

## Chapter 7.

### Education and competencies in South East Europe

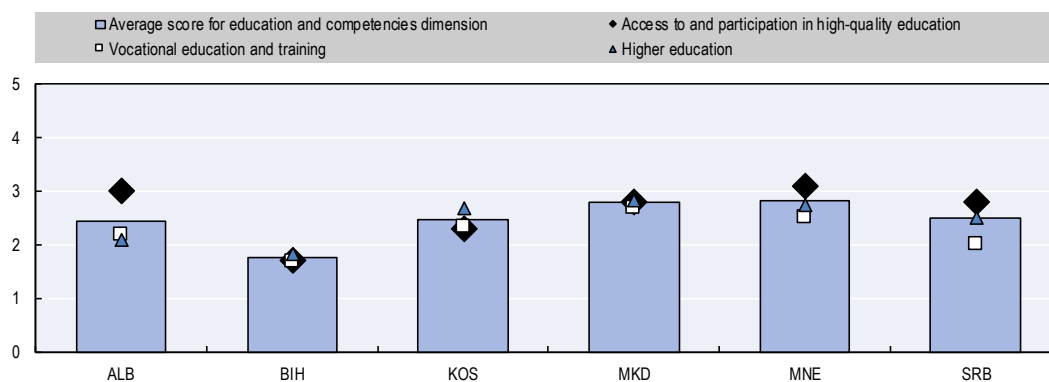
*This chapter on education and competencies assesses the policy settings, strategies, processes and institutions in six South East European economies. After a brief overview of education and competencies performance in South East Europe (SEE), including educational attainment, achievement in the Programme for International Student Assessment (PISA) and spending on education, the chapter then focuses on three essential sub-dimensions. The first sub-dimension, access to and participation in high-quality education, examines how early childhood education participation, teacher quality and equity in education shape education outcomes, and the extent to which SEE economies' policies improve equity, participation and the quality of education. The second, vocational education and training, analyses how the SEE economies are developing continuing education and training, fostering work-based learning and assuring the quality of vocational education and training. The third sub-dimension, higher education, assesses the implementation of national qualification frameworks, quality assurance, work-based learning (internship) and efforts to widen participation, as well as the development of career services and links with the private sector. The chapter includes suggestions for policy enhancements in each of these sub-dimensions in order to improve performance in education and competencies and to foster greater labour productivity, a long-term driver of competitiveness.*

## Main findings

A well-educated and competent workforce is central to competitiveness. In a global economy that is increasingly dependent on knowledge and skills, investment in education and competencies is critical to increase human capital and thus improve labour productivity, which is a long-term driver of economic competitiveness. Moreover, an educated and competent workforce is an important factor in attracting investment, integrating economies into global value chains and enabling the development of high-value added products and services.

On average, the six South East Europe (SEE) economies – Albania, Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, Kosovo,\* Montenegro and Serbia – achieve a score of 2.5 for the education and competencies dimension (Figure 7.1). This score signifies that they have adopted strategies to address the issues which are assessed through the 14 qualitative indicators of this dimension (see Figure 7.2 below). However, a score of below 3 indicates that policy implementation has not always followed suit and that policy monitoring and re-adjustment need to be further improved. Across all three sub-dimensions, the SEE economies are stronger in access to and participation in high-quality education, and higher education, than they are in vocational education and training.

Figure 7.1. Education and competencies: Dimension and sub-dimension average scores



Note: See the methodology chapter for information on the *Competitiveness Outlook* assessment and scoring process.

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### Comparison with the 2016 assessment

No direct comparison with the 2016 *Competitiveness Outlook* assessment can be made, because the scope of the education and competencies dimension assessment framework has been changed from five to three sub-dimensions to provide a more in-depth assessment of education policies. The entrepreneurial learning sub-dimension of the *Competitiveness Outlook 2016* is also partially addressed in Chapter 8 (Employment). Nonetheless, the majority of the 2016 assessment's qualitative indicators were kept and redistributed across the three remaining sub-dimensions. Overall, the SEE economies

\* This designation is without prejudice to positions on status, and is in line with United Nations Security Council Resolution 1244/99 and the Advisory Opinion of the International Court of Justice on Kosovo's declaration of independence.

have made progress across the majority of these qualitative indicators. Quantitative findings have also confirmed this trend.

### *Achievements*

**All six reviewed SEE economies have recently adopted (or are about to adopt) updated national strategies to improve the quality of education and increase the competencies of the labour force.** These new strategies are based on an assessment of the impact of previous strategies. These updated national strategies seek to improve the overall standard of education and/or address specific aspects of education, such as equity, vocational education and training (VET), and adult education.

**All the economies have made progress in implementing their national qualifications frameworks** and aligning them with the European Qualifications Framework (EQF). Over the period of this assessment, this has particularly been the case for the Former Yugoslav Republic of Macedonia and Kosovo.

**The economies have made efforts to draw up policy frameworks that support equity in education.** All six economies have recognised the importance of ensuring equitable access to, and participation in, education.

### *Remaining challenges and key recommendations*

- **Increase expenditure on primary and secondary education;** the latter is considerably lower than in economies such as the Czech Republic, Poland and Slovenia, as well as OECD and EU-22<sup>1</sup> averages. The latest 2015 Programme for International Student Assessment (PISA) results for the participating SEE economies are well below those for peers from Central and Eastern Europe and the OECD average. One factor that explains this is the high percentage of secondary students who do not reach the baseline level of skills required for full socio-economic participation (PISA proficiency Level 2). Prioritising spending on primary and secondary education could help to ensure that all students reach this level.
- **Stimulate participation in early childhood education (ECE), for example by improving ECE provision and affordability.** Only 36.8% of children were enrolled in ECE on average in 2015, 58 percentage points below the EU average.
- **Invest more in increasing the attractiveness of the teaching profession and the participation of teachers in professional development programmes.** Teacher quality is one of the in-school factors that most determines students' learning outcomes. Yet the best candidates are not choosing the teaching profession and teachers in the SEE economies participate less often in professional development programmes than their peers in OECD countries.
- **Promote and strengthen work-based learning schemes like apprenticeships or internships.** PISA data show that vocational education is attracting disadvantaged students who have fallen behind at school. Increasing the share of students in work-based (in-company) learning remains a challenge. Co-operation between VET providers and higher education institutions, as well as businesses and social partners, needs to be reinforced.
- **Make efforts to reduce skills mismatches,** for example by fostering career guidance to direct students towards science, technology, engineering and mathematics (STEM) subjects, which have greater prospects for stimulating innovation. The

economies have an over-supply of graduates from the fields of business, administration and law, and an under-supply of STEM graduates.

## Context

Education can be understood as a process that allows individuals to acquire the knowledge and skills required to perform specific tasks and to engage in a professional environment (UIC/OECD/EUROSTAT, 2002; UN, 2008). Competencies are broadly defined as “innate abilities ...attitudes, skills and knowledge, applied to a certain context” (van der Klink and Boon, 2002: 4). As such, competencies can be considered as bridging the divide between education and employment. While competencies are normally acquired within educational institutions and programmes, they are also a result of an individual’s work experience (e.g. tacit knowledge, and manual and technical skills).

To improve education and competencies is to build knowledge and skills for society as a whole. Theories of economic growth have pointed to education and human capital as key determinants of long-term growth, and several growth analyses models have suggested that relatively small improvements in the skills of an economy’s labour force can have large impacts on future well-being (OECD, 2010a). For example, an OECD modelling exercise found that an increase in PISA scores in OECD countries by 25 points between 2010 and 2030 would increase the gross domestic product (GDP) of those countries by USD 115 trillion over the lifetime of the generation born in 2010 (OECD, 2010a).

This chapter looks at a broad range of strategies, action plans, laws, measures and institutions that influence educational attainment and the acquisition of competencies in SEE. Education and competencies are also closely related to other policy areas addressed in this publication, in particular:

- **Chapter 1. Investment policy and promotion** seeks to foster domestic and foreign direct investment (FDI), which depends on a skilled local workforce.
- **Chapter 2. Trade policy and facilitation** aims to better integrate economies with dynamic global value chains, which generates both opportunities and risks for education systems.
- **Chapter 8. Employment** policy is tailored to the quality of the labour force, which is largely determined by the education system and training programmes. Employment rates are very closely related to education levels and unemployment predominantly affects the poorly educated. Higher levels of educational attainment and skills, by contrast, bring substantial returns, such as higher employment rates and relative earnings (OECD, 2017a).
- **Chapter 9. Science, technology and innovation** are decisive factors for improving the allocation of scarce resources and for identifying new solutions to social and economic challenges. Science, technology and innovation rely on high-quality professionals to act as scientists, technicians and innovators.

### *Education and competencies assessment framework*

This chapter analyses education and competencies in the SEE region by assessing three broad sub-dimensions:

1. Access to and participation in high-quality education: how do early childhood education participation, teacher attraction, professional development, and equity in education shape education outcomes? How, and to what extent, do SEE economies' policies improve equity, participation and the quality of education?
2. Vocational education and training: to what extent do SEE economies foster work-based learning schemes and quality assurance in VET and make it an attractive and demanding option? How advanced is the development and implementation of continuing education and training in SEE?
3. Higher education: to what extent have national qualification frameworks (NQFs) been implemented? How effectively do higher education (HE) quality assurance agencies work? To what extent have SEE economies implemented work-based learning (internship) schemes? How do SEE economies seek to widen participation in higher education? To what extent have SEE economies implemented policies to strengthen career orientation services and linkages between higher education institutions and businesses?

Figure 7.2 shows how the three sub-dimensions and their constituent indicators make up the education and competencies assessment framework. Each sub-dimension is assessed through quantitative and qualitative indicators, with quantitative data based on national and international statistics. Information on the qualitative indicators was collected by the OECD through a questionnaire addressed to government officials in the relevant ministries and agencies. The performance of SEE economies has been scored in ascending order on a scale of 0 to 5, summarised in Annex 7.A1.<sup>2</sup> For more details on the methodology underpinning this assessment, please refer to the methodology chapter.

### ***Education and competencies performance in SEE economies***

A high standard of education and competencies can have many benefits for an economy and society. The levels of higher education and skills in an economy's labour force are important for its ability to innovate, maximise productivity and move up the value chain.

The economic growth in a country or sector can be ascribed either to increased employment or to more efficient work, i.e. labour productivity. Labour productivity, in other words, is a key measure of economic performance and competitiveness. Figure 7.3 shows that labour productivity, as measured by GDP per person employed, was lower in the SEE economies than the EU or OECD average between 2012 and 2016. On average,<sup>3</sup> the SEE economies' GDP per person employed was only 43% of the OECD average in 2016. However, while labour productivity grew by 3.2% in OECD countries during 2012-16, it increased by an average of 6.9% in the SEE economies over the same period. Albania, Montenegro, and Bosnia and Herzegovina saw the strongest increases, of 14.5%, 12.2% and 8.4% respectively. Labour productivity growth in the Former Yugoslav Republic of Macedonia was similar to the OECD (3.2%) and EU (3.5%) averages, increasing by 4%, while labour productivity fell by 5.2% in Serbia. This drop is the result of an increase in Serbia's employment rate of 7 percentage points between 2012 and 2015 (see Chapter 8, Figure 8.3) which surpassed its GDP growth. However, Arsić and Anić (2017) point out that this fall in labour productivity was in reality smaller; when figures from the Central Registry of Compulsory Social Insurance are used instead of Serbia's Labour Force Survey data, then the increase in the employment rate seems to be less pronounced.

Figure 7.2. Education and competencies assessment framework

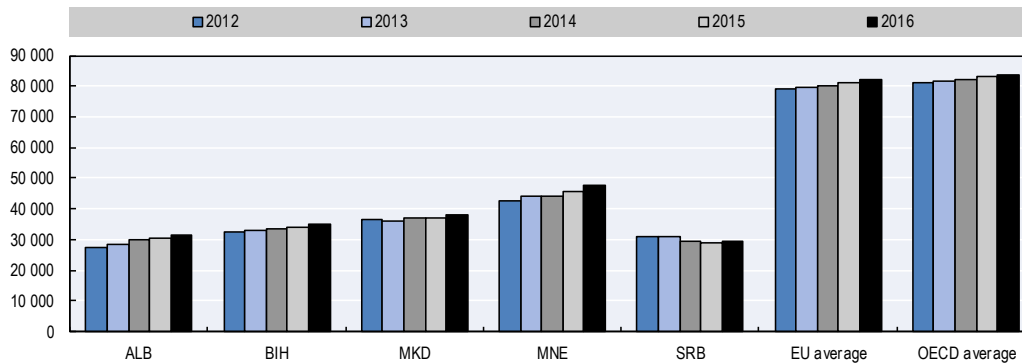
Education and competencies dimension		
<b>Outcome indicators</b> <ul style="list-style-type: none"> <li>• GDP per person employed</li> <li>• Highest educational attainment by gender</li> <li>• Mean scores in science, reading and mathematics (PISA 2015)</li> <li>• Share of low achievers in science, reading and mathematics (PISA 2015)</li> <li>• Public expenditure on education (as share of GDP), by level of education</li> </ul>		
<b>Sub-dimension 1</b> Access to and participation in high-quality education	<b>Sub-dimension 2</b> Vocational education and training	<b>Sub-dimension 3</b> Higher education
<b>Qualitative indicators</b> <ol style="list-style-type: none"> <li>1. Early childhood education</li> <li>2. Teacher recruitment</li> <li>3. Professional development of teachers</li> <li>4. Equitable access to compulsory education</li> <li>5. Strategies to prevent early school leaving</li> </ol>	<b>Qualitative indicators</b> <ol style="list-style-type: none"> <li>6. Work-based learning (apprenticeships)</li> <li>7. Quality assurance agency in VET</li> <li>8. Continuing education and training</li> </ol>	<b>Qualitative indicators</b> <ol style="list-style-type: none"> <li>9. Implementation of national qualifications framework</li> <li>10. Quality assurance agency in higher education</li> <li>11. Work-based learning (internships)</li> <li>12. Career orientation services</li> <li>13. Policy approach to improve equity in access to higher education</li> <li>14. Higher education and entrepreneurship</li> </ol>
<b>Quantitative Indicators</b> <ol style="list-style-type: none"> <li>1. Participation rate in early childhood education</li> <li>2. Shortage of teaching staff (PISA 2015)</li> <li>3. Minimum/maximum monthly teacher salary</li> <li>4. Participation in professional development activities (PISA 2015)</li> <li>5. Percentage of variance in student performance in science explained by PISA index of economic, social and cultural status (PISA 2015)</li> <li>6. Percentage of resilient students among disadvantaged students (PISA 2015)</li> <li>7. Early leavers from education and training, by gender</li> </ol>	<b>Quantitative Indicators</b> <ol style="list-style-type: none"> <li>8. Enrolment in pre-vocational or vocational education (PISA 2015)</li> <li>9. Enrolment in pre-vocational or vocational education by school socio-economic profile (PISA 2015)</li> <li>10. Enrolment in a pre-vocational or vocational programme and science performance (PISA 2015)</li> <li>11. Adult participation in learning</li> </ol>	<b>Quantitative Indicators</b> <ol style="list-style-type: none"> <li>12. Employment rate of higher education graduates compared to the whole labour force</li> </ol>

Educational attainment is frequently used as a measure of human capital and thus as a proxy for the skills available in the labour force. Figure 7.4 shows levels of educational attainment in the working-age population (aged 15 years and over) by gender. The share of tertiary-educated individuals in SEE is on average almost 10 percentage points below the EU average, while the share of the population educated only up to primary and lower secondary level is, on average, larger in the SEE economies (37.9%) than in the EU (29.7%). The proportion of women who are only educated up to this level is particularly high in the SEE economies, averaging 42.8% of the population, almost 10 percentage points above the share of men in this group. Kosovo has the largest gender gap between

women and men for this measure, with the share of women who did not attain upper secondary education 23.4 percentage points higher than that of men.

Figure 7.3. **GDP per person employed**

Constant 2011 PPP USD



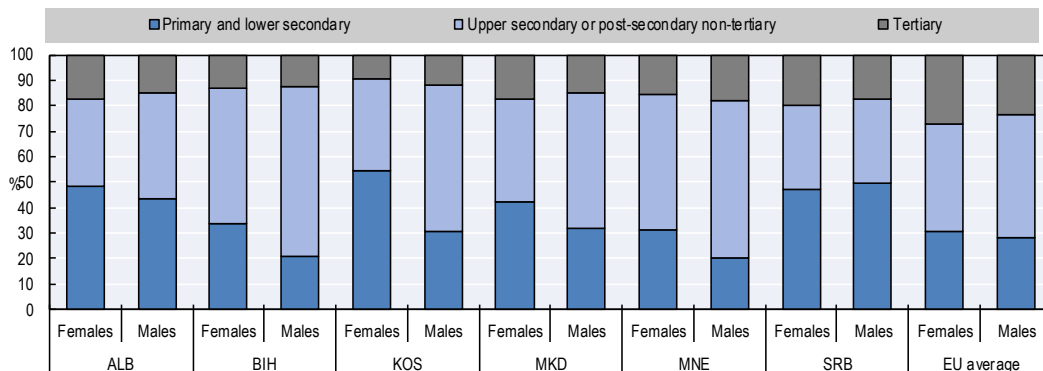
Note: Data for Kosovo are not available; PPP – purchasing power parity.

Source: ILO (2017), *ILOSTAT* (database), [www.ilo.org/ilostat](http://www.ilo.org/ilostat).

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Figure 7.4. **Highest educational attainment by gender (2015)**

% of working-age population 15 years old and over



Note: Level of education refers to the highest level completed, classified according to the 2011 International Standard Classification of Education (ISCED). Primary and lower secondary education refers to ISCED levels 1-2; upper secondary or post-secondary non-tertiary education to ISCED levels 3-4; and tertiary education to ISCED levels 5-8. Data for Bosnia and Herzegovina are for 2014. Data for Montenegro are for 2012. EU-28 average calculated as a simple average by the author.

Source: Adapted from ILO (2017), *ILOSTAT* (database), [www.ilo.org/ilostat](http://www.ilo.org/ilostat).

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Higher levels of educational attainment are generally associated with positive social and economic outcomes for individuals, such as better health, higher employment rates, higher relative earnings and greater social engagement (OECD, 2017a). However, one should keep in mind that the link between educational attainment and actual proficiency is complex and that education systems differ in certain characteristics, such as their selectivity and content of curricula, particularly at higher levels of education (OECD,

2016a). Data from the OECD Programme for the International Assessment of Adult Competencies (PIAAC) show that adults educated up to upper secondary education in one country can have higher levels of proficiency than those who completed tertiary education in another (OECD, 2016a).

Four of the SEE economies (Albania, the Former Yugoslav Republic of Macedonia, Kosovo and Montenegro) participated in the 2015 Programme for International Student Assessment (PISA). Serbia did not participate in the 2015 assessment, but did take part in 2012. The PISA results are helpful for assessing and comparing the outcomes of education policies (Box 7.1). For this reason, the expected participation of all six economies in the 2018 PISA assessment will be an important step forward for informing education policy making in the future.

The 2015 PISA results found that all the participating SEE economies have room to improve the quality of their science, reading and mathematics education. They scored well below the EU and OECD averages and those of selected OECD peers from Central and Eastern Europe (Figure 7.5)

### Box 7.1. Programme for International Student Assessment

The Programme for International Student Assessment (PISA) is a triennial survey that assesses the extent to which 15-year-old students near the end of compulsory education have acquired key knowledge and skills that are essential for full participation in modern societies. The assessment does not just ascertain whether students can reproduce knowledge; it also examines how well they can extrapolate from what they have learned and apply that knowledge in unfamiliar settings, both inside and outside school.

#### Key features of PISA 2015:

- The PISA 2015 survey focused on science, with reading, mathematics and collaborative problem solving as minor areas of assessment. For the first time, PISA 2015 delivered the assessment of all subjects via computer. Paper-based assessments were provided for countries that chose not to test their students by computer, but the paper-based assessment was limited to science, reading and mathematics.

#### The students:

- Around 540 000 students completed the assessment in 2015, representing about 29 million 15-year-olds in 72 participating countries and economies.

#### The assessment:

- Computer-based tests were used, with assessments lasting a total of two hours for each student.
- Test items were a mixture of multiple-choice questions and questions requiring students to construct their own responses. The items were organised in groups, based on a passage setting out a real-life situation. About 810 minutes of test items were covered, with different students taking different combinations of test items.
- The PISA assessment has established a reporting scale of proficiency levels in the different domains, which are limited by score point thresholds. Proficiency Level 2 is constructed as the baseline level and indicates the proficiency all students should be expected to achieve by the time they leave compulsory education.

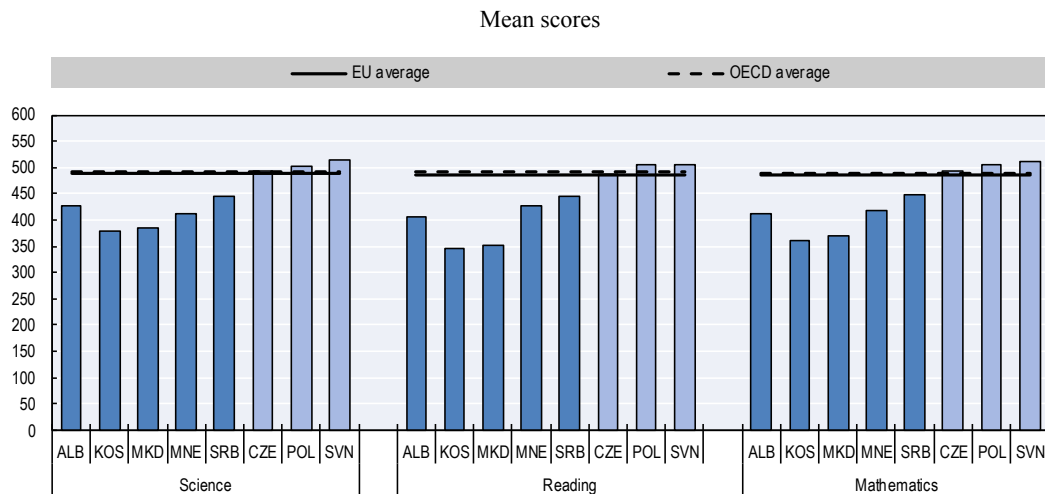


### Box 7.1. Programme for International Student Assessment (continued)

- Students also answered a background questionnaire, which took 35 minutes to complete. The questionnaire sought information about the students themselves, their homes, and their school and learning experiences. School principals completed a questionnaire that covered the school system and the learning environment. For additional information, some countries/economies decided to distribute a questionnaire to teachers. It was the first time that this optional teacher questionnaire was offered to PISA-participating countries/economies. In some countries/economies, optional questionnaires were distributed to parents, who were asked to provide information on their perceptions of and involvement in their child’s school, their support for learning in the home, and their child’s career expectations, particularly in science. Countries could choose two other optional questionnaires for students: one asked students about their familiarity with and use of information and communications technology (ICT); and the second sought information about students’ education to date, including any interruptions in their schooling, and whether and how they are preparing for a future career.

Source: OECD (2017b), “What is PISA?”, <http://dx.doi.org/10.1787/9789264281820-2-en>.

Figure 7.5. PISA 2015 performance in science, reading and mathematics



Note: Results for Serbia are from 2012. Data for Bosnia and Herzegovina are not available. CZE – Czech Republic; POL – Poland; SVN – Slovenia.

Source: OECD (2016b), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, <http://dx.doi.org/10.1787/978926426649>; OECD (2014a), *PISA 2012 Results: What Students Know and Can Do (Volume I, Revised edition, February 2014): Student Performance in Mathematics, Reading and Science*, <http://dx.doi.org/10.1787/9789264208780-en>.

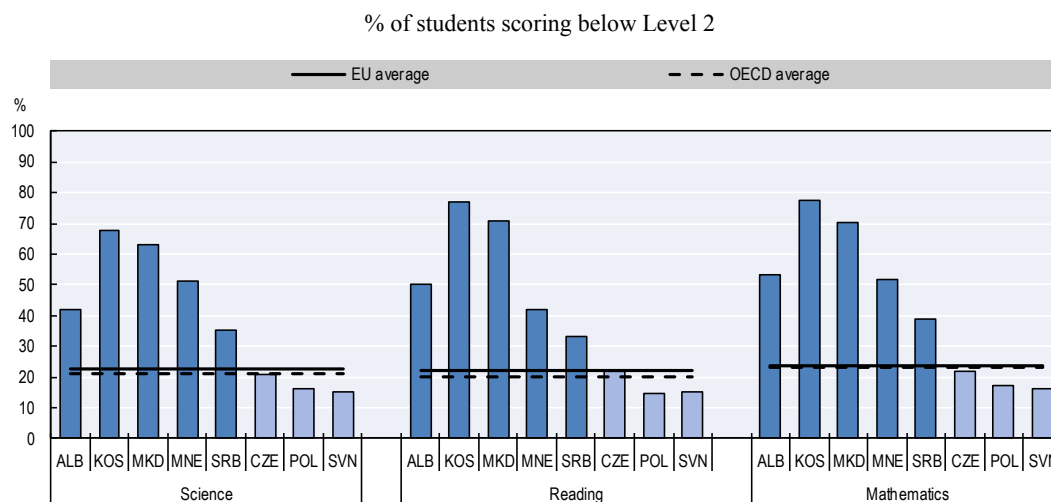
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Albania and Montenegro have seen positive developments since previous PISA assessments. In science, Albania’s mean performance improved by 37 score points between 2009 and 2015, the third largest improvement among the 59 education systems with comparable data. The improvement is even more remarkable given that the share of 15-year-olds in Albania who are covered by the PISA sample increased from 61% to 84%. Albania’s and Montenegro’s mean performance in reading has improved about

20 score points since 2009, among the largest improvements across the education systems with comparable data. In mathematics, Albania's mean performance has improved 36 score points since 2009, the largest improvement among the 57 education systems with comparable data, while Montenegro's average performance has improved by 19 score points since 2006.

The PISA assessment has established a scale of proficiency levels for the different domains. For example, in science, Level 2 – the baseline level – means students can draw on their knowledge of basic content and procedures to identify an appropriate explanation, interpret data, and identify the question being addressed in a simple experiment. All students should be expected to attain Level 2 by the time they leave compulsory education. Figure 7.6 shows the percentage of low achievers in the assessed economies, i.e. the percentage of students scoring below Level 2.

Figure 7.6. **PISA 2015 low achievers in science, reading and mathematics**



Note: Results for Serbia are from 2012. Data for Bosnia and Herzegovina are not available. CZE – Czech Republic; POL – Poland; SVN – Slovenia.

Source: OECD (2016b), *PISA 2015 Results (Volume I): Excellence and Equity in Education*, <http://dx.doi.org/10.1787/978926426649>; OECD (2014a), *PISA 2012 Results: What Students Know and Can Do (Volume I, Revised edition, February 2014): Student Performance in Mathematics, Reading and Science*, <http://dx.doi.org/10.1787/9789264208780-en>.

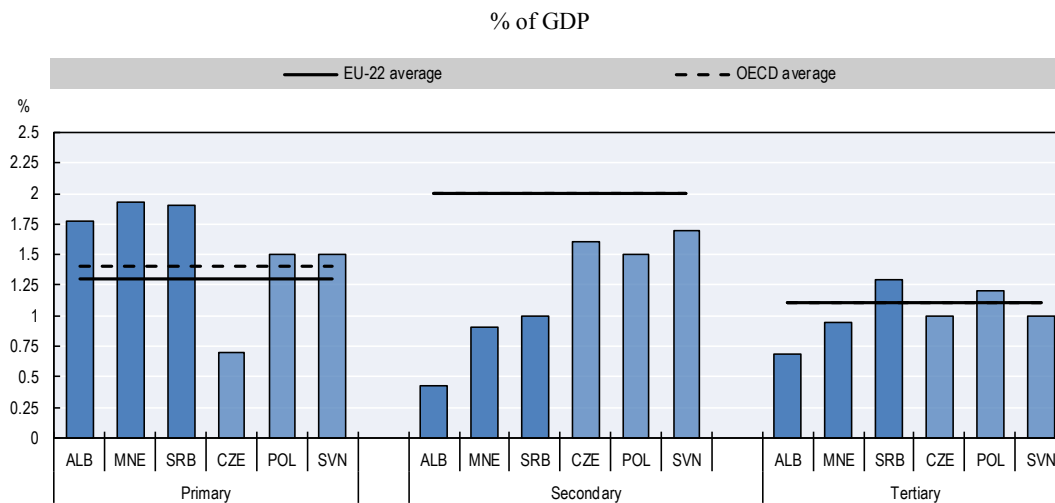
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Among the participating SEE economies, in 2015 at least 40% of students were low achievers in science, ranging from 42% in Albania to 68% in Kosovo (Figure 7.6). Low achievers in reading range from 42% in Montenegro to 77% in Kosovo, and in mathematics from 52% in Montenegro to 78% in Kosovo. These figures are high, particularly in comparison to the OECD and EU averages of about 20%.

The resources that economies allocate to education explain some of the variation in education outcomes (OECD, 2017a). For example, in countries where educational expenditure is below a certain threshold – cumulative spending per student between 6 and 15 years of around USD 50 000 in purchasing power parity (PPP) terms – higher spending is associated with better student performance in reading (OECD, 2017a). No comparable data for spending per student are available for the SEE economies, but the

data on public expenditure on education as a share of GDP indicate that Albania, Montenegro and Serbia spend more on primary education than the OECD average – amounting to an average difference of 0.47 percentage points of GDP (Figure 7.7). Conversely, these three economies spend on average much less on secondary education than the OECD and EU-22 average, a difference of 1.22 percentage points of GDP (OECD, 2017a).

Figure 7.7. Public expenditure on education by level of education (2014)



*Note:* EU-22 average refers to the 22 Member States of the European Union which are also members of the OECD: Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Luxembourg, the Netherlands, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden and the United Kingdom. Data for Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, and Kosovo not available. National statistical offices and ministries of the SEE region provided economy-specific data as part of the *Competitiveness Outlook* assessment conducted in 2016-17. CZE – Czech Republic; POL – Poland; SVN – Slovenia.

*Source:* Albanian Ministry of Education, Sports and Youth, national statistical offices of Montenegro, and Serbia; OECD (2017a), *Education at a Glance 2017: OECD Indicators*, <http://dx.doi.org/10.1787/eag-2017-en>.

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Findings from the 2015 PISA assessment confirm that these spending patterns have an impact, for example on the material resources of schools. Compared to principals in other school systems, more principals in Albania, Kosovo and Montenegro are concerned about the quality and the lack of material resources in their schools. Most strikingly, in Kosovo 43% of students attend schools where administrators agree that the capacity to provide instruction is hindered a lot by the lack of educational material (OECD, 2016c). In Albania and Montenegro these figures are 18% and 14% respectively, while the share for the Former Yugoslav Republic of Macedonia is close to the OECD average of 6%. In the Czech Republic, Poland and Slovenia, less than 3% of students attend such schools (OECD, 2016c). There are 0.77 computers for every student on average across OECD countries, a higher ratio than in Albania (0.15), the Former Yugoslav Republic of Macedonia (0.63), Kosovo (0.14) and Montenegro (0.20). The Former Yugoslav Republic of Macedonia has a higher ratio of computers per students than Slovenia (0.59) and Poland (0.46), however (OECD, 2016c). This higher ratio of computers per student indicates that dedicated government programmes are bearing fruit – such as the

“Computer for Every Child” initiative, supported by international donors and partners, including the United States Agency for International Development (USAID).

These outcome indicators reveal the need for policy efforts among the SEE economies to raise their populations’ skill levels. It is encouraging that labour productivity rose faster than the OECD averages between 2012 and 2016, but the increase has not been equal across all economies, and labour productivity even declined in Serbia over this period. In Albania, Kosovo and Serbia, more than 40% of the working-age population is only educated up to primary or lower secondary level, with a relatively large gender gap in educational attainment in Kosovo. Although public spending on primary education is higher than the OECD average relative to GDP in the three SEE economies for which data were available, spending on secondary education is much lower. Despite improvement in Albania and Montenegro, PISA results are still well below the OECD and EU averages. The high share of students who did not reach the baseline proficiency level in science, reading and mathematics is particularly alarming and calls for policy action.

### Access to and participation in high-quality education

This sub-dimension gauges the extent to which SEE economies are taking steps to ensure equitable access to, and participation in, high-quality education. To this end, it uses five qualitative indicators:

The **early childhood education indicator** measures SEE economies’ ECE frameworks and strategies against five key ECE policy levers, identified by the OECD, and assesses how far they are implemented and monitored. These are: 1) setting out quality goals and regulations; 2) designing and implementing curricula and standards; 3) improving qualifications, training and working conditions; 4) engaging families and communities; and 5) advancing data collection, research and monitoring (OECD, 2011).

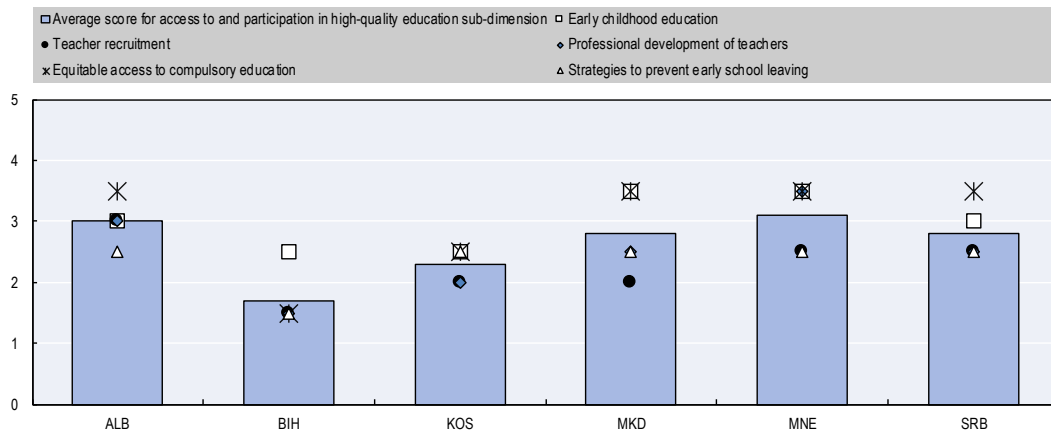
The **teacher recruitment** indicator gauges the development and implementation of policies that affect teacher recruitment and retention at all education levels, while the **professional development of teachers** indicator assesses whether teachers receive regular training and other opportunities to improve teaching quality.

The **equitable access to compulsory education** indicator measures the extent to which education policies foster equity through more and better support for disadvantaged students (e.g. children from socio-economically disadvantaged families or minorities). It assesses the extent to which policies have been designed and implemented to provide systematic support measures for those who fall behind at school, to strengthen links between schools and parents of disadvantaged pupils, and to provide resources direct to the students with the greatest needs.

The **strategies to prevent early school leaving** indicator assesses the extent to which the six SEE economies have adopted and implemented measures to reduce early school leaving. Ideally, these measures or existing legal frameworks should help eliminate the conditions that lead to early school leaving (prevention); address difficulties encountered by pupils as soon as they arise (intervention); and offer opportunities for education and training to pupils who have dropped out (compensation).

On average, the six SEE economies score 2.6 out of 5 for this sub-dimension (Figure 7.8). This means they have adopted strategies to improve these aspects of access to high-quality education and have started to implement them.

Figure 7.8. Access to and participation in high-quality education:  
Sub-dimension average scores and indicator scores



Note: See the methodology chapter for information on the *Competitiveness Outlook* assessment and scoring process.

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### *Enrolments in and quality of early childhood education need to improve*

Early childhood education (ECE) refers to “all forms of organised and sustained centre-based activities – such as pre-schools, kindergartens and day-care centres – designed to foster learning and emotional and social development in children [and] are generally offered to children from the age of three” (OECD, 2013: 1).

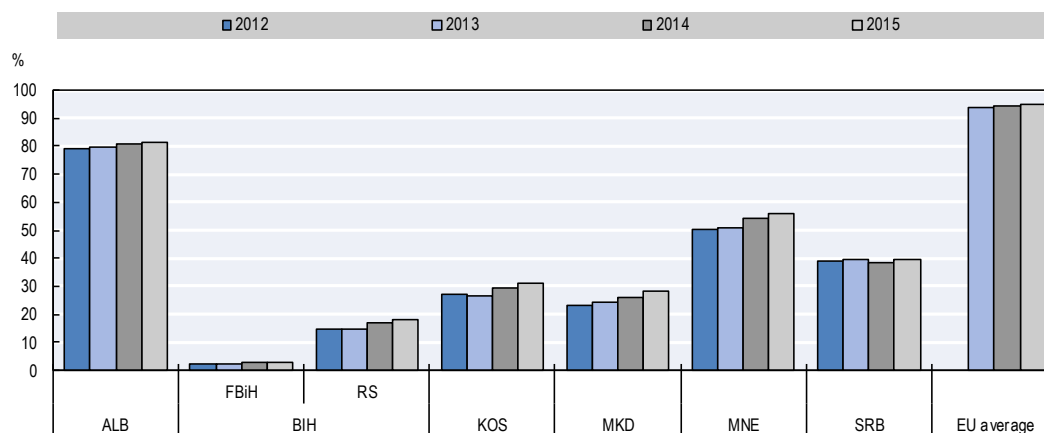
Participation in ECE promotes better student outcomes, mitigates social inequalities and can help children to get ready to enter and succeed in formal schooling (OECD, 2017a). A growing body of research has documented that children who have a strong start in their learning, development and well-being have better outcomes as they grow older (Duncan and Magnuson, 2013).

Although participation in ECE increased in SEE between 2012 and 2015, it is still well below the EU average (Figure 7.9). In 2015, only 36.8% of children were enrolled in ECE in SEE on average, 58 percentage points below the EU average.

As countries seek to further expand ECE, it is important to consider parents’ expectations and needs in terms of accessibility, cost, programmes, staff quality and accountability (OECD, 2014b). The range of scores for the early childhood education indicator, from 2.5 to 3.5 (Figure 7.8), indicates that some SEE economies are more advanced than others when it comes to the development or application of the five ECE policy levers described above, as well as the implementation of actions to improve ECE quality, and the monitoring of those actions. Generally, all SEE economies have taken steps to increase enrolment in ECE and to ensure good-quality ECE services. This is reflected in an average score of 3 for this indicator. Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, and Montenegro have adopted dedicated ECE or pre-school strategies. In Albania, Kosovo and Serbia, ECE objectives and corresponding actions are included in comprehensive education strategies. Kosovo and Bosnia and Herzegovina achieve a score of 2.5 for this indicator, reflecting that they have a framework to improve ECE quality which addresses most of the policy levers, but that there is room for stronger action when it comes to implementation. However, in 2017 both economies adopted strategies seeking to improve ECE quality.

Figure 7.9. **Participation rate in early childhood education**

% of children aged from 3 to age of compulsory primary education



*Note:* The EU average reflects the percentage of children aged 4 to the age of compulsory education as a share of the corresponding age group. Government statistical offices and ministries of the SEE region provided economy-specific data as part of the *Competitiveness Outlook* assessment conducted in 2016-17.

There are four main administrative levels in Bosnia and Herzegovina: the State, the Federation of Bosnia and Herzegovina, the Republika Srpska, and the Brčko District. The administrative levels of the State, the Federation of Bosnia and Herzegovina, and the Republika Srpska are taken into account in the *Competitiveness Outlook 2018* assessment, when relevant. The Brčko District is not assessed separately.

*Source:* SEE statistical offices and EC (2017a), Eurostat (database), <http://ec.europa.eu/eurostat/data/database>.

StatLink  <http://dx.doi.org/10.1787/888933704131>

The Former Yugoslav Republic of Macedonia and Montenegro scored 3.5 for this indicator; implementation of their respective ECE objectives is advancing according to their timelines and they have made efforts to further enhance ECE monitoring.

Montenegro's Strategy of Early and Preschool Education 2016-20 includes an action plan with an implementation timeline and budget allocation for each activity. It includes the development of programme quality standards with indicators for monitoring and evaluation, as well as targets to improve pre-service training, and professional development of staff. It also seeks to improve monitoring, supervision and counselling services for ECE staff and to set up teacher groups, networks of practitioners and models for exchanging good practice. The strategy also includes continuous activities which seek to raise awareness of ECE's importance and which aim to engage with parents and communities. Implementation of the action plan is monitored by the Ministry of Education and the Bureau for Education Services, which meet quarterly to assess progress; it is also monitored externally by the United Nations Children's Fund (UNICEF).

In the Former Yugoslav Republic of Macedonia, UNICEF is also supporting ECE, including activities to strengthen the capacities and effectiveness of ECE inspection services responsible for quality control, notably by introducing indicators for quality control. This initiative will help to ensure that in the future, norms and standards will be applied more consistently across public ECE institutions.

Serbia will benefit from the support of the World Bank in the framework of the Inclusive Early Education and Care project, which was approved in February 2017 and which will help the country to increase ECE provision, in particular in rural areas.

### ***Teacher recruitment and professional development can increase their focus on teaching quality***

The availability of high-quality teachers does not seem to be a particular concern for school principals in SEE, at least compared to OECD countries, and is much less of a concern than the lack of material resources in their schools. For instance, the percentage of students in schools whose principal reported that the capacity to provide instruction was not at all hindered by a lack of teaching staff was considerably higher than the OECD average of 39% in Albania (62%), Kosovo (49%), the Former Yugoslav Republic of Macedonia (88%) and Montenegro (72%) (OECD, 2016c).

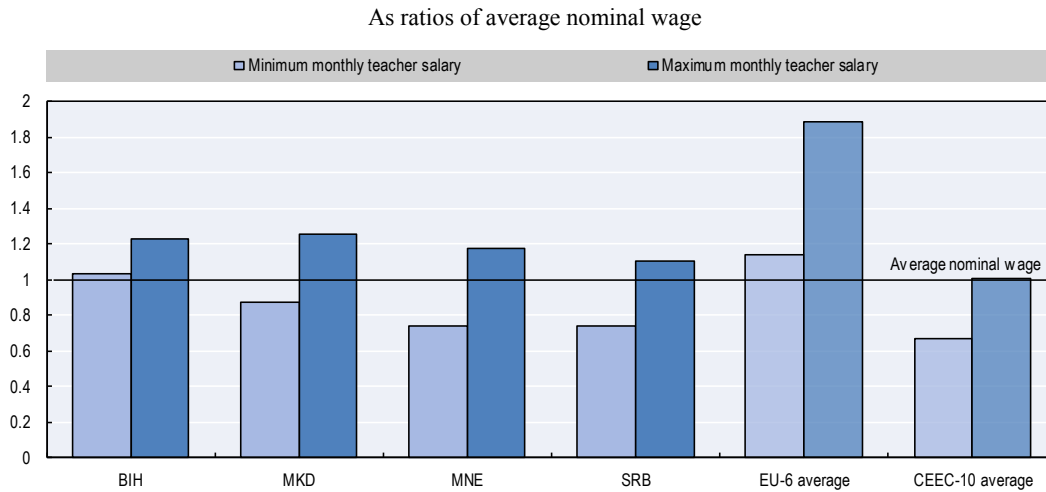
However, “improving the efficiency and equity of schooling depends, in large measure, on ensuring that competent people want to work as teachers, that their teaching is of high quality, and that all students have access to high quality teaching” (OECD, 2005: 7). In this regard, the SEE economies should consider introducing more stringent admission criteria for initial teacher education (Skikos, 2013). Teachers’ salaries also play an important role since they affect people’s decisions as to whether to enrol in teacher education, whether to become a teacher after graduation and whether to remain in the profession (OECD, 2005; 2017a), thus ensuring that those with the greatest ability to teach choose that career path (OECD 2017c).

Figure 7.10 compares primary and secondary teachers’ minimum/maximum monthly gross statutory salary to average monthly nominal wages<sup>4</sup> in 2015 for the four SEE economies for which data are available. Lack of data meant it was not possible to compare teachers’ salaries with the average salary of the tertiary-educated workforce overall. Nonetheless, relating teachers’ salaries to the average nominal salaries is still informative when comparing the ratios across SEE economies, the EU-6<sup>5</sup> and the ten Central and Eastern European countries (CEEC-10) who joined the EU.<sup>6</sup> Teachers’ maximum monthly salaries in the four SEE economies are, on average, only 19.3% higher than the average nominal monthly wage. This gap is lower than in the EU-6, where teachers’ maximum salary is on average 89 percentage points higher than the average nominal monthly wage (Figure 7.10). However, compared to the CEEC-10 average nominal wage, teachers in the four economies receive higher pay, both at the beginning and the end of their careers.

Since compensation and working conditions are important factors influencing whether schools can attract and retain skilled, high-quality teachers, policy makers should take teachers’ pay into careful consideration as they seek to ensure quality teaching and sustainable education budgets (OECD, 2017a).

On average, the six SEE economies achieve a score of 2.2 for the **teacher recruitment** indicator (Figure 7.8). At over 2, this average score indicates that the economies have legislation in place that governs teacher recruitment at all education levels and that public education systems provide clear profiles of what teachers are expected to know and do. In addition, teacher education systematically combines subject knowledge, pedagogical knowledge and classroom experience. All the SEE economies have formal probationary periods and mentorships for new teachers.

All six SEE economies have included objectives and measures on teacher recruitment in their respective education strategies and accompanying action plans, although not all of the action plans have clear implementation timelines or budget allocations. In 2016, Montenegro adopted a dedicated strategy on teacher education, the Strategy of Teacher Education in Montenegro (2017-24).

Figure 7.10. **Minimum and maximum monthly teachers' salaries (2015)**

*Note:* Minimum/maximum monthly teacher salary refers to the minimum/maximum basic gross statutory salary for teachers in 2015. It has been calculated as the average of the minimum/maximum salary across primary (ISCED 2011 level 1) and secondary (ISCED 2011 levels 2 and 3) education. EU-6 – Belgium, France, Germany, Italy, Luxembourg and the Netherlands. CEEC-10 – Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia. The EU and CEEC averages have been calculated as simple averages using 2015 data or the most recent data available. Due to unavailability of more recent data, average nominal wages for Montenegro are for 2014. Teacher salaries have been converted from EUR to USD using the 2015 exchange rate available at UNCTADSTAT. Average nominal wages have been converted from local currencies to USD using the 2015 exchange rates available at UNCTADSTAT. Data for Albania and Kosovo are not available.

*Source:* Adapted from EC (2015a), *Teachers' and School Heads' Salaries and Allowances in Europe 2014/15*, [http://eacea.ec.europa.eu/education/eurydice/documents/facts\\_and\\_figures/188EN.pdf](http://eacea.ec.europa.eu/education/eurydice/documents/facts_and_figures/188EN.pdf); ILO (2016), *Global Wage Report 2016/2017: Wage Inequality in the Workplace*, [www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms\\_537846.pdf](http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/---publ/documents/publication/wcms_537846.pdf); UNCTAD (2017), *UNCTADSTAT* (database), <http://unctadstat.unctad.org>.

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Although all economies have legislation in place regulating teacher recruitment, as well as objectives and measures in strategy documents, stakeholders reported that there were still major obstacles to recruiting the most talented individuals with the skills and motivation to teach. In the Former Yugoslav Republic of Macedonia, stakeholders reported that the teaching profession suffered from a poor image, in part caused by low salaries. For that reason, it was reported that the students entering teacher education had often performed below average in their high school exams. In Kosovo and the Former Yugoslav Republic of Macedonia, stakeholders argued that teacher recruitment processes were in some cases biased by political party affiliations, which implies that it is a desirable profession. In Serbia, stakeholders described that the ban on public-sector hiring, instituted in 2013, has led to a massive increase in part-time employment of teachers, affecting salaries. This situation will make it difficult to attract the most qualified secondary school graduates into the teaching profession.

Just like practitioners in any other profession, teachers need to keep up to date with advances in their fields, new ways of teaching and theories about how children learn, and curricular changes (OECD, 2016c). **Professional development of teachers** also helps



them to deepen and enhance existing practices in the classroom, for example adapting to students' diverse needs or mastering different ways to teach certain content.

Across OECD countries, school principals reported that, on average, about 51% of teachers had attended a professional development programme in the three months prior to the PISA assessment (OECD, 2016c). This is lower than in Albania (58%), but higher than in the Former Yugoslav Republic of Macedonia (16%), Kosovo (29%) and Montenegro (41%). The average score of 2.5 for the professional development of teachers indicator reflects the fact that all six SEE economies have legislation in place to govern the formal provision of teachers' participation in continuous professional development training (Figure 7.8). In almost all the economies, this legislation specifies the minimum time teachers need to participate in professional development per year. The average score also reflects the fact that in all of the economies the relevant strategy documents include objectives and measures to further improve the continuing professional development of teachers, although how implementation of those measures will advance still remains to be seen.

However, the SEE economies also need to focus on the relevance and applicability of professional development programmes, the capacity of training providers, and the systematic evaluation of teaching performance if they are to guarantee high teaching quality (Skikos, 2013).

Identifying teachers' development needs and providing the most relevant training are still challenges. Some of the economies have conducted noteworthy initiatives in this regard. Following a major reform in 2004, there are professional development teams in every Montenegrin school at every level of education. The co-ordinators of those teams work directly with the school's management and the Bureau of Education Services to create professional development plans for the school, which also feed in to the professional development plans at the state level. In Serbia, the Institute for Improvement of Education, together with other partner institutions undertook a large-scale assessment of teachers' professional development needs in 2016. Similarly, in Albania, 17 613 teachers and directors economy-wide were assessed in November 2015 and January 2016, by means of paper and computer-based tests, in order to identify their professional development needs.

Even so, all the SEE economies could do more to regularly address teachers' professional development needs, thus improving the overall quality of teaching. In Kosovo, for example, stakeholder interviews revealed that schools' capacities to identify teachers' training needs were limited in some municipalities, as were the corresponding budgets. Stakeholders in Serbia also highlighted that the lack of sufficient budget in some local governments was a major obstacle to a fully functioning system of teacher professional development.

### ***Equity is improving in SEE education systems***

Greater equity in education pays off – for society and individuals alike – with lower rates of school failure contributing to economic growth and social well-being (OECD, 2012). The highest-performing education systems combine quality with equity (OECD, 2012). Equity in education means that students' personal or social circumstances – such as gender, ethnic origin or family background – are not obstacles to realising their educational potential.

Results from the 2015 PISA assessment reveal that in the Former Yugoslav Republic of Macedonia, Kosovo and Montenegro, between 5% and 7% of the variation in science performance is attributed to differences in students' socio-economic status, compared to 13% across OECD countries (OECD, 2016b). However, bearing in mind the high percentage of PISA low achievers in the participating SEE economies, discussed above, this finding should not be overvalued.

Student resiliency can be used as one proxy for how education systems succeed in promoting equity. In PISA, resilient students are “disadvantaged students within their countries and economies who beat the socio-economic odds against them and perform in the top quarter of students across all participating countries and economies after taking socio-economic status into account” (OECD, 2016b: 235). Fewer than one in ten disadvantaged students in the Former Yugoslav Republic of Macedonia, Kosovo and Montenegro were top performers in PISA after taking socio-economic status into account (Table 7.1). Of all the countries and economies participating in the 2015 PISA assessment with comparable data, Kosovo ranked second lowest, the Former Yugoslav Republic of Macedonia fourth lowest and Montenegro twelfth lowest.

Table 7.1. **Percentage of resilient students among disadvantaged students (2015)**

KOS	MKD	MNE	CZE	OECD average	POL	SVN
2.5	4.1	9.4	24.9	29.2	34.6	34.6

*Note:* Students are classified as resilient if they are in the bottom quarter of the PISA index of economic, social and cultural status (ESCS) in the country/economy of assessment, and in the top performing quarter of students among all countries/economies, after accounting for socio-economic status. Data for Albania, Bosnia and Herzegovina, and Serbia are not available. CZE – Czech Republic; POL – Poland; SVN – Slovenia.

*Source:* OECD (2016b), *PISA 2015 Results (Volume I) Excellence and Equity in Education*, <http://dx.doi.org/10.1787/9789264266490-en>.

StatLink  <http://dx.doi.org/10.1787/888933704264>

In general, the six economies have placed great importance on providing equitable access to compulsory education, and have benefitted from many donor-funded projects in this area. The importance they attach to this is reflected in an average score of 3 for the equitable access to compulsory education indicator. All of them have adopted a strategic approach to guaranteeing equitable access to education (Figure 7.8).

The economies scoring above average for this indicator (Albania, the Former Yugoslav Republic of Macedonia, Montenegro and Serbia) have strategies in place to foster equitable access for disadvantaged students. They also provide support measures for those at risk of falling behind at school, provide some form of direct resources (in most cases in the form of free school transport and free textbooks), and seek to strengthen links between schools and parents of disadvantaged pupils. These economies also monitor the implementation of their strategies on equity in education. However, stakeholders noted that the monitoring is not always effective and that school coverage in rural areas does not always ensure equitable access to education.

In Kosovo, the Kosovo Education Strategic Plan 2017-21 provides an implementation timeline and budget allocation for the various activities seeking to increase inclusion of disadvantaged students in the education system. In 2016 Kosovo carried out numerous projects to increase inclusion in education in co-operation with international donors (though the large number may increase the challenge of co-ordinating all those projects effectively). It still remains to be seen how implementation of the measures in the

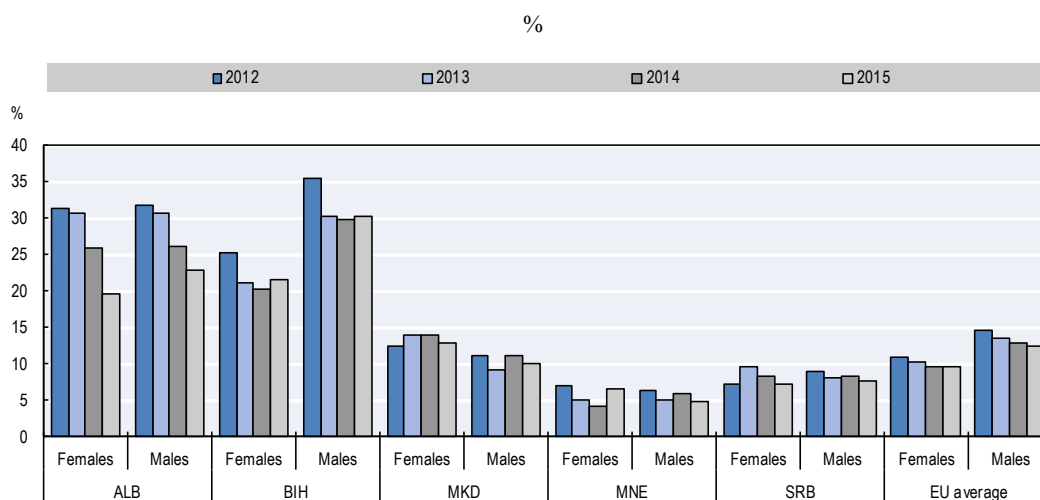
strategic plan will unfold. In Bosnia and Herzegovina, there are strategic documents at the state and entity levels which include objectives and some measures to improve equitable access to education for disadvantaged students.<sup>7</sup> However, measures in previous strategies have not consistently been given sufficient budgets for implementation. How far the measures identified in more recent strategy documents will be implemented, and whether the co-ordination of donor-funded projects can be strengthened, also remain to be seen.

### ***Early school leaving is being tackled***

The European Union defines early school leavers as 18-24 year olds who have only attained lower secondary education and who are no longer in education or training (EC, 2017a). Early school leavers can face serious difficulties in entering and remaining in the labour market, which makes early school leaving a problem for individuals and society alike (OECD, 2017a). Moreover, having students drop out without a qualification is an inefficient use of public funds. Governments therefore have a strong incentive to reduce the number of early school leavers and those dropping out.

Figure 7.11 shows great diversity among early school leaving rates, with two economies – Albania, and Bosnia and Herzegovina – having much higher rates than the EU average and the other SEE economies.

Figure 7.11. **Early leavers from education and training among 18-24 year-olds**



*Note:* Early leavers from education and training denotes the percentage of the population aged 18 to 24 having attained at most lower secondary education and not being involved in further education or training. The numerator of the indicator refers to people aged 18-24 who meet the following two conditions: 1) the highest level of education or training they have completed is ISCED 2011 level 0, 1 or 2 (ISCED 1997: 0, 1, 2 or 3C short); 2) they have not received any education or training (formal nor non-formal) in the four weeks preceding the survey. The denominator consists of the total population of that age group, excluding the respondents who have not answered the questions “highest level of education or training successfully completed” and “participation in education and training”. Data for Kosovo are not available.

*Source:* EC (2017a), Eurostat (database), <http://ec.europa.eu/eurostat/data/database>.

StatLink <http://dx.doi.org/10.1787/888933704169>

On average, the six SEE economies score 2.3 on the strategies to prevent early school leaving indicator (Figure 7.8), which means that early school leaving is being tackled in a strategy document which details policy measures, as well as corresponding budgets and

implementation timelines. Albania, the Former Yugoslav Republic of Macedonia, Kosovo, Montenegro and Serbia achieve a score of 2.5 for this indicator. These economies target early school leaving in one or more strategies, which include action plans specifying budget allocations and implementation timelines. They have also implemented some of the measures to tackle early school leaving and their strategic documents include prevention, intervention and compensation elements.

For example, the Kosovo Education Strategic Plan 2017-21 defines objectives and policy actions to prevent early school leaving in compulsory education, and includes implementation timelines and budgets. Intervention elements exist in the form of Prevention and Response Teams towards Dropout and Non-Registration. Pilot training for these teams took place in 9 municipalities in 2016, followed by training sessions in 21 municipalities in 2017. Further policy measures in the plan are still to unfold. Kosovo's Law on Adult Education also offers opportunities for education and training to pupils who have dropped out.

Bosnia and Herzegovina is lagging behind on this indicator, with a score of 1.5. Although an analysis of the reasons for early school leaving has been conducted in the Federation of Bosnia and Herzegovina, an action plan with a clear implementation timeline would allow for a more strategic approach to reducing dropout rates. Similarly, the Republika Srpska Strategy for the Development of Education in 2016-2021 includes the objective of reducing early school leaving but lacks clear budget allocations and implementation timelines.

### ***The way forward for access to and participation in high-quality education***

A number of policy interventions would further improve the access to, and quality of, the education systems of the six SEE economies.

Given the low participation rates in ECE compared to the EU, **the economies would benefit from increasing the provision and affordability of ECE**, in particular Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, Kosovo and Serbia. Economies should consider 1) setting out quality goals and regulations; 2) designing and implementing curricula and standards; 3) improving qualifications, training and working conditions; 4) engaging families and communities; and 5) advancing data collection, research and monitoring. As the entities (the Federation of Bosnia and Herzegovina and the Republika Srpska) in Bosnia and Herzegovina play an important role in ECE policy, it is important that their respective strategic documents take these elements into consideration in co-ordination with the state-level representatives.

**The economies should increase the attractiveness of the teaching profession and seek to increase teachers' participation in professional development**, for example by ensuring that there is sufficient budget for development activities throughout all municipalities. Raising the admission standards for initial teacher education, increasing teachers' starting salaries and making teaching a demanding career with real professional growth options would help to attract the most qualified candidates among tertiary graduates.

**The economies should pursue the implementation of planned measures to increase the inclusion of socio-economically disadvantaged students and students from a minority background, and to prevent early school leaving.** Policy options should encompass prevention, direct intervention – addressing difficulties encountered by students as soon as they arise – and compensation through schemes offering additional opportunities for education and training to those who have dropped out. In Bosnia and

Herzegovina – which has the highest share of early school leavers and scores the lowest on this indicator – the Federation of Bosnia and Herzegovina would benefit from a more comprehensive strategic framework, addressing prevention, intervention and compensation in a concerted effort. The Republika Srpska would benefit from translating its strategic objectives into concrete actions accompanied by an implementation timeline.

## Vocational education and training

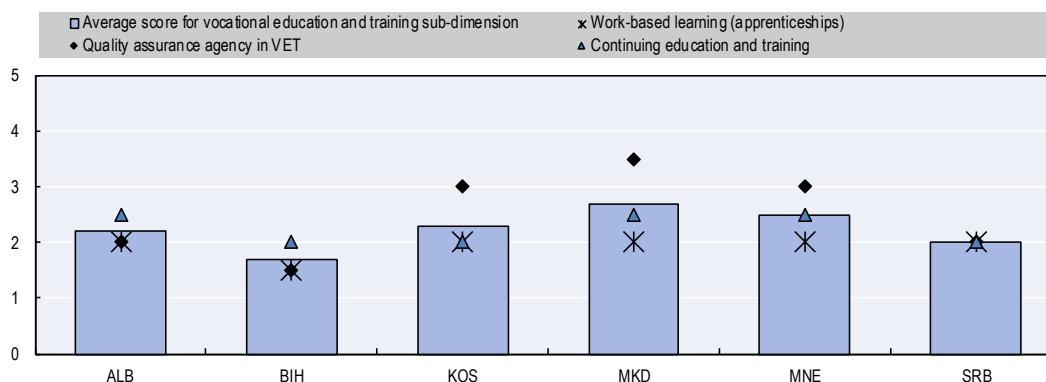
The vocational education and training (VET) sub-dimension includes three qualitative indicators (Figure 7.12).

The **work-based learning (apprenticeships)** indicator assesses the extent to which schemes include measures to: 1) enhance the co-operation between VET institutions and businesses; 2) increase the share of companies offering in-company work-based learning; 3) improve matching between VET students and businesses; and 4) provide for systematic monitoring and feedback.

The **quality assurance agency in VET** indicator measures the existence and effectiveness of agencies in charge of quality assurance and accreditation of VET programmes.

The **continuing education and training** indicator gauges the extent of development and implementation of continued education and training (CET).

Figure 7.12. Vocational education and training: Sub-dimension average scores and indicator scores



Note: See the methodology chapter for information on the *Competitiveness Outlook* assessment and scoring process.

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Overall, the six SEE economies score an average of 2.2 out of a possible 5 in this sub-dimension, with individual average scores ranging between 1.7 for Bosnia and Herzegovina and 2.7 for the Former Yugoslav Republic of Macedonia. The overall average reflects the fact that the economies have largely adopted strategic documents with measures to improve work-based learning, quality assurance in VET, and continuing education and training, but that they need to make more effort to advance implementation. To ensure corrective measures are implemented, regular and independent evaluations would be an improvement for most of the economies.

In all of the economies for which data were available, except Albania, a higher share of students are enrolled in pre-vocational or vocational programmes than the average for OECD countries (Table 7.2).

Table 7.2. **Enrolment in pre-vocational or vocational education (2015)**

% of 15-year-old students enrolled in a programme with a pre-vocational or vocational curriculum

ALB	KOS	MKD	MNE	CZE	OECD average	POL	SVN
6.4	35.3	55.1	66.0	33.3	14.3	0.1	57.4

Note: Data for Bosnia and Herzegovina, and Serbia are not available. CZE – the Czech Republic; POL – Poland; SVN – Slovenia.

Source: OECD (2016c), *PISA 2015 Results (Volume II): Policies and Practices for Successful Schools*, <http://dx.doi.org/10.1787/9789264267510-en>.

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In countries and economies with large enrolments in pre-vocational or vocational programmes, enrolments vary markedly according to schools' socio-economic profiles (OECD, 2016c). In the SEE economies for which data were available, enrolment in a vocational track is on average nearly 34 percentage points higher among students in disadvantaged schools (53%) than among students in advantaged schools (20%) (Table 7.3).

Table 7.3. **Enrolment in pre-vocational or vocational education by school socio-economic profile (2015)**

% of 15-year-old students

	ALB	KOS	MKD	MNE	CZE	OECD average	POL	SVN
Enrolled in an advantaged school (top quarter of the school-level PISA ESCS index)	4.3	17.8	24.0	33.4	14.8	2.7	0.2	0.0
Enrolled in a disadvantaged school (bottom quarter of the ESCS index)	6.5	44.9	72.8	89.2	33.7	23.9	0.1	90.6

Note: Data for Bosnia and Herzegovina, and Serbia are not available. ESCS – PISA index of economic, social and cultural status; CZE – Czech Republic; POL – Poland; SVN – Slovenia.

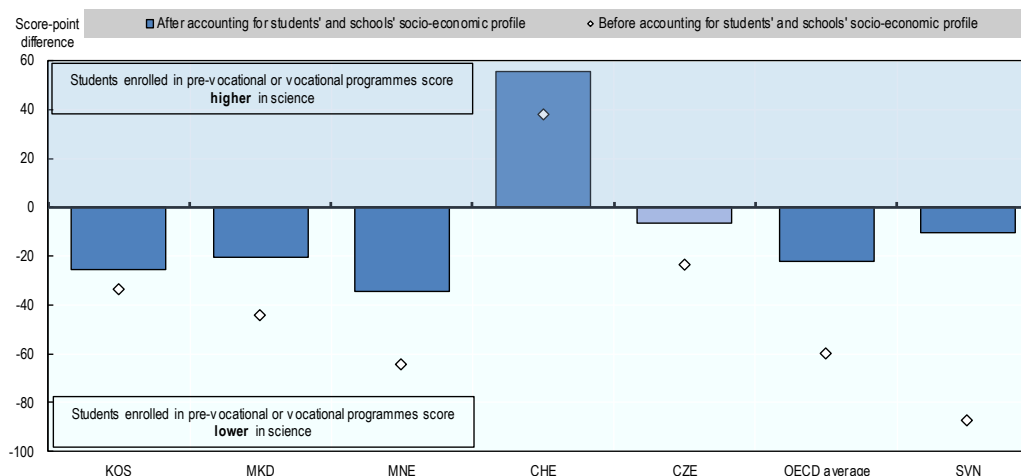
Source: OECD (2016c), *PISA 2015 Results (Volume II): Policies and Practices for Successful Schools*, <http://dx.doi.org/10.1787/9789264267510-en>.

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When considering the performance of students enrolled in general and vocational programmes, those in the Former Yugoslav Republic of Macedonia, Kosovo and Montenegro scored at least 20 points lower in science than students in general programmes, after accounting for socio-economic status (Figure 7.13).

These data suggest that ensuring that VET schools provide better opportunities for students to consolidate essential cognitive skills is a priority, particularly given the large share of students enrolled in vocational tracks and the high number of low achievers.

Figure 7.13. Enrolment in a pre-vocational or vocational programme and science performance (2015)



Note: The socio-economic profile is measured by the PISA index of economic, social and cultural status. Statistically significant differences are marked in a darker tone. Data for Albania, Bosnia and Herzegovina, and Serbia are not available. CHE – Switzerland; CZE – the Czech Republic, SVN – Slovenia.

Source: OECD (2016c), *PISA 2015 Results (Volume II): Policies and Practices for Successful Schools*, <http://dx.doi.org/10.1787/9789264267510-en>.

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### ***Work-based learning schemes and VET quality assurance agencies could be strengthened***

A large body of research has shown that completing work-based learning in the form of an apprenticeship can have a positive impact on overall labour market outcomes for young people. These benefits include: 1) fewer repeated periods of unemployment than students graduating from a more school-based system (OECD/ILO, 2017); 2) 15-20% higher earnings than graduates from compulsory education (CEDEFOP, 2011); and 3) a greater probability of finding adequate employment than for those who completed full-time vocational education (Bertschy et al., 2009; Parey, 2012). Overall, apprenticeships can help to increase the general level of skills in the local economy and can enhance overall economic growth and productivity (Cappellari et al., 2012).

The six economies score an average of 1.9 for the **work-based learning (apprenticeships)** indicator, with five of them scoring 2, while Bosnia and Herzegovina scores 1.5 (Figure 7.12). All have a legal framework in place which regulates work-based learning schemes (although to different degrees), and almost all have relevant strategies which include measures to improve their schemes, whether they are dedicated VET strategies or overall education strategies.

Bosnia and Herzegovina scores slightly below the other SEE economies because, since the Strategy for the Development of Vocational Education and Training in BiH 2007-13 expired, it has adopted no new strategy documents to foster work-based learning at the state level. Bosnia and Herzegovina's Framework Law on Secondary Vocational Education and Training stipulates that tripartite advisory councils should be established, consisting of representatives of employers, trade unions and education authorities, whose

aim is to forge links between vocational education and the labour market. However, it has not been possible to establish these advisory councils at all levels of government. The Republika Srpska Strategy for the Development of Education in 2016-21 includes the objective of improving VET, but no clear budget allocations and implementation timeline for the measures it mentions could be identified.

The economies' scores are kept low by the fact that none of them provide incentives to increase the share of companies offering in-company work-based learning, although legislation provides for such incentives in Albania, the Former Yugoslav Republic of Macedonia and Kosovo. Comprehensive and systematic matching and feedback mechanisms are often still in the pilot stage or do not cover all occupations. Nonetheless, there have been notable activities to improve work-based learning schemes in VET, mostly with the support of international donors. Albania has piloted the Apprenticeship Schemes for Youth Employment, financed by the Erasmus+ Programme.<sup>8</sup> Albania is also working to improve the matching between VET students and companies. For example, the Skills for Jobs project seeks to develop regional apprenticeship/traineeship matching platforms in Vlora, Lezha and Berat. Montenegro has established a web portal for the exchange of information between employers and VET schools in order to improve matching. All VET schools focusing on tourism and hospitality are part of the platform, which is used by more than 100 employers. Montenegro is seeking to extend this matching practice to additional occupations. Kosovo has established six competence centres which are piloting an information management system to centralise available work-based learning opportunities for VET students.

Quality assurance is a critical element – for improving the performance and attractiveness of VET, as well as for responding to changing labour market needs. Although quality assurance and accreditation of VET can take different forms in different education systems they always “consist of external assessments in relation to predefined requirements (objectives, criteria, standards of quality) for VET programmes or the provider organisation, they lead to reasonable judgements, and finally to a decision with implications for the VET provider and/or the quality of the training programme, dependent on what has been assessed” (CEDEFOP, 2009, p. 8). On average, the SEE economies achieve a score of 2.5 for the **quality assurance agency in VET** indicator (Figure 7.12). All of the economies benefit from international co-operation on VET quality assurance through the European Training Foundation. The highest scoring economies (Kosovo, the Former Yugoslav Republic of Macedonia and Montenegro) have aligned their methodologies with the European Quality Assurance in Vocational Education and Training framework (EQAVET), while the Former Yugoslav Republic of Macedonia is the only member of the EQAVET network among the six economies.

However, a lack of human and financial resources remains a challenge in this area. In particular, quality assurance agencies in Albania, Kosovo and Serbia would be more effective if they had more financial resources.

### ***Take up of continuing education and training is low***

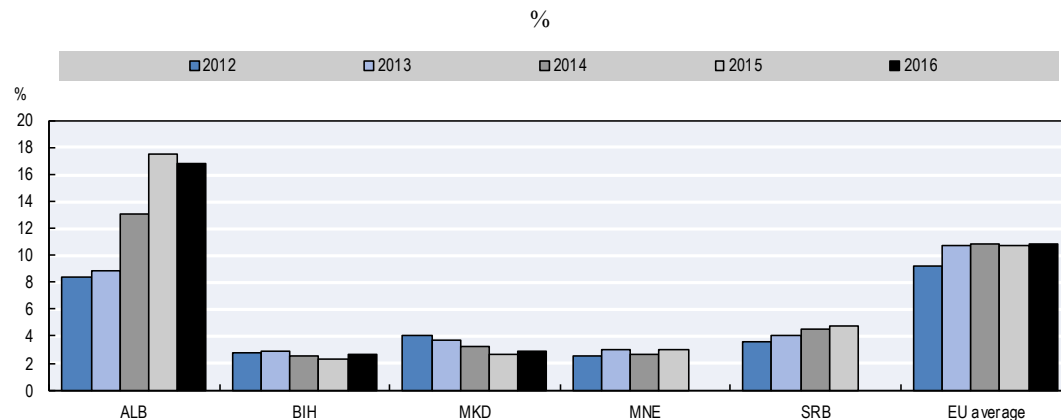
Skills depreciate if they are not actively maintained. For this reason, and because of new and increasingly complex work tasks (and possibly greater job mobility), workers should seek to maintain and upgrade their skills through continued education and training (CET) to stay abreast of the constant changes on the labour market. Continuing education and training, or lifelong learning, helps workers preserve their employability and helps companies adjust and stay competitive (ILO, 2008). Skills obtained through CET can also



increase labour productivity by reducing skills mismatches (OECD, 2015). CET is clearly of great relevance to economies such as those in South East Europe which have relatively high levels of unemployment (see Chapter 8), and are undergoing a process of industrial restructuring. Meeting these challenges requires the upgrading of work skills, especially among middle-aged cohorts suffering from a lack of educational and training opportunities.

Adult participation in learning remains low in the SEE economies. In 2015 on average only 6% of 25-64 year-olds had received education or training in the four weeks preceding the survey (Figure 7.14), while in the EU, the figure was 10.7%. Albania had the highest share of adults participating in education and training.

Figure 7.14. Participation in learning among 25-64 year-olds



*Note:* Adult participation in learning (previously named “lifelong learning”) refers to 25-64 year-olds who stated that they received education or training in the four weeks preceding the survey (numerator). The denominator consists of the total population of the same age group, excluding those who did not answer the question. Both the numerator and the denominator come from the EU Labour Force Survey. The information collected relates to all formal or non-formal education or training whether or not relevant to the respondent’s current or possible future job. Data for Kosovo were not available. 2016 data for Montenegro and Serbia were not available. Government statistical offices and ministries provided economy-specific data as part of the *Competitiveness Outlook* assessment conducted in 2016-17.

*Source:* Albanian Ministry of Social Welfare and Youth; statistical offices of Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, Montenegro, and Serbia; EC (2017a), *Eurostat* (database), <http://ec.europa.eu/eurostat/data/database>.

StatLink  <http://dx.doi.org/10.1787/888933704226>

On average, the six SEE economies scored 2.3 on the continuing education and training indicator (Figure 7.12). This implies either that they all include CET or lifelong learning, along with defined objectives and policy measures, in their overarching education strategies (Albania, Kosovo and Serbia); or that they have dedicated CET or lifelong learning strategies (Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, and Montenegro).

Albania, the Former Yugoslav Republic of Macedonia and Montenegro score above the average for this indicator. Montenegro has adopted the Plan for Adult Education 2015-19, which defines priorities for the implementation of the Strategy for Adult Education 2015-25. To implement this plan, annual adult education plans are developed for each unit of local government, along with the activities, stakeholders and resources needed to achieve them. Although the Strategy for Adult Education 2015-25 is being

implemented, there is little reliable information on investment by employers and other partners in various forms of professional training and employee development.

In 2013 the Former Yugoslav Republic of Macedonia adopted the Strategy for Vocational Education and Training in a Lifelong Learning Context 2013-20. It has also finalised a draft version of the Strategy for Adult Education 2016-20. The validation of special curricula for adult education is under way; so far about 23 separate curricula have already been approved by the Centre for Adult Education. The organisation of education in secondary VET schools for adults is under way in many municipalities throughout the Former Yugoslav Republic of Macedonia, which is co-operating with the European Training Foundation to implement a validation system for non-formal education.

Albania has made progress in including adults in CET. Although it has not adopted a dedicated strategy for CET, its National Strategy for Employment and Skills 2014-20 includes clearly defined measures and objectives for CET. The Ministry of Labour, Social Affairs and Equal Opportunities, in collaboration with the National Employment Services, provides vocational training through nine public vocational training centres which operate in the biggest cities – Tirana (two operational centres), Shkodër, Durrës, Elbasan, Korçë, Fier and Gjirokastrë – as well as a mobile centre which mainly covers the north-eastern part of the economy.

### *The way forward for vocational education and training*

The high percentage of students enrolled in the vocational track and the high number of low achievers in PISA highlight how crucial it is to **ensure that VET schools provide better opportunities for students to consolidate basic skills**. Programmes could assess essential skills at the outset and address any weaknesses, as well as integrate basic skills development into professional programmes (OECD, 2014c).

Box 7.2 provides good-practice examples which SEE economies could adapt in order to increase the number of employers participating in work-based learning schemes, particularly in small and medium-sized enterprises (SMEs). It also provides examples of how both **matching between apprentices and employers and external quality assurance of VET schools could be further improved**.

#### **Box 7.2. Good practice: Examples of fostering work-based learning in VET in OECD countries**

##### **Support measures to encourage companies to offer apprenticeships**

The Apprenticeship Grant for Employers (AGE) in the United Kingdom is an example of a financial support measure that targets employers that have never provided apprenticeships before, or not in the last 12 months. Created as an initiative to help lower youth unemployment, it provides apprenticeship grants (worth GBP 1 500) to employers recruiting 16-24 year-olds. AGE helps support SMEs that would otherwise not be in a position to hire apprentices; 80% of the members of the London Chamber of Commerce and Industry are SMEs. A long-term aim of the AGE programme is to provide half of small businesses (defined as having 50 or fewer employees) with new apprenticeships – of which at least half are for people aged 16-18.

### Box 7.2. Good practice: Examples of fostering work-based learning in VET in OECD countries (*continued*)

Austria shows how intermediate bodies can provide support measures for companies. The apprenticeship programme in Austria is modelled on a system of co-ownership. In the system, government authorities only marginally engage with companies. Instead, intermediate bodies – such as economic chambers of commerce, training providers and social partners – act as the interface. These intermediate bodies offer support to companies through the various stages of the training process (e.g. accrediting companies as a training company before the apprenticeship; and providing training guidelines and quality assurance checklists for companies to refer to throughout the training). This model helps to engage companies as they consider these intermediate bodies to be their own organisations.

#### Matching apprentices and employers

France offers an example of how apprenticeships can be made more accessible to SMEs through matching services. It has created a matching service to support SMEs in finding skilled workers. The Confederation of SMEs (CPME), works with the intermediary agency the Association de Gestion de Formations en Alternance pour les Petites et Moyennes Entreprise (AGEFA-PME) to offer small enterprises support in filling apprenticeships. A web portal makes it easier for businesses to find information on apprenticeship tax credits and regional aids. Web services also include a national database to showcase potential apprentices and a competence-based search-engine on qualifications and training centres. One of the more useful approaches is a methodological toolbox to guide aspiring apprentices on how to successfully apply for positions (e.g. via interview and soft-skills training) and to help young people to develop strong basic skills, in order to facilitate their integration into SMEs. Thus, young people can more easily connect with the small businesses most aligned with their skills.

The United Kingdom government has established the Apprenticeship Vacancies service – a digital platform that enables companies and potential apprentices to connect. Prospective employers can display apprenticeship vacancies in an open format online. The service is managed by the National Apprenticeship Service, and is the official apprenticeship database for England. The system permits vacancies to be viewed by thousands of potential apprentices registered on the system, and gives useful information about apprenticeships and training providers.

#### Quality assurance procedures supporting inclusiveness and ensuring equity

The Swedish Schools Inspectorate is an example of how quality assurance of VET schools can be organised at the national level and operated by a public authority. The Swedish Schools Inspectorate undertakes regular inspections of compulsory and upper secondary schools. The regular inspections are supplemented by quality audits that concentrate on specific areas of interest, targeting samples of 30-40 schools within each project. In recent years, it has reported on three quality audit projects. The 2011 report *Workplace-Based Education: In Practice* showed that vocational programmes had to intensify efforts to inform and prepare tutors in their duties, while also preparing students in understanding work-based learning and their education goals.

Austria's *Qualitätsmanagement Lehre* (QML) also monitors the quality management of apprenticeship programmes at the national level. It does so by drawing on national exam results and data sourced by apprenticeship offices. It gathers statistics on dropout rates, completion of apprenticeships and final exam non-attendance, as well as the results of the apprenticeship leaving exam. The apprenticeship advisory board then reviews the results at the national and regional level involving sectoral organisations and takes steps accordingly, which could include reforming occupational standards, enhancing support measures for apprentices, or improving the apprenticeship leaving exam.

Source: EC (2015b), *High-Performance Apprenticeships & Work-Based Learning: 20 Guiding Principles*, <http://ec.europa.eu/social/BlobServlet?docId=14881&langId=en>.

## Higher education

Higher education (HE) drives research and fuels the formation of human capital by equipping graduates with technical, professional and discipline-specific knowledge and skills; cognitive and information processing skills; and social and emotional skills (OECD, 2017d).

The higher education sub-dimension assesses policies to provide high-quality HE and to prepare students to become skilled contributors to society and to lead innovation in a knowledge-based economy. To this end, this sub-dimension includes six qualitative indicators (Figure 7.15):

The **implementation of national qualifications frameworks** (NQFs) indicator assesses the current state of implementation of national qualifications frameworks against the ten steps of NQF implementation defined by the European Higher Education Area qualifications frameworks' working group (EC/EACEA/Eurydice, 2015).

The **quality assurance agency in higher education** indicator measures the existence and effectiveness of government agencies in charge of quality assurance and accreditation of higher education programmes.

The **work-based learning (internships)** indicator aims to assess existing internship schemes in the economies, as well as policy measures to increase the use of internships in higher education.

The **policy approach to improve equity in access to higher education** indicator is a qualitative indicator looking at approaches to equity, but does not measure actual equity in higher education. Such approaches can take different forms: a general policy approach targeting all categories of students, measures focusing on various under-represented groups, or – in most cases – a combination of both.

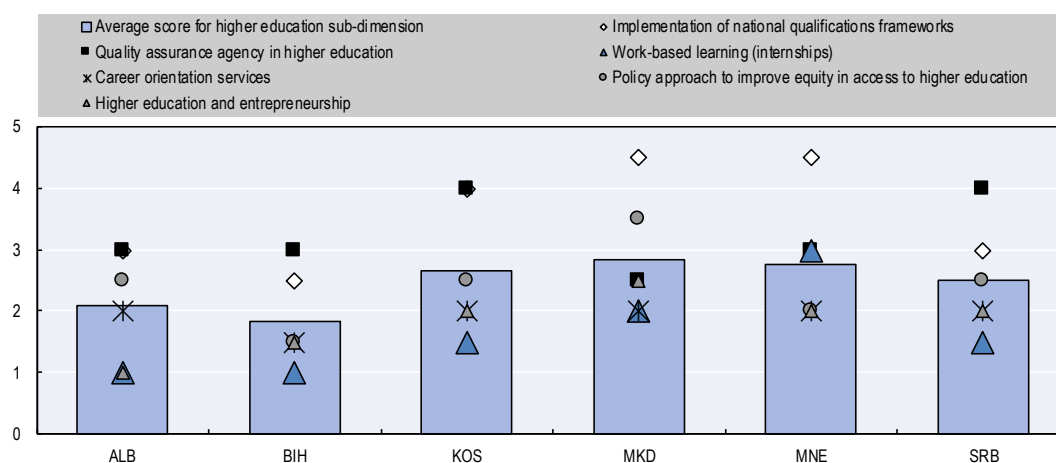
Two qualitative indicators analyse how the SEE economies provide students with the necessary information and skills to improve their employability and skills matches. The **career orientation services** indicator aims to gauge the extent of provision of such services. The **higher education and entrepreneurship** indicator assesses if there are policy frameworks or at least initiatives to better support links between higher education, the labour market and entrepreneurs.

On average, the SEE region scores 2.4 out of 5 on this sub-dimension (Figure 7.15). In other words, the SEE economies have adopted strategies to improve HE and have started to implement them, but have not always done so rigorously.

### *The implementation of national qualification frameworks and quality assurance is progressing*

A qualifications framework is an instrument for the development, classification and recognition of knowledge and skills along a continuum of agreed levels. It is a way of structuring existing and new qualifications, which are defined by learning outcomes, i.e. clear statements of what the learner must know or be able to do whether learned in a classroom, on-the-job, or less formally. The qualification framework indicates the comparability of different qualifications and how one can progress from one level to another, within and across occupations or industrial sectors (and even across vocational and academic fields if the NQF is designed to include both vocational and academic qualifications in a single framework). (Tuck, 2007: v)

Figure 7.15. Higher education: Sub-dimension average scores and indicator scores



Note: See the methodology chapter for information on the *Competitiveness Outlook* assessment and scoring process.

StatLink <http://dx.doi.org/10.1787/888933704245>

On average, the six SEE economies achieve a score of 3.6 for the **implementation of national qualifications frameworks** indicator (Figure 7.15), ranging from 2.5 for Bosnia and Herzegovina to 4.5 for the Former Yugoslav Republic of Macedonia and Montenegro.

Montenegro adopted its national qualifications framework law in 2010 which was complemented by secondary legislation and the establishment of sectoral commissions in 2011-12. Montenegro's national qualifications framework has a level structure with three categories of descriptors (knowledge, skills and competences). Each level includes qualifications with dedicated learning outcomes which are described through the descriptors and study programmes have re-designed. HE institutions in Montenegro are required to apply the European credit transfer and accumulation system since 2004 (ETF, 2017a). In addition, the Montenegrin Credit Transfer System enables for learning outcomes achieved in one context to be taken into account in another context since it is aligned with the European Credit Transfer and Accumulation System and with vocational education and training (ECVET) (ETF, 2017a). In 2014, Montenegro's national qualifications framework was self-certified against the qualifications framework of the European Higher Education Area and referenced to the European Qualifications Framework. Going forward, a particular focus should be placed on non-formal and informal learning, as well as on promoting the framework and qualifications register to target groups and stakeholders (CEDEFOP, 2017a).

The Macedonian Qualifications Framework (MQF) includes the European Credit Transfer and Accumulation System and European Credit System for Vocational Education and Training credit ranges, a level structure and level descriptors, as well as learning outcomes according to those levels. Sectoral Qualifications Councils have been established and study programmes have been redesigned on the basis of the learning outcomes included in the MQF. With the support of the European Training Foundation, the MQF was complemented by an inventory of qualifications in 2015 which covers all existing formal qualifications, as well as the verified non-formal adult education programmes (ETF, 2017b). The MQF was self-certified and referenced to the European Qualifications Framework in February 2016. A roadmap for further implementation of the MQF has been drafted, which includes concrete steps to guide its implementation by 2019. The implementation of the MQF is advancing and has benefitted from several

donor-funded projects. These include the Instrument for Pre-Accession Assistance (IPA) Twinning project (2015-17) on Further Improvement of the System for Development and Implementation of the National Qualifications Framework, which has been particularly helpful for adopting and aligning relevant legislation. Nonetheless, challenges in the implementation of the MQF remain, such as capacity-building, funding and stakeholder involvement and cooperation (CEDEFOP, 2017b).

In 2015, Kosovo, which scores 4 on this indicator, was invited to participate in the European Qualifications Framework advisory group. The European Qualifications Framework Referencing Report of the Kosovo Qualifications Framework was endorsed in February 2016, although an updated version of the report was expected to clarify certain types of qualifications in 2017 (CEDEFOP, 2017c). Implementation of the national qualifications framework is in progress, but needs to resolve a number of challenges, including implementing a system for validation of non-formal and informal learning, accrediting VET schools and other providers, developing occupational standards, and developing new qualifications and including them in the framework (CEDEFOP, 2017c).

Albania, Serbia and Bosnia and Herzegovina still have some way to go before fully implementing their national qualifications frameworks and self-certifying and referencing them to the European Qualifications Framework. Doing so will enable qualifications obtained in these economies to be better understood by employers in other European countries, thus enhancing mobility and employability.

Quality assurance is an important bridge between learning outcomes, the accreditation system, the certificate supplement and the multidimensional role of the national qualifications framework. On average, the six SEE economies score 3.3 out of 5 for the **quality assurance agency in higher education** indicator (Figure 7.15). Albania, Bosnia and Herzegovina, and Montenegro each score 3, indicating that they have set up a fully operational agency with a formal mandate for HE quality assurance and accreditation of study programmes. The agencies in these economies also have sufficient financial and human resources to carry out their tasks effectively. Their staff receive regular training (with the latest training attended no more than two years ago) and benefit from an internal planning mechanism to help them work effectively.

The Kosovo Accreditation Agency is fully operational and became a full member of the European Association for Quality Assurance in Higher Education (ENQA) in 2014. The Commission for Accreditation and Quality Assessment in Serbia is also full member of ENQA and at the time of writing was in the process of renewing its membership.

The Higher Education Accreditation and Evaluation Board in the Former Yugoslav Republic of Macedonia benefits from internal planning mechanisms. However, its staff have not received training in the last two years, which could be an important obstacle to its effectiveness.

### ***Work-based learning schemes (internships) could become more widespread in higher education***

The OECD's *Jobs for Youth* study advises that the use of internships and other forms of on-the-job learning could help students acquire some labour-market experience before graduation to facilitate smooth transitions from school to work (OECD, 2010b). The six SEE economies score an average of 1.7 for the work-based learning (internships)

indicator (Figure 7.15), reflecting the fact that not all of them have adopted policy measures to promote the use of internships in HE.

Montenegro receives the highest score (3) out of the six economies. Its Law on Higher Education specifies that European Credit Transfer and Accumulation System credits can be awarded for internships. During the accreditation procedure of a new higher education institution or programme, the institution must submit documentation to the Council for Higher Education (the government body responsible for quality assurance) on conditions for practical training. Since 2012, Montenegro has conducted the Professional Training of Persons with Acquired Higher Education programme, which enables higher education graduates without work experience to acquire knowledge and skills over a period of nine months. This scheme also provides incentives for employers to take on interns, as their salary is entirely paid by the government. The scheme matches participants with employers based on graduates' preferences and their grades. Monitoring and feedback are included through periodic surveys of graduates and employers participating in the programme.

Albania, Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, and Kosovo have not included in any strategy document policy measures to promote the use of work-based learning in HE. Bosnia and Herzegovina has not adopted any coherent legal framework to regulate internships and none of its strategy documents include any concrete actions to promote internships. Although the Former Yugoslav Republic of Macedonia has not formulated any concrete policy measures to foster the use of internships in HE, its Law on Higher Education prescribes that all students in the second, third and fourth year of their studies should participate in at least one internship during the academic year. The law also prescribes that internships should not be shorter than 20 working days. Stakeholder interviews revealed, however, that internships are not adequately monitored and merely produced “results on paper” rather than actually developing the necessary skills. Legislation in Albania specifies that credits can be awarded for internships as part of study programmes, and prescribes the credit ranges.

### ***Equity in access to higher education is largely enshrined in policy***

Equity is an important determinant of high-quality education systems. The six SEE economies score 2.4 on average for the policy approach to improve equity in access to higher education indicator (Figure 7.15), meaning that almost all of them have developed some national policy approach to widening participation in HE, but have not managed to advance implementation to a satisfactory level.

In the Former Yugoslav Republic of Macedonia, Kosovo and Serbia, strategic documents include measures to widen the access to HE for under-represented groups. The Former Yugoslav Republic of Macedonia is the most advanced of the economies in using policy interventions to facilitate access for these groups. For example, each academic year, it provides six types of scholarship programmes for specific under-represented groups.

Albania and Montenegro have not included measures to widen participation in HE in any strategic document, but they have included such measures in their respective laws on HE. Montenegro has targeted support schemes which apply to students with special needs. Since the academic year 2015/16 students with special needs have been exempted by law from tuition fees; as of the academic year 2017/18, all first-year university students will be exempted from tuition fees. Albania provides targeted support to students whose families are included in social assistance programmes. Albania's law on HE

(adopted in 2015) foresees the creation of a national agency for financing higher education, which should further improve the process of identifying and supporting under-represented groups.

The Priorities for Development of Higher Education in Bosnia and Herzegovina 2016-26 foresees increased participation in higher education, but it remains to be seen how this objective will be implemented in practice. The Federation of Bosnia and Herzegovina has developed the Strategic Directions of Development of Higher Education in FbiH for 2012-22 – Synergy and Partnership, which does not explicitly mention an objective for widening participation in higher education but says that the state must take care of the underprivileged. The Republika Srpska Strategy for the Development of Education in 2016-21 does not specifically include objectives for widening participation in higher education, targets or an implementation timeline. However, it does list the “enhancement of student standards” as one of its five strategic objectives, including measures such as increasing the number of students in student accommodation centres, and granting scholarships for socially vulnerable students and students with disabilities.

### ***Career orientation services and links between HE institutions and businesses should be strengthened***

If young people choose the wrong career, the costs of later changes might be high, both for the individual and for the education system, although these costs may be reduced by flexible pathways to other occupations or educational tracks (OECD, 2010c).

In the six SEE economies, the unemployment rate of all HE graduates aged 15 and over averaged 16.2% in 2015, 7.7 percentage points below the average unemployment rate (Skikos, 2016). However, the average unemployment rate of recent HE graduates (those who graduated between 2010 and 2015) reached 37.1% in 2015, which underscores the difficulty HE graduates face during the transition from HE to the labour market. A recent study conducted by the European Commission (Skikos, 2016) found a large oversupply of graduates from some broad fields of study, such as business, administration and law. For example, in the academic year 2013/14, 28% of graduates completed their studies in the fields of business, administration and law, while 22% completed their studies in science, technology, engineering and mathematics (STEM) subjects (Skikos, 2016).

Skills mismatches amount to an inefficient allocation of resources, making it harder for productive firms to obtain skilled labour, reducing labour productivity at the economy level (Adalet McGowan and Andrews, 2015). Recent research conducted by the OECD South East Europe Regional Programme and summarised in the policy handbook *Bridging Skills Gaps in South East Europe*, suggests that considerable skills gaps are hampering labour productivity in the SEE economies (OECD, 2016d).

On average, the six SEE economies score 1.9 on the **career orientation services** indicator. Many have established career orientation services and have included the issue in recently adopted strategies. Nevertheless, career orientation services lack the human resources, capacity and information to provide adequate guidance. The largest public HEIs often have an operational career guidance centre in place. For example, in 2011 the University of Montenegro, in co-operation with the employment bureau, created the university’s Career Development Centre, which helps students to identify the right career path. More strategic approaches to improving career guidance, such as in the Former Yugoslav Republic of Macedonia and in Montenegro, have only recently been adopted and implementation has only recently begun. Finally, institutional collaboration is rather



weak. While most of the economies score 2, Bosnia and Herzegovina scores 1.5 due to weak and relatively underdeveloped career guidance.

“Entrepreneurship creates new companies, opens up new markets, and nurtures new skills” (EC, 2017b). Entrepreneurship can be encouraged by appropriate teaching (OECD, 2010d). Businesses need targeted support for start-ups and early growth, such as finance and training, to supplement entrepreneurship education. Universities are key players in these areas, while local government and public policy has a clear role in supporting them in these tasks (OECD, 2010d).

On average, the six SEE economies achieve a score of 1.8 for the **higher education and entrepreneurship** indicator. All of them, except Albania, have adopted strategic documents that make explicit reference to the importance of linking higher education, the labour market and entrepreneurship. In all six economies, one or more universities have entrepreneurship centres and/or incubators that organise entrepreneurship promotion events, provide support for business model and business plan development, and which actively recruit students from non-business and non-technical fields.

However, all of the economies still have room for improvement when it comes to stimulating linkages between higher education and entrepreneurship. Most economies have included objectives and policy measures in this regard in a (higher) education strategy document, but it remains to be seen to what extent those measures will be implemented.

### ***The way forward for higher education***

The six SEE economies should consider a number of actions for their HE systems in order to reduce skills mismatches, create a highly educated labour force which will be able to spur innovation, increase productivity and thus strengthen competitiveness.

**The economies should seek to design and implement comprehensive measures to encourage stronger co-operation between HEIs and businesses** when designing study programmes, and in providing work-based learning opportunities such as internships.

**All of the economies should carry out external evaluation of HEIs in accordance with the *Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)*,**<sup>9</sup> and should provide their HE quality assurance agencies with sufficient human and financial resources to guarantee the highest quality of study programmes.

**The economies should continue tackling the under-representation of socio-economically disadvantaged groups at HEIs.** They could consider using scholarship schemes to direct students away from over-supplied subjects towards those with better prospects of employment and fostering innovation, such as STEM subjects. They should also seek to implement policies that provide more informed and more systematic career guidance and orientation to students.

**The SEE economies should take more decisive action to increase the linkages between HE and entrepreneurship,** following the OECD good-practice criteria outlined in Box 7.3.

### Box 7.3. Good-practice criteria for linking HE and entrepreneurship

#### Strategy for supporting university entrepreneurship:

1. A broad understanding of entrepreneurship is a strategic objective of the university, and there is top-down support for it.
2. The objectives of entrepreneurship education and start-up support include generating entrepreneurial attitudes, behaviour and skills, as well as enhancing growth in entrepreneurship (both high-tech and low-tech).
3. There are clear incentives and rewards for entrepreneurship educators, professors and researchers who actively support graduate entrepreneurship (mentoring, sharing of research results, etc.).
4. The recruitment and career development of academic staff take into account entrepreneurial attitudes, behaviour and experience as well as entrepreneurship support activities.

#### Financing and human resources development:

A minimum long-term financing of staff costs and overheads for graduate entrepreneurship is agreed as part of the university's budget.

1. There is a goal for internal university entrepreneurship to become self-sufficient.
2. Entrepreneurship educators and staff involved in entrepreneurship start-up support are given human resource development.

#### Start-up support infrastructure:

The university has a dedicated entrepreneurship structure (chair, department, support centre), which closely collaborates, co-ordinates and integrates faculty-internal entrepreneurship support and ensures viable cross-faculty collaboration.

1. There are either facilities for business incubation on the campus or assistance is offered to gain access to external facilities.
2. There is close co-operation and referral between university-internal and external business start-ups and entrepreneurship support organisations; roles are clearly defined.

#### Entrepreneurship education:

Entrepreneurship education is progressively integrated into curricula and the use of entrepreneurial pedagogies is advocated across faculties.

1. The entrepreneurship education offer is widely communicated, and measures are undertaken to increase the rate and capacity of take-up.
2. There is a suite of courses, using creative teaching methods and tailored to the needs of undergraduate, graduate and post-graduate students.
3. The suite of courses contains a differentiated offer that covers the pre-start-up, start-up and growth phases. Active recruitment is practised for some courses.
4. Outreach to alumni, business support organisations and firms is a key component of entrepreneurship education.
5. The results of entrepreneurship research are integrated into entrepreneurship education messages.

**Box 7.3. Good-practice criteria for linking HE and entrepreneurship (continued)****Business start-up support provided by universities:**

Entrepreneurship education activities and start-up support are closely integrated.

1. Team building is actively facilitated by university staff.
2. Access to private financing is facilitated through networking and dedicated events. Mentoring by professors and entrepreneurs is offered.
3. Entrepreneurship support in universities is closely integrated into external business support partnerships and networks, and maintains close relationships with firms and alumni.

**Evaluation of university entrepreneurship support:**

1. There is regular stock-taking and performance checking of technology transfer and entrepreneurship support practice.
2. Evaluation of entrepreneurship education and start-up support activities is formalised and includes immediate (e.g., post-course), mid-term (e.g., graduation), and long-term (e.g., alumni and post-start-up) monitoring of its impact.

*Source:* OECD (2010d), *University Entrepreneurship Support: Policy Issues, Good Practices and Recommendations*, [www.oecd.org/edu/imhe/46588578.pdf](http://www.oecd.org/edu/imhe/46588578.pdf).

**Conclusions**

Overall, the six SEE economies have taken positive and important steps to improve the quality of education and the competencies of the labour force. All SEE economies have recently adopted (or are about to adopt) national strategies to improve education broadly and/or to address specific aspects. Outcome indicators show that SEE economies have made some progress in improving the knowledge and skills level of their populations, and in converging towards OECD and EU levels.

Despite these positive trends, the economies still have some way to go to catch up with the performance of education systems in OECD and EU countries. They need to overcome important challenges to assure the further improvement of education and competencies. ECE could be made more widely available and affordable, particularly in rural areas. Teaching as a profession still suffers from a poor image and teachers' low levels of participation in professional development are an obstacle to better performance. Increasing the share of in-company work-based learning and providing VET and HE students with relevant practical skills remains a persistent challenge. In light of youth unemployment rates and the unemployment rate of recent HE graduates, economies should prioritise aligning their study programmes more closely with the needs of the labour market and involving businesses and social partners more closely in the design of study programmes and work-based learning schemes.

Addressing those challenges with thorough policy implementation will strongly contribute to building firm foundations for boosting competitiveness and social well-being in South East Europe.

## Notes

1. EU-22 average refers to the 22 Member States of the European Union which are also members of the OECD: Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Luxembourg, the Netherlands, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden and the United Kingdom.
2. A score of 0 denotes absence or minimal policy development while a 5 indicates alignment with what is considered best practices. Each level of scoring is updated for the individual indicator under consideration, but they all follow the same score scale: a score of 1 denotes a weak pilot framework, 2 means the framework has been adopted as is standard, 3 that is operational and effective, 4 that some monitoring and adjustment has been carried out, and 5 that monitoring and improvement practices are systematic.
3. Calculated as a simple average of Albania, Bosnia and Herzegovina, the Former Yugoslav Republic of Macedonia, Montenegro, and Serbia. In general, SEE averages in this chapter are calculated as simple averages.
4. The “nominal” or money value of wages is expressed at current prices and is not adjusted for the effects of inflation. In comparison, “real” wages are adjusted for inflation.
5. The EU-6 comprises Belgium, France, Germany, Italy, Luxembourg and the Netherlands.
6. The CEEC-10 refers to the Central and Eastern European countries which joined the EU: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia.
7. There are four main administrative levels in Bosnia and Herzegovina: the State, the Federation of Bosnia and Herzegovina, the Republika Srpska and the Brčko District. The administrative levels of the State, the Federation of Bosnia and Herzegovina and the Republika Srpska are taken into account in the *Competitiveness Outlook 2018* assessment, when relevant. The Brčko District is not assessed separately.
8. Erasmus+ is the EU's programme to support education, training, youth and sport in Europe. Its budget of EUR 14.7 billion will provide opportunities for over 4 million Europeans to study, train, gain experience, and volunteer abroad (EC, n.d.).
9. The first *Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG)* were adopted by the Ministers responsible for higher education in 2005 based on a proposal prepared by the European Association for Quality Assurance in Higher Education in co-operation with the European Students' Union, the European Association of Institutions in Higher Education and the European University Association. *The Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) 2015* were adopted by the Ministers responsible for higher education in the European Higher Education Area in May 2015. For more information on the ESG, see EHEA (2016).

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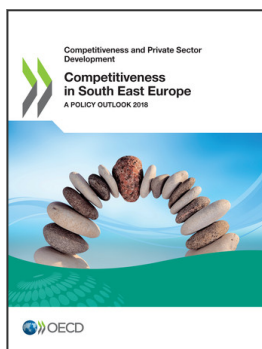
## *Annex 7.A1.*

### Education and competencies: Indicator scores

Table 7.A1.1. Education and competencies: Indicator scores

	ALB	BIH	KOS	MKD	MNE	SRB
<b>Access to and participation in high-quality education</b>						
Early childhood education	3.0	2.5	2.5	3.5	3.5	3.0
Teacher recruitment	3.0	1.5	2.0	2.0	2.5	2.5
Professional development of teachers	3.0	1.5	2.0	2.5	3.5	2.5
Equitable access to compulsory education	3.5	1.5	2.5	3.5	3.5	3.5
Strategies to prevent early school leaving	2.5	1.5	2.5	2.5	2.5	2.5
<b>Vocational education and training</b>						
Work-based learning (apprenticeships)	2.0	1.5	2.0	2.0	2.0	2.0
Quality assurance agency in VET	2.0	1.5	3.0	3.5	3.0	2.0
Continuing education and training	2.5	2.0	2.0	2.5	2.5	2.0
<b>Higher education</b>						
Implementation of national qualifications framework	3.0	2.5	4.0	4.5.0	4.5	3.0
Quality assurance agency in higher education	3.0	3.0	4.0	2.5	3.0	4.0
Work-based learning (internships)	1.0	1.0	1.5	2.0	3.0	1.5
Career orientation services	2.0	1.5	2.0	2.0	2.0	2.0
Policy approaches to improve equity in access to higher education	2.5	1.5	2.5	3.5	2.0	2.5
Higher education and entrepreneurship	1.0	1.5	2.0	2.5	2.0	2.0

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