%)	15.5	33.8	'15	23.6 C	38.7 C	'10-'15	↗ 1.6	↗ 1.0
NEET rate for 18-24 year-olds (%)		16.6	'15	30.4 b	15.8	'14-'15	▪ -0.9	▪ -0.7
Unemployment rate for 20-34 year-olds (%)		13.1	'15	13.2 b	12.9	'14-'15	▪ 0.4	▪ -1.2
Employment rate of recent graduates (%)	59.8	77.4	'15	61.9 C	76.9 C	'10-'15	↗ 0.4	↘ -0.2
Adults with lower level of educational attainment (%)	71.6	27.3	'15	65.8 C	23.5 C	'10-'15	↘ -1.1	↘ -0.8
Employment rate for 20-64 year-olds (%)	50.0	68.6	'15	53.9	70.0	'10-'15	↗ 0.7	↗ 0.3
Employment rate for 20-64 year-olds with lower level of educational attainment (%)	45.1	53.4	'15	47.8 C	52.6 C	'10-'15	↗ 0.4	↘ -0.2
Medium/high-qualified employment in 2020 (% of total)			'16	D	82.8 D			

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.

(A) UOE back reconstruction of 2010 values based on ISCED 2011 not yet available. (B) AES 2011, used as proxy for 2010 baseline. (C) 2014 b flags in Eurostat online tables ignored on the basis of other relevant Eurostat metadata. (D) Forecast made in 2016. (E1) Based on 28 countries; partial information for NL. (E2) Based on 25 countries (missing: ES, PL, RO); partial information for NL. (E3) Based on 27 countries (missing: NL); partial information for EL, IT. (E4) Based on 19 countries (missing: BE, DK, IE, EL, FR, HR, IT, PT, SK). (E5) Based on 21 countries (missing: DK, IE, EL, FR, HR, IT, PT). (E6) Partial information for NL. (E7) Based on 25 countries (missing: IT, HR, UK). (E8) Based on 23 countries (missing: BE, CY, FR, IE, UK). (E9) Based on 22 countries (missing: DE, IE, EL, NL, SI, UK). (b) Break after 2010, therefore baseline data not included. (u) Eurostat: 'low reliability'. (z) Eurostat: 'not applicable'. (e) Eurostat: 'estimated'.

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Annex
Short description of indicators

No	Indicator	Short description and source	Year used for 'last available year' in charts and tables
1010	IVET students as % of all upper secondary students	Number of students in upper secondary IVET (ISCED 3) as a percentage of all upper secondary students (Cedefop calculations based on Eurostat, UOE) (b).	2014
1020	IVET work-based students as % of all upper secondary IVET	Number of students in combined work- and school- based upper secondary IVET (ISCED 3) as a percentage of all students in upper secondary IVET (Cedefop calculations based on Eurostat, UOE) (b).	2014
1025	IVET students with direct access to tertiary education as % of all upper secondary IVET	Number of students in upper secondary IVET (ISCED 3) enrolled in programmes giving direct access to tertiary education as a percentage of all students in upper secondary IVET (Cedefop calculations based on Eurostat, UOE) (b).	2014
1030	Employees participating in CVT courses (%)	Number of employees who have participated in employer-sponsored CVT courses during the reference calendar year (12 months) as a percentage of all employees in all enterprises surveyed (Eurostat, CVTS).	2010
1040	Employees participating in on-the-job training (%)	Number of employees who have participated in employer-sponsored on-the-job training during the reference calendar year (12 months) as a percentage of all employees in all enterprises surveyed (Eurostat, CVTS).	2010
1050	Adults in lifelong learning (%)	Percentage of the population aged 25-64 participating in education and training over the four weeks prior to the survey (Eurostat, LFS).	2015
1060	Enterprises providing training (%)	Percentage of enterprises providing any type of vocational training to their employees during the reference calendar year (12 months) (Eurostat, CVTS).	2010
1070	Female IVET students as % of all female upper secondary students	Number of female students in upper secondary IVET (ISCED 3) as a percentage of all female students in upper secondary education (Cedefop calculations based on Eurostat, UOE) (b).	2014
1075	Employees of small firms participating in CVT courses (%)	Number of employees of small enterprises who have participated in employer-sponsored CVT courses during the reference calendar year (12 months) as a percentage of all employees in all small enterprises surveyed (small enterprises covered by the survey are those from 10 to 49 employees) (Eurostat, CVTS).	2010
1080	Young VET graduates in further education and training (%)	Percentage of the population aged 18-24 with a medium-level vocational qualification (ISCED 3 or 4) as their highest educational attainment who participated in education and training over four weeks prior to the survey (Cedefop calculations based on Eurostat, LFS 'flat files') (a).	2015

No	Indicator	Short description and source	Year used for 'last available year' in charts and tables
1090	Older adults in lifelong learning (%)	Percentage of the population aged 50-64 who participated in education and training over the four weeks prior to the survey (Cedefop calculations based on Eurostat, LFS).	2015
1100	Low-educated adults in lifelong learning (%)	Percentage of the population aged 25-64 with lowest level of educational attainment (ISCED 0-2) who participated in education and training over the four weeks prior to the survey (Eurostat, LFS).	2015
1110	Unemployed adults in lifelong learning (%)	Percentage of the unemployed population aged 25-64 who participated in education and training over the four weeks prior to the survey.(Eurostat, LFS).	2015
1120	Individuals who wanted to participate in training but did not (%)	Percentage of individuals aged 25-64 wanting to participate in education or training but did not do so (Eurostat, AES) (c).	2011
1130	Job-related non-formal education and training (%)	Non-formal job-related learning activities as % of all non-formal learning activities. The indicator considers activities carried out in the 12 months prior to the survey by adults aged 25-64 (Eurostat, AES) (c).	2011
2010	IVET public expenditure (% of GDP)	Annual public expenditure on vocational education at upper secondary and post-secondary level (ISCED 3 and 4) as a percentage of GDP (Eurostat, UOE) (b).	2013
2025	IVET public expenditure per student (thousands of PPS units)	Annual public expenditure in vocational upper secondary and post-secondary non-tertiary education (ISCED 3 and 4) in thousands of purchasing parity standard units (PPS) per student enrolled. The number of students enrolled used for the calculations is adjusted to the coverage of expenditure data and expressed in full-time equivalent (FTE) (Eurostat, UOE) (b).	2013
2030	Enterprise expenditure on CVT courses as % of total labour cost	Total monetary expenditure (TME) by enterprises on CVT courses as % of total labour cost (all enterprises). TME indicator excludes personnel absence costs (Cedefop calculations based on Eurostat, CVTS).	2010
2040	Average number of foreign languages learned in IVET	Average number of foreign languages learned in vocational upper secondary education (ISCED 3) (Eurostat, UOE) (b).	2014
2050	STEM graduates from upper secondary IVET (% of total)	STEM (science, technology, engineering and mathematics) graduates from upper secondary vocational education (ISCED 3) as percentage of all upper secondary graduates across all vocational subjects (Cedefop calculations based on Eurostat, UOE) (b).	2014
2065	Short-cycle VET graduates as % of first time tertiary education graduates	Short-cycle tertiary VET graduates (ISCED 554) as a percentage of all graduates from first programmes at tertiary level of education (ISCED 544, 554; 645, 655, 665; 646, 656, 666; 746, 756, 766). Annual outflows (Cedefop calculations based on Eurostat, UOE) (b).	2014

No	Indicator	Short description and source	Year used for 'last available year' in charts and tables
2070	Innovative enterprises with supportive training practices (%)	Enterprises providing training to their staff to support technological innovation (as % of all enterprises reporting technological innovation in core innovation sectors) (Cedefop calculations based on Eurostat, CIS) (b).	2012
2080	Employment rate for IVET graduates (20-34 year-olds)	Employment rate of 20-34 year-olds not in (either formal or non-formal) education and training during the past four weeks and having a medium level qualification (ISCED 3 or 4) from the VET stream as their highest educational attainment (Eurostat, LFS).	2015
2090	Employment premium for IVET graduates (over general stream)	The premium is expressed as a difference (in percentage points) between two indicators: the employment rate for young VET graduates (indicator 2080) and the employment rate for young graduates (20-34 year-olds) from the general stream of education at the same ISCED levels. Calculations exclude those still in (formal or non-formal) education and training (Cedefop calculations based on Eurostat, LFS).	2015
2100	Employment premium for IVET graduates (over low-educated)	The premium is expressed as a difference (in percentage points) between two indicators: the employment rate for young VET graduates (indicator 2080) and the employment rate for young graduates (20-34 year-olds) who have at most lower secondary education (ISCED 0-2) as their highest level of educational attainment. Calculations exclude those still in (formal or non-formal) education and training (Cedefop calculations based on Eurostat, LFS).	2015
2110	Workers helped to improve their work by training (%)	Individuals who answered 'Strongly agree' or 'Tend to agree' to the statement 'The training has helped me improve the way I work' as a percentage of all surveyed workers who participated in training paid by their employer of by themselves (Eurofound, EWCS) (a).	2015
2120	Workers with skills matched to their duties (%)	Percentage of employed people surveyed who answered 'My present skills correspond well with my duties' to the question 'Which of the following alternatives would best describe your skills in your own work?' Other possible answers are 'I need further training to cope well with my duties', 'I have the skills to cope with more demanding duties' (Eurofound, EWCS) (a).	2015
3010	Early leavers from education and training (%)	Percentage of the population aged 18-24 who have completed, at most, lower secondary education and are not involved in further education or training (Eurostat, LFS).	2015
3020	30-34 year-olds with tertiary attainment (%)	Percentage of the population aged 30-34 who have successfully completed tertiary-level education. Tertiary education is defined as ISCED 5 and higher (Eurostat, LFS).	2015
3030	NEET rate for 18-24 year-olds (%)	Percentage of the population aged 18-24 not employed and not involved in further education or training (Eurostat, LFS).	2015

No	Indicator	Short description and source	Year used for 'last available year' in charts and tables
3040	Unemployment rate for 20-34 year-olds (%)	Unemployment rate (%) of 20-34 year-olds (Cedefop calculations based on Eurostat, LFS).	2015
3045	Employment rate of recent graduates (%)	Share of the employed population among those having all the following characteristics: a) are aged between 20 and 34; b) have an educational attainment at least at upper secondary level; c) graduated one, two and three years before the reference year; and d) are not currently enrolled in any further education or training activity (Eurostat, LFS).	2015
3050	Adults with lower level of educational attainment (%)	Percentage of the population aged 25-64 who have completed, at most, lower secondary education (ISCED 0-2) (Eurostat, LFS).	2015
3060	Employment rate for 20-64 year-olds (%)	Percentage of the population aged 20-64 in employment (Eurostat, LFS).	2015
3065	Employment rate for 20-64 year-olds with lower level of educational attainment (%)	Percentage of the population aged 20-64 and with lower level of educational attainment (ISCED 0-2) in employment (Eurostat, LFS).	2015
3070	Medium/high-qualified employment in 2020 (% of total)	Share of total employment accounted for by individuals with medium- (ISCED 3-4) or high-level (ISCED 5-and above) qualifications in 2020. Level of qualifications refers to the educational attainment of individuals who will be employed and not to the educational requirements of their jobs (Cedefop forecasts).	2016

(a) Data supplied at Cedefop's request.
(b) EU averages are weighted averages of available country data.
(c) 2011 data instead of 2010 are used to approximate the 2010 baseline.

Additional notes

AES	adult education survey
CIS	community innovation survey
CVET	continuing vocational education and training
CVT	continuing vocational training
CVTS	continuing vocational training survey
ESJS	European skills and jobs survey
EU-LFS	European Union labour force survey
EU-SILC	European Union statistics on income and living conditions
EWCS	European working conditions survey
ISCED	international standard classification of education.
IVET	initial vocational education and training
LFS	labour force survey
NEET	not in employment, education or training
PIAAC	programme for the international assessment of adult competencies
PPS	public expenditure per student
UOE	UNESCO (United Nations Educational, Scientific and Cultural Organisation), OECD (Organisation for Economic Cooperation and Development) and Eurostat (Statistical Office of the European Communities) joint data collection on education
VET	vocational education and training

All indicators and breakdowns in this report are subject to the specific methodology of the source from which they originate.

For indicators and related breakdowns derived from the LFS and the UOE data collection on education systems, the definitions used for levels, orientations and access to higher levels of formal education are those agreed in ISCED 2011. By using the first digit of the classification, ISCED 2011 distinguishes and defines the following levels of education

ISCED 2011 levels of education

Level 0	early childhood education
Level 1	primary education
Level 2	lower secondary education
Level 3	upper secondary education
Level 4	post-secondary non-tertiary education
Level 5	short-cycle tertiary education
Level 6	bachelor or equivalent level
Level 7	master or equivalent level
Level 8	doctoral or equivalent level

At levels 2 to 5, by using the second digit of the classification, ISCED 2011 distinguishes and defines general and vocational orientation:

ISCED 2011 orientations

Vocational orientation	designed for learners to acquire the knowledge, skills and competences specific to a particular occupation, trade, or class of occupations or trades. Such programmes may have work-based components (e.g. apprenticeships, dual-system education programmes). Successful completion of such programmes leads to labour market-relevant, vocational qualifications acknowledged as occupationally-oriented by the relevant national authorities and/or the labour market
General orientation	designed to develop learners' general knowledge, skills and competences, as well as literacy and numeracy skills, often to prepare participants for more advanced education programmes at the same or a higher ISCED level and to lay the foundation for lifelong learning. These programmes are typically school- or college-based. General education includes education programmes that are designed to prepare participants for entry into vocational education but do not prepare for employment in a particular occupation, trade or class of occupations or trades, nor lead directly to a labour market-relevant qualification

At higher levels, ISCED 2011 does not distinguish between general and vocational education. It considers but does not yet define a distinction between academic and professional education, which is, therefore, not used in this report. The third digit of ISCED 2011 is used in indicator 1025 as it allows distinguishing between upper secondary vocational programmes with or without direct access to tertiary programmes at levels 5, 6 or 7. The third digit is also used in indicator 2065 to account properly for level completion and first degrees (long and short first degrees) in calculating the indicator.

Work-based IVET: indicator 1020 considers enrolments in combined work- and school-based VET as opposed to mainly school-based VET (UOE, 2016). A programme is classified as 'combined work- and school-based' if 25% or more of the curriculum is presented outside the school environment. Programmes where the work-based component accounts for 90% or more of the curriculum are excluded from the UOE data collection. Under these conditions, apprenticeships are included in work-based IVET.

CVTS indicators on employer-sponsored CVET refer to education and training paid for (at least partly) by the employer. Partial payment includes the use of paid working time for training.

Lifelong learning indicators from the LFS refer to adult participation in formal and non-formal education and training in the four weeks prior to the survey; the non-formal component includes participation in courses, seminars, conferences or private lessons or instructions outside the regular education system.

In some cases, such as indicators from sample surveys (LFS, for example), ISCED levels are aggregated to compute indicators. Used aggregations are: ISCED 0-2 (low educational attainment); ISCED 3-4 (medium educational attainment); ISCED 5-8 (tertiary educational attainment). Individuals whose highest level of education derives from completion of ISCED 3 programmes of duration of less than two years are considered as having low educational attainment. Contrary to ISCED 97, ISCED 2011 no longer provides for the category of prevocational education and no aggregation is needed to derive an exhaustive and mutually exclusive distinction between general and vocational education.

On the way to 2020: data for vocational education and training policies

Country statistical overviews – 2016 update

European policy-making in vocational education and training (VET) needs to be supported by sound evidence. In this report, Cedefop has selected 36 indicators to quantify key aspects of VET and lifelong learning. The selection is based on their policy relevance and their importance in achieving the Europe 2020 objectives.

The report accounts for challenges and opportunities arising from recent developments in the international statistical infrastructure and includes updated comparable data from the European statistical system.

This publication should be regarded as a tool to help policy-makers better understand and assess VET developments in each country. While these indicators do not claim to assess national systems or policies, they could be used to reflect on countries' situations and progress towards the strategic objectives set for Europe.

The indicators present statistical overviews from all European Union Member States, along with the former Yugoslav Republic of Macedonia, Iceland, Norway, Switzerland and Turkey.

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European Centre for the Development of Vocational Training

Europe 123, 570 01 Thessaloniki (Pylea), GREECE
Postal address: PO Box 22427, 551 02 Thessaloniki, GREECE
Tel. +30 2310490111, Fax +30 2310490020
E-mail: info@cedefop.europa.eu
www.cedefop.europa.eu

Publications Office