

European Vocational Education and Training Policy Dashboard

Methodological note

1. Objective, rationale, and scope of the dashboard.

Strengthening economic and social resilience and sustainability, supporting labour market transitions, creating a new lifelong learning culture and consolidating the European Education Area are European Union's priorities for 2020-25. High-quality and inclusive vocational education and training (VET) are central to achieving these objectives.

The European VET policy dashboard presents, visually, progress by countries and the EU27 overall towards agreed quantitative targets set out in the policy documents framing VET policy at European level (see below). The dashboard enables European and national VET policy makers, social partners, VET experts and professionals to monitor and compare progress towards the targets within and between countries. Additional data provides a context data to help interpret countries' progress.

The Table below shows the **seven 'progress indicators'** in the dashboard, which are associated to the quantitative targets outlined in the policy documents for VET and Lifelong Learning, that the EU is seeking to reach with the contribution of its Member States. The progress indicators are grouped around **three broad key policy objectives** also drawn from the VET policy documents. The seven 'progress indicators' are accompanied by **eight 'context indicators'**, which generally are also EU level quantitative targets. They provide additional data and information and give a more comprehensive picture in order to understand better and help read and interpret the progress indicators. For example, for the policy objective 'Creating a lifelong learning culture', progress indicators only relate to adult learning. For a broader view of lifelong learning, the context indicators look at young people. Similarly, for 'Resilience, transitions sustainability and excellence', the progress indicators, looking at VET's contribution to employment and skills, including digital skills, are complemented by context indicators provide data on the broader skill stock in the European labour market.

The Table also shows the source documents for the progress and context indicators. It is important to note that the policy priorities and action for VET for the years 2021-25 outlined out in the 'Osnabrück declaration on vocational education and training as an enabler of recovery and just transitions to digital and green economies' are reflected in the dashboard, even though the declaration does not set out any quantitative targets.

Table: Progress and context indicators and VET policy priorities:
a. VET for Developing a lifelong learning culture: the grouping covers encouraging young people to stay in learning and adult reskilling and upskilling

Function	Indicator	Policy Document	2025/2030 Target
Progress	Adults (25-64 year olds) with a learning experience in the last 12 months (%)	Skills Agenda	50%
		Council Resolution on EEA	47%
		EPSR Action Plan	60%
Progress	Low-qualified adults with a learning experience in the last 12 months (%)	Skills Agenda	30%
Progress	Unemployed adults with a learning experience in the last 4 weeks (%)	Skills Agenda	20%
Context	Employment rate for 20-64 year-olds (%)	EPSR Action Plan	78%
		Council Resolution on EEA	<9%
Context	Early leavers from education and training (%)	EPSR Action Plan	To be reduced. No quantitative target.
Context	NEET rate for 15-29 year-olds (%)	EPSR Action Plan	9%

b. VET for Resilience, transitions, sustainability and excellence: reflecting VET's contribution to developing Europe's human capital and skills and inclusiveness.

Progress	Adults (16-74 year-olds) with at least basic digital skills (%)	Skills Agenda	70%
		EPSR Action Plan	80%
Progress	Employment rate for recent IVET graduates (20-34 year-olds)	Council Rec on VET	82%
Progress	Recent IVET graduates (20-34 year-olds) who benefitted from exposure to work-based learning during their vocational education and training (%)	Council Rec on VET	60%
		Council Resolution on EEA	
Context	25-34 year-olds with tertiary attainment (%)	Council Resolution on EEA	45%
Context	Gender employment gap (%)	EPSR Action Plan	<i>To be halved</i>
Context	People at risk of poverty or social exclusion (1000s)	EPSR Action Plan	<i>15 m decrease</i>
Context	Employed ICT specialists (1000s)	2030 Digital Compass	<i>20 m. with convergence between men and women</i>

c. VET for the European Education Area: covering the internationalisation of VET

Progress	Learners in IVET who benefitted from a learning mobility abroad (%)	Council Rec on VET	8%
		Skills Agenda	
Context	Average number of foreign languages learned in IVET		

EU employment and social affairs ministers presented their national targets (which are either final or preliminary) on 16 June 2022 for three of the indicators outlined in the European Pillar of Social Rights Action Plan, namely Employment rate for 20-64 year-olds (%); Adults (25-64 year olds) with a learning experience in the last 12 months (%); People at risk of poverty or social exclusion (1000s). The EU VET Policy Dashboard only refers to EU level targets for the time being and does not account for national targets.

2. Structure of the dashboard

The dashboard is organized around different pages (or tabs) presenting the data according to the policy objectives, detailing the methodology and allowing for raw data access and export.

The Introduction page presents summary insights on the VET policy indicators for the EU27 aggregate data, as well as for all Countries for Progress indicators. The Key Policy Objective pages presents visualizations of progress and context indicators for the selected Policy objective, namely:

- *VET for Developing a lifelong learning culture*, which deals with developing an EU-wide lifelong learning culture by encouraging young people to stay in learning and adult reskilling and upskilling. *VET for Resilience, transitions, sustainability and excellence*, accounting for VET's contribution to developing Europe's human capital and skills and inclusiveness so to contribute to the promotion of a socio-economic ecosystem favourable to resilience, transitions, sustainability and excellence.
- *VET for the European Education Area*, which is dedicated to VET's contribution to developing the European Education Area. The level of internalization of VET is accounted by the percentage of learners in IVET who benefitted from a learning mobility abroad. The average number of foreign languages learned in IVET.

3. Dashboard data visualisations

Dashboard's data visualisations enable progress by countries and the EU as a whole towards the policy targets to be monitored and compared through:

- Summary visualisations: charts of all progress indicators for each country and the EU 27 aggregate.
- In-depth country progress visualisations: overviews on all progress indicators, policy goal analyses on Progress and Context indicators within a selected policy priority; time trends of the Progress indicators.

The dashboard uses various types of charts for summary and in-depth visualization (tables, bar charts, geographical heat maps, timelines).

Data standardisation in "**index numbers**" is performed when comparing multiple Progress indicators on a selected country (or EU 27 aggregate data) in bar charts: the policy target related to the specific Progress indicator is set to 100 and the observed values are rescaled accordingly. In general, if the index for a selected indicator is 100, then the EU target has been met. If the index is above 100, the EU target has been exceeded. For instance, if the target for indicator is set to 50% and country x scores 30% on that indicator, the index number will equal 60, meaning it is 40% below the target. This is calculated according to the following formula:

$$I = \frac{O_{x,y}}{\tau} \times 100$$

Where:

$O_{x,y}$ is the observed value for country x and year y

τ is the target value.

Importantly, four policy targets call for a reduction of the values:

- *NEET rate for 15-29 year-olds (%)*
- *Early leavers from education and training (%)*
- *Gender employment gap (%)*
- *People at risk of poverty or social exclusion (1000s)*

The index numbers must be read accordingly. An index number above 100, means the target has not been met and the index must be reduced. An index number below 100 means that the target is met.

Some additional operations are needed to transform into index numbers those targets that are expressed in absolute values:

- *People at risk of poverty or social exclusion (1000s)*
- *Employed ICT specialists (1000s)*

The policy target for *People at risk of poverty or social exclusion* calls for a reduction of 15 million at European level. The calculation of the index number is not straightforward in that case and requires additional parameters: a base year value β that corresponds to the value observed in the year the target was set (2019), the value observed for country x in year y ($O_{x,y}$) and a constant k that accounts for the gap to be filled between the value observed in the base year and the target value.

The value of k equals 0.8373049 and has the following origin. The reduction to be achieved at EU level is 15,000 thousand and the value observed in 2019 (β) is 92,197 thousand; people at risk of poverty or social exclusion are then expected to drop to 77, 197 thousand by 2030. This corresponds to a relative reduction of about 16.3% with respect to the value observed in 2019. In other words, the 2030 value will have to be about 83.73049% of what it is in 2019, that is 0.8373049 in 0-1 scale. The product of the constant (k) by the base year value (β) generates the pseudo-target (θ) for the calculation of the index numbers:

$$I = \frac{O_{x,y}}{\theta} \times 100$$

Where:

$O_{x,y}$ is the observed value for country x and year y ;

$\theta = \beta \times k$ and represents the pseudo-target value.

Importantly, the reduction of 15,000 thousand is expected at EU27 level and no country-specific target are set. Therefore, when applying the constant k to generate country pseudo-target, it is assumed that all countries are expected to contribute evenly to reaching the target, given their β (i.e. the amount of people at risk of poverty or social exclusion in 2019) and the effort required at EU level (reducing the number of people at risk of poverty or social exclusion by 15 million, that is a relative reduction of about 16.3%).

The same logic and formula apply to the calculation of index number for *Employed ICT specialists*. The value of k , in this case, equals to 2.54900461369835 as the number of ICT specialists is expected to

increase to 20,000 thousand at EU level, which corresponds to a relative increment of more than 2.5 times of what it is in 2019).

A last pseudo-target case concerns the *Gender employment gap*, whose target calls for a reduction of 50% at EU level. It follows that, in order to calculate index number that account for the progress towards the target for that indicator, the value of k is set to 0.5

In geographical heatmaps countries' colour intensity varies according to the indicator value: the higher the value, the more intense the colour. Geographical heatmaps provide for continuous data visualisation in which the colour intensity for each country is directly proportional to the value of the indicator that is visualized.

Some tables present recent changes for indicator values. Recent change is calculated as the absolute difference in the indicator values at two different points in time: the most recent year available and the immediately previous available observation (reference years for the calculation are reported and indicated as the range for calculation). The change is expressed in the same unit of measure of the corresponding indicator. Recent changes are calculated when the underlying values are affected by a break in time series, but a 'b' flag is introduced to signal that data cannot be fully compared over time.

4. Labels, descriptions and data sources.

Dashboard indicators are retrieved from multiple data sources and most of them are also part of Cedefop's Key Indicators on VET. Labels, descriptions and data sources are summarized in the table below.

No	Label	Short description and general indication of the source	Key Indicators on VET
1026	Learners in IVET who benefitted from a learning mobility abroad (%)	Share of mobile IVET learners in a calendar year. This is expressed as a proportion of a cohort of IVET graduates in the same year. (European Commission, Erasmus+ data and Eurostat, UOE data collection on formal education. Data are not yet available)	
1051	Adults with a recent learning experience (%)	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 LFS data are not available)	Yes*
1101	Low-qualified adults with a recent learning experience (%)	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 LFS data are not available)	Yes*
1110	Unemployed adults in lifelong learning (%)	Percentage of the unemployed adults (aged 25-64) who participated in formal or non-formal education and training over the four weeks prior to the survey. (Eurostat, LFS)	Yes*
2040	Average number of foreign languages learned in IVET	Average number of foreign languages learned in vocational upper secondary education (ISCED 3). (Eurostat, UOE data collection on formal education) (a)	Yes
2066	Recent IVET graduates benefitted by work-based learning (%)	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 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).	Yes*

No	Label	Short description and general indication of the source	Key Indicators on VET
2080a	Employment rate for recent IVET graduates (%)	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) education and training during the last four weeks prior to the survey (Eurostat, LFS)	Yes*
2130a	Adults with at least basic digital skills (%)	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).) (Eurostat, EU Community survey on ICT usage in households and by individuals)	Yes*
3010	Early leavers from education and training (%)	Percentage of the population aged 18-24 who have completed, at most, lower secondary education and are not involved in further education or training. (Eurostat, LFS)	Yes
3021	Tertiary attainment (%)	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)	Yes*
3030	NEET rate for 15-29 year-olds (%)	Percentage of the population of age 15-29 years not employed and not involved in further education or training. (Eurostat, LFS)	Yes
3060	Employment rate (%)	Percentage of the population aged 20-64 in employment. (Eurostat, LFS)	Yes*
3061	Gender employment gap (%)	Difference in percentage points between the employment rates of men and women aged 20-64. (Eurostat, LFS)	Yes
3080	Employed ICT specialists (1000s)	Number of employed ICT specialists (thousand persons) [for the ISCO-08 occupations treated as ICT specialists, see https://ec.europa.eu/eurostat/cache/metadata/en/isoc_skslf_esms.htm] (Eurostat, LFS)	
3090	People at risk of poverty or social exclusion (1000s)	People at risk of poverty or social exclusion (thousands) - New definition (Eurostat, EU-SILC)	

(a) EU averages are Cedefop estimates based on available country data

* In order to ensure consistency with the targets, as referred in the relevant policy documents, the indicator label that is presented in the dashboard slightly differs from the label adopted in the Key Indicators on VET.

When needed, the dashboard allows the visualisation of flags which may accompany specific numerical values. Examples of flags include those for break in time series (a value cannot be properly compared over time and with previous years) and those for low reliability (a value should be interpreted with caution because it is possibly based on a small sample size). The table below lists and explains the flags which may accompany numerical values presented in the European VET Policy Dashboard.

b	break in time series
c	confidential
d	definition differs
e	estimated
f	forecast
n	not significant
p	provisional
r	revised
s	Eurostat estimate
u	low reliability
z	not applicable
V	Cedefop estimate

For data originating from the EU-LFS, a new LFS legislation came into force in 2021 affecting comparability over time. Eurostat flags all 2021 LFS data with b – i.e., break in series – meaning caution should be used in comparing data with years prior to 2021; the changes in particular have an impact on labour market outcomes indicators. Information on the impacts of the new methodology on individual indicators was not available by the time data was released. For general information and country specific notes on the changes, please see https://ec.europa.eu/eurostat/statistics-explained/index.php?title=EU_labour_force_survey.

Some progress indicators are new, and data are not yet available. Where possible, they are proxied:

- Indicators on *participation of adults aged 25-64 in learning during the last 12 months*: the latest available data are from Eurostat's 2016 AES. Data are provided by Eurostat, at Cedefop's request. They exclude participation in guided on-the-job training. Currently, Cedefop is using this source as a proxy until new data from the EU LFS are available.
- *Learners in VET who benefitted from a learning mobility abroad*: a new indicator, introduced in the Council Recommendation on VET. It measures the share of mobile initial VET learners in a calendar year and is expressed as a proportion of a cohort of initial VET graduates in the same year. Data are currently not available but will be sourced from Erasmus+ data and VET graduates data sourced from the UOE. Where available and if comparable to Erasmus+ data, complementary data from national authorities dealing with national mobility programmes may also be used in future.