



## JRC TECHNICAL REPORT

# Education And Youth Labour Market Outcomes: The Added Value Of VET

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## ISCED 2011

The International Standard Classification of Education (ISCED) is the framework used to compare statistics across education systems of countries worldwide. It is an important tool used to facilitate international comparisons and benchmark progress on international education goals. ISCED covers formal and non-formal education programmes and any resulting recognised formal educational qualifications. ISCED was first developed by UNESCO in 1976. As education systems are constantly evolving, the framework needs to be updated periodically to ensure that it reflects current structures. The classification was updated in 1997, and a new revision (ISCED 2011) was adopted by the UNESCO General Conference in November 2011.

Source: UNESCO  
(<http://www.uis.unesco.org/Education/Pages/international-standard-classification-of-education.aspx>)

## 1. Introduction

This briefing sheds light to the question of the added value of VET to the employment of young graduates. It is prompted by the introduction in the Labour Force Survey (LFS) of a new section on orientation of study, which will give the possibility to analyse the features and the labour market outcomes of individuals depending on the programme orientation of their qualification. As an effect of Regulation 0317/2013 of 8 April 2013<sup>1</sup>, educational levels as defined by the ISCED 2011 classification will be included in the LFS from 2014 onwards. This change will allow to take into consideration the extra classification dimension of *programme orientation*.

As explained in the ISCED 2011 glossary (UNESCO-UIS, 2012), there are two categories of orientation, i.e. general and vocational education:

**Vocational education** is defined as education programmes that are 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.

<sup>1</sup><http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R0317&from=EN>

Correspondence between ISCED 2011 and 1997 levels	
2011	1997
Level 1	Level 1
Level 2	Level 2
Level 3*	Level 3
Level 4*	Level 4
Level 5	Level 5
Level 6	
Level 7	
Level 8	Level 6

\* Content of category has been modified slightly.

Source: UNESCO-UIS (2012)

Definition of ISCED 2011 levels	
0	Early childhood education
1	Primary education
2	Lower secondary education
3	Upper secondary education
4	Post-secondary non-tertiary education
5	Short-cycle tertiary education
6	Bachelor's or equivalent level
7	Master's or equivalent
8	Doctoral or equivalent
9	Not elsewhere classified

Source: UNESCO-UIS (2012)

**General education** is defined as education programmes that are 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.

While there is a substantial literature on the effect of education on individual labour market performance, the chances to investigate the role of vocational versus general education were more limited (especially in terms of comparative analysis between countries), mostly due to lack of data. The 2009 EU LFS ad-hoc module on "Entry of young people into the labour market" represented an important step forward (see Cedefop, 2012), but the systematic inclusion of information on orientation of study in the standard LFS (variable HATVOC) will open up a number of possibilities in this area.

As mentioned, the new section has been included in the survey, together with the new 2011 classification, starting from 2014. The first information available will therefore refer to the first quarter of 2014 (released in June 2014), with full micro data for the measurement year 2014 available only around November 2015.

One of the main purposes of this technical briefing is to *investigate the possible impact of the addition of this information in the context of the Joint Assessment Framework (JAF) approach*<sup>2</sup>.

In fact, one of the operational benchmarks of the strategic framework for European cooperation in education and training (ET 2020) concerns the employment rate of recent graduates<sup>3</sup>. In particular, it is recommended that the share of employed graduates (20-34 year olds) having left education and training no more than three years before the reference year should be at least 82%.

#### **EMPLOYABILITY BENCHMARK**

“The share of employed graduates (20-34 year olds) having left education and training no more than three years before the reference year should be at least 82%.”

The objective of the benchmark is to monitor the success rate in the labour market of young people with different levels of educational attainment in the first years after graduation, in particular in

order to understand the role of education and training in raising people’s employability.

For young individuals not wishing to continue their studies into tertiary education, vocational education potentially provides better prospects for their employability than general, more academically oriented upper secondary education. According to OECD (2013), during the years of the economic recession, countries with relatively high numbers of 25-34 year-old graduates from vocationally oriented programmes succeeded in reducing the risk of unemployment among young people with upper secondary education as their highest level of attainment.

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<sup>2</sup> For a presentation of the JAF methodology within the context of education and training, see JRC-CRELL (2014).

<sup>3</sup> The ET 2020 benchmark on the employment rate of recent graduates is also referred to as the “employability benchmark” throughout this technical briefing. For a comprehensive overview of the six operational benchmarks included in the strategic framework of ET 2020, please see EAC (2014). For more information on the employability benchmark, please refer to Section 1.2 in EAC (2014) and Chapter 5 in JRC-CRELL (2014).

Cedefop (2012) finds that Vocational Education and Training (VET) makes the transition from education to work smoother: the speed of transition is generally faster for VET graduates, who find an occupation more quickly than graduates from general education; furthermore, the first job lasts longer, and also the cumulative spells in work are longer<sup>4</sup>. Vocational education and training can also play a fundamental role in improving the ability of a country to deal with rapidly changing labour-market conditions, providing young people with skills that better match the needs of the labour market.

For all these reasons, orientation of study appears to be a natural candidate for inclusion among the additional sub-groups concerning the employment rate of recent graduates within the JAF methodology.

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<sup>4</sup> It should however be pointed out that despite having more short- and medium-term benefits, VET graduates might be giving up the longer-term benefits associated with further education. Hanushek, Woessmann, and Zhang (2011) showed that there is a trade-off between short and long term benefits of vocational education: it may help entering the labour market but job-related skills become obsolete more quickly than general skills; the latter may help workers dealing with rapid technological and structural change; general education contributes to higher probability of being employed at older ages (compared to individuals with vocational training) and individuals with general education are more likely to receive lifelong training. Besides, returns to vocational education (along the whole lifespan) vary widely among countries, even among countries with well-established apprenticeship systems (Denmark, Germany, and Switzerland).

## 2. Methodology

Given that the LFS microdata including information on orientation of study will not be available before the end of 2015, for this technical briefing we worked on data from *a special extraction provided by Eurostat*, concerning the third quarter of 2014.

In the ET 2020 framework, the employment rate of recent graduates is defined as the share of the employed population aged between 20 and 34 years old who graduated 1 to 3 years before the reference year and who are not currently enrolled in any further education or training activity. The term ‘graduate’ here refers to any person aged 20-34 who has left education and training with at least upper-secondary or post-secondary, non-tertiary qualifications (ISCED 1997 levels 3 to 4, excluding ISCED 3C short), or with tertiary qualifications (ISCED 1997 levels 5 and 6). Individuals currently engaged in any form of education or training are excluded to ensure that the employability of that cohort is not negatively influenced by individuals currently engaged in an updating/upgrading of their skills.

For the purposes of this briefing, it was not possible to reproduce the exact same indicator adopted as ET 2020 benchmark, but an attempt is made to replicate the features of the benchmark as closely as possible. In particular:

- Age group:

The figures provided in the technical briefing refer to the same age group of the benchmark, i.e. individuals aged 20-34.

- Recent graduates:

The information needed to identify *recent* graduates is only available for annual LFS data. In particular, the quarterly survey does not include the variable HATYEAR, which records the year when the educational attainment level was successfully completed. The figures provided therefore refer not to recent graduates, but to the entire population aged 20-34.

- Graduates:

This technical briefing focuses specifically on upper secondary and post-secondary non-tertiary education attainment (ISCED levels 3 and 4), since the information on programme orientation is available only for these levels of education. As mentioned, in the ET 2020 benchmark the term “graduate” refers to individuals with ISCED 3-6 level<sup>5</sup>.

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<sup>5</sup> At tertiary education levels (ISCED 1997 levels 5-6, corresponding to ISCED 2011 levels 5-8), UNESCO-UIS (2012) envisages that the terms “academic” and “professional” will be used in place of general and vocational respectively; however, ISCED 2011 does not yet define academic and

- *Enrolment in further education or training:*

For the employability benchmark, the population that is taken into account (both at the nominator and at the denominator) includes only individuals who are not currently enrolled in any further education or training activity<sup>6</sup>. We apply the same filter for the part of the technical briefing concerning labour market performances; the 3 resulting labour market indicators (employment rate, unemployment rate and inactivity rate) therefore resemble those provided by Eurostat concerning young people not in education and training (Eurostat online codes *edat\_ifse\_24*, *edat\_ifse\_25* and *edat\_ifse\_27*).

For all the analysis, we discard those individuals who did not reply to the question on orientation of study. As a consequence, when an average between VET and non-VET is presented, it represents the average of those who replied either *General* or *Vocational*, rather than the total population<sup>7</sup>.

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professional more precisely. According to the Joint Eurostat-OECD guidelines on the measurement of educational attainment in household surveys (Version of September 2014), initial discussions at international level on the issue of orientation in tertiary education (academic or professional) showed that many countries question both the usefulness and feasibility of making such a distinction. At present, there is no agreed upon definition for academic and professional at the higher ISCED levels (6 to 8).

<sup>6</sup> As explained by Eurostat, “all populations are restricted to people neither in formal education nor in non-formal education and training (EDUCSTAT = “2” and COURATT = “2”)”.

See: [https://circabc.europa.eu/d/a/workspace/SpacesStore/3b7c73b3-fab8-44ed-8caf-2feb177f0fab/SECTION3\\_ERAG.htm](https://circabc.europa.eu/d/a/workspace/SpacesStore/3b7c73b3-fab8-44ed-8caf-2feb177f0fab/SECTION3_ERAG.htm)

<sup>7</sup> Table A1 presents the share of missing data for the variable on orientation of study (i.e. *hatvoc*) in the total population with ISCED 3-4, and in the subgroup of those not in further education or training. Missing values concerning the variable affect nine countries, five of which have however a marginal share of information not available (DK, IT, LU, RO, UK). In FI, IE and SE, the incidence of missing values is higher, but still below 10%. The most concerning case is SK, for which the share reaches 28%.



### 3. An overview of youth labour market performance by orientation of study

In this section, we will present an overview of the labour market performance of young individuals (aged 20-34) with upper-secondary or post-secondary non-tertiary qualifications, disaggregating them by orientation of study. Since VET systems vary greatly from country to country (see OECD, 2010; and Piopiunik and Ryan, 2012), as does the attractiveness of VET (as defined in Cedefop, 2014), we will start by showing a measure of the incidence of vocational education in each country (Section 3.1). We will then turn to analysing differences in labour market performance of individuals with different programme orientation, by showing employment (Section 3.2), unemployment (Section 3.3) and inactivity (Section 3.4) rates. The key definitions for these indicators are provided in the following box.

#### Employment rate

The percentage of employed persons in relation to the comparable total population.

Persons in employment are those who during the reference week did any work for pay, profit or family gain for at least one hour, or were not working but had jobs from which they were temporarily absent. Family workers are also included.

#### Unemployment rate

An unemployed person is defined as:

- someone aged 15 to 74 (in Italy, Spain, the United Kingdom, Iceland, Norway: 16 to 74 years);
- without work during the reference week;
- available to start work within the next two weeks (or has already found a job to start within the next three months);
- actively having sought employment at some time during the last four weeks.

The unemployment rate is the number of people unemployed as a percentage of the labour force.

#### Inactivity rate

A person is economically inactive if he or she is not part of the labour force, i.e. if he/she is neither employed nor unemployed.

The inactive population can include pre-school children, school children, students, pensioners and housewives or men.

The inactivity rate is the percentage of inactive persons in relation to the comparable total population.

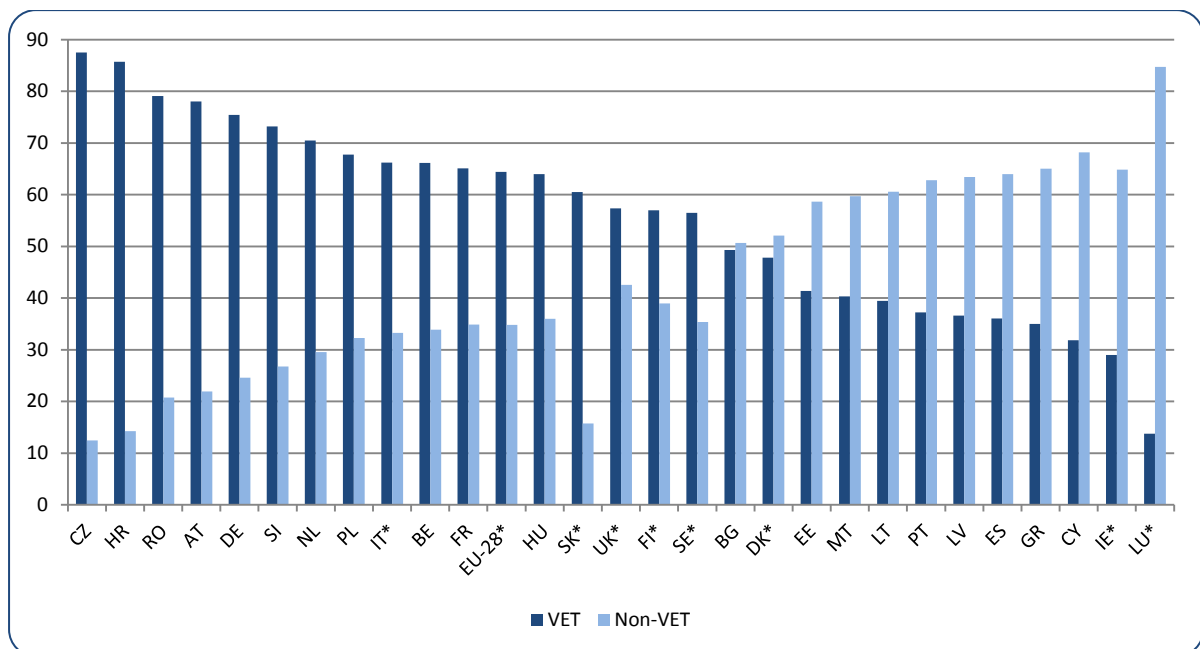
Note: The labour force or workforce or economically active population, also shortened to active population, includes both employed (employees and self-employed) and unemployed people, but not the economically inactive, such as pre-school children, school children, students and pensioners.

Source: Eurostat Glossary ([http://ec.europa.eu/eurostat/statistics-explained/index.php/Thematic\\_glossaries](http://ec.europa.eu/eurostat/statistics-explained/index.php/Thematic_glossaries))

### 3.1 Incidence of Vocational Education and Training (VET) across countries

As can be seen in Figure 1, the Member States with the highest share of individuals aged 20-34 holding a vocational upper secondary or post-secondary non-tertiary degree are the Czech Republic and Croatia (with an incidence of VET degrees at or above 80%). They are shortly followed by Romania, Austria, Germany and Slovenia (above 70%). On the contrary, on the right hand of the figure, we see that the countries with the highest levels of graduates with non-VET degrees (corresponding to very low levels of graduates from vocational programmes) are Luxemburg, Ireland, Cyprus and Greece (with shares of general oriented degrees above or close to 65%). In the EU-28 on average, 64.4% of ISCED 3-4 graduates have a vocational qualification<sup>8</sup>.

**Figure 1. Proportion of individuals with VET and non-VET degrees over total population aged 20-34 with ISCED 3-4**



Note: these figures include individuals still in further education or training. For absolute values see Table A2a in the appendix. Countries are presented in order of decreasing VET incidence. (\*) the VET and non-VET shares do not sum up to 100 because of some missing answers on orientation of study.

However, considering only the relative incidence of vocational education among individuals with an upper secondary or post-secondary non-tertiary degree might be

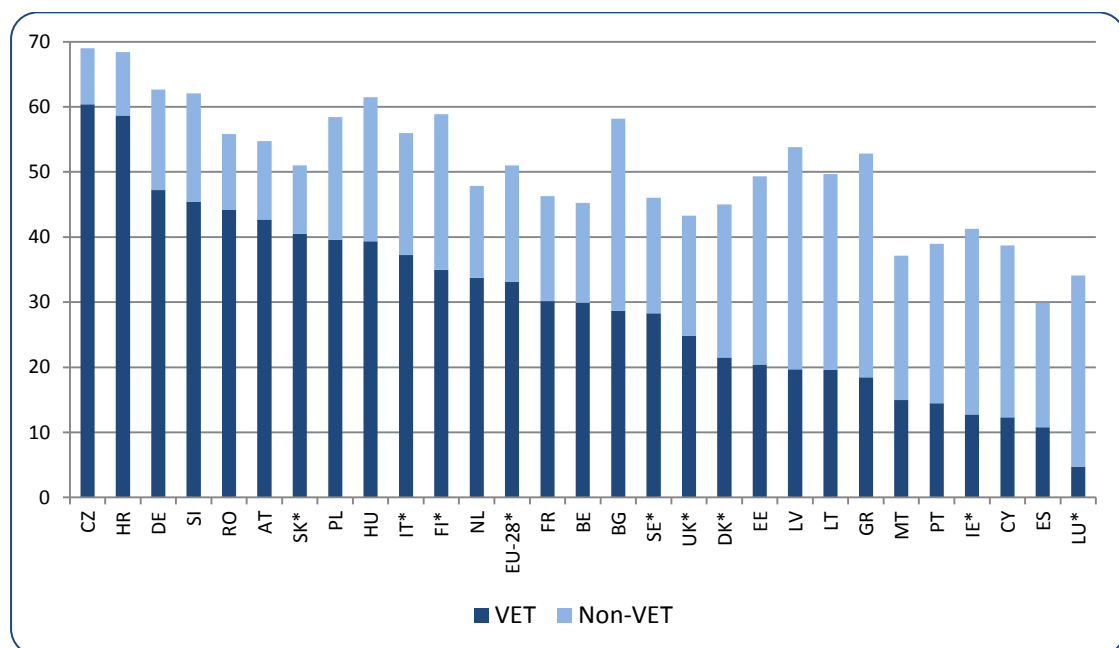
<sup>8</sup> On average, the incidence of VET is higher among men than among women. The EU-28 average share of individuals with VET orientation of study is 67.8% among males, and 60.7% among females. This average figure conceals different situations; as can be seen in Table A2b, while for most of the country VET degrees are more common among men, the biggest differences can be found for Bulgaria and Cyprus (above 20 percentage points), Italy and Lithuania (above 15). For one third of the countries, gaps are very small, below 5 percentage points. Only in the Netherlands the situation is opposite, with VET being more common among women.

misleading in trying to understand the incidence of VET for each country, for two main reasons:

- a) this depends also on the share of population with medium-level education;
- b) many individuals with non-VET qualifications may continue to tertiary education or further training.

Thus, in order to address point a), we present in Figure 2 the percentage of individuals who hold a VET (non-VET) ISCED 3-4 degree in the whole age group 20-34 (i.e. considering individuals with all educational levels). In both figures, countries are presented ordered by decreasing incidence of VET. A comparison between the two shows that the ranking of countries does not change significantly when taking into account the incidence of medium-level education in the country. In the Czech Republic and Croatia, around 60% of the population aged 20-34 has a vocationally-oriented ISCED 3-4 qualification, while in countries like Luxembourg and Spain the percentage reaches only 5 and 11% respectively – the overall EU-28 share being around 33%.

**Figure 2. Proportion of individuals with VET and non-VET degrees over total population aged 20-34, all educational levels**



Note: these figures include individuals still in further education or training. For absolute values see Table A2a in the appendix. Countries are presented in order of decreasing VET incidence.

(\*) the sum of the VET and non-VET shares do not sum up to the share of ISCED 3-4 in the country because of some missing answers on orientation of study, which are not considered in these percentages.

Point b) is particularly relevant in the context of this technical briefing, where we will be focusing on the labour market outcomes of young individuals. Individuals with vocational rather than general orientation of study tend to differ in the likelihood of

continuing to further education and training rather than entering the labour market. As mentioned in Cedefop (2012), individuals with a general education are more likely to continue studying at the tertiary level, whereas VET graduates are more likely to seek employment after completing medium-level education; among those aged 18-24, the report found that around three in four of those with a general education orientation are still in formal education, while one in four has stopped studying; the ratios are inverted for those with VET orientation. Moreover, differences in behaviour according to programme orientation can vary among countries. These factors can affect the labour market outcomes of individuals, and it is therefore important to take them into account in our analysis.

In Figure 3 we show the share of individuals, among those whose highest level of education attained is presently ISCED 3-4, who are currently enrolled in further education or training, by orientation of study of their already attained ISCED 3-4 degree. If among the population aged 20-34 a fair share of individuals is likely to be still in education, the incidence of ISCED 3-4 level VET degrees just presented might not be representative of the overall population and, in particular, not representative of the population ready to work and looking for jobs. As Figure 3 shows, on average in the EU-28, 52.4% of those with a general orientation programme continue their studies, the share among those who have a vocational-oriented qualification being 15.2%. However, although a similar pattern is found in all the countries, considerable differences arise among them<sup>9</sup>.

Germany, Croatia, Austria, Slovakia and the Czech Republic have the highest gap (more than 50 percentage points – p.p. – difference) between those with non-VET and VET qualifications continuing to tertiary education. The large differences in Germany (69 p.p.) and Croatia (62 p.p.) are driven more by the very high levels of young people with general-orientation degrees who continue studying at the tertiary level, rather than by particularly low levels of individuals with VET degrees who do the same. Also in the Netherlands, Finland, Slovenia and Denmark the proportion of non-VET graduates continuing education is pretty high (between 66 and 77%), but the gap is lower since a higher share (compared to the previous countries) of graduates from VET degrees continues studying (between 20 and 30%). Not surprisingly, most of the countries where the difference is above the EU-28 average are countries with a well-established and institutionalized system of vocational education, characterized by a high level of stratification and tracking (in some cases starting early, as in Germany) of the educational system. This structure implies that

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<sup>9</sup> For most of the countries, no huge differences arise when looking at figures disaggregated by sex (see Table A3b). In many cases, males/females gaps are in the order of few percentage points. Overall, women appear to have a slightly higher tendency to continue to further education or training than men (consistent differences, around or above 10 points, are registered only for Croatia, Lithuania, Poland and Slovenia). Notable exceptions appear to be Italy and Portugal, and for general education only, Austria, Hungary and Malta.

the type of school chosen at the end of lower secondary school (or even earlier) affects the chances of moving across educational tracks and the chances of continuing to tertiary education but, on the other side, qualifies graduates for a direct entry into the labour market, helping the transition through school-work alternation, and providing apprenticeship-based skills which can be easily transferred and marketizable across firms (see Marsden, 2007).

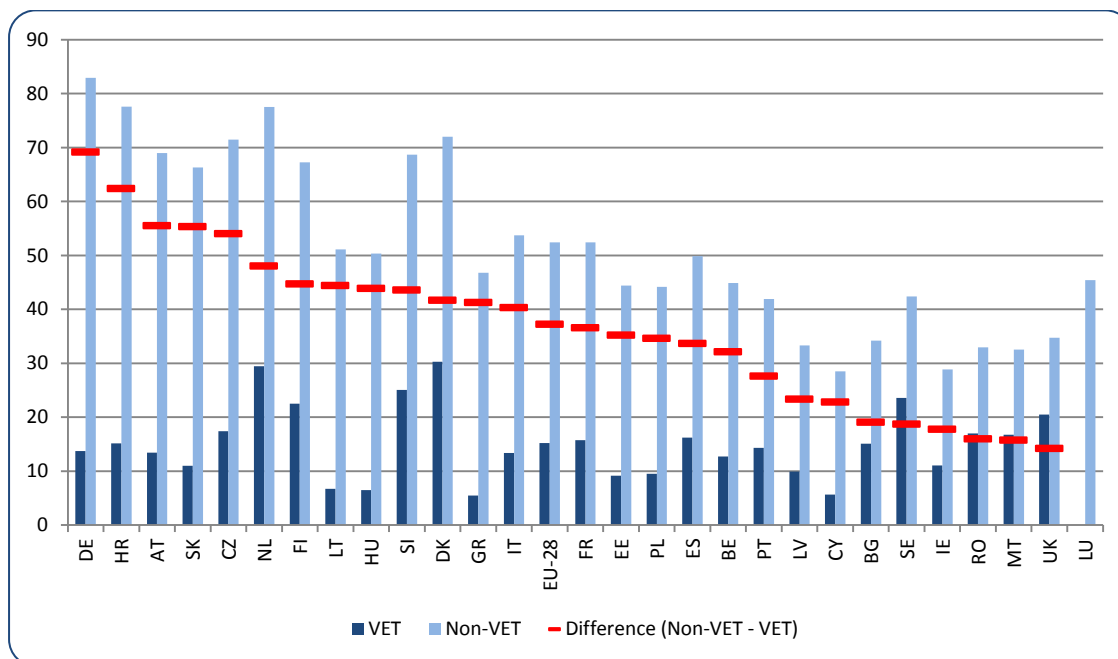
Another interesting fact emerging from Figure 3 is the relatively low level of non-VET graduates continuing education in Cyprus, Ireland, Malta, Romania, Latvia, Bulgaria and the UK: between 65 and 70% of individuals graduating from upper secondary school with general orientation do not proceed to the next educational stage or to any other form of training. These individuals are possibly exposed to a double disadvantage: first, with respect to their VET peers who own more labour-market related skills and can therefore enjoy a higher level of employability (as will be investigated in the next Sections); and second, with respect to tertiary graduates, who are likely characterised by an employment premium compared to those with medium qualifications<sup>10</sup>.

While cross-country evidence shows that VET graduates are consistently more likely not to continue to further education than non-VET graduates, the share of graduates from vocationally-oriented programmes who remain in education or further training varies considerably between countries; as a matter of fact, the lowest levels of young people with vocational ISCED 3-4 degrees who are still enrolled in further education and training are found in Greece, Cyprus, Hungary and Lithuania (all with shares below 7%), but in some countries (e.g. Denmark and the Netherlands) nearly one in three VET graduates continues studying.

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<sup>10</sup> See JRC-CRELL (2015).

**Figure 3. Proportion of individuals aged 20-34 who attained a VET/non-VET ISCED 3-4 degree who are currently enrolled in further education or training**



Notes: for absolute values see Table A3a in the Appendix. Countries are presented in order of decreasing difference between VET and non-VET. Figures for VET for LT and MT lack reliability due to small sample size. The VET figure for LU was not reported because below confidentiality limits.

In order to investigate the labour market outcomes of young individuals with VET and non-VET programme orientation, from now on we will exclude those who are still in education or training from the analysis, coherently with the definition of the benchmark on the employment rate of recent graduates.

### 3.2 Employment rates by orientation of study

In this section we try to compare the employment rates of VET and non-VET graduates. More precisely, Figure 4 shows the proportion of individuals aged 20-34 with a vocational (dark blue bar) or general (light blue bar) upper secondary or post-secondary non-tertiary degree who are employed, as a percentage of the total population (in the same age range, with ISCED 3-4 education, and in the same group of orientation of study<sup>11</sup>). The red line reports the percentage points difference between the two employment rates<sup>12</sup>. Table A3a in the appendix shows the figures behind the chart, and also reports the average employment rate of the two groups.

The highest employment rate among VET graduates is found in Luxembourg, Denmark and Malta (above 80%); while VET graduates seem to find fewer opportunities in Greece, Italy, Spain and Ireland (less than 70% employed). These rankings are mirrored in those related to employment rates of graduates from non-vocational programmes, since the levels of employment are likely strongly affected by the overall economic situation of the country.

It is therefore more interesting to look into the employment gap between VET and non-VET graduates; countries in Figure 4 are presented in order of increasing percentage points difference in employment rates. The main conclusion that can be drawn from the chart is that overall, the employment prospects of young VET graduates is higher than those of graduates from general programmes. In the EU-28 as a whole, the employment gap is 7 p.p. The highest employment differentials are found in Germany, Croatia and Denmark, all with values above 15 p.p. A few countries represent however an exception to the general trend; in Portugal, the employment rate of non-VET graduates is 6.3 p.p. higher than for graduates from vocational programmes, while in Greece, the UK and the Czech Republic, the differences are smaller (between 2.6 and 1 p.p.), but still to the advantage of graduates from general programmes<sup>13</sup>.

These results suggest that, among those who decided not to continue to tertiary education, vocational programmes appear to grant better employability prospects compared to general ones. The long tradition of vocational track which characterizes

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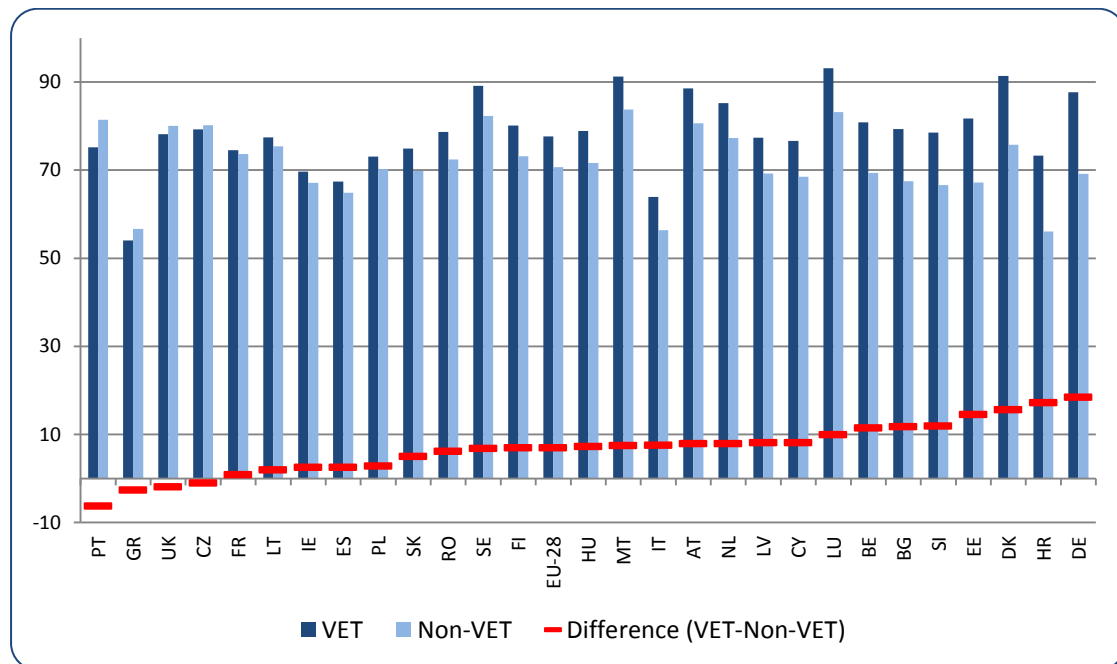
<sup>11</sup> As already mentioned, individuals who are currently enrolled in further education or training are excluded from the calculations for all three labour market indicators.

<sup>12</sup> When the red line is below 0 there is an “advantage” for non-VET graduates (higher employment rate compared to VET graduates), when the red line is above 0 the advantage is for VET graduates, who hold a higher employment rate.

<sup>13</sup> When looking at figures by sex (see Table A4b), results vary greatly between countries. While the employability advantage of VET graduates in Denmark appears to hold for both women and men, in Germany the premium is twice as high for women than for men; in Estonia, Latvia and Romania, the VET advantage is almost entirely driven by female employment, while in Cyprus and Italy it is mostly driven by males. In countries displaying an overall employability advantage in favour of graduates from general programmes, in the Czech Republic and the UK the premium is higher among women, while in Greece and Portugal among men.

the educational system can help explaining the results for Germany and Denmark, particularly characterized by a combination between school- and work-based learning<sup>14</sup>.

**Figure 4. Employment rates for VET and non-VET graduates**



Notes: Proportion of employed individuals aged 20-34 whose highest level of education is upper secondary or post-secondary non-tertiary (ISCED 3-4) with orientation of studies=VET (non-VET), over the total population of individuals 20-34 with ISCED 3-4 with orientation of studies=VET (non-VET). Only individuals who are not currently enrolled in any further education or training activity are taken into account. For absolute values see Table A4a in the Appendix. Countries are presented in order of increasing difference between VET and non-VET. Figures for non-VET for HR lack reliability due to small sample size.

<sup>14</sup> See Section 3.5 in EAC (2014).



### 3.3 Unemployment rates by orientation of study

Figure 5 shows the unemployment rate for young people not in education or training disaggregating them by orientation of study. Again, the dark blue bar represents individuals with vocational education, the light blue bar those with general education, and the red line the percentage points difference between the two unemployment rates. The figures behind the chart, and the average unemployment rate for the whole group, are reported in Table A5a.

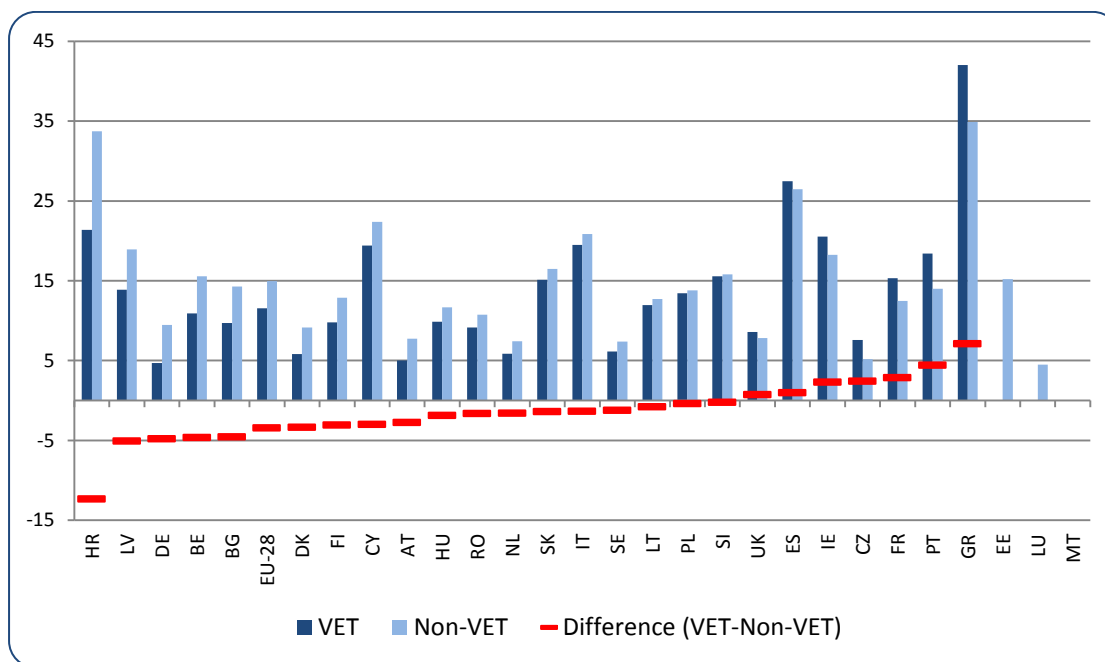
The highest unemployment rates for VET graduates are found in Greece (42%), Spain, Croatia and Ireland (above 20%). As for the employment rate, these are however also the countries with significant levels of unemployment among non-VET graduates, confirming that the unemployment rate is also heavily affected by the general conditions of the national labour market. If we turn to the unemployment gap between young people with vocational and general qualifications, we find a pattern opposite to the one emerging in Figure 4. Countries are again presented in order of increasing percentage points difference in rates, but in this case a negative gap represents a more favourable situation for VET than for non-VET graduates. Figure 5 shows that most of the countries present negative differences, suggesting once again that graduates from vocational programmes appear to have better labour market performances than those from general programmes. The highest advantage in favour of VET is found in Croatia (12.3 p.p.<sup>15</sup>), Latvia, Germany, Belgium and Bulgaria (all around 5 p.p.). Greece and Portugal are once again the strongest exceptions, with higher unemployment rates among VET graduates (+7.1 and +4.4 p.p. respectively), but other countries show similar situations, including France, the Czech Republic and Ireland (with gaps between 2 and 3 p.p.)<sup>16</sup>.

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<sup>15</sup> It should however be pointed out that, as for a few other countries, figures for Croatia are not reliable due to small sample size – see notes to the figure and to Table A4a for details.

<sup>16</sup> Table A5b reports unemployment rates by orientation of study and sex. Due to sample size issues, however, many of the figures reported are not reliable, so that it is hard to draw conclusions on different patterns affecting men and women.

Figure 5. Unemployment rates for VET and non-VET graduates



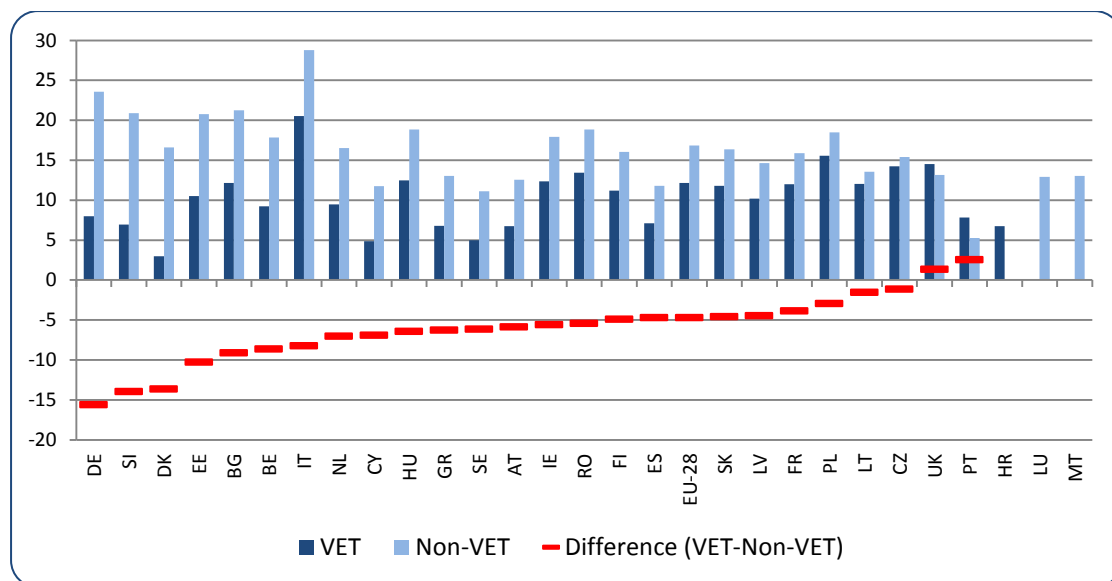
Note: Proportion of unemployed individuals aged 20-34 whose highest level of education is upper secondary or post-secondary non-tertiary (ISCED 3-4) with orientation of studies=VET (non-VET) over labour force (employed + unemployed) aged 20-34 with ISCED 3-4 and orientation of studies=VET (non-VET). Only individuals who are not currently enrolled in any further education or training activity are taken into account. For absolute values and differences in percentage points, see Table A5a in the Appendix. Countries are presented in order of increasing difference between VET and non-VET. The VET figures for EE, LU and MT and the non-VET figure for MT are not reported because of too small sample size (EE and MT) or below confidentiality limits (LU and MT). Some of the figures for AT, CZ, DK, EE, HR, LU and SI lack reliability due to small sample size – see Table A4a for details.

### 3.4 Inactivity rates by orientation of study

Somewhat similar patterns across countries are confirmed in Figure 6 as far as gaps in inactivity rates are concerned. As a matter of fact, most countries present a negative gap in inactivity between VET and non-VET graduates, which again goes to the advantage of young people with a vocationally oriented degree. The more consistent advantage is found mostly in the same countries that showed employment and unemployment advantages (Germany, Denmark, Belgium and Bulgaria, although in some cases the figures are characterised by low reliability due to small sample size<sup>17</sup>), but also in Slovenia. The only countries where the gap is in favour of graduates of programmes with a general orientation are once again Portugal (2.5 p.p.) and the UK (1.3).

Altogether, these results seem to suggest that VET education contributes to increasing the level of attachment to the labour market<sup>18</sup>.

**Figure 6. Inactivity rates for VET and non-VET graduates**



Note: Proportion of inactive individuals aged 20-34 whose highest level of education is upper secondary or post-secondary non-tertiary (ISCED 3-4) with orientation of studies=VET (non-VET) over the total population of individuals 20-34 with ISCED 3-4 with orientation of studies=VET (non-VET). Only individuals who are not currently enrolled in any further education or training activity are taken into account. For absolute values and differences in percentage points, see Table A6a in the Appendix. Countries are presented in order of increasing difference between VET and non-VET. The VET figures for LU and MT and the non-VET figure for HR are not reported because of too small sample size (HR, MT) or below confidentiality limits (LU). Some of the figures for AT, CY, DK, EE, HR, MT and SI lack reliability due to small sample size – see Table A6a for details.

<sup>17</sup> For the same reason, the figure concerning Croatia, one of the countries with the strongest advantage in favour of VET in the other two labour market indicators, could not be reported.

<sup>18</sup> For most of the countries, it appears that this result holds for both men and women. Table A6b shows that female inactivity rates are systematically higher than male ones; however, once again it is hard to assess the different effect that programme orientation can have, due to unreliable figures due to small sample size.

## Concluding remarks

This technical briefing stems from the recent introduction in the Labour Force Survey of a new section on programme orientation. Its primary aim is to provide some evidence on the labour market performance of individuals aged 20-34 with educational attainment at ISCED levels 3-4 and not currently in education or training, depending on the *orientation of study* of their qualification, and second, to consider the possible use of this distinction within the JAF approach for the *ET 2020 benchmark on the employment rate of recent graduates*.

Owing to the special extraction received from Eurostat, we were able to reproduce all the features of the benchmark, apart from identifying “recent” graduates (considering time since graduation), which will be possible once yearly LFS data is available. The replication of the benchmark by orientation of study could be done only for graduates with qualification at ISCED levels 3-4, which means that those with tertiary degrees were not taken into account.

The main conclusions that can be drawn from the figures presented in this briefing are:

Vocational education seems to improve the labour market performance of young individuals: in most of the countries, graduates from vocationally oriented programmes show higher employment rates than their non-VET counterparts, as well as lower unemployment and inactivity rates.

The advantage appears to be stronger in countries like Croatia and Germany, while Portugal and Greece are in most of the cases the main exceptions to this general pattern. These results can be influenced by the structure of the educational system: not surprisingly, the results tend to cluster on one side countries characterised by well-established vocational track within their educational system (DE, DK, BE, HR, EE, FI, AT) and on the other side countries with a more generally oriented system (ES, IT, GR, PT, IE).

When comparing the occupational outcomes of VET and non-VET graduates, an important point has to be taken into consideration:

- for VET graduates, the entry into the labour market is the primary destination after completing the degree;
- for those graduating in the general track, often preparing to higher education, the primary destination is the entry into higher education after the end of the degree (see Figure 3).

As a consequence:

the worse labour market outcomes of graduates from general education competing on the labour market together with VET graduates, might be driven by two main factors:

- young people with a vocationally oriented upper secondary education attainment are better prepared for their labour market integration than their counterparts with general upper secondary education. This is particularly the case in countries with a tradition of combined school- and work-based learning in VET;
- young people leaving general upper secondary education and deciding not to continue to higher education might suffer from a double disadvantage: on one side, they lack the skills of their competitors with tertiary education attainment, while on the other side they also lack the labour market preparation of their competitors with vocationally oriented upper secondary education attainment. Besides, a negative signalling effect may affect them: those with a generally oriented secondary degree not continuing to tertiary education may be perceived by employers as possessing less skills compared to their fellows continuing to tertiary education (the “good students”), thus making them potentially less attractive to employers.

The results presented in this technical briefing provide suggestions on possible avenues for more comprehensive research. In fact, the definition of a VET degree in practice varies widely among European countries, depending on the country-specific structure of the educational system. It is therefore important to be aware that the term VET can identify very heterogeneous situations: some countries may have vocational degrees systematically alternating school and workplace practice, while some other may call “vocational” degrees that are only vaguely job-oriented, often low-ranked compared to the academic track and possibly stigmatized (for a review

see Mansuy et al. 2001, pp. 22-26; Hanushek, Woessmann, and Zhang, 2011). In this case, two qualifications falling under the same umbrella of VET may lead to very different outcomes, suggesting that a more comprehensive analysis of the internal differentiation of VET education (i.e. the extent of school-work alternation, the degree of transition from one track to the other, the type of curricula, etc.) would help understanding better the extent to which cross-national variation can be associated to the characteristics of the vocational system. Moreover, further research will have to establish the extent to which cross-national variation found in this briefing is due to characteristics of the education and training system, as those just mentioned, or rather to specific labour market characteristics, such as employers' attitude concerning specific credentials (e.g. how common, and therefore how widely accepted, is entering the labour market with a generally oriented ISCED 3-4 degree).

#### *Implications for the JAF approach*

In light of the analysis carried out in the technical briefing, and of the conclusions that we could draw, it is possible to provide suggestions on the use of the newly added information on orientation of study in the context of the JAF approach.

While it is true that, as already mentioned, orientation of study appears to be a natural candidate for inclusion among the additional sub-groups for the employability benchmark, the current data availability would not allow programme orientation to work in the same way as other JAF sub-groups.

As a matter of fact, JAF sub-groups are generally a faithful replication of the benchmark, while in this case – even when data on time since graduation will be available – it is not possible to reproduce the same indicator, due to the lack of information on orientation of study for graduates at ISCED level 5-6. Considering the standard structure of the JAF, adding a sub-group that is computed on a group more restricted than the one of the benchmark might be misleading. What would be feasible, instead, is adding the VET/non-VET distinction within one of the sub-groups of the benchmark, i.e. the already existing level of education (see Figure 1.2.3, p. 21, of the 2014 Education and Training Monitor).

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## Appendix

**Table A1. Percentage of individuals with no answers on the orientation of study**

Country	% of individuals with no answer in variable <i>hatvoc</i>	
	On total population with ISCED 3-4	On population with ISCED 3-4 not in further education or training
DK	(c)	(c)
FI	4.03	5.02
IE	6.16	6.39
IT	0.51	0.61
LU	(c)	(c)
RO	(u)	(u)
SE	8.11	3.29
SK	23.75	28.36
UK	(u)	(u)
<b>EU-28</b>	0.76	0.83

Note: countries not reported have no missing information on orientation of study. There is no missing information among those with ISCED levels other than 3-4. (u) figures lack reliability due to small sample size; (c) figures not reported because below confidentiality limits.



**Table A2a. Share of individuals aged 20-34 by orientation of study**

Country	Over population 20-34 with ISCED 3-4		Over total population 20-34 (all ISCED levels)		
	VET	Non-VET	ISCED 3-4 VET	ISCED 3-4 Non-VET	Total ISCED 3-4
AT	78.0	22.0	42.7	12.0	54.7
BE	66.1	33.9	29.9	15.3	45.2
BG	49.3	50.7	28.7	29.5	58.2
CY	31.8	68.2	12.3	26.4	38.7
CZ	87.5	12.5	60.4	8.6	69.0
DE	75.4	24.6	47.2	15.4	62.6
DK*	47.8	52.1	21.5	23.5	45.1
EE	41.4	58.6	20.4	28.9	49.3
ES	36.0	64.0	10.8	19.1	29.9
EU-28*	64.4	34.8	33.1	17.9	51.4
FI*	57.0	39.0	35.0	23.9	61.4
FR	65.1	34.9	30.1	16.2	46.3
GR	35.0	65.0	18.5	34.4	52.8
HR	85.7	14.3	58.7	9.8	68.4
HU	64.0	36.0	39.3	22.1	61.5
IE*	29.0	64.8	12.8	28.5	44.0
IT*	66.2	33.3	37.2	18.7	56.2
LT	39.5	60.5	19.6	30.1	49.7
LU*	13.8	84.7	4.8	29.3	34.6
LV	36.6	63.4	19.7	34.1	53.8
MT	40.3	59.7	15.0	22.2	37.1
NL	70.5	29.5	33.7	14.1	47.9
PL	67.7	32.3	39.6	18.9	58.4
PT	37.2	62.8	14.5	24.5	39.0
RO	79.1	20.8	44.2	11.6	55.9
SE*	56.5	35.4	28.3	17.7	50.1
SI	73.2	26.8	45.5	16.6	62.1
SK*	60.5	15.8	40.5	10.5	66.9
UK*	57.3	42.5	24.9	18.4	43.4

(\*) Among those with educational level at ISCED 3-4, the VET and non-VET shares do not sum up to 100 because of some missing answers on orientation of study.

**Table A2b. Share of individuals with VET orientation of study among the 20-34 population with ISCED 3-4, by sex**

Country	Total population	Men	Women	Difference (Men-Women)
AT	78.0	81.1	74.5	6.6
BE	66.1	67.6	64.4	3.1
BG	49.3	60.0	35.3	24.6
CY	31.8	40.7	18.4	22.2
CZ	87.5	91.2	83.1	8.1
DE	75.4	75.2	75.7	-0.5
DK	47.8	54.6	40.0	14.6
EE	41.4	46.7	35.3	11.4
ES	36.0	37.6	34.4	3.2
<b>EU-28</b>	64.4	67.8	60.7	7.0
FI	57.0	60.3	53.1	7.1
FR	65.1	69.4	60.5	8.9
GR	35.0	36.3	33.6	2.8
HR	85.7	92.1	78.3	13.8
HU	64.0	70.5	56.3	14.3
IE	29.0	29.0	29.0	0.1
IT	66.2	75.5	56.2	19.3
LT	39.5	46.1	30.6	15.5
LU	13.8	17.6	10.0	7.7
LV	36.6	39.8	32.7	7.0
MT	40.3	44.4	35.4	9.0
NL	70.5	68.6	72.5	-3.9
PL	67.7	73.4	60.4	13.0
PT	37.2	38.6	35.9	2.7
RO	79.1	81.4	76.4	5.0
SE	56.5	60.6	51.3	9.3
SI	73.2	78.2	66.5	11.7
SK	60.5	60.4	60.6	-0.2
UK	57.3	57.8	56.8	1.0

**Table A3a. Proportion of individuals who attained a VET/non-VET ISCED 3-4 degree who are currently enrolled in further education or training (aged 20-34)**

Country	VET	Non-VET	Difference (Non-VET - VET)
AT	13.4	69.0	55.6
BE	12.7	44.9	32.1
BG	15.1	34.2	19.1
CY	5.7	28.5	22.8
CZ	17.4	71.5	54.0
DE	13.7	82.9	69.2
DK	30.3	72.0	41.7
EE	9.2	44.4	35.2
ES	16.2	49.9	33.7
EU-28	15.2	52.4	37.2
FI	22.5	67.2	44.8
FR	15.8	52.4	36.6
GR	5.5	46.8	41.3
HR	15.2	77.6	62.4
HU	6.5	50.4	43.9
IE	11.0	28.8	17.8
IT	13.4	53.7	40.3
LT	6.7 <sup>(u)</sup>	51.1	44.4
LU	- <sup>(c)</sup>	45.4	- <sup>(c)</sup>
LV	9.9	33.3	23.4
MT	16.8 <sup>(u)</sup>	32.5	15.8
NL	29.4	77.5	48.1
PL	9.5	44.2	34.6
PT	14.3	41.9	27.6
RO	17.0	33.0	16.0
SE	23.6	42.4	18.8
SI	25.1	68.7	43.6
SK	11.0	66.3	55.3
UK	20.5	34.7	14.2

Notes: (u) figures lack reliability due to small sample size; (c) figures not reported because below confidentiality limits.

**Table A3b. Proportion of individuals who attained a VET/non-VET ISCED 3-4 degree who are currently enrolled in further education or training (aged 20-34), by sex**

Country	Men			Women		
	Non-VET	VET	Difference (Non-VET - VET)	Non-VET	VET	Difference (Non-VET - VET)
AT	72.8	13.3	59.5	65.7	13.6	52.1
BE	41.7	11.0	30.8	48.3	14.9	33.3
BG	31.3	13.3	17.9	36.6	19.0	17.6
CY	28.3	5.7 <sup>(u)</sup>	22.6 <sup>(u)</sup>	28.8	- <sup>(u)</sup>	-
CZ	68.9	16.6	52.3	73.1	18.5	54.5
DE	83.4	14.4	69.0	82.4	13.0	69.4
DK	71.1	27.7	43.4	72.8	34.3	38.5
EE	42.5	5.6	36.9	46.2	- <sup>(u)</sup>	-
ES	49.2	16.7	32.5	50.5	15.6	34.9
EU-28	52.0	14.9	37.1	52.9	15.6	37.3
FI	65.1	20.4	44.8	69.4	25.4	44.0
FR	52.7	15.9	36.9	52.1	15.6	36.5
GR	44.7	4.6	40.0	49.0	6.5	42.5
HR	58.9 <sup>(u)</sup>	12.9 <sup>(u)</sup>	46.0 <sup>(u)</sup>	85.4	18.2 <sup>(u)</sup>	67.2 <sup>(u)</sup>
HU	53.1	5.5	47.5	48.2	7.8	40.4
IE	28.3	9.2	19.1	29.5	13.2	16.3
IT	57.8	14.0	43.8	51.3	12.4	38.9
LT	46.0	7.0 <sup>(u)</sup>	38.9 <sup>(u)</sup>	56.5	- <sup>(u)</sup>	-
LU	45.9	-	-	45.0	- <sup>(u)</sup>	-
LV	29.1	8.4 <sup>(u)</sup>	20.7 <sup>(u)</sup>	37.8	- <sup>(u)</sup>	-
MT	38.3	18.8 <sup>(u)</sup>	19.5 <sup>(u)</sup>	26.7 <sup>(u)</sup>	- <sup>(u)</sup>	-
NL	76.9	30.4	46.5	78.3	28.4	49.9
PL	38.1	9.2	28.9	49.4	10.0	39.5
PT	44.5	16.7	27.8	39.5	11.7	27.7
RO	31.7	15.2	16.5	34.1	19.1	15.0
SE	40.3	21.1	19.2	44.5	27.4	17.1
SI	63.9	21.0	42.9	72.9	31.6	41.3
SK	62.9	9.5	53.4	68.6	12.8	55.8
UK	34.6	20.2	14.3	34.9	20.8	14.1

Notes: (u) figures lack reliability due to small sample size.

**Table A4a. Employment rates for VET and non-VET graduates**

Country	Total	VET	Non-VET	Difference (p.p.) (VET - non-VET)
AT	87.9	88.6	80.7	7.9
BE	78.0	80.8	69.4	11.5
BG	74.1	79.3	67.5	11.8
CY	71.6	76.7	68.5	8.2
CZ	79.3	79.2	80.2	-1.0
DE	86.6	87.7	69.2	18.5
DK	86.7	91.4	75.8	15.6
EE	75.0	81.7	67.2	14.5
ES	66.1	67.4	64.9	2.5
EU-28	76.0	77.7	70.7	7.0
FI	77.8	80.1	73.1	7.0
FR	74.3	74.5	73.6	0.9
GR	55.4	54.1	56.6	-2.6
HR	72.6	73.3	56.1 <sup>(u)</sup>	17.2 <sup>(u)</sup>
HU	77.2	78.9	71.6	7.3
IE	68.3	69.6	67.1	2.5
IT	62.3	64.0	56.4	7.6
LT	76.6	77.5	75.4	2.0
LU	83.9	93.1	83.2	9.9
LV	72.8	77.4	69.2	8.1
MT	87.2	91.3	83.7	7.5
NL	84.3	85.2	77.3	7.9
PL	72.5	73.1	70.3	2.9
PT	78.6	75.2	81.5	-6.3
RO	77.5	78.6	72.4	6.2
SE	86.2	89.2	82.3	6.8
SI	77.0	78.6	66.6	11.9
SK	71.7	74.9	69.8	5.0
UK	78.9	78.2	80.1	-1.9

Note: Proportion of employed individuals aged 20-34 whose highest level of education is upper secondary or post-secondary non-tertiary (ISCED 3-4), with orientation of studies=VET (non-VET), over the total population of individuals 20-34 with ISCED 3-4, with orientation of studies=VET (non-VET). Only individuals who are not currently enrolled in any further education or training activity are taken into account. (u) figures lack reliability due to small sample size.

**Table A4b. Employment rates for VET and non-VET graduates, by sex**

Country	Men			Women		
	VET	Non-VET	Diff. (p.p.) (VET - non-VET)	VET	Non-VET	Diff. (p.p.) (VET - non-VET)
AT	92.5	90.8	1.7	83.7	73.8	9.9
BE	84.6	73.1	11.5	75.9	64.9	11.1
BG	83.1	74.3	8.8	70.2	61.5	8.7
CY	77.9	64.4	13.5	72.6	73.1	-0.5
CZ	92.2	94.2	-2.0	61.8	70.2	-8.4
DE	92.7	80.7	12.0	82.6	57.7	24.9
DK	93.6	78.6	15.0	87.7	73.2	14.5
EE	87.3	81.9	5.4	72.2	52.3	19.9
ES	72.1	70.6	1.6	62.3	59.3	3.0
EU-28	84.1	78.7	5.4	69.7	63.3	6.3
FI	84.9	77.1	7.7	73.3	68.6	4.8
FR	81.5	80.7	0.8	65.7	67.7	-2.0
GR	60.1	66.9	-6.8	47.1	45.5	1.6
HR	78.0	46.0 <sup>(u)</sup>	32.0 <sup>(u)</sup>	66.6	68.0 <sup>(u)</sup>	-1.5 <sup>(u)</sup>
HU	87.2	81.2	6.0	66.4	64.8	1.6
IE	77.0	73.7	3.3	60.8	59.1	1.8
IT	70.5	63.2	7.4	54.7	52.8	1.8
LT	80.4	81.5	-1.1	71.6	67.7	3.9
LU	93.9	86.9	7.0	91.4	80.1	11.3
LV	80.8	80.0	0.8	72.1	56.0	16.1
MT	96.7	91.5	5.2	83.6	77.1	6.6
NL	89.1	82.7	6.4	81.3	70.0	11.3
PL	82.7	81.9	0.8	57.9	57.8	0.0
PT	77.7	85.9	-8.2	72.8	77.7	-4.9
RO	84.4	84.2	0.2	71.3	61.4	9.9
SE	91.0	85.1	5.9	86.1	79.2	6.9
SI	85.3	74.0 <sup>(u)</sup>	11.2 <sup>(u)</sup>	66.2	57.9 <sup>(u)</sup>	8.3 <sup>(u)</sup>
SK	85.3	82.3	3.0	61.5	59.8	1.7
UK	87.1	86.1	0.9	68.5	73.7	-5.2

Note: Proportion of employed individuals aged 20-34 whose highest level of education is upper secondary or post-secondary non-tertiary (ISCED 3-4), with orientation of studies=VET (non-VET), over the total population of individuals 20-34 with ISCED 3-4, with orientation of studies=VET (non-VET). Only individuals who are not currently enrolled in any further education or training activity are taken into account. (u) figures lack reliability due to small sample size.

**Table A5a. Unemployment rates for VET and non-VET graduates**

Country	Total	VET	Non-VET	Difference (p.p.) (VET - non-VET)
AT	5.3	5.0	7.8 <sup>(u)</sup>	-2.7 <sup>(u)</sup>
BE	12.0	10.9	15.5	-4.6
BG	11.6	9.7	14.3	-4.6
CY	21.2	19.4	22.4	-3.0
CZ	7.5	7.6	5.2 <sup>(u)</sup>	2.4 <sup>(u)</sup>
DE	4.9	4.7	9.5	-4.8
DK	6.7	5.8	9.1 <sup>(u)</sup>	-3.3 <sup>(u)</sup>
EE	11.5 <sup>(u)</sup>	- <sup>(u)</sup>	15.2 <sup>(u)</sup>	-
ES	27.0	27.4	26.5	1.0
EU-28	12.4	11.6	15.0	-3.4
FI	10.8	9.8	12.9	-3.1
FR	14.7	15.3	12.5	2.9
GR	38.5	42.0	34.9	7.1
HR	21.8	21.4	33.7 <sup>(u)</sup>	-12.3 <sup>(u)</sup>
HU	10.2	9.8	11.7	-1.8
IE	18.7	20.5	18.2	2.3
IT	19.8	19.5	20.9	-1.4
LT	12.3	12.0	12.7	-0.8
LU	4.1 <sup>(u)</sup>	- <sup>(c)</sup>	4.5 <sup>(u)</sup>	-
LV	16.6	13.9	18.9	-5.1
MT	- <sup>(u)</sup>	- <sup>(c)</sup>	- <sup>(u)</sup>	-
NL	6.0	5.9	7.4	-1.6
PL	13.5	13.4	13.8	-0.4
PT	16.0	18.4	14.0	4.4
RO	9.4	9.1	10.8	-1.6
SE	6.9	6.2	7.4	-1.2
SI	15.6	15.6	15.8 <sup>(u)</sup>	-0.2 <sup>(u)</sup>
SK	17.4	15.1	16.5	-1.4
UK	8.3	8.6	7.8	0.8

Note: Proportion of unemployed individuals aged 20-34 whose highest level of education is upper secondary or post-secondary non-tertiary (ISCED 3-4), with orientation of studies=VET (non-VET), over labour force (employed + unemployed) aged 20-34 with ISCED 3-4, and orientation of studies=VET (non-VET). Only individuals who are not currently enrolled in any further education or training activity are taken into account. (u) figures lack reliability due to small sample size; (c) figures not reported because below confidentiality limits.

**Table A5b. Unemployment rates for VET and non-VET graduates, by sex**

Country	Men			Women		
	VET	Non-VET	Diff. (p.p.) (VET - non-VET)	VET	Non-VET	Diff. (p.p.) (VET - non-VET)
AT	5.3	- <sup>(u)</sup>	-	4.6	- <sup>(u)</sup>	-
BE	10.2	15.4	-5.2	12.0	15.7 <sup>(u)</sup>	-3.8 <sup>(u)</sup>
BG	10.0	13.9	-3.9	8.8 <sup>(u)</sup>	14.6	-5.8 <sup>(u)</sup>
CY	18.9	25.7	-6.9	21.2 <sup>(u)</sup>	18.8	2.4 <sup>(u)</sup>
CZ	5.7	- <sup>(c)</sup>	-	11.2	6.4 <sup>(u)</sup>	4.8 <sup>(u)</sup>
DE	4.9	- <sup>(u)</sup>	-	4.5	- <sup>(u)</sup>	-
DK	5.0 <sup>(u)</sup>	- <sup>(u)</sup>	-	- <sup>(u)</sup>	- <sup>(u)</sup>	-
EE	- <sup>(u)</sup>	- <sup>(u)</sup>	-	- <sup>(u)</sup>	- <sup>(u)</sup>	-
ES	24.6	23.2	1.4	30.7	30.0	0.8
EU-28	10.8	13.7	-2.9	12.6	16.3	-3.7
FI	9.5	11.3	-1.9	10.3	14.8	-4.4
FR	13.7	12.4 <sup>(u)</sup>	1.3 <sup>(u)</sup>	17.7	12.5 <sup>(u)</sup>	5.2 <sup>(u)</sup>
GR	38.5	29.8	8.7	46.5	41.6	4.9
HR	19.0	- <sup>(u)</sup>	-	25.1 <sup>(u)</sup>	- <sup>(c)</sup>	-
HU	8.6	11.0	-2.4	12.2	12.3	-0.1
IE	19.5	19.4	0.1	22.1	16.5	5.6
IT	17.8	19.5	-1.1	22.4	21.7	0.8
LT	14.5	11.4 <sup>(u)</sup>	3.1 <sup>(u)</sup>	5.7 <sup>(u)</sup>	- <sup>(u)</sup>	-
LU	- <sup>(c)</sup>	- <sup>(c)</sup>	-	- <sup>(c)</sup>	- <sup>(c)</sup>	-
LV	14.4 <sup>(u)</sup>	15.0	-0.6 <sup>(u)</sup>	- <sup>(u)</sup>	25.0	-
MT	- <sup>(c)</sup>	- <sup>(c)</sup>	-	-	- <sup>(u)</sup>	-
NL	6.3	6.2 <sup>(u)</sup>	0.1 <sup>(u)</sup>	5.3	9.2 <sup>(u)</sup>	-3.9 <sup>(u)</sup>
PL	11.8	11.0	0.8	16.9	17.8	-0.9
PT	17.7	11.7	6.0	19.1	16.0	3.1
RO	9.3	9.8	-0.5	9.0	12.0	-3.0
SE	5.8	7.8	-2.0	6.8	6.9	-0.1
SI	12.4	16.4 <sup>(u)</sup>	-4.0 <sup>(u)</sup>	22.3 <sup>(u)</sup>	- <sup>(u)</sup>	-
SK	13.7	14.9 <sup>(u)</sup>	-1.2 <sup>(u)</sup>	17.6	18.2 <sup>(u)</sup>	-0.6 <sup>(u)</sup>
UK	8.0	8.9	-0.9	9.4	6.5	3.0

Note: Proportion of unemployed individuals aged 20-34 whose highest level of education is upper secondary or post-secondary non-tertiary (ISCED 3-4), with orientation of studies=VET (non-VET), over labour force (employed + unemployed) aged 20-34 with ISCED 3-4, and orientation of studies=VET (non-VET). Only individuals who are not currently enrolled in any further education or training activity are taken into account. (u) figures lack reliability due to small sample size; (c) figures not reported because below confidentiality limits.



**Table A6a. Inactivity rates for VET and non-VET graduates**

Country	Total	VET	Non-VET	Difference (p.p.) (VET - non-VET)
AT	7.3	6.7	12.6 <sup>(u)</sup>	-5.8 <sup>(u)</sup>
BE	11.3	9.2	17.9	-8.6
BG	16.2	12.2	21.3	-9.1
CY	9.1	4.9 <sup>(u)</sup>	11.8	-6.9 <sup>(u)</sup>
CZ	14.3	14.3	15.4	-1.1
DE	8.9	8.0	23.6	-15.6
DK	7.1	3.0 <sup>(u)</sup>	16.6	-13.6 <sup>(u)</sup>
EE	15.3	10.5 <sup>(u)</sup>	20.8 <sup>(u)</sup>	-10.3 <sup>(u)</sup>
ES	9.5	7.1	11.8	-4.7
<b>EU-28</b>	13.3	12.2	16.8	-4.7
FI	12.8	11.2	16.1	-4.9
FR	12.9	12.0	15.9	-3.9
GR	10.0	6.8	13.0	-6.3
HR	7.1 <sup>(u)</sup>	6.8 <sup>(u)</sup>	- <sup>(u)</sup>	-
HU	13.9	12.5	18.9	-6.4
IE	16.0	12.4	17.9	-5.6
IT	22.3	20.5	28.8	-8.2
LT	12.7	12.0	13.6	-1.5
LU	12.5	- <sup>(c)</sup>	12.9	-
LV	12.7	10.2	14.6	-4.4
MT	10.2 <sup>(u)</sup>	- <sup>(u)</sup>	13.0 <sup>(u)</sup>	-
NL	10.3	9.5	16.5	-7.0
PL	16.2	15.6	18.5	-2.9
PT	6.5	7.8	5.3	2.5
RO	14.4	13.4	18.8	-5.4
SE	7.5	5.0	11.1	-6.1
SI	8.8	7.0 <sup>(u)</sup>	20.9 <sup>(u)</sup>	-13.9 <sup>(u)</sup>
SK	13.1	11.8	16.4	-4.6
UK	14.0	14.5	13.2	1.3

Note: Proportion of inactive individuals aged 20-34 whose highest level of education is upper secondary or post-secondary non-tertiary (ISCED 3-4), with orientation of studies=VET (non-VET), over the total population of individuals 20-34 with ISCED 3-4, with orientation of studies=VET (non-VET). Only individuals who are not currently enrolled in any further education or training activity are taken into account. (u) figures lack reliability due to small sample size; (c) figures not reported because below confidentiality limits.

**Table A6b. Inactivity rates for VET and non-VET graduates, by sex**

Country	Men			Women		
	VET	Non-VET	Diff. (p.p.) (VET - non-VET)	VET	Non-VET	Diff. (p.p.) (VET - non-VET)
AT	2.4	- <sup>(u)</sup>	-	12.2	17.2 <sup>(u)</sup>	-5.0 <sup>(u)</sup>
BE	5.8	13.6	-7.8	13.7	23.0	-9.3
BG	7.6	13.7	-6.0	23.0	28.0	-5.0
CY	4.0 <sup>(u)</sup>	13.3	-9.4 <sup>(u)</sup>	- <sup>(u)</sup>	10.0	-
CZ	2.2	- <sup>(c)</sup>	-	30.4	25.0	5.4
DE	2.6	12.3	-9.7	13.5	34.8	-21.3
DK	- <sup>(u)</sup>	- <sup>(u)</sup>	-	- <sup>(u)</sup>	21.1	-
EE	- <sup>(u)</sup>	- <sup>(u)</sup>	-	- <sup>(u)</sup>	35.2 <sup>(u)</sup>	-
ES	4.3	8.1	-3.8	10.1	15.4	-5.3
EU-28	5.7	8.8	-3.1	20.2	24.3	-4.1
FI	6.3	13.0	-6.7	18.2	19.6	-1.3
FR	5.5	7.8 <sup>(u)</sup>	-2.3 <sup>(u)</sup>	20.2	22.6	-2.4
GR	2.3 <sup>(u)</sup>	4.6	-2.4 <sup>(u)</sup>	12.0	22.1	-10.2
HR	3.7 <sup>(u)</sup>	- <sup>(c)</sup>	-	11.2 <sup>(u)</sup>	- <sup>(c)</sup>	-
HU	4.6	8.8	-4.2	24.4	26.1	-1.8
IE	- <sup>(u)</sup>	8.6	-	21.9	29.3	-7.4
IT	14.2	21.5	-7.3	29.5	32.5	-3.0
LT	- <sup>(u)</sup>	- <sup>(u)</sup>	-	24.1	20.6 <sup>(u)</sup>	3.5 <sup>(u)</sup>
LU	- <sup>(c)</sup>	- <sup>(c)</sup>	-	-	14.2	-
LV	- <sup>(u)</sup>	- <sup>(u)</sup>	-	17.2 <sup>(u)</sup>	25.4	-8.2 <sup>(u)</sup>
MT	-	- <sup>(u)</sup>	-	- <sup>(u)</sup>	- <sup>(u)</sup>	-
NL	4.9	11.8	-6.9	14.1	22.8	-8.7
PL	6.2	8.0	-1.8	30.4	29.7	0.7
PT	- <sup>(u)</sup>	- <sup>(u)</sup>	-	10.0	7.5	2.5
RO	7.0	6.6 <sup>(u)</sup>	0.3 <sup>(u)</sup>	21.7	30.2	-8.6
SE	3.4	7.7	-4.3	7.6	15.0	-7.3
SI	2.7 <sup>(u)</sup>	11.4 <sup>(u)</sup>	-8.7 <sup>(u)</sup>	14.9 <sup>(u)</sup>	32.0 <sup>(u)</sup>	-17.2 <sup>(u)</sup>
SK	1.2 <sup>(u)</sup>	- <sup>(c)</sup>	-	25.3	26.9	-1.5
UK	5.4	5.4	0.0	24.4	21.2	3.2

Note: Proportion of inactive individuals aged 20-34 whose highest level of education is upper secondary or post-secondary non-tertiary (ISCED 3-4), with orientation of studies=VET (non-VET), over the total population of individuals 20-34 with ISCED 3-4, with orientation of studies=VET (non-VET). Only individuals who are not currently enrolled in any further education or training activity are taken into account. (u) figures lack reliability due to small sample size; (c) figures not reported because below confidentiality limits.

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Abstract

The systematic inclusion of information on orientation of study (vocational vs. general) in the Labour Force Survey (LFS) starting from 2014 will give the possibility to analyse the features and the labour market outcomes of individuals depending on the programme orientation of their qualification. One of the main purposes of this technical briefing is to investigate the possible impact of the addition of this information in the context of the Joint Assessment Framework (JAF) approach, in particular with reference to the benchmark on the employment rate of recent graduates. In this perspective, orientation of study appears to be a natural candidate for inclusion among the additional sub-groups concerning the employment rate of recent graduates within the JAF methodology.

The analysis carried out in the briefing shows a labour market advantage, at least in the short run, of young individuals with VET qualifications (compared to their non-VET counterparts), although with important cross-country differences. However, in the context of the JAF approach, the current data availability would not allow programme orientation to work in the same way as other JAF sub-groups, thus the recommendation is to add the VET/non-VET distinction within one of the sub-groups of the benchmark, i.e. the already existing level of education.

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