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

Indicator overviews

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The **European Centre for the Development of Vocational Training** (Cedefop) is the European Union's reference centre for vocational education and training. We provide information on and analyses of vocational education and training systems, policies, research and practice.
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Foreword

In many ways statistics are like photographs: they provide a snapshot of a particular point in time. Statistical data over time show trends, just as photographs can provide a record of people, places and events changing over time.

This report provides a statistical overview of vocational education and training (VET) and lifelong learning in European countries. Data are presented in the form of statistical snapshots, one for each of the 31 selected indicators. To the extent allowed by data availability, data are presented for the 27 European Union (EU) Member States and for Croatia, the former Yugoslav Republic of Macedonia, Iceland, Norway, Switzerland and Turkey.

The report complements a recent Cedefop publication (*On the way to 2020: Data for vocational education and training policies. Country statistical overviews* (Cedefop, 2013)) which has made use of the same data but has organised them in a different way. While the previous report offered a set of country snapshots (one per country), this report offers a set of indicator snapshots (one per indicator).

Data are based on international statistics, enabling comparisons of countries and statistical averages for the European Union. The overviews comprise 31 selected indicators that separately and together provide meaningful information about the position of each country in relation to the priorities of European VET and lifelong learning policy, and in comparison to EU averages. Indicators are supplemented by a short commentary highlighting particularly interesting observations for each indicator.

Statistical data are also like lamp posts. They shine light on a limited space but leave large areas in the dark. That is why they need to be interpreted carefully and supplemented by analyses relying also on qualitative information.

This publication, in consequence, aims to be a valuable tool which can be used in various ways and adds user-friendly evidence for many purposes. It should help policy-makers and researchers and ease access to the information available.

This report results from continuing efforts to review and improve indicators as new and better data become available. We hope that readers will find the data useful and that the information will help to support the policy debate, contribute to the understanding and assessment of the situation in Europe, and stimulate further analysis

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Acting 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 defines a concise set of 31 core statistical indicators quantifying key aspects of VET and lifelong learning to help describe, monitor and compare European countries and their progress. The indicators are selected based on their policy relevance as well as on their importance to achieving the objectives of the Europe 2020 strategy.

Taking 2010 as the baseline year to coincide with the launch of the strategy and the revised European VET policy framework, the 31 core indicators are published as 'indicator overviews'. The format is intended to be easy to use and data are supplemented with a commentary highlighting interesting observations for each indicator. To the extent allowed by data availability, each indicator overview presents data for the 27 European Union (EU) Member States and Croatia, the former Yugoslav Republic of Macedonia, Iceland, Norway, Switzerland and Turkey.

The core indicators do not claim to assess national systems or policies. Statistics have their limitations. They can oversimplify complex issues; to be properly understood 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 breakdown and thorough analysis.

Selecting and grouping core indicators

When developing the core indicators, the key questions were what they should show and which data sources to use. European VET policy priorities and benchmarks are wide ranging (see Box) and context issues that influence VET, such as demographic trends, general education and labour market and socioeconomic situations are also important.

Taking these priorities and context issues, and using the European and international statistical infrastructure ([1]) more than 140 ideal qualitative and quantitative indicators were identified. Ideal indicators include those that would be

([1]) The European and international statistical infrastructure is the combined 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.

desirable to improve monitoring of VET and lifelong learning, but for which data are not available.

From these 140, 31 core indicators were selected using three factors. First, the indicators should be quantitative, for which good quality data are available. Qualitative progress, for example legislative or other policy changes introduced by Member States to reform VET are important, but are best covered in policy reports rather than a restricted set of indicators. Second, the indicators should focus on VET and its contribution to European VET policy and Europe 2020 employment, education and training benchmarks. Third, the indicators should be complementary. The definition of each and its data source are in the annex.

The core indicators do not have a one-to-one relationship with the 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, while, for other themes, data are unavailable or poor quality.

Rather than each indicator being linked directly to a theme, to ensure their coherence and relevance to European VET policy as a whole, the core indicators have been grouped under the three broad headings discussed below.

Access, attractiveness and flexibility

Core indicators in this group cover participation in initial and continuing VET by various target groups. Participation has been chosen as the best proxy for the attractiveness of VET as a learning option. Unfortunately, current data do not capture those who wish to participate in VET but are unable to, or the esteem associated with participating in initial VET. Indicators for initial VET consider school- and work-based learning ([2]). The core indicators for continuing VET cover employer-provided training, both courses and on-the-job training ([3]). Participation in on-the-job training provides some insight into the flexibility of employers' training arrangements.

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

([2]) The primary source of these data is the annual UOE data collection. Alternative sources, the continuing vocational training survey (CVTS) and the labour cost survey, which also provide figures on apprenticeships, were considered, but these data are less frequent. CVTS3 data on initial VET were not regarded as of sufficient quality for a core indicator.

([3]) Although these are not the only forms of employer-provided training, they are the most important according to participation levels as derived from the third continuing vocational training survey which is the main data source.

Box 1 **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 vocational education and training. 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 2010-20, which included 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 EU averages to reach by 2020. They are not national targets. Member States consider how and to what extent they can contribute to the collective achievement of the European benchmarks. Based on this, 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 20-64 year-olds;
- early leavers from education and training should be less than 10%;
- at least 40% of 30-34 year-olds should have tertiary level education attainment.

Quantitative benchmarks in Education and training 2020 (Council of the European Union, 2009) consider and complement the quantitative targets set in Europe 2020 for education and training. They are:

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

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

- employed graduates (20-34 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 should have a period of related study or training (including work placements) abroad ([g]);
- at least 6% of 18-34 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; European Commission; 2010), which set out 22 short-term deliverables, or intermediate objectives, contributing to European VET policy strategic goals for 2020.

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 skills 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;
- language learning ([i]);
- improving VET quality;
- encouraging investment in VET;
- technological innovation;
- entrepreneurship.

([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 25-64 participating in education and training during the four weeks prior to the survey (Eurostat/labour force survey).

([d]) Percentage of those aged 30-34 who successfully completed tertiary level education at ISCED 5-6 (Eurostat/Unesco/OECD/Eurostat database).

([e]) The share of the population aged 18-24 with, at most, lower secondary education or less and no longer in education or training (Eurostat/labour force survey).

([f]) Measured as the share of the employed population aged 20-34 who graduated up to three years before and who are not currently enrolled in any further education or training activity.

([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 to develop a language learning benchmark continues (Council of the Ministers responsible for higher education; 2009).

Participation by adults in lifelong learning is also 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 education attainment to indicate how inclusive the VET system is and to reflect policy priorities for adult learners (aged 25-64), the unemployed, people with low levels of education, and older workers (aged 50-64) ([4]).

Skill developments and labour market relevance

This group includes core indicators on VET expenditure because the level of expenditure can be related, as an input, to the importance that governments, employers and individuals attribute to VET as a means for developing skills. Investment in VET, although important, is difficult to measure accurately. Available data do not give total public, private and individual expenditure; 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 public expenditure on initial VET ([5]) and enterprise expenditure on continuing VET

([4]) All indicators on lifelong learning come from the European labour force survey.

([5]) Data come from the UOE data collection on education systems.

(training courses) ([6]) are the best available. Specific data on individual investment are lacking, especially for initial VET. 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 education attainment. The skills covered by the core indicators are all of policy interest and relevance, namely studies of science, technology, engineering and maths subjects, language learning and technological innovation ([7]). For education attainment, the core indicators aim to reflect VET's contribution to the Europe 2020 benchmark of the proportion of 30-34 year-olds having tertiary education. This is done using ISCED 5b qualifications (i.e. practical, technical, professional qualifications) as a proxy for VET at tertiary education level.

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

The core indicators for the benefit of IVET consider employment rates of 20-34 year-old IVET graduates who are no longer in formal education ([8]).Employment rates are preferred to 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 and the Europe 2020 employment benchmarks. Age group selection and exclusion of those in further education are also in line with the employability benchmark. Data for young people better suit the information needs related to the policy priority on transitions from school, work-based initial VET or other learning to work. The focus on young may also give earlier indications of impact of initial VET reform.

Core indicators compare employment rates of initial VET graduates aged 20-34 with two groups of the same age; the employment rate of general education graduates, and the employment rate of those with low levels of education. All the indicators exclude individuals in further formal education. The aim is to examine any added value of studying initial VET compared to general education or leaving school early.

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 that on training impact on career prospects as other

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

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

([8]) Data come from the 2009 ad hoc module of the EU labour force survey, which for the first time in the EU context distinguished the orientation (general or vocational) of the highest level of education attained.

factors can affect them more than VET. The final indicator in this group looks at whether or not employees believe that they have the right skills for their job, to derive some idea about skill mismatch among workers ([9]).

Overall transitions and employment 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.

Core indicators here include other Europe 2020 benchmarks not covered elsewhere, such as early leavers from education and training, tertiary level education for 30-34 year-olds, and adult employment rates. These are complemented by indicators on other policy priorities such as the unemployment rate for the young, the proportion of 18-24 year-olds not in education training or employment, and the proportion of the adult population with low education levels ([10]). A particular version of the youth unemployment rate has been adopted: it is generally calculated and presented for those aged 15-24, but here focuses on 20-34 year-olds. This is to done partly to extend the age group, and so accommodating later entrance to the labour market due to increasingly longer stays in initial education and training. It also excludes the age group 15-19, where active participation in the labour market is relatively small (since many individuals are in education and training). The final indicator in this group is the 2020 projected employment of individuals with medium and high level qualifications (as % of total employment) ([11]).

Improving and complementing core indicators

It is important that work continues to improve the core indicators, either using existing or by developing new sources of data.

While acknowledging the importance of tertiary level initial VET, the core indicators on IVET particularly focus on medium-level education (upper secondary and or post-secondary non-tertiary). The 2011 version of the international standard classification of education (ISCED 2011), which provides for a distinction between professional and academic tertiary education, could offer the occasion for establishing a conceptual, methodological and operational basis for a better identification of VET at tertiary education level.

ISCED 2011 has also given prominence to orientation in medium-level education. Appropriate implementation of ISCED 2011 in household surveys,

([9]) Data are selected from the 2010 European working condition survey.

([10]) All these indicators come from the European labour force survey.

([11]) Data from Cedefop skills forecast.

particularly in the EU labour force survey (LFS), will offer opportunities to distinguish initial VET background and make visible the link between initial VET and other aspects of interest, such as employment, lifelong learning and careers, as well as VET's contribution to medium-level education attainment. The 2009 ad hoc module of the LFS proved that this can be reliably and usefully done.

In the absence of panel data, which could track 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 individuals' satisfaction with learning activities and the use of acquired skills, which are important dimensions of VET quality, are also included in the AES questionnaire.

Absence of longitudinal and more objective data is a limitation. Better exploitation of the survey on income and living conditions and/or of the EU LFS waves approach could be a way forward, especially for continuing VET. The possibilities for initial VET are more limited as study orientation (for example general or vocational) is not yet fully distinguished. Even if initial orientation is introduced into surveys, it will take time for longitudinal data to become available.

To identify better VET's contribution to lifelong learning there is a need to single it out from other types of learning. Developments could include looking at employer-provided training and or job-related learning, ideally in the LFS, or more pragmatically speaking, in AES.

Improvements could be made to data on VET's contribution to reducing early leaving from education and training. These may include measuring how many young people stay in education because of VET, as well as early leavers who drop out of VET streams. Further, data could usefully distinguish between early leavers who never started upper-secondary education and those who started but dropped out; these data are not collected in the EU LFS which is the source for the indicator on early leaving. The AES started collecting such data, but improvements are needed, given current limitations: sample sizes, optional status of relevant variables, limited or optional coverage of 18-24 year-olds, and degree of alignment with the LFS variables for 18-24 year-olds not in education or training.

Core indicators can be supplemented by other readily available data. For example, the core indicator gives the total forecast for the share of total employment accounted for by individuals with medium- or high-level qualifications, but there are data providing breakdowns by sector and occupation. Other examples of supplementary information include participation in tertiary level VET, outflows of graduates from VET and annual expenditure on education institutions.

Updates of the data and core indicators are planned for the future.

Indicator statistical overviews

All indicator overviews have the same structure. First the policy relevance of the indicator is briefly outlined. Then a short definition and the source for the indicator are presented. More technical definitions of each indicator are in the annex.

In an indicator overview, the performances of all countries on a given indicator are presented together.

In principle, the countries can be considered as being a comparison point for each other. A central reference value for information purposes is the EU-27 average. Where EU-27 averages were not directly available from the Eurostat online database, they have been estimated as weighted averages of available country data (see annex): countries for which data were not available in all years have been excluded. Two other types of reference are used. For certain indicators, targets have been defined at EU and/or national levels ([12]); for others it is possible to compare the scores for VET indicators with the general stream at a comparable level.

This is done to contextualise country data and to offer an additional 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 the present stage. Similarly, there is no intention to assess the convergence of VET and general education with respect to those indicators for which they are both considered.

Data are presented in the same format in each indicator overview, a chart comparing the situation of all countries on that indicator. Bar charts are presented with two columns per country representing 2006 and 2010 data (or three columns if 2011 data are available). This makes it possible not only to compare the performance of the countries at a given point, but also to observe change over time. In the charts, countries are clustered in two different groups, EU and non-EU Member States; within each group countries are sorted in descending order based on 2010 values of the indicator considered.

Tables are included to complement the information in the charts. The exact figures for the years selected are presented in the table. The tables contain flags giving more information about the status and reliability of the different statistics. If data are unreliable for a certain year, the scores are not included in the charts, but presented with a flag in the table. For some indicators, the tables include information on the scores for the general upper secondary stream for comparison purposes. National targets are also included in some cases. In the tables,

([12]) National targets have been set for benchmark indicators considered in the Europe 2020 strategy. They include the indicator on employment as well as those on education and training (early leaving and tertiary level attainment). These two are also considered in the Education and training 2020 framework.

countries are clustered into EU and non-EU Member States; within each group countries are sorted based on their protocol order.

Short comments are included under the heading 'key points' in the indicator overviews to aid interpretation of the data by highlighting interesting observations, such as EU levels and progresses, countries with highest and lowest levels, countries with noticeable trends on an indicator, the extent to which Europe 2020 policy benchmarks are attained, and so on.

The overviews are derived from a specifically constructed database which, in principle, covers EU Member States and selected EFTA and candidate countries ([13]). However, depending on the specific indicators, data for some countries may be missing due to unavailability or comparability reasons.

The baseline for the indicator overviews is 2010. To account for changes over time, data from the baseline year of 2010 are compared with data from 2006 ([14]). Where 2011 country and EU data are available they are provided. Not all data or indicators are updated annually. Some of the data are provided from periodic surveys, such as indicators from the LFS ad hoc module 2009. In some cases comparisons are not possible. Data problems, such as breaks in the data series or limitations in the comparability between countries, are accounted for in the overviews. Flags, footnotes and short comments are used for this purpose. In the case of a break in a data series this is signalled by the flags *b*. Trends are only presented for periods over which there is no substantial break in the data series. In practice this means that if the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, data for 2006 are not presented. The flag 'unreliable' (*u*) usually refers to sample size issues.

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

([14]) This time frame was selected to optimise the trade-off between duration of time series and quality of data. A longer time frame would have resulted in a bigger number of issues such as break in series and missing country data.

Part I

Access, attractiveness and flexibility

1. How many students participate in IVET?

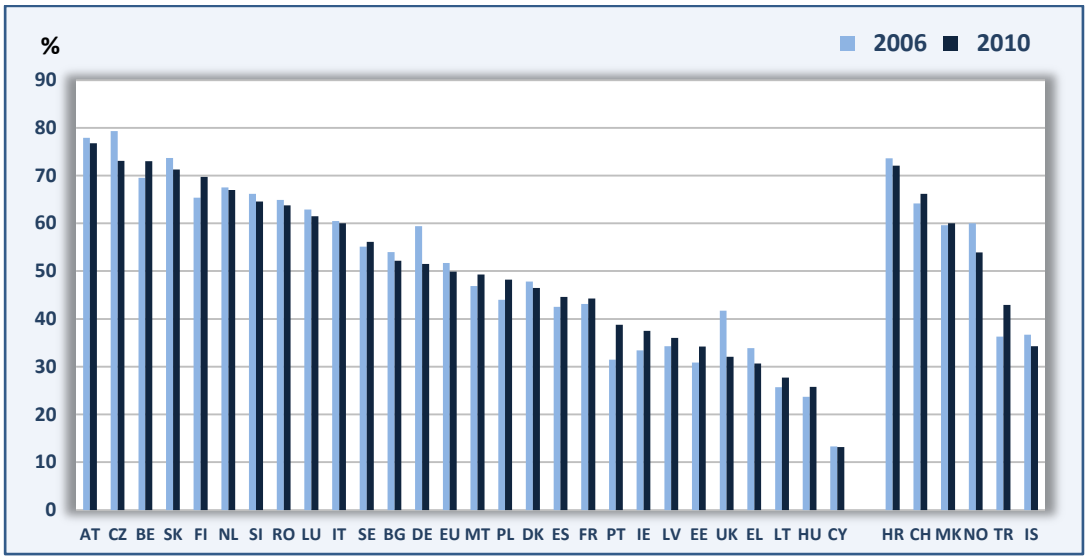
Indicator 1010: IVET students as a percentage of all upper secondary students

Cedefop skills forecasts confirm that upper secondary qualifications will remain in high demand in the labour market and a key aim of IVET policy in the EU is that it should be an attractive option. Participation in IVET contributes not only to raising education beyond lower secondary levels, but also to developing skills and professionals geared towards specific occupations in the labour market.

Participation levels in IVET provide a proxy measure of its attractiveness, even though they may not always reflect the parity of esteem with general education or the extent to which students did not enrol in IVET even though they wanted to. The indicator below refers to participation in IVET at upper secondary education level.

The indicator is defined as the percentage of all upper secondary students (ISCED 3) enrolled in the vocational stream of education (IVET).

Figure 1 **IVET-students as % of all upper secondary students, 2006 and 2010**



Source: Eurostat, UOE data collection on education systems.

Key points

In 2010, about half (49.9%) of all upper secondary students were enrolled in vocational programmes: this is slightly lower than in 2006 (51.7%). In 2010, Austria had the highest share of upper secondary students undertaking vocational programmes at 76.8%. Belgium, the Czech Republic and Slovakia recorded more than 70% of upper secondary students in the VET stream. Cyprus (13.2%), Hungary (25.8%) and Lithuania (25.8%) had the lowest shares (all below 30% in 2010).

Data for non-EU countries indicate that VET programmes account for sizeable shares of upper secondary enrolments. In 2010, the percentages ranged from 34.3% in Iceland to 72.1% in Croatia.

On average, in the EU, the share of IVET students dropped slightly between 2006 and 2010 (down 1.8 percentage points). The biggest percentage point decrease was in the UK where it fell by 9.6 percentage points. In Germany, the share decreased by 7.9 percentage points between 2006 and 2010 and in the Czech Republic it fell by 6.2 percentage points but in both countries the share was still above 50% in 2010.

Table 1 **IVET students as % of all upper secondary students, 2006-10**

Country code	Country	2006	Flag	2010	Flag	Change 2006-10	Break in series 2006-10
EU-27	European Union (27)	51.7		49.9		-1.8	
BE	Belgium	69.5		73.0		3.5	
BG	Bulgaria	54.0		52.2		-1.8	
CZ	Czech Republic	79.3		73.1		-6.2	
DK	Denmark	47.8		46.5		-1.3	
DE	Germany	59.4		51.5		-7.9	
EE	Estonia	30.9		34.2		3.3	
IE	Ireland	33.4		37.5		4.1	
EL	Greece	33.9		30.7		-3.2	
ES	Spain	42.5		44.6		2.1	
FR	France	43.1		44.3		1.2	
IT	Italy	60.5		60.0		-0.5	
CY	Cyprus	13.3		13.2		-0.1	
LV	Latvia	34.3		36.0		1.7	
LT	Lithuania	25.7		27.7		2.0	
LU	Luxembourg	62.9		61.5		-1.4	
HU	Hungary	23.7		25.8		2.1	
MT	Malta	46.9		49.3		2.4	
NL	Netherlands	67.5		67.0		-0.5	
AT	Austria	77.9		76.8		-1.1	
PL	Poland	44.0		48.2		4.2	
PT	Portugal	31.5		38.8		7.3	
RO	Romania	64.9		63.8		-1.1	
SI	Slovenia	66.2		64.6		-1.6	
SK	Slovakia	73.7		71.3		-2.4	
FI	Finland	65.4		69.7		4.3	
SE	Sweden	55.1		56.1		1.0	
UK	United Kingdom	41.7		32.1		-9.6	
IS	Iceland	36.7		34.3		-2.4	
NO	Norway	60.0		53.9		-6.1	
CH	Switzerland	64.2		66.2		2.0	
HR	Croatia	73.6		72.1		-1.5	
MK	former Yugoslav Republic of Macedonia	59.6		60.0		0.4	
TR	Turkey	36.3		42.9		6.6	

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.

Source: Eurostat, UOE data collection on education systems.

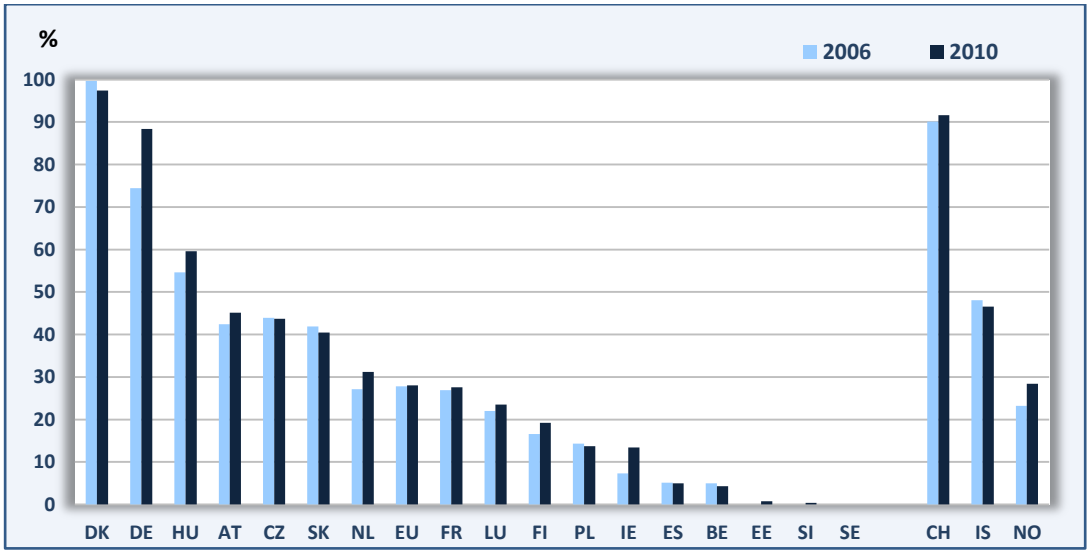
2. How many students participate in work-based IVET?

Indicator 1020: students in work-based upper secondary IVET

Work-based learning can provide a bridge to the labour market. It can aid transition from education to work and contribute to the development of highly relevant skills for the labour market. The Bruges Communiqué calls for work-based learning to become a key feature of IVET. Of particular interest is the extent to which students in IVET are enrolled in programmes combining a work-based and school-based component, as opposed to vocational programmes which are school-based.

The indicator below is defined as the percentage of upper secondary VET students that are enrolled in combined work- and school-based programmes ([15]). EU averages are estimated from available country data. Only EU Member States for which data are available for all years (2006-09) are used in estimating the weighted averages reported below.

Figure 2 **IVET work-based students as % of upper secondary IVET, 2006 and 2010**



Source: Cedefop calculations based on Eurostat data/UOE data collection on education systems.

Key points

In 2010, 28.0% of students in upper secondary VET were enrolled in combined work- and school-based programmes, up 0.2 percentage points compared to 2006 (estimates based on available country data).

([15]) A vocational programme is classified as combined work- and school-based if 25% or more of the curriculum is presented outside the school environment; otherwise it is classified as school-based. Programmes where the work-based component accounts for 90% or more of the curriculum are excluded. Under these conditions, apprenticeships are included in the work-based IVET component.

In Denmark, nearly all upper secondary VET was undertaken in combined work- and school-based programmes (97.4%). The share was also relatively high in Germany (88.4%). Combined work- and school-based programmes accounted for more than 50% of students in upper secondary VET in Hungary (59.6%) and between 30 and 45% in, Czech Republic, the Netherlands, Austria and Slovakia. Shares were lower than 10% in Belgium (4.3%), Estonia (0.8%) and Slovenia (0.4%). In several countries, a statistical distinction of vocational programmes between combined work- and school-based, as opposed to school-based, was not applicable, due to the characteristics of their IVET systems or programmes (Bulgaria, Greece, Italy, Portugal). For other Member States data were not available. Among non-EU countries, more than 90% of upper secondary VET was work-based in Switzerland (91.6%).

From 2006 to 2010, trends for the EU average and for most Member States were stable. Some countries, however, reported considerable rising trends, with the highest increases found in Germany (up 14.1 percentage points), Ireland (6.1), Hungary (5.0) and the Netherlands (4.1).

Table 2 **IVET work-based students as % of upper secondary IVET, 2006-10**

Country code	Country	2006	Flag	2010	Flag	Change 2006-10	Break in series 2006-10
EU-27	European Union (27)	27.8		28.0		0.2	
BE	Belgium	5.0		4.3		-0.7	
BG	Bulgaria		nap		nap		
CZ	Czech Republic	43.9		43.7		-0.2	
DK	Denmark	99.7		97.4		-2.3	
DE	Germany	74.4		88.4		14.0	
EE	Estonia			0.8			
IE	Ireland	7.3		13.4		6.1	
EL	Greece		nap		nap		
ES	Spain	5.1		5.0		-0.1	
FR	France	26.9		27.6		0.7	
IT	Italy		nap		nap		
CY	Cyprus						
LV	Latvia						
LT	Lithuania						
LU	Luxembourg	22.0		23.5		1.5	
HU	Hungary	54.6		59.6		5.0	
MT	Malta						
NL	Netherlands	27.1		31.2		4.1	
AT	Austria	42.4		45.1		2.7	
PL	Poland	14.3		13.7		-0.5	
PT	Portugal		nap		nap		
RO	Romania						
SI	Slovenia	0.0		0.4		0.4	
SK	Slovakia	41.9		40.5		-1.4	
FI	Finland	16.6		19.2		2.6	
SE	Sweden	0.0	n	0.0	n	0.0	
UK	United Kingdom						
IS	Iceland	48.1		46.6		-1.5	
NO	Norway	23.2		28.4		5.2	
CH	Switzerland	90.1		91.6		1.5	
HR	Croatia						
MK	former Yugoslav Republic of Macedonia		nap		nap		
TR	Turkey						

NB: nap = not applicable; n = negligible.
Source: Cedefop calculations based on Eurostat data/UOE data collection on education systems.

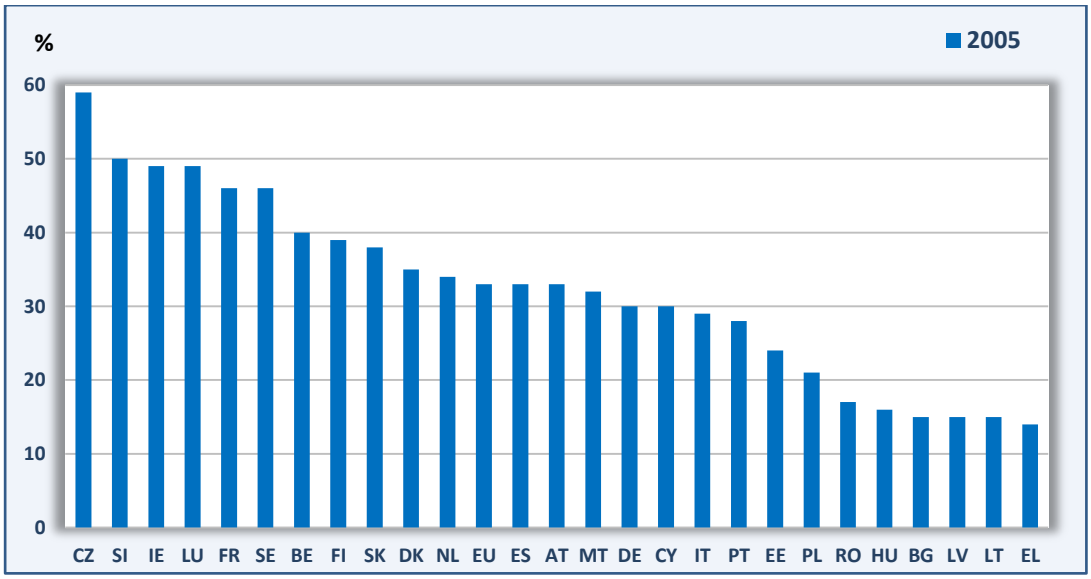
3. How many employees participate in CVT courses?

Indicator 1030: employees participating in CVT courses

CVET, and particularly employer-provided CVET, is a key component of adult learning. It can contribute to economic performance and competitiveness as well as to personal fulfilment and career progress.

The indicator is defined as percentage of all employees (in all enterprises surveyed) who participated in CVT courses over the previous 12 months. CVT courses refer to those which are separate from day-to-day work activities and which exhibit a high degree of organisation by a trainer or a training institution. CVT courses are the form of employer-provided training with the highest employee participation.

Figure 3 **Employees participating in CVT courses (%), 2005**



Source: Eurostat, 2005 continuing vocational training survey.

Key points

On average, 33% of employees in the EU participated in CVT courses in 2005. The highest percentage was reported in the Czech Republic (at 59%), followed by Slovenia, Ireland and Luxembourg (all close to 50%). In contrast, the lowest participation levels were reported in Bulgaria, Greece, Latvia, Lithuania and Hungary (with 17% or less of employees participating in CVT courses).

Table 3 **Employees participating in CVT courses (%), 2005**

Country code	Country	2005	Flag
EU-27	European Union (27 countries)	33	
BE	Belgium	40	
BG	Bulgaria	15	
CZ	Czech Republic	59	
DK	Denmark	35	
DE	Germany	30	
EE	Estonia	24	
IE	Ireland	49	
EL	Greece	14	
ES	Spain	33	
FR	France	46	
IT	Italy	29	
CY	Cyprus	30	
LV	Latvia	15	
LT	Lithuania	15	
LU	Luxembourg	49	
HU	Hungary	16	
MT	Malta	32	
NL	Netherlands	34	
AT	Austria	33	
PL	Poland	21	
PT	Portugal	28	
RO	Romania	17	
SI	Slovenia	50	
SK	Slovakia	38	
FI	Finland	39	
SE	Sweden	46	
UK	United Kingdom		

NB: u = unreliable; p = provisional.
Source: Eurostat, 2005 continuing vocational training survey.

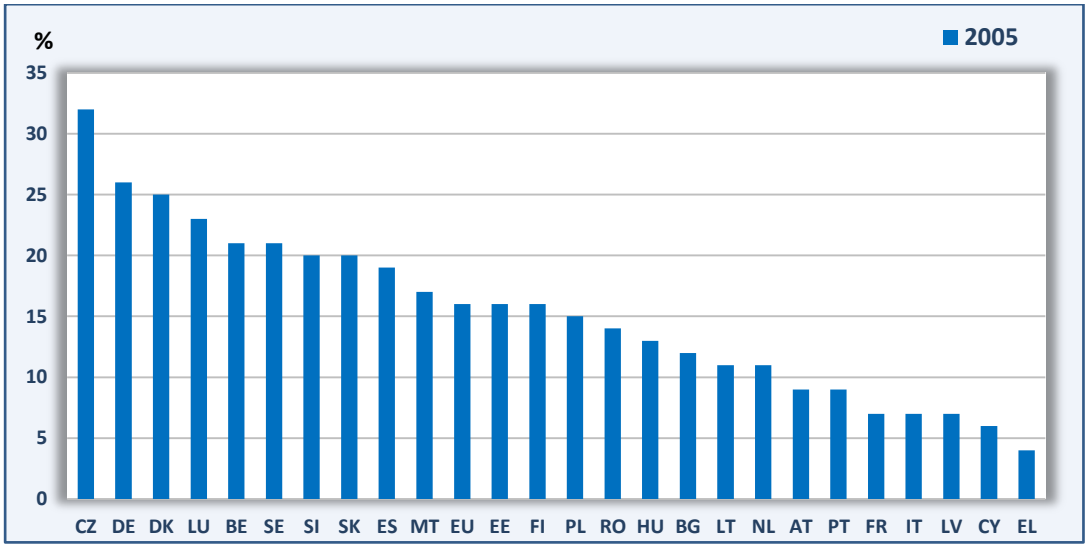
4. How many employees participate in on-the-job training?

Indicator 1040: employees participating in on-the-job training

Work-based learning is important not only in IVET, but also in CVET. On-the-job training as a form of work-based learning, contributes to upgrading skills that are particularly important for specific jobs or specific work environments, emphasising a learning-by-doing approach. On-the-job training is an important, and often more flexible, form of employer-provided training.

The indicator below is defined as the percentage of all employees (in all enterprises surveyed) who participated in on-the-job training over the previous 12 months. On-the job-training refers to planned periods of training, instruction or practical experience in the workplace using the usual tools of work either at the immediate place of work or in the work situation. On-the-job training is the second most common form of employer-provided training.

Figure 4 **Employees participating in on-the-job training (%), 2005**



Source: Eurostat, 2005 continuing vocational training survey.

Key points

In 2005, 16% of employees in the EU were reported by their employers as having participated in on-the-job training over the previous 12 months. In most countries, participation rates ranged between 10 and 20%. Belgium, the Czech Republic, Denmark, Germany, Luxembourg, and Sweden reported highest levels of participation in on-the-job training (all above 20%), whereas Greece, France, Italy, Cyprus, Latvia, Austria and Portugal reported the lowest levels (all below 10%).

Table 4 **Employees participating in on-the-job training (%), 2005**

Country code	Country	2005	Flag
EU-27	European Union (27 countries)	16	
BE	Belgium	21	
BG	Bulgaria	12	
CZ	Czech Republic	32	
DK	Denmark	25	
DE	Germany	26	
EE	Estonia	16	
IE	Ireland		
EL	Greece	4	
ES	Spain	19	
FR	France	7	
IT	Italy	7	
CY	Cyprus	6	
LV	Latvia	7	
LT	Lithuania	11	
LU	Luxembourg	23	
HU	Hungary	13	
MT	Malta	17	
NL	Netherlands	11	
AT	Austria	9	
PL	Poland	15	
PT	Portugal	9	
RO	Romania	14	
SI	Slovenia	20	
SK	Slovakia	20	
FI	Finland	16	
SE	Sweden	21	
UK	United Kingdom		

NB: u = unreliable; p = provisional.
Source: Eurostat, 2005 continuing vocational training survey.

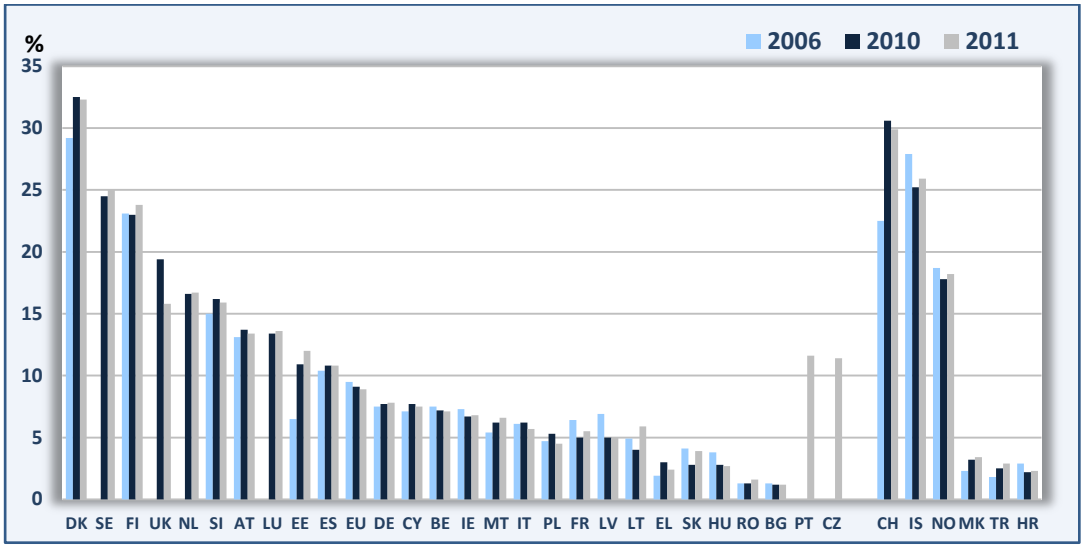
5. How many adults participate in education and training?

Indicator 1050: adults in education and training (lifelong learning indicator)

Raising adult participation in lifelong learning is one key objective of the EU education and training 2020 strategy. A target has been set: by 2020, an average of at least 15% of adults should participate in lifelong learning in the EU. With adult learning activities being mostly non-formal and mostly job related (as reported by the first adult education pilot survey in the EU), CVET plays an important role.

The indicator below is participation in lifelong learning. It is defined as the percentage of adult population aged 25-64 participating in education and training over the four weeks prior to the survey.

Figure 5 **Adults in lifelong learning (%), 2006, 2010 and 2011**



Source: Eurostat, EU labour force survey.

Key points

In 2010, 9.1% of adults in the EU were participating in education and training (in the four weeks prior to the survey). This percentage decreased to 8.9% in 2011, which is consistent with the stable, only slightly declining trend from 2006 to 2010. In 2011, several countries reported participation rates above 15%: Denmark, the Netherlands, Slovenia, Finland Sweden, and the UK reporting the highest percentages. In contrast, some of the East European countries show the lowest levels of participation: Bulgaria and Romania reported levels below 2%.

Among non-EU Member States, participation in lifelong learning varies considerably, with values for 2010 ranging from 30.6% (in Switzerland) to 2.2% (in Croatia).

Care is required in interpreting data in the table. Some countries reported breaks in time series, preventing proper comparisons of trends over time. This happened in the Czech Republic and Portugal in 2011, as well as in Luxembourg, the Netherlands, Sweden, and the UK between 2006 and 2010.

Table 5 **Adults in lifelong learning (%), 2006, 2010 and 2011**

Country code	Country	2006	Flag	2010	Flag	Change 2006-10	Break in series 2006-10	2011	Flag
EU-27	European Union (27 countries)	9.5		9.1		-0.4		8.9	
BE	Belgium	7.5		7.2		-0.3		7.1	
BG	Bulgaria	1.3		1.2		-0.1		1.2	
CZ	Czech Republic							11.4	b
DK	Denmark	29.2		32.5		3.3		32.3	
DE	Germany	7.5		7.7		0.2		7.8	
EE	Estonia	6.5		10.9		4.4		12.0	
IE	Ireland	7.3		6.7		-0.6		6.8	
EL	Greece	1.9		3.0		1.1		2.4	
ES	Spain	10.4		10.8		0.4		10.8	
FR	France	6.4		5.0		-1.4		5.5	
IT	Italy	6.1		6.2		0.1		5.7	
CY	Cyprus	7.1		7.7		0.6		7.5	
LV	Latvia	6.9		5.0		-1.9		5.0	
LT	Lithuania	4.9		4.0		-0.9		5.9	
LU	Luxembourg			13.4			b	13.6	
HU	Hungary	3.8		2.8		-1.0		2.7	
MT	Malta	5.4		6.2		0.8		6.6	
NL	Netherlands			16.6			b	16.7	
AT	Austria	13.1		13.7		0.6		13.4	
PL	Poland	4.7		5.3		0.6		4.5	
PT	Portugal							11.6	b
RO	Romania	1.3		1.3		0		1.6	
SI	Slovenia	15.0		16.2		1.2		15.9	
SK	Slovakia	4.1		2.8		-1.3		3.9	
FI	Finland	23.1		23.0		-0.1		23.8	
SE	Sweden			24.5			b	25.0	
UK	United Kingdom			19.4			b	15.8	P
IS	Iceland	27.9		25.2		-2.7		25.9	
NO	Norway	18.7		17.8		-0.9		18.2	
CH	Switzerland	22.5		30.6		8.1		29.9	
HR	Croatia	2.9		2.2		-0.7		2.3	
MK	former Yugoslav Republic of Macedonia	2.3		3.2		0.9		3.4	
TR	Turkey	1.8		2.5		0.7		2.9	

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.
Source: Eurostat, EU labour force survey.

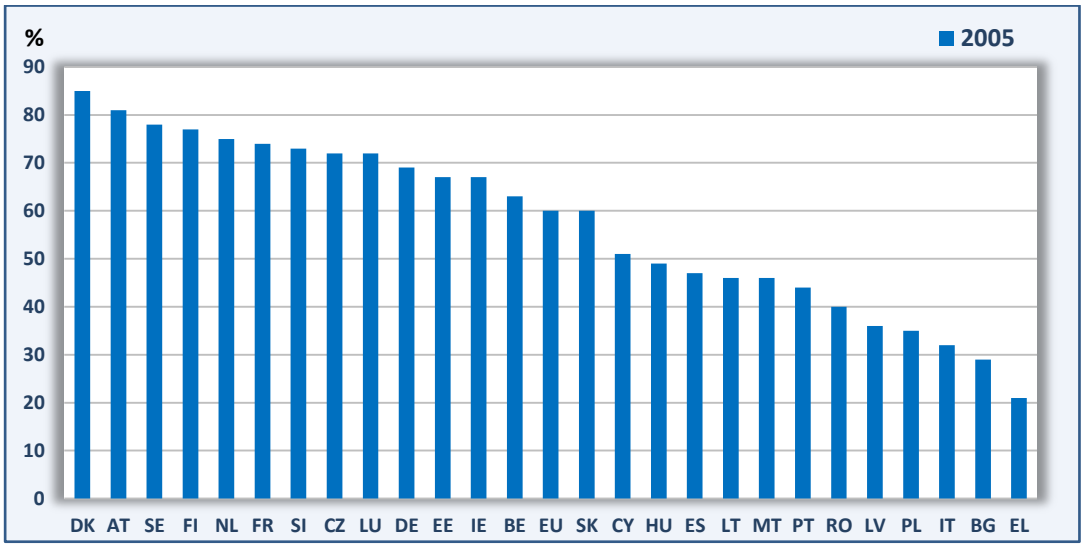
6. How many enterprises provide training to workers?

Indicator 1060: enterprises providing training

For many individuals access to VET, especially continuing VET, will be via their employer.

The indicator below is defined as the percentage of enterprises which provided any type of vocational training to their employees over the previous 12 months. These activities include CVT courses and other forms of CVT: on-the-job training; job-rotation, exchanges, secondments or study visits; participation in learning or quality circles; self-directed learning; and attendance at conferences, workshops, trade fairs and lectures. For statistical purposes, the training refers to measures or activities, which must have been planned in advance and must have been organised or supported with a view to promoting the goal of learning. Random learning and initial vocational training (IVT) are excluded.

Figure 6 **Enterprises providing training (%), 2005**



Source: Eurostat, 2005 continuing vocational training survey.

Key points

On average, 60% of EU employers with 10 or more employees provided vocational training to their employees over the past 12 months in 2005. Percentages varied widely across countries: the highest values being reported in Denmark and Austria, where more than 80% of employers provided vocational training in 2005. In Bulgaria, Greece, Italy, Latvia and Poland less than 40% of employers did so.

Table 6 **Enterprises providing training (%), 2005**

Country code	Country	2005	Flag
EU-27	European Union (27 countries)	60	
BE	Belgium	63	
BG	Bulgaria	29	
CZ	Czech Republic	72	
DK	Denmark	85	
DE	Germany	69	
EE	Estonia	67	
IE	Ireland	67	
EL	Greece	21	
ES	Spain	47	
FR	France	74	
IT	Italy	32	
CY	Cyprus	51	
LV	Latvia	36	
LT	Lithuania	46	
LU	Luxembourg	72	
HU	Hungary	49	
MT	Malta	46	
NL	Netherlands	75	
AT	Austria	81	
PL	Poland	35	
PT	Portugal	44	
RO	Romania	40	
SI	Slovenia	73	
SK	Slovakia	60	
FI	Finland	77	
SE	Sweden	78	
UK	United Kingdom		

NB: u = unreliable; p = provisional.
Source: Eurostat, 2005 continuing vocational training survey.

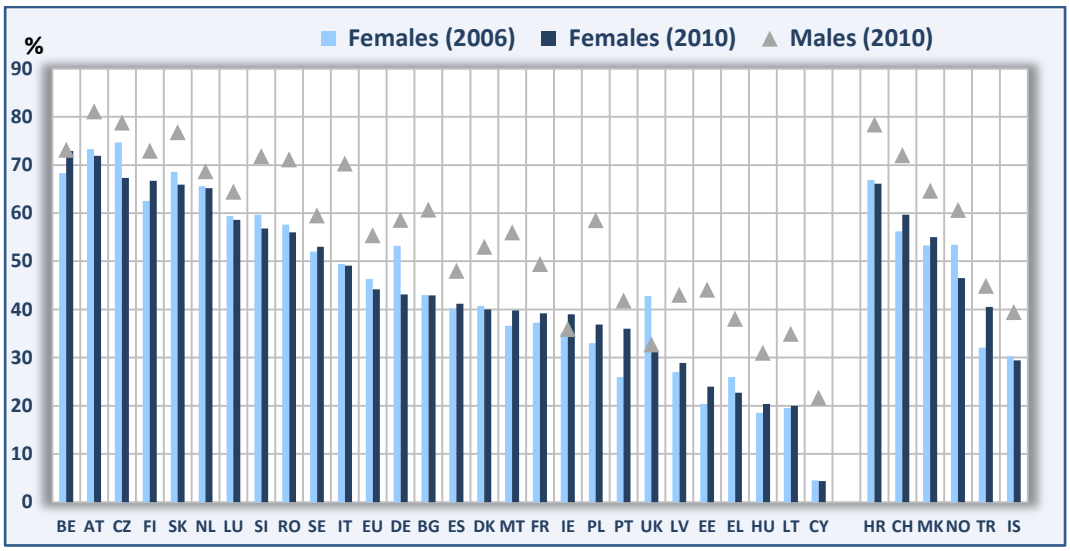
7. Are female students less likely to participate in IVET?

Indicator 1070: female IVET students as a share of all female upper secondary students

Of particular interest is the extent to which different groups are more or less likely to participate in VET. Data considered here focus on participation in IVET for female students, whose levels of participation are traditionally lower than for male students.

The indicator below is defined as the number of female upper secondary students (ISCED 3) enrolled in IVET programmes expressed as a percentage of the total number of female upper secondary students. The same indicator specified for males is presented as a basis for comparison.

Figure 7 **Female IVET students as % of all female upper secondary students, 2006 and 2010, including comparison with a similar indicator for males**



Source: Eurostat, UOE data collection on education systems.

Key points

In 2010, about half of upper secondary students in the EU were enrolled in the vocational stream of education (49.9%). The proportion among male students (55.4%) was significantly higher than among female students (44.2%). Enrolment of female students in the vocational stream was more than 50% in 10 EU Member States. The highest shares (more than 60%) were in Belgium, the Czech Republic, the Netherlands, Austria, Slovakia and Finland. The lowest shares (less than 30%) were reported in Greece, Estonia, Hungary, Latvia, Cyprus and Lithuania.

In most EU Member States, enrolments in upper secondary IVET were lower among women than among men, particularly so in Estonia, Italy and Poland (by more than 20 percentage points). Only in Belgium and the UK was the proportion among female students similar to males, and only in Ireland was it higher. From 2006 to 2010, female participation in upper secondary IVET was, on average,

relatively stable in the EU as a whole, but countries showed mixed trends. The greatest variations occurred in Portugal (up 10 percentage points) and in Germany and the UK ([16]) (down 10 and 11 percentage points respectively). Outside the EU, among the countries for which data are available, the share of women undertaking IVET in 2010 ranged from just under 30% in Iceland, to 66.1% in Croatia. The share increased between 2006 and 2010 in all the non-EU countries illustrated except Croatia, Iceland and Norway. The biggest reduction was in Norway (6.9 percentage points).

Table 7 **Female IVET students as % of all female upper secondary students, 2006-10, including comparison with similar indicator for males**

Country code	Country name	Female IVET						Male	
		2006	Flag	2010	Flag	Change 2006-10	Break in series 2006-10	2010	Flag
EU-27	European Union (27)	46.3		44.2		-2.1		55.4	
BE	Belgium	68.3		72.9		4.6		73.1	
BG	Bulgaria	43.0		42.9		-0.1		60.7	
CZ	Czech Republic	74.7		67.3		-7.4		78.8	
DK	Denmark	40.7		40.0		-0.7		53.0	
DE	Germany	53.2		43.1		-10.1		58.6	
EE	Estonia	20.4		24.0		3.6		44.1	
IE	Ireland	35.2		39.0		3.8		35.9	
EL	Greece	26.1		22.7		-3.4		38.0	
ES	Spain	40.2		41.2		1.0		48.0	
FR	France	37.3		39.2		1.9		49.4	
IT	Italy	49.4		49.1		-0.3		70.3	
CY	Cyprus	4.5		4.4		-0.1		21.7	
LV	Latvia	27.0		28.9		1.9		43.0	
LT	Lithuania	19.5		20.0		0.5		34.9	
LU	Luxembourg	59.4		58.6		-0.8		64.4	
HU	Hungary	18.5		20.4		1.9		31.0	
MT	Malta	36.6		39.8		3.2		56.0	
NL	Netherlands	65.6		65.2		-0.4		68.7	
AT	Austria	73.3		71.9		-1.4		81.1	
PL	Poland	33.0		36.9		3.9		58.5	
PT	Portugal	26.0		36.0		10.0		41.8	
RO	Romania	57.6		56.0		-1.6		71.1	
SI	Slovenia	59.7		56.8		-2.9		71.8	
SK	Slovakia	68.6		65.9		-2.7		76.8	
FI	Finland	62.5		66.7		4.2		72.9	
SE	Sweden	52.0		53.0		1.0		59.5	
UK	United Kingdom	42.8		31.5		-11.3		32.7	
IS	Iceland	30.3		29.4		-0.9		39.4	
NO	Norway	53.4		46.5		-6.9		60.6	
CH	Switzerland	56.2		59.7		3.5		72.0	
HR	Croatia	66.9		66.1		-0.8		78.4	
MK	former Yugoslav Republic of Macedonia	53.3		55.0		1.7		64.4	
TR	Turkey	32.1		40.5		8.4		44.9	

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.
Source: Eurostat, UOE data collection on education systems.

([16]) There is possibly a break in the series not reported in the data.

8. How many VET graduates continue in further education and training?

Indicator 1080: participation of VET graduates (18-24 year-olds) in further education and training

For VET to be an attractive learning option, young VET graduates should experience smooth transitions not only to the labour market but also, if they wish, to further learning opportunities. This is particularly important in countries where VET suffers from poor parity of esteem with general education.

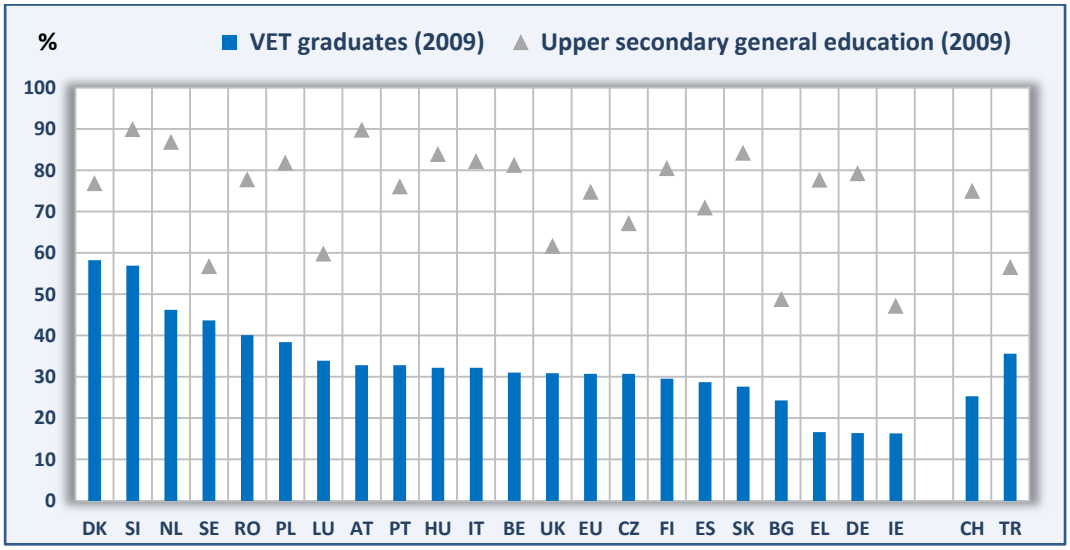
The indicator below is defined as the share of VET graduates (ISCED 3-4) aged 18-24 who participated in further education and training in the four weeks prior to the survey.

Key points

In 2009, 30.7% of EU VET graduates (aged 18-24) were participating in further education and training over the four weeks prior to the survey.

This is considerably lower than the EU figure among general education graduates (74.8%). Data reflect structural differences between general and vocational education, with the former mainly preparing people for further studies and the latter mainly preparing people for the world of work. But they also show, with almost one third of VET graduates continuing in further education and training, that obtaining a VET qualification does not necessarily bring individual learning to a halt.

Figure 8 **Participation of 18-24 year-olds in further education and training (%); graduates from VET and graduates from upper secondary general education, 2009**



Source: Cedefop calculations based on the Eurostat 2009 ad hoc module of the labour force survey.

In 2009, there were major differences across countries. The highest participation in further education and training among IVET graduates was found in Denmark (58.2%) and Slovenia (56.9%). The lowest shares were found in Estonia,

Ireland, Greece and Cyprus (where VET also registers relatively low enrolment rates) as well as in Germany (where instead VET is associated with high employment rates). Data for Estonia and Cyprus should be interpreted with caution due to small sample sizes. Data for Latvia, Lithuania and Malta are not presented due to very small sample sizes.

The rate in Turkey (35.6%) is higher than the EU average while the rate in Switzerland (25.3) is less than the EU average.

Table 8 **Participation of 18-24 year-olds in further education and training (%); graduates from VET and upper secondary general education, 2009**

Country code	Country name	VET		Upper secondary general education	
		2009	Flag	2009	Flag
EU-27	European Union (27)	30.7		74.8	
BE	Belgium	31.0		81.3	
BG	Bulgaria	24.3		48.8	
CZ	Czech Republic	30.7		67.2	
DK	Denmark	58.2		76.9	
DE	Germany	16.4		79.3	
EE	Estonia	17.6	u	72.9	
IE	Ireland	16.3		47.2	
EL	Greece	16.6		77.7	
ES	Spain	28.7		71.0	
FR	France	32.9		81.6	
IT	Italy	32.2		82.2	
CY	Cyprus	16.5	u	63.3	
LV	Latvia			58.6	
LT	Lithuania			71.1	
LU	Luxembourg	33.9		59.8	
HU	Hungary	32.2		83.9	
MT	Malta			35.6	
NL	Netherlands	46.2		86.9	
AT	Austria	32.8		89.8	
PL	Poland	38.4		81.8	
PT	Portugal	32.8		76.1	
RO	Romania	40.1		77.8	
SI	Slovenia	56.9		90.0	
SK	Slovakia	27.6		84.2	
FI	Finland	29.6		80.5	
SE	Sweden	43.7		56.8	
UK	United Kingdom	30.9		61.7	
IS	Iceland			65.0	
NO	Norway				
CH	Switzerland	25.3		75.0	
HR	Croatia				
MK	former Yugoslav Republic of Macedonia				
TR	Turkey	35.6		56.6	

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.

Source: Cedefop calculations based on the Eurostat 2009 ad hoc module of the labour force survey.

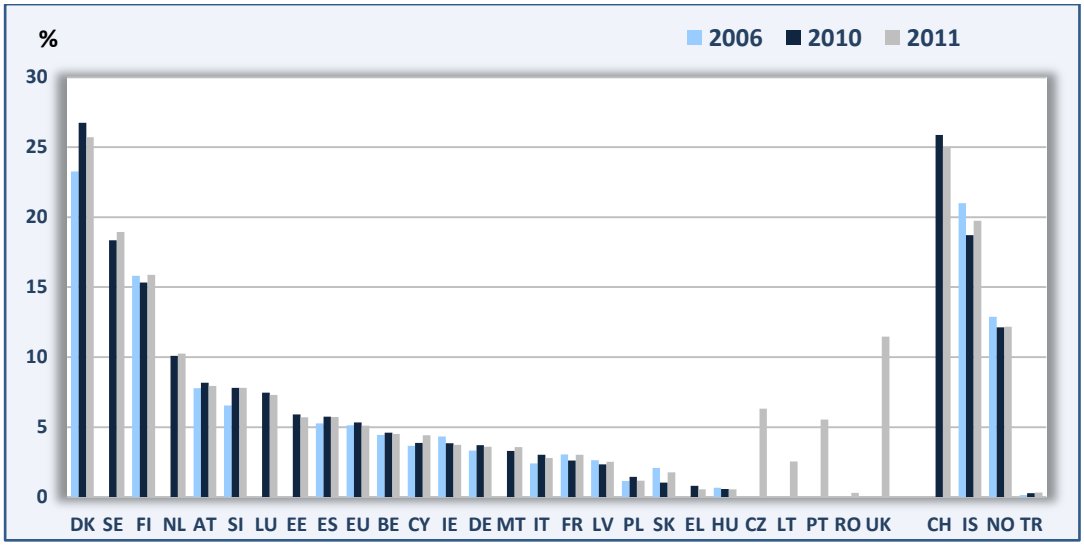
9. Are older people sufficiently engaged in education and training?

Indicator 1090: older adults in lifelong learning

Given current demographic trends and the ageing of the workforce it is likely that older people will increasingly need to broaden and update their skills to meet labour market challenges. This means an increased need for lifelong learning, to which VET should positively contribute.

The indicator below is defined as the percentage of older adults (aged 50-64) who participated in education or training in the four weeks preceding the survey, hence it is a measure of lifelong learning among older adults.

Figure 9 **Older adults in lifelong learning (%), 2006, 2010 and 2011**



Source: Eurostat, EU labour force survey.

Key points

In 2010, 5.3% of older adults (aged 50-64) in the EU participated in education and training over the four weeks prior to the survey. This is a lower share than that recorded on average for all adults in the 25-64 year age group (9.1%) suggesting that, other things being equal, older people are less likely to engage in lifelong learning. Data for 2011 reveal that participation in lifelong learning among older adults has further fallen slightly to 5.1% in 2011, cancelling out the small progress made between 2006 and 2010. The Nordic countries (Denmark, Finland and Sweden) recorded the highest shares in 2010 and 2011 (15% or above, with Denmark over 25%). The lowest percentages were found in Greece and Hungary (both below 1%).

With respect to non-EU countries, Switzerland records participation levels which are on a par with the Nordic countries; Turkey has the lowest percentage in Europe at 0.3%.

Care is required in interpreting data in the table. Some countries reported breaks in time series, preventing proper comparisons of trends over time. This happened in the Czech Republic, Portugal and the UK in 2011, as well as in Luxembourg, the Netherlands and Sweden, with a break between 2006 and 2010.

Table 9 **Older adults in lifelong learning (%), 2006-11**

Country code	Country	2006	Flag	2010	Flag	Change 2006-10	Break in series 2006-10	2011	Flag
EU-27	European Union (27 countries)	5.1		5.3		0.2		5.1	
BE	Belgium	4.5		4.6		0.1		4.5	
BG	Bulgaria								
CZ	Czech Republic							6.3	b
DK	Denmark	23.3		26.7		3.4		25.7	
DE	Germany	3.3		3.7		0.4		3.6	
EE	Estonia			5.9				5.7	
IE	Ireland	4.3		3.8		-0.5		3.7	
EL	Greece	0.3	u	0.8		0.5		0.6	
ES	Spain	5.3		5.7		0.4		5.7	
FR	France	3.0		2.6		-0.4		3.0	
IT	Italy	2.4		3.0		0.6		2.8	
CY	Cyprus	3.7		3.9		0.2		4.4	
LV	Latvia	2.6		2.3		-0.3		2.5	
LT	Lithuania	1.7	u	1.2	u	-0.5		2.5	
LU	Luxembourg			7.5			b	7.3	
HU	Hungary	0.7		0.6		-0.1		0.6	
MT	Malta	2.7	u	3.3		0.6		3.6	
NL	Netherlands			10.1			b	10.2	
AT	Austria	7.8		8.2		0.4		7.9	
PL	Poland	1.1		1.5		0.4		1.2	
PT	Portugal							5.5	b
RO	Romania							0.3	
SI	Slovenia	6.6		7.8		1.2		7.8	
SK	Slovakia	2.1		1.0		-1.1		1.8	
FI	Finland	15.8		15.3		-0.5		15.9	
SE	Sweden			18.3			b	18.9	
UK	United Kingdom							11.5	b
IS	Iceland	21.0		18.7		-2.3		19.7	
NO	Norway	12.9		12.1		-0.8		12.2	
CH	Switzerland			25.9			b	25.0	
HR	Croatia	0.6	u						
MK	former Yugoslav Republic of Macedonia	0.4	u	0.7	u	0.3		0.7	u
TR	Turkey	0.1		0.3		0.2		0.3	

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.
Source: Eurostat, EU labour force survey.

10. Have low-educated adults fewer opportunities to participate in education and training?

Indicator 1100: low-educated adults in lifelong learning

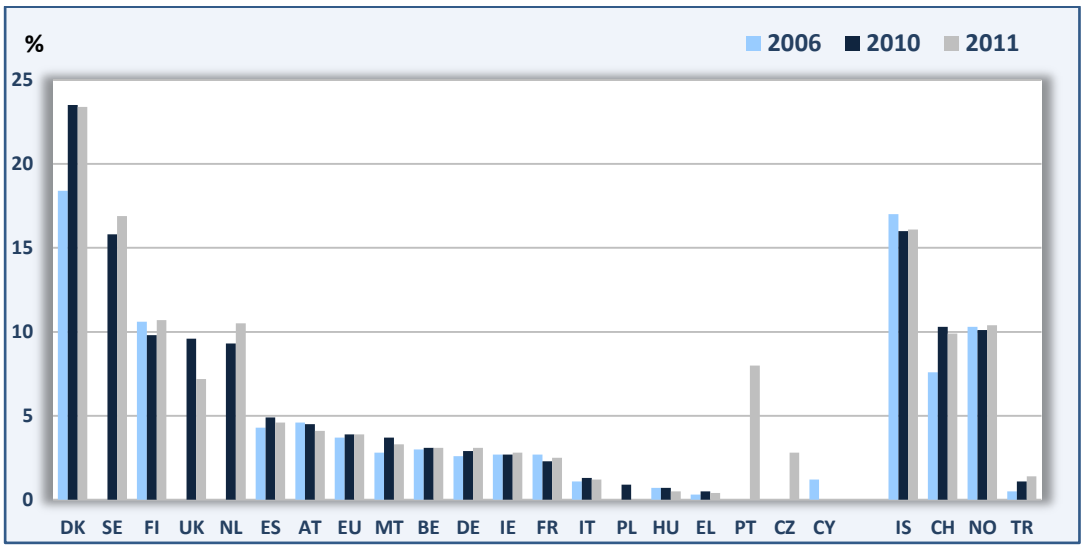
Adult learning should be inclusive and it is particular important for those adults who can only reach low education attainment. Raising their participation levels, generally lower than the average, will contribute to higher levels of lifelong learning. The indicator below is defined as the percentage of adults aged 25-64 with low education attainment who participated in education and training over the four weeks prior to the survey. Adults with low education attainment (low-educated adults) are those with, at most, a lower secondary qualification (ISCED 2), so the indicator is a measure of lifelong learning for this group of adults.

Key points

In 2010, 3.9% of low-educated adults in the EU participated in lifelong learning. This is lower than the corresponding average for all adults (9.1%). From 2006 to 2010, the share of the low-educated adults participating in lifelong learning showed little progresses (up by only 0.2 percentage points) and remained unchanged in 2011.

Denmark, Finland and Sweden report the highest levels of participation. Denmark stands out with 23.5% of low-educated adults being in receipt of lifelong learning in 2010. Denmark also reports the highest percentage point change in participation from 2006 to 2010. Greece, Hungary and Poland have relatively low levels of participation (all below 1% in 2010 and 2011).

Figure 10 **Low-educated adults in lifelong learning (%), 2006, 2010 and 2011**



Source: Eurostat, EU labour force survey.

Among non-EU countries, Iceland, Norway and Switzerland have relatively high levels of participation compared with the EU (all above 10% in 2010). In contrast, Turkey has low levels participation at 1.1% in 2010.

Care is required in interpreting data in the table. Some countries reported breaks in time series, preventing proper comparisons of trends over time. This happened in the Czech Republic and Portugal (in 2011). Luxembourg, the Netherlands, Sweden, and the UK also reported a break between 2006 and 2010, so comparison between the two years cannot be made. In some cases, sample sizes may affect the reliability of estimates (*u* flags).

Table 10 **Low-educated adults in lifelong learning (%), 2006-11**

Country code	Country	2006	Flag	2010	Flag	Change 2006-10	Break in series 2006-10	2011	Flag
EU-27	European Union (27 countries)	3.7		3.9		0.2		3.9	
BE	Belgium	3.0		3.1		0.1		3.1	
BG	Bulgaria								
CZ	Czech Republic							2.8	b
DK	Denmark	18.4		23.5		5.1		23.4	
DE	Germany	2.6		2.9		0.3		3.1	
EE	Estonia								
IE	Ireland	2.7		2.7		0		2.8	
EL	Greece	0.3		0.5		0.2		0.4	
ES	Spain	4.3		4.9		0.6		4.6	
FR	France	2.7		2.3		-0.4		2.5	
IT	Italy	1.1		1.3		0.2		1.2	
CY	Cyprus	1.2		1.1	u	-0.1		1.3	u
LV	Latvia								
LT	Lithuania								
LU	Luxembourg			4.7	u		b	4.5	u
HU	Hungary	0.7		0.7		0		0.5	
MT	Malta	2.8		3.7		0.9		3.3	
NL	Netherlands			9.3			b	10.5	
AT	Austria	4.6		4.5		-0.1		4.1	
PL	Poland	0.6	u	0.9		0.3		0.8	u
PT	Portugal							8.0	b
RO	Romania							0.3	u
SI	Slovenia	3.8	u	3.4	u	-0.4		3.3	u
SK	Slovakia								
FI	Finland	10.6		9.8		-0.8		10.7	
SE	Sweden			15.8			b	16.9	
UK	United Kingdom			9.6			b	7.2	p
IS	Iceland	17.0		16.0		-1.0		16.1	
NO	Norway	10.3		10.1		-0.2		10.4	
CH	Switzerland	7.6		10.3		2.7		9.9	
HR	Croatia								
MK	former Yugoslav Republic of Macedonia							0.3	u
TR	Turkey	0.5		1.1		0.6		1.4	

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.

Source: Eurostat, EU labour force survey.

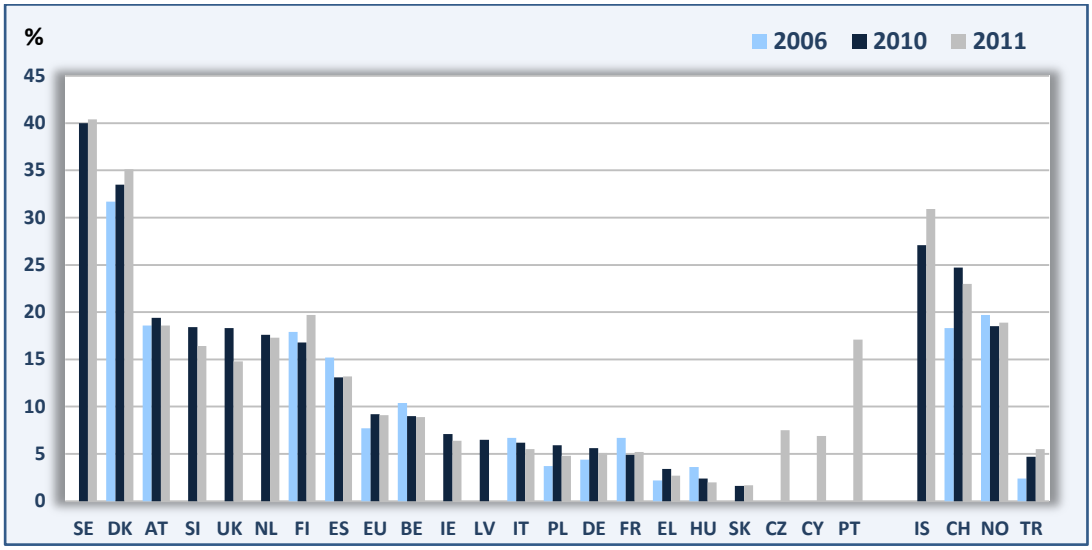
11. Do unemployed adults participate in education and training?

Indicator 1110: unemployed adults in lifelong learning

Participation in education and training is particularly important to maintain or increase the employability of jobless adults.

The indicator below is defined as the percentage of unemployed adults aged 25-64 who participated in education and training (lifelong learning) in the four weeks preceding the survey.

Figure 11 **Unemployed adults in lifelong learning (%), 2006, 2010 and 2011**



Source: Eurostat, EU labour force survey.

Key points

In 2010, on average, 9.2% of unemployed adults in the EU reported that they had been in receipt of lifelong learning. This is more or less the same as the average percentage for all adults, unemployed or not (9.1%). Data for 2011 reveal that participation rates for the unemployed have been relatively stable (down 0.1 percentage point compared to 2011). From 2006 to 2010, there was a favourable trend across the EU, with increasing levels of participation.

Denmark and Sweden report the highest levels of participation, with 40.0% of unemployed people reported participating in lifelong learning in the latter. In contrast, Greece (3.4%), Hungary (2.4%) and Slovakia (1.6%) recorded the lowest levels.

Outside the EU, Iceland, Norway and Switzerland record participation levels much higher than the EU average while the former Yugoslav Republic of Macedonia and Turkey have lower participation rates.

A break in time series data occurred for the Czech Republic and Portugal (in 2011), as well as for Luxembourg, Sweden, the Netherlands and the UK,

preventing comparisons over time. In some cases, sample sizes may affect the reliability of estimates (*u* flags in the table).

Table 11 **Unemployed adults in lifelong learning (%), 2006-11**

Country code	Country	2006	Flag	2010	Flag	Change 2006-10	Break in series 2006-10	2011	Flag
EU-27	European Union (27 countries)	7.7		9.2		1.5		9.1	
BE	Belgium	10.4		9.0		-1.4		8.9	
BG	Bulgaria								
CZ	Czech Republic							7.5	b
DK	Denmark	31.7		33.5		1.8		35.1	
DE	Germany	4.4		5.6		1.2		5.1	
EE	Estonia			7.1	u			8.5	u
IE	Ireland	6.9	u	7.1		0.2		6.4	
EL	Greece	2.2		3.4		1.2		2.7	
ES	Spain	15.2		13.1		-2.1		13.2	
FR	France	6.7		4.9		-1.8		5.2	
IT	Italy	6.7		6.2		-0.5		5.5	
CY	Cyprus	5.2	u	5.4	u	0.2		6.9	
LV	Latvia			6.5				4.0	u
LT	Lithuania			3.2	u			3.5	u
LU	Luxembourg			17.2	u		b	15.3	u
HU	Hungary	3.6		2.4		-1.2		2.0	
MT	Malta								
NL	Netherlands			17.6			b	17.3	
AT	Austria	18.6		19.4		0.8		18.6	
PL	Poland	3.7		5.9		2.2		4.8	
PT	Portugal							17.1	b
RO	Romania			1.4	u			1.5	u
SI	Slovenia	19.9	u	18.4		-1.5		16.4	
SK	Slovakia	1.6	u	1.6		0		1.7	
FI	Finland	17.9		16.8		-1.1		19.7	
SE	Sweden			40.0			b	40.4	
UK	United Kingdom			18.3			b	14.8	p
IS	Iceland			27.1				30.9	
NO	Norway	19.7		18.5		-1.2		18.9	
CH	Switzerland	18.3		24.7		6.4		23.0	
HR	Croatia	3.2	u						
MK	former Yugoslav Republic of Macedonia	0.9	u	1.5	u	0.6		2.3	u
TR	Turkey	2.4		4.7		2.3		5.5	

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.
Source: Eurostat, EU labour force survey.

12. How many adults did not participate in lifelong learning, even if interested in doing so?

Indicator 1120: individuals who wanted to participate in training, but did not.

Adult learning policies should aim to remove barriers to participation in continuing education and training. There is a large share of adults who do not participate, even though they are potentially interested in doing so.

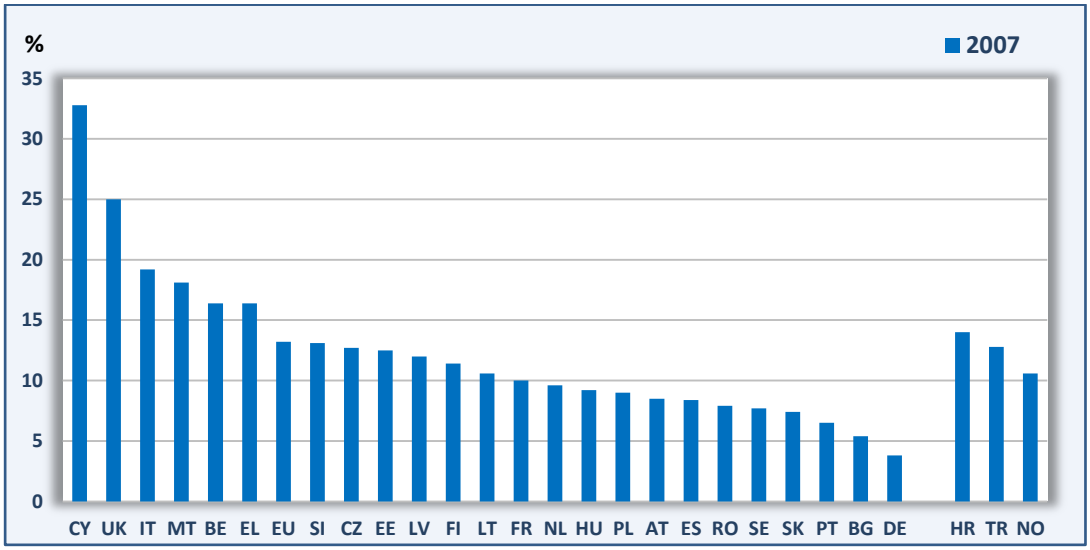
The indicator below is defined as the share of adults (aged 25-64) who wanted to participate in training but did not do so.

Key points

In 2007, 13.2% of individuals aged 25-64 across the EU wanted to participate in education or training but did not do so. This figure was highest in Cyprus (32.8%) and lowest in Germany (3.8%). The percentage of adults who wanted to participate in lifelong learning but did not do so was above the EU average in the UK (25%), Italy (19.2%), Malta (18.1%), Belgium (16.4%) and Greece (16.4%). In the non-EU countries the percentage ranges between 10.6% and 14%.

Family responsibilities (23% of individuals), conflict with work schedule (22%) and cost (15%) were primarily reported by adult Europeans as the main obstacles for not participating in education and training. Other obstacles, such as distance and lack of employer support, were also important but less commonly reported (6% and 5% respectively).

Figure 12 **Individuals who wanted to participate in training but did not (%), 2007**



Source: Eurostat, adult education survey.

Table 12 **Individuals (25-64) wanting to participate in training but did not (%), 2007**

Country code	Country name	2007	Flag
EU-27	European Union (27)	13.2	
BE	Belgium	16.4	
BG	Bulgaria	5.4	
CZ	Czech Republic	12.7	
DK	Denmark		
DE	Germany	3.8	
EE	Estonia	12.5	
IE	Ireland		
EL	Greece	16.4	
ES	Spain	8.4	
FR	France	10.0	
IT	Italy	19.2	
CY	Cyprus	32.8	
LV	Latvia	12.0	
LT	Lithuania	10.6	
LU	Luxembourg		
HU	Hungary	9.2	
MT	Malta	18.1	
NL	Netherlands	9.6	
AT	Austria	8.5	
PL	Poland	9.0	
PT	Portugal	6.5	
RO	Romania	7.9	
SI	Slovenia	13.1	
SK	Slovakia	7.4	
FI	Finland	11.4	
SE	Sweden	7.7	
UK	United Kingdom	25.0	
IS	Iceland		
NO	Norway	10.6	
CH	Switzerland		
HR	Croatia	14.0	
MK	former Yugoslav Republic of Macedonia		
TR	Turkey	12.8	

NB: u = unreliable; p = provisional.
Source: Eurostat, adult education survey.

Part II

Skill development and labour market relevance

13. How big is the investment in IVET?

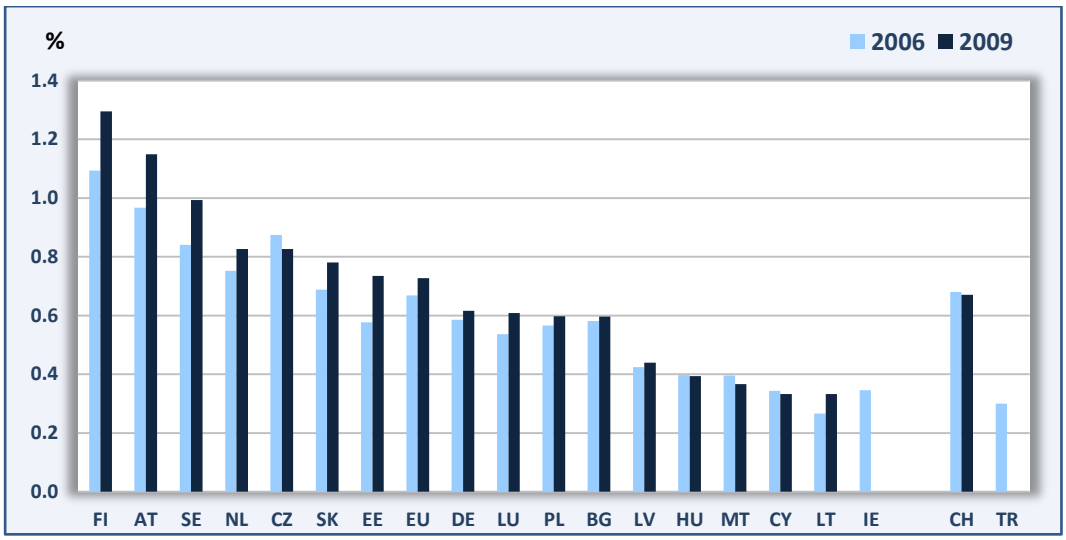
Indicator 2010: IVET public expenditure (% of GDP)

Public expenditure on initial vocational education and training (IVET) provides an indication of the scale of investments in IVET made by the State. Considering this investment over time also signals the extent to which the size of investments has been maintained.

The indicator is defined as public expenditure on vocational education at ISCED 3-4 as a percentage of GDP.

EU averages are estimated; they are weighted averages of available country figures. GDP in current prices is used for weighting. Only EU Member States for which data are available for all years (2006-09) are used in estimating the weighted averages reported below.

Figure 13 **IVET public expenditure (% GDP), 2006 and 2009**



Source: Eurostat, UOE data collection on education systems.

Key points

In most countries for which data are available, spending on vocational education (at ISCED 3-4) accounted for less than 1% of GDP. Based on available country data, the average spending is estimated to have been 0.67% in 2006 and 0.73% in 2009. In most countries, the figure for this indicator increased between 2006 and 2009.

In 2009, public expenditure on IVET (as % of GDP) was highest in Finland and Austria (1.30 and 1.15%, respectively); Sweden was third highest at around 1%. Relative to GDP, the lowest levels of expenditure on IVET were found for Lithuania and Cyprus (0.33% of GDP in 2009).

Table 13 **IVET public expenditure (% of GDP), 2006 and 2009**

Country code	Country name	2006	Flag	2009	Flag	Change 2006-09	Break in series 2006-09
EU-27	European Union (27)	0.67		0.73		0.06	
BE	Belgium						
BG	Bulgaria	0.58		0.60		0.02	
CZ	Czech Republic	0.87		0.83		-0.04	
DK	Denmark						
DE	Germany	0.58		0.62		0.04	
EE	Estonia	0.58		0.73		0.15	
IE	Ireland	0.35					
EL	Greece						
ES	Spain						
FR	France						
IT	Italy						
CY	Cyprus	0.34		0.33		-0.01	
LV	Latvia	0.42		0.44		0.02	
LT	Lithuania	0.27		0.33		0.06	
LU	Luxembourg	0.54		0.61		0.07	
HU	Hungary	0.40		0.39		-0.01	
MT	Malta			0.37			
NL	Netherlands	0.75		0.83		0.08	
AT	Austria	0.97		1.15		0.18	
PL	Poland	0.57		0.60		0.03	
PT	Portugal						
RO	Romania						
SI	Slovenia						
SK	Slovakia	0.69		0.78		0.09	
FI	Finland	1.09		1.30		0.21	
SE	Sweden	0.84		0.99		0.15	
UK	United Kingdom						
IS	Iceland						
NO	Norway						
CH	Switzerland	0.68		0.67		-0.01	
HR	Croatia						
MK	former Yugoslav Republic of Macedonia						
TR	Turkey	0.30					

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.

Source: Eurostat, UOE data collection on education systems.

14. How much is spent per IVET student?

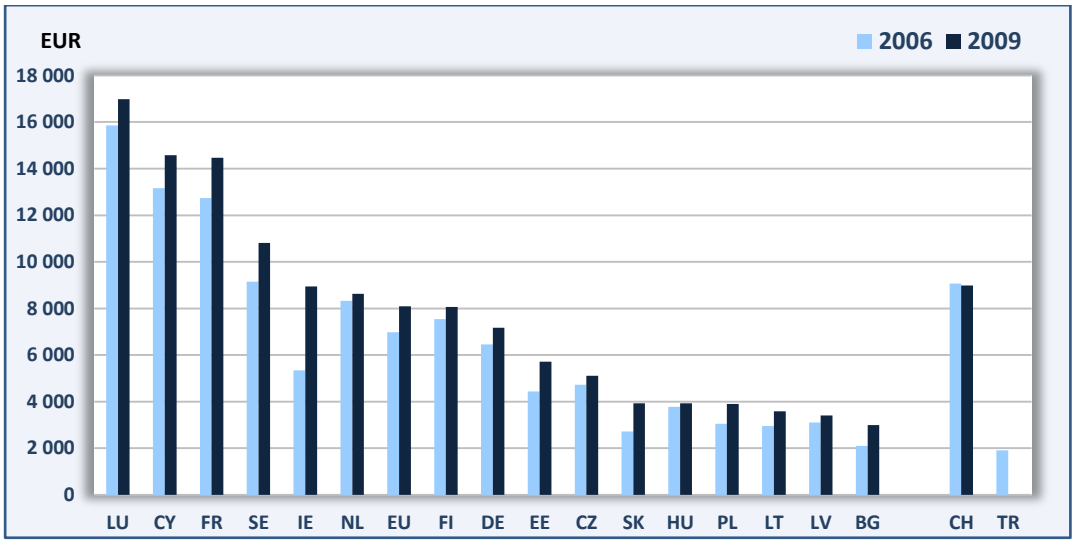
Indicator 2020: IVET public expenditure (EUR per student)

Public expenditure on initial vocational education and training (IVET) provides an indication of the scale of investments in IVET made by the State. Considering this investment over time also signals the extent to which the size of investments has been maintained.

The indicator below is defined as public expenditure on vocational education at ISCED 3-4 per student enrolled. It is expressed in euros and adjusted for purchasing parity standard (PPS).

EU averages are estimated as weighted averages of available country figures. Enrolments in IVET are used for weighting. Only EU Member States for which scores are available for all years (2006-09) are used in estimating the weighted averages reported below.

Figure 14 **IVET Public expenditure (EUR PPS per student), 2006 and 2009**



Source: Eurostat, UOE data collection on education systems.

Key points

In 2009, based on available country data, the average spend on IVET was estimated to be EUR 8 098 per student. This increased from EUR 6 985 in 2006. There is substantial variation in public expenditure across the EU, from EUR 16 986 in Luxembourg to EUR 2 988 in Bulgaria.

The only non-EU country for which data are available is Switzerland which records a level of expenditure close to the EU average at EUR 8 998.

There is a considerable amount of missing data with several countries not reporting data for this indicator (including Denmark, Spain and the UK).

Table 14 **IVET public expenditure (EUR PPS per student), 2006-09**

Country code	Country	2006	Flag	2009	Flag	Change 2006-09	Break in series 2006-09
EU-27	European Union (27)	6 985		8 098		1 113	
BE	Belgium						
BG	Bulgaria	2 101		2 988		887	
CZ	Czech Republic	4 729		5 114		385	
DK	Denmark						
DE	Germany	6 457		7 175		718	
EE	Estonia	4 442		5 720		1 278	
IE	Ireland	5 339	x	8 943	x	3 604	
EL	Greece						
ES	Spain						
FR	France	12 734	x	14 461	x	1 727	
IT	Italy						
CY	Cyprus	13 168		14 575		1 407	
LV	Latvia	3 104		3 407		303	
LT	Lithuania	2 958		3 578		620	
LU	Luxembourg	15 853		16 986		1 133	
HU	Hungary	3 772		3 928		156	
MT	Malta						
NL	Netherlands	8 326		8 630		304	
AT	Austria						
PL	Poland	3 046		3 896		850	
PT	Portugal						
RO	Romania						
SI	Slovenia						
SK	Slovakia	2 718		3 935		1 217	
FI	Finland	7 548		8 064		516	
SE	Sweden	9 154		10 812		1 658	
UK	United Kingdom						
IS	Iceland						
NO	Norway						
CH	Switzerland	9 065		8 988		-77	
HR	Croatia						
MK	former Yugoslav Republic of Macedonia						
TR	Turkey	1 907					

NB: b = break in series. If the break in series occurs between 2006 and 2009, the data for 2006 are not presented;
x: for Ireland, prevocational programmes are included only for ISCED 4; for France prevocational programmes are included only for ISCED 3.

Source: Eurostat, UOE data collection on education systems.

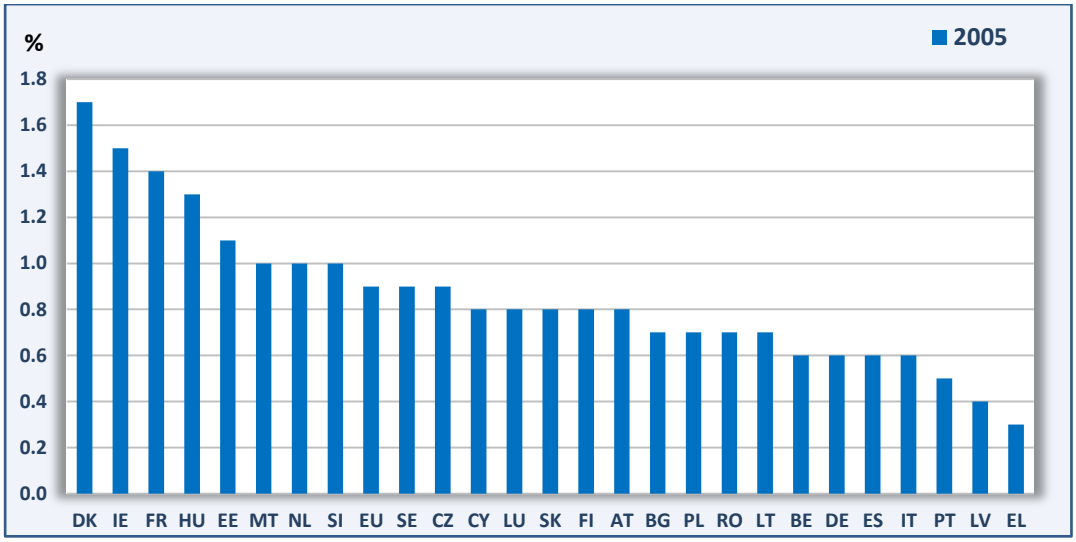
15. How much do enterprises invest in continuing vocational training?

Indicator 2030: enterprise expenditure on CVT courses as share of total labour cost.

A key aim of EU policy is for governments, individuals, and employers to invest in skill development to strengthen social inclusion, and improve economic growth and competitiveness.

The indicator below is defined as the total monetary expenditure on CVT courses by the employer as a percentage of the employer's total labour costs (excluding personnel absence costs which are susceptible to high measurement error). The reference period is the 12 months prior to the survey.

Figure 15 **Enterprise expenditure (total monetary expenditure) on CVT courses as % of total labour cost, 2005**



Source: Cedefop calculations based on Eurostat, 2005 continuing vocational training survey.

Key points

In the EU the average total monetary expenditure on CVT courses as a percentage of total labour costs was 0.9% in 2005. The highest values of employer expenditure are reported in Denmark (1.7% of total labour cost), followed by Ireland (1.5%), France (1.4%) and Hungary (1.3%). In contrast, Portugal (0.5%), Latvia (0.4%) and Greece (0.3%) all record relatively low expenditure levels.

Table 15 **Enterprise expenditure (total monetary expenditure) on CVT courses as % of total labour cost, 2005**

Country code	Country	2005	Flag
EU-27	European Union (27 countries)	0.9	
BE	Belgium	0.6	
BG	Bulgaria	0.7	
CZ	Czech Republic	0.9	
DK	Denmark	1.7	
DE	Germany	0.6	
EE	Estonia	1.1	
IE	Ireland	1.5	
EL	Greece	0.3	
ES	Spain	0.6	
FR	France	1.4	
IT	Italy	0.6	
CY	Cyprus	0.8	
LV	Latvia	0.4	
LT	Lithuania	0.7	
LU	Luxembourg	0.8	
HU	Hungary	1.3	
MT	Malta	1.0	
NL	Netherlands	1.0	
AT	Austria	0.8	
PL	Poland	0.7	
PT	Portugal	0.5	
RO	Romania	0.7	
SI	Slovenia	1.0	
SK	Slovakia	0.8	
FI	Finland	0.8	
SE	Sweden	0.9	
UK	United Kingdom		

NB: u = unreliable; p = provisional.
Source: Cedefop calculations based on Eurostat, 2005 continuing vocational training survey.

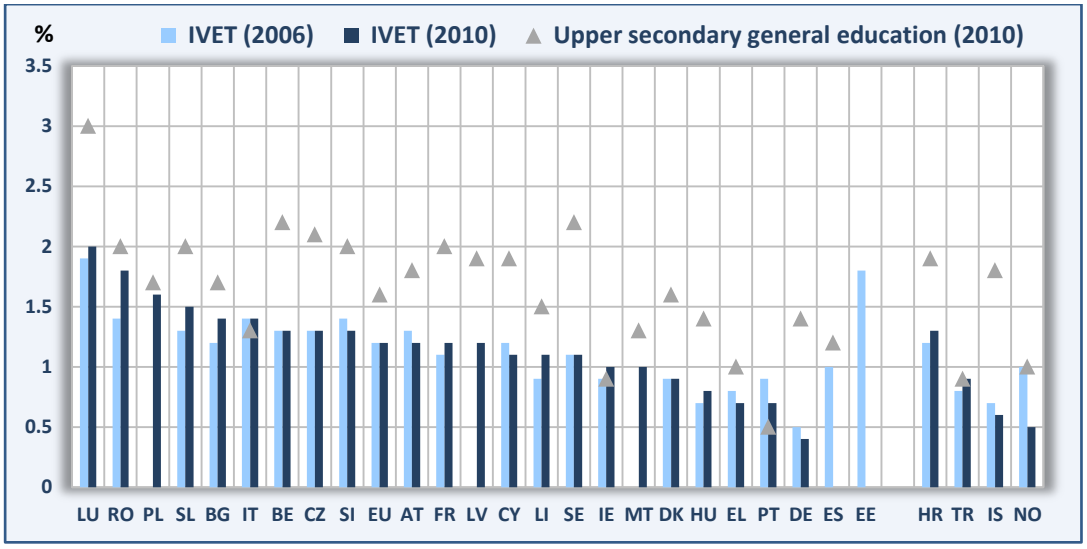
16. How many foreign languages are IVET students learning?

Indicator 2040: average number of foreign languages learned in IVET in upper secondary education

Knowledge of foreign languages enables individuals to move freely and successfully between education programmes in different Member States and also permits individuals to pursue employment in different countries. Languages also support companies in taking up and expanding business opportunities. The indicator below considers the extent to which foreign language skills are taught in IVET programmes in Europe.

The indicator is defined as the average number of foreign languages learned in upper secondary vocational education.

Figure 16 **Average number of foreign languages learned in IVET in upper secondary education and in upper secondary general education, 2006 and 2010**



Source: Eurostat, UOE data collection on education systems.

Key points

In the EU, the average number of foreign languages learned in upper secondary IVET was 1.2 in 2010. This was lower than in upper secondary general education (with an average of 1.6). The 2010 figure is the same as in 2006.

In 2010, the average number of foreign languages learned in upper secondary IVET was highest in Luxembourg (2.0) followed by Romania (1.8) and Poland (1.6). Less than one foreign language, on average, was learned in IVET in Denmark, Germany, Greece, Hungary, and Portugal. Among the non-EU countries shown, the average was less than one in three countries but was 1.3 (above the EU average) in Croatia.

Table 16 **Average number of foreign languages learned in IVET in upper secondary education, 2006 to 2010, and in upper secondary general education, 2010**

Country code	Country name	IVET						Upper secondary general education	
		2006	Flag	2010	Flag	Change 2006-10	Break in series 2006-10	2010	Flag
EU-27	European Union (27)	1.2		1.2		0		1.6	
BE	Belgium	1.3		1.3		0		2.2	
BG	Bulgaria	1.2		1.4		0.2		1.7	
CZ	Czech Republic	1.3		1.3		0		2.1	
DK	Denmark	0.9		0.9		0		1.6	
DE	Germany	0.5		0.4		-0.1		1.4	
EE	Estonia	1.8							
IE	Ireland	0.9		1.0		0.1		0.9	
EL	Greece	0.8		0.7		-0.1		1.0	
ES	Spain	1.0						1.2	
FR	France	1.1		1.2		0.1		2.0	
IT	Italy	1.4		1.4		0		1.3	
CY	Cyprus	1.2		1.1		-0.1		1.9	
LV	Latvia	0.0		1.2		1.2		1.9	
LT	Lithuania	0.9		1.1		0.2		1.5	
LU	Luxembourg	1.9		2.0		0.1		3.0	
HU	Hungary	0.7		0.8		0.1		1.4	
MT	Malta			1.0				1.3	
NL	Netherlands							1.8	
AT	Austria	1.3		1.2		-0.1		1.8	
PL	Poland			1.6				1.7	
PT	Portugal	0.9		0.7		-0.2		0.5	
RO	Romania	1.4		1.8		0.4		2.0	
SI	Slovenia	1.4		1.3		-0.1		2.0	
SK	Slovakia	1.3		1.5		0.2		2.0	
FI	Finland							2.7	
SE	Sweden	1.1		1.1		0		2.2	
UK	United Kingdom							0.5	
IS	Iceland	0.7		0.6		-0.1		1.8	
NO	Norway	1.0		0.5		-0.5		1.0	
CH	Switzerland								
HR	Croatia	1.2		1.3		0.1		1.9	
MK	former Yugoslav Republic of Macedonia								
TR	Turkey	0.8		0.9		0.1		0.9	

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.

Source: Eurostat, UOE data collection on education systems.

17. How many IVET students graduate in STEM subjects?

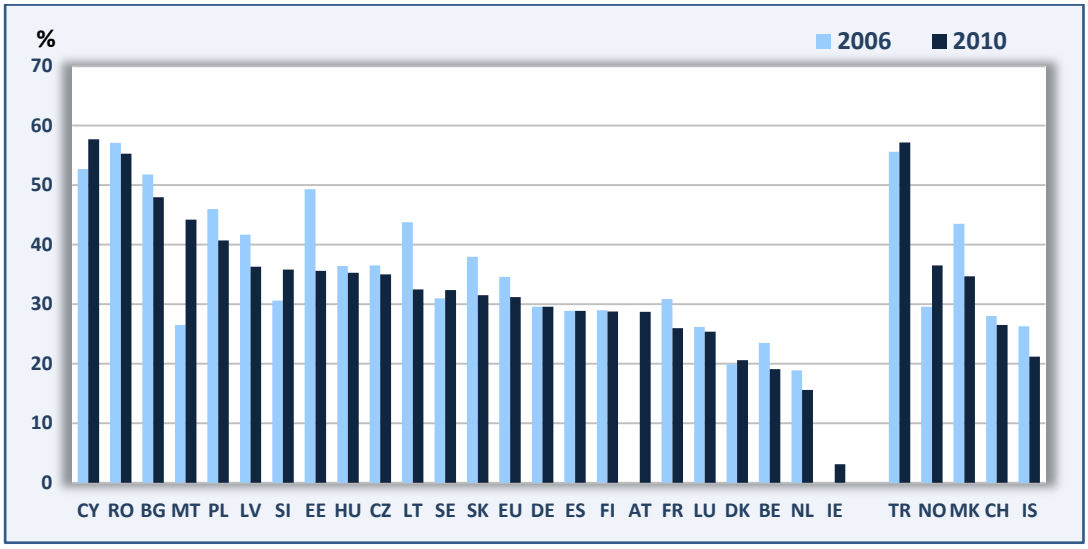
Indicator 2050: STEM graduates from upper secondary IVET

IVET can support technological innovation by providing relevant skills. At medium level of education, IVET produces graduates in STEM subjects (science, technology, engineering, and mathematics) which are of considerable importance to technological activities and progress across the EU.

The indicator below is defined as the number of graduates from upper secondary vocational education (ISCED 3) who successfully completed their studies in STEM subjects, expressed as a percentage of all graduates from upper secondary vocational education.

Only countries for which data were available for all the years in the period 2006-10 were considered in calculating the EU averages reported below.

Figure 17 **STEM graduates from upper secondary IVET (% of total), 2006 and 2010**



Source: Cedefop calculations based on Eurostat, UOE data collection on education systems.

Key points

On average across the EU, it is estimated that 31.2% of graduates from upper secondary VET obtained a qualification in STEM subjects in 2010. This is slightly lower than the 34.6% in 2006. In 2010, the highest shares were found in Cyprus (57.7%), Romania (55.3%) and Bulgaria (48.0%). The lowest shares (below 20%) were found in Belgium, Ireland and the Netherlands.

From 2006 to 2010, particularly large variations in the share of VET graduates in STEM subjects occurred in Malta (an increase) as well as in Estonia and Lithuania (a reduction).

Among the non-EU countries for which data are available, Turkey has the highest percentage of upper secondary VET students graduating in STEM subjects; at 57.2% this is higher than all Member States except Cyprus.

Table 17 **STEM graduates from upper secondary IVET (% of total), 2006-10**

Country code	Country	2006	Flag	2010	Flag	Change 2006-10	Break in series 2006-10
EU-27	European Union (27)	34.6		31.2		-3.4	
BE	Belgium	23.5		19.1		-4.4	
BG	Bulgaria	51.8		48.0		-3.8	
CZ	Czech Republic	36.5		35.0		-1.5	
DK	Denmark	19.9		20.6		0.7	
DE	Germany	29.6		29.6		0	
EE	Estonia	49.3		35.6		-13.7	
IE	Ireland			3.1			
EL	Greece						
ES	Spain	28.9		28.9		0	
FR	France	30.9		26.0		-4.9	
IT	Italy						
CY	Cyprus	52.7		57.7		5.0	
LV	Latvia	41.7		36.3		-5.4	
LT	Lithuania	43.8		32.5		-11.3	
LU	Luxembourg	26.2		25.4		-0.8	
HU	Hungary	36.4		35.3		-1.1	
MT	Malta	26.5		44.2		17.7	
NL	Netherlands	18.9		15.6		-3.3	
AT	Austria			28.7			
PL	Poland	46.0		40.7		-5.3	
PT	Portugal						
RO	Romania	57.1		55.3		-1.8	
SI	Slovenia	30.6		35.8		5.2	
SK	Slovakia	38.0		31.5		-6.5	
FI	Finland	29.0		28.8		-0.2	
SE	Sweden	31.0		32.4		1.4	
UK	United Kingdom						
IS	Iceland	26.3		21.2		-5.1	
NO	Norway	29.6		36.5		6.9	
CH	Switzerland	28.0		26.5		-1.5	
HR	Croatia						
MK	former Yugoslav Republic of Macedonia	43.5		34.7		-8.8	
TR	Turkey	55.6		57.2		1.6	

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.

Source: Cedefop calculations based on Eurostat, UOE data collection on education systems.

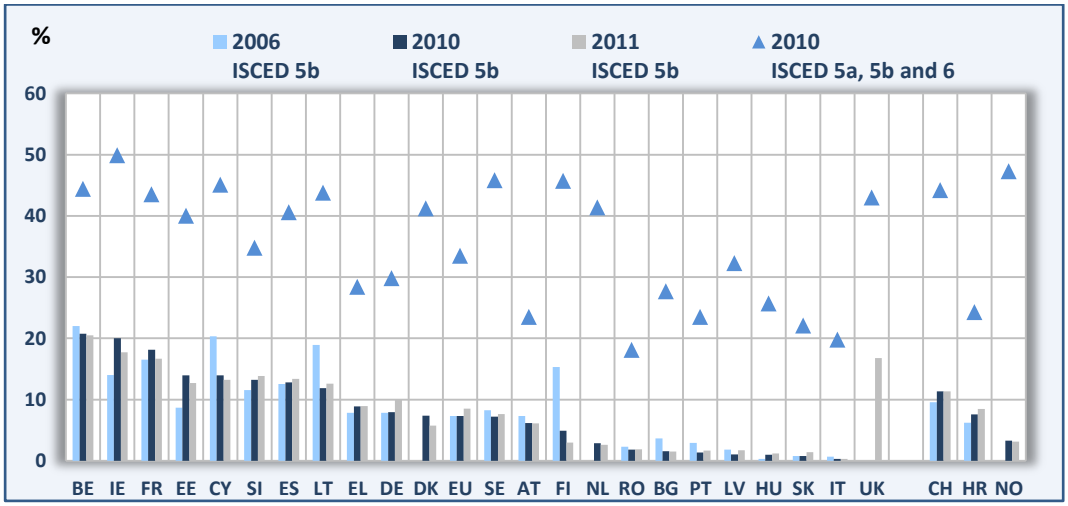
18. How many young people obtain a VET qualification at tertiary level?

Indicator 2060: 30-34 year-olds with tertiary VET attainment

A key EU policy aim is to have a highly skilled and qualified population and labour force. Increasing the EU average share of 30-34 year-olds with education attainment at tertiary level is one target of the Europe 2020 strategy. VET can contribute to this objective. This indicator is a proxy measure for the contribution of VET to tertiary level education attainment among the young population.

The indicator below is defined as the share of 30-34 year-olds who have an ISCED 5b qualification as their highest education attainment. ISCED 5b qualifications are assumed to be an underestimated proxy measure of vocational education at tertiary level ([17]).

Figure 18 **30-34 year-olds with tertiary VET (ISCED 5b) attainment (%), 2006, 2010 and 2011**



Source: Eurostat, Cedefop calculations based on Eurostat, EU labour force survey.

Key points

In 2010, 33.5% of 30-34 year-olds in the EU had a tertiary qualification as their highest education attainment. This figure includes all types of tertiary level qualifications. Most of these (26.2%) had theoretically-oriented tertiary qualifications (i.e. ISCED 5a and 6 qualifications). But an additional and substantial 7.3% of 30-34 year-olds held, as their highest education attainment, a technically-oriented/occupation-specific tertiary qualification (ISCED 5b as shown

([17]) This is based on the statistical distinction, between types of tertiary qualifications at level 5, as provided for by ISCED 97. ISCED 5a qualifications relate to programmes theoretically based/research preparatory (history, philosophy, mathematics, etc.) or giving access to professions with high skills requirements (e.g. medicine, etc.). ISCED 5b qualifications relate to generally shorter programmes which are more practical/technical/occupationally specific and that are mainly designed for participants to acquire the practical skills and know-how needed for employment in particular occupations or trades

in the chart). The share of 30-34 year-olds with ISCED 5b qualifications, varies across Member States. The highest percentage was found in Belgium (20.7% in 2010). In contrast, Bulgaria, Italy, Romania, Latvia, Hungary, Portugal and Slovakia recorded relatively low percentages (all below 5%). Among non-EU countries, Switzerland recorded a relatively high percentage at 11.3%.

A comparison of the data for 2006 with that for 2010 reveals that the EU average remained unchanged at 7.3% though it has increased slightly since 2010 to 8.5% in 2011.

More than for the other indicators, it is necessary to consider that data may be affected by specific characteristics and changes in national education and training systems. Trends can be sensitive to recent changes in classification of particular 5b programmes. A break in series means that it is not possible to provide a comparison of 2006 with 2010 for Denmark, Luxembourg, and the Netherlands. For the UK, only data for 2011 are provided because of a break in series.

Table 18 **Percentage of 30-34 year-olds with tertiary level vocational education, 2006-11**

Country code	Country	2006	Flag	2010	Flag	Change 2006-10	Break in series 2006-10	2011	Flag
EU-27	European Union (27 countries)	7.3		7.3		0		8.5	
BE	Belgium	22.0		20.7		-1.3		20.5	
BG	Bulgaria	3.6		1.6		-2.0		1.5	
CZ	Czech Republic								
DK	Denmark			7.4			b	5.8	
DE	Germany	7.8		8.0		0.2		10.0	
EE	Estonia	8.7		14.0		5.3		12.7	
IE	Ireland	14.0		20.0		6.0		17.7	
EL	Greece	7.8		8.9		1.1		8.9	
ES	Spain	12.6		12.8		0.2		13.4	
FR	France	16.5		18.1		1.6		16.7	
IT	Italy	0.7		0.3		-0.4		0.3	
CY	Cyprus	20.3		13.9		-6.4		13.2	
LV	Latvia	1.8		1.1		-0.7		1.7	
LT	Lithuania	18.9		11.9		-7.0		12.6	
LU	Luxembourg			18.7	u		b	14.2	u
HU	Hungary	0.3		1.0		0.7		1.2	
MT	Malta								
NL	Netherlands			2.9			b	2.6	
AT	Austria	7.3		6.2		-1.1		6.1	
PL	Poland								
PT	Portugal	2.9		1.4		-1.5		1.7	
RO	Romania	2.3		1.8		-0.5		1.9	
SI	Slovenia	11.5		13.2		1.7		13.9	
SK	Slovakia	0.8		0.8		0		1.4	
FI	Finland	15.3		4.9		-10.4		3.0	
SE	Sweden	8.3	p	7.2	p	-1.1		7.6	p
UK	United Kingdom							16.8	b
IS	Iceland	4.8	u	2.4	u	-2.4		3.2	u
NO	Norway	0.0		3.3		3.3		3.2	
CH	Switzerland	9.6		11.3		1.7		11.3	
HR	Croatia	6.2		7.6		1.4		8.5	
MK	former Yugoslav Republic of Macedonia								
TR	Turkey								

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.

Source: Cedefop calculations based on Eurostat, EU labour force survey.

19. How many enterprises use training to support technological innovation?

Indicator 2070: innovative enterprises with supportive training practices

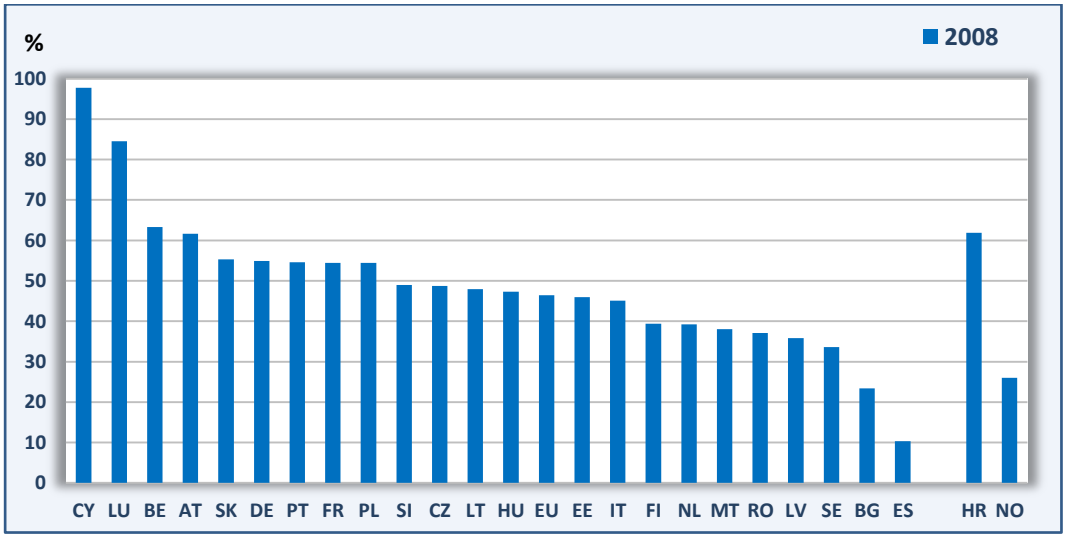
Education and training is an important policy lever for achieving the Europe 2020 objectives. Targeted smart growth, in particular, relies on knowledge and innovation in enterprises and VET is essential to promote and support it. The indicator below is defined as the number of enterprises which have engaged in technological innovation and which have provided training to their staff to support such innovation. This number is expressed as percentage of all companies engaged in technological innovation. The data refer only to enterprises in core innovation sectors. The EU average is estimated using available country data.

Key points

Enterprises which are technological innovators often provide their staff with specific training to support innovation. Based on available data for 2008, on average 46.4% of enterprises engaged in technological innovation provided supportive training. In 15 out of 23 Member States for which data are available, the percentage was higher than 40%. Figures were highest in Cyprus (98%) and Luxembourg (85%) and lowest in Bulgaria and Spain (less than 25%).

Among the non-EU countries for which data are available, Croatia has a high score.

Figure 19 **Innovative enterprises with supportive training practices (%), 2008**



Source: Eurostat, community innovation survey.

Table 19 **Innovative enterprises with supportive training practices (%), 2008**

Country code	Country	2008	Flag
EU-27	European Union (27 countries)	46.4	
BE	Belgium	63.3	
BG	Bulgaria	23.4	
CZ	Czech Republic	48.8	
DK	Denmark		
DE	Germany	54.9	
EE	Estonia	46.0	
IE	Ireland		
EL	Greece		
ES	Spain	10.4	
FR	France	54.5	
IT	Italy	45.1	
CY	Cyprus	97.8	
LV	Latvia	35.8	
LT	Lithuania	47.9	
LU	Luxembourg	84.5	
HU	Hungary	47.3	
MT	Malta	38.1	
NL	Netherlands	39.2	
AT	Austria	61.6	
PL	Poland	54.4	
PT	Portugal	54.6	
RO	Romania	37.1	
SI	Slovenia	49.0	
SK	Slovakia	55.3	
FI	Finland	39.4	
SE	Sweden	33.6	
UK	United Kingdom		
IS	Iceland		
NO	Norway	26.0	
CH	Switzerland		
HR	Croatia	61.9	
MK	former Yugoslav Republic of Macedonia		
TR	Turkey		

NB: u = unreliable; p = provisional.
Source: Eurostat, community innovation survey.

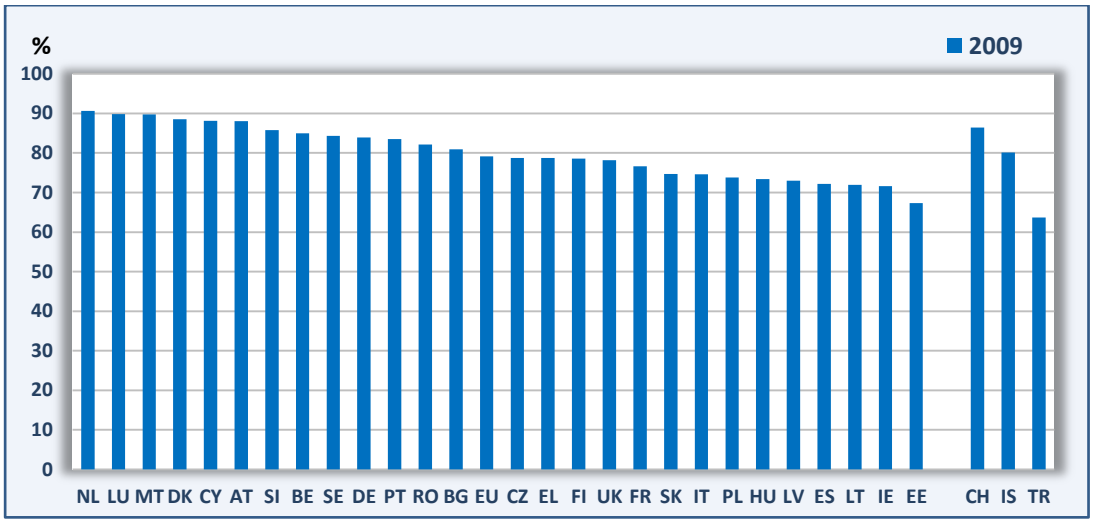
20. How many young IVET graduates are in employment?

Indicator 2080: employment rate for 20-34 year-old IVET graduates

Positive returns from IVET are of crucial importance. Being mainly, though not solely, designed for participants to acquire practical skills and know-how needed for employment in particular occupations, IVET can aid transition from education to work and contribute to lowering unemployment among the young.

The indicator below is defined as the employment rate of young people aged 20-34 who have a vocational qualification at ISCED 3-4 as their highest level of education attainment and who are no longer in education. In this section the indicator is considered on its own. In the following sections it is compared with the corresponding rates for medium-level graduates from general education and for those with, at most lower, secondary level education.

Figure 20 **Employment rate for 20-34 year-old IVET graduates no longer in education (%), 2009**



Source: Cedefop calculations based on Eurostat data from the 2009 ad hoc module of the EU labour force survey.

Key points

In 2009, the average employment rate for EU IVET graduates with a medium level of education (ISCED 3-4), and no longer in education, was 79.1%. The rate was around 90% in three countries (with the highest rate in the Netherlands at 90.6%). In 10 EU Member States it ranged between 80% and 90% and between 70% and 80% in 13 countries. Only in Estonia was it below 70% (67.3%). Among the non-EU countries for which there are data, Switzerland has a relatively high employment rate for IVET graduates compared with the EU average, and Turkey has a rate lower than that for any of the Member States (at 67.3%). In interpreting

the data, it is important to consider that they refer to 2009 and read them in the generally unfavourable economic context.

In the EU, the employment rate for the VET stream at 79.1% is higher than that for the general stream (73.5%) and for those with a low level of education attainment (61.7%). These differences are described in more detail in the following indicators.

Table 20 **Employment rate for 20-34 year-old IVET graduates and for those from general stream and for the low-educated, 2009**

Country code	Country	Vocational stream 2009	Flag	General stream 2009	Flag	Low-educated 2009	Flag
EU-27	European Union (27 countries)	79.1		73.5		61.7	
BE	Belgium	85.0		73.8		58.1	
BG	Bulgaria	80.9		73.0		55.8	
CZ	Czech Republic	78.7		68.1		43.5	
DK	Denmark	88.5		82.5		73.9	
DE	Germany	83.9		57.7		54.2	
EE	Estonia	67.3		70.8		53.6	
IE	Ireland	71.6		69.8		50.8	
EL	Greece	78.7		74.1		72.8	
ES	Spain	72.2		68.8		61.8	
FR	France	76.6		76.0		59.7	
IT	Italy	74.6		66.9		61.0	
CY	Cyprus	88.1		83.9		74.8	
LV	Latvia	73.0		62.2		45.5	
LT	Lithuania	71.9		59.4		52.9	
LU	Luxembourg	89.8		81.3		74.2	
HU	Hungary	73.4		67.1		44.4	
MT	Malta	89.7		93.3		68.3	
NL	Netherlands	90.6		85.9		76.9	
AT	Austria	88.0		83.0		61.6	
PL	Poland	73.8		69.0		54.2	
PT	Portugal	83.5		84.9		80.8	
RO	Romania	82.1		78.0		67.0	
SI	Slovenia	85.8		73.6		68.9	
SK	Slovakia	74.7		70.9		30.4	
FI	Finland	78.6		75.6		59.3	
SE	Sweden	84.3		80.5		60.2	
UK	United Kingdom	78.2		80.6		65.8	
IS	Iceland	80.1		78.9		68.4	
NO	Norway						
CH	Switzerland	86.4		79.2		71.2	
HR	Croatia						
MK	former Yugoslav Republic of Macedonia						
TR	Turkey	63.7		52.5		54.1	

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.

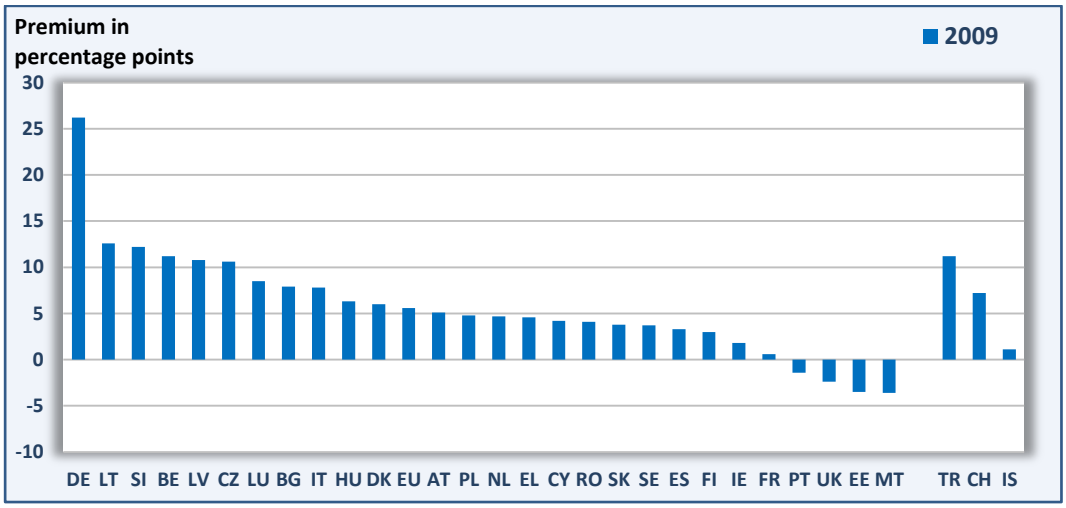
Source: Cedefop calculations based on Eurostat data from the 2009 ad hoc module of the EU labour force survey.

21. Are young IVET graduates more likely to be in employment than those from the general stream?

Indicator 2090: employment premium for IVET graduates (over general stream)

To contextualise the labour market outcomes of IVET graduates better, the following indicator compares their employment rate with that for graduates from the general stream. The indicator is defined as the difference between the employment rates of IVET graduates at a medium level of education attainment and the rate for those who graduated, at the same ISCED levels, from the general education stream. The rate for IVET graduates is defined, as in the previous section: the employment rate of 20-34 year-olds with a vocational qualification at ISCED 3-4 as their highest educational level and no longer in formal education. The difference is obtained by subtracting to it from comparable rate for graduates from the general stream of education. Both the employment rates exclude graduates in further formal education and refer to 20-34 year-olds. The difference is expressed in percentage points.

Figure 21 **Employment premium for IVET graduates (in percentage points over general stream), 2009**



Source: Cedefop calculations based on Eurostat data from the 2009 ad hoc module of the EU labour force survey.

Key points

In 2009, the employment rate for EU IVET graduates with a medium level of education attainment (ISCED 3-4) was 5.6 percentage points higher than for those who graduated from the general stream at the same level. Compared to the latter, IVET graduates enjoyed a positive employment premium (a higher employment rate) in most of EU countries. The difference was greatest in Germany where the difference was 26.2 percentage points. Only in Estonia, Malta, Portugal, and the UK was the employment rate for general education graduates higher than for graduates from the VET stream (though the differences are small). Particularly in

small countries, low or negative premiums could reflect small sample sizes. Relatively large positive premiums, as in Latvia, Lithuania and Slovenia, could also be due to the same issue.

Among the non-EU countries for which data are available, Turkey and Switzerland have a relatively high employment rate premium for VET graduates while that for Iceland is close to zero.

In interpreting the data, it is important to consider that they refer to 2009 and to read them in the generally unfavourable economic context. Sectoral differences in the effects of the 2009 downturn and in the employment distribution of graduates may partly drive the results.

Table 21 **Employment premium for IVET graduates (in percentage points over general stream), 2009**

Country code	Country	2009	Flag
EU-27	European Union (27)	5.6	
BE	Belgium	11.2	
BG	Bulgaria	7.9	
CZ	Czech Republic	10.6	
DK	Denmark	6.0	
DE	Germany	26.2	
EE	Estonia	-3.5	
IE	Ireland	1.8	
EL	Greece	4.6	
ES	Spain	3.3	
FR	France	0.6	
IT	Italy	7.8	
CY	Cyprus	4.2	
LV	Latvia	10.8	
LT	Lithuania	12.6	
LU	Luxembourg	8.5	
HU	Hungary	6.3	
MT	Malta	-3.6	
NL	Netherlands	4.7	
AT	Austria	5.1	
PL	Poland	4.8	
PT	Portugal	-1.4	
RO	Romania	4.1	
SI	Slovenia	12.2	
SK	Slovakia	3.8	
FI	Finland	3.0	
SE	Sweden	3.7	
UK	United Kingdom	-2.4	
IS	Iceland	1.1	
NO	Norway		
CH	Switzerland	7.2	
HR	Croatia		
MK	former Yugoslav Republic of Macedonia		
TR	Turkey	11.2	

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.

Source: Cedefop calculations based on Eurostat data from the 2009 ad hoc module of the EU labour force survey.

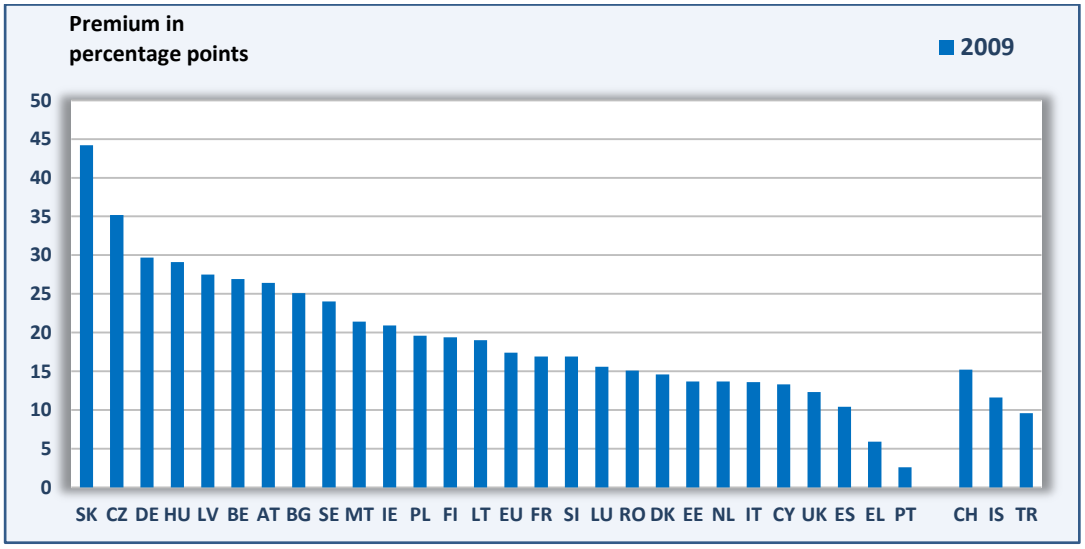
22. Are young IVET graduates more likely to be in employment than those with lower level qualifications?

Indicator 2100: employment premium for IVET graduates (over low-educated)

To consider the benefit of IVET further, the indicator here compares the employment rates of VET graduates (20-34 year-olds with a vocational qualification at ISCED 3-4 as their highest level of educational level) with the employment rate of those with a lower level of education; that is, those with at most lower secondary qualifications (ISCED 0-2). Both employment rates exclude individuals in further formal education and refer to 24-34 year-olds.

The comparison is undertaken by calculating the difference in percentage points between the two employment rates.

Figure 22 **Employment premium for IVET graduates (in percentage points over low-educated), 2009**



Source: Cedefop calculations based on Eurostat data from the 2009 ad hoc module of the EU labour force survey.

Key points

In 2009, those aged 20-34 years in the EU holding a medium level VET qualification had an employment rate 17.4 percentage points higher than those with, at most, a lower secondary level qualification. Compared to the latter, VET graduates enjoyed a substantial employment premium. In almost all countries, this was 10 percentage points or more, with Slovakia and the Czech Republic recording the highest premiums (differences of 44.2 and 35.2 percentage points, respectively). In Portugal and Greece, there were also premiums, but this was much lower (2.6 and 5.9 percentage points respectively). In the non-EU countries

for which data are available, Switzerland has an employment rate premium for IVET graduates at ISCED 3-4 which is about the same as the EU average while in Iceland and Turkey it is slightly below the EU average. In interpreting the data, it is important to consider that they refer to 2009 and to read them in the generally unfavourable economic context, which particularly penalised the low-educated.

Table 22 **Employment premium for IVET graduates (in percentage points over low-educated), 2009**

Country code	Country	2010	Flag
EU-27	European Union (27)	17.4	
BE	Belgium	26.9	
BG	Bulgaria	25.1	
CZ	Czech Republic	35.2	
DK	Denmark	14.6	
DE	Germany	29.7	
EE	Estonia	13.7	
IE	Ireland	20.9	
EL	Greece	5.9	
ES	Spain	10.4	
FR	France	16.9	
IT	Italy	13.6	
CY	Cyprus	13.3	
LV	Latvia	27.5	
LT	Lithuania	19.0	
LU	Luxembourg	15.6	
HU	Hungary	29.1	
MT	Malta	21.4	
NL	Netherlands	13.7	
AT	Austria	26.4	
PL	Poland	19.6	
PT	Portugal	2.6	
RO	Romania	15.1	
SI	Slovenia	16.9	
SK	Slovakia	44.2	
FI	Finland	19.4	
SE	Sweden	24.0	
UK	United Kingdom	12.3	
IS	Iceland	11.6	
NO	Norway		
CH	Switzerland	15.2	
HR	Croatia		
MK	former Yugoslav Republic of Macedonia		
TR	Turkey	9.6	

NB: u = unreliable; p = provisional.
Source: Cedefop calculations based on Eurostat data from the 2009 ad hoc module of the EU labour force survey.

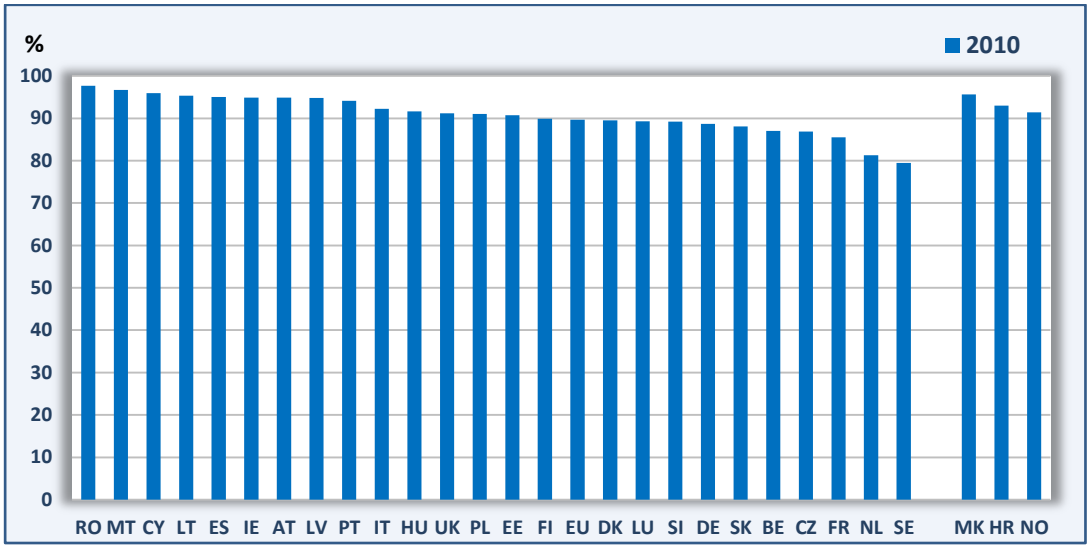
23. Does training help people do their jobs better?

Indicator 2110: workers helped to improve their work by training

A key aim of EU policy is for governments, individuals, and employers to invest in skill development to strengthen social inclusion, and improve economic growth and competitiveness. VET contributes to improving skills at the workplace and career perspectives.

The indicator below is defined as the number of trained workers reporting that 'training has helped them to improve the way they work' expressed as a percentage of all trained workers. Training refers to training provided by their employer (or by themselves in the case of the self-employed).

Figure 23 **Workers helped to improve their work by training (%), 2010**



Source: Eurofound, 2010 European working conditions survey.

Key points

Based on 2010 data, most workers who were trained considered that their training helped them improve their way of working: 89.7% on average in the EU. Across all countries values are close to or above 80% and for a few countries (Cyprus, Malta and Romania) the score is above 95%.

Country variations may be accounted for by differences in the aim of the training provided by the employer (for example, some training may be directly aimed at improving the performance of the worker whereas other training may have a wider aim than improving performance in the current job). Due to sample sizes issues, data for Bulgaria, Greece and Turkey are not presented.

Table 23 **Workers helped to improve their work by training (%), 2010**

Country code	Country	2010	Flag
EU-27	European Union (27 countries)	89.7	
BE	Belgium	87.0	
BG	Bulgaria		
CZ	Czech Republic	86.9	
DK	Denmark	89.5	
DE	Germany	88.7	
EE	Estonia	90.7	
IE	Ireland	94.9	
EL	Greece		
ES	Spain	95.0	
FR	France	85.5	
IT	Italy	92.2	
CY	Cyprus	95.9	
LV	Latvia	94.8	
LT	Lithuania	95.3	
LU	Luxembourg	89.3	
HU	Hungary	91.6	
MT	Malta	96.7	
NL	Netherlands	81.3	
AT	Austria	94.9	
PL	Poland	91.0	
PT	Portugal	94.1	
RO	Romania	97.7	
SI	Slovenia	89.2	
SK	Slovakia	88.1	
FI	Finland	89.9	
SE	Sweden	79.5	
UK	United Kingdom	91.2	
IS	Iceland		
NO	Norway	91.4	
CH	Switzerland		
HR	Croatia	93.0	
MK	former Yugoslav Republic of Macedonia	95.6	
TR	Turkey		

NB: u = unreliable; p = provisional.
Source: Eurofound, 2010 European working conditions survey.

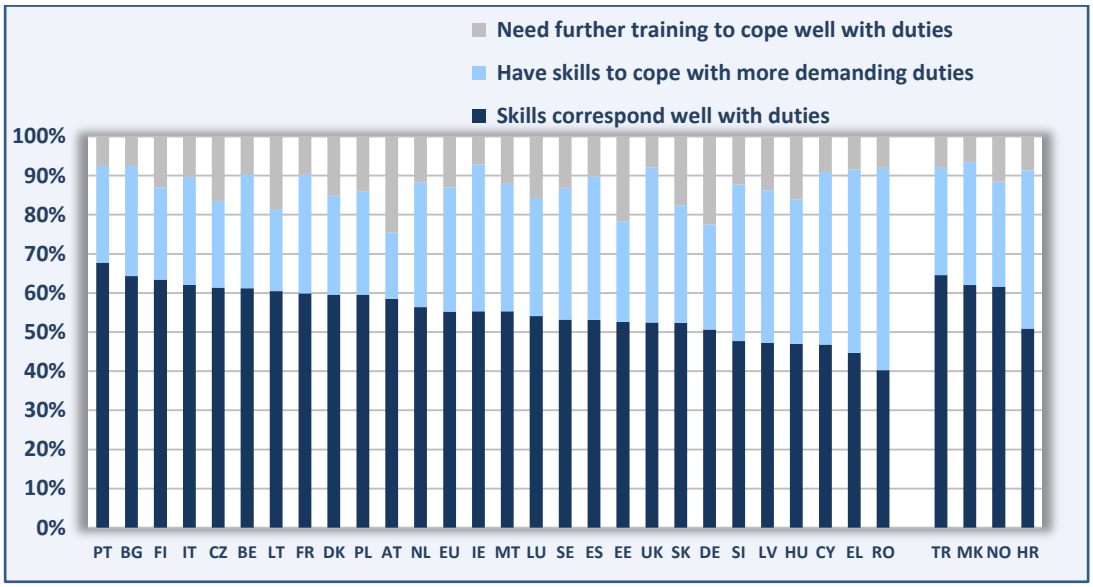
24. To what extent do workers have skills matched to do their jobs?

Indicator 2120: workers with skills matched to their duties

Of central importance to EU policy is to develop and upgrade skills matched better to labour demand and anticipate future skill needs. Education and training should provide people with the skills required in both their current job and in any future one, but mismatches occur.

There are various ways to measure the extent of skills mismatch in the labour market. The indicator used here is defined as the percentage of people who report that their skills correspond well with the duties in their job. Respondents to the survey are asked: 'which of the following alternatives would best describe your skills in your own work?': 'my present skills correspond well with my duties'; 'I need further training to cope well with my duties'; and 'I have the skills to cope with more demanding duties'. The share of those stating 'my present skills correspond well with my duties' can be assumed as a possible proxy measure of the share of workers with skills matched to the demands of their jobs.

Figure 24 **Match between skills and duties (%), 2010**



Source: Eurofound, 2010 European working conditions survey.

Key points

In 2010, 55.3% of workers in the EU reported that their skills were matched to the jobs they performed. An additional 13% of workers in the EU felt they needed further training to cope well with their duties (which could be interpreted as proxy measure of underskilling). The remaining 31.8% considered that they had skills to cope with more demanding duties.

In 2010, Portugal had the highest percentage of employees/self-employed people who regard their skills as matched to their job (67.8%), followed by Bulgaria (64.3%), and Finland (63.4%). In contrast, Cyprus (46.8%), Greece (44.6%), and Romania (40.3%) recorded the lowest percentages.

For non-EU countries for which data are available, Turkey had the highest percentage at 64.5% in 2010.

Table 24 **Workers with skills matched to their duties (%), 2010**

Country code	Country	Skills correspond well with duties		Have skills to cope with more demanding duties		Need further training	
		2010	Flag	2010	Flag	2010	Flag
EU-27	European Union (27 countries)	55.3		31.8		13.0	
BE	Belgium	61.2		29.0		9.8	
BG	Bulgaria	64.3		28.2		7.5	
CZ	Czech Republic	61.4		22.1		16.5	
DK	Denmark	59.6		25.3		15.1	
DE	Germany	50.7		26.8		22.5	
EE	Estonia	52.6		25.6		21.8	
IE	Ireland	55.3		46.9		8.4	
EL	Greece	44.6		36.7		10.2	
ES	Spain	53.1		30.4		9.7	
FR	France	59.9		37.5		7.2	
IT	Italy	62.1		27.6		10.3	
CY	Cyprus	46.8		44.1		9.1	
LV	Latvia	47.2		39.1		13.7	
LT	Lithuania	60.5		20.8		18.7	
LU	Luxembourg	54.1		30.2		15.7	
HU	Hungary	47.0		36.9		16.1	
MT	Malta	55.3		32.6		12.1	
NL	Netherlands	56.3		31.9		11.7	
AT	Austria	58.5		17.0		24.5	
PL	Poland	59.6		26.4		14.0	
PT	Portugal	67.8		24.8		7.5	
RO	Romania	40.3		51.7		8.0	
SI	Slovenia	47.7		40.0		12.3	
SK	Slovakia	52.4		30.0		17.6	
FI	Finland	63.4		23.6		13.0	
SE	Sweden	53.2		33.7		13.1	
UK	United Kingdom	52.5		39.6		7.9	
IS	Iceland						
NO	Norway	61.6		26.9		11.5	
CH	Switzerland						
HR	Croatia	50.9		40.4		8.7	
MK	former Yugoslav Republic of Macedonia	62.0		31.5		6.5	
TR	Turkey	64.5		27.4		8.0	

NB: u = unreliable; p = provisional.
Source: Eurofound, 2010 European working conditions survey.

Part III

Overall transition and employment trends

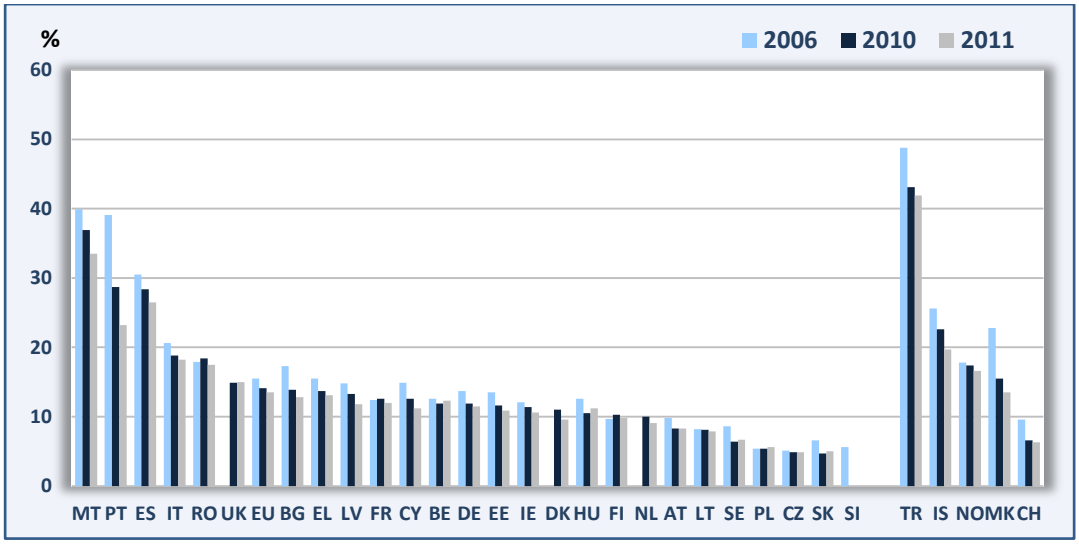
25. How many young people leave education and training too early?

Indicator 3010: early leavers from education and training

Reducing the EU average share of early leavers from education and training to below 10% of young people (18-24 year-olds) is one of the specific objectives of the Europe 2020 strategy. Reducing early leaving will make young people better equipped with knowledge and skills for facing the future, including their transition from initial education and training to the labour market.

Early leavers from education and training is defined as the percentage of the population aged 18-24 who have attained, at most, lower secondary level education (ISCED 0-2) and who are not involved in further education or training.

Figure 25 **Early leavers from education and training (%), 2006, 2010 and 2011**



Source: Eurostat, EU labour force survey.

Key points

In 2010, early leavers from education and training accounted for 14.1% of the population aged 18-24 in the EU. Data for 2011 showed a drop to 13.5%: a gap of approximately 3.5 percentage points has to be narrowed by 2020 to meet the target established for the EU average. Most countries fall within the range of 5 to 15%, but there are exceptions on both sides. Some East European countries (the Czech Republic Poland, and Slovakia) and Slovenia have the lowest levels of early leaving (below 6%). Spain, Malta and Portugal have relatively high scores (above 25%).

Many countries have their own national target, some of them more ambitious and others less than the overall Europe 2020 target at European level. By 2011, nine countries had reached their national target (the Czech Republic, Denmark, Latvia, Lithuania, Luxembourg, Austria, Slovenia, Slovakia, and Sweden).

However, data for Luxembourg and Slovenia should be interpreted with caution because of sample size issues.

Between 2006 and 2010, the EU average showed some, though slow, progress, with early leaving having dropped from 15.5 to 14.1%. This favourable trend can be seen in most Member States. Reductions were greater in Bulgaria, Spain Cyprus Malta and Portugal. A break in series means that for Denmark, Luxembourg, the Netherlands and the UK, the relative position and trend can only be evaluated starting from the most recent data.

Table 25 **Early leavers from education and training (%), 2006-11**

Country code	Country	2006	Flag	2010	Flag	Change 2006-10	Break in series 2006-10	2011	Flag	Europe 2020 national target
EU-27	European Union (27 countries)	15.5		14.1		-1.4		13.5		10.0
BE	Belgium	12.6		11.9		-0.7		12.3		9.5
BG	Bulgaria	17.3		13.9		-3.4		12.8		11.0
CZ	Czech Republic	5.1		4.9		-0.2		4.9		5.5
DK	Denmark			11.0			b	9.6		<10.0
DE	Germany	13.7		11.9		-1.8		11.5		<10.0
EE	Estonia	13.5		11.6		-1.9		10.9		9.5
IE	Ireland	12.1		11.4		-0.7		10.6		8.0
EL	Greece	15.5		13.7		-1.8		13.1		9.7
ES	Spain	30.5		28.4		-2.1		26.5		15.0
FR	France	12.4		12.6		0.2		12.0		9.5
IT	Italy	20.6		18.8		-1.8		18.2		15.0-16.0
CY	Cyprus	14.9		12.6		-2.3		11.2		10.0
LV	Latvia	14.8		13.3		-1.5		11.8		13.4
LT	Lithuania	8.2		8.1		-0.1		7.9		<9.0
LU	Luxembourg			7.1	u		b	6.2	u	<10.0
HU	Hungary	12.6		10.5		-2.1		11.2		10.0
MT	Malta	39.9		36.9		-3.0		33.5		29.0
NL	Netherlands			10.0			b	9.1		<8.0
AT	Austria	9.8		8.3		-1.5		8.3		9.5
PL	Poland	5.4		5.4		0		5.6		4.5
PT	Portugal	39.1		28.7		-10.4		23.2		10.0
RO	Romania	17.9		18.4		0.5		17.5		11.3
SI	Slovenia	5.6		5.0	u	-0.6		4.2	u	5.0
SK	Slovakia	6.6		4.7		-1.9		5.0		6.0
FI	Finland	9.7		10.3		0.6		9.8		8.0
SE	Sweden	8.6		6.4		-2.2		6.7		<10.0
UK	United Kingdom			14.9			b	15.0		
IS	Iceland	25.6		22.6		-3.0		19.7		
NO	Norway	17.8		17.4		-0.4		16.6		
CH	Switzerland	9.6		6.6		-3.0		6.3		
HR	Croatia	4.7	u	3.7	u	-1.0		4.1	u	
MK	former Yugoslav Republic of Macedonia	22.8		15.5		-7.3		13.5		
TR	Turkey	48.8		43.1		-5.7		41.9		

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.

Source: Eurostat, EU labour force survey.

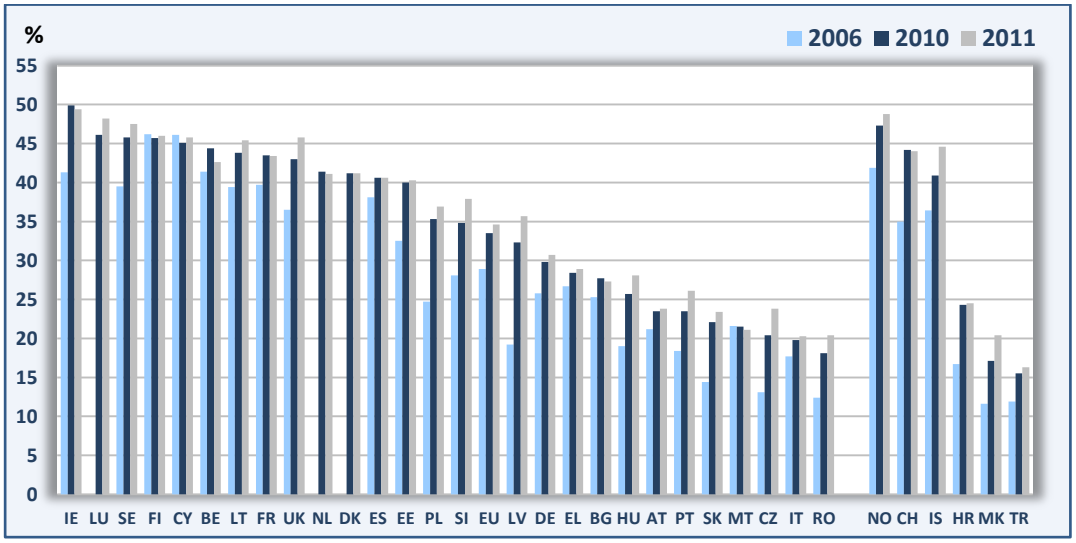
26. How many young people have a tertiary level qualification?

Indicator 3020: 30-34 year-olds with tertiary attainment

Increasing the share of 30-34 year-olds with tertiary level education attainment is one of the specific objectives of the Europe 2020 strategy. A benchmark of at least 40% has been agreed for the EU average. While acknowledging the equal importance of medium-level vocational education and training, raising tertiary education attainment among young people will accompany and support the targeted research and innovation oriented smart growth. This will also help meet the increasing demand for a highly qualified work force. Further, achieving a relatively high education level brings, potentially, several advantages such as a lower risk of being unemployed.

The indicator is defined as the percentage of the population aged 30-34 who have successfully completed tertiary-level education. Tertiary level education is defined as that classified to ISCED 5-6.

Figure 26 **30-34 year-olds with tertiary attainment (%), 2006, 2010 and 2011**



Source: Eurostat, EU labour force survey.

Key points

In 2010, 33.5% of people aged 30-34 had attained tertiary level education in the EU. At this level, an increase of 6.5 percentage points will be required if the EU is to meet its Europe 2020 target of 40%. The highest levels of tertiary education attainment are reported in Belgium, Denmark, Estonia, Ireland, Spain, France, Cyprus, Lithuania, Luxembourg, the Netherlands, Finland, Sweden and the UK (above 40% in 2010 and 2011). In contrast, in the Czech Republic, Italy, Malta, Romania and Slovakia fewer than 25% of 30-34 year-olds have tertiary level attainment (in 2010 and 2011). Several countries have national targets. By 2011, seven countries had reached their national target (Denmark, Estonia, Latvia,

Lithuania, Luxembourg, the Netherlands and Sweden). Finland was also above its 42% national target which is based on a narrower national definition.

The share of 30-34 year-olds with high-level education attainment has increased, from 28.9% in 2006 to 33.5% in 2010 across the EU. By 2011, the share had increased further to 34.6%. The increase in the percentage of people with high-level education attainment has occurred in almost all Member States but has been particularly marked in Poland and Latvia.

A break in the data series means that for Denmark, Luxembourg and the Netherlands a comparison over the 2006 to 2010 period cannot be made but it is possible to look at change between 2010 and 2011.

Table 26 **Share of 30-34 year-olds with tertiary attainment (%), 2006-11**

Country code	Country	2006	Flag	2010	Flag	Change 2006-10	Break in series 2006-10	2011	Flag	Europe 2020 national target
EU-27	European Union (27 countries)	28.9		33.5		4.6		34.6		40.0
BE	Belgium	41.4		44.4		3.0		42.6		47.0
BG	Bulgaria	25.3		27.7		2.4		27.3		36.0
CZ	Czech Republic	13.1		20.4		7.3		23.8		32.0
DK	Denmark			41.2			b	41.2		>40.0
DE	Germany	25.8		29.8		4.0		30.7		42.0
EE	Estonia	32.5		40.0		7.5		40.3		40.0
IE	Ireland	41.3		49.9		8.6		49.4		60.0
EL	Greece	26.7		28.4		1.7		28.9		32.0
ES	Spain	38.1		40.6		2.5		40.6		44.0
FR	France	39.7		43.5		3.8		43.4		50.0
IT	Italy	17.7		19.8		2.1		20.3		26.0-27.0
CY	Cyprus	46.1		45.1		-1.0		45.8		46.0
LV	Latvia	19.2		32.3		13.1		35.7		34.0-36.0
LT	Lithuania	39.4		43.8		4.4		45.4		40.0
LU	Luxembourg			46.1			b	48.2		40.0
HU	Hungary	19.0		25.7		6.7		28.1		30.3
MT	Malta	21.6		21.5		-0.1		21.1		33.0
NL	Netherlands			41.4			b	41.1		>40.0 45.0 expected in 2020
AT	Austria	21.2		23.5		2.3		23.8		38.0
PL	Poland	24.7		35.3		10.6		36.9		45.0
PT	Portugal	18.4		23.5		5.1		26.1		40.0
RO	Romania	12.4		18.1		5.7		20.4		26.7
SI	Slovenia	28.1		34.8		6.7		37.9		40.0
SK	Slovakia	14.4		22.1		7.7		23.4		40.0
FI	Finland	46.2		45.7		-0.5		46.0		42.0
SE	Sweden	39.5	p	45.8	p	6.3		47.5	p	40.0-45.0
UK	United Kingdom	36.5		43.0		6.5		45.8		
IS	Iceland	36.4		40.9		4.5		44.6		
NO	Norway	41.9		47.3		5.4		48.8		
CH	Switzerland	35.0		44.2		9.2		44.0		
HR	Croatia	16.7		24.3		7.6		24.5		
MK	former Yugoslav Republic of Macedonia	11.6		17.1		5.5		20.4		
TR	Turkey	11.9		15.5		3.6		16.3		

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.

Source: Eurostat, EU labour force survey.

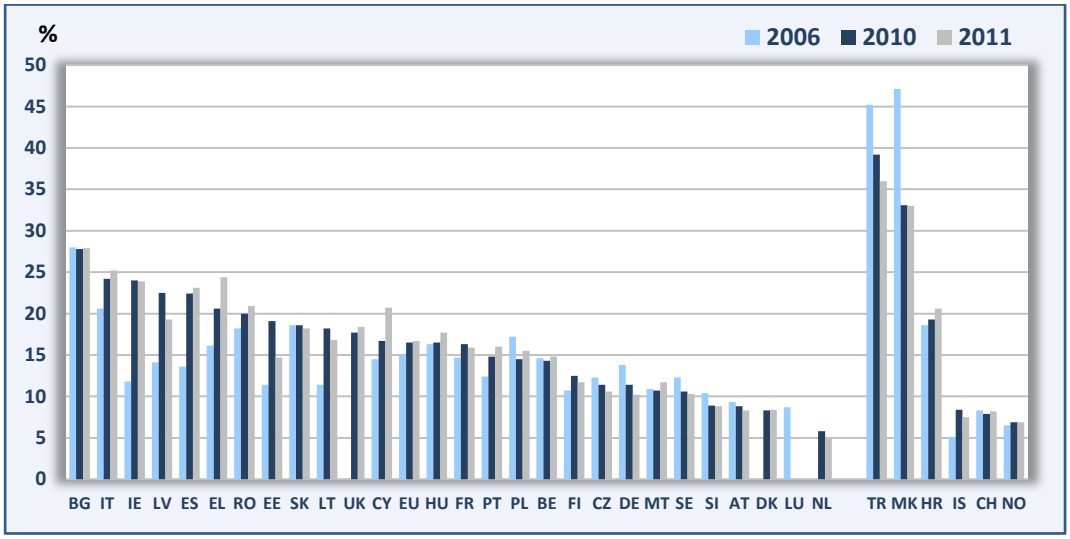
27. How many young are not in employment, education or training?

Indicator 3030: NEET rate for 18-24 year-olds

EU policy considers that after finishing secondary school, young people should either obtain a job or enter further education: if not, they should receive appropriate support through active labour market or social measures (c.f. flagship initiative 'youth on the move').

The indicator below is the NEET rate, defined as the share of 18-24 year-olds not in employment, education or training. Young people are considered to be NEET, if they are not employed and if they have not received any education or training in the four weeks preceding the survey.

Figure 27 **NEET rate for 18-24 year-olds (%), 2006, 2010 and 2011**



Source: Eurostat, EU labour force survey.

Key points

In 2010, the EU average NEET rate was 16.5%. Bulgaria, Ireland, Greece, Spain, Italy, Latvia, and Romania had NEET-rates over 20%. In 2011, Cyprus also had a NEET rate above 20%. In contrast, Denmark, the Netherlands, Austria and Slovenia all had NEET rates below 10% in 2010 and 2011. For the non-EU countries included in the study, Turkey and the former Yugoslav Republic of Macedonia both had relatively high NEET rates (above 30%), while Iceland, Norway and Switzerland had relatively low rates (below 10%).

From 2006 to 2010 the NEET rate rose slightly from 15.1% to 16.5% across the EU as a whole. In 2011, the NEET rate had risen further to 16.7%. Between 2006 and 2010 the NEET rate rose in several countries, particularly in Ireland, Spain, and the Baltic countries (seven or more percentage points). In Greece and Cyprus, the NEET rate continued to rise significantly between 2010 and 2011.

A break in the data series means that for Denmark, the Netherlands and the UK a comparison for 2006-10 is not provided, but data for 2010 and 2011 are provided.

Table 27 **NEET rate for 18-24 year-olds (%), 2006-11**

Country code	Country	2006	Flag	2010	Flag	Change 2006-10	Break in series 2006-10	2011	Flag
EU-27	European Union (27 countries)	15.1		16.5		1.4		16.7	
BE	Belgium	14.6		14.3		-0.3		14.8	
BG	Bulgaria	28.0		27.8		-0.2		27.9	
CZ	Czech Republic	12.3		11.4		-0.9		10.6	
DK	Denmark			8.3			b	8.4	
DE	Germany	13.8		11.4		-2.4		10.2	
EE	Estonia	11.4		19.1		7.7		14.7	
IE	Ireland	11.8		24.0		12.2		23.9	
EL	Greece	16.1		20.6		4.5		24.4	
ES	Spain	13.6		22.4		8.8		23.1	
FR	France	14.7		16.3		1.6		15.9	
IT	Italy	20.6		24.2		3.6		25.2	
CY	Cyprus	14.5		16.7		2.2		20.7	
LV	Latvia	14.1		22.5		8.4		19.3	
LT	Lithuania	11.4		18.2		6.8		16.8	
LU	Luxembourg	8.7		6.9	u	-1.8		6.5	u
HU	Hungary	16.3		16.5		0.2		17.7	
MT	Malta	10.9		10.7		-0.2		11.7	
NL	Netherlands			5.8			b	5.0	
AT	Austria	9.3		8.8		-0.5		8.3	
PL	Poland	17.2		14.5		-2.7		15.5	
PT	Portugal	12.4		14.8		2.4		16.0	
RO	Romania	18.2		20.0		1.8		20.9	
SI	Slovenia	10.4		8.9		-1.5		8.8	
SK	Slovakia	18.6		18.6		0.0		18.2	
FI	Finland	10.7		12.5		1.8		11.7	
SE	Sweden	12.3	p	10.6	p	-1.7		10.3	p
UK	United Kingdom			17.7			b	18.4	
IS	Iceland	5.1		8.4		3.3		7.5	
NO	Norway	6.5		6.9		0.4		6.9	
CH	Switzerland	8.3		7.9		-0.4		8.2	
HR	Croatia	18.6		19.3		0.7		20.6	
MK	former Yugoslav Republic of Macedonia	47.1		33.1		-14.0		33.0	
TR	Turkey	45.2		39.2		-6.0		36.0	

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.
Source: Eurostat, EU labour force survey.

28. How likely are young people to be unemployed?

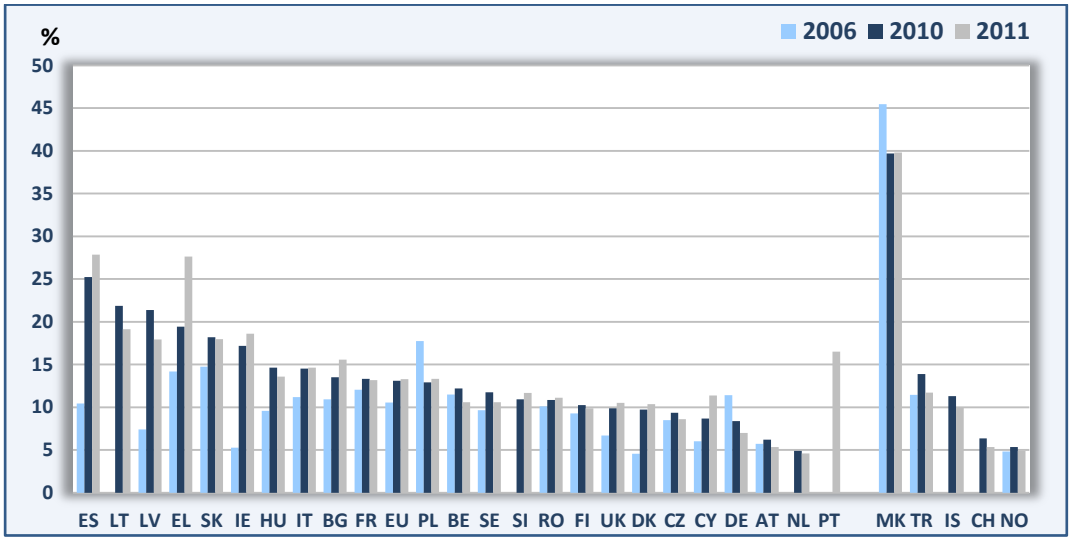
Indicator 3040: unemployment rate for 20-34 year-olds

An important EU policy today is bringing about successful transition between school and work for young people. Where young people struggle to make the transition for whatever reason, it can have long-term consequences for their progression through the labour market over the lifecycle.

Youth unemployment rate is one measure which reflects the difficulties some young people face in making the transition from school to work. While it is generally calculated for those aged 15-24, the indicator below focuses on the 20-34 age group. This is to offer a more comprehensive view on young people, also considering later entry into the labour market due to young people staying longer in initial education and training; and to exclude the age group 15-19, where active participation in labour market is relatively small (with many individuals being in education and training).

The indicator is defined as the percentage of the active population who are unemployed: these are individuals without a job, actively looking for one, and readily available to start work. The active population is defined as the population either employed or unemployed. It therefore excludes economically the inactive people (those not working and not looking for a job).

Figure 28 **Unemployment rate for 20-34 year-olds (%), 2006, 2010 and 2011**



Source: Eurostat, EU labour force survey.

Key points

In 2010 the EU average unemployment rate for 20-34 year-olds was 13.1%. In 2010, the highest rate was in Spain (25.3%) followed by Lithuania (21.9%), Latvia (21.4%) and Greece (19.4%). In contrast, Germany (8.4%), Austria (6.2%) and the Netherlands (4.9) had the lowest rates in 2010.

From the non-EU countries considered in the study, the former Yugoslav Republic of Macedonia has a relatively high rate at 39.9% in 2010 (much higher than in any Member State).

Between 2006 and 2010, unemployment rates for the 20-34 year-olds rose from 10.6% to 13.1%. The most recent data reveal that in 2011 the rate has continued to rise to stand at 13.3%. While the rise in unemployment rates can be observed across nearly all countries in 2006-10 it was particularly marked in Estonia, Spain, Ireland, Latvia and Lithuania. Also, the unemployment rate fell in Germany and Poland.

A break in the data series means that for the Netherlands and Switzerland it is not possible to make a comparison over the 2006 to 2010 period, but it is possible to make a comparison between 2010 and 2011. Portugal reports a break in series in 2011, therefore their situation is better assessed based on 2011 data, which are not comparable with data from previous years.

Table 28 **Unemployment rate for 20-34 year-olds (%), 2006-11**

Country code	Country	2006	Flag	2010	Flag	Change 2006-10	Break in series 2006-10	2011	Flag
EU-27	European Union (27 countries)	10.6		13.1		2.5		13.3	
BE	Belgium	11.5		12.2		0.7		10.6	
BG	Bulgaria	10.9		13.5		2.6		15.6	
CZ	Czech Republic	8.5		9.4		0.9		8.6	
DK	Denmark	4.6		9.7		5.1		10.4	
DE	Germany	11.4		8.4		-3.0		7.0	
EE	Estonia			19.6	u	19.6		14.7	u
IE	Ireland	5.3		17.2		11.9		18.6	
EL	Greece	14.2		19.4		5.2		27.7	
ES	Spain	10.4		25.3		14.9		27.9	
FR	France	12.1		13.3		1.3		13.2	
IT	Italy	11.2		14.5		3.3		14.6	
CY	Cyprus	6.0		8.7		2.7		11.4	
LV	Latvia	7.4		21.4		14.0		17.9	
LT	Lithuania	5.8	u	21.9		16.1		19.1	
LU	Luxembourg	6.7	u	6.2	u	-0.5		6.8	u
HU	Hungary	9.6		14.6		5.0		13.6	
MT	Malta								
NL	Netherlands			4.9			b	4.6	
AT	Austria	5.7		6.2		0.5		5.4	
PL	Poland	17.8		12.9		-4.9		13.3	
PT	Portugal							16.5	b
RO	Romania	10.1		10.9		0.8		11.1	
SI	Slovenia	9.1	u	10.9		1.8		11.7	
SK	Slovakia	14.7		18.2		3.5		18.0	
FI	Finland	9.3		10.3		1.0		9.9	
SE	Sweden	9.7		11.7		2.0		10.6	
UK	United Kingdom	6.7		9.9		3.2		10.5	
IS	Iceland			11.3				10.0	
NO	Norway	4.8		5.4		0.4		4.9	
CH	Switzerland			6.4			b	5.4	
HR	Croatia	16.1	u	18.4	u	2.3		22.3	u
MK	former Yugoslav Republic of Macedonia	45.5		39.7		-5.8		39.8	
TR	Turkey	11.5		13.9		2.4		11.7	

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.

Source: Eurostat, EU labour force survey.

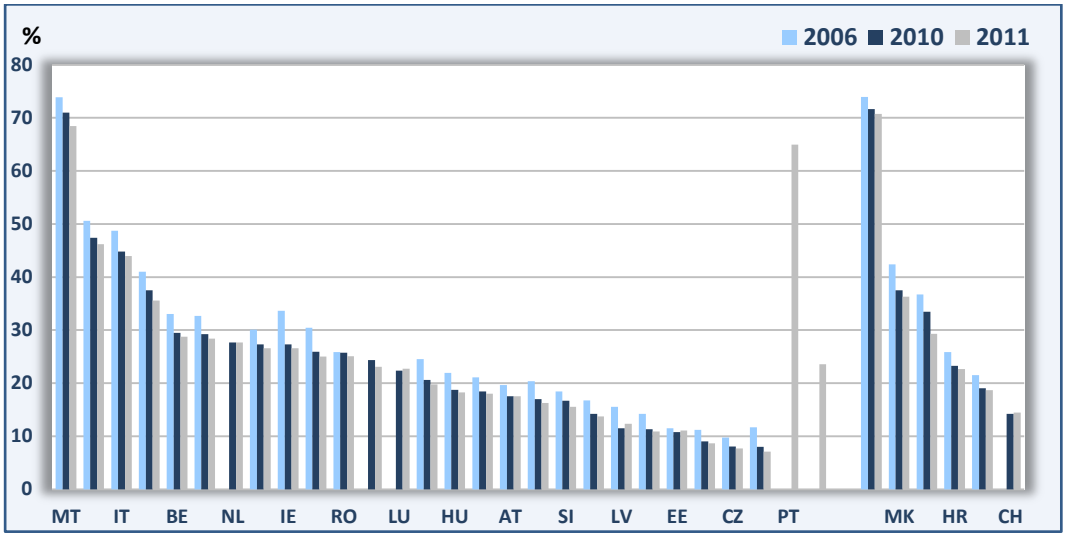
29. How many adults have a low level of education?

Indicator 3050: adults with lower level education attainment

Education attainment, measured by qualifications obtained, is an important factor determining, inter alia, both the chances of being in employment and wage levels.

The indicator reported here is defined as the share of adults (aged 25-64) with low education (i.e. at most a lower secondary qualification, ISCED 2 or below).

Figure 29 **Adults with lower level of education attainment (%), 2006, 2010 and 2011**



Source: Eurostat, EU labour force survey.

Key points

In 2010, 27.3% of people aged 25-64 in the EU had a low education, at or below ISCED 2. In 2010, Malta had the highest percentage of adults with low education attainment at 71.0%, followed by Spain (47.4%), Italy (44.8%) and Greece (37.5%). Portugal, whose levels are better assessed based on data for 2011, had also a high share (65.5%). The Czech Republic, Lithuania and Slovakia had the lowest percentage of low-educated adults (below 10% in 2010 and 2011).

Between 2006 and 2010 the EU average fell from 30.1% to 27.3%. In 2011 it had fallen further to 26.6%. This trend was observed in nearly every country from 2006 to 2011. From the non-EU countries for which data are available, Turkey has a level of low education attainment close to that of Malta at 71.6% in 2010.

A break in series occurred between 2006 and 2010 in the data for Denmark, Luxembourg, the Netherlands, and Switzerland, so changes are not reported. The UK and Portugal reported a break in series in 2011; their situation is better assessed based on 2011 data, which are not comparable with previous years.

Table 29 **Adults with lower level of education attainment (%), 2006-11**

Country code	Country	2006	Flag	2010	Flag	Change 2006-10	Break in series 2006-10	2011	Flag
EU-27	European Union (27 countries)	30.1		27.3		-2.8		26.6	
BE	Belgium	33.1		29.5		-3.6		28.7	
BG	Bulgaria	24.5		20.6		-3.9		19.8	
CZ	Czech Republic	9.7		8.1		-1.6		7.7	
DK	Denmark			24.4			b	23.1	
DE	Germany	16.8		14.2		-2.6		13.7	
EE	Estonia	11.5		10.8		-0.7		11.1	
IE	Ireland	33.7		27.3		-6.4		26.6	
EL	Greece	41.0		37.5		-3.5		35.5	
ES	Spain	50.6		47.4		-3.2		46.2	
FR	France	32.7		29.2		-3.5		28.4	
IT	Italy	48.7		44.8		-3.9		44.0	
CY	Cyprus	30.5		25.9		-4.6		25.0	
LV	Latvia	15.5		11.5		-4.0		12.3	
LT	Lithuania	11.7		8.0		-3.7		7.1	
LU	Luxembourg			22.3			b	22.7	
HU	Hungary	21.9		18.7		-3.2		18.2	
MT	Malta	73.9		71.0		-2.9		68.5	
NL	Netherlands			27.7			b	27.7	
AT	Austria	19.7		17.5		-2.2		17.5	
PL	Poland	14.2		11.3		-2.9		10.9	
PT	Portugal							65.0	b
RO	Romania	25.8		25.7		-0.1		25.1	
SI	Slovenia	18.4		16.7		-1.7		15.5	
SK	Slovakia	11.2		9.0		-2.2		8.7	
FI	Finland	20.4		17.0		-3.4		16.3	
SE	Sweden	21.1		18.4		-2.7		18.0	
UK	United Kingdom							23.6	b
IS	Iceland	36.7		33.5		-3.2		29.3	
NO	Norway	21.5		19.1		-2.4		18.7	
CH	Switzerland			14.2			b	14.4	
HR	Croatia	25.9		23.3		-2.6		22.7	
MK	former Yugoslav Republic of Macedonia	42.4		37.5		-4.9		36.3	
TR	Turkey	73.9		71.6		-2.3		70.8	

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.

Source: Eurostat, EU labour force survey.

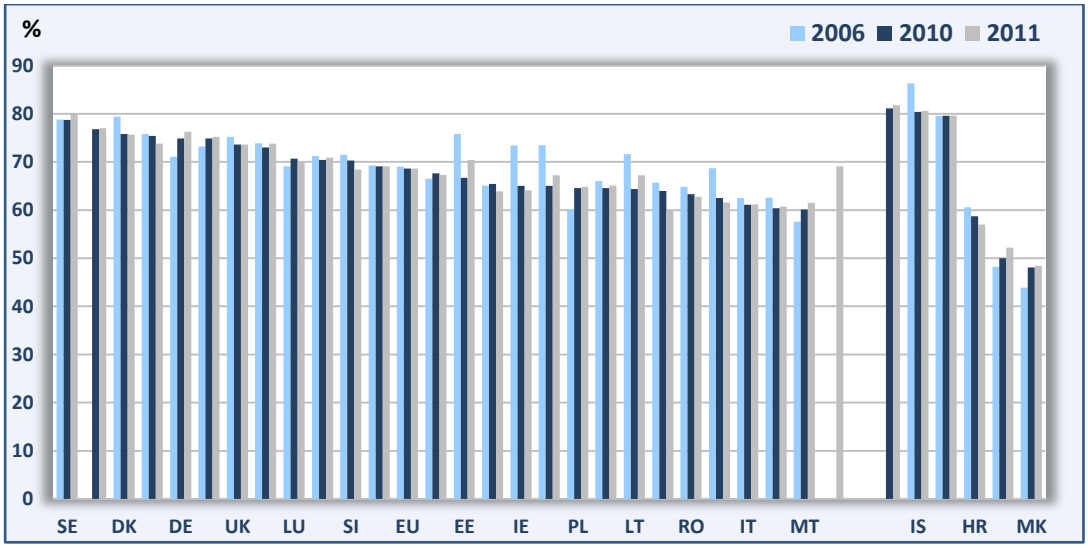
30. How many adults are employed?

Indicator 3060: employment rate 20-64 year-olds

VET can equip people with labour market relevant skills. In combination with job-rich economic growth, it can contribute to raising employment levels. Raising the EU average employment rate for 20-64 year-olds to at least 75% is one of the key targets of the Europe 2020 strategy to which VET can contribute.

The indicator below is the percentage of the population aged 20-64 who are employed. The employed population consists of those persons who, during the reference week, did any work for pay or profit for at least one hour, or were not working but had jobs from which they were temporarily absent.

Figure 30 **Employment rate for 20-64 year-olds (%), 2006, 2010 and 2011**



Source: Eurostat, EU labour force survey.

Key points

In 2010, the EU average employment rate was 68.6%, 6.4 percentage points below the Europe 2020 target of 75%. In 2010, Sweden had the highest employment rate at 78.7%, followed by the Netherlands (76.8%) and Denmark (75.8%). The rate was lowest in Italy (61.1%), Hungary (60.4%) and Malta (60.1%).

Between 2006 and 2010 the employment rate, on average, has fallen in the EU, from 69.0% to 68.6%. In 2011, the rate stayed at its 2010 level (68.6%). In Estonia, Iceland, Ireland, Latvia, Lithuania and Spain the employment rate has fallen relatively sharply between 2006 and 2010.

A break in the data series occurred for the Netherlands, Portugal and Switzerland, limiting the possibility of reliably quantifying trends.

Table 30 **Employment rate for 20-64 year-olds (%), 2006-11**

Country code	Country	2006	Flag	2010	Flag	Change 2006-10	Break in series 2006-10	2011	Flag	Europe 2020 national target
EU-27	European Union (27 countries)	69.0		68.6		-0.4		68.6		75.0
BE	Belgium	66.5		67.6		1.1		67.3		73.2
BG	Bulgaria	65.1		65.4		0.3		63.9		76.0
CZ	Czech Republic	71.2		70.4		-0.8		70.9		75.0
DK	Denmark	79.4		75.8		-3.6		75.7		80.0
DE	Germany	71.1		74.9		3.8		76.3		77.0
EE	Estonia	75.8		66.7		-9.1		70.4		76.0
IE	Ireland	73.4		65.0		-8.4		64.1		69.0-71.0
EL	Greece	65.7		64.0		-1.7		59.9		70.0
ES	Spain	68.7		62.5		-6.2		61.6		74.0
FR	France	69.3		69.1		-0.2		69.1		75.0
IT	Italy	62.5		61.1		-1.4		61.2		67.0-69.0
CY	Cyprus	75.8		75.4		-0.4		73.8		75.0-77.0
LV	Latvia	73.5		65.0		-8.5		67.2		73.0
LT	Lithuania	71.6		64.4		-7.2		67.2		72.8
LU	Luxembourg	69.1		70.7		1.6		70.1		73.0
HU	Hungary	62.6		60.4		-2.2		60.7		75.0
MT	Malta	57.6		60.1		2.5		61.5		62.9
NL	Netherlands			76.8			b	77.0		80.0
AT	Austria	73.2		74.9		1.7		75.2		77.0-78.0
PL	Poland	60.1		64.6		4.5		64.8		71.0
PT	Portugal							69.1	b	75.0
RO	Romania	64.8		63.3		-1.5		62.8		70.0
SI	Slovenia	71.5		70.3		-1.2		68.4		75.0
SK	Slovakia	66.0		64.6		-1.4		65.1		72.0
FI	Finland	73.9		73.0		-0.9		73.8		78.0
SE	Sweden	78.8		78.7		-0.1		80.0		Well over 80.0
UK	United Kingdom	75.2		73.6		-1.6		73.6		
IS	Iceland	86.3		80.4		-5.9		80.6		
NO	Norway	79.5		79.6		0.1		79.6		
CH	Switzerland			81.1			b	81.8		
HR	Croatia	60.6		58.7		-1.9		57.0		
MK	former Yugoslav Republic of Macedonia	43.9		48.1		4.2		48.4		
TR	Turkey	48.2		50.0		1.8		52.2		

NB: b = break in series. If the break in series occurs in 2011, values for 2006 and 2010 are not presented. If the break in series occurs between 2006 and 2010, the data for 2006 are not presented; u = unreliable; p = provisional.

Source: Eurostat, EU labour force survey.

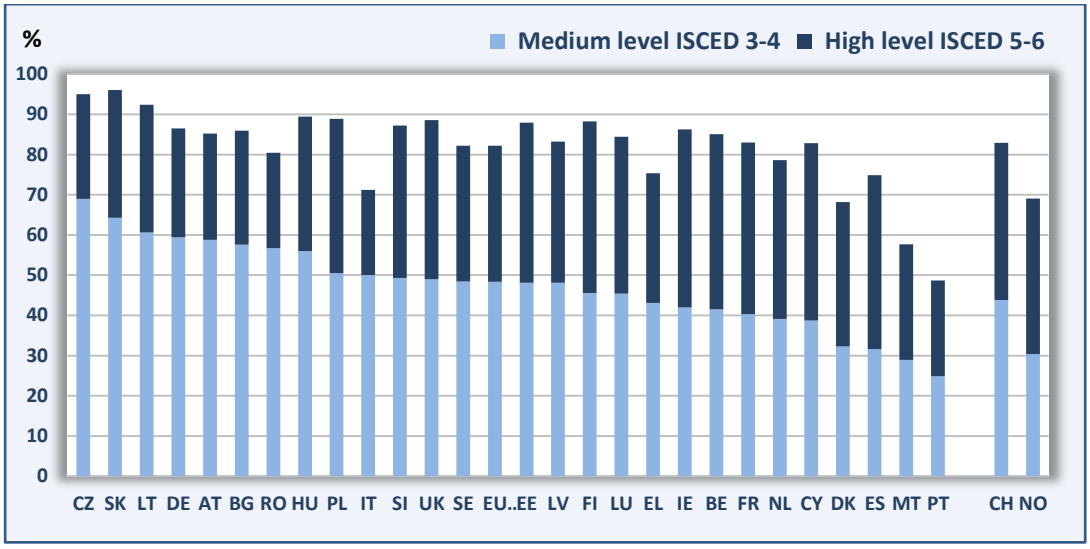
31. How many jobs will be taken by those with medium/high-level qualifications?

Indicator 3070: projected employment of those with medium/high-level qualifications (as a percentage of total employment)

To make informed judgments about where to make investments in their education and training, people need indicators on how the demand for qualifications is likely to develop in the future.

The indicator below is defined as projected employment (in 2020) for individuals with medium (ISCED 3-4) and high-level (ISCED 5-6) qualifications (as % of total employment). Level of qualifications refers to the education level of individuals who will be employed and not to the education requirements of their jobs.

Figure 31 **Projected employment of those with medium/high-level qualifications (% of total employment), 2020**



Source: Cedefop medium-term projections of future skill demand.

Key points

Data from forecast 2012 (Cedefop, 2012) show that, in 2020, most of total employment in the EU (82.2%) is projected to be taken by individuals with medium- and high-level qualifications. Those with medium-level qualifications will continue to constitute almost half of total employment (48.4%, up 0.7 percentage points compared to 2010). Those with high level qualifications will account for 33.8% (up 4.6 percentage points compared to 2010). Only a remaining 17.8% of total employment will be left for individuals with low qualifications (down 5.3 percentage points).

In almost all countries, a share of about 70% or more of total employment will be accounted for by those with medium- or high-level qualifications. This share will be significantly lower than 70% only in Malta (57.7%) and Portugal (48.6%).

Table 31 **Projected employment of those with medium/high-level qualifications (% of total employment) 2010, 2020**

Country code	Country	2010			2020		
		High	Medium	Low	High	Medium	Low
EU-27	European Union (27 countries)	29.2	47.7	23.0	33.8	48.4	17.8
BE	Belgium	40.5	39.6	20.0	43.5	41.5	14.9
BG	Bulgaria	25.8	55.8	18.5	28.4	57.6	14.0
CZ	Czech Republic	20.6	73.3	6.1	26.0	69.0	5.0
DK	Denmark	33.1	39.5	27.4	36.0	32.2	31.8
DE	Germany	26.8	58.8	14.4	27.0	59.4	13.5
EE	Estonia	40.5	48.6	10.9	39.8	48.1	12.0
IE	Ireland	40.0	39.1	20.8	44.3	42.0	13.8
EL	Greece	27.5	38.6	33.8	32.3	43.1	24.6
ES	Spain	36.0	25.1	38.9	43.3	31.6	25.1
FR	France	35.0	42.8	22.3	42.6	40.3	17.0
IT	Italy	18.0	45.6	36.3	21.2	50.0	28.8
CY	Cyprus	37.6	38.5	23.8	44.1	38.7	17.2
LV	Latvia	30.8	55.8	13.4	35.1	48.1	16.8
LT	Lithuania	37.2	55.1	7.7	31.8	60.6	7.6
LU	Luxembourg	32.8	42.6	24.6	39.0	45.4	15.6
HU	Hungary	27.6	59.7	12.7	33.4	56.0	10.6
MT	Malta	24.4	21.7	53.9	28.7	28.9	42.3
NL	Netherlands	32.9	41.8	25.3	39.5	39.1	21.4
AT	Austria	20.9	62.1	17.0	26.4	58.8	14.8
PL	Poland	30.2	58.3	11.5	38.3	50.5	11.1
PT	Portugal	20.5	18.0	61.4	23.8	24.9	51.4
RO	Romania	18.9	57.1	24.0	23.7	56.7	19.6
SI	Slovenia	31.0	53.5	15.5	37.9	49.3	12.8
SK	Slovakia	24.7	70.4	5.0	31.8	64.2	4.0
FI	Finland	39.5	45.2	15.3	42.6	45.6	11.8
SE	Sweden	33.0	48.8	18.2	33.8	48.4	17.8
UK	United Kingdom	34.5	44.1	21.4	39.6	49.0	11.4
IS	Iceland						
NO	Norway	35.6	40.3	24.1	38.7	30.4	31.0
CH	Switzerland	31.7	51.2	17.1	39.1	43.8	17.1
HR	Croatia						
MK	former Yugoslav Republic of Macedonia						
TR	Turkey						

NB: u = unreliable; p = provisional.
Source: Cedefop medium-term projections of future skill demand.

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Annex

Short description of indicators

No	Indicator	Short description and source	Years used in the report
Access, attractiveness and flexibility			
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 (Eurostat, UOE)	2006, 2010
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) ([a]) ([b])	2006, 2010
1030	Employees participating in CVT courses (%)	Number of employees who have participated in employer-provided CVT courses in the last 12 months as a percentage of all employees in all enterprises surveyed (Eurostat, CVTS)	2005
1040	Employees participating in on-the-job training (%)	Number of employees who have participated in employer-provided on-the-job training in the last 12 months as a percentage of all employees in all enterprises surveyed (Eurostat, CVTS)	2005
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)	2006, 2010, 2011
1060	Enterprises providing training (%)	Percentage of enterprises providing any type of vocational training to their employees in the last 12 months (Eurostat, CVTS)	2005
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 (Eurostat, UOE)	2006, 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 education attainment who participated in education and training over four weeks prior to the survey (Cedefop calculations based on Eurostat, LFS – 2009 AHM) ([a])	2009
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)	2006, 2010, 2011
1100	Low-educated adults in lifelong learning (%)	Percentage of the population aged 25-64 with lowest level of education (ISCED 0-2) who participated in education and training over the four weeks prior to the survey (Eurostat, LFS)	2006, 2010, 2011
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)	2006, 2010, 2011
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)	2007

No	Indicator	Short description and source	Years used in the report
Skill development and labour market relevance			
2010	IVET public expenditure (% of GDP)	Public expenditure on vocational education at upper secondary and post-secondary level (ISCED 3-4) as a percentage of GDP (Eurostat, UOE) ([a]) ([b])	2006, 2009
2020	IVET public expenditure (EUR PPS per student)	Public expenditure on vocational education at upper-secondary and post-secondary level (ISCED 3-4) in EUR per student enrolled. The expenditure is adjusted for purchasing parity standards (PPS) (Eurostat, UOE) ([a]) ([b]).	2006, 2009
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).	2005
2040	Average number of foreign languages learned in IVET	Average number of foreign languages learned in vocational upper secondary education (ISCED 3) (Eurostat, UOE)	2006, 2010
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 subjects (Cedefop calculations based on Eurostat, UOE) ([b])	2006, 2010
2060	30-34 year-olds with tertiary VET attainment (%)	Percentage of all 30-34 year-olds with a tertiary level vocational qualification (ISCED 5b) as their highest education attainment (Cedefop calculations based on Eurostat, LFS) ([a])	2006, 2010, 2011
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) (Eurostat, CIS, only 2008) ([b])	2008
2080	Employment rate for IVET graduates (20-34 year-olds)	Employment rate of 20-34 year-olds with a medium-level qualification (ISCED 3 or 4) from the VET stream as their highest education attainment. Calculations exclude those still in formal education. Those having an ISCED 3c short qualification as their highest education attainment are considered as having a low education level (equivalent to lower secondary) and are also excluded (Cedefop calculations based on Eurostat, LFS, 2009 AHM) ([a]).	2009
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 education. Those having an ISCED 3c short qualification as their highest education attainment are considered as having a low education level (equivalent to lower secondary) and are also excluded (Cedefop calculations based on Eurostat, LFS, 2009 AHM) ([a]).	2009
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 as their highest level of attainment. Calculations exclude those still in formal education. Those having an ISCED 3c short qualification as their highest education attainment are considered as having a low education (equivalent to lower secondary) level and are included only in that group (Cedefop calculations based on Eurostat, LFS, 2009 AHM) ([a]).	2009
2110	Workers helped to improve their work by training (%)	Percentage of employed individuals who answered 'Agree' to the statement 'The training has helped me improve the way I work'. This question is only answered by those employees for whom training was provided by the employer (or by themselves in case of the self-employed) (Eurofound, EWCS, only 2010).	2010

No	Indicator	Short description and source	Years used in the report
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, only 2010).	2010
Overall transitions and labour market trends			
3010	Early leavers from education and training (%)	Percentage of the population aged 18-24 who have attained, at most, lower-secondary education and are not involved in further education or training (Eurostat, LFS)	2006, 2010, 2011
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 6 (Eurostat, LFS).	2006, 2010, 2011
3030	NEET rate for 18-24 year-olds (%)	Percentage of the population of age 18-24 years not employed and not involved in further education or training (Eurostat, LFS)	2006, 2010, 2011
3040	Unemployment rate for 20-34 year-olds (%)	Unemployment rate (%) of 20-34 year-olds (Cedefop calculations based on Eurostat, LFS)	2006, 2010, 2011
3050	Adults with lower level of education attainment (%)	Percentage of the population aged 25-64 who have attained, at most, lower-secondary education (ISCED 97 levels 0-2) (Eurostat, LFS)	2006, 2010, 2011
3060	Employment rate for 20-64 year-olds (%)	Percentage of the population aged 20-64 in employment (Eurostat, LFS)	2006, 2010, 2011
3070	2020 Employment shares for medium/high-qualified (% of total)	Share of total employment accounted for by individuals with medium- (ISCED 3-4) and high-level (ISCED 5-6) qualifications in 2020. Level of qualifications refer to the education level of individuals who will be employed and not to the education requirements of their jobs (Cedefop medium-term projections of future skill demand).	2020

([a]) Data supplied on Cedefop request.

([b]) EU averages are weighted averages of available country data.

Additional notes

AES	adult education survey
CVET	continuing vocational education and training
CVT	continuing vocational training
CVTS	continuing vocational training survey
EWCS	European working conditions survey
ISCED	International standard classification of education. The definitions used for levels of education are those agreed by ISCED in 1997. They are shown below: Level 0 – pre-primary education Level 1 – primary education Level 2 – lower-secondary education; Level 3 – upper-secondary education; Level 4 – post-secondary non-tertiary education; Level 5a – first stage of tertiary education theoretically based or research preparatory (history, maths, etc.) or giving access to professions with high skills requirements (medicine, etc.); Level 5b – first stage of tertiary education which is practical/technical/occupationally specific, although some theoretical foundations may be covered, participants acquire practical skills, and know-how for employment in a particular occupation or trade or class of occupations or trades; Level 6 – second stage of tertiary education (leading to an advanced research qualification
IVET	initial vocational education and training. Indicators for IVET are computed by aggregating the vocational and pre-vocational components at the corresponding level of education
LFS	Labour force survey
LFS 2009 AHM	ad hoc module of the 2009 labour force survey (transition from school to work)
NEET	not in employment, education or training
PPS	purchasing parity standard
UOE	Unesco (United Nations Educational, Scientific and Cultural Organisation)/OECD (Organisation for Economic Cooperation and Development)/Eurostat (Statistical Office of the European Communities)
VET	vocational education and training

For data coming from sample surveys, ISCED levels are aggregated to compute indicators. Aggregations used are: ISCED 0-2 (low education attainment); ISCED 3-4 (medium education attainment); (ISCED 5-6); tertiary education attainment. ISCED 3c short qualifications (shorter than two years) are not considered as leading to a medium education level and are aggregated to other qualifications in ISCED 0-2.

In some cases, namely for IVET-related indicators coming from the UOE data collection on education systems, indicators are computed aggregating data for vocational and prevocational programmes.

Indicator 1020 on work based IVET considers enrolments in combined work- and school-based VET as opposed to mainly school-based VET. 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.

Employer provided CVET refers to education and training paid for (at least partly) by the employer. Partial payment could include the use of working time for training.

European Centre for the Development of Vocational Training

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

Indicator overviews

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European policy-making in vocational education and training (VET) needs to be supported by sound quantitative information.
Based on their policy relevance and importance to the Europe 2020 objectives, Cedefop has selected a set of 31 statistical indicators to quantify key aspects of VET and lifelong learning. The aim is to help describe, monitor and compare countries.
The indicators do not claim to assess national systems or policies. Instead, they should be used as headline figures for reflecting on progress towards the strategic objectives set for Europe.
The indicators take 2010 as the baseline year and present 'statistical overviews' for the 27 European Union Member States and Croatia, the former Yugoslav Republic of Macedonia, Iceland, Norway, Switzerland and Turkey.

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