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Education and Training Monitor 2022

Accompanying the document

**Communication from the Commission to the European Parliament, the Council, the
European Economic and Social Committee and the Committee of the Regions**

on progress towards the achievement of the European Education Area

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Education and Training Monitor 2022

ROMANIA



The Education and Training Monitor's country reports present and assess the main recent and ongoing policy development at all education levels in EU Member States. They provide the reader with more in-depth insight of the performance of countries with regard to the EU level targets agreed within the EEA. They are based on the most up-to-date quantitative and qualitative evidence available.

Section 1 presents a statistical overview of the main education and training indicators. Section 2 focuses on how the Member State has addressed or is addressing one of its education challenges. Section 3 covers early childhood education and care. Section 4 deals with school education policies. Section 5 covers vocational education and training and adult learning. Finally, Section 6 discusses measures in higher education.

The Education and Training Monitor's country reports were prepared by the European Commission's Directorate-General for Education, Youth, Sport and Culture (DG EAC), with contributions from the Directorate-General for Employment, Social Affairs and Inclusion (DG EMPL).

The document was completed on 30 September 2022

More background data at:

<https://op.europa.eu/webpub/eac/education-and-training-monitor-2022/en/>



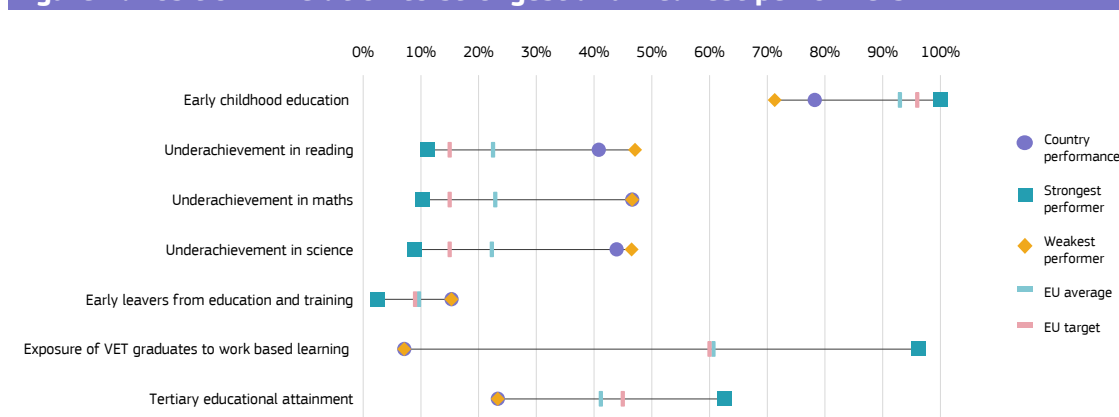
1. Key indicators

Figure 1: Key indicators overview

			Romania		EU	
			2011	2021	2011	2021
EU-level targets			2030 target			
Participation in early childhood education (from age 3 to starting age of compulsory primary education)	≥ 96 %		84.1% ¹³	78.2% ²⁰	91.8% ¹³	93.0% ²⁰
Low achieving eighth-graders in digital skills	< 15%		:	:	:	:
Low achieving 15-year-olds in:	Reading	< 15%	40.4% ⁰⁹	40.8% ¹⁸	19.7% ⁰⁹	22.5% ¹⁸
	Maths	< 15%	47.0% ⁰⁹	46.6% ¹⁸	22.7% ⁰⁹	22.9% ¹⁸
	Science	< 15%	41.4% ⁰⁹	43.9% ¹⁸	18.2% ⁰⁹	22.3% ¹⁸
Early leavers from education and training (age 18-24)	< 9 %		18.1%	15.3% ^b	13.2%	9.7% ^b
Exposure of VET graduates to work-based learning	≥ 60 % (2025)		:	7.1%	:	60.7%
Tertiary educational attainment (age 25-34)	≥ 45 %		22.5%	23.3% ^b	33.0%	41.2% ^b
Participation of adults in learning (age 25-64)	≥ 47 % (2025)		:	:	:	:
Other contextual indicators						
Equity indicator (percentage points)			:	39.0 ¹⁸	:	19.30 ¹⁸
Early leavers from education and training (age 18-24)	Native		18.1%	15.3% ^b	11.9%	8.5% ^b
	EU-born		:	: ^{bu}	25.3%	21.4% ^b
	Non EU-born		:	: ^{bu}	31.4%	21.6% ^b
Upper secondary level attainment (age 20-24, ISCED 3-8)			79.7%	83.3% ^b	79.6%	84.6% ^b
Tertiary educational attainment (age 25-34)	Native		22.5%	23.2% ^b	34.3%	42.1% ^b
	EU-born		: ^u	: ^{bu}	28.8%	40.7% ^b
	Non EU-born		: ^u	: ^{bu}	23.4%	34.7% ^b
Education investment	Public expenditure on education as a percentage of GDP		4.1%	3.7% ²⁰	4.9%	5.0% ²⁰
	Public expenditure on education as a share of the total general government expenditure		10.4%	8.8% ²⁰	10.0%	9.4% ²⁰

Sources: Eurostat (UOE, LFS, COFOG); OECD (PISA). Further information can be found in Annex I and at [Monitor Toolbox](#). Notes: The 2018 EU average on PISA reading performance does not include ES; the indicator used (ECE) refers to early-childhood education and care programmes which are considered by the International Standard Classification of Education (ISCED) to be 'educational' and therefore constitute the first level of education in education and training systems – ISCED level 0; the equity indicator shows the gap in the share of underachievement in reading, mathematics and science (combined) among 15-year-olds between the lowest and highest quarters of socio-economic status; b = break in time series, u = low reliability, : = not available, 09 = 2009, 13 = 2013, 18 = 2018, 20 = 2020.

Figure 2: Position in relation to strongest and weakest performers



Source: DG Education, Youth, Sport and Culture, based on data from Eurostat (LFS 2021, UOE 2020) and OECD (PISA 2018).

2. A focus on early school leaving

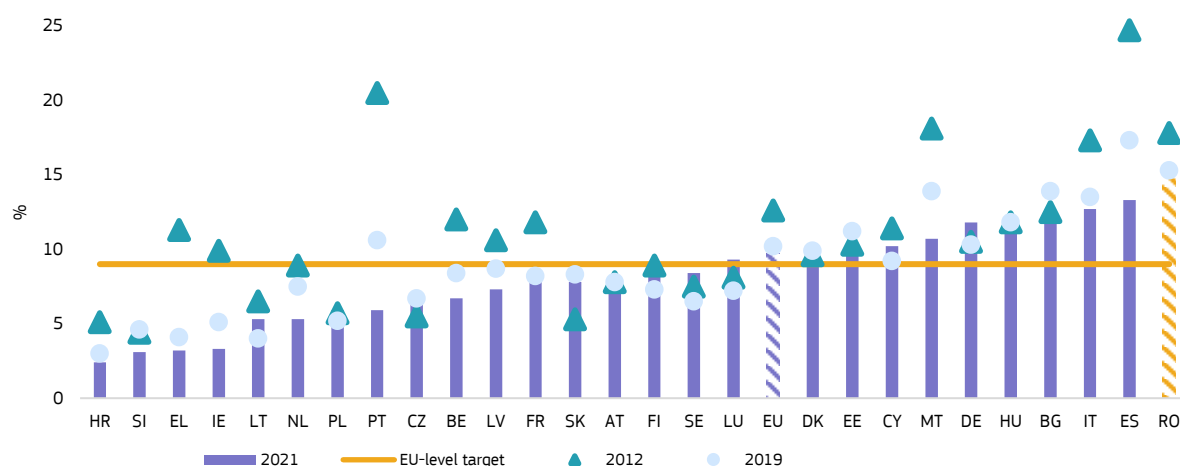
Early school leaving continues to be a problem in Romania. In 2021, the rate of 18-24 years olds not having completed upper-secondary education and not in education or training (ELET - early leaving from education and training) improved slightly, reaching again the 2019 level of 15.3%. However, this remains significantly higher than the EU average of 9.7%¹. Early school leaving is particularly high among Roma pupils. Only 22% of young Roma between 18 and 24 years of age have completed upper-secondary education, against 83.3% in the total population (Fundamental Rights Agency, 2022). The disparities in the rate of early leaving from education and training between urban (4.5%) and rural areas (23.2%) are substantial. A recent study by World Vision Romania shows that 1 in 10 children of compulsory schooling age in rural areas currently does not attend any educational institution. This study also showed that 1 in 3 teenagers (37%) is absent from school temporarily or permanently because they are working in the household (World Vision Romania, 2022).

¹ Over the past decade, Romania managed to reduce the early school leaving rate by only 2.5 pps (17.8% in 2012 compared to 15.3% in 2021).

The ELET rate also differs between the regions: from 7.9% in Bucharest to nearly 23% in the south-east region. Students at risk of dropping out of school tend to be concentrated in disadvantaged schools in rural areas, which lack resources and experienced teachers (OECD, 2022). Many young Romanians leave the school system without acquiring the skills needed to enter the labour market with its fast-changing needs. This makes their transition from school to paid employment difficult (OECD, 2022).

The Recovery and Resilience Facility will support national efforts to reduce early school leaving. Reducing early school leaving is one of the priorities of the Educated Romania Report (2021), which represents the national strategic framework for education towards 2030. This drive to reduce early school leaving will also be largely supported under the national resilience and recovery plan (NRRP). The National Programme for Reducing School Dropout (PNRAS), which was adopted in December 2021, is one of the most significant education measures in the NRRP. In March 2022, the Ministry of Education announced a list of schools eligible to participate in the programme. These schools were identified through Romania's MATE early-warning mechanism (see box 1).

Figure 3: Early leavers from education and training, 2012, 2019 and 2021 (%)



Source: Eurostat (LFS), [edat_lfse_14]. 2019 and 2021 data for HR is low reliable.

As part of PNRAS, at least 2 500 publicly funded primary and secondary schools with many students at high or medium risk of dropping out will receive grants of up to EUR 200 000. With this financial support, these schools can launch educational and support activities such as remedial courses, after-school activities, outdoor activities, the employment of school counsellors and mediators (in Roma communities), or the purchase of IT equipment. Partnerships with NGOs to support extra-curricular activities are also planned. The PNRAS programme should also improve the results obtained by students in national assessments. Moreover, the programme should help more students to complete lower-secondary education and participate in the national assessment for eighth-grade graduates, as well as successfully enter upper-secondary education.

Other programmes to reduce early school leaving and the drop-out rate will continue.

The number of schools participating in the 'Hot Meal in Schools' pilot project will double as of 2022/2023, by which time it will reach 350 pre-school and school institutions. The 'We Care' after-school programme has been in operation since 2016, offering a hot meal three times a week as well as additional classes in Romanian and mathematics in the afternoon. In 2021, more than 225,000 children have been enrolled in the 'School after school' programme, offering face-to-face additional courses. Despite the number of support measures to help pupils that leave school early to return to school, the distribution of these programmes is uneven between urban and rural areas, with more programmes in urban areas even though the demand is much greater in rural areas (OECD, 2020 a). The ongoing programme to identify and gather information on disadvantaged schools will contribute to improve the allocation of resources in the school network (OECD, 2022).



Box 1: MATE – Romania's mechanism for early warning in education

The development of Romania's MATE mechanism for early warning in education (from the Romanian *Mecanismului de Avertizare Timpurie în Educație*) was triggered by the country's persistently high level of early school leaving. MATE identifies schools that might need additional resources or support. The World Bank, in cooperation with the European Commission, developed a tool based on a vulnerability index (the index is itself based on criteria such as schools with a high number of substitute teachers, a high drop-out rate, a low participation rate, and poor results in national pupil assessments). Using these criteria, schools are classified into three categories, depending on the priority of the intervention: high, medium and low. Depending on the classification, schools are eligible for grants from the PNRAS programme for reducing the school drop-out rate, financed from the NRRP. Schools must become responsible for student outcomes and need to produce regular updates on the progress they have made, by transferring that information into the MATE data-collection system.

Source: Council Implementing Decision on the approval of the assessment of the recovery and resilience plan of Romania – Annex, European Commission 2021.

3. Early childhood education and care

Early childhood education and care (ECEC) continues to face problems of low participation and inadequate infrastructure.

In 2020, the rate of participation in ECEC of children in Romania between the age of 3 and the starting age of compulsory education was one of the lowest in the EU (78.2% vs an EU average of 93%). This participation rate has declined by around 6 pps since 2013. This is significantly below the EU target of 96%. Despite the financial

incentives for low-income families to enrol their children aged 3 to 5 in ECEC, the participation rate in each age category (3, 4 and 5+) is falling. The participation rate of Roma children is much lower at 27%, even though researchers agree that the benefits of early childhood education are greatest among disadvantaged children. Most of the kindergartens are located in urban areas, whereas enrolment in rural areas is hampered by capacity shortages. And more than 90% of nursery places for children under the age of 3 are located in urban areas (OECD, 2020b). Romania is also considered a country with relatively long and supportive parental-leave arrangements. This impacts overall participation in ECEC, in particular for children below the age of 3². The insufficient provision of childcare and long-term care is detrimental to women's participation in the labour market (OECD, 2022). **Romania aims to increase participation in ECEC by expanding capacity.** The network of crèches, kindergartens and other ECEC services in Romania is not sufficient to meet demand. As part of the 'Educated Romania' programme, Romania plans to increase participation in pre-school education of

children up to 3 years old to 30% and to 95% for children aged 4-6 by 2030. Some of the measures proposed under the programme will be financed through Romania's NRRP. By 2025, Romania will construct 110 energy-efficient crèches for up to 4 500 children, as well as 412 complementary early education services. The plan also aims to train and professionalise the staff working in ECEC, complementing the ongoing similar initiatives through an ESF-funded project.

Recent legislative changes are expected to improve the accessibility and quality of ECEC services.

In 2022, the government adopted new legislation on the organisation, functioning, financing and monitoring of crèches and other ECEC facilities³. This legislation should accelerate the integration of crèches into the national education system, with the overall aim of building an integrated, inclusive and high-quality ECEC system. Opening hours will reflect the needs of children and their parents, and can be flexible, offering childcare of between 5 and 10 hours per day. Activities will be organised by age, type of programme and size of the group, with the latter also being linked to the age of children.

² Only 6.8% of 0-2 year olds in Romania participated in ECEC.

³ https://www.edu.ro/comunicat_presa_28_2022_aprobare_metodologie_crese.

Figure 4: Participation in early childhood education of pupils from age 3 to the starting of compulsory primary education, 2013 and 2020 (%)



Source: Eurostat (UOE), [educ_uoe_enra21].

4. School education

National tests show poor educational outcomes in schools in Romania, confirming the poor results seen in the tests set by the OECD Programme for International Student Assessment (PISA) 2018⁴.

The results of Romania's national report on the level of literacy of students in Romania, published in May 2022, show that only 11% of students in Romania are fluent readers. 42% of the students are marked as 'non-functional', which is close to illiteracy. Many students in Romania lack skills in interpreting and analysing information and facts, forming their own ideas, or reaching conclusions. Contrary to PISA, which tests 15-year olds, the national assessment tests involved children between the ages of 6 and 14, with the aim of detecting early problems in literacy. The average total sample score of 26.9 points across all students tested is considered by BRIO (a Romanian company working on digital tools to improve school performance) to be a minimum functional average level⁵. These low rates risk deteriorating even further given the school closures and limited access to distance learning during the COVID-19 pandemic. During the 2020/2021 school year, approximately 65 000 students did not attend school at all (Unicef, 2021). School closures have disproportionately affected vulnerable children in rural areas as they had limited access to digital equipment and were not sufficiently prepared for remote teaching (European Commission, 2022). A recent Unicef report stated that nearly 70% of all children in Romania were not able to access quality online learning during school closures (Unicef, 2021).

Access to quality education is unequal. Discrepancies in the results of national exams

⁴ The latest PISA results were announced in 2019 and were broadly covered in the previous editions of the Monitor. The next PISA results will be published in 2023.

⁵ The study used a three-level scale in the analysis: a non-functional level (score between 0 and 20); a minimum functional level (score 21-50); and a functional level (score 51-100).

indicate structural inequity in the education system. The impact of socioeconomic status on educational outcomes is high, and equivalent to about 3 years of schooling (i.e. children from higher socioeconomic backgrounds perform at an educational level equivalent to being 3 years older than their peers from lower socioeconomic backgrounds). This perpetuates inequalities from one generation to the next. There is a 39 pp. difference in underachievement rates between students from high socioeconomic backgrounds (10.8% underachievement) and students from low socioeconomic backgrounds (49.8% underachievement). This underachievement gap in Romania is the highest in the EU (EU average: 19.3 pps). Providing education in the language of Romania's national minorities, in particular minorities from disadvantaged backgrounds, is held back by the lack of sufficient resources and staff. Overall, the inequality of the Romanian education system affects future participation in civic and economic life and holds back the development of the labour force.

The situation of Roma in the education system remains of concern.

79% of Roma children aged 0-17 are at risk of poverty, leading to educational disadvantage on the basis of both their socioeconomic background and minority status. In 2020, 51% of Roma children aged 6-15 attended schools where 'all or most of schoolmates are Roma' (Fundamental Rights Agency, 2022). At the end of 2019, the government adopted a methodology for monitoring school segregation in pre-university education. Despite the initial plan to implement this methodology in the 2021/2022 school year in order to reduce school segregation, implementation was postponed due to the recurrent closure of schools during the pandemic.

Policies to recruit and retain teachers face significant challenges.

Romania's ambition to improve educational outcomes rely largely on its existing teaching force, which is relatively young (European Commission, 2022). In recent years, Romania's policy toward teachers has focused on improving the process of recruitment and selection of future teachers, in particular for schools located in rural and economically

disadvantaged areas. Reforms and policies were aimed at increasing financial incentives and other measures to make the profession more attractive. Progress on these policies is limited due to the large number of schools in rural areas, which remain unattractive to highly qualified teachers. In addition, neither initial nor continuous teacher education is sufficiently aligned with classroom needs (European Commission, 2022). Throughout 2021-2023, several programmes are being rolled out to support the initial education and professional development of Romania's teachers. The NRRP will contribute to the development of teachers' skills, with a special focus on digital skills. Moreover, Romania's PROF project to professionalise the teaching career will run between 2021 and 2023. Its objective is to ensure professional mentorship throughout a teacher's career by providing training and development for teaching skills for 28 000 teachers. Another programme, 'Motivated teachers in disadvantaged schools', offers training for teachers, support staff, and school managers who need to develop skills and knowledge to be able to work in disadvantaged schools or use atypical teaching methods.

Romania is continuing its efforts to improve the quality of education. In July 2022, a new draft law on education (affecting pre-university and higher education) was submitted for public consultation. The new law constitutes the legislative basis for the comprehensive education reform proposed by the 'Educated Romania' programme, which contains modernisation proposals across all levels and areas of education⁶. The draft law will change the structure of the baccalaureate exam taken by school-leavers at approximately age 18. The new structure will include a digital-skills assessment test, while there will also be separate tests on Romanian language, literature, and grammar. The draft law also contains changes to the transition process from lower-secondary to upper-secondary education. It proposes to abolish grades in

physical education and the arts, and introduces changes in the early stages of the teaching profession, including a salary increase for young teachers and a minimum level of scholarships to encourage people to train as teachers. The draft law also plans to reorganise extra-curricular education activity in the national education system. Children's clubs and school sports clubs will become official parts of the school network. The draft law plans to gradually integrate students with special educational needs into mainstream education. The intention is to implement the new law by the 2023/2024 school year. The baccalaureate in the new form is expected to be in place in 2027⁷.

Romania will reorganise its quality-assurance system to improve the performance of its education system. The evaluation of Romania's previous strategic framework for education showed that the performance of its education system had been impacted by: (i) frequent changes among top-level decision makers; (ii) limited financial resources; (iii) an outdated legal framework; and (iv) a lack of focus on students from disadvantaged groups. To improve the quality of the education system, in 2022 the government reorganised the Romanian Agency for Quality Assurance in School Education (ARACIP). This was an important step in implementing the 'Educated Romania' programme. Educational stakeholders should now be better represented in the ARACIP, including pupils, parents, trade unions and the private sector. The ARACIP will also continue periodic evaluations of schools. The ARACIP's process for external evaluation of schools was also reorganised in order to ensure greater efficiency and professionalism.

Significant changes in the organisation of the school year and student assessment will come into effect from 2022/2023. As part of

⁶ See more in: European Commission (2019), Education and Training Monitor 2019, Volume II – Romania.

⁷ Press Release, 19.8.2022, Ministry of Education: [5 major decisions following the consultations of the Ministry of Education with the trade union federations!](#) | Ministry of Education.

the new structure, five learning periods of 6-8 weeks will replace the traditional semesters, which were considered too long for children. A similar approach is being applied in Belgium and France, where pupils benefit from the shortened learning periods, while the total number of school days remains the same. In addition, a 'Green week' will be introduced to raise children's awareness of climate change and the environment. Along with the new school-year structure, Romania decided to implement a new assessment system, which will be better aligned to the learning modules. The objective is to end the current practice of requiring pupils to complete a written assignment every semester ('semester theses') and replace this requirement with standardised evaluations at school level at the beginning and end of the school year⁸. Strengthening the student-assessment system may pave the way for a more evidence-based approach in education reform. Reorganising the structure of the school year and its assessment system should be followed by: (i) setting up a monitoring system; and (ii) developing a new methodology for school evaluation by collecting data and information. These additional changes would make it easier to implement more targeted evidence-based interventions and improve the quality of education in the country.

Romania is continuing its long-term policy reforms to improve digital learning and strengthen digital skills. In 2021, only 50% of adolescents in Romania aged 16-19 had basic or above-basic digital skills. This meant that Romania was ranked last among EU countries for digital skills. The EU average was 69% in this age group having basic or above-basic digital skills, and Romania's performance was below the EU's 'Digital Decade' target for 2030 of 80%⁹.

⁸ <https://www.hotnews.ro/stiri-educatie-25588105-noile-modificari-majore-din-educatie-anuntate-ora-10-00-sorin-cimpeanu.htm>

⁹ A new set of digital skills was added in 2021 (safety skills) and the questionnaire was modernised for all skills categories. Therefore, data from 2019 and 2021 are not directly comparable: Individuals' level of digital skills (from 2021 onwards). Eurostat, ISOC_SK_DSKL_I21.

Computer science and digital education are an important part of both the 'Educated Romania' programme and Romania's NRRP. The NRRP will finance school laboratories and digital equipment: over 6 000 schools will receive funds under the NRRP for equipping computer labs and online learning. Several measures to promote digital skills have already been implemented with the support of the European structural funds. These measures include the CRED project (2017-2022), co-financed by the European Social Fund+, which developed near 6 800 open-access educational resources, facilitating access to teaching materials, free electronic textbooks, and good practices in education. A dedicated database (red.educared.ro) was also set up to collect information about learning and training activities for teachers. In addition, the ROSE project (2015-2024) continues to support investments in electronic equipment provided to secondary schools, in particular disadvantaged schools. Despite these developments, significant gaps remain, including the availability of IT devices and internet connections.



Box 2: Promoting participation in education for children with parents abroad

This project aims to help children in Romania whose parents are abroad to continue their education. The need for this support is due to the large number of children in Romania finding themselves in this situation and facing challenges with their educational development. Studies have shown that having one or both parents abroad can increase the risk of early school leaving and lead to emotional and psychological stress. In order to mitigate this risk, the project aims to provide integrated support, combining educational and psychological assistance with other accompanying measures such as participation in outdoor or arts activities. Material support and parental counselling are also included in this project. The project seeks to create partnerships between schools, local authorities and NGOs as a tool for ensuring better outreach and sustainability of interventions. The project aims to support 3 000 children during the first stage of this pilot project.

5. Vocational education and training and adult learning

The disruption caused by the COVID-19 pandemic continues to impact the vocational education and training (VET) system. The shift to remote learning and the temporary closure of many businesses limited students' exposure to work-based learning during the pandemic. This effect, combined with the continued uncertainty in the labour market and wider economy, has led to a significant decrease in the employment rate of recent VET graduates (from 68.7% in 2020 to 61.4% in 2021). Certain ongoing projects, such as ReConnect, a skills-forecasting mechanism funded by the European Social Fund, should help provide a better match between demand in the labour market and the supply of skilled workers. The ongoing reform plans, which aim to transform VET schools into institutions more focused on dual education should also make these schools more attractive. Although the share of upper-secondary pupils enrolled in VET¹⁰ is relatively high (56.6% in 2020, above the EU average of 48.7%), recent graduates' exposure to work-based learning¹¹ is very limited (7.1% in 2021, compared to 60.7% EU-wide).

The NRRP contains significant investments in VET, with further support planned through other funding mechanisms. The NRRP aims to significantly improve equipment and infrastructure for VET schools, including agricultural schools, by investing in laboratories, IT equipment, and the development of 10 regional VET consortia. Moreover, new legislation for organizing the complete dual route and the new qualifications resulting from the complete dual route will be issued to support dual higher education. The NRRP plans for other EU-funded programmes (such as the European Social Fund+ education and employment programme) to complement these

measures by investing in: (i) quality-assurance mechanisms for the system; (ii) improving the quality of teaching through staff training; and (iii) support for improved participation of students from disadvantaged groups. Plans are also ongoing to both develop partnership networks between initial VET schools and extend counselling and remedial services to these same schools (with a focus on students in their first year of VET education). These measures would be matched by curricula that are more oriented to the needs of the labour market, including by implementing measures in the VET action plan towards focusing on emerging sectors (such as green and digital technology). The effectiveness of these reforms relies on their being reinforced by a student-centred approach to VET education.

Romania has recently made improvements in increasing participation in adult learning, but it still lags behind other EU Member States.

The participation rate of adults in learning in the last 4 weeks was 4.9% in 2021, much higher than in previous years, but still lower than in most other Member States (EU average: 10.8%). The low level of participation in adult learning has led to persistent skills shortages, which hampers economic growth and makes it difficult for Romania to adapt to a rapidly-changing labour market in the digital age. Moreover, the small number of low-skilled jobs available in the country poses a concern to the career prospects of those already in – or looking to join – the labour market, further highlighting the need to upskill the working population. A lack of financial resources, along with low levels of information on existing lifelong-learning programmes and market opportunities, have been identified as causes of the low take-up of adult learning. Tools such as the ReConnect skills-forecasting mechanism (currently under development with the assistance of EU funds) should help in this regard, by providing a better link between the training and education opportunities on offer and the skills needed by employers. Parts of the strategic policy framework are still not in place. For example, the national strategy for the continuous training of adults (2021-2027) is still under development. The NRRP also contains a number of investments and

¹⁰ Eurostat, educ_uoe_enrs05.

¹¹ Eurostat, edat_lfs_9919.

reforms to improve the digital skills of adults, including by developing a funding scheme for libraries to become digital-skills hubs. Nevertheless, more effort is needed to reach out to disadvantaged and marginalised groups given the significant demand for digital skills that is set to continue in the coming years. Romania has set a 2030 target of having 17.4% of adults engaged in learning in the past 12, which is three times the rate in 2016.

6. Higher education

Romania's tertiary education attainment rate remains the lowest of all EU countries.

Over the past decade, this rate has not improved significantly and a long-term stagnating trend can be observed. In 2021, this rate stood at 23.3%, which is almost half of the EU average (41.2%). Among other causes, low levels of higher education attainment is caused by the high rates of early school leaving, the low pass rates at the baccalaureate exam, and the low levels of participation in higher education by students from disadvantaged backgrounds. This results in a lack of highly skilled professionals. Emigration further reduces the availability of highly skilled workers holding a higher-education degree. Equality remains a significant challenge, with a particularly low tertiary attainment rate in rural areas (8.2% in 2021 vs EU average 29.6%). The rate of participation in higher education by people from rural areas has not changed substantially over the past 5 years. The attainment rate in cities is also below the EU average (44% vs 51.4%), but the gap here is smaller. The differences between regions reflect the rural-urban gap (e.g. there is a 50.5% rate in Bucharest vs a rate of 15.3% in rural south Muntenia). There is also a persistent gender gap, with 20.6% of men aged 25-34 having a tertiary qualification against 26.2% of women.

Romania's shares of graduates in information and communications technology (ICT) and science, technology, engineering and mathematics (STEM) are among the highest in the EU, but skills shortages remain. The share of students graduating in

STEM fields is high at 29.1% (EU: 24.9%). Moreover, the share of female STEM graduates over total female graduates is also above the EU average (59.1% vs 57.2%). Women on average account for almost 33% of STEM graduates in the EU-27 (Viarengo, M., 2021), with shares of over 40% in Romania¹². In the same vein, Romania has a high share of total ICT graduates (6.7% vs an EU average of 3.9%). This goes some way to addressing the high demands of the labour market, but skills shortages remain.

Progress is being made in digitalising higher education.

The NRRP provides funding for the digitalisation of universities, including digital infrastructure and developing the digital skills of students and university teaching staff. The National Centre for Recognition and Equivalence of Diplomas launched platform, which provides information on higher-education institutions and accredited study programmes in over 80 countries. This platform is supported by the Erasmus+ programme and coordinated by the European Quality Assurance Register for Higher Education (EQAR), with the aim of expanding the scope of involvement of quality-assurance agencies in higher education in the European Higher Education Area and improving connections between these agencies.

7. References

European Commission (2022), Country Report Romania, Staff Working Document.

Digital Economy and Society Index (DESI) 2021, Romania: [Digital Economy and Society Index \(DESI\) 2021 | Shaping Europe's digital future \(europa.eu\)](#)

European Commission (2021), Council Implementing Decision on the approval of the assessment of the recovery and resilience plan of Romania

European Commission (2020), Education and Training Monitor. – Romania

European Commission (2019), Education and Training Monitor, – Romania

¹² Eurostat [educ_uoe_grad02].

Fundamental Rights Agency (2022, forthcoming), Headline indicators for the EU Roma strategic framework for equality, inclusion and participation for 2020 – 2030. Results from Roma survey 2021.

Ministry of Education (www.edu.ro/PNRAS); Programul Național de Reducere a Abandonului Școlar/National Program for School Drop-Out Reduction

OECD (2022), OECD Economic Surveys: Romania 2022, OECD Publishing, Paris

<https://doi.org/10.1787/e2174606-en>OECD (2021), Education in Eastern Europe and Central Asia, Findings from PISA

OECD (2020a), Improving educational equity in Romania, OECD Education Policy Perspectives, No. 4

OECD (2020b), Improving access to Quality Early Education in Romania, OECD Education Perspectives, No. 3

OECD (2020c), Improving the Teaching Profession in Romania, OECD Education Policy Perspectives, No 1

Romanian National Institute of Statistics, Press Release no 162, 25.06.2021

Digital Platform for Improving School Performances (2022), Raport privind nivelul de literație al elevilor din România Mai 2022, BRIO

UNICEF (2021), Country Office Annual Report, Romania

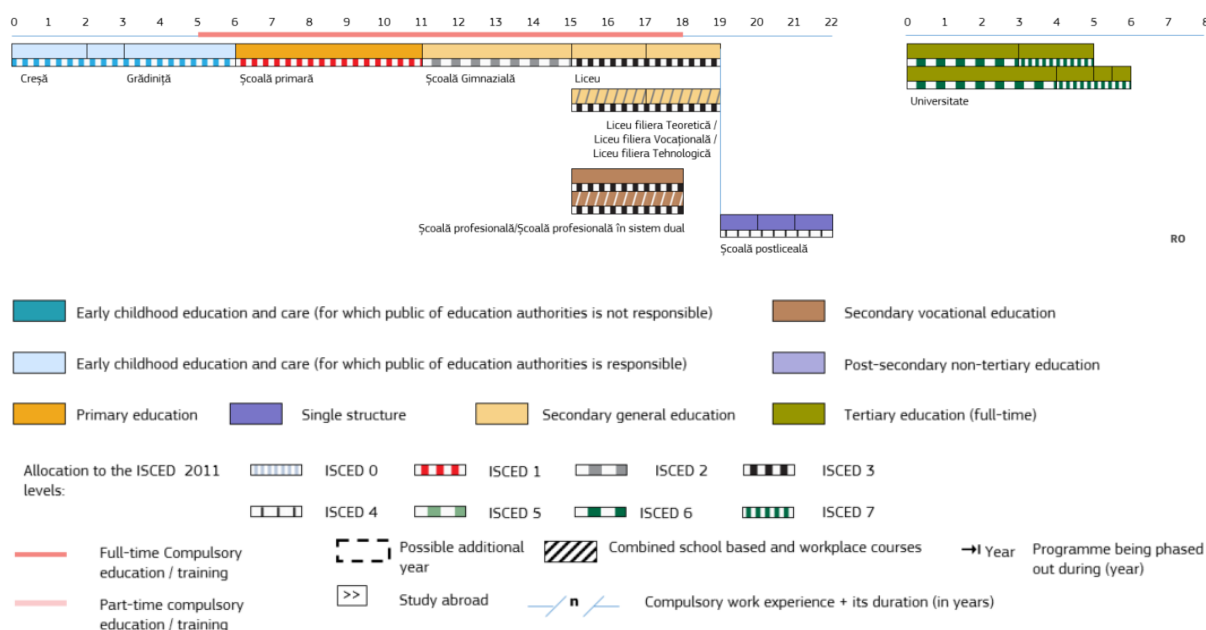
Viarengo Martina (2021), European Expert Network on Economics of Education, Gender Gaps in Education: Evidence and Policy Implications EENEE Analytical Report No. 46

World Vision Romania (2022), Bunăstarea copilului din mediul rural din România 2022: <https://worldvision.ro/wp-content/uploads/2022/05/Bunastarea-Copiilor-din-Mediul-Rural.pdf>

Annex I: Key indicators sources

Indicator	Source
Participation in early childhood education	Eurostat (UOE), educ_uae_enra21
Low achieving eighth-graders in digital skills	IEA, ICILS
Low achieving 15-year-olds in reading, maths and science	OECD (PISA)
Early leavers from education and training	Main data: Eurostat (LFS), edat_lfse_14 Data by country of birth: Eurostat (LFS), edat_lfse_02
Exposure of VET graduates to work based learning	Eurostat (LFS), edat_lfs_9919
Tertiary educational attainment	Main data: Eurostat (LFS), edat_lfse_03 Data by country of birth: Eurostat (LFS), edat_lfse_9912
Participation of adults in learning	Data for this EU-level target is not available. Data collection starts in 2022. Source: EU LFS.
Equity indicator	European Commission (Joint Research Centre) calculations based on OECD's PISA 2018 data
Upper secondary level attainment	Eurostat (LFS), edat_lfse_03
Public expenditure on education as a percentage of GDP	Eurostat (COFOG), gov_10a_exp
Public expenditure on education as a share of the total general government expenditure	Eurostat (COFOG), gov_10a_exp

Annex II: Structure of the education system



Source: European Commission/EACEA/Eurydice, 2022. The Structure of the European Education Systems 2022/2023: Schematic Diagrams. Eurydice Facts and Figures. Luxembourg: Publications Office of the European Union.

Please email any comments or questions to:
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