

Youth integration in the EU: Navigating digitalisation and labour shortages Background paper



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Introduction

Since the early 2000s, the European Union (EU) has faced persistent challenges in integrating young people into the labour market. The Great Recession in 2007–2009 and the recent COVID-19 pandemic disproportionately impacted youth employment prospects, resulting in soaring unemployment and NEET¹ rates with lasting consequences. While the effects of the pandemic were mitigated by swift policy interventions, the disruption to education and training further exacerbated existing challenges.

A significant shift in recent decades has been the changing nature of school-to-work transitions. The traditional linear path has given way to more complex transitions characterised by traineeships, internships and extended periods spent in non-standard contracts. This has led to prolonged periods of uncertainty for young people, hindering their labour market integration and broader life choices.

This situation is further compounded by two additional factors: the rapid pace of digital transformation and the emergence of labour shortages across various sectors. While digitalisation offers new opportunities, it also requires a skillset that may not be adequately addressed, or provided to everyone, by current education systems. Simultaneously, labour shortages could facilitate entry into the labour market for some young people, but may also relegate those who are vulnerable to precarious employment with limited career prospects.

During recent crises, policymakers have made considerable efforts to help young people. In 2013, in response to high youth unemployment during the economic crisis following the Great Recession, the European Commission proposed the Youth Guarantee. In 2020, the Youth Guarantee was reinforced in the context of the pandemic, and the targeted age range was extended to 29. The reinforced Youth Guarantee focuses on job quality and aims to be more inclusive of more vulnerable young people.

The aim of this background document is to explore youth labour market integration and discuss it within the framework of digitalisation and labour shortages. It analyses key indicators of youth employment, unemployment and NEETs across EU Member States, showcasing the diversity of experiences. It also discusses the implications of digitalisation, both as a potential tool for empowerment and a source of exclusion for those lacking digital skills. Finally, it addresses the impact of labour shortages on youth employment opportunities.

Key indicators of youth labour market integration

Understanding the diverse landscape of youth labour market integration across EU Member States requires a comprehensive examination of key indicators. Unless otherwise specified, all the data provided in this background note were extracted from Eurostat in August 2024.

Labour market participation of young people

The employment rate for young people in the EU has gradually improved since the economic crisis of 2007–2013 and the COVID-19 pandemic. However, significant disparities persist among Member States.

In 2023, the employment rate of young people aged 15 to 29 was 49.7% in the EU27, and 50.4% in the euro zone. This was up by 5.3% compared with 2014, when the recovery started, and up by 3.6% compared with 2020, when the COVID-19 crisis started. In other words, more than 35 million young people aged 15 to 29 were at work in Europe in 2023. Despite this increase, the employment rate of young people is still significantly lower than that of the general population: in 2023, the employment rate of those aged 15 to 64 was 70.4%, up by 6.6% compared with 2014 and up by 2.9% compared with 2020.

The youth employment rate is much higher among young men (52.5%) than among young women (46.7%). Overall, this gap (5.8%) has remained constant since 2014 (5.7%). However, the share of young people at work varies greatly among Member States. It ranges from the Netherlands (79.9%), Malta (68.9%) and Austria (64.3%) to Romania (35.3%), Greece (35.0%) and Italy (34.7%). Between 2014 and 2023, the employment rate of young people increased in most Member States. This was particularly the case in Ireland (+10.7%), Cyprus (+10.9%) and the Netherlands (+13.6%). Conversely, the employment rate of young people decreased in Bulgaria (-0.9%), Czechia (-1.6%), Latvia (-4.1%) and Romania (-5.7%). These changes in the Member States led to an increase in the overall disparities among Member States and sigma-divergence was therefore recorded between 2014 and 2023.

Precariousness and quality of youth employment

Even when young people find employment, the quality of their jobs is often a concern. Many young workers are employed on temporary contracts or in part-time jobs; often, the jobs are not of a good quality.

1 NEET = young people not in employment, education or training.

The labour market participation of young people is characterised by a much higher share of people with temporary contracts and is therefore more precarious than that of the general population. In 2023, 34.4% of young workers aged 15 to 29 (11.5 million young people) were temporary employees in the EU27; the figure for the euro zone was 36.7%. This is down from the 36.5% recorded in 2014 and is more than two times higher than the value recorded for the general population (around 14%). The rate is higher among young women (37.6%) than young men (35.5%). At EU level, around 43% of young people in temporary employment were on contracts of 12 months or less. This share is slightly higher for young women (44.0%) than for young men (42.3%), and is lower than that recorded for those aged 30+ (49.0%). The share of young people working on a temporary contract is highest in the Netherlands (54.0%), Italy (43.2%) and Portugal (42.9%). Conversely, it is lowest in Bulgaria (4.6%), Latvia (4.3%) and Lithuania (4.2%). Despite these differences between countries, the level of disparities among Member States decreased overall between 2014 and 2023. Temporary work tends to be involuntary.

Compared with the overall population, a larger share of part-time workers are recorded among the youth population. In 2023, 23% of young workers had a part-time contract compared with 17.8% of the general population. This share was higher in the Netherlands (56.8%), Denmark (45.9%), Sweden (35.4%) and Finland (34.4%). Conversely, it was lowest in Bulgaria (3%), Romania (4%), Croatia (5%), Hungary (5%) and Slovakia (5.7%). Despite these differences, the overall disparities among Member States decreased in the period of observation. The share of part-time work varies significantly among young men and young women. In particular, while 17.6% of young men have a part-time contract, this share increases to 30.7% among young women. This gap has remained constant over time and more than half of young men and young women identify education and training as the main reason for their status as part-time workers. In many countries, especially in southern Europe (e.g. Cyprus, Italy and Spain), the reasons for temporary contracts tend to be involuntary and reflect the difficulties encountered by the younger generation in securing full-time work. In other countries, however, (especially Denmark and the Netherlands), short-time work (working fewer than 15 hours per week) is common, but this is explained mainly by students entering the labour market during their tertiary education.

In the EU, about half of new entrants to the labour market under the age of 30 get a permanent, full-time job. Others obtain a fixed-term and/or part-time job – this may be involuntary or voluntary depending on education, care responsibilities or other reasons. The lowest proportion of new entrants working in permanent, full-time jobs is in Italy (27%) and Spain (28%). In both countries, fixed-term contracts are most common. They are followed by the Netherlands (32%),

where voluntary part-time contracts dominate. In Bulgaria and Romania, on the other hand, nearly all new entrants start in permanent, full-time positions.

Regardless of the type of contract, the 2021 European Working Conditions Telephone Survey (EWCTS) provides an understanding of the quality of the jobs occupied by young people (Eurofound, 2022). The EWCTS captures a variety of indicators related to job quality; specifically, it identifies whether the job has additional demands or resources. By combining these various demands and resources, the EWCTS captures an understanding of overall job quality. In the majority of EU Member States, young workers generally face poorer job quality compared with the general working-age population. However, whether young people face poorer job quality and the extent to which they do is endogenous to the country. For example, in Bulgaria, the proportion of young workers in strained (low-quality) jobs is a third less than the proportion of the general working-age population in the same situation (i.e. younger workers are better off). Conversely, the proportion of young workers in strained jobs is 83% higher in Denmark: for every worker over the age of 30 in a low-quality job, almost 2 young workers have to contend with poor job quality. Although improvements in job quality are to be welcomed, the disparities that exist in job quality for younger workers should not be ignored.

As work becomes increasingly precarious, the reinforced Youth Guarantee also faces challenges in providing young people with opportunities that lead to high-quality and permanent employment. The labour market remains relatively unfair for young people, with a growing number of jobs that are unattractive, badly paid and unable to offer them the means of a decent living, particularly when it comes to decent housing.

Traineeships and internships

Traineeships have become an increasingly common pathway for young people entering the labour market. While they can provide valuable work experience and skills, the quality of traineeships varies significantly across the EU.

Among respondents to Eurofound's 2023 Living and working in the EU e-survey, about half of young people aged 16 to 34 had participated in a traineeship. This ranged from 11% in Slovakia (followed by 21% in Croatia and 27% in Czechia) to 72% in Germany (followed by 70% in Austria and 63% in the Netherlands) (see Eurofound, 2024).

Overall, around two-thirds (68%) of trainees said that they had had a written contract, and half (50%) had received some kind of compensation, in most cases a wage or a salary. Young women were less often compensated than young men (45% versus 58%). Young people with disabilities were also significantly less likely to receive compensation than those without disabilities (31% versus 53%).

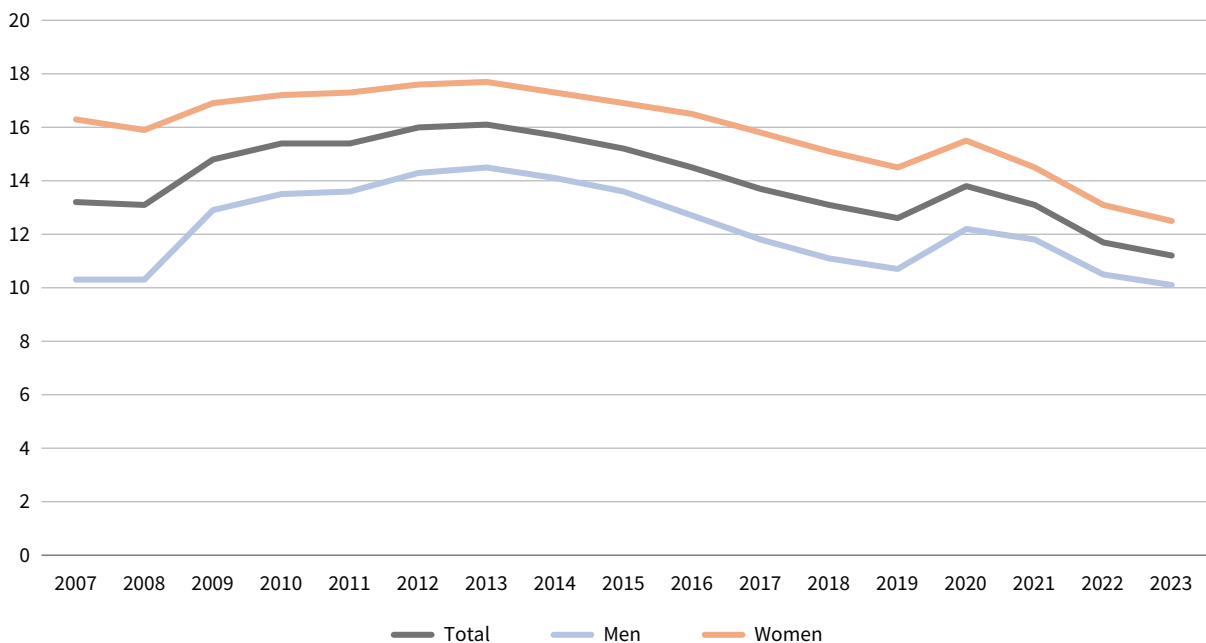
Young people who had a higher level of education were on average more satisfied with the learning support that they received and the improvement in their skills as a result of their traineeship. For example, those who had completed secondary education rated the improvement in their skills at 6.5, while those with a bachelor’s degree rated it at 6.8. The rating stood at 7.0 for those with a master’s and at 7.3 for those with a doctorate. Young women were slightly more positive than young men about the improvement in their skills (6.7 versus 6.5).

Regarding traineeship outcomes, 39% of respondents were offered a job when the traineeship ended. Job offers were slightly more common among men (39%) than among women (36%). Young people who had a written contract during their traineeship were much more likely to receive a job offer than those who did not (49% versus 18%); the same applied to those who were compensated, although the difference was smaller (52% versus 44%).

Young people not in employment, education or training

While the employment rate has increased steadily over the last decade, reaching a peak in 2023, more than 8 million people aged between 15 and 29 (11.2% of young people in this age group) are still outside the labour market and education and are at risk of further disengagement. While this is a large share, it also reflects a sharp decrease compared with the share recorded in 2014, at the start of the economic recovery, when 15.7% of young people were NEET. There is considerable heterogeneity between countries when it comes to NEET rates. The NEET rate is higher in Romania (19.3%), Italy (16.1%) and Greece (16.0%). Conversely, it is lower in the Netherlands (4.7%), Sweden (5.7%) and Slovenia (7.8%). Since 2014, the NEET rate has decreased in all Member States except for Denmark, Lithuania and Luxembourg where the NEET rate has increased by 0.6%, 0.6% and 2.0%, respectively. Despite the increase in these countries, the overall disparities among Member States have decreased significantly and the worst performing countries have caught up with the best performing countries (sigma- and beta-convergence).

Figure 1: NEET rate by gender, 15–29 age group, %



Source: Eurostat

There is a big difference in the NEET rate recorded among young men (10.1%) compared with young women (12.5%) (Figure 1). However, this gap (2.4%) has decreased since 2014, when it was 3.2%. A more amplified difference is found among NEETs who are born in the country – 10.4%, of whom 9.6% are young men and 11.1% are young women – and those who are born outside the country – 19.1%, of whom 13.9% are young men and 24.6% are young women.

Irrespective of these gender differences, the reasons for being NEET are heterogeneous and vary considerably among Member States, reflecting different labour market and educational dynamics. Applying the categorisation model developed by Eurofound (2016), EU Labour Force Survey data reveal that in 2022, 33% of NEETs were unemployed (21% were short-term unemployed and 12% were long-term unemployed), while an additional 12% were ‘re-entrants’ to the labour market or education, i.e. those who have taken concrete steps to re-engage with either the labour market or the education system and are waiting to start. The remaining 52% were NEET for non-labour market reasons. For example, 19% were NEET due to family and care responsibilities, 12% were NEET due to illness or disability and 3% were discouraged workers. A final 22% were NEET for personal or non-specified reasons.

While these are EU averages, the situation varies considerably from Member State to Member State. In most countries, the largest category of NEETs consists of short-term unemployed young people (ranging from 21% in Luxembourg to 36% in Cyprus); the long-term unemployed category is the largest category in Greece (26%). Illness or disability are the main reason for young people being NEET in Finland, the Netherlands and Ireland (35%, 29% and 24%, respectively). Family responsibilities account for the largest category in many Eastern European countries (Bulgaria, Czechia, Hungary, Latvia, Poland, Romania and Slovakia) and Germany. Finally, re-entrants constitute the largest category in Italy (19%, closely followed by the long-term unemployed, 18%) and Slovenia (44%).

The Youth Guarantee aims to reduce the proportion of NEETs, primarily by matching young people with available services. As in several countries it is young women (particularly young mothers) who are most likely to be NEET, it is important that Youth Guarantee schemes are implemented in cooperation with other policies, such as family, housing and childcare, with increased attention to the gender dimension of the NEET rate.

Digitalisation: Opportunity and challenge for young people

Digitalisation represents far more than just technological advancement for young people: it is a transformative force that can significantly empower young people in the EU. With their digital fluency, cultivated from a young age, young people are often at the forefront of technological adoption and innovation. They could leverage opportunities for innovation, forging their own career path or starting their own businesses providing new products, services and solutions. Furthermore, digitalisation breaks down geographical barriers, enabling young people to work remotely with flexible schedules. This can be particularly attractive to young people who are seeking a work–life balance and autonomy, as well as those who wish to access global educational resources. This flexibility can also improve access to employment for those who have caregiving responsibilities or who live in rural areas.

However, digitalisation could have both positive and negative implications for young people in the EU. On the one hand, it is a source of unprecedented opportunity for them as they embark on a career. On the other hand, it could also potentially amplify existing inequalities. In fact, while digitalisation has the potential to unlock a vast array of opportunities, seizing its benefits is contingent upon individuals possessing the necessary skills.

According to Eurostat, at least 70% of young people aged between 16 and 29 were equipped with at least basic digital skills in 2023. Slightly more women than men had at least these basic skills. This is considerably higher than the level recorded among the prime age group (30- to 64-year-olds) (64%) and older people (44%). Digital skills are highly correlated with level of formal education. In the EU, the gap in basic digital skills between highly educated individuals (80%) and those with no or low formal education (34%) stood at 46% for the general population.

While basic digital literacy is widespread among young people, a high proficiency in advanced digital skills, such as coding, data analysis and cybersecurity, is required to grasp the opportunities of digitalisation. Unfortunately, according to Eurostat’s Digital economy and society dataset, this high proficiency is less common. In 2023, only 39% of young people in the EU possessed high-level digital skills; this is still higher than the level recorded among the prime age group (33%) and especially among those aged between 55 and 74 (15%). This level is still insufficient to ensure that all young people could exploit the opportunities offered by digitalisation.

The mismatch between the skills that young people have and the skills demanded by the evolving job market in the digital era can also lead to a further exacerbation of existing inequalities. Young people from disadvantaged backgrounds or living in rural areas with lower levels of education are more likely to face significant barriers in acquiring and using digital skills. In fact, the gap in advanced digital skills is very pronounced when examined in the light of formal education levels: while almost half of people in Europe with a high level of education have above basic digital skills, this share falls to 12% among those with low formal education. This digital divide can lead to further marginalisation in the labour market, limiting opportunities and widening the gap between vulnerable and non-vulnerable young people. Policies promoting digital inclusion are therefore essential. These include investing in infrastructure to ensure universal broadband access, adapting education systems to digital needs, providing targeted support for disadvantaged young people to acquire digital skills, and raising awareness about the importance of lifelong learning in the digital age.

Labour shortages: Implications for young people

While more than 11% of young people in the EU were still NEET in 2023, labour shortages and mismatches are rapidly increasing. According to the European Commission's report on employment and social developments in Europe (ESDE report) in 2023, nearly two-thirds (63%) of small and medium-sized businesses cannot find the talent they need. Meanwhile, the job vacancy rate reached 2.7% in Europe in the last quarter of 2023, lower than in Q2 2020 but much higher than in the pre-COVID-19 period.

Several sectors across the EU are grappling with significant labour shortages. Sectors such as construction, healthcare and science, technology, engineering and mathematics (STEM), particularly information and communications technology (ICT), were among the most affected in 2022. These shortages

are likely to persist, given the projected decline in the working-age population from 265 million in 2022 to 258 million by 2030.

While these shortages could appear to ease entry into the labour market, they also reveal the difficulty that young people have in transitioning from education to work and also highlight the challenges that need to be addressed to ensure the sustainable and equitable integration of young people into the labour market.

While labour shortages might lower the barriers to entry and therefore create potential opportunities for young people to find employment, even if they have limited experience, they also highlight the persistent issue of skills mismatch. These shortages may be concentrated in specific sectors and regions, requiring geographical mobility or specialised training. Many young people, despite their digital fluency, may lack the specific technical or vocational skills demanded by sectors facing shortages. This mismatch can lead to underemployment, where young people are employed in jobs below their skills level, or precarious employment with limited prospects for career advancement.

To ensure that young people benefit from labour shortages without being exploited or trapped in dead-end jobs, targeted policy interventions are needed. Enhancing career guidance and counselling support for young people is important in allowing them to make informed choices about their educational and career paths that could address the need for highly specialised STEM skills. Aligning vocational education and training programmes with the evolving needs of the labour market is critical. This includes promoting apprenticeships and traineeships that provide on-the-job training and experience in sectors facing shortages. Finally, even in sectors experiencing shortages, young workers should be guaranteed fair wages, benefits and decent working hours. Strengthening and enforcing labour market regulations are vital to prevent exploitation.

Conclusions

Intensified by the rapid pace of digital transformation and the emergence of labour shortages, the integration of young people into the European labour market remains a challenge. While the overall youth employment rate has improved, significant disparities persist among Member States, and concerns about precariousness and job quality endure.

The digital revolution presents both opportunities and risks. Young people's digital fluency can be a significant asset, but the skills gap in advanced digital competencies necessitates targeted interventions in education and training to ensure equitable access to the benefits of digitalisation. The risk of a growing digital divide, particularly for disadvantaged young people, underscores the need for policies promoting digital inclusion.

Labour shortages offer potential pathways into employment for young people, yet skills mismatches and precarious working conditions remain a concern. Strengthening vocational education and training, enhancing career guidance, and promoting fair labour practices are crucial to ensuring that young people can capitalise on these opportunities without being exploited or trapped in low-quality jobs.

Addressing these challenges requires the recognition of the diversity of youth experiences across the EU. In order for the reinforced Youth Guarantee to succeed, it is important that precarious labour is addressed and that a focus is maintained not only on access to jobs, but on access to good-quality and secure jobs. Investing in quality education and training that equips young people with both technical and soft skills is paramount. Policies fostering digital inclusion and promoting fair working conditions are also essential. By taking decisive action, policymakers can help create a more inclusive and resilient labour market where young people can thrive in the digital age.

Questions for discussion:

1. What active labour market measures should be promoted to ensure equitable access to high-quality jobs in the digital economy and reduce the risk of young people, particularly those from disadvantaged backgrounds, being left behind by the digital revolution?
2. To what extent do flexible working conditions (including temporary work, remote or telework) improve young people's access to employment, and what impact does it have on workers' rights and job quality?
3. In what ways can targeted employment services, including provision of training, be improved to help young people take advantage of job opportunities in regions or industries with significant labour shortages?

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