



# VET Data insights: what is happening with vocational education and training and adult learning in the European Union

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## Introduction

Cedefop's [Key indicators on vocational education and training \(VET\)](#) and its [European VET policy dashboard](#) present the following 15 'Data insights'. They give a comparative statistical snapshot of progress by the European Union and its Member States towards some of the key priorities and quantitative targets of post-2020 European VET policy, which covers the period 2021 to 2025/30.

Data insights comment on and analyse selected statistical indicators relating to VET. They are part of Cedefop's continuing effort to increase availability, quality, relevance, analysis, use and dissemination of [statistical information and evidence on VET](#) and adult learning.

Cedefop's [Key indicators on VET](#) are a high-quality data framework that provide a concise and internationally comparable statistical picture of strategic aspects of initial and continuing VET, adult learning, skill development and their context. The indicators provide data for the EU overall, its Member States and a selection of other European countries.

A subset of indicators is used for Cedefop's [European VET policy dashboard](#). It focuses on progress by the EU overall and Member States towards agreed priorities and quantitative targets set out in the policy documents framing post-2020 European VET policy.

Methods and sources for the data are in the Annex. More indicators, data and interactive charts, including EU and country specific time series, can be accessed online at [Key indicators on VET](#) and the [European VET policy dashboard](#) on Cedefop's web-portal.



## Overview: 15 Data insights on VET training and adult learning

### 1. Is initial VET an attractive learning choice?

- At upper secondary level (ISCED 2011 level 3), VET attracts almost half of all upper secondary students. In 2021 in the EU, there were 8.8 million students in upper secondary VET, 48.7% of the total.

### 2. Do women find initial VET an attractive learning choice?

- Fewer women choose VET than men. In 2021, the share of upper secondary students enrolled in VET was 55.5% among men and 41.6% among women.

### 3. Does initial VET provide opportunities for further learning?

- Initial VET prepares young people for the labour market and can offer opportunities for further learning. In 2021 in the EU, based on Cedefop estimates, 71.1% of students in upper secondary VET were enrolled in programmes giving direct access to tertiary education
- Almost 40% of young VET graduates in the EU are in further either formal or non-formal, or both types of education and training.

### 4. Is initial VET international?

- Initial VET needs to be more international. In 2021 in the EU, the initial VET learning mobility rate was 2.1%. This is a provisional estimate, and the 2021 figure may have been affected by the Covid-19 pandemic. In the [2020 Council Recommendation on VET](#) the EU has set a target for mobility on initial VET of 8% by 2025. .
- Estimates are that, on average, in the EU in 2021, 1.2 foreign languages are learned, in initial VET. This is below the average of 1.6 calculated for upper secondary general education.

### 5. Does initial VET provide learning at and experience of the workplace?.

- Initial VET in the EU is more work based than originally thought. In 2022 in the EU, around 60% of recent VET graduates (20-34-year-olds who obtained a vocational qualification at ISCED levels 3-4 in the last three years) are estimated to have had work experience as part of their studies of at least one month. This indicates that the EU has already met the target of 60% by 2025 set by the [2020 Council Recommendation on VET](#) and the [2021 Council Resolution on the European Education Area](#). However, considerable differences exist across countries.
- In 2021 in the EU, 29.3% of upper secondary VET students were enrolled in combined school-and work-based programme. A vocational programme is classified as



combined school- and work-based if between 25% and 90% of the curriculum is outside the school environment. This definition includes apprenticeships.

#### 6. Which skills does initial VET bring to the labour market?

- In 2021, 2.2 million students graduated from upper secondary vocational education programmes in the EU, about half of all upper secondary graduates. (47.9%).
- Initial VET provides skills for the whole economy. In the EU in 2021, 32% of upper secondary initial VET students graduated in subjects related to engineering, manufacturing, construction; some 18% graduated in business, administration and law, and a further 15% graduated in numerous services, including hair and beauty, hotel, restaurant, catering, sports, travel, tourism and leisure services.
- Around 38% of initial VET students in the EU, graduated in STEM related subjects. However, only 4.6% of upper secondary VET students graduated in information and communication technology.

#### 7. How many initial VET graduates are employed?

- Employment perspectives for recent VET graduates continue to be favourable and are improving. In 2022, their average employment rate was estimated at 79.7%. The [2020 Council Recommendation on VET](#) has set a target employment rate for initial VET graduates of 82% by 2025.
- In the EU overall, the average employment rate for recent VET graduates is 13.3 percentage points higher than for recent general education graduates.

#### 8. Is the educational attainment level of young people continuing to rise?

- Reducing early school leaving continues to be a priority for the EU. The [2021 Council Resolution on the European Education Area](#) set a new target to reduce early school leaving to less than 9%, by 2030. In 2022, the rate of early school leaving was 9.6%.
- The [2021 Council Resolution on the European Education Area](#) also sets a target of at least 45% of 25–34-year-olds having a tertiary level qualification by 2030. In 2022, the rate was 42%.

#### 9. Are Europe's young people guaranteed employment, education or training?

- Reducing the share of young people not in employment, education or training (NEETs) is a goal of the [EU Youth guarantee](#) and the [Reinforced Youth Guarantee](#). The [2021 European Pillar of Social Rights Action Plan](#) has set a target to reduce the share of NEETs aged 15 to 29 years old to 9%, in the EU by 2030. In 2022, the EU average was 11.7%.



#### 10. Is lifelong learning a reality for adults?

- Increasing participation by adults in learning and continuing VET remains a challenge for the EU. Available estimates are that adult participation in lifelong learning in the EU is 39.5% (2022 data, slightly up as compared to 37.4% in 2016). Estimates are based on the Adult Education survey, which asks adults if they have participated in training in the previous 12 months, and exclude guided on-the-job training. This compares to a target of 47% by 2025, set in the [2021 Council Resolution on the European Education Area](#) and a target of 60%, by 2030, set in the [2021 European Pillar of Social Rights Action Plan](#).

#### 11. Is lifelong learning a reality for adults with low levels of education?

- Participation in lifelong learning by adults with low levels of education is estimated to be around an EU average of 18.4% (17.9% in 2016), less than half of the current average of 39.5 % for all adults in the EU (Adult Education survey data, excluding guided on the job training). The [2020 European skills agenda](#) has set a target of 30% of adults with low levels of education participating in lifelong learning by 2025.

#### 12. Is lifelong learning a reality for unemployed adults?

- Participation by unemployed adults in lifelong learning is on the rise. In 2022, it was 13.2%, up by 0.5 percentage points as compared to 2021. The [2020 European skills agenda](#) has set a target to raise the level of participation to 20% by 2025.

#### 13. Do enough people have digital skills?

- Adults' ICT skills need to be raised. In 2021, the EU average share of adults with at least basic digital skills was estimated at 53.9%. This compares to a target of 70% by 2025, set in the [2020 European skills agenda](#) and a target of 80% by 2030, set by the [2021 European Pillar of Social Rights Action Plan](#).

#### 14. How many adults have low levels of education?

- Although not enough adults participate in adult learning, the share of adults with a low level of formal education (ISCED 0-2) is falling. In 2022, 20.5% of adults had a low level of education in the EU, a fall of around four percentage points since 2015.

#### 15. How many adults are employed?

- Employment in the EU is increasing. In 2022, the EU employment rate was 74.6%, The [2021 European Pillar of Social Rights Action Plan](#) has set a target of 78% by 2030.



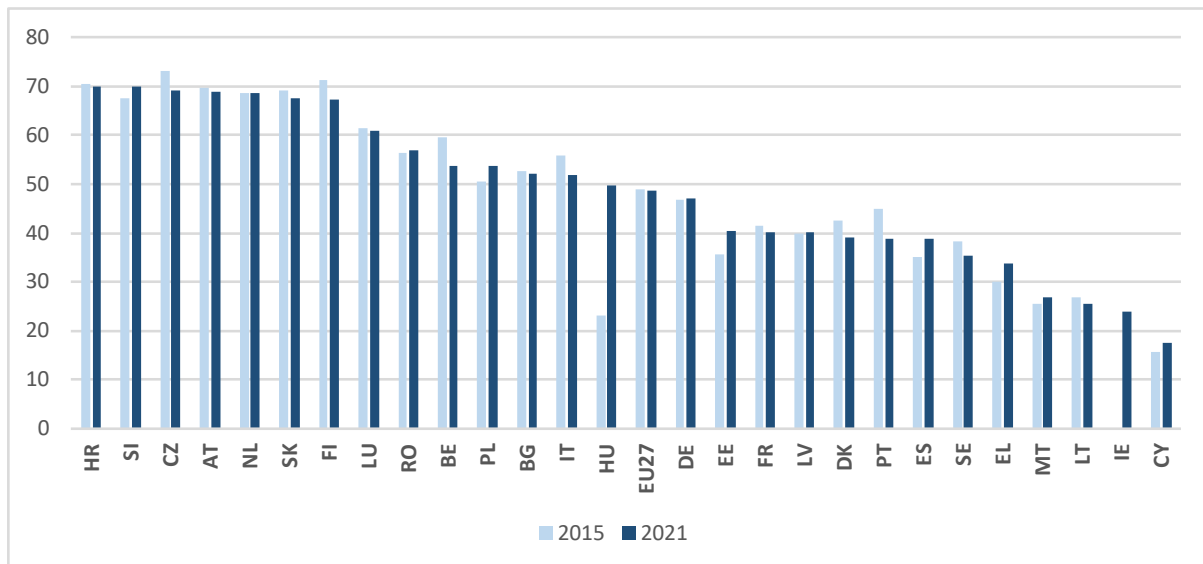
## 1. Is initial VET an attractive learning choice?

European education and training policy promotes initial vocational education and training (VET) as an attractive learning choice ([2020 Osnabrück Declaration](#), [2020 Council Recommendation on VET](#)). Participation in initial VET is a proxy of its attractiveness but does not always reflect individual preferences for general or vocational education.

In 2021 in the EU, there were 8.8 million students in upper secondary (ISCED 3) VET programmes, almost half (48.7%) of all upper secondary students (Figure 1). Compared to 2015, this is a small drop of 0.2 percentage points, despite an increase of 0.1 million students.

Participation in initial VET varies widely across countries. In 2021, the share of upper secondary students enrolled in VET ranged from 70% in Croatia to 17.6% in Cyprus.

**Figure 1. IVET students (as % of all upper secondary students) ISCED 3, 2015 and 2021**



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

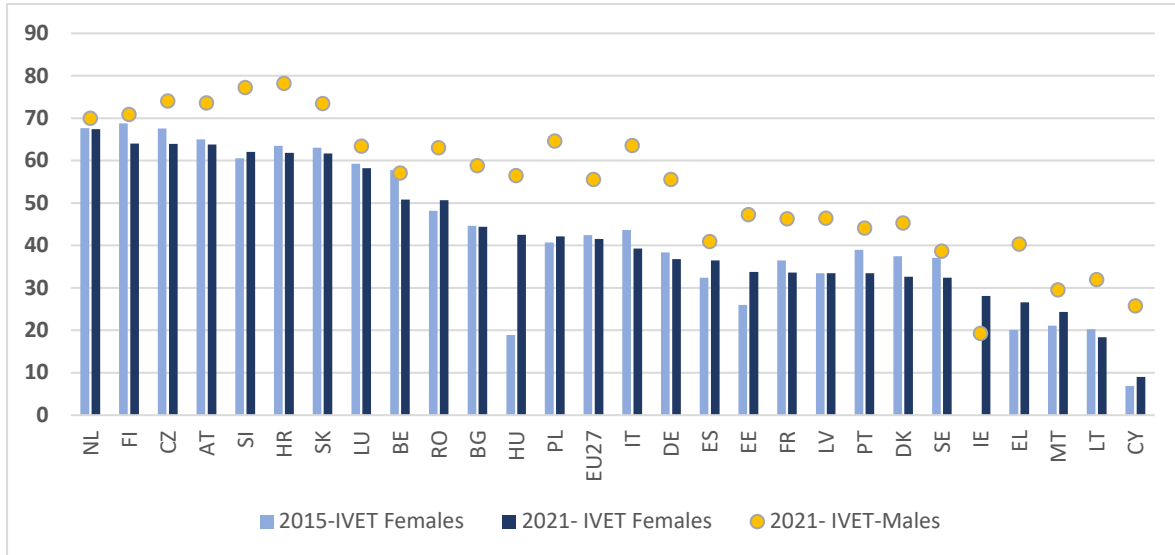
## 2. Do women find initial VET an attractive learning choice?

In 2021, 48.8% of all upper secondary students in the EU were enrolled in vocational programmes (Figure 2). However, initial VET participation among male students (55.5%) was significantly higher than among female students (41.6%).

Enrolment of female students in the vocational stream was more than 50% in ten Member States but below 30% in five. Enrolments in VET are higher for males than for females in all countries except Ireland. Differences by gender are biggest in Italy, Poland, Germany, Cyprus, Croatia and Slovenia (by 15 percentage points or higher) and narrowest in Malta, Spain and Luxembourg (five percentage points or smaller).



Figure 2. Female IVET students as % of all female upper secondary students, ISCED 3, 2015 and 2021

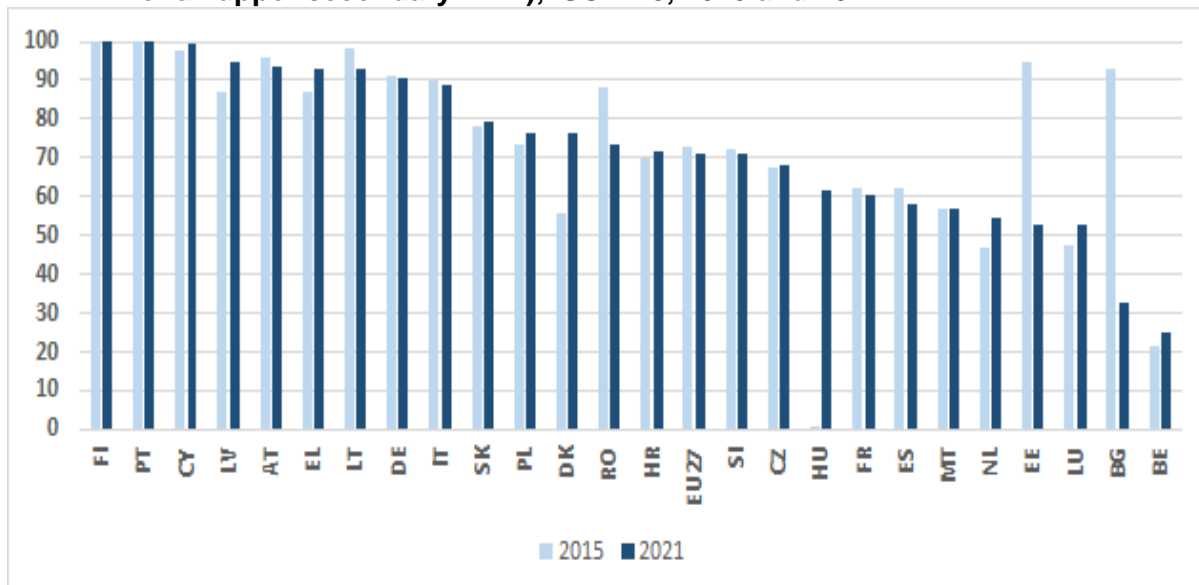


Source: Cedefop calculations, based on Eurostat data, UOE data collection on formal education. 2015 data for Ireland are not available.

### 3. Does initial VET provide opportunities for further learning?

For VET to be attractive there should be flexible and permeable pathways between initial and continuing VET, general and higher education ([2020 Council Recommendation on VET](#)). In the EU in 2021, 71.1% of students in upper secondary VET were enrolled in programmes giving direct access to tertiary education (Figure 3).

Figure 3. IVET students in programmes with direct access to tertiary education (as % of all upper secondary IVET), ISCED 3, 2015 and 2021



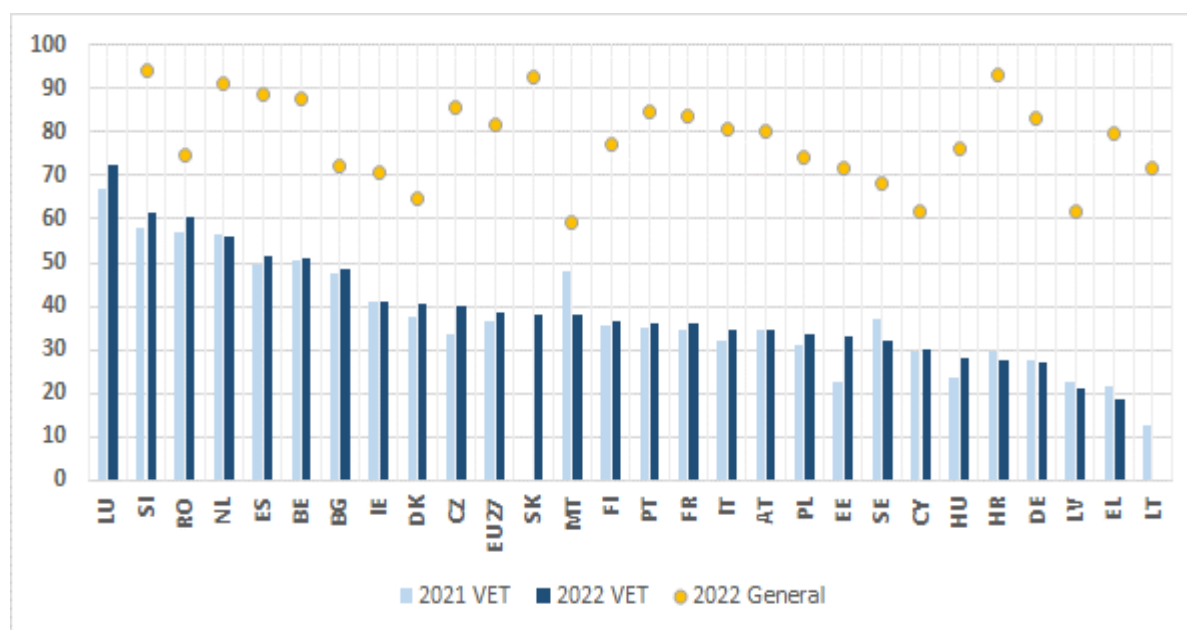
Source: Cedefop calculations based on Eurostat data, UOE data collection on formal education. NB: data are not available for Ireland and Sweden.



This share stood at or near to 100% in Finland, Portugal and Cyprus. Only in Belgium (25.2%) and Bulgaria (32.8%) is the share less than 50%. Compared to 2015, the EU average share dropped slightly by 1.6 percentage points but remained over 70%.

In 2022, 38.4% of graduates aged 18 to 24 and holding a medium level vocational qualification as their highest, said that they had participated in further education and training in the four weeks prior to the measurement by the EU Labour Force Survey (LFS). In some countries, such as Belgium, Luxembourg, Netherlands, Romania and Slovenia, this share is above 50%. Participation in further education and training is typically lower for young graduates with a medium level vocational qualification than for their counterparts from the general stream of education. However, that some 40% of VET graduates in the EU go on to further studies shows that VET provides opportunities for further learning

**Figure 3A. Young IVET graduates in further education and training (%), 2021-2022**



Source: Cedefop calculations based on Eurostat data, EU LFS, data supplied at Cedefop request. NB Slovakia, 2021 data for VET are not shown due to break in time series; Lithuania, 2022 data for VET are not sufficiently reliable due to small sample sizes; Luxembourg, 2022 data for general education are not available.

#### 4. Is initial VET international?

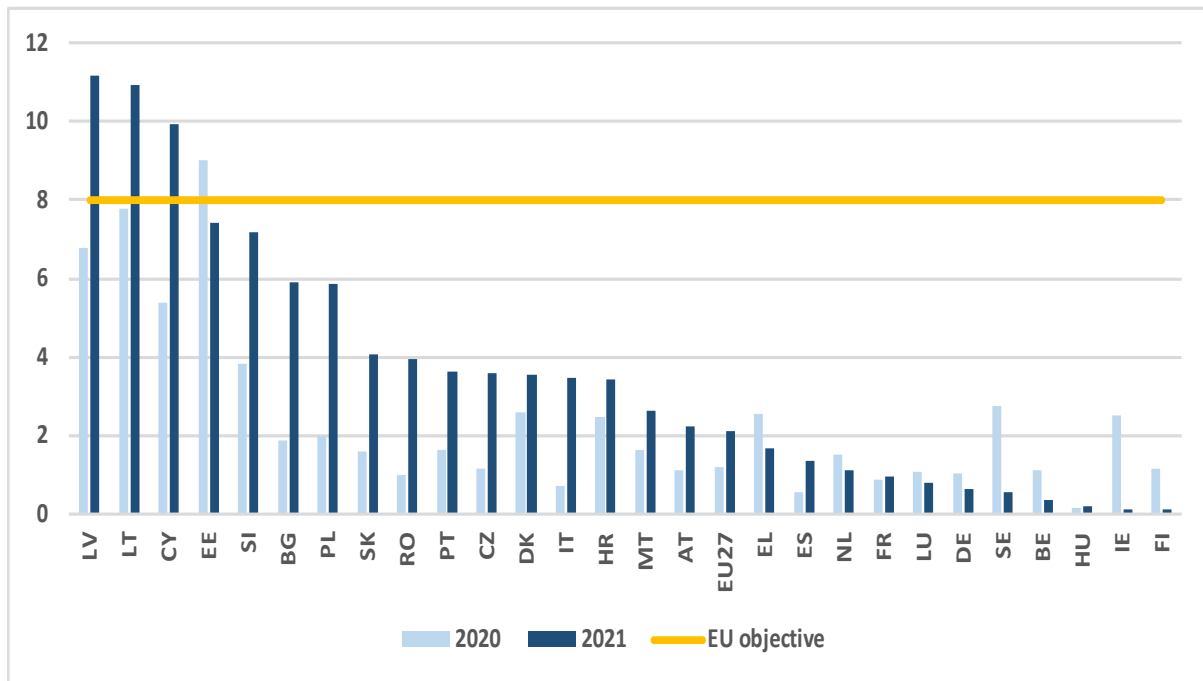
[The 2020 Council Recommendation on VET](#) promotes international mobility for learning in VET. The EU has set a quantitative objective of 8% of learners in VET benefiting from international mobility as part of their VET studies by 2025. In 2021, in the EU overall, 2.1% of initial VET learners (at ISCED levels 3 and 4) experienced a learning period of at least 10 days in a calendar year in another country (Figure 4). This compares to 1.2% in 2020. In countries





such as Latvia, Lithuania and Cyprus, learning mobility already exceeds the EU's target of 8% by 2025.

**Figure 4. IVET learners who benefitted from learning mobility abroad (%). ISCED levels 3-4, 2020 and 2021**

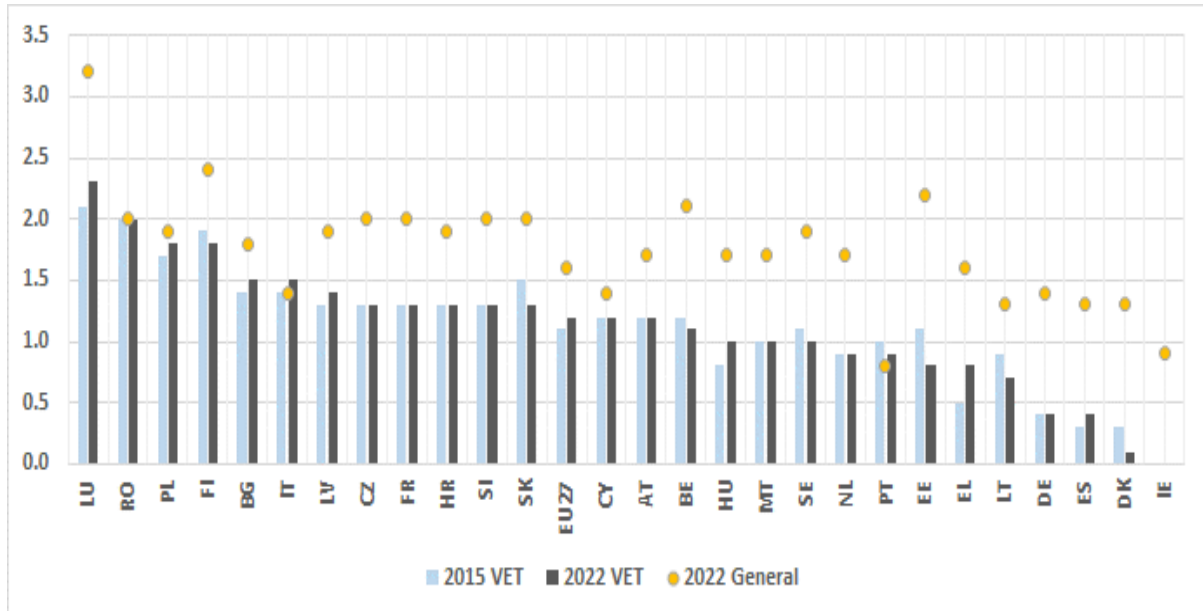


Source: Cedefop calculations based on European Commission methodology and specifications, European Commission Erasmus+ data supplied at Cedefop request as well as Eurostat data, UOE data collection on formal education. NB: The number of mobile VET learners is expressed per 100 initial VET graduates at the same ISCED levels. Data are provisional estimates and are affected by the impact of the COVID-19 pandemic.

Learning and knowledge of foreign languages helps make initial VET more international. In the EU, in 2021, estimates are that 1.2 foreign languages are learned, on average, in upper secondary VET (Figure 4A). This is below the average of 1.6 calculated for upper secondary general education. The average number of foreign languages learned by upper secondary VET students is highest in Luxembourg, Romania, Poland, Finland, Bulgaria and Italy (at or above 1.5).



Figure 4A. Average number of foreign languages learned in IVET- ISCED 3, 2015 and 2021.



Source: Eurostat, UOE data collection on formal education. EU averages are Cedefop estimates based on available country data. NB. Ireland (data on VET are not available).

## 5. Does initial VET provide learning at and experience of the workplace?

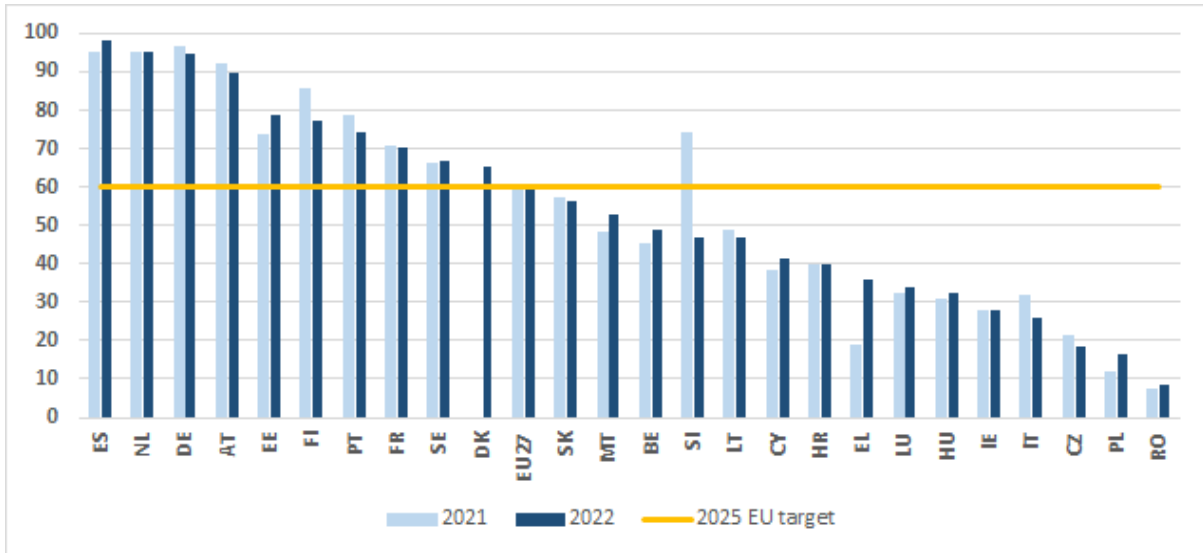
Work-based learning can provide a bridge to the labour market [as Cedefop research shows](#). In the 2010-20 European VET policy cycle, the Bruges communiqué and the Riga conclusions called for work-based learning to become a key feature of initial VET systems.

[The 2020 Council Recommendation on VET](#) and the [2021 Council Resolution on the European Education Area](#) continue to emphasise the importance of work-based learning in VET. They set a target for the EU overall that, by 2025, 60% of recent graduates from VET aged 20 to 34, who obtained a VET qualification at ISCED level 3-4 as their highest in the last three years, should have experienced a (cumulative) period of at least one month of work-based learning as part of their VET studies.

In 2022, the share of recent VET graduates having experienced work-based learning was estimated at 60.1%. This was slightly down from 60.6% in 2021 but still indicates that the 2025 EU target is already met (Figure 5). However, big differences between countries persist, ranging from 8.4% of recent VET graduates having work experience in their VET studies in Romania, to 98.4% in Spain.



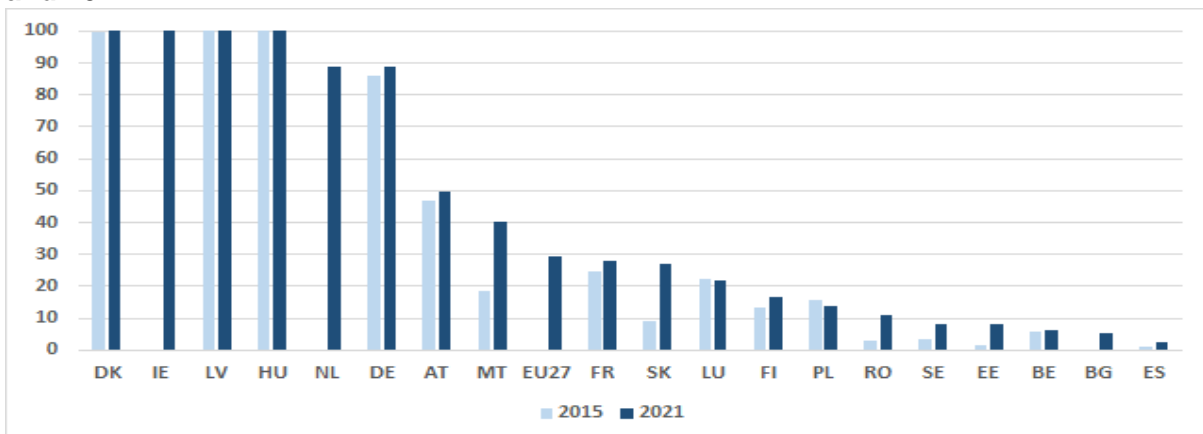
Figure 5. Recent IVET graduates (20-34-year-olds) with work-based learning experience as part of their vocational education and training (%), 2021 and 2022.



Source: Eurostat, EU LFS. The indicator covers graduates who obtained a VET qualification as their highest at ISCED level3-4 in the last 3 years. NB : 2021 and 2022 data for Bulgaria and Latvia as well as 2021 data for Denmark are not sufficiently reliable to be published due to small sample sizes. 2021 and 2022 data for Cyprus, Germany and Ireland as well as 2021 data for Hungary should be interpreted with caution as they are affected by some reliability issues.

In 2021, in the EU overall, it is estimated that 29.3% of upper secondary VET students were enrolled in combined work- and school-based programmes (Figure 5A). A vocational programme is classified as work-based if between 25% and 90% of the curriculum is outside the school environment. This definition includes apprenticeships.

Figure 5A. IVET work-based students as % of all upper secondary IVET, ISCED 3, 2015 and 2021



Source: Cedefop calculations, based on Eurostat data, UOE data collection on formal education. EU averages are Cedefop estimations based on available country data. NB. 2015 data for the Netherlands and the EU are not presented due to break in time series. Data for the Netherlands only cover the public sector of upper secondary VET. The distinction between combined work-based and school-based and school-based vocational programmes is not applicable for statistical purposes in Member States not displayed in the chart



## 6. Which skills does initial VET bring to the labour market?

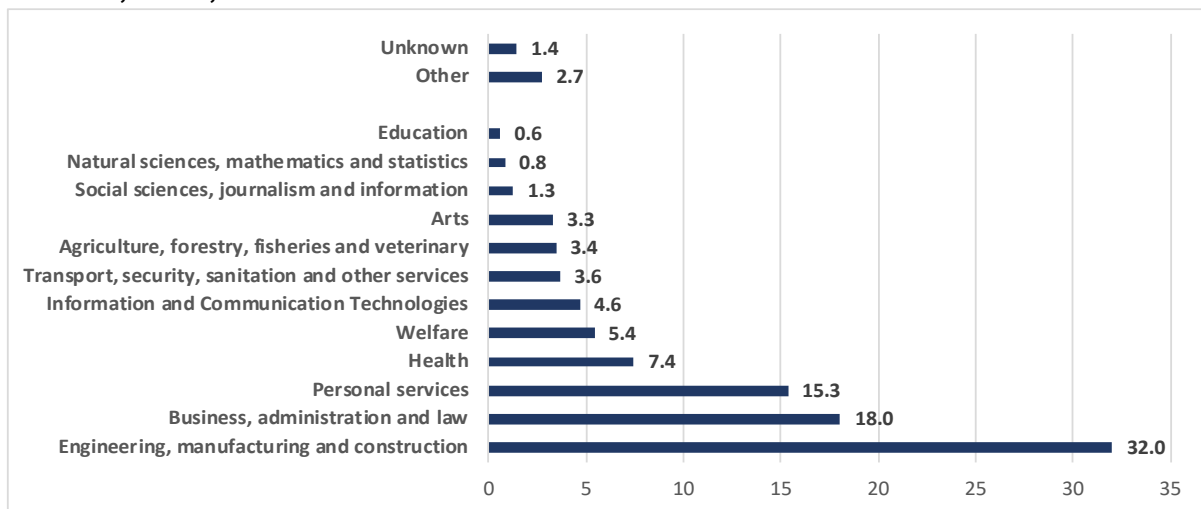
In 2021, 2.2 million students graduated from upper secondary vocational educational in the EU, about half of all upper secondary graduates. (47.9%). This is largely in line with enrolments patterns at the same ISCED level (48.7%) and reassures that overall there are no major differences between enrolments and graduation patterns in VET (as percentages of the corresponding totals).

Looking at the studies followed by initial VET graduates gives insights into the skills they bring into the labour market. In the EU, in 2021, about 32% of all upper secondary initial VET graduates obtained qualifications in subjects related to engineering, manufacturing and construction (Figure 6).

Some 18% graduated in business, administration and broad law-related studies, while around 15.3% graduated in personal services (including domestic services, hair and beauty services, hotel, restaurants, catering, sports, travel, and tourism and leisure).

In 2021 only 4.6% of upper secondary VET students graduated in information and communication technology.

**Figure 6. IVET graduates by field of study (% of all upper secondary IVET graduates), ISCED 3, EU27, 2021.**

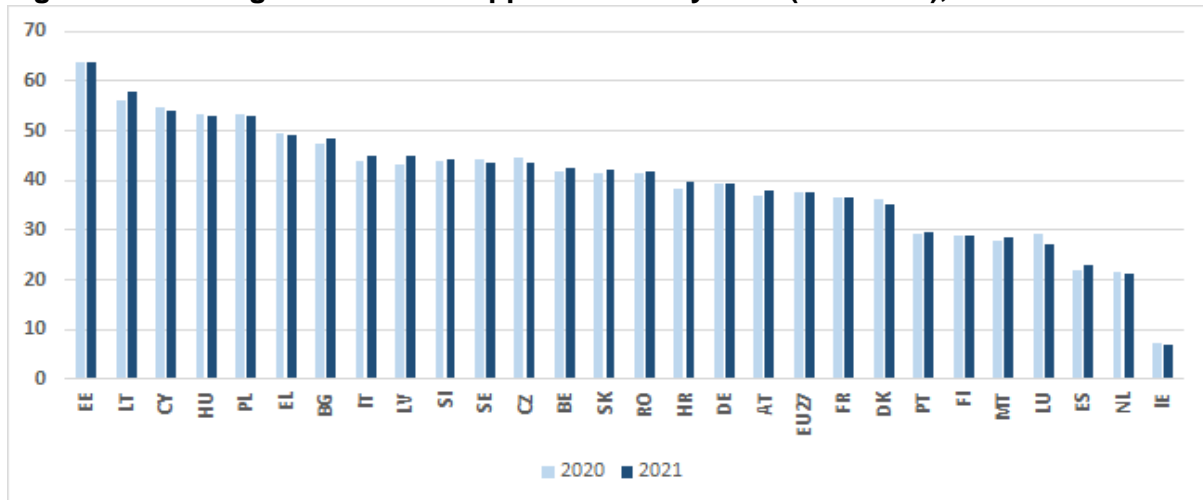


Source: Cedefop calculations based on Eurostat data, UOE data collection on education systems, Statistics are based on the 2013 ISCED F classification of field of study, Results present a combination of broad and narrow fields of study. NB Arts include audio-visual and media production, fashion, interior and industrial design, fine arts, handicraft, music and performing arts. Personal services include domestic services, hair and beauty services, hotel, restaurants, catering, sports, travel, tourism, and leisure services as well as other personal services. The category transport, security, community sanitation, hygiene and occupational health and safety services is considered apart. The category "Other in the chart" includes languages and other humanities relevant for VET.

Around 38% of initial VET students in the EU, graduated in STEM (science, technology, engineering and maths) related subjects (Figure 6A). In countries such as Estonia, Lithuania Cyprus, Hungary and Poland the share of upper secondary VET graduates in STEM subjects was above 50%. In others, such as Ireland, the Netherlands and Spain it was below 25%



Figure 6A. STEM graduates from upper secondary IVET (% of total), 2020 and 2021.



Source: Cedefop calculations based on Eurostat data, UOE data collection on formal education. The chart is based on the 2013 ISCED-F classification of fields of study. For the indicator displayed, Stem subjects are considered to be those related to Natural Sciences, mathematics, statistics, Information and Communication technology, engineering, manufacturing and construction.

## 7. How many initial VET graduates are employed?

In the EU in 2022, the employment rate for recent VET graduates was 79.7% (Figure 7), below the target of at least 82% by 2025 set by the [2020 Council Recommendation on VET](#). Between 2021 and 2022, the average employment rates of initial VET graduates went up in the EU overall by 3.5 percentage points.

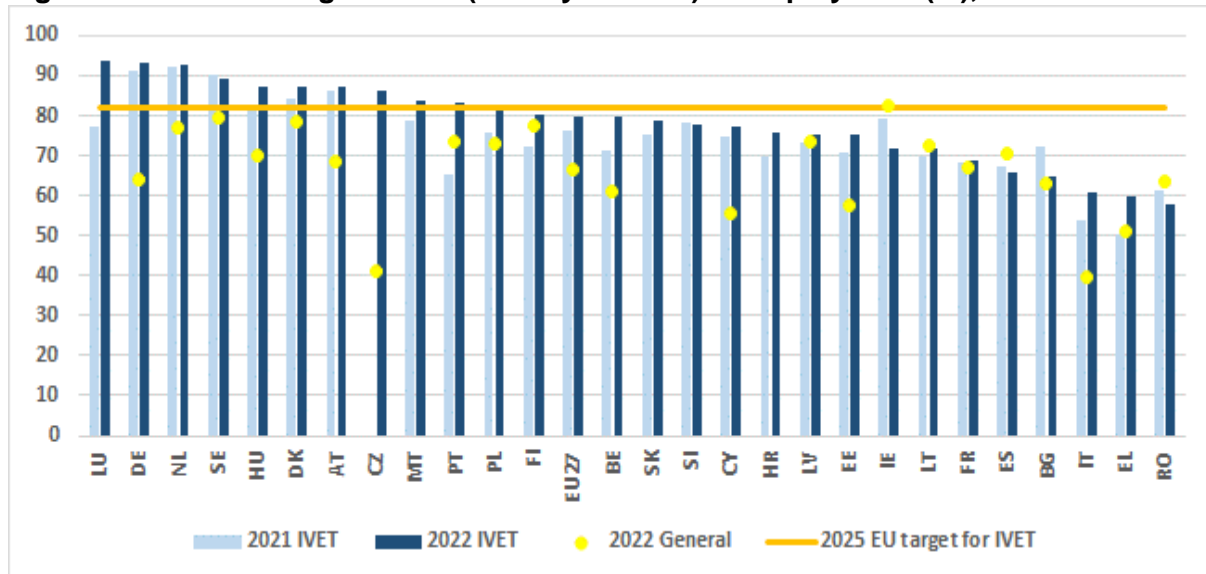
Recent VET graduates are defined as young people aged 20 to 34, no longer in education and training, and who obtained a vocational qualification at ISCED level 3-4 as their highest educational attainment in the previous one to three years.

Employment rates of recent VET graduates vary across Member States. The employment rate of young VET graduates is already above the EU's 2025 target of 82% in Luxembourg, Germany, the Netherlands, Sweden, Hungary, Denmark, Austria, Czechia, Malta, Portugal and Poland. Employment rates of recent VET graduates are about or below 60% in Italy, Greece and Romania.

Employment rates of young VET graduates can be compared with similarly defined graduates from general education. In 2022, in the EU, at 79.3% the employment rate for recent VET graduates was 13.3 percentage points higher than that for general education graduates. Differences between employment rates for recent VET and general education graduates are smallest in Finland, France, Latvia and Bulgaria (below 3 percentage points). In Ireland, employment rates for general education graduates are higher.



Figure 7. Recent IVET graduates (20-34-year-olds) in employment (%), 2021 and 2022.



Eurostat, EU LFS. NB : the indicator covers graduates at ISCED level 3-4 and no longer in education and training. 2021 data on VET for Czechia cannot be compared over time due to break in time series and are not displayed. 2021 and 2022 data on VET for Malta, Slovenia Latvia and Bulgaria, should be interpreted with caution as they are affected by some reliability issues, as well as 2022. data on general education for Czechia, Greece and Romania. In Luxembourg, Malta, Slovakia and Slovenia data for general education are not sufficiently reliable to be published due to small sample sizes. In Spain and France data not yet reflect the new EU LFS definition of employment.

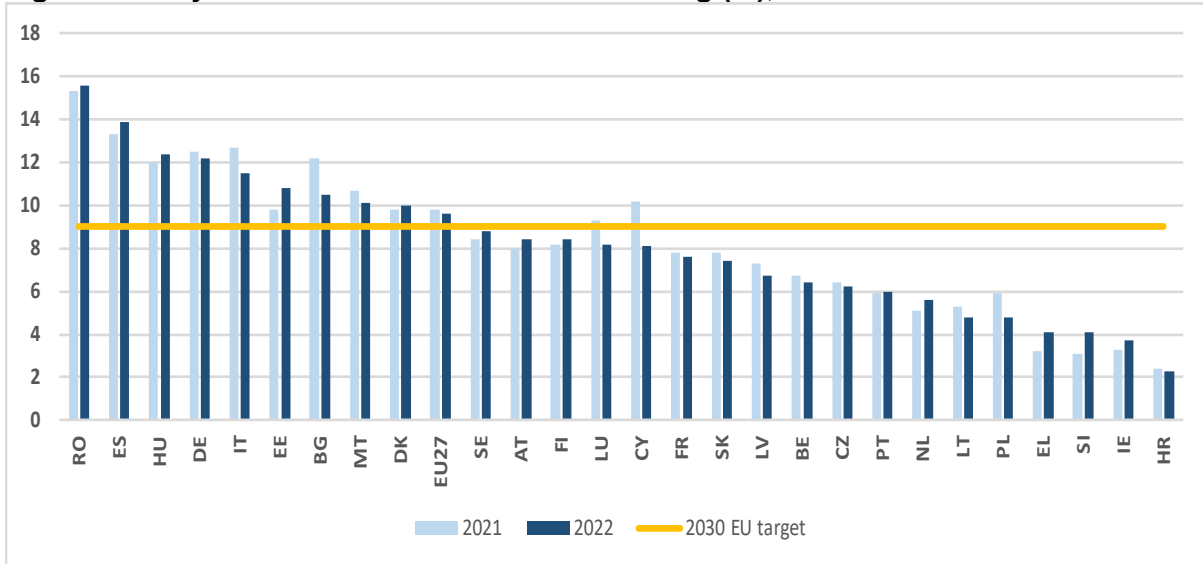
## 8. Is the educational attainment level of young people continuing to rise?

Raising the educational attainment of young people is a major objective of European education and training policy. The EU aims to achieve this in two main ways. First, by lowering the EU average share of early leavers from education and training. Second, by increasing the share of the young population with a qualification at tertiary level of education.

In 2010, the EU set a target of reducing early school leaving to below 10% by 2020. The EU met this target and early school leaving stood at 9.9% in 2020. Reducing early leaving remains a priority and the [2021 Council Resolution on the European Education Area](#) set a new target to reduce it to less than 9%, by 2030. In 2022, the rate of early school leaving was 9.6% (Figure 8). Early school leaving is estimated at around 11% in countries such as Romania, Spain, Hungary, Germany, Italy, and below 5% in Lithuania, Poland, Greece, Slovenia, Ireland and Croatia.



Figure 8. Early leavers from education and training (%), 2021 and 2022

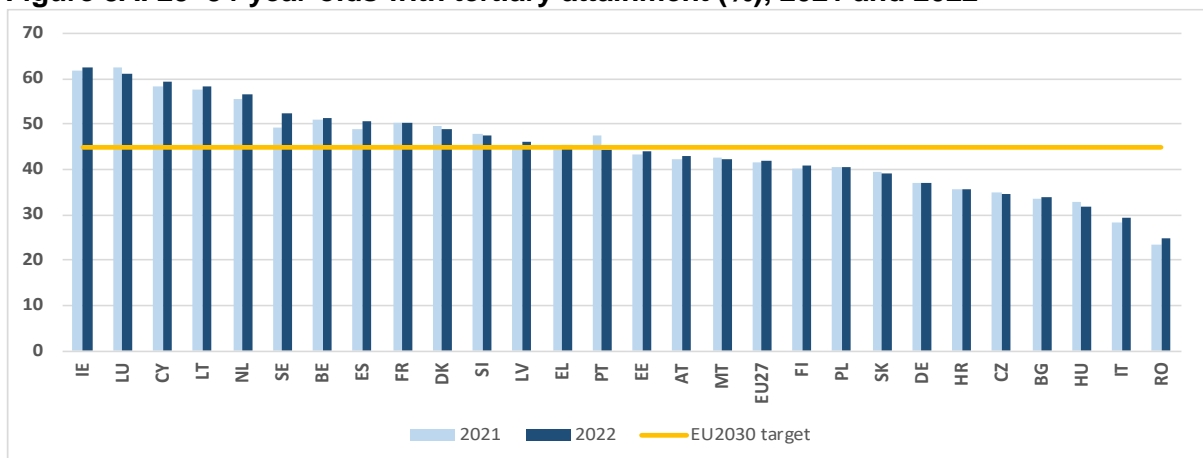


Source: Eurostat, EU LFS. NB: data for Croatia (2021 and 2022) and for Slovenia (2021) should be interpreted with caution as they are affected by some reliability issues.

Raising tertiary level educational attainment among young people is expected to help meet demand for a highly qualified work force and reduce the risk of unemployment.

The indicator is defined as the percentage of the young population who have successfully completed tertiary level education. Tertiary level qualifications are defined as those classified to ISCED 5-8. In 2010, the EU set a target of at least 40% of 30–34-year-olds having a tertiary level qualification by 2020. The EU reached 41.1 % in that year. The 2021 Council Resolution on the European Education Area set a new target of 45% by 2030 for the wider age group of 25-34-year-olds. In 2022, the new indicator estimated an EU average of about 42% of 25–34-year-olds with a tertiary level qualification (Figure 8A). Estimates are that several Member States already exceed the 2030 target.

Figure 8A. 25–34-year-olds with tertiary attainment (%), 2021 and 2022



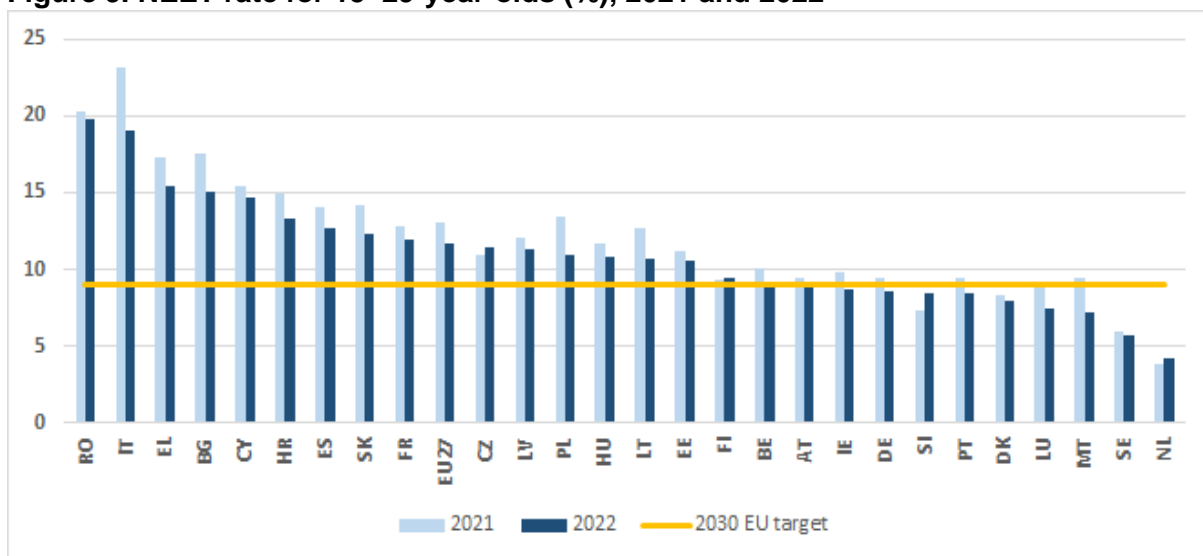
Source: Eurostat, EU LFS. NB: the indicator is defined and those aged 25 to 34 years who have successfully completed tertiary level education (ISCED 5-8).



## 9. Are Europe's young people guaranteed employment, education or training?

Reducing the share of young people not in employment, education or training (NEETs) is a goal of the [EU Youth guarantee](#) and the [Reinforced Youth Guarantee](#). The [2021 European Pillar of Social Rights Action Plan](#) has set a target to reduce the share of NEETs aged 15 to 29 years old to 9%, in the EU overall, by 2030. In 2022 the EU average was 11.7%, compared to 13.1% in 2021 (Figure 9).

Figure 9. NEET rate for 15–29-year-olds (%), 2021 and 2022



Source: Eurostat, EU LFS. In Spain and France data not yet reflect the new EU LFS definition of employment. 2022 data for Czechia are not comparable with 2021 due to break in time series.

In 2022, countries with the highest NEET rates were Romania and Italy (at or above 19%), while those with lowest were Sweden and the Netherlands (below 6%). Other countries, such as Ireland, Germany, Slovenia, Portugal, Denmark and Luxembourg were also below 9% in 2022.

## 10. Is lifelong learning a reality for adults?

Raising participation in adult learning was a key objective of the [EU Education and training 2020 strategy](#), and continues to be a priority in the post-2020 European VET policy cycle.

The EU target for 2020 was an average of at least 15% of adults (25 to 64 years old), in the EU, participating in formal or non-formal education and training. During the 2010-20 European VET policy cycle, participation in lifelong learning was counted if the learning had taken place four weeks prior to the measurement by the EU Labour Force Survey (LFS).

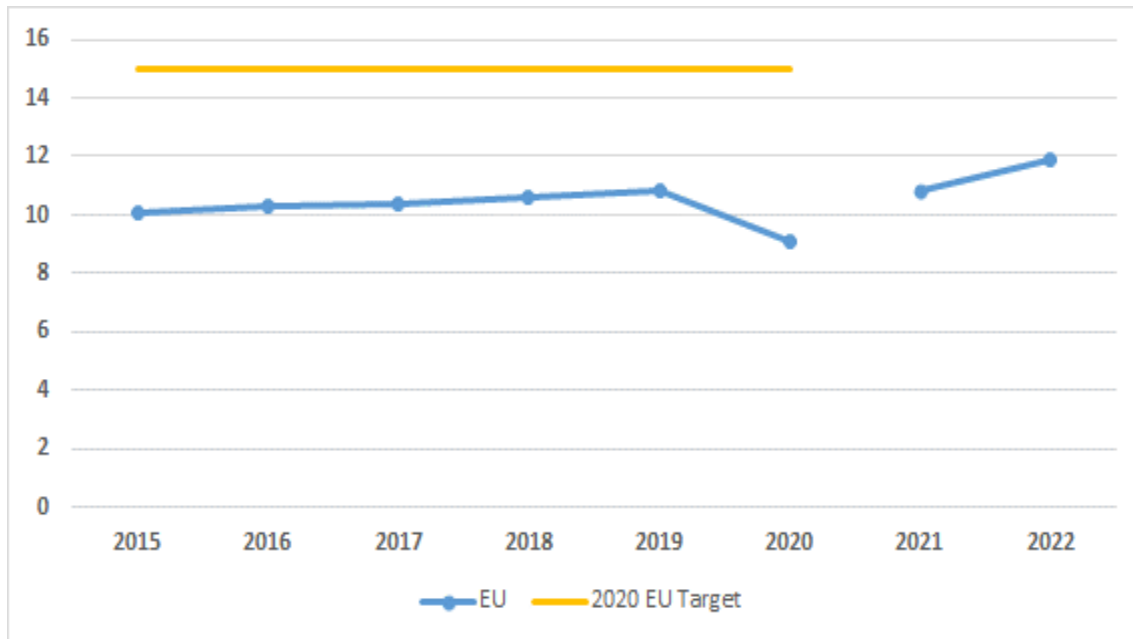
Participation measured this way did not increase much and the 2020 objective was not met. In 2019 the indicator peaked at 10.8%, before dropping to 9.1% in 2020, which may have





been due to the COVID-19 pandemic. In 2022, measured in this way, adult participation in lifelong learning stood at 11.9% in the EU overall (Figure 10).

**Figure 10. Adults (25–64-year-olds) with a learning experience in the last 4 weeks (%), EU 2015-22**



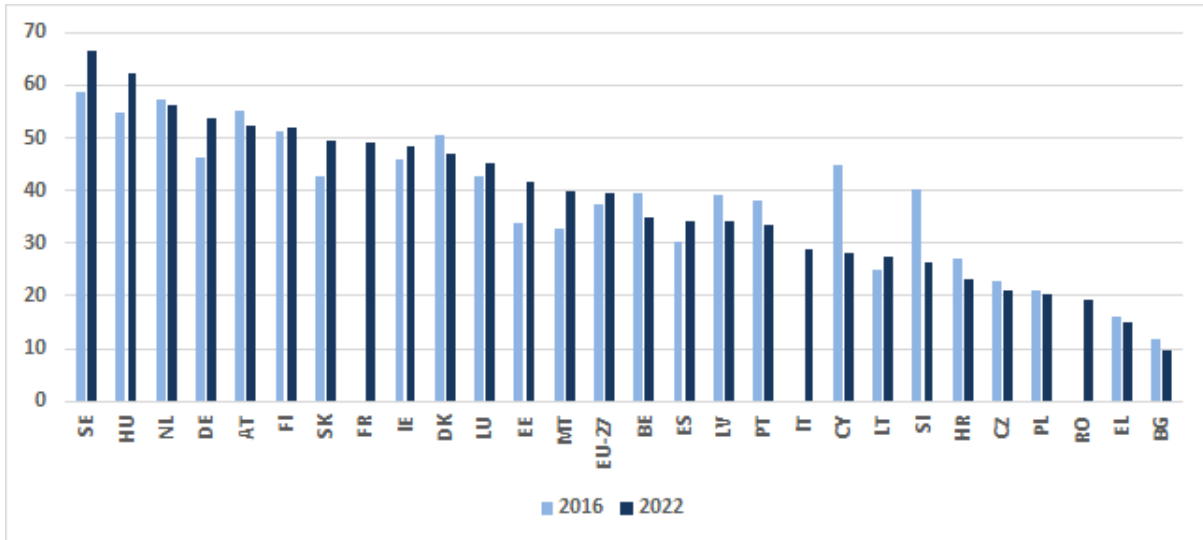
Source: Eurostat, EU LFS. NB Due to break in time series. data for 2021 and 2022 are not comparable with those for previous years.

In the post-2020 European VET policy cycle, a new method of measuring adult participation in lifelong learning was adopted. The new indicator counts adult participation in lifelong learning if the learning took place in the 12 months, rather than four weeks, prior to measurement. Based on this method, the EU has set new targets. The [2021 Council Resolution on the European Education Area](#) has set a target of 47% of adults participating in lifelong learning by 2025, while the [2021 European Pillar of Social Rights Action Plan](#) has set a target of 60% by 2030.

In 2016 in the EU, 37.4% of adults (aged 25 to 64) participated in formal or non-formal education and training in the 12 months prior to measurement, according to the Adult Education Survey (AES) (Figure 10A). This went slightly up to 39.5% in 2022. The AES is used as a proxy until new data, collected through a revised LFS, becomes available.



Figure 10A. Adults (25–64-year-olds) with a learning experience in the last 12 months (%), 2016 and 2022

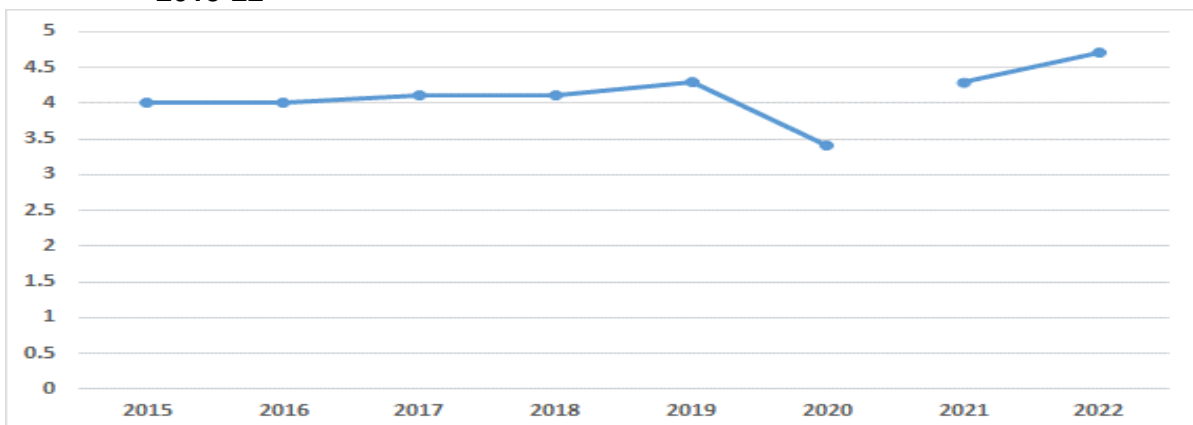


Source: Eurostat, AES, data supplied at Cedefop request and excluding participation in guided on the job training as per expected EU LFS standards; Cedefop uses this source as a proxy up until relevant LFS data become available. 2016 data for France and Italy and Romania are not comparable with those for 2022 and are not displayed.

## 11. Is lifelong learning a reality for adults with low levels of education?

On the previous measure, (adults who took part in education and training in the four weeks prior to measurement by the LFS), participation in lifelong learning by low qualified adults peaked at 4.3 % in 2019 before dropping to 3.4% in 2020, which may have been due to the Covid-19 pandemic (Figure 11). In 2022, the figure rose to 4.7 % in the EU overall.

Figure 11. Low-qualified adults with a learning experience in the last 4 weeks (%), EU, 2015-22

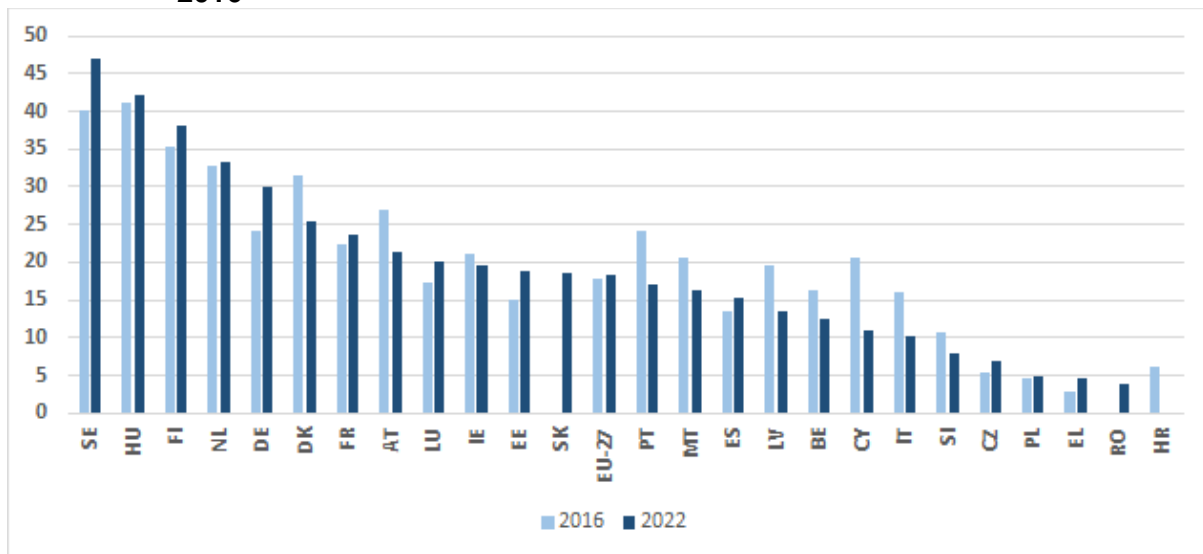


Source: Eurostat, EU LFS. NB Due to break in time series. data for 2021 and 2022 are not comparable with those for previous years



Using the new method of measuring adult participation in lifelong learning (adults who took part in education and training in the 12 months, rather than four weeks prior to measurement) and using the latest AES data, it is estimated that in the EU in 2016, 17.9% of low qualified adults participated in lifelong learning; the estimate went up to 18.4% in 2022 (Figure 11A). The [2020 European skills agenda](#) has set a target to raise the level of participation to 30% by 2025.

**Figure 11A. Low-qualified adults with a learning experience in the last 12 months (%), 2016**



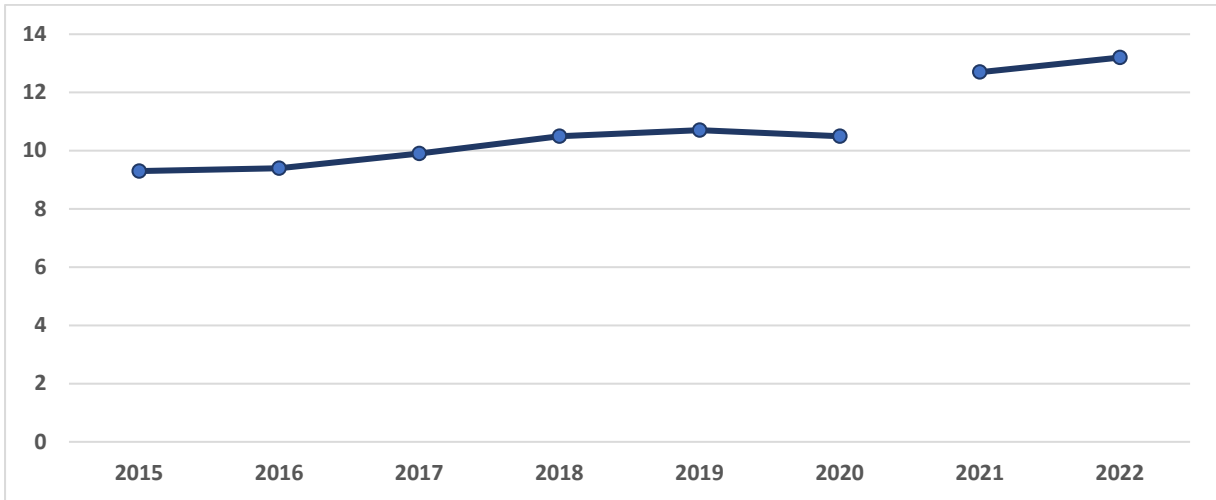
Source: Eurostat, AES, data supplied at Cedefop request and excluding participation in guided on the job training as per expected LFS standards; Cedefop uses this source as a proxy up until relevant LFS data become available. 2016 and 2022 Data are not sufficiently reliable to be published for Bulgaria and Lithuania, as well as 2016 data for Romania and Slovakia.. Data for Denmark, Slovakia, Latvia, Greece, and Czechia should be interpreted with caution due to some reliability issues.

## 12. Is lifelong learning a reality for unemployed adults?

Participation in education and training by unemployed adults has been monitored for many years. Taking the 2010-20 European VET policy cycle definition of counting participation in lifelong learning if the learning had taken place four weeks prior to the measurement by the EU LFS, participation by unemployed adults in lifelong learning rose from 9.3% in 2015 to 13.2% in 2022 (Figure 12). For the new post-2020 VET policy cycle. The [2020 European skills agenda](#) has set a target to raise the share of unemployed adults agreed 25 to 64 with a recent learning experience to 20% by 2025.



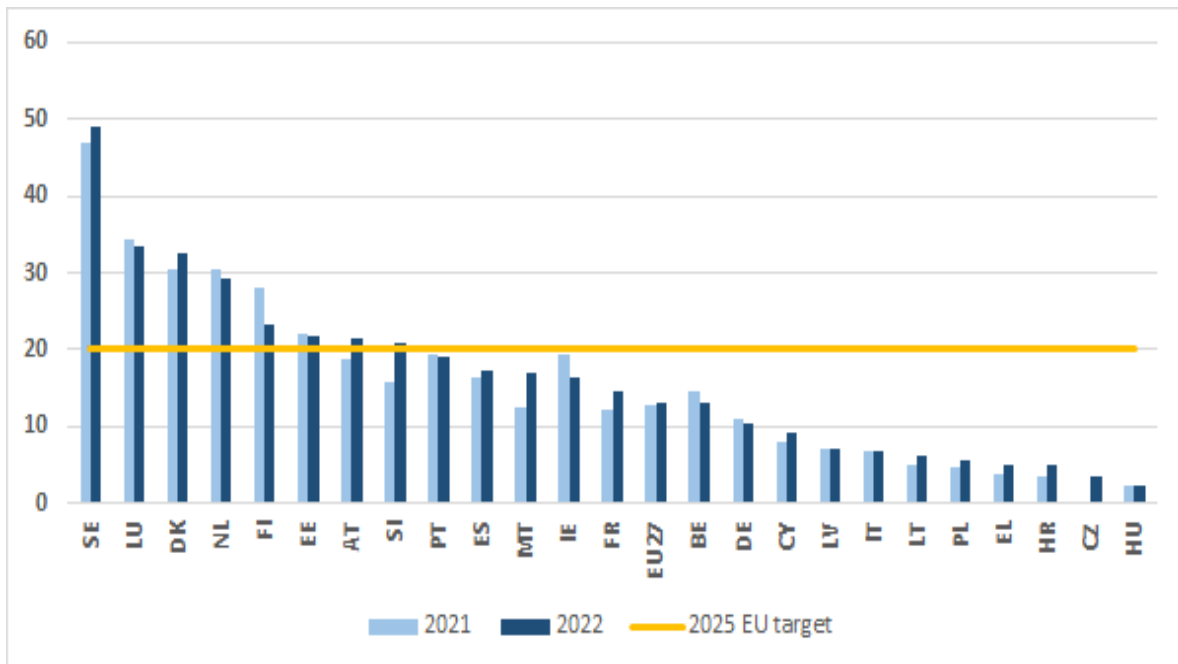
Figure 12. Unemployed adults with a learning experience in the last 4 weeks (%). EU, 2015-22.



Source: Eurostat, EU LFS. NB Due to break in time series, data for 2021 and 2022 are not comparable with those for previous years.

At country level, in 2022 the highest share of unemployed adults in formal or non-formal learning was estimated for Sweden (49%). At the other end of the range, many EU countries have below 10% of unemployed adults participating in lifelong learning (Figure 12). However due to small sample sizes, data should be interpreted with caution.

Figure 12A. Unemployed adults with a learning experience in the last 4 weeks (%). EU, 2021 and 2022.



Source: Eurostat, EU LFS. NB data for Bulgaria, Romania and Slovakia are not sufficiently reliable to be published due to small sample sizes. Data for Luxembourg, Malta, Hungary, Croatia should be interpreted with caution as they are affected by some reliability issues. 2021 data for Czechia are not comparable over time and therefore are not displayed.



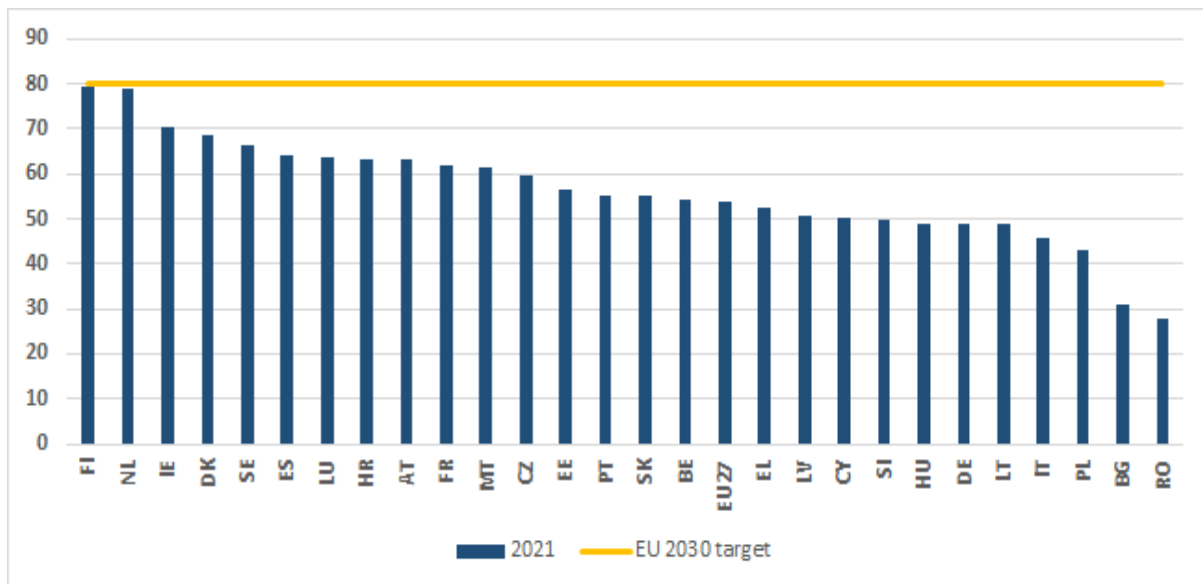
### 13. Do enough people have digital skills?

Digital skills are a precondition for participation in the labour market and society. In 2021, the EU average share of adults aged 16 to 74 with at least basic digital skills was estimated at 53.9% (Figure 13).

At country level the share is highest in Finland and the Netherlands at about 79%. In Bulgaria and Romania less than one in three adults have at least basic digital skills.

The EU has set a target in the [2020 European skills agenda](#) of at least 70% of those aged 16 to 74 having basic digital skills by 2025, in the EU overall. According to the [2021 European Pillar of Social Rights Action Plan](#), this should rise to at least 80% by 2030.

**Figure 13. Adults (16–74-year-olds) with at least basic digital skills (%), 2021**



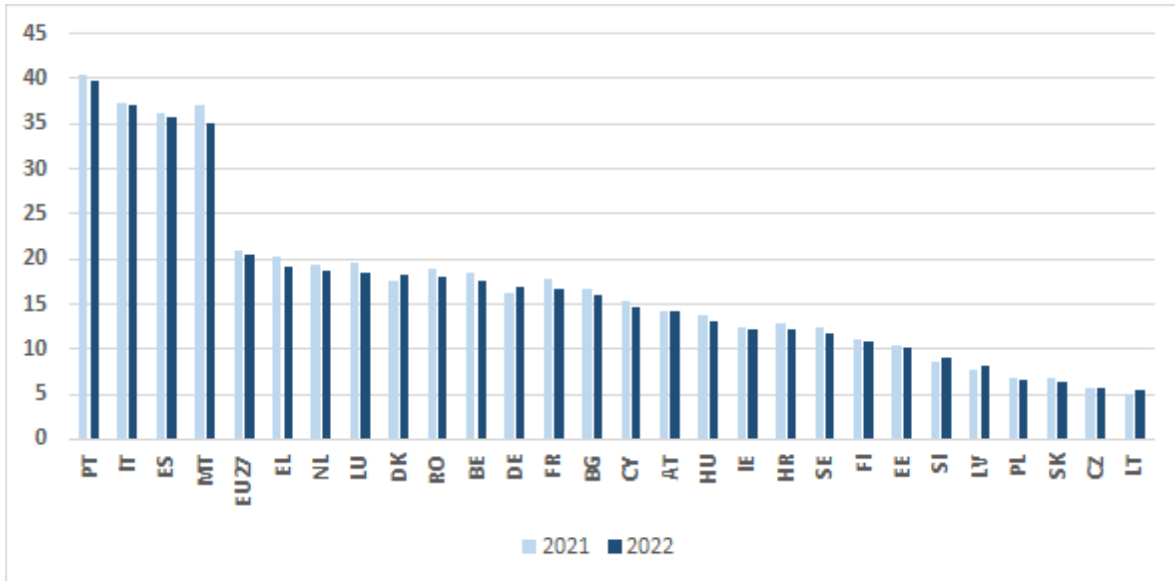
Source: Eurostat, EU Community survey on ICT usage in households and by individuals

### 14. How many adults have low levels of education?

Educational attainment can influence employment prospects and wage levels. In the EU in 2022, 20.5% of adults were low qualified (aged 25 to 64 with an educational attainment level of ISCED 0-2), compared to 20.9% in 2021 (Figure 14). In 2022, the highest shares of low educated adults were in Portugal, Italy, Spain and Malta (all above 33%). The lowest shares were in Slovenia, Latvia, Poland, Slovakia, Czechia and Lithuania (all below 10%).



Figure 14. Adults with lower level of educational attainment (%), 2021 and 2022



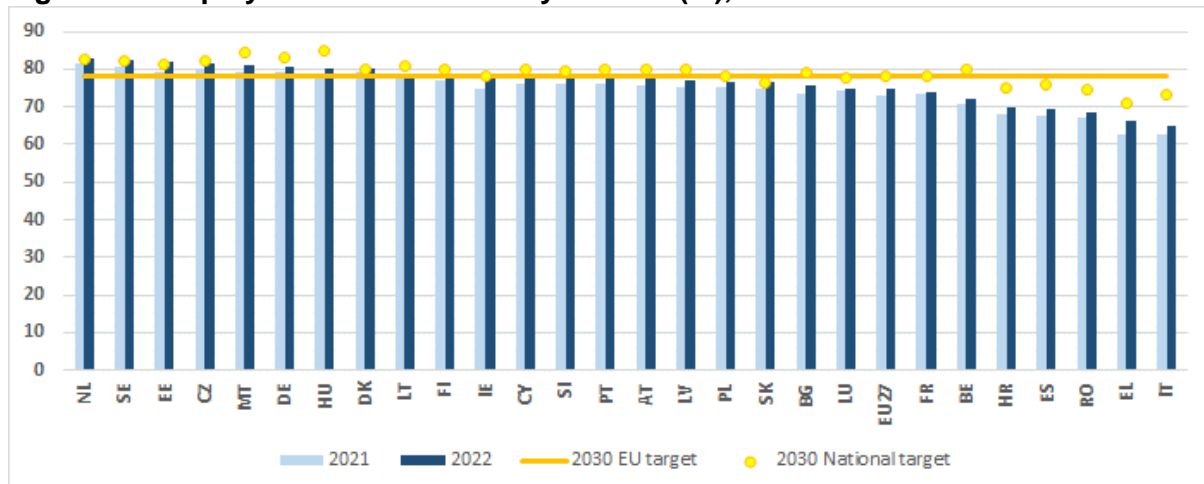
Source: Eurostat, EU LFS

### 15. How many adults are employed?

Raising the EU employment rate to at least 75% was a target of the Europe 2020 strategy. The EU fell short of its target. The employment rate for 20-64-year-olds peaked at 72.7% in 2019, dropping to 71.7% in 2020, which may have been due to the COVID-19 pandemic.

The [2021 European Pillar of Social Rights Action Plan](#) sets a new target of 78% for the employment rate of 20-64-year-olds, by 2030. In the EU overall, the employment rate was 74.6% in 2022 (Figure 15). Compared to 2021, in 2022 the employment rate of 20-64-year-olds was higher in all Member States.

Figure 15. Employment rate for 20–64-year-olds (%), 2021 and 2022



Source: Eurostat, EU LFS. Adjusted break free time series for main indicators. In Spain and France data not yet reflect the new EU LFS definition of employment



## Annex

Cedefop's [Key indicators on VET](#) are a high-quality data framework that covers strategic aspects of initial and continuing VET, adult learning, skill development and their context to provide a concise and internationally comparable statistical picture of VET in Europe, for the EU, its Member States and several other European countries.

A subset of indicators is used for Cedefop's [European VET policy dashboard](#) which focuses on progress by Member States and the EU overall towards agreed priorities and quantitative targets set out in the policy documents framing European VET policy for the period 2021-2025/2030.

### A1. Indicators labels, descriptions and sources

Indicator label	Indicator description and source
<b>IVET students as % of all upper secondary students</b>	Number of students in upper secondary IVET (ISCED 3) as a percentage of all upper secondary students. (Cedefop calculations based on Eurostat data, UOE data collection on formal education)
<b>Female IVET students as % of all female upper secondary students</b>	Number of female students in upper secondary IVET (ISCED 3) as a percentage of all female students in upper secondary education (Cedefop calculations based on Eurostat, UOE data collection on formal education)
<b>IVET students with direct access to tertiary education as % of all upper secondary IVET</b>	Number of students in upper secondary IVET (ISCED 3) enrolled in programmes giving direct access to tertiary education as a percentage of all students in upper secondary IVET. (Cedefop calculations based on Eurostat data, UOE data collection on formal education)
<b>Young IVET graduates in further education and training (%)</b>	Percentage of the population aged 18-24 with a medium-level vocational qualification (ISCED 3 or 4) as their highest educational attainment who participated in formal or non-formal education and training over four weeks prior to the survey (Cedefop calculations based on Eurostat, LFS data supplied at Cedefop's request). Data are compared with a similar indicator calculated for those in the same age group and holding a medium level qualification of general orientation.
<b>IVET learners who benefitted from a learning mobility abroad (%)</b>	Percentage rate of mobile IVET learners in a calendar year. This is the number of mobile IVET learners in a calendar year having experienced a mobility abroad of at least 10 days, expressed in relative percentage terms as



	<p>a proportion of a cohort of IVET graduates in the same year. IVET at ISCED levels 3 and 4 is considered for learners and graduates (Cedefop calculations based on European Commission methodology, European Commission Erasmus+ data supplied at Cedefop's request as well as Eurostat data, UOE data collection on formal education. Data are provisional estimates and are affected by the impact of the COVID-19 pandemics)</p>
<b>IVET work-based students as % of all upper secondary IVET</b>	<p>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 data, UOE data collection on formal education)</p>
<b>Recent IVET graduates (20–34-year-olds) with a work-based learning experience as part of their vocational education and training (%)</b>	<p>Percentage of recent IVET graduates benefitting from exposure to work-based learning during their vocational education and training. Recent IVET graduates are considered those aged 20-34 who have graduated in the last 3 years before the survey and who have a medium-level vocational qualification (ISCED 3 or 4) as their highest educational attainment. Benefitting from exposure to work-based learning during IVET refers to having had work experience(s) undertaken as part of the curriculum of the formal programme leading to the highest education successfully completed. Work experiences are considered those with a duration of at least one month and occurred at a workplace in a market or non-market unit (i.e., in a company, government institution or non-profit organisation). Purely school-based work experiences are not considered. (Eurostat, LFS).</p>
<b>IVET graduates by field of study as % of all upper secondary IVET graduates</b>	<p>Number of graduates in upper secondary IVET (ISCED 3) as a percentage of all upper secondary graduates across all vocational subjects Cedefop calculations based on Eurostat data, UOE data collection on formal education)</p>
<b>STEM graduates from upper secondary IVET (% of total)</b>	<p>STEM (science, technology, engineering and mathematics) graduates from upper secondary vocational education (ISCED 3) as percentage of all upper secondary graduates across all vocational subjects. (Cedefop calculations based on Eurostat, UOE data collection on formal education)</p>
<b>Employment rate for recent IVET graduates (20–34-year-olds) (%)</b>	<p>Employment rate of 20–34-year-olds who have obtained a medium level vocational qualification (ISCED 3 or 4) 1-3 years before the survey as their highest educational attainment and who are not in further (either formal or non-formal)</p>





	education and training during the last four weeks prior to the survey (Eurostat, LFS)
<b>Early leavers from education and training (%)</b>	Percentage of the population aged 18-24 who have completed, at most, lower secondary education and are not involved in further education or training. (Eurostat, LFS)
<b>25–34-year-olds with tertiary attainment (%)</b>	Percentage of the population aged 25-34 who have successfully completed tertiary-level education. Tertiary education is defined as ISCED 5 and higher. (Eurostat, LFS)
<b>NEET rate for 15–29-year-olds (%)</b>	Percentage of the population of age 15-29 years not employed and not involved in further education or training. (Eurostat, LFS)
<b>Adults (25–64-year-olds) with a learning experience in the last 4 weeks (%)</b>	Percentage of the population aged 25-64 who participated in formal or non-formal education and training over the four weeks prior to the survey. (Eurostat, LFS)
<b>Adults (25–64-year-olds) with a learning experience in the last 12 months (%)</b>	Percentage of the population aged 25-64 who participated in formal or non-formal education and training over the twelve months prior to the survey (Eurostat, AES, data supplied at Cedefop request and excluding participation in guided on the job training; Cedefop uses this source as a proxy up until relevant LFS data become available)
<b>Low-qualified adults with a learning experience in the last 4 weeks (%)</b>	Percentage of the population aged 25-64 with lowest level of educational attainment (ISCED 0-2) who participated in formal or non-formal education and training over the four weeks prior to the survey. (Eurostat, LFS)
<b>Low-qualified adults with a learning experience in the last 12 months (%)</b>	Percentage of the population aged 25-64 with lowest level of educational attainment (ISCED 0-2) who participated in formal or non-formal education and training over the 12 months prior to the survey. (Eurostat, AES, data supplied at Cedefop request and excluding guided on the job training; Cedefop uses this source as a proxy up until relevant LFS data become available)
<b>Adults with lower level of educational attainment (%)</b>	Percentage of the population aged 25-64 who have completed, at most, lower secondary education (ISCED 0-2). (Eurostat, LFS)
<b>Adults (16–74-year-olds) with at least basic digital skills (%)</b>	Percentage of adults aged 16-74 having at least basic digital skills. Digital skills are proxied by actual performance of selected activities related to internet or software use in five specific areas: Information and data literacy, Communication and collaboration, Digital content creation, Safety, and Problem solving. Data relates to the new Digital Skills Indicator 2.0 (DSI). More information on definitions and methods can be



	found in Eurostat metadata (Eurostat, EU Community survey on ICT usage in households and by individuals)
<b>Employment rate for 20–64-year-olds (%)</b>	Percentage of the population aged 20-64 in employment. (Eurostat, LFS)

## A2. Additional notes

All indicators and breakdowns in this report are subject to the specific methodology of the source from which they originate. For indicators and related breakdowns derived from the LFS and the UOE data collection on education systems, the definitions used for levels, orientations and access to higher levels of formal education are those agreed in ISCED 2011.

By using the first digit of the classification, ISCED 2011 distinguishes and defines the following levels of education:

ISCED 2011 levels of education	
Level 0 -	Early childhood education
Level 1 -	Primary education
Level 2 -	Lower secondary education
Level 3 -	Upper secondary education
Level 4 -	Post-secondary non-tertiary education
Level 5 -	Short-cycle tertiary education
Level 6 -	Bachelor or equivalent level
Level 7	Master or equivalent level
Level 8 -	Doctor or equivalent level

In some cases, such as indicators from sample surveys (e.g., LFS), ISCED levels are aggregated to compute indicators. Aggregations used are: ISCED 0-2 (low educational attainment); ISCED 3-4 (medium educational attainment); ISCED 5-8 (tertiary educational attainment). Individuals whose highest level of education derives from completion of ISCED 3 programmes of duration of less than two years are considered as having low educational attainment.

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

ISCED 2011 levels of education	
Vocational orientation	Designed for learners to acquire the knowledge, skills and competencies specific to a particular occupation, trade, or class of occupations or trades. Such programmes may have work-based components (e.g., apprenticeships, dual system education programmes). Successful completion of such programmes leads to labour market-relevant, vocational qualifications acknowledged as occupationally oriented by the relevant national authorities and/or the labour market.



General orientation	Designed to develop learners' general knowledge, skills and competencies, as well as literacy and numeracy skills, often to prepare participants for more advanced education programmes at the same or a higher ISCED level and to lay the foundation for lifelong learning. These programmes are typically school- or college-based. General education includes education programmes that are designed to prepare participants for entry into vocational education but do not prepare for employment in a particular occupation, trade, or class of occupations or trades, nor lead directly to a labour market-relevant qualification
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At higher levels of education, ISCED 2011 does not distinguish between general and vocational education. It considers but does not yet define a distinction between academic and professional education.

The third digit of ISCED 2011 is used in one indicator distinguishing between upper secondary vocational programmes with or without direct access to tertiary programmes at levels 5, 6 or 7.

Enrolments in IVET can be distinguished in combined work- and school-based VET programmes as opposed to mainly or solely school-based VET programmes. 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.

Lifelong learning indicators from the LFS refer to adult participation in formal and non-formal education and training in the four weeks prior to the survey; those from the AES refer to the previous 12 months; in both cases, the non-formal component includes participation in courses, seminars, conferences or private lessons or instructions outside the regular education system.

### A3. Abbreviations

ISCED	International Standard Classification of Education
LFS	European Union labour force survey
NEET	Not in employment, education or training
UOE	UNESCO OECD Eurostat Joint data collection on formal education