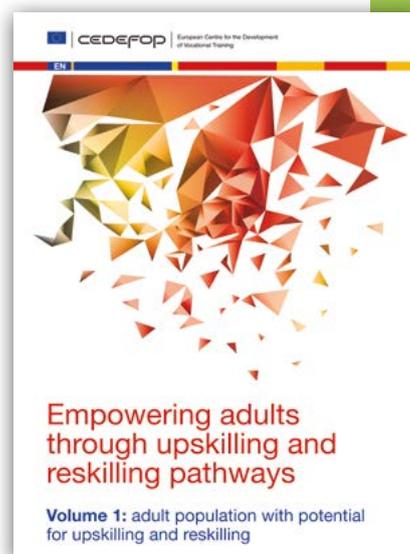




## Executive SUMMARY

# Empowering adults through upskilling and reskilling pathways

Volume 1: adult population with  
potential for upskilling and reskilling



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The reference publication corresponding to this executive summary <sup>(1)</sup> is the first volume of Cedefop research on empowering adults through upskilling and reskilling pathways.

As 2020 approaches, and the EU is still far from attaining its benchmark of 15% adult participation in learning, our societies face multiple challenges: technological changes, including digitalisation and its consequences for the future of work; ageing societies; the need for the greening of the economy; and social inclusion. Europe must improve and maintain high-level skills and competences to remain competitive and innovative; skills are therefore essential, not only to access and progress in the labour market but also to achieve one's full potential and play an active role in society.

<sup>(1)</sup> Cedefop (2019). *Empowering adults through upskilling and reskilling pathways. Volume 1: adult population with potential for upskilling and reskilling*. Luxembourg: Publications Office of the European Union. Cedefop reference series; No 112. [www.cedefop.europa.eu/en/publications-and-resources/publications/3081](http://www.cedefop.europa.eu/en/publications-and-resources/publications/3081)

The benefits of investing in the upskilling and reskilling of adults have long been acknowledged in the literature. Cedefop analysis<sup>(2)</sup> demonstrates how adults with low cognitive skills and/or low education are a vulnerable segment of the population, characterised by lower earnings and employment rates, lower quality of health, wellbeing and life satisfaction, lower civic and social engagement, and higher probability of involvement in criminal activities. Empowering low-skilled adults by promoting their upskilling and/or reskilling is associated with large social and economic incentives. According to the estimates, upskilling the EU-28 adult population (upskilling scenario: a faster increase on skill levels in the EU-28 Member States compared to the current trend) would lead to an average yearly gain of EUR 200 billion in the 10-year period between 2015 and 2025. Lack of exhaustive data prevents determining a comprehensive figure for the cost of low skills. These estimates, while alarming, should be regarded as underestimating the real economic and social costs of low skills in Europe and call for immediate action.

However, the low-skilled adult population is heterogeneous and includes adults with different needs and characteristics. For policy-makers to design and implement tailored policies, there is a need to develop a comprehensive and robust evidence base in order to understand better the magnitude of the low-skilled adult population and which groups of adults are more at risk of being low-skilled.

To date, lack of exhaustive data has meant that analysis of 'low-skilled' status has been rather narrow and primarily conducted on the basis of either the level of educational attainment of the population or as people working in low-skilled jobs. However, low-skilled status is a multidimensional and dynamic phenomenon which goes beyond educational attainment. A comprehensive approach to understanding low skills should consider both the determinants and effects of low skills; in doing this, it should also include a wider typology of people with low skills, such as those with obsolete skills and mismatched workers.

<sup>(2)</sup> Cedefop (2017). *Investing in skills pays off: the economic and social cost of low-skilled adults in the EU*. Luxembourg: Publications Office. Cedefop research paper; No 60. <http://dx.doi.org/10.2801/23250>

The aim of the reference report is to understand better the magnitude of the low-skilled adult population in the EU-28 Member States, Iceland and Norway (hereafter EU-28+). It also seeks to identify which groups of adults are most at risk of being low-skilled according to a wider definition that goes beyond educational attainment to digital skills, cognitive skills (literacy and numeracy) and the effects of skill loss and obsolescence.

For the purpose of this research, adults (aged 25 to 64) have been investigated according to these skill domains:

- (a) educational attainment (LFS 2016<sup>(3)</sup>);
- (b) computer and digital skills (Community statistics on information society, CSIS 2015, 2014 for Iceland<sup>(4)</sup>);
- (c) cognitive skills (numeracy and literacy, OECD PIAAC 2012, 2015<sup>(5)</sup>);
- (d) adults with medium or high education (ISCED 5-8, LFS) but working in elementary occupations (ISCO 88-09) as a proxy for skills obsolescence/skill loss.

### LOW-SKILLED ADULTS IN THE EU-28+: DESCRIPTIVE STATISTICS

Data show that EU-28+ countries present significant differences in the share of adults with low skills in all dimensions considered. In particular:

- (a) according to Eurostat-LFS 2016 data, the share of adults with low levels of education (ISCED 0-2 and 3c short) varies from over 50% for Malta and Portugal to less than 10% in some

<sup>(3)</sup> Educational attainment levels according to the international standard classification of education ISCED 2011, as reported in the Eurostat-European Union labour force survey. <http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/lfs>

<sup>(4)</sup> The Eurostat community statistics on information society survey provides information on access and use of information and communication technologies including: computer use, internet access, digital competences. CSIS 2015 covers all EU-28+ countries except Iceland. CSIS 2014 data have been used for Iceland. <https://ec.europa.eu/eurostat/web/microdata/community-statistics-on-information-society>

<sup>(5)</sup> The OECD-PIAAC (Programme for the international assessment of adult competencies) is a programme of assessment and analysis of adult skills. The survey of adult skills conducted as part of PIAAC measures adults' proficiency in cognitive skills (literacy and numeracy) and problem-solving in technology-rich environments. PIAAC covers 21 countries of the EU-28+: 18 surveyed in round 1 (2012): AT, BE, CY, CZ, DE, DK, EE, ES, FI, FR, IE, IT, NL, NO, PL, SE, SK, UK; and three surveyed in round 2 (2015): EL, LT, SI. No data in proficiency in problem-solving in technology-rich environments are available for ES, FR, CY and IT. [www.oecd.org/skills/piaac/](http://www.oecd.org/skills/piaac/)

- eastern Europe countries (Czechia, Lithuania);
- (b) in countries such as Bulgaria, Italy and Romania, one in four adults (25%) declared in 2015 they had never used the computer, while this share drops to less than 5% in Germany, the Netherlands and the United Kingdom (CSIS-2015);
- (c) significant differences among countries are also found in the use of the internet and digital skills. According to CSIS-2015 data, in Bulgaria, Cyprus, Poland and Romania, 60% or more of adults have insufficient digital skills; they either have not used the internet in the three months prior to the interview or, if they have used it, they have below basic digital skills in activities such as information, communication, content creation and problem-solving;
- (d) among the countries investigated by the PIAAC survey (2012;2015), the share of adults with low cognitive skills (literacy and numeracy) is particularly high (over 36%) in Greece, Spain and Italy, while it is much lower (below 20%) in the Scandinavian countries, as well as in Czechia, Estonia, the Netherlands and Slovakia.

Overall, the incidence of low skills across the EU-28+ shows that Greece, Spain, France, Italy and Malta present higher than average shares of low-skilled adults in almost all the skills concepts investigated (for which data are available for the country). In contrast, the Netherlands, Austria and Nordic countries (Denmark, Finland, Norway and Sweden) perform better than average in terms of low skills in all dimensions.

### ESTIMATION OF THE ADULT POPULATION WITH POTENTIAL FOR UPSKILLING AND RESKILLING IN THE EU-28+

As there is no single European dataset encompassing information on all skill domains considered in this study, estimation of the magnitude of the adult population with potential for upskilling and reskilling has been carried out using a four-step residual approach. To reduce overlapping of relevant information, four sets of low-skilled adults have been estimated and summed up to arrive at a single value:

- (a) adults with low education<sup>(6)</sup> (LFS 2016 microdata);
- (b) adults with medium-high education working in elementary occupations (LFS 2016 microdata)<sup>(7)</sup>;
- (c) adults with low digital skills<sup>(8)</sup>, among those which have medium-high education and are not employed in a manual job (CSIS 2015 microdata, plus CSIS 2014 for Iceland);
- (d) adults with low cognitive skills (low literacy and/or low numeracy)<sup>(9)</sup>, among those which have medium-high education, who are not working in an elementary occupation (ISCO 9) and having already used computer (PIAAC 2012; 2015 public use microdata files).

According to these estimates, in the EU-28+, there are 128 million adults (46.1% of the adult population of this area) with potential for upskilling and reskilling, since they present either low education, low digital skills, low cognitive skills or are medium- to high-educated at risk of skill loss and obsolescence, because they work in elementary occupations.

These estimates depict an alarming picture and hint at a much larger pool of talent and untapped potential than the 60 million low-educated adults usually referred as low-skilled adults in the EU-28.

There are considerable differences among countries. Very high shares of adults with potential for upskilling and reskilling (around 70%) are observed in Malta and Portugal. Estimates are also quite alarming for Greece, Spain, Italy and Romania, all of which report values over 50%. Conversely, the lowest shares can be observed in Czechia and Finland (28% and 27% respectively) but also in Estonia, Norway, Slovakia and Sweden (between 31 and 33%).

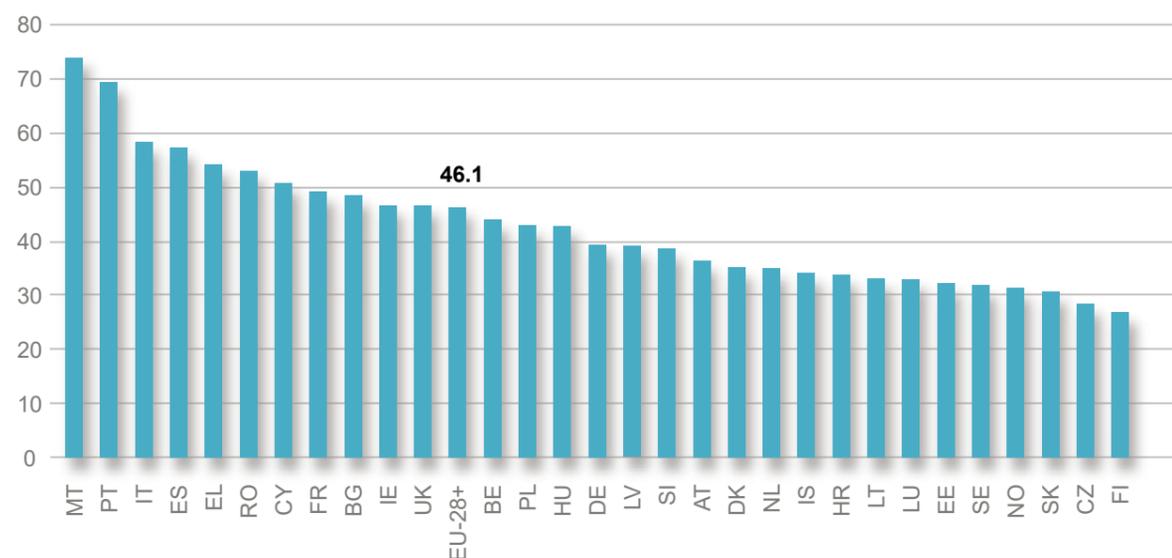
<sup>(6)</sup> Low education refers to people who have successfully completed at most ISCED levels 0-2 or ISCED 3c short programmes lasting less than two years.

<sup>(7)</sup> Adults with medium and high educational attainment levels (ISCED 3 to 8) working in elementary occupations (ISCO 08 group 9).

<sup>(8)</sup> Refers to people with low use of internet or below basic digital skills.

<sup>(9)</sup> Low literacy or numeracy skills are defined as PIAAC scores lower than 226 points (i.e. at most level 1 on the proficiency scale ranging from below level 1 to level 5 of OECD-PIAAC).

Figure 1. Estimated adult population with potential for upskilling by country (%), EU-28+ (\*)



(\*) EU-28+ = EU-28 plus Iceland and Norway.

Source: Cedefop calculation based on LFS 2016, CSIS 2015, OECD PIAAC 2012 and 2015.

### IDENTIFICATION OF SUBGROUPS OF ADULTS MOST AT RISK OF BEING LOW-SKILLED

While the magnitude of the estimated adult population with potential for upskilling and reskilling calls for immediate action, one of the major challenges is the high heterogeneity of low-skilled adults, who may present very different needs and characteristics.

Due to data limitation and reliability, identification of the groups of adults most at risk of low skills, and by skill dimension, could be performed only by labour market status (unemployed, inactive and employed) and by age groups (young adults aged 25 to 34, adults aged 35 to 54 and older adults aged 55 to 64). When data were available and reliable at country level, this analysis was complemented by analysis by gender and country of origin. These analyses are presented in the country factsheets on the adult population with potential for upskilling and reskilling which complement the corresponding reference publication <sup>(10)</sup>.

<sup>(10)</sup> [www.cedefop.europa.eu/en/publications-and-resources/publications/3081](http://www.cedefop.europa.eu/en/publications-and-resources/publications/3081)

According to results of this analysis, in EU-28+ countries the risk of low skills increases with age and is higher for inactive and unemployed adults compared to the employed:

- young adults (25 to 34) present a risk of being low-skilled which is lower by about 30% than that observed among the overall adult population. In contrast, older adults (55 to 64) present a risk of low skills in all the dimensions considered, which is about 40% higher than that observed among the overall adult population;
- the unemployed and adults out of the labour force show higher than average risks of low skills, especially in relation to education levels: unemployed and inactive adults have a risk of having low education which is, respectively, around 60% and 70% higher than that observed among the overall adult population.

Analysis combining both age and employment status provides more insights:

- in the EU-28+ countries, the subgroups most in need of upskilling (top three) are: unemployed and people out of the labour force (inactive) aged 55 to 64, followed by inactive people aged 35 to 54. They present an average risk of low

skills in the four skill dimensions considered (education, digital skills, literacy and numeracy) which is between 65% and 73% higher than the risk registered by the overall population aged 25 to 64;

- unemployed adults aged 35 to 54 also have, on average, a high risk of having low education, low digital and low cognitive skills (56% higher than the overall population aged 25 to 64).

Analysis by skill dimension of the risk of being low-skilled shows that, compared to the average adult population:

- unemployed and inactive adults aged 55 to 64 and 35 to 54 are at particular risk of being low-skilled in all skills dimensions investigated;
- young adults when unemployed or inactive also present a higher risk of being low-skilled in all skill dimensions but digital skills;
- employed adults of all age groups considered show a relatively lower risk of low skills compared to unemployed and inactive adults. Nevertheless, digital competences remain scarce among older adults, even when employed (almost half are at risk of low digital skills);
- unemployed and inactive adults aged 55 to 64 and 35 to 54 record a particularly high risk of having low digital skills, at 70% and 60% respectively;
- inactive adults aged 35 to 54 and 55 to 64 report the highest risk of having low numeracy skills, at 43% and 41% respectively.

### IN CONCLUSION

- Estimates tell us that there are 128 million adults in the EU-28+ with potential for upskilling and reskilling. This is an impressive pool of untapped talent waiting to be unlocked.
- Significant differences exist among EU-28+ countries. Country factsheets on the adult population with potential for upskilling and reskilling provide more information on national contexts <sup>(11)</sup>.
- While analysis presented in this report provides sufficiently reliable estimates of the adult population with potential for upskilling and reskilling, and identification of different subgroups of adults most at risk of low skills, more comparable data are needed to determine more comprehensive and reliable figures.
- The magnitude of the low skills phenomenon and the complexity and heterogeneity of the needs of low-skilled adults call for a renewed approach to upskilling and reskilling of adults; this should be addressed in a comprehensive and systematic manner which enables pulling together various resources and exploiting synergies across the different measures and policies already in place in Europe. Developing coherent and coordinated approaches to upskilling and reskilling pathways for adults will be the core theme of the second volume of this reference series <sup>(12)</sup>.

<sup>(11)</sup> [www.cedefop.europa.eu/en/publications-and-resources/publications/3081](http://www.cedefop.europa.eu/en/publications-and-resources/publications/3081)

<sup>(12)</sup> Cedefop (forthcoming). *Empowering adults through upskilling and reskilling pathways. Volume 2: developing coordinated and coherent approaches to upskilling pathways for adults*. Cedefop reference series; No 113. Luxembourg: Publications Office of the European Union.