
CSEE-ETUCE Thematic overview of the

**Country Reports 2018 of the European Semester
in the education and training field**

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1. Introduction

On 7 March 2018 the European Commission published the [Country Reports for each EU country¹](#), which form the basis for the dialogue ahead of the presentation of the **National Reform Programmes** in April 2018 and the preparation of the **Country Specific Recommendations** in May 2018. The Country Reports monitor reforms and point to issues that EU Member States should address. **All the Country Reports include a chapter on Education and training systems.** From the date of their publication, the European Commission organises **bilateral meetings with the EU Member States** to discuss the reports. During this time, the Representation of the European Commission in each country and national authorities should also discuss the Country Reports with social partners and other stakeholders. Alongside the Country Reports, the European Commission has also published a [Communication on the European Semester 2018: Assessment of progress on structural reforms](#).

The Country Reports of the European Semester are a crucial element in the Semester process. They are the annual analysis of the economic and social situation in the EU Member States, including an assessment of imbalances. Following the publication of the [Annual Growth Survey 2018](#) (AGS 2018) in November 2017, which sets the European priorities for the forthcoming year, the publication of the Country Reports marks the beginning of the “national” European Semester. They should reflect the European priorities as defined in the AGS 2018, assess progress done at national level to implement the Country Specific Recommendations of 2017 and constitute the basis for the National Reform Programmes 2018 and Country Specific Recommendations 2018, due to be published respectively in April and in May 2018.

In September 2018, the ETUCE has presented its priorities on the [Annual Growth Survey 2018 - ETUCE priorities](#), outlining the policy challenges and priorities for the education sector in the 2018 Annual Growth Survey (AGS). The paper presented was in line and follows on the ETUC priorities on the AGS 2018.

Following the ETUCE request to the European Commission for **early-stage consultation on the in-depth Country Reports on education and training of education trade unions**, several ETUCE member organisations have reported² on consultations with the European Commission ahead of the compilation of the final analysis. As a consequence, the 2018 Country Reports should reflect more the social partners’ view and identification of challenges for education and training systems nationally and across Europe.

This year, the European Semester has built on the **European Pillar of Social Rights**, proclaimed in November 2017 at the European Social Summit for Fair Jobs and Growth in Gothenburg. The Country Reports reflect the principle embedded therein and look at how Member States deliver on the three dimensions of the Pillar:

- Equal opportunities and access to the labour market; including the first principle of quality education for all,
- Fair working conditions;
- Social protection and inclusion.

¹ Greece did not receive any Country Report because it is under the Economic Adjustment Programme of the EU.

²

In order to analyse Member States' performances in a comparative perspective, the Country Reports include benchmark results based on the **Social Scoreboard for the European Pillar of Social Rights**.

The Social Scoreboard identifies standards aimed at balancing the current economic and social priorities of the EU. These should guide each country's governance process and deliver social objectives and social convergence across Europe. However, one of the main obstacles in delivering social rights remains the continuous predominance of macroeconomic targets and fiscal performance indicators over the social objectives enshrined in the European Pillar of Social Rights and public investment. In a framework of continued fiscal consolidation and, in light of the demands to bring down public debt, it remains a significant challenge for Member States to find the financial resources to invest in public services and social rights, thus making the European Pillar of Social Rights a social constraint for governments within the European Semester.

SOCIAL SCOREBOARD INDICATORS IN THE EDUCATION AND TRAINING FIELD			
HEADLINE INDICATORS	AREA	INDICATORS	COUNTRIES OF PARTICULAR CONCERN
I – EQUAL OPPORTUNITIES AND ACCESS TO THE LABOUR MARKET	Education, skills and lifelong learning	Early leavers from education and training	ES, MT, PT, RO, BG, CY, HU, IT
		Adult participation in learning	
		Underachievement in education	
		Tertiary educational attainment, age group 30-34	
	Inequality and upward mobility	Variation in performance explained by students' socio-economic status	
II – DYNAMIC LABOUR MARKETS AND FAIR WORKING CONDITIONS			
III – PUBLIC SUPPORT / SOCIAL PROTECTION AND INCLUSION	Impact of public policies on reducing poverty	General government expenditure in education	
	Early childhood and care	Children aged less than 3 years old in formal childcare	CZ, PL, SK, BG, CY, EL, HR, HU, LT, MT
	Digital access	Digital skills (% of individuals with basic or above basic overall digital skills)	BG, RO, CY, CZ, EE, EL, IE, IT, MT, PT

2. Country Reports 2018: General Overview

The Country Reports 2018 identify several topics of concern regarding the education sector. The Country Reports mention for each EU Member State the policy areas in which they have carried out reforms with satisfying results, in which they are implementing measures to tackle the issues identified, and the ones that need to be addressed. Three important indicators are the implementation of the 2017 Country Specific Recommendations, the countries' current situation in relation to the Europe 2020 Strategy targets and the progress made towards the Social Scoreboard targets.

The Country Reports 2018 in the field of education and training address:

- **OVERALL QUALITY OF EDUCATION**

In this area, some recurring trends emerge. The overall quality of education is measured and valued for all countries, taking into account the **professional and working conditions of teachers** and key indicators of **equity and equal opportunities of access** of children with a disadvantaged background and **educational performance gaps**.

- > **EDUCATION AND TRAINING REFORMS:** The Country Reports recognise that **education and training reforms** are changing the context in which teachers and other education personnel work. In Austria, school heads are now allowed to select their teachers, while in Denmark, the 2014 reform is being criticized for reducing teachers' autonomy. In Latvia, school clusters resulting from a reduction of the number of teachers and students are considered beneficial for higher teachers' salaries. The ongoing change in the Polish education system is being questioned as utilizing considerable resources which could be devoted to addressing challenges in the Polish education system instead.
- > **ATTRACTIVENESS OF THE TEACHING PROFESSION:** In countries where limited progress has been made to reward teachers, the European Commission urges Member States to take step to avoid **teachers' shortages** in the near future. These are considered as being amongst the main challenge to quality education in Belgium, the Czech Republic, France, Lithuania, the Netherlands (where a shortfall of 4,000 full-time equivalent is expected in 2020 and 10,000 in 2025 in primary education), Sweden and the UK. Education systems are suffering from **recruitment and retention constraints** in the Czech Republic, Germany (which is confronted with the need of renewing the teaching workforce as 45% of primary and secondary teachers are aged 50 or above), Spain (because of the high share of **interim and temporary contracts** affecting the career prospect of many new teachers) and the UK, and from the **low attractiveness** of the teaching profession in Cyprus, the Czech Republic, Estonia, Latvia, Lithuania (where reforms to improve attractiveness are under way), Romania (specifically for disadvantaged schools) and Slovakia. Teachers' low salaries and their professional development opportunities rate are the main factors, amongst others, to improve the quality of education.
- > **TEACHERS' SALARIES AND EMPLOYMENT CONDITIONS:** **Low teachers' salaries** are identified as a main cause of concern in the Czech Republic (where they are still low despite recent increases

- following a strike warning), Hungary, Latvia, Lithuania (where the situation is likely to improve as a result of a new collective agreement), and Slovakia. In Sweden, the government has started to improve financial incentives for teachers, so far with mixed results: although teachers' salaries increased, the new initiatives created divisions between teachers. The **minimum salary** of Estonian teachers has increased as a way to enhance the attractiveness of the teaching profession.
- > **CAREER SYSTEM, INITIAL AND CONTINUOUS PROFESSIONAL DEVELOPMENT:** Career systems for teachers linking salaries and **initial and continuous professional development** to adapt to emerging societal challenges are considered an utmost priority in Belgium, Czech Republic, Luxembourg, Romania, Spain and the UK. In Bulgaria, initial teacher education is deemed not sufficient in preparing teachers in terms of inclusive teaching methods and working with students from disadvantaged background.
 - > **SECTOR-SPECIFIC CHALLENGES:** Challenges for staff are being considered at a sectoral level too. In Austria and Finland, **higher education** systems are confronted with the reduction of staff to cope with new funding models and funding cuts. **In the VET sector**, the Czech Republic is called on to increase the number of staff and training, while Italy and Luxembourg have made available additional funding to increase staff (Italy) and to ensure that VET teachers and trainers receive the latest training (Luxembourg). In Slovakia, the low level of access to the specialised continuous professional development of VET teachers and trainers is a source of concern. In **early childhood education**, the Country Report for Denmark points to the deterioration of the staff/children ratio which may also have negative effects as regards the integration of children with migrant background, while in Ireland, important changes to the minimum qualifications required for staff are considered to improve quality.
 - > **EQUITABLE ACCESS AND INCLUSIVENESS** remain a challenge in Austria (where recent reform measures have been undertaken to address such challenges), Belgium, Bulgaria, Czech Republic, Croatia, Lithuania (particularly in regards to access to early-childhood education), Romania (suffering from a strong rural-urban divide and exclusion of Roma children), Spain (with regional disparities persisting) and Sweden. In this latter case, the distribution of school resources does not guarantee equal learning opportunities and despite recent measures, the education system does not appear to promote quality education for all. A focus on students with special needs and gender disparities also emerges in Belgium and Ireland - where a new education programme in disadvantaged areas is helping to promote equity and access to education.
 - > **VARIATION IN PERFORMANCE EXPLAINED BY STUDENTS' SOCIO-ECONOMIC STATUS:** Students' educational outcomes continues to depend heavily on their socio-economic background in Bulgaria, Czech Republic, Hungary, Lithuania (although limited progress is being made), Malta, Romania and Slovakia. Although educational outcomes are stable or even well performing, they continue to lag behind and/or remain considerably influenced by socio-economic background in Ireland, Luxembourg, Portugal, Slovenia, England and Scotland. In these latter countries, analysis shows that the gap between top performers from an economically disadvantaged

background and their 'well off' peers is equivalent to more than two years of schooling on average. Additionally to students' socio-economic background, young pupils with a migrant background seem to be further penalized in Austria, Belgium, Denmark, France, Germany, the Netherlands (with important differences between schools) and Sweden, where the integration of newly arrived migrants pupils continue to be a priority. Finland, whose educational outcomes remain among the best in the EU, has seen some decline in the performance and divergence between different groups pointing at gender gaps in performance and integration challenges.

- > **EARLY SCHOOL LEAVING:** Austria, Belgium, Croatia, Cyprus, France, Germany, Ireland, Latvia, Lithuania, the Netherlands, Poland, Slovakia, Slovenia, Spain and Sweden have all made good progress in reducing the number of early school leavers. However, Bulgaria, the Czech Republic, Estonia, Hungary, Malta and Romania require a significant improvement in progress in order to achieve their targets regarding reducing early school leavers. Portugal's early school leaving average remains high and increased in 2016, despite having reduced significantly in previous years.
- > **DIGITAL SKILLS:** In regards to digital skills, Austria is seen as one of the best performing countries in Europe, with individuals' levels of skills higher than average, the implementation of a digital education strategy and reforms such as compulsory digital training for new teachers. Comparatively, Bulgaria, Cyprus, Ireland, Lithuania, Portugal and Sweden all have below average levels or significant gaps in the digital skills of their populations. However, Croatia, Cyprus, Lithuania, Portugal, Slovenia and Spain are all taking measures to try and improve digital skills amongst the population.
- **INVESTMENT IN EDUCATION**

The European Commission notes that **the education system is underfunded** in Slovakia and Italy. **Investment in education is still below the EU average** despite increases in Germany and Spain. In the latter country, the Country Report recalls the position of education trade unions in regards to the deteriorating effects of budget cuts on education while in Slovenia, the report highlights that education spending as a share of GDP was reduced during the crisis. In particular, **investment in tertiary education is weak** in the Czech Republic. The Country Reports point at **low investment** in pre-primary and primary education in Lithuania. Denmark, Luxembourg, Cyprus and Malta on the other hand are strong investors in education, however, Denmark is undergoing reductions in spending since 2015. The Danish report recalls the argument of teacher unions who argue against the negative impact of annual savings till 2020. The European Commission reports that in France, the **distribution of resources** remains unequal. This difference in terms of resources holds true, both in terms of funding and teachers, across different types of schools and regions. While in the UK, the intention is to **move from allocations at local authority level** to a system **providing more evenly distributed funding** per pupil across all schools. Because of budgetary cuts since 2015, Finland is confronted with reductions in universities' staff while university resources have not grown in Austria in line with growing student numbers. The Czech Republic is undertaking major education reforms with the financial support of European Structural and Investment Funds. Such funds are used in Estonia to increase the low level of participation in work-based learning, too.

- **QUALITY OF VOCATIONAL EDUCATION AND TRAINING**

Austria, Cyprus, Denmark, Finland, France, Italy, Latvia, Lithuania, Luxembourg, Portugal and Spain have all taken steps to introduce measures aimed at improving and **increasing participation** in vocational education and training. However, Denmark faces challenges in implementing its measures due to **budgetary cuts**. Hungary, Luxembourg and Malta all stand out as countries with strong and effective vocational education and training. Croatia, Cyprus, France, Italy, Latvia and Romania all have significant challenges in their vocational education and training systems which need addressing if the situation is to improve. Estonia, the Czech Republic, Malta and Latvia have all taken measures to try and improve the provision **of work-based learning**, an area where many countries are yet to make significant progress. In Latvia, this has been led by the employers association and in Malta, the availability and quality of work-based learning has been improved by having an enhanced **partnership with employers**. This is in sharp contrast to Croatia, where employers play a marginal role in the provision of work-based learning, with insufficient progress being made in its improvement. In Luxembourg, the partnership between unions, employers and the government is leading to improvement in vocational education and training.

- **ADULT LEARNING AND APPRENTICESHIPS**

Austria, Belgium, Croatia, Hungary, Italy, Latvia, Lithuania and Poland are all in the process of creating or implementing reforms with the aim of improving the **provision or quality of adult learning opportunities**. Despite this, adult learning remains an issue in Belgium, Bulgaria, Croatia, Cyprus, Hungary, Italy, Lithuania, Malta, Poland and Romania, with access to adult learning and the number of adults participating being the main issues across Europe. However, progress is being made in Croatia, Hungary, Italy and Lithuania. The Netherlands stands out as a country which already has high levels of **participation** in adult learning, with levels well above the EU average. Reforms regarding **apprenticeships** are being implemented in Ireland, Lithuania, Slovenia and the United Kingdom. However, there are concerns that reforms such as the ones in the United Kingdom are focused more on quantity targets rather than improving the quality of apprenticeships.

- **QUALITY OF HIGHER EDUCATION AND RESEARCH**

The **low tertiary education attainments** are deemed problematic in Croatia, Italy, Malta, Romania and Slovakia, while dropout rates in higher education are a focus in Estonia and Italy, and closer **links with the labour market** are to be developed in Cyprus, Croatia and Hungary. In this regard, Italy is taking steps to expand **tertiary non-academic education**. Ireland shows a clear gender gap in **educational outcomes** with women outperforming men. Despite high tertiary education attainment, Poland is facing challenges on learning outcomes while Ireland shows a clear gender gap. In Germany, Belgium and Luxembourg, higher education outcomes are still heavily linked to the **socio-economic background** of the students, especially those of migrant origin, while **inclusion and equitable participation** in higher education remains a political priority across the UK. In France, which is set to face expected increases in student numbers, measures have been taken to increase entry guidance and support during higher education. Despite continuous increases in student numbers in Austria's tertiary education, **resources and teaching staff** have

not kept pace. Finland is confronted with reductions in universities' staff due to financial pressure and funding cuts from 2015 onward. Lithuania and Latvia are facing consolidation challenges to improve 'efficiency' and quality.

- **PRIVATE/PUBLIC DEVELOPMENTS**

Cooperation between higher education institutes and businesses are considered scarce in Lithuania and with scope for increasing in Sweden. Spain is considered a country where the cooperation between university and business has improved, although barriers remain, alike Estonia. In early childhood education, the analysis of Bulgaria points at the fact that kindergarten fees are a barrier to full participation and contribute to an unequal start in education. With regards to teachers' salaries, financial incentives for teachers in Sweden have resulted, according to the European Commission, in increasing competition between teachers.

- **RESEARCH AND DEVELOPMENT (R&D)**

The European Commission notes that more effort is needed to raise investment in R&D in Austria and Lithuania specifically. Bulgaria, Italy, Croatia, Romania, Slovakia and Hungary are considered to be underperforming or even moving further away from their EU 2020 targets regarding R&D investment. In Luxembourg, R&D remains highly dependent on public spending and is not leveraging private investments, according to the Country Report. In the Netherlands, the public R&D investment is set to decline even with additional investment. Cyprus has already reached its objective in R&D expenditure..

3. Overview of the Country Reports 2018 by country

COUNTRY REPORTS 2018 IN THE EDUCATION AND TRAINING FIELD
AUSTRIA
<ul style="list-style-type: none"> • Austria has already reached its targets on tertiary education attainment and limiting early school leaving. However, more effort is needed to raise research and development expenditure. • Austria made progress on its education reform. The second reform package adopted in mid-2017, gives schools more autonomy and clearer responsibilities and will allow administrative clustering of several schools. Schools are to determine also class and group size and school heads will be allowed to select their teachers. • Limited progress has been made in improving the educational achievements of disadvantaged young people. Students' educational outcomes also continue to depend heavily on their socio-economic background and on whether they have a migrant background. Several policy initiatives have been launched to help integrate refugees and people with a migrant background into the education system (especially VET), as well as to encourage adult learning and improve digital education. • Austria is implementing its Adult Education Initiative. This enables adults who lack basic skills or never graduated from lower secondary education to continue and finish their education free of charge. • The number of students and graduates in Austria's tertiary education has continually increased over the last decade. However, resources and teaching staff have not kept pace. The intended move to capacity-based financing has not been finalised. Such a 'fully managed' system of access to higher education is expected to boost the student-teacher ratio to levels comparable to the international average (p.31). Austria is expected to increase the use of digital technology in higher education. This is important for both teaching and publishing. • Individuals' level of digital skills are better than average. Austria has also launched its digital education strategy 'School 4.0 — let's get digital' Digital skills will be introduced into the curriculum of primary and secondary education. Digital training for teachers is also compulsory for new teachers.
BELGIUM
<ul style="list-style-type: none"> • Communities are phasing in major school reforms. Belgium reached its early school leaving target in 2016 and is broadly on track to reach the targets for R&D intensity and increasing tertiary educational attainment.

- Belgium combines good overall education performance with **high educational inequalities**. Children with a **disadvantaged background including those with a migrant background** do not have equal opportunities to access quality education. There are wide performance gaps between schools and major differences between the Communities. Belgium is one of the EU countries with the largest share of students with a migrant background. The share of disadvantaged groups will increase, making challenges in education more difficult to address. The attainment gap between **people with disabilities** and those without far exceeds the EU average. More attention may need to be given to **gender differences in education**
- Inequalities linked to socioeconomic status, family and migrant background **persist in tertiary education**.
- **Reforms relating to initial teacher education and career** are making slow progress in a context of **emerging teacher shortage**. The need to adapt **teachers' continuous professional development** is recognised. There are few measures to help teachers combine teaching and continuous professional development (CPD). The **existing system is not well-suited to helping school teams deal with an increasingly diverse school population**.
- Participation in **adult learning and in life-long-learning** is relatively low. Measures on **vocational training** have been launched.
- **ESI Funds** are important in addressing key challenges to inclusive growth and convergence in Belgium, notably by investing in research, development and innovation, redressing educational inequality, fighting early school leaving.

BULGARIA

- Bulgaria has made progress on the employment rate and **tertiary education**, but the targets are still to be met. The situation has **deteriorated regarding the targets on early school leaving, poverty reduction and R&D intensity**.
- The **education system does not fully equip students with relevant skills, particularly in digital skills and access to quality education remains unequal**. Educational outcomes are low and **strongly influenced by socioeconomic status**.
- The insufficient labour market relevance of vocational education and training remains a challenge. **Adult participation in learning** is insufficient to address the need for upskilling.
- **Integration of Roma remains a major challenge**. Limited progress in **increasing the provision of quality mainstream education, in particular for Roma** (CSR 2017). While Bulgaria started implementing measures for inclusive education reform and for Roma inclusion, these are **not enough** to address the magnitude of the challenges. The concentration of **disadvantaged students into low-performing schools**, including de facto segregated schools and Roma classes, are major

barriers in providing quality mainstream education in Bulgaria. Enforcing the **ban on segregated classes** remains a challenge.

- **Initial teacher education** does not prepare teachers sufficiently in terms of inclusive teaching methods and for working with students from disadvantaged backgrounds. Recent measures seek to improve this situation
- **Remuneration levels were increased and system of financing of pre-school and school institutions re-designed.**
- **Kindergarten fees** are a barrier to full participation in early education and care and contribute to and unequal start in education.
- **Early school leaving** is high and the impact of the united schools and of the **new school structure** on early school leaving have to be seen. A mechanism to identify out-of-school children has been established, but measures to improve school attendance and retention are still limited.

CROATIA

- Croatia is on track to reaching its targets, or has already done so, **early school leaving** and poverty and social exclusion. The gap for early school leavers between **pupils with and without disabilities** however is one of the largest in the EU. The target for **tertiary education** attainment by 2020 does not appear within reach, while the largest distance to target remains in R&D investment.
- Croatia has made limited progress in **improving adult education**, in particular for older workers, the low-skilled and the long-term unemployed. Accelerate the reform of the education system (CSR 2017).
- **Education system performance** indicators have stagnated or worsened in most relevant areas, highlighting the need for reform. The recent measures to implement the national strategy for education, science and technology should, if maintained, help address the **quality and inclusiveness** challenges.
- The education reform is still pending. This affected in particular one of the strategy's most prominent priorities: **the comprehensive curricular reform aimed at improving the quality and relevance**. The low performance of Croatia's education system underlines the urgency of reform.
- Croatia lags behind in **upskilling and reskilling the working age population**. Systemic inefficiencies in the **adult education system** affect its labour market relevance. Participation in **adult education** remains very low. Croatia lacks systematic **professional development programmes** for adult educators, and **non-formal and informal learning** programmes are not properly assessed nor recognized.

- The adoption of the new **Adult Education Act and the Law on Vocational Education and Training has been further postponed.**
- Efforts to improve **vocational education and training** remain insufficient. Secondary vocational education would benefit from further alignment with labour market needs. Employers play a marginal role in the provision of vocational education.
- **Individuals' level of digital skills** is critical. The introduction of obligatory subject Computer Science in primary school is planned for 2018. Currently, 10 % of Croatian schools are taking part in the **ESI Funds** supported e-Schools project designed to systematically integrate ICT into activities of all of primary and secondary schools by 2022.
- **Growth in tertiary graduates has slowed.** Croatia lacks mechanisms to address the skills mismatch of tertiary education graduates.

CYPRUS

- Cyprus overachieved its targets on higher education attainment level and on reducing early school leaving and has reached its objectives for R&D expenditure.
- The modernisation of the education sector has advanced albeit important challenges remain.
- **Spending on education** is relatively high but is not reflected into high **educational outcomes**. Poor educational achievements and skills mismatches continue to weigh on potential growth. Cyprus has one of the EU's highest proportion of low achievers among students from the bottom socioeconomic quartile.
- The reform of the **teachers' evaluation system** is still pending. Reforms on the **appointment of teachers** introduced a new system based on competitive exams. A shorter time-lapse between graduation and appointment is intended to increase the **attractiveness and quality of the teaching profession**.
- Participation in **vocational education and training** is low (below the EU average), despite favourable employment prospects for VET graduates. Plans to increase vocational education and training capacity are expected to improve the current situation. Participation levels are expected to increase in the coming years with the creation of new technical schools.
- **Adult participation** in learning remains low, impacting on the skills level remedial actions includes the setting-up of a validation system for informal and non-formal education, the development of additional professional standards and strengthening the capacity of post-secondary VET schools and second chance schools for upskilling and retraining. Challenges remain in relation to the integration and efficiency of **adult learning governance structures**, and the **systematic training of adult education trainers**.

- The level of digital skills is below the EU average - Weak but improving
- Tertiary educational attainment remains high but its labour market relevance is low. To establish closer links to the labour market new legislation has been tabled to **facilitate the commercialisation of public universities' research**.

CZECH REPUBLIC

- The Czech Republic has either reached, or is on track to reach, its Europe 2020 target in tertiary education.
- More action is needed to **reduce the increasing early school leaving rate** (especially of Roma children). Close monitoring and new preventive measures, such as **teacher training** to identify pupils at risk and to help prevent early leaving by **adapting teaching methods** and working with stakeholders, could improve early school leaving rates.
- **Education performance continues to be strongly affected by the socioeconomic background of students.** Inclusive education measures still need to be fully implemented, in particular for Roma children. Poverty risk and educational outcomes depend very much on parental background and vary considerably. In 2015, the variation in science PISA scores which could be attributed to parental background was one of the highest in the EU.
- **The government increased teacher salaries by 15 % from November 2017 in reaction to a strike warning.** Despite recent increases, **teachers' salaries remain comparatively low.** They rank among the lowest in the EU compared to those of other workers with tertiary education; salary progression rates are low (OECD, 2017b). This contributes to the profession's low **attractiveness** to talented young people (European Commission, 2017b). **Shortages of qualified teachers**, combined with demographic projections, indicate problems in recruiting and keeping new teachers. A long-awaited new **career system for teachers** linking continuing **professional development, career and salaries** was due to be adopted in 2017 but the legal procedure has not been completed. A systematic **ESF support programme for all new teachers** is being planned. It is expected to improve **teaching quality** and reduce the proportion of **teachers leaving the profession** quickly.
- Several measures to improve **vocational education and training (VET)** and **adult learning** have been implemented to increase skills supply and address skills shortages. Validation of previously acquired skills and a modular approach in retraining courses are being prepared. Too little staff and training is allocated to the low-skilled and long term unemployed to allow a genuinely personalised approach. The challenge to get small businesses more involved in work-based learning may be overcome through providing appropriate support or setting regional training centres. A single national Skills, Qualifications and Occupations classification has not been finalised. Stakeholder engagement and local/regional dialogue between policymakers, employers, education and training providers is key to addressing skills anticipation.

- **ESI Funds are supporting vulnerable groups in the education system and inclusive education.** Various reforms were undertaken already as a precondition for ESI Funds support. Legislative changes were introduced to:
 - launch the inclusive education reform,
 - enhancing the attractiveness of the teaching profession,
 - introduce the compulsory last year of pre-school education and open up the requirements for creating pre-school education entities, strengthening support for children with special education needs
 - tailored measures and training, including a more market-oriented vocational education;
 - improving diversify higher education study programmes
 - assisting beneficiaries of international protection with [...] education, including help to reinforce language skills

- The long-term success of the reform will partly depend on the availability of sufficient, sustainable national funding and **sufficient further teacher and assistant teacher training** to teach heterogeneous groups. EU funds are used to support teacher training to work with heterogeneous groups to improve the situation.

- **Tertiary education** annual expenditure per student is only two thirds of the EU average. A new funding system for higher education institutions will be introduced in 2018, to stabilise their funding while also supporting diversification and quality. The relatively low international openness of the research system is one of the factors to be addressed in raising quality.

DENMARK

- **Despite reductions in spending since 2015**, Denmark remains one of the **EU's biggest investors in education**. Education spending amounted to 7.0 % of GDP in 2015, as compared with the EU average of 4.9 %.

- Overall, **educational outcomes remain above the EU average in terms of performance and equity**. In particular, Denmark has fewer high achievers than other Nordic countries. Danish students in fourth grade perform above the international median in reading, but score below other Nordic countries. [...] the gender gap remained the smallest among the Nordic countries. 15 year old perform above the EU average in reading and foreign born score significantly worse than native born.

- In 2015, PISA showed that **students with a migrant background performed 69 points lower in science than students without migrant background on average**. First- and second-generation students continue to show marked performance differences. Even after accounting for socio-economic factors, they are 3.4 times more likely to under achieve than students without a migrant background.

Critical issues identified by the EC which DLI also highlighted in the dialogue with the Commission:

- The 2014 **reform of compulsory school** (Folkeskolereform) [...] has been criticised for **reducing teacher's autonomy**. [...] A political agreement has been adopted on a revision of the **curricular framework**. The strategy for **national learning targets** for each subject has [before 2017] been criticized for restricting teachers' autonomy.
- A new **reform of upper secondary education** seeks to raise academic standards and prepare students better for higher education [...] **teacher unions' argue that the annual reprioritisation savings in the period to 2020 could have a negative impact on implementation.**
- The **transition from early childhood and care towards primary school remains a key issue**, in particular for children born outside Denmark [...] the continuing **deterioration of staff/children ratios** may also have negative effects as regards integration of children with migrant background
- The 2016 tripartite agreement established a better **vocational education and training (VET)** programme [...] the annual 2 % reduction of the budget risk to negatively impact the implementation of the reform.
- a comprehensive **strategy of digitisation in education** seems to be lacking.

ESTONIA

- Estonia met its tertiary education target already in 2015 and tertiary educational attainment is above the EU average. However, there is underperformance on reducing early school leaving, and on meeting the national targets for reducing poverty and R&D expenditure.
- Estonia has made some progress in **promoting private investment** in research and development, and in stepping up **cooperation between academia and business** (CRS 2017).
- Estonia is generally **performing well on education and training**, but a number of challenges remain. Students possess a good level of **basic skills**. However, the **performance gap** between students of Estonian and Russian mother tongue remains important
- Increasing the **attractiveness of the teaching profession** remains critical. Almost half of the Estonian teachers are aged over 50. To make the profession more attractive, measures to **raise teachers' salaries** have continued, with increases in the minimum salary, especially for pre-school teachers.
- While participation in **adult learning** in Estonia has improved, reaching groups that are difficult to engage in learning and up-skilling remains a challenge. Dropout among first-year students of **upper secondary vocational education and training** is particularly high. Although participation in adult learning is rapidly increasing, it is rather limited among the low-skilled. The main challenges in VET include: the low level of participation in apprenticeship training, the high level of dropout from initial VET programmes, and skills mismatches. The **ESF funded** projects are used to increase the low level of participation in **work-based learning**, etc.

- Measures are underway to address the **high drop-out rates in higher education**. The appeal of and interest in obtaining a PhD degree is rather limited but this may change as **PhD allowances have been increased**.

FINLAND

- The education system has been subject to **considerable public spending cuts**, but the government is taking some measures to promote equality.
- **Early school leaving** rates have declined, but foreign born young people have much higher rates than natives. This is combined with the worsening performance of second generation pupils points to **deep integration challenges** likely to impact on labour market integration. At the same time, slowly **increasing differentiation** is observable between regions and between schools.
- Finland has a generally **well performing education system**, although there has been some **decline in the performance** and divergence between different groups has been detected.
- **Education outcomes** in Finland remain among the best in the EU but declined slightly in science and mathematics. International IEA PIRLS testing in reading confirmed the important performance gap based on gender.
- **Finnish universities** perform as well as their Nordic peers in terms of, for example, completion rates, skills of tertiary graduates and student satisfaction. The new vision for higher education and research in 2030 aims at raising tertiary attainment to 50 %. The government's new funding model since 2017 encourages higher education institutions to become more productive and international oriented. The **financial pressure caused by the funding cuts from 2015 onwards had an initial positive effect by facilitating the sharpening of research and teaching profiles of higher education and fostering cooperation between institutions. However, some universities had to reduce their staff.**
- Finland is implementing a comprehensive **reform of its vocational education and training system** as of 2018. The success of the VET reform in guaranteeing access to education is crucial. This is a key reform to address the need for new skills and strengthen provisions for life-long learning. It has the potential to address existing problems of skills shortages in some industries. VET for young people and adults will be consolidated, forming a single system with its own steering, regulation and financing model. VET will become **competence-based and customer-oriented**: each student will be offered the possibility to follow an individually appropriate path.
- Another challenge is to ensure the long-term integration of refugees and other migrants in the Finnish labour market and society.

FRANCE

- France performs well with respect to the **Europe 2020 headline targets on education and skills**. A comprehensive reform mobilising all relevant actors and supported by the European Social Fund has reduced **the early school-leaving rate**.
- **Educational inequalities remain high**. The French educational system faces difficulties to ensure **equal opportunities** for new generations. The variation in performance explained by **student's socio-economic status** is comparatively high, with young pupils with a migrant background being further penalized. New measures have been adopted to reduce educational inequalities linked to socioeconomic background.
- The **distribution of resources remains unequal**. This difference in terms of resources holds true, both in terms of **funding and teachers**, across different types of schools and regions, as teaching posts tend to remain unfilled in certain fields and geographical areas.
- The **shortage of appropriately skilled workforce** is mentioned by companies as the first hindrance to hiring. The **system of vocational education and training** still presents some weaknesses in matching labour market needs, [...] fostering access to employment, despite undertaken reforms. **Access** to the continuous vocational training system is uneven for different categories of employed workers and unemployed. The proportion of upper secondary students enrolled in VET has been decreasing. The integration of vocational upper secondary students into the labour market is improving along with the labour market recovery. Several measures have been developed to improve the **employment prospects of students in vocational education** and training and to **encourage them to enter higher education**.
- Student numbers in **higher education** are expected to further increase, creating a challenge for the government. The parliament has adopted a law to support students' success notably through **increased guidance to entry and support during higher education**.

GERMANY

- Germany is performing well on the employment rate, early school leaving and poverty, improving tertiary education attainment, investment in research and development (R&D).
- While public investment increased recently, the public investment gap remains large, particularly as regards investment in infrastructure and education. **Spending on education** remains below the EU average and the government target. It is a cause for concern in view of the numerous new challenges, **including the integration of newly arrived migrants, growing student numbers and digitisation**. **Boosting investment and expenditure in education, including lifelong learning, and in research and development** are also key in raising long-term growth potential.
- **Educational outcomes** are stable overall but remain considerably influenced by **socioeconomic background**. There is a wide **performance gap** between native-born and foreign-born students.

- **Renewing the teaching workforce** raises challenges. In Germany, 45 % of primary and secondary teachers are aged 50 or above. To alleviate the situation, pensioned teachers are reactivated, teachers from abroad are recruited and more and more career changers are being accepted into the profession, often without prior pedagogical training but with tailored accompanying support after they take up teaching.
- Employment rates for **VET** graduates continue to be high but fewer people are choosing this education path. **Adult learning** is below the EU average and remains a particular challenge for the low skilled.
- **University education** is becoming more widespread but is more difficult to accomplish for **students with a migrant background**.

HUNGARY

- Hungary is **performing well in tertiary education** and the employment rate; while more effort is needed to increase R&D intensity and reduce early school leaving and poverty. The share of early school leavers increased further from an already high (particularly high for Roma).
- **Education outcomes in basic skills** are significantly below the EU average. The **impact of pupils' socioeconomic background** on education outcomes is the strongest in the EU. The impact of school type on outcomes is also very significant, reflecting early selection in secondary education. Disadvantaged students, in particular Roma, remain concentrated in certain schools. As a result, the likelihood of contacts between disadvantaged and no disadvantaged pupils at school declined between 2008 and 2016.
- Progress was limited in increasing the participation of disadvantaged groups, in particular Roma, in **inclusive mainstream education** (CSR 2017), despite the state taking over the management of public schools from municipalities in 2013 with the aim of reducing inequalities, Although successful pedagogical models for inclusive education have been developed, only a limited number of mainstream schools actually use them. The extension of early childhood education may positively impact the later school performance of disadvantaged pupils.
- **Teacher salaries** have increased faster than the public sector average since 2013, but were still 31% lower than those of other tertiary graduates in 2015. In parallel most **salary supplements for replacement and supplementary teaching hours were abolished** and the number of **weekly teaching hours** increased from 20-22 to 22-26. In addition, teachers are obliged to stay in school premises for tasks defined by their headmaster for at least 32 hours a week.
- The employment rate of recent **vocational education and training (VET)** graduates is well above the EU average, but shows a wide gap between the two types of VET: vocational grammar schools – *szakgimnázium* - with a higher element of general education and vocational secondary schools – *szakközépiskola* - for less academically inclined students. General education content in vocational secondary schools is limited.

- Promoting **adult participation in learning** remains a challenge, especially among the unemployed. The situation is expected to improve thanks to EU and national funded training programmes, but the substantial gap is unlikely to close.
- The growing demand for highly-skilled workforce is not matched by the performance of the **higher education**.

IRELAND

- Ireland is performing well on the employment rate and early school leaving targets. It needs to do more on investing in R&D, [...] reaching the national target for tertiary education.
- **Public spending** on education is progressively returning to its pre-crisis level.
- Despite high participation in **early childhood education** and care (ECEC), its accessibility, affordability and cost of full-time provision remain problematic (CSR 2017). In terms of quality of ECEC, there have been important changes to the minimum qualifications required for staff in the sector, and a reorganisation of the inspection system for pre-schools in order to help children with disabilities fully participate. From December 2016 all staff working directly with children must hold at least a level 5 qualification. More funding is available to services where the preschool leader has a pre-school award in ECEC at level 7 on the national qualifications framework and the assistants have achieved a minimum level 5 award.
- In **early school leaving** Ireland is continuously improving its performance, but disparities remain at local level. The share of early leavers fell in 2016. No major gap is visible between native- and foreign-born students. There is, however, a persistent gap between girls and boys.
- Ireland's relatively **good education related outcomes** are in part due to a promising education programme in disadvantaged areas called '**Delivering equality of opportunity in schools**' (DEIS) initiative in disadvantaged areas. It promotes **equity and access to education** with ambitious targets for school completion and participation in higher education. It also points to the need to improve retention rates in the most **socioeconomically disadvantaged** schools, which continue to lag considerably in 'educational outcomes'.
- Ireland ranks near the top of the EU on **tertiary attainment** (52.9 %) and has an ambitious national target for 2020. Ireland ranks fourth in the EU in 2016 on tertiary attainment rates. There is a clear gender gap, with women (at 58.5 %) outperforming men (at 46.6 %). Interestingly, **migrant students** have a higher attainment rate (58.4 % in 2016) than native-born students (50.5 %).
- Ireland has a relatively low level of the population with **basic digital skills**. In recent years skills shortages are becoming increasingly apparent, most notably in ICT, financial services and engineering. Accumulating skills shortages further accentuate the need to **continue upskilling efforts**.

- In terms of **basic skills**, Ireland has continued to perform well, especially in reading, ranking high among EU countries. Nevertheless, some basic **skills gaps persist for disadvantaged groups**, such as pupils from an immigrant background or the children of travelers.
- The attractiveness of **vocational education and training (VET)** compared to academic education remains a challenge. The rate of participation in VET in Ireland is below that of other EU countries, due to the fact that it takes place for the most part at post-secondary education level. **Adult participation in lifelong learning** remained low in 2016. The employability of recent VET graduates is visibly improving and getting closer to the EU average. New types of **apprenticeship schemes** are being introduced and promoted by relevant actors. A key measure is to provide 50 000 upskilling and reskilling places in higher education by 2021.

ITALY

- The **implementation of the school reform *La buona scuola*** is broadly on track, but some measures have not been fully implemented. **Testing of students** now covers their entire career and allows for adequate monitoring of their achievements.
- Wide **regional disparities** persist in educational attainment despite an overall **improvement in the quality of schooling**. High **dropout rates** and a comparatively long duration of studies contribute to low **tertiary education attainment** rates.
- Despite these challenges, the share of public expenditure in education continued its downward trend. The **education system is underfunded**. Moreover, public spending in R&D has been reduced.
- **Low level of digital skills.**
- **Higher education** continues to be characterised by high drop-out rates and the comparatively long duration of studies. Steps are being taken to expand Italy's **tertiary non-academic education**. The Education Ministry has envisaged a co-ordinated tertiary professional education system.
- A legislative decree adopted in April 2017 has revised the framework for **vocational education and training (VET)** at regional and national level, creating greater synergies between different systems. **Additional funding** has been made available to implement the new measures, in particular to **increase staff**.
- The participation rate in **adult learning** is increasing but the proportion of low-skilled adults who participate in adult learning compared to other categories is among the lowest in the EU. The creation of a national database with the qualifications issued in the different areas of the **lifelong learning** system is currently underway.

LATVIA

- Latvia has attained its employment rate target, early school leaving, tertiary education attainment and poverty reduction targets in 2016. More effort is needed on R&D investment.
- The education system faces a challenge to consolidate resources while improving quality and efficiency. **Access to quality education** remains dependent on the place of residence and type of school. The **decline in student numbers** poses a challenge to **reduce capacity** and **improve quality of the education** system. It calls for **fewer schools and teachers**, which would allow for **higher teacher salaries** and specialisation. The remuneration of teachers is linked to a number of students and as this number decreases, especially in rural areas, schools become under-resourced and over-staffed. The **low teacher salaries** contribute to making **teaching unattractive**.
- **Consolidation of schools** based on the minimum number of students has been delayed. The independent study on an optimal network of general education institutions will form a basis for the discussion on the criteria on minimum number of students per school and on the distribution of general education institutions. Streamlining the secondary school network would concentrate resources from state and municipalities budgets in **fewer schools with better infrastructure and higher salaries for teachers, thus improving the quality and efficiency of the general education**.
- A new **competence-based curriculum** is being gradually rolled out with the support of the **European Social Fund**. This is intended to align skills with future labour market needs. However, there is still a long way until work-based learning becomes a significant part of VET. At the moment, participation in **vocational education and adult learning** is relatively low. The target for vocational education is to increase its share of students by offering them better work opportunities and gradually updating the curriculum. Some progress was also made by updating vocational education curriculum.
- The introduction of the new work-based learning approach has started. In 2017, guidelines were approved for the implementation of **work-based learning**, including basic principles and methodological support. The EU-funded project to support work-based learning and practical training began to be implemented in 2017 and is led by the employers association.
- Latvia is also looking at ways of consolidating its highly fragmented **higher education system**. So far, attempts to reduce fragmentation in higher education show that small higher education institutions are reluctant to be merged with bigger ones, even if they do not have a sufficient base for research and innovation.

LITHUANIA

- Goal reached: the share of early school leavers and the share of population having attained tertiary education. More effort: to increase expenditure on research and development, particularly in the private sector.
- The **high public investment in education** is not reflected in the general education outcomes. However, at 2.4 % the level of investment in pre-primary and primary education is relatively low.

- The education system in Lithuania faces major challenges. Quality and access to early childhood education and care (ECEC), outcomes of general education, **efficiency of higher education and participation of adults in lifelong learning are the main policy areas in need of attention.**
- Lithuania has also taken some measures to address **skills shortages**, but progress in improving **educational outcomes by rewarding quality in teaching and higher education was limited.**
- Reforms are under way to improve the **attractiveness of the teaching profession. Initial teacher training** is highly fragmented and delivered through over 120 tertiary education programmes. Persistent doubts about their quality have led to reform plans. Only 25 % of teaching programmes' graduates joined the teaching profession, leading to a **scarcity of teachers** in some fields and regions. This has contributed to an increase in the average age of teachers. [There is] a strong **link between teachers' salaries and seniority**, which provided little incentive for new graduates to join the teaching profession. The situation is likely to improve as a result of a **new collective agreement**, signed in October 2017, which reduced the salary link with seniority.
- **Adult learning** remains insufficiently developed and the relatively limited coverage of active labour market policies means that too few low-skilled people are getting the training they need. It has made some progress in **addressing skills shortages** by increasing the effectiveness of the active labour market policy measures, but progress in adult learning remains limited. At 6 % in 2016, participation in **lifelong learning** in Lithuania remained substantially lower than the EU average. Lithuania adopted an action plan for the development of lifelong learning for 2017-2020. However, existing reforms seem to still pay insufficient attention to the learning of **disadvantaged groups** with typically low participation levels. Efforts to increase the attractiveness of **vocational education and training (VET)** have had moderate effect. There is still substantial scope for progress to extend work-based learning in Lithuania with almost no **work-based learning** provision in formal VET in 2015. In December 2017 Lithuania has updated the legislation on VET to foster the uptake of **apprenticeships** and other improvements in the field.
- **Digital skills** are not widespread among the general population There are some efforts to promote digital skills among the general population and help increase the number of ICT professionals. In 2013, the National Digital Coalition advises on the major steps to boost investment in human capital, and works to attract more young people to ICT and other science studies in order to ensure the acquisition of digital skills.
- The **tertiary education** sector is quantitatively strong, but evidence points to efficiency challenges. The high effectiveness of the system hides significant **efficiency and quality challenges**. The **consolidation** of higher education institutions is ongoing and the system of institutional R&D funding is being revised. **Cooperation between businesses and science** remains scarce. Bottlenecks exist in **public research** leading to a low level of return on public investment in R&D.

LUXEMBOURG

- Expenditure in R&D remains highly dependent from **public spending** and is not leveraging private investments. Therefore, business investments in R&D continued to decline, indicating that several weaknesses remain in the research and innovation ecosystem.
- While the cumulative **spending per student** over their school life up to age 15 is the highest among EU countries, Luxembourg had an above EU-average share of **low achievers**. New policy initiatives aim to close the **achievement gaps** between pupils from different backgrounds and reduce **early school leaving**. The impact of the **students' socioeconomic background** on their performance is one of the strongest in the EU, pointing to high educational inequality.
- The law on **early childhood education** and care adopted in July 2017 introduced multilingual education for children aged 1 to 4. The law also links the funding of participation in early childhood education and care to better access and quality offered by providers. The law on **secondary education** adopted in July 2017 introduced several measures to improve **school quality** and better to adapt the school offer to the needs of an increasingly diverse school population
- As of September 2016, a three-year induction period has been introduced for all **new teachers**, and the number of hours of compulsory continuing **professional development** has been doubled to 48 hours every 3 years.
- Despite very high rates of **tertiary education attainment**, efficiency in providing basic skills is below the EU average. There is a strong relationship between **socioeconomic background and academic performance**.
- **Upskilling** is crucial, given the strong demand for highly specialised skills and several steps have been taken in this regard. Getting more low-skilled and older workers into training is also necessary. Adapting **vocational education and training** to labour market needs remains challenging. Participation in vocational education and training is high, but is characterised by failure at school. Issues include students repeating a year and early school leaving rates. The amended VET law, in force since 2016-2017, aims to improve the **qualitative skill sets** and study success rates of students. Initial assessments are being carried out, which include by **seeking the views of social partners**. To better match supply and demand and prevent youth unemployment, the Chamber of Commerce launched the 'Talent Check' initiative in 2016 to help students choose a suitable training place. Companies can also make use of candidates' test results when selecting **apprentices**. Important steps were also taken to ensure that **VET teachers and trainers** receive the latest training
- The difference in the language regimes of the general and technical tracks of secondary education also plays a role in orientation decisions and narrows the **scope for switching**.

MALTA

- Gaps remain with respect to [...] reducing early school leaving, increasing the tertiary education attainment.

- While **investment in education and skills** continues, high early school leaving rates still present obstacles on ensuring **equal opportunities**. The ESL rate is considerably higher for men than for women, and is especially high for people with disabilities.
- **Basic skills** attainment among young people is still weak. **Skills shortages** have become very pronounced. **Educational outcomes** remain strongly linked to **socioeconomic background**. Socio-economic status strongly influences student performance, as does the type of school, with 'independent' (i.e. private) school students performing best, followed by church school pupils and then state school pupils
- **Vocational education and training** (VET) graduates have good employment outcomes. Both the **availability and quality** of work-based programmes have increased due to an **enhanced partnership** with employers. However, the proportion of upper secondary students in VET decreased slightly in 2015 and is far below the EU average P27
- Skills levels and **participation in adult learning** are growing but remain quite low. Participation rates are especially low for the low-skilled.
- Measures have been undertaken to improve **skills governance** by bringing together education and the labour market. A high level National Skills Council was set up and has since identified three priority areas: **work-based learning; digital skills; and research and development**. Moreover, Malta is building a national framework for the validation of **non-formal and informal learning** and a skills forecasting and anticipation system. However, the impact of these measures will become visible only in the longer term.
- Recent actions to **tailor skills to the needs of innovative firms** are an important step forward. The launch of several schemes, coupled with **increased public expenditure in tertiary education** and improved **entrepreneurship training** are starting to have a positive impact. Malta ranked first in the EU in terms of graduates in the field of computing.

NETHERLANDS

- The Netherlands is doing well on early school leaving and tertiary education attainment. However, more effort is needed on R&D investment (CSR 2017).
- The Netherlands has an efficient and productive R&D sector, but growth-friendly **public expenditure is lower** than that of top performers. The country's high-performing education system and scientific base provide a sound basis for boosting innovation and growth capacity through education and R&D activities. Although substantial additional **investment has been announced**
- The Netherlands faces an **increasing shortage of teachers**. In primary education, a shortfall of 4.000 full-time equivalents is expected in 2020, with 10.000 full-time equivalents needed in 2025. In

secondary education, a shortage is expected for certain subjects such as mathematics, science and foreign languages.

- **School education outcomes** are above the EU average, but have worsened since 2012. In the 2015 Programme for International Student Assessment (PISA), the proportion of low achievers increased in all three core fields. **Differences between schools** have one of the biggest impact on pupils' performance, and are strongly linked to the different educational tracks they offer.
- Several new measures aim to close **performance gaps** between students from disadvantaged and more favourable backgrounds. The number of pupils in primary special education has decreased by more than 6 % since the introduction of the 'Education that fits' policy (*passend onderwijs*) in 2014-2015. All schools are now responsible for placing each child, including those with special educational needs, in a suitable educational setting, preferably in mainstream education.
- Performance of **students from an immigrant background** remains a major challenge as it then translates into lower labour market performance. This [performance] difference also holds for second generation pupils.
- Although the Netherlands has a large pool of educated and skilled workers, the low number of STEM (science, technology, engineering and mathematics) graduates limits its innovation capacity.
- The **adult participation in learning** is high in general and well above the EU average.

POLAND

- Good progress in reaching the national targets under the Europe 2020 strategy in the areas of tertiary education, reducing early school leaving and the employment rate. Progress is limited in R&D investment. A significant gender employment gap is, inter alia, related to limited access to childcare for children under three
- The **European Structural and Investment (ESI) Funds** are pivotal in addressing key challenges to inclusive growth and convergence in Poland. Notably, these include improving investment and business conditions, promoting R&D in the private sector and **strengthening links between research and industry**.
- Polish education system has two strong features: a high percentage of **tertiary graduates** and **good basic skills** at completion of lower secondary school. Developing independent, creative and critical thinking and learning is a key challenge for all levels of the education and training system
- Ongoing **change of the school system** is utilising considerable **resources** and attracting the attention of **stakeholders**. The phasing out of lower secondary schools started in September 2017, affecting **schools, teachers and local governments**, which are responsible for the school network. The operation has numerous logistical **challenges and substantial costs**. This risks

significantly reducing the resources that could be devoted to addressing challenges in the Polish educational system, like the ones mentioned above.

- **Tertiary education attainment** is high, but challenges remain with **learning outcomes**. Poland intends to reform its higher education system.
- **Continued upskilling** of the labour force is crucial to improve employability and to foster innovation. The currently low **number of adults in education** and training and its impact on skills and competences is an obstacle to employment. **Improving basic skills** and increasing the **employers' involvement** remain the key challenges facing **initial vocational education**. The forthcoming re-organisation of vocational schools creates an opportunity to strengthen cooperation with employers and the role of **apprenticeships**. It is, however, as yet unclear whether effective action will be taken in this area.
- Formal and especially non-formal **adult learning** in Poland remains underdeveloped. Adults are frequently not interested in developing their competencies or acquiring new skills or qualifications. At the same time, companies may be relatively less willing to provide training to certain categories of workers. The implementation of the Integrated Qualifications System has had a limited impact so far. The Polish authorities plan to develop a new skills strategy.

PORTUGAL

- Albeit from high levels, the **early school leaving** rate decreased significantly, but slightly increased in 2016 and remains well above the EU average. There are still considerable obstacles to achieving the targets on R&D investment, **tertiary education** attainment.
- **Early school leaving** in Portugal remains higher than the EU average but recent improvements in education outcomes could be the result of **greater efficiency in education provision**.
- **Decentralisation** of the school system is ongoing and **autonomy** is being promoted. Building on the successful pilot of transferring pre-school and primary school competences to municipalities. Its significant coverage is promising but it may be challenging as concerns **securing the necessary resources** both at local and national levels. Within the national programme PNPSE, schools can propose on voluntary basis **new pedagogical initiatives** adapted to their student population and receive additional resources to develop them.
- **Educational outcomes** keep improving, but concerns remain over **equity**. The proportion of low achievers among students from the **bottom socioeconomic quartile** is 25% higher than that from the top socioeconomic quartile. The gaps between non-migrants and people with a **migrant background** – as measured by early school leaving rates, PISA performance and grade retention – are comparatively small.

- The **level of digital skills** among the **adult population** is also below the EU average. The National Digital Competences Initiative aims to strengthen digital literacy, yet it is too early to ascertain its impact.
- Programmes are being rolled out and reforms implemented in **Vocational Education and Training** to upgrade the skills of the adult population. Recent initiatives aim to increase **VET attractiveness** and boost participation in upper secondary vocational programmes. Their effectiveness in upgrading worker's basic skills and ultimately raising productivity will depend on the coverage and quality of the training offered. The effectiveness of the Qualifica Programme in boosting **adult education** will depend on the coverage of the training component.

ROMANIA

- Romania is performing well in the areas of **tertiary education**. However, research and development intensity and **early school leaving** remain some distance away from their respective targets. Limited progress was made on improving **access to quality mainstream education** (CSR 2017).
- The weak **performance of the education system** limits growth prospects in the long run. Low attainment levels in **basic skills and digital skills**, persistently high early school leaving, poor Roma inclusion and rural-urban disparities in education result in lost human capital and growth potential. Rural-urban disparities, Roma exclusion and inequality in education often overlap. Schools in rural areas are less likely to provide quality education compared to urban school. The gap in underperformance between advantaged and disadvantaged students is one of the highest in the EU P28
- **Quality assurance and initial teacher education** programmes face challenges. Inclusive education in the classroom requires strengthening. **Initial teacher education** offers insufficient training, especially on working with students from disadvantaged backgrounds, Roma and students with learning difficulties. Attracting **high-quality teachers** to disadvantaged schools is a persistent challenge. The current **merit-based allowance system** is insufficiently geared towards supporting work with students from disadvantaged backgrounds.
- **Quality assurance in school education** remains largely focused on compliance, due to fragmentation and overlaps in responsibilities. Mechanisms to support **school improvement** and development are relatively weak, despite the recent efforts to make better use of quality assurance findings.
- Vocational education and training remains a second choice option and in most cases is not adapted to labour market needs. Access to adult learning is limited, in particular for the low-skilled.
- External school and **higher education** evaluation face continued challenges. Progress on meeting the tertiary education target has stalled. In 2016, tertiary attainment remained at the same level as in 2015.

SLOVAKIA

- While a sufficient reduction in the early school leaving rate appears to be attainable by 2020, the indicator has deteriorated recently and continued action is needed to reach the targets. The distance to the targets for Research and Development (R&D) intensity and tertiary education remains significant, but while is progressively narrowing in the latter case, sustained effort is needed to attain the R&D target again.
- Education continues to be relatively underfunded at all levels and adult participation in life-long learning activities is still very low. **Public expenditure on education** has been low over the last decade.
- Despite some improvements, **low pay for teachers limits the attractiveness of the profession**. Teachers' salaries are being increased gradually, but the profession is still not attractive.
- Educational outcomes and inequalities based on socioeconomic background are major obstacles for inclusive growth. Reforms are taking place in the education and training systems, but the **quality and equity of educational outcomes** remain of significant concern.
- Socioeconomic and **educational exclusion of marginalised Roma communities** is a key problem. . There is also insufficient inclusion of Roma children into mainstream education in light of their over-representation in special schools, with no recent progress visible. The legislative amendments made to the School Act in 2015 have a potential to increase the participation of Roma pupils in inclusive mainstream education. However, they are not delivering the expected results due to the absence of an integrated approach.
- **Student performance** in basic skills is weak and shows a high level of **inequality**, with low achievement strongly linked to **socioeconomic background**. **Regional disparities** are large, particularly affecting the Roma community.
- The overall **quality and responsiveness of the dual VET system** is gradually improving. Comprehensive information on the labour market outcomes of vocational education and training (VET) to increase its relevance is lacking. The enrolment in the dual VET scheme has increased by 27% for the school year 2017/2018. However, **teachers and trainers** have little access to specialised **continuous professional development**.
- Slovakia has fast-increasing **tertiary education** attainment rates, but structural weaknesses in the higher education persist. Existing **quality assurance** and **accreditation mechanisms** are insufficient. Implementation of measures to address weaknesses in higher education has been delayed.

SLOVENIA

- Slovenia has already achieved or is well on track to achieving its national targets for **early school leaving** rates, **tertiary educational** attainment. On the negative side, Slovenia moved further away from its R&D intensity target.
- **Education spending** as a share of GDP was reduced during the crisis but remains above the EU average. Between 2012 and 2015, government expenditure on education as a percentage of GDP declined by 0.9 PPS, which is among the highest declines in the EU.
- Reforms on the **financing of tertiary education** are continuing, but a legislative overhaul has been postponed.
- The **basic skills** of Slovenian pupils and the **equity** of the education system are generally high and improving, but certain **inequalities** persist. The rate of underachievement among students from the bottom socioeconomic quartile is 25.1 %, against only 6.3 % for students from the top quartile. Slovenia has seen the largest improvement in **gender equality** among the EU Member States between PISA 2012 and PISA 2015.
- A working group established by the Ministry for Education, Science and Sport started working on including **digital skills** in the official curriculum in 2017.
- Slovenian schools have started to prepare students for careers in **entrepreneurship**.
- In **vocational education**, the link between studies and practical experience has been improved. The Apprenticeship Act is in use since December 2017, defining **apprenticeships** as part of the vocational education system. An apprentice has the status of a secondary school student, and must receive at least 50 % practical education (work) with the employer.

SPAIN

- Productivity is increasing slowly due to low innovation capacity and **investment in knowledge and skills**. Spain's **tertiary education** attainment rate exceeds the EU average and differs strongly by **gender**. Furthermore, the gap between Spanish-born and **non-EU-born students** is large. While sizeable gaps remain concerning the employment rate and **early school leaving**, they were again substantially reduced. By contrast, there was little progress towards the targets for R&D investment.
- **Early school leaving** keeps improving but, together with a high risk of poverty among children, weighs on **equality of opportunities**. **Educational outcomes** continue to vary considerably across regions. Limited progress has been made in addressing **regional disparities** in educational outcomes, in particular by strengthening **teacher training** and **support for individual students** (CSR 2017).

- **Spending on education** increased over the last decade but remains below the EU average, at 4.3 % of GDP in 2015. The 2017 budget law envisaged additional funding for the education system and an **increased replacement rate of retired teachers**.
- Enrolment in **vocational education and training (VET)** has decreased slightly. In 2017 EUR 392 million was allocated by the Ministry of Education to regional measures for new initial vocational education and training (VET) programmes.
- Reforms in **teachers' professional development** and **career opportunities** are not envisaged before conclusion of the National Pact on Education. The initial practical training of teachers and the pathway to the teacher profession are planned to be reformed. **Teachers' unions consider that budget cuts during the crisis have deteriorated their working conditions (increase of teaching hours, fewer opportunities for lifelong learning courses and tightened requirements for leaves)**. The high share of interim contracts affects the career perspectives of many teachers.
- A high share of **teachers is recruited on temporary contracts**.
- Some steps have been taken to improve the **teaching of digital skills**. October 2017, the government adopted the latest Spanish Digital Competence Framework for Teachers to improve teaching skills in ICT and has designed a Digital Competence Portfolio for teachers to register and improve their digital competences through continuous self-assessment.
- Several challenges in **higher education** remain unsolved. In December 2016 the government adopted a strategy for higher education, which envisages the **modernization of the governance structures**, including further **autonomy** to assess their performance and institutional capacity. Besides, plans are to address the in-job training challenges and **reinforce cooperation with the private sector**. **University-business cooperation** on education has improved, but barriers remain. stakeholders identify a **lack of funding**, limited capacity of SMEs to take in interns or researchers, and excessive bureaucracy.

SWEDEN

- Europe 2020 strategy, indicators where Sweden continues to perform well are the rate of early school leaving, tertiary education attainment. Area where progress remains relatively weak is R&D targets. Finally, there remains scope for closer **cooperation between academia and businesses**.
- As job creation is concentrated in high-skilled occupations, **investment in higher education and training is crucial** to reduce the gap between labour supply and demand. [...] education and training opportunities play a key part in maintaining appropriate skill levels.
- The **insufficient supply of ICT graduates** could become a bottleneck for the economy. The number of new tertiary graduates in computing per thousand and aged 25-34 remains below the EU average.

- A major challenge for the labour market now is the **integration of people with a migrant background**, including those with relatively low levels of education and skills. **Integrating the newly arrived pupils into the school system** remains a priority for the government.
- The **educational performance gap** between different social groups is large and widening. In OECD PISA results for 2015, the impact of students' **socioeconomic background** on their performance in science at age 15 is around the OECD average. Despite recent measures, the education system does not appear to promote **quality education for all**. The **integration of newly arrived migrant pupils** warrants close monitoring, as does the **growing shortage of teachers**.
- The **distribution of school resources** does not guarantee **equal learning opportunities**. There is a strong relationship between performance and the types of school that students attend. The share of schools where more than 20 % of students do not obtain the necessary grades to qualify for an upper secondary 'national programme' is on the rise.
- The adequate provision of education could be hampered by a **growing teacher shortage**. The government has started to improve **financial incentives for teachers**, so far with mixed results. A **career development reform** was launched in 2013 and since the start of the 2016-2017 academic year, one in three school teachers has benefited from the government's 'Boost for Teacher Salaries' initiative. The National Audit Office found that **although these two reforms increased teachers' salaries, they also created divisions between teachers**. Therefore, to make the system clearer and more legitimate, the auditors have called for a common set of criteria to assess **teachers' qualifications**. The 2018 budget bill continues to allocate a grant financing for 'early intervention'. Since over 4 000 additional teachers have already been employed and class sizes are already below the EU average, **increasing teaching hours** could be more cost efficient way forward.

UNITED KINGDOM

- Many **new skills initiatives** are targeting the flow of new entrants to the labour market, but a large share of the current work force is either low-skilled or in jobs not matching their qualifications. **Apprenticeship reform** is underway but more focused on **quantity targets rather than quality**. Other **upskilling** and **reskilling opportunities** require strengthening. The National Retraining Scheme to reskill and upskill those who already have completed fulltime education, including those in work, could improve their future prospects but is yet to be implemented.
- There are **disparities in educational outcomes** across the UK. Students in **England** and **Northern Ireland** score above the OECD average, whereas students in **Scotland** are around the average and students in **Wales** below it. Nevertheless, analysis shows that the gap in England and Scotland between top performers from an **economically disadvantaged background** and their 'well off' peers was equivalent to more than 2 years of schooling on average.
- A revised National Funding Formula in England alters the **distribution of school funding** (DfE, 2017). The intention is to move from allocations at local authority level to a system providing

more evenly distributed funding per pupil across all schools. A House of Commons Select Committee is, however, very critical of the **funding reforms**, challenging the government’s expectation of major efficiency savings.

- Supply and **retention of teachers is a serious constraint** on the UK education system. The **shortage of teachers** is a continuing challenge for the education sector, particularly in certain subjects and regions. In England, a total of 30 000 new teachers per year are needed to maintain supply, but this target has not been achieved for the last 4 years. GBP 75 million (EUR 86 million) over 3 years was made available through the **Teaching and Leadership Innovation Fund**. However, in England, an investigation by the National Audit Office (NAO) concluded that “the Department for Education cannot demonstrate that its efforts to improve teacher retention and quality are having a positive impact and are value for money”.
- **Inclusion and widening participation in higher education** remains a political priority across the UK. Although young people from disadvantaged backgrounds are now 60 % more likely to participate in higher education than in 2006, there remain challenges to achieving equitable participation and the gap remains large.

Table 1 CSEE-ETUCE own elaboration, March 2018

4. Assessment of progress towards the Europe 2020 Strategy targets on education and training and the Social Scoreboard of the EPSR

Theme	Satisfactory levels/ Reached target/ EU average or above	Improving/ On track to reach target/ Substantial progress	Need to improve/ No or limited progress/ Below EU average/ Challenge/deterioration	EPSR Social Scoreboard
Quality of education				
Provision of quality education	BE	AT, IT	BG, HR, RO	
Basic skills attainment	BE, EE, SI	AT	HU, LU, MT, RO, SK	
Early school leaving	BE, AT, HR, CY, DE, IE, LV, LT, NL, SE	FR, PL, SI, ES	BG, CZ, EE, HU, MT, PL, RO, SK	X
Education outcomes	DK, EE, FI, DE, IE, NL	PT	BG, CY, SK	
Education reforms	FR, IT	BE, AT, CY, CZ, FI, SK	HR	

Underachievement in education			CY, LU, NL, RO	X
Investment in education				
Investment in education (including ESF)	CY, DK, LU, MT	CZ, IE, ES, UK	FI, DE, IE, SK, SI	X
Investment in lifelong learning and Vocational Education and Training (including ESF)		ES	DK, DE,	
Public/ Private investment in R&D/ R&D intensity	CY	BE, AT, DE	BG, HR, HU, IE, LV, LT, NL, PL, PT, RO, SK, SI, ES, SE	
Underfinancing of higher education and research		MT	CZ, FI, ES	
Quality of Higher Education and Research				
Attractiveness of research careers			EE	
Consolidation of research institutions		LT		
Higher education quality of learning outcomes			HU, LT, PL, SK	
Policy measures supporting research and innovation			ES	
Proportion of graduates in fields most related to innovation	MT		NL, SE	
Quality of science and innovation' outputs			CZ	
Tertiary education attainment	CY, EE, FI, HU, IE, LV, LU, NL, RO, ES, SE	BE, AT, BG, DE, PL, SK, SI	HR, IT, MT, PT	X
Private/public developments in higher education				
Commercialisation of University research outputs		CY		
Cooperation between businesses and University		PL, ES, EE	LT, SE	
Research and Development (R&D)				
Promotion of private investment in R&D		EE	LT, LU	
Inclusive education				

Inclusiveness in compulsory education			HR, CZ, HU, RO, SK	
Participation of disadvantaged groups (including people with disabilities) or minorities in mainstream education		IE	BE, BG, HU, MT, SK	
Participation of disadvantaged groups (including people with disabilities) or minorities in higher education		UK		
Regional differences in educational outcomes and resources		IE	FR, IT, LV, RO, SK, ES, UK	
School type differences in quality and resources			HU, IE, LV, MT, NL, RO, SE	
Refugees and migrants' integration in education		BE	FI, DE, SE	
Early childhood care	BE, AT, LU		HR, PL	X
Early childhood education		IE	LT	
Educational outcomes of children from disadvantaged groups including people with disabilities		NL	BE ,AT, EE, IE, LU	
Variation in performance explained by students' socio-economic status		BE, AT	BG, CY, CZ, FR, HU, LU, MT, PT, SK, SI, SE, UK	X
Performance gap between non-immigrants and first or second generation immigrants	IE ³ , PT		BE, AT, DK, FR, DE, NL, ES	
Quality of education for disadvantaged groups including people with disabilities	SK		BE	

³ * IE: In tertiary attainment migrant students have a higher attainment than native-born students. Nevertheless, some basic skills gaps persist for disadvantaged groups, such as pupils from an immigrant background or the children of travelers.

Gender gap in basic skills	DK	SI	FI	
Gender gap in STEM			AT, BE	
Gender gap in tertiary education attainment			IE, ES	
Upskilling possibilities				
Attractiveness of Vocational education and Training		FI, LT, PT	IE	
Work-based learning	MT	CZ, EE, LV	LT, UK,	
Dropout in Vocational Education and Training			EE, LU	
Participation in adult learning and apprenticeships	NL	CY, EE, IT, MT	BE, BG, HR, DE, HU, PL, RO, SK	X
Participation of low-skilled in adult learning			IT, LT, MT, RO, HR LU	
Participation in Lifelong learning			BE, LT, SK	
Participation in Vocational Education and Training	LU	SK	CY, DE, IE, LV, ES	
Vocational Education and Training system quality		LV, SK	HR	
Labour market relevance of education				
Digital skills of the labour force	BE, AT	CY, LV, ES	BG, HR, IE, IT, PT	X
Employability of University graduates			ES	
Labour market relevance of tertiary education			CY	
Labour market relevance/employment rate of Vocational education and Training	CY, DE, HU, MT	IE	BG, HR, FR, LU	
Skills mismatches/shortages		CZ, FI	BE, CY, EE, IE, LT, MT	
The teaching profession				
Continuous professional development	LU	BE, CZ	HR, SK	
Attractiveness of teaching profession		CY, LT	CZ, EE, LV	

Salaries		CZ, EE, HU, LV SE	
Teacher shortages		DE	BE, CZ, LT, SE, UK
Initial teacher education quality			BG, LT, RO

5. Social Scoreboard indicators

Country	Early leavers from education and training 2016 (2017)	Adult participation in learning % of age group 25-64 2016 (2017)	Underachievement in education 2016 (2017)	Tertiary educational attainment, % of age group 30-34 2016 (2017)	Variation in performance explained by students' socio-economic status 2016 (2017)	General government expenditure in education 2016 (2017)	Children aged less than 3 years in formal childcare 2016 (2017)	Digital skills (% of individuals with basic or above basic overall digital skills) 2016 (2017)
BG	13.4 (13.8)	2.0 (2.2)	/	33.8 (/)	16.4 (/)	3.4 (/)	8.9 (12.5)	26.0 (29.0)
HR	2.8 (/)	3.0 (/)	/	29.3 (/)	12.1 (/)	4.8 (/)	15.7 (/)	55.0 (41.0)
CY	7.6 (/)	6.9 (/)	/	53.4 (/)	/ (9.5)	6.0 (/)	24.8 (/)	43.0 (50.0)
CZ	6.6 (/)	8.8 (/)	/	32.8 (/)	/	4.5 (/)	4.7 (/)	54.0 (60.0)
EE	10.9 (/)	15.7 (/)	/	45.5 (/)	/	5.9 (/)	21.4 (30.2)	60.0 (60.0)
HU	12.4 (/)	6.3 (/)	/	33.0 (/)	/	4.9 (/)	15.6 (/)	51.0 (50.0)
IE	6.3 (/)	6.4 (/)	/	52.9 (/)	12.7 (/)	/	28.6 (/)	44.0 (48.0)
IT	13.8 (/)	8.3 (/)	/	26.2 (/)	9.6 (/)	3.9 (/)	34.4 (/)	44.0 (/)
LT	4.8 (/)	6.0 (/)	/	58.7 (/)	/	/	15.2 (/)	52.0 (55.0)
MT	19.7 (/)	7.5 (/)	/	29.9 (/)	/	5.4 (/)	31.3 (/)	49.0 (56.0)
PL	5.2 (/)	3.7 (/)	/	44.6 (/)	/	5.0 (/)	7.9 (/)	44.0 (46.0)
PT	14.0 (/)	9.6 (/)	/	34.6 (/)	/	/	49.9 (/)	48.0 (/)

Country	Early leavers from education and training 2016 (2017)	Adult participation in learning % of age group 25-64 2016 (2017)	Underachievement in education 2016 (2017)	Tertiary educational attainment, % of age group 30-34 2016 (2017)	Variation in performance explained by students' socio-economic status 2016 (2017)	General government expenditure in education 2016 (2017)	Children aged less than 3 years in formal childcare 2016 (2017)	Digital skills (% of individuals with basic or above basic overall digital skills) 2016 (2017)
RO	18.5 (/)	1.2 (/)	/	25.6 (/)	/	3.7 (/)	17.4 (/)	28.0 (29.0)
SK	7.4 (/)	2.9 (/)	/	31.5 (/)	/	3.8 (/)	0.5 (/)	55.0 (59.0)
ES	20.0 (19.0)	9.4 (/)	/	40.1 (/)	13.4 (/)	/	39.3 (/)	53.0 (55.0)
BE	8.8 (/)	7.0 (/)	/	45.5 (/)	/	/	43.8	61.0 (61.0)
DK	7.2 (/)	8.8 (/)	/	32.8 (/)	/	6.9 (/)		70.0 (/)
DE	10.3 (/)	8.5 (/)	/	33.2 (/)	/	/	32.6 (/)	68.0 (/)
FR	8.8 (/)	18.8 (/)	/	43.6 (/)	/	5.4 (/)	48.9 (/)	/
LV	10.0 (/)	7.3 (/)	/	42.8 (/)	/	/	/	50.0 (48.0)
LU	5.5 (/)	16.8 (/)	/	54.6 (/)	/	4.8 (/)	50.9 /	86.0 (85.0)
NL	8.0 (/)	18.8 (/)	/	45.7 (/)	/	5.3 (/)	53.0 (/)	79.0 (/)
AT	6.9 (/)	14.9 (/)	/	40.1 (/)	/	4.9 (/)	20.6 (/)	65.0 (67.0)
SI	4.9 (/)	11.6 (/)	/	44.2 (/)	/	5.6 (/)	39.6 (/)	53.0 (54.0)
FI	7.9 (/)	26.4 (/)	/	46.1 (/)	/	/	32.7 (/)	76.0 (/)
SE	7.4 (/)	29.6 (/)	/	51.0	/	6.6 (/)	51.0 (/)	69.0 (77.0)
UK	11.2 (/)	14.4 (/)	/	48.2 (/)	/	/	28.4 (/)	69.0 (71.0)