OECD Reviews of Evaluation and Assessment in Education

BULGARIA

Caitlyn Guthrie, Annie Norfolk-Beadle,
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OECD

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BETTER POLICIES FOR BETTER LIVES

Please cite this publication as:
Guthrie, C. et al. (2022), *OECD Reviews of Evaluation and Assessment in Education: Bulgaria*, OECD Reviews of Evaluation and Assessment in Education, OECD Publishing, Paris, https://doi.org/10.1787/57f2fb43-en.

ISBN 978-92-64-90912-0 (print)
ISBN 978-92-64-68311-2 (pdf)

OECD Reviews of Evaluation and Assessment in Education
ISSN 2223-0947 (print)
ISSN 2223-0955 (online)

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Corrigenda to publications may be found on line at: www.oecd.org/about/publishing/corrigenda.htm.

Foreword

Bulgaria has made important economic and governance reforms over the past two decades that have produced impressive rates of economic growth and higher standards of living. At the same time, convergence to average European Union (EU) incomes has been slowing and poverty and other forms of social exclusion persist in rural and remote areas as well as among particular segments of the population.

Bulgaria recognises that education reform is vital. Results from the OECD Programme for International Student Assessment (PISA) 2018 suggest that a significant share of students (almost half) have not acquired baseline levels of reading proficiency by the time they reach 15 years of age. PISA results also indicate that economic, social and cultural status (ESCS) has an important sway on education outcomes. In 2018, ESCS-advantaged students outperformed disadvantaged students in reading by 106 score points in Bulgaria, compared to an average of 89 across OECD countries. Bulgaria's national strategic plan, Bulgaria 2030, highlights education improvement as a priority to reach the country's development goals by 2030.

Efforts to reform the education system have switched to a faster gear since 2016, following the adoption of the Pre-school and School Education Act. We are heartened to see Bulgaria's impressive reform initiatives and hope that the recommendations made in this review will help Bulgaria reach its longer-term objectives. We recognise that the COVID-19 pandemic has added new challenges to an already-demanding agenda. However, we are convinced that tools such as peer review and mutual learning can help to inform critical policy decisions, leveraging evidence and good practices established in many different contexts around the world.

This review was undertaken in partnership with the EU and the Ministry of Education and Science of Bulgaria. It provides a critical reflection on Bulgaria's present mechanisms for evaluation and assessment in education and the extent to which these mechanisms reinforce a focus on education outcomes. Most importantly, the review reflects on whether existing evaluation and assessment mechanisms help young people to accumulate the skills they need to thrive in 21st century work and life. With this paramount goal in mind, the review provides recommendations on how Bulgaria could adjust structures for classroom assessment, teacher appraisal, school evaluation and system evaluation, to ensure that all young people have access to quality education.

Acknowledgements

The review team would like to express special thanks to the Government of Bulgaria, under the leadership of the Ministry of Education and Science. In particular, we would like to note the significant level of support provided by Maria Gaydarova, Deputy Minister of Education and Science, Evgenia Peeva, Advisor to the Minister of Education and Science, Veselina Ganeva, Director for International Co-operation, and Krassimira Todorova, Chief Expert, International Co-operation Department, who helped steer the project and provided very valuable input. This review was funded by the European Commission (EC) and the review team would like to thank Alexandra Tamasan, Country Desk for Bulgaria, EC, and Susanne Conze, Head of Unit, EC, for their support for the project and their guidance and insights.

We are grateful to the officials and experts who provided extensive background information for this review. In particular, we would like to highlight the contributions of the following: at the Ministry of Education and Science, Alexandra Dimitrova, Head of the Policies for Strategic Development Unit, Polina Fetfova, Head of the Qualification and Career Development of Teachers Unit, Maria Todorova, Head of the Vocational Education Department, Greta Gancheva, Head of the Inclusive Education Department and Evgeniya Kostadinova, Head of Curricula and Study Content for the Pre-school and School Education Directorate, as well as, Aneliya Andreeva, Head of the National Inspectorate for Education, Neda Kristanova, Head of the Center for Assessment in Pre-school and School Education, and Nataliya Vassileva, Chief Expert at the Center for Assessment in Pre-school and School Education. The review team would also like to express special thanks to Mr Ilko Yordanov, who served as an Education and Bulgarian language consultant for this review and provided valuable guidance and support.

We sincerely thank the education experts, teachers and third sector organisations that took time to participate in the fact finding process. Valuable insights were provided by a plethora of local stakeholders, including representatives of the National Agency for Vocational Education and Training, representatives of the Bulgarian Union of Teachers and the Confederation of Labour Podkrepa, representatives of the regional departments of education (REDs) for Burgas, Sofia and Vratsa, teachers from Blogoevdrad, school principals from schools in Sofia region, Pleven and Vratsa, initial teacher education providers at the Universities of Plovdiv, Sofia, the South West (Blagoevgrad), Shumen, Veliko Turnovo, Thrakia, as well as Maria Yankova, UNICEF Country Office, Nelly Koleva, Teach for Bulgaria, and Deyan Kolev from the Centre for Inter-Ethnic Tolerance.

The OECD review team was led by Elizabeth Fordham (OECD Secretariat), co-ordinated by Caitlyn Guthrie (OECD Secretariat) and included Anna Vitória Périco e Santos (OECD Secretariat), Annie Norfolk Beadle (OECD Secretariat), Christa Rawkins (OECD Secretariat) and Kirsteen Henderson (external expert, Canada). Within the OECD Secretariat, we would like to thank Richard Ruochen Li who made helpful contributions to the report. The review team is grateful for the support and advice of Andreas Schleicher, Director for Education and Skills, and Paulo Santiago, Head of the Policy Advice and Implementation Division, Directorate for Education and Skills. Lidia Gromadzka and Anne-Victoire Suteau provided administrative support and organised the publication process, and Eleonore Morena and Rachel Linden helped to prepare the draft for publication.

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Abbreviations and acronyms

AQ	Additional qualifications
BDE	Bureau for Development of Education
BOSTES	Board of Studies, Teaching and Educational Standards
CBA	Computer-based assessments
CIS	Centre for Information Services
EC	European Commission
ECEC	Early childhood education and care
ECTS	European Credit Transfer and Accumulation System
ECTS	European Credits Transfer System
ESCS	Economic, social and cultural status
ESMS	Electronic Inspection Management System
EU	European Union
GDP	Gross domestic product
GDPR	General Data Protection Regulation
GPA	Grade point average
HDI	Human Development Index
ICCS	International Civic and Citizenship Education Study
ICT	Information and communication technology
ILO	International Labour Organization
IMSP	Individual Mandatory Student Plans
ISCED	International Standard Classification of Education
IT	Information technology
ITE	Initial teacher education
MAP	Measures of Academic Progress
NEA	National External Assessment
NGO	Non-governmental organisation
NSI	National Statistical Institute
OECD	Organisation for Economic Co-operation and Development
PIRLS	Progress in International Reading Literacy Study
PISA	OECD Programme for International Student Assessment
PPP	Purchasing power parity
RED	Regional department of education
SES	State Educational Standard
SICI	Standing International Conference of Inspectorates
SPU	Strategic Planning Unit
STEM	Science, technology, engineering and mathematics
SWOT	Strengths, weaknesses, opportunities and threats
TALIS	OECD Teaching and Learning International Survey
TIMSS	Trends in International Mathematics and Science Study
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
VET	Vocational education and training
WSE	Whole School Evaluation

Executive summary

Over the past five years, Bulgaria has undertaken several reforms to improve the quality of its education system and provide equal opportunities for all students. The country has introduced a new curriculum, policies to develop the teaching profession and attract new teachers, a new school funding model, a dual vocational education and training (VET) system and a compulsory pre-primary year, among others. To ensure that these reforms lead to large-scale improvements in student learning, Bulgaria will need to continue aligning its policies to ensure that they are coherent and provide additional support to help education actors adapt their practice. Policy makers will also need to target resources more effectively, to ensure they flow to the areas where they are most needed, namely the most vulnerable students, the most sought-after teachers and to supporting the lowest-performing schools.

Evaluation and assessment policies provide a lever for systemwide improvement. A sound evaluation and assessment framework will establish standards and expectations for different actors in an education system, allow them to periodically review performance and help identify where adjustments may be needed. This review examines Bulgaria's evaluation and assessment instruments to identify gaps in its policy framework that may hinder improvements to student learning. The review provides recommendations designed to help Bulgaria build on its reforms and prioritise its future investments. In particular, this review advises Bulgaria to strengthen communication between different system actors, to continue targeting areas where resources are most needed and, over the medium term, to undertake a systematic review of the design and use of its national assessment framework.

Making student assessment an integral part of student learning

Bulgaria introduced a new student assessment framework in 2016, which covers modern student assessment practices such as qualitative grading and diagnostic assessments in classrooms. A specialised agency, the Center for Assessment in Pre-school and School Education (hereafter the Center for Assessment) is responsible for centrally designed test items and administering nationwide assessments and examinations. Recently, the centre has been working to strengthen the State Matriculation examination's validity, reliability and integrity, which is now highly trusted as a metric for deciding admission into higher education. However, teachers and schools lack guidance and support to put new student assessment methods into practice and classroom-based assessment continues to be primarily summative. Concurrently, features of selection into and out of upper secondary education may distort both student learning and progression, and determine student pathways from a relatively early age. Bulgaria will need to ensure that student assessment is progressively used to guide student-centred teaching and learning, and that it is aligned with competency-based approaches. The country should build a common understanding of student assessment as central to learning, develop the capacity of teachers to use formative assessment and improve the validity and fairness of selection into and out of upper secondary education.

Ensuring that investment in the teaching profession is strategic and leads to improvements in quality

Bulgaria has significantly invested in its teaching profession over recent years and it has introduced a range of policies to develop the teaching profession and attract new teachers. It has introduced, for instance, new teacher standards, a teacher career structure linked to professional development and core content for initial teacher education programmes. The country also has an established framework for teacher appraisal, which it is currently revising. However, reforms in teacher policy need to be better linked, for instance by connecting appraisal processes and basing them on the new teacher standards, ensuring they are more geared towards helping teachers improve their practice. In addition, there is a need to improve the quality and relevance of initial teacher education, particularly in the context of an ageing cohort of teachers. Bulgaria should work to ensure that appraisal processes are more objective and consistent, and that teachers receive regular feedback to help improve their practice. In addition, it could meet the demand for new teachers and support their development through data-driven planning and updated initial teacher education curricula, as well as induction support. Finally, the country could ensure that teachers have access to quality in-service learning opportunities through supporting peer learning initiatives in school and on line, and through strengthening quality assurance and signposting in the provision of professional qualifications.

Establishing a common understanding of school quality and helping schools to lead their own development

Over the past five years, Bulgaria has established a new school evaluation system, with a central school inspectorate, the National Inspectorate of Education (hereafter the Inspectorate). It has introduced new school quality standards and the Inspectorate has decided to focus its efforts on low-performing schools. The country has plans to issue a new ordinance to regulate school self-evaluations and has introduced new measures to professionalise and develop school leaders. However, there is still no shared understanding of school quality among different actors in the education system and there is a lack of clarity around the new roles of the REDs with regard to the Inspectorate. Both the REDs and the Inspectorate lack resources, which may hinder their ability to carry out their tasks effectively. At the same time, self-evaluation is not compulsory and school leaders do not receive training either on conducting evaluations or on planning for school improvement. Bulgaria should ensure that its new school evaluation framework helps schools take charge of their own development and work towards national education goals as soon as possible. To achieve this, Bulgaria should work to build a common understanding of school quality, for instance through showcasing schools that have made good progress in meeting quality standards. It should also make sure that external school evaluations support school improvement, especially in at-risk schools, for instance by building RED capacity to fulfil their new, more formative mandate. Finally, the country should make regular school self-evaluation mandatory and build schools' capacity for development – for example by providing schools with a self-evaluation manual and data to benchmark with other schools that have similar features and by strengthening the principal's instructional leadership.

Building a system-level monitoring framework that can advance national education goals

Bulgaria has established clear long-term education goals, which provide an objective reference to guide evaluations at the system level. It also regularly participates in international assessments and runs an annual national assessment, which both provide learning outcomes data to monitor and evaluate performance against these goals. The Ministry has made a considerable investment to modernise its Education Management Information System (EMIS), which should significantly improve both the quality of

education data and reduce the burden to compile it. Bulgaria carries out research on major systemic issues and the modernised EMIS should provide new opportunities to carry out a more in-depth and regular analysis. At the same time, the National External Assessment (NEA) cannot currently produce quality data for system monitoring, due to issues around its design and implementation. Implementation planning could be improved and made more evidence-based, to ensure that high-level goals translate into concrete actions, and the country does not currently provide regular, comprehensive reports on system performance to key education actors and the wider public. In the short term, Bulgaria should continue to address any remaining gaps in the implementation of its new EMIS and consider reporting on system performance regularly and comprehensively to key stakeholder groups and the public. Over the medium term, Bulgaria should review the design and use of its NEA to reinforce its monitoring and formative potential.

Assessment and recommendations

Education in Bulgaria

Educational improvement aims to support inclusive and resilient growth in Bulgaria

Over the past three decades, Bulgaria has carried out important structural reforms which, alongside accession to the European Union (EU) in 2007, have contributed to robust economic growth and improved living standards (OECD, 2021[1]). Despite these efforts, convergence towards EU and OECD income levels has been slower than in other Central and East European countries. Economic growth is concentrated in regions with large cities, exports are dominated by primary goods and poverty remains high, particularly among ethnic minorities (OECD, 2021[2]). Demographic decline is producing additional pressures, with many rural regions suffering from both depopulation and rapid ageing. Positively, Bulgaria has seen strong performance in high value-added sectors, such as information and communication technology (ICT), where labour productivity appears more than twice the average rate recorded for the non-financial business economy (OECD, 2021[2]). Continued growth in these sectors could enable Bulgaria to boost its economic competitiveness and create more highly skilled jobs but this will be contingent on reforms in a range of areas, including education and skills.

The national development strategy, Bulgaria 2030, sets out an ambitious reform plan that identifies the importance of raising educational attainment and addressing inequities in order to sustain socio-economic growth. In December 2021, the government also announced plans for a new education programme to revise and update laws regulating the sector with the goal of making education more inclusive and improving co-ordination among stakeholders at the school level, state and local authorities, as well as across broader society (Fileva, 2021[3]). While these are positive developments, Bulgaria will require better data (particularly on the needs and outcomes of vulnerable groups), a closer monitoring of progress and stronger policy alignment to implement national education goals.

Bulgaria's education system has evolved over recent years but challenges remain

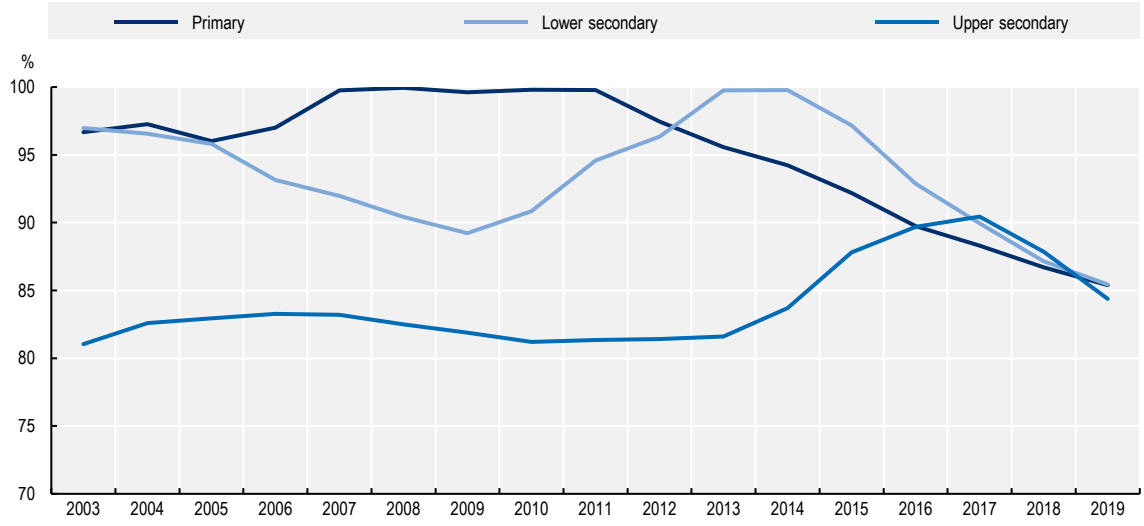
Participation in early childhood education and care is a central education priority

Bulgaria introduced legislation to make pre-school education compulsory for all children from age four starting in 2020. This move was designed to increase participation in pre-school education, which had been low and actually decreasing since 2015 (Eurostat, n.d.[4]; EC, 2020[5]). In 2018, only 82.4% of children aged 4 to 7 were enrolled in Bulgarian pre-schools, compared to the EU average of 94.8% (EC, 2020[5]). Programmes are also in place to support the most disadvantaged children by financing care-related fees, providing parental education and pedagogical, psychological and social support for children (EC, 2020[5]). Bulgaria's emphasis on raising pre-school participation reflects trends in many EU and OECD countries, which have also made investments in policies to increase pre-school enrolments as a means to support children's long-term development and improve overall equity in their education systems (OECD, 2020[6]).

Despite previous gains in secondary enrolments, participation in basic education appears to be falling

Over the past ten years, Bulgaria has made impressive gains in raising participation at the secondary education level but progress appears to have stalled and may be moving backwards (see Figure 1). For example, net enrolment in upper secondary education climbed steadily from 81% in 2010 to 90% by 2017 but has since been declining (UIS, 2018[7]). Enrolment in other levels of education have also been declining and, as of 2018, Bulgaria now has one of the lowest rates of net enrolment at the lower secondary level among regional peers (85%) – with Hungary (97%), Poland (98%) and Serbia (98%) all maintaining "full" participation at this level of education (ibid). While a mass-tracking campaign carried out in 2017 and 2018 suggested that over 80% of unenrolled school-age children were actually living abroad (EC, 2018[8]), there is also evidence that a significant number of students are leaving school for other reasons. Data compiled by the National Statistical Institute (hereafter the NSI) for the 2018/19 academic year suggests that 41% of primary students and 39% of lower secondary students who dropped out of schooling did so for "family reasons" (NSI, 2020[9]). There is a risk that Bulgaria's falling enrolment and completion rates will be compounded by the ongoing COVID-19 pandemic, as disruptions in learning may lead students, especially the most vulnerable, to not return to school.

Figure 1. Net enrolment rate by level of education in Bulgaria, 2003-18



Source: UIS (2018[7]), *UIS.Stat*, http://data.uis.unesco.org/ (accessed on 4 February 2021).

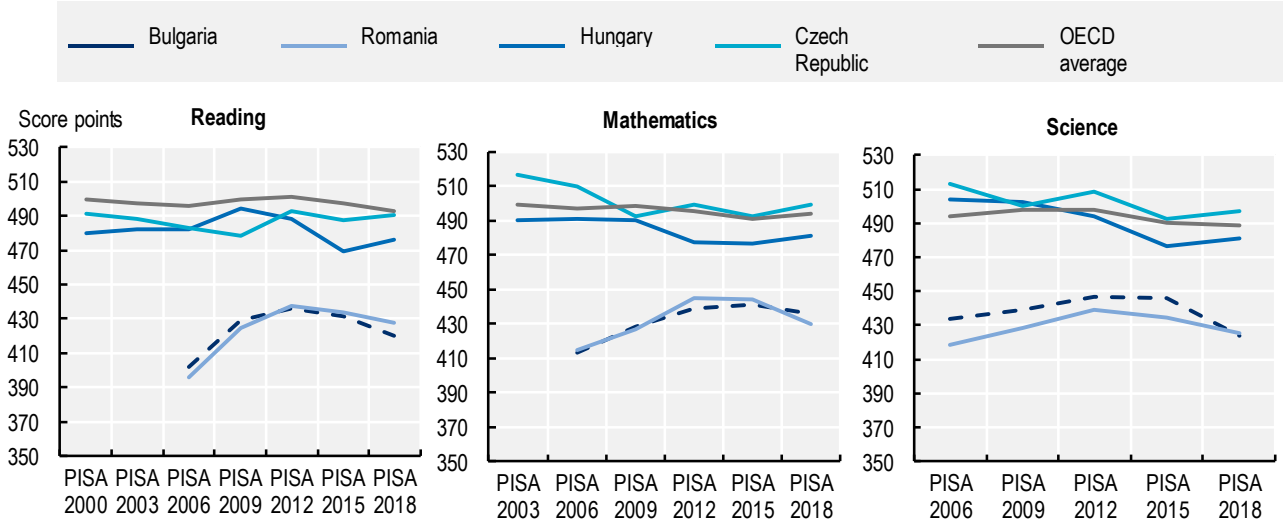
StatLink https://stat.link/67yjr4

Many young people have not mastered foundational competencies

Data from OECD Programme for International Student Assessment (PISA) suggest that a sizeable share of young people in Bulgaria have not acquired the foundational cognitive skills they need for lifelong learning and productive employment. In 2018, 32% of 15-year-old students scored below the baseline of Level 2 in all PISA subject domains, compared to an OECD average of 13% and an EU average of 14% (OECD, 2019[10]). PISA data also suggest that, like participation rates, progress in learning outcomes may have stalled or begun to move backwards over recent years (see Figure 2). There has been a significant statistical decline in reading outcomes between the 2012 and 2018 rounds of PISA (436 to 420), as well as in science (446 in 2015 compared to 424 in 2018). However, the lack of a national assessment that

produces reliable and timely trend data makes it difficult to understand students' learning progression across grades and over time.

Figure 2. Trend in average reading, mathematics and science scores by PISA cycle



Source: OECD (2019[10]), *PISA 2018 Results (Volume I): What Students Know and Can Do*, https://doi.org/10.1787/5f07c754-en.

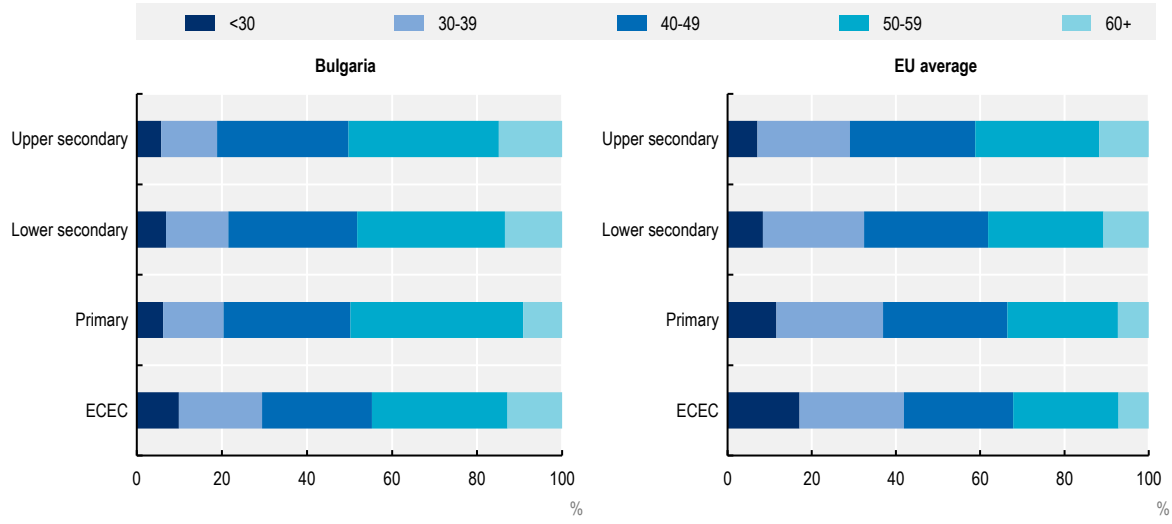
StatLink https://stat.link/9yxqo5

Teaching practices and the school environment are not conducive to student learning and engagement

Similar to many European countries, Bulgaria has an ageing teaching profession, which creates concerns about teacher shortages and outdated pedagogical skills. Data from TALIS 2018 indicate that over half of Bulgaria's teachers at the lower secondary level are aged 50 or above, compared to an average of 34% in OECD countries (see Figure 3) (OECD, 2019[11]). Until recently, the country also faced difficulties in attracting new entrants to the teaching profession, especially for posts in rural areas and high-demand subjects. While recent increases to teacher salaries have helped facilitate the recruitment of new teachers, many practising teachers report a need for training in modern teaching methods, such as using ICT in the classroom, managing student behaviour, teaching in a multicultural or multilingual environment and supporting children with special needs (OECD, 2019[11]). Where training does exist, it is often of poor quality and prohibitive cost (OECD, 2019[11]).

There are other concerns with the teaching and learning environment in Bulgaria. Demographic trends have provoked school closures in rural areas and the overcrowding of schools in urban areas. This context, combined with the squeeze in the teacher workforce, has contributed to shorter instructional time in Bulgarian schools for key subjects, compared with other EU countries (IEA, 2017[12]; 2020[13]). Findings from PISA 2018 also suggest issues around student engagement and the school environment. Some 44% of students report that they had skipped a whole day of school at least once in 2018, compared to an OECD average of 21%, and 34% of students report that they are bullied at least a few times a month, compared to an OECD average of 23% (OECD, 2019[14]). Moreover, during the COVID-19 pandemic, keeping students engaged in an online environment where classes often took place, added extra pressure on teachers, parents and students themselves. This is particularly the case for students from disadvantaged backgrounds, as they are more likely to lack the parental support, resilience, learning strategies or engagement to learn on their own (OECD, 2020[15]).

Figure 3. Teachers' age by level of education that they teach in, 2019



Note: ECEC – Early childhood education and care.
Source: Eurostat (2021[16]), *Classroom Teachers and Academic Staff by Education Level, Programme Orientation, Sex and Age Groups [educ_uoe_perp01]*, https://ec.europa.eu/eurostat/data/database (accessed on 20 July 2021).

StatLink https://stat.link/47wqxt

Learning outcomes are notably lower for ethnic minorities and those living in rural areas

International assessments suggest significant variation in learning outcomes among different demographic groups. PISA 2018 found a 106 score point difference in reading between students from disadvantaged versus advantaged socio-economic backgrounds in Bulgaria, compared to an 89 score point difference on average across the OECD and smaller gaps in neighbouring North Macedonia (80 score points) and Serbia (73 score points) (OECD, 2019[10]). Participation in schooling is also much lower among minority groups, with Roma children significantly under-represented in non-compulsory pre-school education and an estimated 45% of Roma leaving school before they complete secondary education (Republic of Bulgaria, 2019[17]). Variations in access to education also persist between rural and urban regions within Bulgaria, which risk compounding inequalities. The closure of schools and fewer educational facilities in rural and remote areas may be contributing to a higher rate of students dropping out before completing lower secondary school. Data reveal that the share of students who do not complete lower secondary school reaches 30% in villages and over 15% in small towns (EC, 2018[8]). The COVID-19 crisis has created new risks of learning loss and deepened inequalities. Early studies suggest that at least 50 000 school-age children in Bulgaria experienced significant learning disruption, a fifth of surveyed students reported performing worse and around half reported feeling lonely, insecure and angry (UNESCO, 2020[18]).

Bulgaria is working to improve teaching and learning

Over the past five years, Bulgaria has embarked on an ambitious path to modernise its education system. The national development strategy, Bulgaria 2030, sets out the country's aim to become a knowledge- and innovation-intensive economy by 2030, with a high-technology industrial base (Ministry of Finance, 2020[19]). This calls for more students to develop higher-order competencies, such as critical thinking, creative problem solving and entrepreneurial mindsets, as well as stronger digital skills to facilitate the widespread adoption of ICTs. The country's Pre-school and School Education Act in 2016 has also paved the way for a wave of structural reforms – including the introduction of a new competency-based curriculum, a dual vocational education and training (VET) system, a compulsory pre-primary year, a

modern school inspectorate, an increase in teachers' salaries and a more formative role for the regional departments of education (REDs). These reforms set out an ambitious vision and actionable steps to ensure that all students have access to quality schooling and gain relevant skills. At the same time, Bulgaria continues to face pressures that may challenge its ability to deliver on these reforms, not least relatively low per-student funding and notable funding gaps between municipalities. Institutional and professional capacities are also relatively weak, as is the technological infrastructure. The recently announced national education programme and pandemic recovery efforts represent a critical opportunity to strengthen the foundations for implementing Bulgaria's education reform agenda.

Evaluation and assessment in Bulgaria

Applying the OECD framework for evaluation and assessment policies to Bulgaria's education system

Over the past decade, the OECD has reviewed evaluation and assessment frameworks in over 30 education systems to help identify the factors associated with improving educational quality in different contexts. This research revealed three hallmarks of a strong evaluation and assessment framework that promotes the quality and equity of student learning. First, such a framework sets clear standards for what is expected nationally of students, teachers, schools and the system overall. Second, it directs the collection of data on performance, helping to ensure that stakeholders receive the information and feedback they need to reflect critically on their own progress and identify steps that will help them advance. Third, it promotes coherence and alignment, so the whole education system can work in the same direction and use resources effectively. This report recommends ways in which Bulgaria can strengthen its evaluation and assessment framework in the school education sector. Such policies are particularly important in the wake of COVID-19, as they play a crucial role in helping teachers, schools and policy makers to identify students who have fallen behind or dropped out, adapt instruction and redirect resources to where they are needed most.

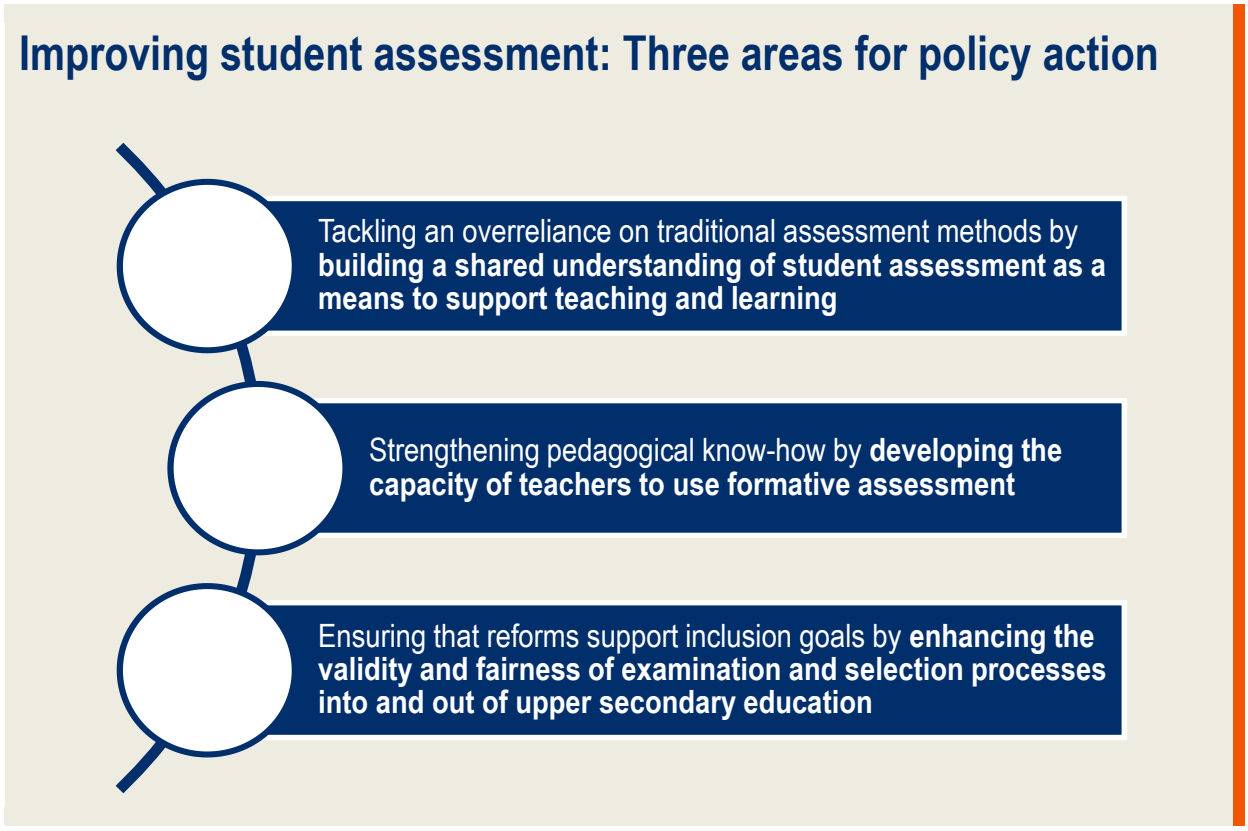
While Bulgaria has created new learning standards, as well as broader evaluation and assessment policies that are aligned with the Pre-school and School Education Act (2016), the country's high-stakes sorting and examinations culture continues to reinforce the perception of student assessment as a primarily summative exercise. Going forward, this review recommends that Bulgaria develop a new student assessment framework focused primarily on improving student learning. The country will need to remove practices that stand in the way of this goal, such as the National External Assessment (NEA), which currently helps select students into different pathways and does not produce trend data to fully support its system monitoring function. Redesigning the NEA as part of a new national assessment framework would help ensure it serves as a formative tool to support system monitoring and student learning. This review also sets out recommendations for how Bulgaria can close implementation gaps between its stated education policies and the school practices. For example, despite having a set of school quality standards, stakeholders often make narrow comparisons of schools using results from national examinations and academic competitions. Bulgaria could communicate a more comprehensive understanding of school quality and help facilitate a culture of improvement by providing more contextualised information on school performance and sharing examples of school practices that exemplify the national quality standards.

This report aims to support the Bulgarian government not only in strengthening its education policies but also in reviewing how it spends educational resources. Such processes are especially important as the COVID-19 pandemic continues to put additional pressure on public budgets. In a positive way, Bulgaria's new school funding model has started directing more public education resources towards vulnerable groups and regions. This review proposes ways in which Bulgaria could further target available resources to where they can have the greatest impact. For example, investing in reporting templates and resources to improve the quality of start-of-year diagnostic assessments could help identify and address learning

gaps before they become more problematic. Another example relates to the incentives and rewards for teachers and schools. While financial incentives, such as increases in salaries or extra funding for good results on external school evaluations can help drive improvements, these policies are associated with high costs. Bulgaria should instead consider targeting financial incentives and exploring non-financial rewards that would help free up resources to raise standards and learning outcomes in low-performing schools. Evaluating, reporting and adapting education policies in these ways can help Bulgaria strengthen trust in its reforms and create an enabling environment that not only improves teaching and learning but also advances the country's wider socio-economic development goals.

Student assessment supports learning by helping teachers, students and parents determine what learners know and what they are capable of doing. This information can help identify specific learning needs before they develop into serious obstacles and enable students to make informed decisions about their educational pathways.

Bulgaria's new competency-based curriculum has introduced important changes to student assessment policy, such as the use of start-of-year diagnostic tests, qualitative marking and a set of expected learning outcomes for each subject and grade level. While these policies have the potential to enhance the quality of education, practical changes in school and classroom practices have been slow to take effect. As a result, classroom-based assessments continue to focus on traditional summative tests, with a narrow emphasis on performance in a limited range of tasks as opposed to broader, deeper learning. The ability of teachers to adopt new assessment practices is also constrained by a lack of training and support, as well as political and public expectations of how to assess students and demonstrate achievement. These factors have important implications for Bulgarian students, as they encourage an educational approach that can undermine student agency, engagement and progress, and is not coherent with the goals of the country's new competency-based curriculum.



Policy issue 2.1. Building a shared understanding of student assessment as a means to support teaching and learning

Bulgaria has demonstrated a clear political will to modernise pedagogical approaches within its school system. This can help address some of the country's major education challenges like tackling drop-out and raising student achievement since such practices can create a supportive learning environment that encourages all students to succeed. However, extensive changes to policy documentation have not translated into substantial pedagogical innovation or practical changes in student assessment at the classroom level. This is symptomatic of both a traditional culture of simple, summative assessment and a lack of attention to the resources and capacity needed to implement education reforms. Bulgaria needs to communicate the need and rationale for adopting new approaches to assessment, especially in the classroom. Enhancing the link between assessment and learning in a clear and coherent policy framework can help in this regard. At the same time, school leaders and teachers need support and practical resources to implement pedagogical changes successfully.

- ***Recommendation 2.1.1. Establish a clear and coherent national vision of student assessment.*** Bulgaria needs to establish student assessment as a central part of the learning process. Developing a common vision that provides an overview of the various components and instruments included in Bulgaria's national assessment framework, as well as their different purposes, value and how they work together should be formalised in both legislation and accompanying explanatory materials. This can help shift the existing emphasis on summative assessments and high-stakes testing, towards a more balanced and comprehensive approach to assessing students. Engaging key stakeholders in the elaboration of the national vision of student assessment and using the exercise to make the country's learning standards more coherent,

accessible and practical can help ensure that it serves as a clear reference point for actors across the education system in years to come.

- ***Recommendation 2.1.2. Adapt the reporting of student learning information to promote a broader understanding of assessment.*** As in other countries with a strong history of summative assessment, Bulgaria faces the challenge of balancing tensions between stated commitments to using a wider range of assessments on the one hand and public, parental and political pressure for accountability in the form of scores and rankings on the other. To implement new assessment techniques in the classroom, Bulgaria should change student marking and reporting procedures so that they are more conducive to learning. Specifically, the government should reduce the frequency of required continuous assessments and instead consider requiring teachers to provide more granular, descriptive feedback at key moments in the school year. The Ministry of Education and Science (hereafter the Ministry) could also reframe qualitative descriptors to better promote progress (e.g. "exemplary" or "undeveloped" rather than "excellent" or "poor") and should develop a range of substantive guidance materials to support students, teachers and parents in using reports and feedback more constructively. Such adaptations can create a more inclusive and individualised learning environments in Bulgarian classrooms, helping to address educational disparities among student demographic groups and raise overall learning outcomes.

Policy issue 2.2. Developing the capacity of teachers to use assessment formatively

Many teachers and principals in Bulgaria are committed to making assessments more informative for their practice and more meaningful and motivational for students. However, formative assessment is commonly misunderstood as "summative assessment done more often". Without a deeper understanding of formative assessment and the confidence to use these practices in their classrooms, teachers in Bulgaria will likely struggle to address the diverse learning needs of their students, which in turn, this risks leading some students to disengage in the learning process. Bulgaria therefore has considerable scope to clarify teachers' understanding of formative assessment and develop their skills in this area.

- ***Recommendation 2.2.1. Promote the use of diagnostic assessments to help teachers better understand and adapt to the learning needs of students.*** In Bulgaria, where large shares of students do not master basic skills and where learning gaps and disengagement start early, embedding formative assessment practices in the classroom has the potential to have a considerable positive impact on the learning of all students. To strengthen teachers' formative assessment practices, Bulgaria should optimise the existing start-of-year diagnostic tests by enhancing their design quality and use. For example, introducing requirements for reporting diagnostic assessment results would help teachers in using this instrument for its intended purpose. At first, Bulgaria could focus on improving the administration and use of diagnostic assessments in priority subjects (e.g. mathematics) and priority years (e.g. the early years of primary education), before scaling to include other areas. This approach can help target investments in the diagnostic assessments to where they are likely to have the greatest impact on improving student performance.
- ***Recommendation 2.2.2. Foster real change at the classroom level by making training on formative assessment a priority for all teachers.*** Another way that Bulgaria should build capacity for formative assessment is by making this topic a prominent feature of initial teacher education and the teaching practicum. For in-service teachers, Bulgaria should provide methodological support on formative assessment (an initiative that could be facilitated through REDs), as well as create incentives for more experienced or engaged teachers to support colleagues in developing formative assessment practices within their schools. Together, these

types of formal and peer learning structures can help teachers strengthen their assessment literacy while also aligning intended, implemented and assessed curricula.

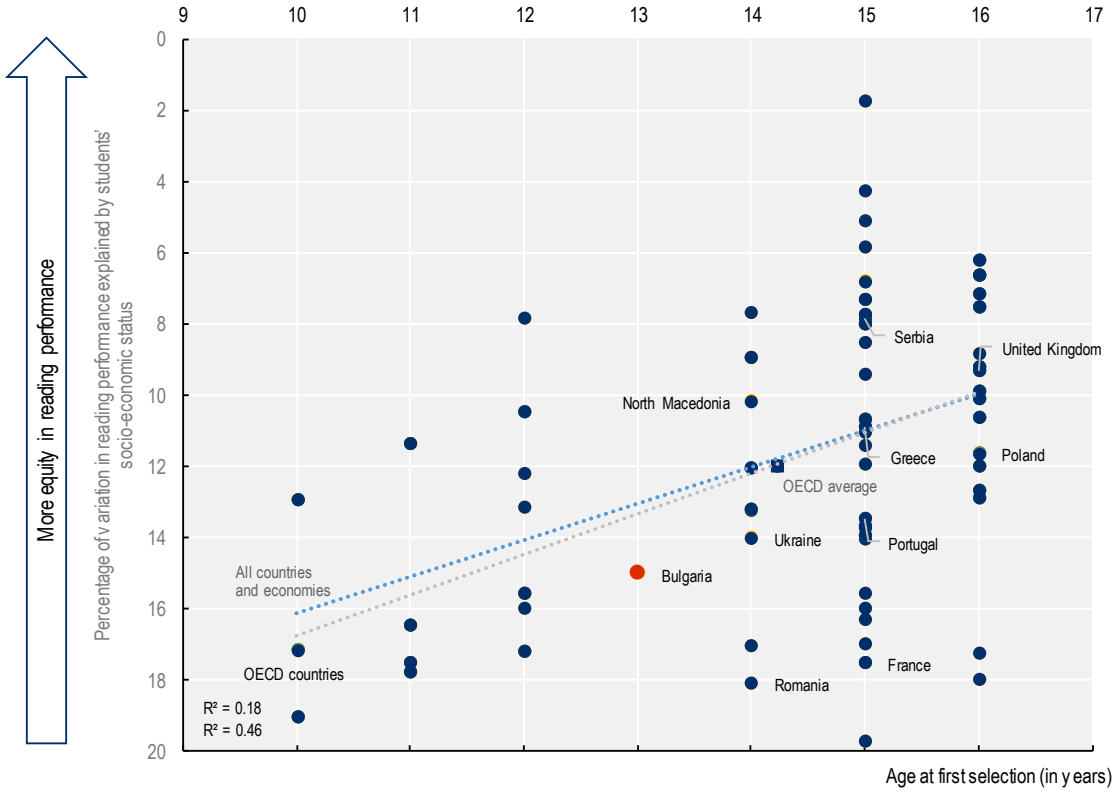
- ***Recommendation 2.2.3. Equip teachers with a range of practical support to facilitate formative assessment in the classroom.*** Supporting teachers to integrate formative assessment in their classrooms will require ongoing support and resources that are easy to use in daily teaching practices. To do this, Bulgaria should gradually build an online library of guidance materials on formative assessment tools. This platform could include exemplar student report cards, rubrics for assessing students' learning against expected learning outcomes and video tutorials on key aspects of formative assessment featuring good practices modelled in real classroom environments. The Ministry could also identify guidelines for REDs to support teachers with formative assessment while still allowing them to develop their own training programmes. Drawing on the expertise of REDs and collecting feedback from teachers and school leaders about the kinds of support they receive can help improve the quality and relevance of training and support offered to teachers already working in Bulgarian schools.

Policy issue 2.3. Enhancing the validity and fairness of examination and selection processes into and out of upper secondary education

Bulgaria provides multiple pathways into upper secondary education, which in principle encourages students to select study programmes that match their ambitions and aptitudes. In practice, however, selection processes appear to distort both student learning and progression. For example, the Grade 7 NEA, implemented initially as a monitoring tool, plays an outsized role in determining students' educational destinies without safeguards to mitigate the adverse effects of high-stakes testing and a negative backwash on the curriculum. Moreover, student selection occurs at age 13 in Bulgaria, markedly earlier than in most countries across Europe and the OECD (see Figure 4), exacerbating challenges to system quality and equity. At the end of upper secondary education, the vast majority of students now take the State Matriculation examination, which is considered a valuable tool in facilitating student transitions. The integrity and reputation of the State Matriculation exam have increased in recent years thanks to its secure development, administration and marking procedures. However, there is scope to align this examination more closely with the subject areas covered in Bulgaria's national curriculum and with broader goals, given that few students choose to take the examination in high-demand science, technology, engineering and mathematics (STEM) subjects.

Figure 4. Age at first selection and equity in reading performance

Selection at an earlier age is correlated with less equity in reading performance



Source: OECD (2021[20]), "PISA: Programme for International Student Assessment Database", https://doi.org/10.1787/data-00365-en.

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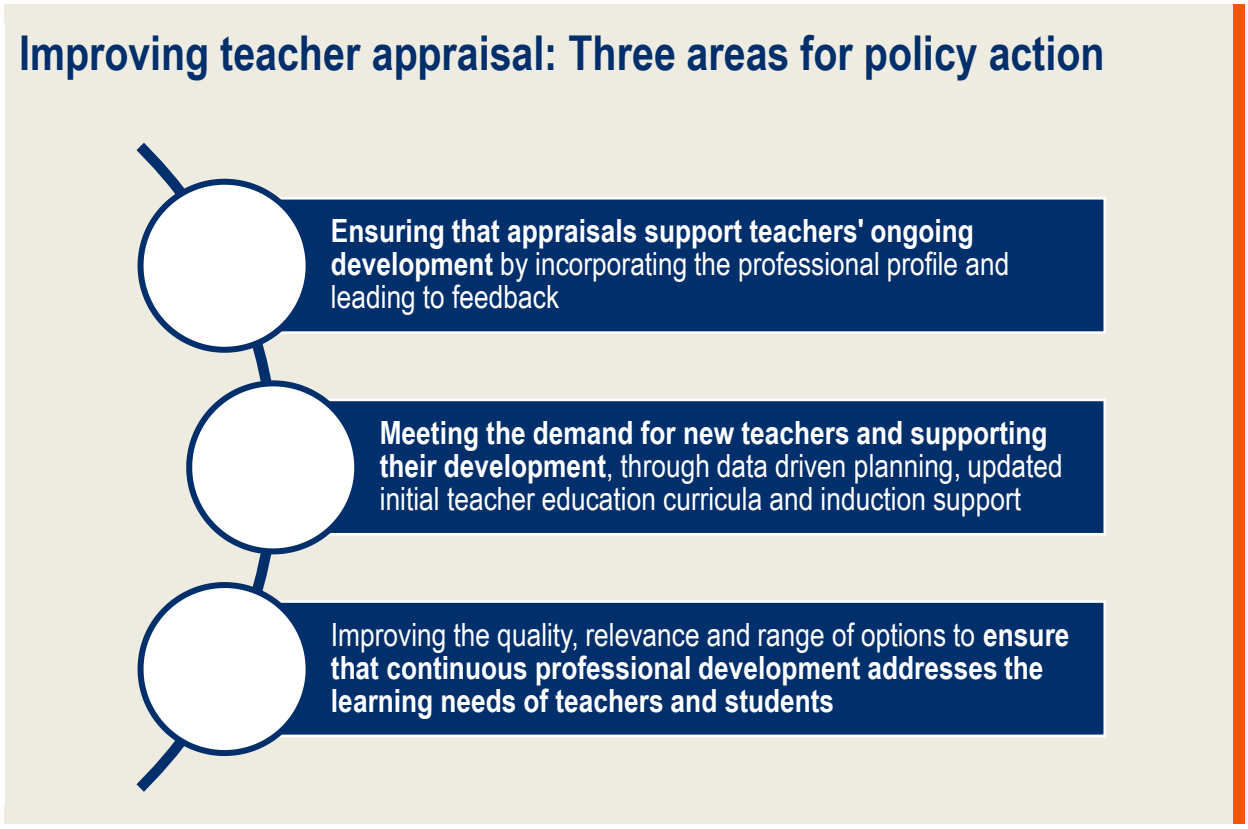
- ***Recommendation 2.3.1. Reform the selection process into upper secondary to increase equity and facilitate quality learning in Grade 7 of lower secondary school.*** While in the long term, Bulgaria should reconsider the use of an examination at age 13, in the immediate term, there is a need for reliable, external input at the transition point between lower and upper secondary education. This is particularly true for those students applying to the most in-demand schools in the country. Bulgaria should therefore decouple the selection process from the Grade 7 NEA and introduce a new, optional selection examination better suited to generating useful information about a student's suitability for a certain school type or educational programme. Bulgaria should also consider ways to enhance the reliability of the assessment data used for selection, by reducing the influence of teacher-assigned marks from the process, at least until – through reinforced training and support for teachers – classroom assessment has become more reliable and valid.
- ***Recommendation 2.3.2. Enhance the validity of the State Matriculation examination to ensure it more fully fulfils its dual purpose of certifying achievement against national learning standards and signalling suitability for transition to higher education.*** While Bulgaria's State Matriculation examination demonstrates a high degree of reliability (it consistently measures what it sets out to measure), there is scope to improve its validity (its alignment with stated objectives). Bulgaria should continue to align the State Matriculation with the national competency-based curriculum and other curricular priorities. Since the distribution of marks on the

State Matriculation varies considerably between subjects (i.e. an “excellent” in one subject may indicate a level of proficiency not matched by an “excellent” in another subject), there is speculation about the perceived difficulty of certain subject tests. This may be influencing students’ choices about which subjects to take more than their own ambitions or aptitudes. Bulgaria should therefore increase the examination’s power of discrimination by removing the predetermined pass/fail score and investigating current imbalances in the distribution of scores across different subject tests. Such efforts would help to ensure that the State Matriculation is a useful indicator of student proficiency and help accurately signal a student’s level of competency to future education providers or employers.

Teacher appraisal supports teaching and learning by providing teachers with feedback on their performance and competencies. Well-designed appraisals support teachers’ professional development and hold them to account for their practice, in turn helping to raise student achievement.

Bulgaria has introduced reforms to attract new teachers and develop teachers’ competencies in line with a broader shift towards more student-centred instruction. These reforms include a new differentiated teacher career structure, a significant increase in teachers’ salaries and mandatory continuous professional learning requirements. In addition, a new teacher appraisal process aims to inform promotion decisions. Bulgaria has also updated the core content for initial teacher education, eliminated tuition fees for many initial teacher education programmes and updated the teacher professional profile. The overall number of reforms introduced in recent years is impressive and shows a clear commitment to investing in the teaching profession. However, many of these reforms have significant financial implications for the Bulgarian government and there is a need to ensure coherence across initiatives. For instance, linking appraisal to the new professional profile and differentiating the profile to align with stages of the teacher career structure could better support teachers’ professional development. Importantly, if Bulgaria does not link recent investments in teachers to structural policies that help recruit the best and most motivated candidates, as well as encourage practising teachers to develop their competencies, it is unlikely these reforms will contribute to overall improvements in teaching and learning.



Policy issue 3.1. Ensuring that appraisals support teachers' ongoing development

It is positive that Bulgaria already has a professional profile for teachers that provides shared language around expectations for what teachers should know and be able to do, as well as a range of appraisal processes that serve a variety of purposes, such as certifying new teachers, rewarding them with financial bonuses and informing career progression. These policies can help inform teachers' self-evaluations and continuous professional development. However, the professional profile does not relate to the teacher career path, nor does it serve as the main criteria to appraise teachers' performance for career progression. Bulgaria should differentiate the professional profile and make appraisals more consistent and reliable. This will help reward teachers for developing their competencies, therefore leveraging public funds to improve teaching quality.

- ***Recommendation 3.1.1. Revise the professional profile for teachers to support appraisal and motivate development throughout a teacher's career.*** Bulgaria's professional profile does not define the specific competencies teachers are expected to develop for each stage of their careers and the career path itself does not meaningfully distinguish between the functions of senior and chief teachers or offer substantial salary increases over time. Moreover, the competencies for trainee teachers do not relate to the professional profile. This context makes it difficult to encourage teachers to develop their competences in areas of national importance for the education system, such as using ICTs, managing classroom behaviour and supporting diverse cohorts of students, especially those with special education needs. Bulgaria should therefore revise the professional profile to align with the entire teacher career structure, from new entrant to chief teacher, which would help create a more unified and consistent system of teacher development. Importantly, this new profile should serve as the basis for decisions about performance-based career progression

and associated salary increases. Such changes stand to help motivate teachers in Bulgaria to develop their teaching practice throughout their career.

- ***Recommendation 3.1.2. Modify the attestation appraisal to objectively and consistently assess real teaching practice and support teacher development.*** Bulgaria's new attestation appraisal is not based on a common set of standards and will be carried out by appraisers who have a working relationship with the teacher, rather than by external evaluators. This might raise doubts about the fairness and reliability of promotion decisions. To improve the integrity of appraisal for promotion, Bulgaria should introduce more objectivity to the process by requiring that actors external to the school lead the commission for teacher attestation appraisals or validate the decisions made by local actors. The attestation appraisal should also require teachers to demonstrate how they are supporting the learning of all students. Adding classroom observations and removing appraisal elements that promote a narrow focus on the top-performing students (e.g. winning Olympiads) as well as developing training and guidance on how to conduct the attestation appraisal can help in this regard.
- ***Recommendation 3.1.3. Provide feedback on teachers' performance and support their ongoing development between attestation appraisals*.** While school principals in Bulgaria periodically monitor teachers' work, there is no regular appraisal process to support teachers' professional development. The feedback teachers receive from these types of appraisals can help encourage their self-efficacy, for example in using more student-centred approaches, and help them better understand and direct their own learning. To strengthen the use of formative appraisals, Bulgaria should introduce an annual school-based appraisal process that is led by school-based actors who are familiar with the teacher and can encourage open and honest sharing of needs and feedback. This type of low-stakes appraisal can be an effective way to strengthen teaching and learning in schools.
- ***Recommendation 3.1.4. Use a more objective process to reward teachers for their performance*.** Bulgaria has an annual assessment of teachers that result in "additional labour remuneration". This performance-based reward is a longstanding supplement to teacher salaries. However, since Bulgaria has significantly increased teacher pay and may need to continue doing so over time, now is an opportune moment to evaluate how the funds allocated to additional labour remuneration could be used more effectively and efficiently. In the short term, for example, Bulgaria might redirect funds to incentivise teachers to work in hard-to-staff schools or high-demand subject areas. In the medium to longer term, Bulgaria's professional career structure for teachers should reward performance through promotion to higher career levels. Importantly, these higher career levels will need to be associated with substantial raises that extend well into a teacher's career so that they do not reach a maximum salary within too short a period. There may be resistance to these changes and the government should work with the teachers' unions to carefully plan for the transition and make better use of available public resources.

Policy issue 3.2. Meeting the demand for new teachers and supporting their development

Bulgaria is recruiting a large number of new teachers to replace the ageing teaching population and has introduced reforms to improve the initial preparation of teachers. However, teacher trainees are still not sufficiently prepared in the student-centred approaches needed for Bulgaria's competence-based school curriculum. As a priority, Bulgaria should introduce additional measures to improve the quality and relevance of initial teacher education programmes and establish a minimum threshold for admission. Without proactively managing the supply and demand of teachers, as well as providing incentives for teachers to work in harder-to-staff regions of the country and teach subject areas facing shortages, Bulgaria will likely continue to struggle to address educational inequities and improve teacher quality.

- ***Recommendation 3.2.1. Make sure that initial teacher education programmes help teachers develop the competencies they will need at the start of their careers.*** While it is positive that Bulgaria recently amended legislation to establish minimum standards and content for initial teacher education courses, many providers do not yet meet these requirements. Bulgaria will need to take action to ensure that initial teacher preparation actually changes to better prepare teachers for their work in the classroom. To help implement the new requirements, Bulgaria should establish specific accreditation criteria that require initial teacher education providers to demonstrate how their programme addresses and evaluates the competencies expected of new teachers. Bulgaria could also establish a working group to support providers in redesigning their programme curricula, practicum requirements and practical-applied examinations.
- ***Recommendation 3.2.2. Make sure that the best candidates become teachers and fill shortage areas.*** Bulgaria needs to ensure the quality of new graduates from initial teacher education programmes and address remaining teacher shortages in specific locations and subject areas. These actions are crucial to make the most of Bulgaria's recent investments in the teaching profession. Ways to do this include establishing entry requirements for initial teacher education that identify candidates who are well-suited to teaching, as well as incentivising experienced teachers to work in harder-to-staff areas. The Ministry should base any decisions about entry requirements and incentives on systematic forward planning to manage the labour market, which would help improve the efficiency of public resources.
- ***Recommendation 3.2.3. Formalise the appraisal of new teachers and provide them with effective induction support.*** Bulgaria currently lacks a consistent process to appraise new teachers' performance against common standards. Moreover, despite the fact that schools are required to provide new teachers with mentors, these arrangements are generally insufficient, partly because mentors themselves do not receive training and support for their role. Bulgaria should therefore consider introducing an appraisal process based on "new teacher" competencies outlined in a revised professional profile and regulating specific induction support for all novice teachers. Guaranteeing a more supportive induction period will help to retain new teachers, which has been a challenge for Bulgaria.

Policy issue 3.3. Ensuring that continuous professional development addresses the learning needs of teachers and students

Bulgaria has reformed its teacher professional development system over the past decade, which has encouraged more teachers to participate in professional learning. However, teachers have little information on the quality and relevance of different providers, which is critical to navigating the professional development system and ensuring that training actually helps to improve their teaching practice. Addressing these concerns and aligning the system more closely to national education goals (e.g. inclusive education and using formative assessment to improve learning outcomes) can help Bulgaria further leverage the significant public investment it is making in the teaching workforce.

- ***Recommendation 3.3.1. Enhance the relevance and quality of professional learning.*** As of 2021, 247 training organisations offering 4 431 programmes were listed on the Ministry's online information register (Ministry of Education and Science, 2021[21]). Having such a large continuous professional development market without rigorous quality assurance and monitoring procedures makes it difficult to ensure that programmes align with the professional profile for teachers and meet other requirements. While Bulgaria has already taken steps to collect feedback on training programmes, there is still a need for more formal quality assurance mechanisms. For example, the Ministry should devote sufficient staff to review the accreditation of providers, establish a process to investigate complaints lodged by participants and make better use of data to annually identify areas of teaching and learning that require the most improvement. These actions can help

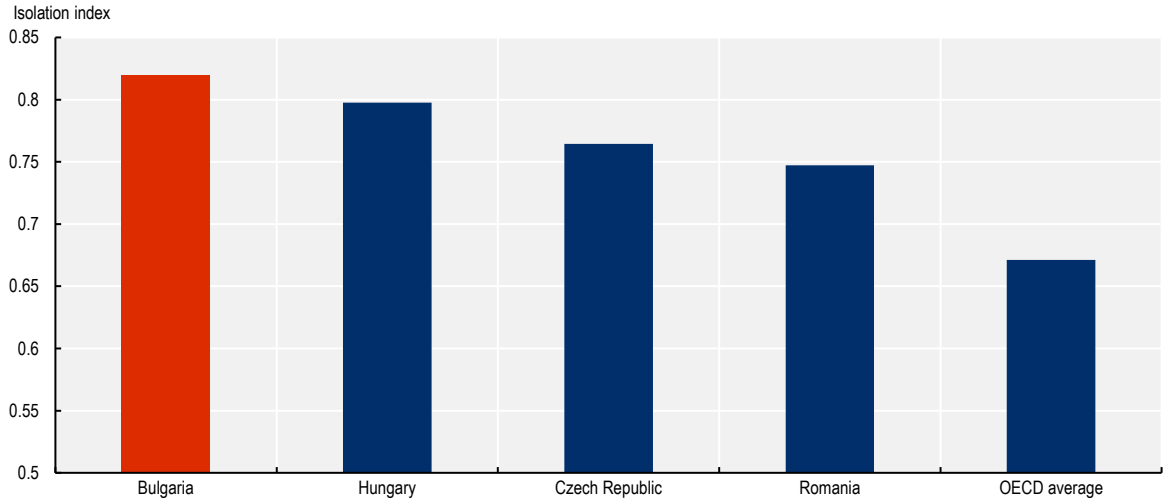
guarantee that professional learning programmes cover essential competencies and support Bulgaria's broader education goals.

- ***Recommendation 3.3.2. Support teachers' collaborative learning in schools and online.*** While enhancing the relevance and quality of formal training providers should be the Ministry's immediate priority, developing new measures to further support teachers' school-based and virtual learning is a cost-effective way to complement these efforts. Positively, Bulgaria already supports teachers' learning in the school and established on line platforms and networks to support peer learning among teachers. The Ministry's efforts to support peer learning on line should be commended, especially since so many teachers have been required to teach remotely because of the COVID-19 pandemic. However, the Ministry could do more to raise awareness about its online learning platforms, and provide guidance and training on the range of collaborative in-school and on line professional learning activities, such as peer classroom observations and providing feedback to other teachers to improve student outcomes.

School evaluation, if well-designed, supports teaching and learning by helping schools to improve their practice and holding them accountable for the quality of the education that they provide to students.

Bulgaria has a longstanding culture of elite schools that often serve the country's highest achieving students, recruit the most qualified staff and have access to additional resources. This has contributed to one of the highest shares of school social and academic segregation among PISA participants (see Figure 5) (OECD, 2019[22]). Bulgaria has made significant progress to address these issues by developing a modern school evaluation framework that includes many features commonly found in OECD countries. For example, there is a new national school inspectorate, a differentiated inspection cycle that targets low-performing schools as well as new school quality standards. These efforts have the potential to reduce inequities in the education system because they focus attention and resources on schools that need the most support. However, the concept of school quality is not fully understood in Bulgaria. There is also a lack of clarity around the roles and responsibilities of the newly formed National Inspectorate of Education (hereafter the Inspectorate) and the REDs, which are now responsible for providing methodological support to schools. While clarifying how the new external school evaluation system should work in practice will be important to improving teaching practices and learning outcomes, such efforts will likely take time to implement. It is therefore imperative that Bulgaria simultaneously proceed with plans to develop instruments for school self-evaluation so that schools can immediately start driving their own improvement.

Figure 5. Isolation of disadvantaged students from high-achieving students in reading



Note: All analyses are restricted to schools with the modal International Standard Classification of Education (ISCED) level for 15-year-old students (see Annex A3 of PISA 2018). The isolation index of disadvantaged students from high-achieving students measures whether socio-economically disadvantaged students are concentrated in schools distinct from those that enrol high-achieving students. The index is related to the likelihood that a representative disadvantaged student attends a school that enrols high-achieving students. It ranges from 0 to 1, with 0 corresponding to no segregation and 1 to full segregation (see Annex A3 for a more complete description). A socio-economically disadvantaged student is a student in the bottom quarter of the PISA index of economic, social and cultural status (ESCS) in his or her own country/economy.
Source: OECD (2020[23]), *PISA 2018 Results (Volume V): Effective Policies, Successful Schools*, https://doi.org/10.1787/ca768d40-en.

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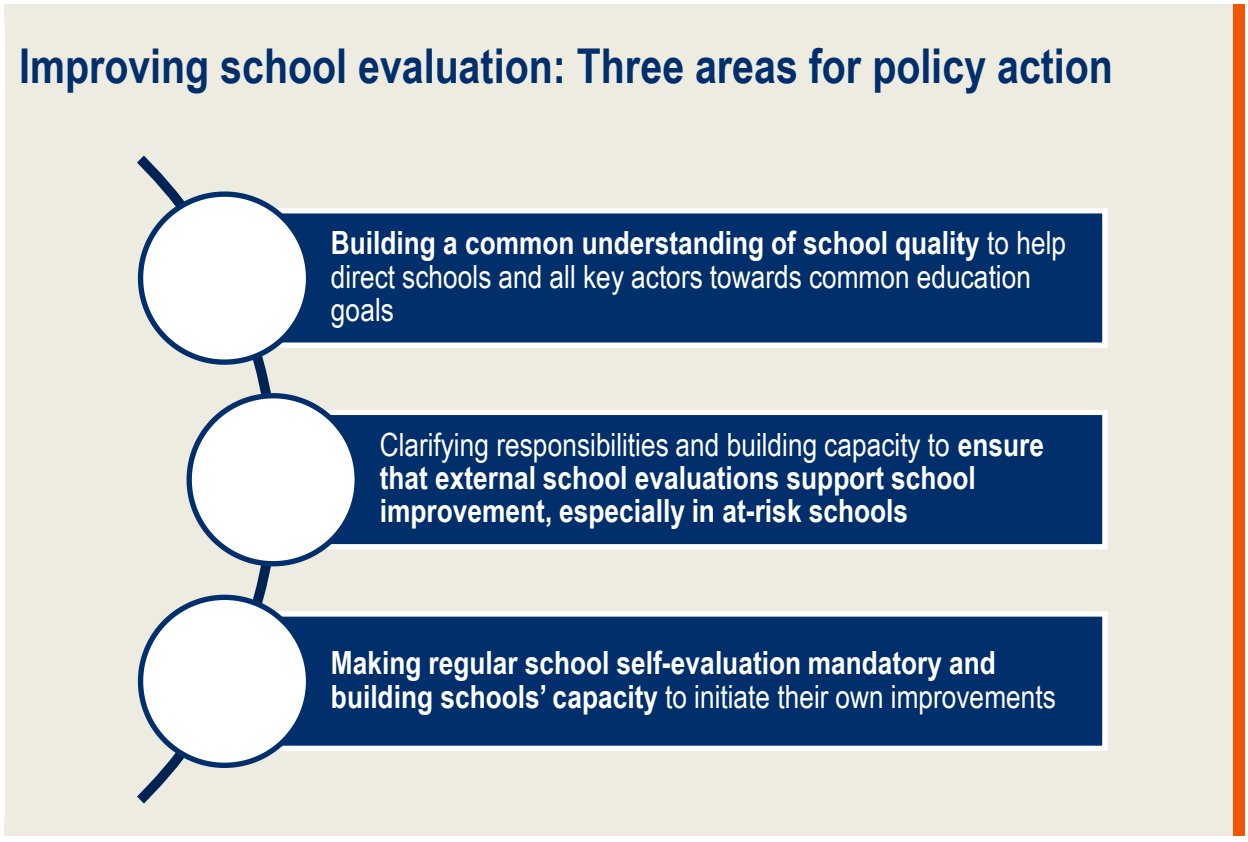


Policy issue 4.1. Building a common understanding of school quality

Bulgaria's move to establish a school evaluation framework linked to national standards is a positive development that can help direct schools and the education system as a whole towards a common set of goals (OECD, 2013[24]). However, much of the public and education actors maintain a narrow view of school quality focused on students' performance on State Matriculation examinations rather than effective practices to improve the outcomes of all students. Changing this perspective is key if Bulgarian schools are to reduce the share of students who do not achieve baseline levels of proficiency in core domains. Bulgaria should promote a more modern and comprehensive understanding of school quality to ensure that key stakeholders understand and engage with the work of the new Inspectorate and embrace broader national education reforms.

- ***Recommendation 4.4.1. Clearly communicate what school quality means.*** At present, the Inspectorate does not publish school inspection reports because it is not required to do so and wants to avoid the negative consequences associated with rankings and decontextualised comparisons between schools. However, in the absence of more transparent and contextualised information about a school's performance, many stakeholders in Bulgaria still compare schools, relying mainly on State Matriculation examination results. This prevents school actors and the public from developing a better, more comprehensive understanding of school quality. Bulgaria should revise the school evaluation framework to confirm that quality means supporting the progress of all students and reduce the emphasis on the achievements of top-performers in academic competitions. With careful management, the Inspectorate should also publish inspection reports to provide a more holistic view of performance in relation to school quality standards. These efforts can help communicate to a better understanding of school quality that aligns with national education goals.

- ***Recommendation 4.4.2. Help schools develop a better understanding of school quality and lead their own development.*** Once school self-evaluation becomes a requirement (see Policy Issue 4.3), the Ministry will need to ensure that schools understand how this process relates to school improvement. Developing an online platform to make self-evaluation and school improvement resources more easily accessible would be a good way to help schools understand the relationship between these processes and their role in determining and enacting improvements in teaching and learning. In addition, Bulgaria could require all schools to develop action plans in response to external school evaluations that sets out specific actions to improve teaching and learning practices. For example, the Inspectorate could provide a template for school development plans and, over time, publish examples of good plans as a resource tool.

Policy issue 4.2. Ensuring that external school evaluations support school improvement, especially in at-risk schools

Prior to the creation of Bulgaria's new Inspectorate, the Ministry's REDs were responsible for monitoring, controlling and supporting schools. These responsibilities are now divided between the new national Inspectorate, which conducts external school evaluations, and REDs, which are expected to provide hands-on support to schools following inspections. This change has the potential to strengthen and level-up education quality, especially in a country like Bulgaria where there are major regional disparities in the provision of education and significant gaps in student outcomes according to socio-economic status and ethnic background. However, REDs currently lack clear direction on the specific support activities that fall under their new remit and face significant capacity issues. They also do not appear to use the school quality standards to inform the type of support they provide to schools. Addressing these factors can help facilitate the successful implementation of Bulgaria's new external school evaluation system and improve the quality of learning opportunities for students across the country**.**

- ***Recommendation 4.2.1. Clarify and formalise REDs' new mandate for monitoring and supporting schools.*** To ensure that their new role is clear, REDs need clarification to help distinguish the tasks required by their new school support role in relation to those of the new Inspectorate. Without such provisions, it is unclear what exactly REDs should be doing. For example, representatives of the Inspectorate told the OECD review team that they do not know how or whether REDs are making use of school inspection results. Ensuring complementarity between REDs and the Inspectorate will require adjusting regulations and creating formal opportunities for the two bodies to work together (e.g. through partnership agreements). These efforts can give legal weight to the government's new arrangements for supporting school quality.
- ***Recommendation 4.2.2. Build REDs' capacity to support school quality.*** At present, most expert staff in the REDs are qualified to provide schools with methodological support in specific subject areas. While there is often one RED expert with a specific mandate to support principals, this does not include helping them lead improvement efforts following an external school evaluation. The support function of REDs is also hindered by staff shortages and workload challenges, and some RED experts have not recently worked in schools. Despite this, experts are not required to participate in training. Bulgaria will need to address these capacity issues to ensure that REDs can better provide schools with relevant and meaningful support.
- ***Recommendation 4.2.3. Ensure the Inspectorate can fulfil its mandate*****.** Alongside building the capacity of REDs, Bulgaria's new Inspectorate will also need support. At present, the Inspectorate is unable to conduct external evaluations of all schools, hindering the effective implementation of its school evaluation framework. Moreover, the minimum selection criteria for Inspectorate staff are less stringent than in many other EU countries, jeopardising their credibility. For instance, internal inspectors are not required to have a background in education and there are no processes to reduce political interference in the appointment of the Inspectorate's director. Providing sufficient

resources, raising the requirements for internal inspectors and bolstering the agency's independence will be crucial to ensuring this technical body operates as intended and can fulfil its mandate of improving school quality in Bulgaria.

- ***Recommendation 4.2.4. Use external school evaluations and the Innovative Schools initiative to support equity and inclusion.*** A key priority for Bulgaria is to address significant gaps in the participation and learning outcomes of students in different districts and from different ethnic groups. The new external school evaluation framework can support this objective by providing follow-up support after an external evaluation, such as school improvement funding and networking opportunities. These measures should primarily target low-performing schools to help them improve. Bulgaria should also consider how the existing Innovative Schools initiative, which aims to foster creative teaching, learning and school management strategies, can be leveraged to support more equitable school education. This may not be the case since schools currently need to find their own sources of funding to support their innovative projects. The Ministry could conduct a review to identify if certain schools are under-represented in the programme because they lack funding. Such efforts will help ensure that attention and resources stay focused on students and schools at risk of falling behind.

Policy issue 4.3. Making regular school self-evaluation mandatory and building schools' capacity for development

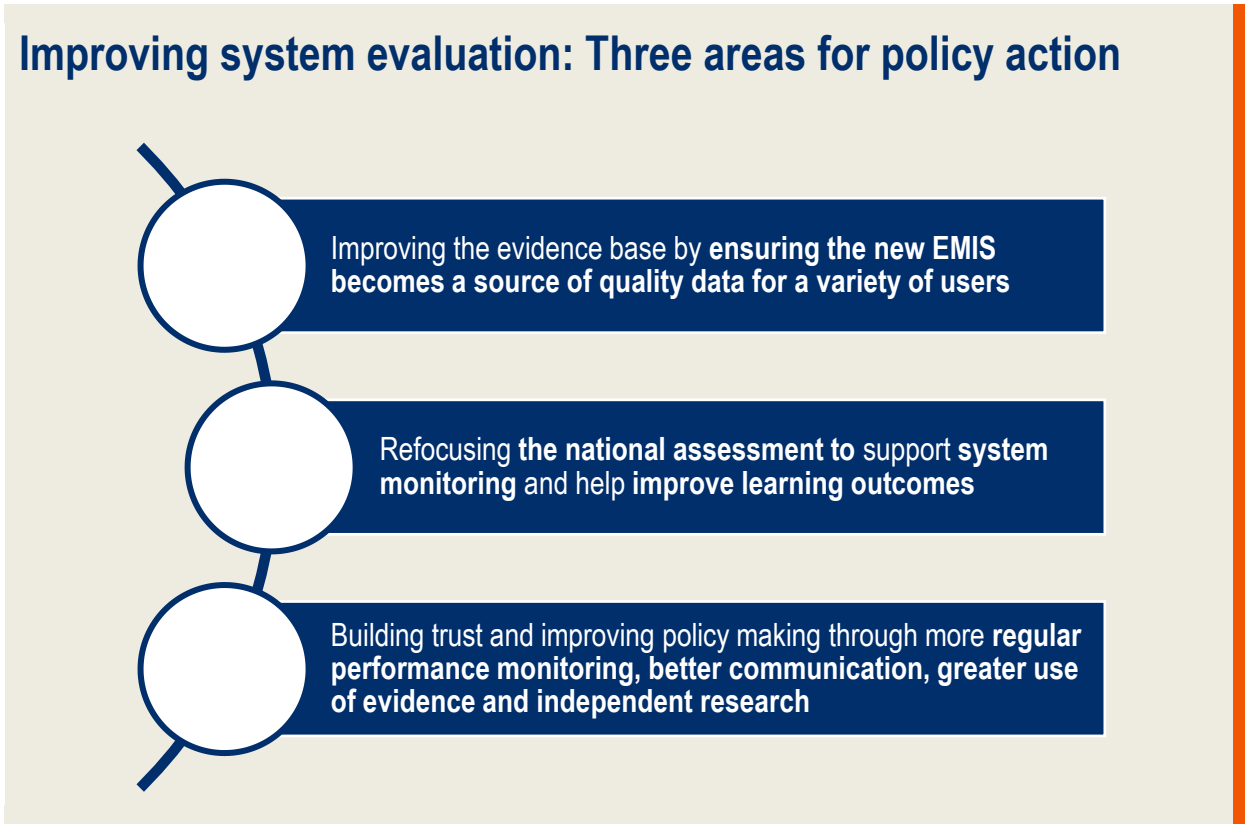
Bulgaria's efforts to strengthen external school evaluation are important but will likely take time to yield the desired results. The Ministry should therefore proceed with plans to develop instruments for school self-evaluation, so that schools can start driving their own improvement immediately. While it is positive that the Ministry will soon introduce a new ordinance on school quality management that makes regular self-evaluation mandatory, schools will need additional support to make this exercise meaningful. For example, schools will require flexibility to adapt the self-evaluation process to fit their needs, they will need data to easily benchmark their outcomes against comparable schools and school leaders will need the capacity to develop and implement improvement plans. Such efforts can ensure that self-evaluation and external evaluation are complementary and mutually reinforcing processes so that all schools are encouraged to focus on areas that are most important to quality provision (OECD, 2013[25]).

- ***Recommendation 4.3.1. Ensure that new school self-evaluation requirements support school development.*** Bulgaria will need to make sure that the new ordinance on school quality management covers key aspects of self-evaluation, such as core quality indicators and a clearly defined purpose of school self-evaluation. This will help ensure that schools have a clear understanding of how to conduct meaningful self-evaluations. To give the new self-evaluation requirements legal weight and help schools make use of this process, the government should also include self-evaluation in the revised school quality standards, use external evaluations to assess whether schools are conducting self-evaluations and provide feedback on this process as well as the school's follow-up efforts to improve teaching and learning.
- ***Recommendation 4.3.2. Build schools' capacity to conduct self-evaluations and act on results.*** Schools may find it challenging to gather and analyse evidence, engage with the school community and devise recommendations for improvement. Therefore, Bulgaria should consider producing guidelines, online resources and training on self-evaluation. In particular, a self-evaluation manual that provides an overview of steps in the self-evaluation process and a small number of core quality indicators could help schools make meaningful judgements about their practices. Importantly, the Ministry should also provide schools with access to quality data to support their self-evaluation efforts; the new Education Management Information System (EMIS) is well positioned to do this (see Policy Issue 5.1).

- ***Recommendation 4.3.3. Strengthen principals' instructional leadership.*** Bulgaria has taken positive steps recently to hold principals accountable for their performance and ensure their continuous professional development. However, training and mentoring for instructional leadership, which is critical for school improvement, is lacking. Bulgaria should require principals to participate in mandatory initial training on all major domains of their role. In addition, Bulgaria should also encourage and support the development of existing school leaders by making career advancement more rewarding and incentivising talented school leaders to work in struggling schools. These efforts can strengthen the capacity of principals to address system wide challenges in their school, such as improving learning outcomes and addressing inequalities.

System evaluation supports teaching and learning by generating information on how an education system is performing and uses this information to improve policy and hold policy makers to account for progress against established goals.

Bulgaria has some of the basic building blocks needed to monitor and evaluate education policy and guide system improvement. Recently, the country has improved this framework further by establishing a modern EMIS. However, there remain major issues with available evidence to review performance at different levels of the system. In particular, the country's NEA cannot support trend analysis, meaning that Bulgaria does not have a national instrument to monitor learning outcomes over time. In addition, the Ministry provides limited public reporting on system performance and on how evidence has been used to inform policy. Investing in better quality education data, particularly on learning outcomes, and improving reporting on system performance will be essential to help different actors track progress towards achieving national education goals, inform policy and build public trust in reform efforts.



Policy Issue 5.1. Ensuring Bulgaria's new EMIS becomes a source of quality data for a variety of users

Historically, Bulgaria has had issues with the availability and collection of education data but the Ministry is currently upgrading its EMIS, which will introduce important developments. For example, there will be unique identification numbers, as well as new data on school participation and education outcomes. To optimise the investment in this new information system, the Ministry should continue to review its practices and standards to compile and share education data, in partnership with critical users like the NSI. This will help ensure that new data is secure, accurate and can serve a variety of purposes, making the new EMIS a valuable tool for a variety of users.

- ***Recommendation 5.1.1. Prepare to establish the new EMIS as Bulgaria's central source of education data.*** Bulgaria's new EMIS represents an important opportunity to modernise and integrate the collection, management and use of education data. Nevertheless, planning gaps remain in terms of the protocols for defining and collecting data and verifying its quality. The Ministry should work with relevant agencies to align data definitions and protocols with national and international reporting standards. This effort will help ensure the new EMIS becomes the official go-to source of information for all education stakeholders. To ensure the quality of data, the Ministry should create new quality assurance procedures for data entry and gradually transition all school reporting to a digital format. This will make it easier for actors to collect and use data in the EMIS to improve the performance of the education system.
- ***Recommendation 5.1.2. Develop the functionalities of the new EMIS and improve the availability of quality data to support accountability and policy making.*** Considering the investment made in the new EMIS, it is important this tool is easily accessible and can support accountability and policy making. Bulgaria should therefore build in functionalities that allow the

new system to support evaluation and monitor progress towards national goals. For example, the Ministry could map existing education indicators against available sources of information to help identify data gaps. This type of analysis could help develop important new indicators and guide the future development of the EMIS. Creating a public data interface would also support broader system evaluation, by allowing different users to easily view and download a variety of education data based on their needs.

Policy Issue 5.2. Establishing a national assessment system that supports system monitoring and helps improve learning outcomes

Bulgaria established its NEA in 2007 and it has gradually expanded coverage to collect system and student-level data for three grades of schooling. The NEA has stated objectives that are broadly positive and reflect the main purposes of standardised assessments found in OECD countries. However, features of the NEA's design and implementation mean that, while it can rank students in a particular cohort by their achievement levels, it cannot meaningfully support learning or inform system evaluation through reliable trend data. Currently, the NEA serves primarily as a summative test with high stakes for students. This is a concern – in particular in Grade 7 where it is used as an examination to select students into elite secondary schools. Bulgaria should consider decoupling the assessment from its selection function in all grades. While the government is generally aware of these issues, reforming the NEA will require political will, as well as financial resources and technical capacity.

- ***Recommendation 5.2.1. Reinforce the monitoring and formative potential of the NEA.*** The conflation of purposes currently attributed to Bulgaria's NEA makes it difficult for policy makers and the Center for Assessment of Pre-school and School Education to navigate which design options would best ensure the assessment system fulfils its stated goals. For example, the Grade 7 NEA has undergone several changes in the last decade with limited consultation, leading to confusion among stakeholders about the main role of the assessment (i.e. if it is for system monitoring or selecting students). Bulgaria should refocus the primary purposes of the NEA on monitoring system performance and providing formative information to support teaching and learning. Specifically, the Bulgarian government should remove the selective function of the NEA in all grades. This change in purpose would better support Bulgaria's national goal of improving educational equity. Now is an opportune moment to consider such a major change, since it would also give Bulgaria a chance to align NEA instruments with the new competency-based curriculum. At present, the tests do not assess the types of complex, high-order abilities that Bulgaria wants students to master.
- ***Recommendation 5.2.2. Ensure the design of the NEA system aligns with its monitoring and formative purposes and supports national education goals.*** As Bulgaria moves to reform the NEA, the government will need to reflect on key features of the assessment's design. This review puts forward several recommendations for Bulgaria to consider. For example, Bulgaria should move to a criterion-referenced scoring system and change test administration to avoid critical transition points in a student's schooling (e.g. moving the census-based primary school NEA in Grade 4 to Grade 2). Bulgaria may also consider adjusting the coverage of subjects at different levels (i.e. focusing on numeracy and literacy in Grades 2 and 6 while expanding to include other subjects in Grade 10). All changes should aim to reinforce the assessment's system monitoring function and maximise its formative potential as a tool for driving system improvement.
- ***Recommendation 5.2.3. Disseminate results from NEAs to inform education policy and support learning.*** While it is positive that the Ministry commissions ad hoc analysis of NEA data, there is no regular report that summarises results and provides relevant insights for policy making. Moreover, schools do not receive detailed information about how their students performed and stakeholders cannot make comparisons based on similar characteristics like socio-economic background. To ensure that NEA results can inform policy and support school improvement efforts,

Bulgaria should consider new ways to disseminate results. For instance, Bulgaria could provide reports for teachers that show how students perform on particular test items, disaggregated by different comparison groups. This could help to identify common errors and emphasise areas in need of improvement.

Policy Issue 5.3. Strengthening regular performance monitoring to guide system improvement

Bulgaria has initiated many major education reforms over recent years, most of which are costly and require sustained implementation. The COVID-19 pandemic has created an unexpected challenge and risks throwing a number of these reforms off track. However, there are also new opportunities to fund education reforms through COVID recovery initiatives and the recently announced national education programme, which gives new impetus to key goals such as strengthening inclusive education. These fast-changing and complex circumstances create a growing need for Bulgaria to improve its planning processes and more clearly communicate its reform agenda to different education stakeholders and the public. This should help the Ministry build support behind reform efforts, avoid roadblocks, and crowdsource new solutions, in light, for instance, of the fact that the country's education reforms are likely to affect certain school environments differently.

- ***Recommendation 5.3.1. Establish an independent body to produce regular analytical reports on system performance.*** Data and capacity constraints hinder the Bulgarian government's ability to produce regular reports on education system performance. This means that different education actors – not least, the Ministry and its REDs – do not have timely and comprehensive analysis to flag issues, track progress and make evidence-informed policy decisions. To improve system evaluation and reporting, many OECD countries have established independent bodies to ensure regular, objective monitoring and commission research on major policies and issues. The autonomy of these bodies strengthens trust in their findings and the likelihood that their research will inform constructive debates. Bulgaria should consider establishing this type of body, which could be responsible for compiling an annual "state of education" report, showing how the education system is performing against key indicators. Rather than carrying out the research itself, the body could commission research tasks. For instance, the Inspectorate could be tasked with producing an annual report, which may help it capture a qualitative picture of performance by showing how reforms play out in different school environments.
- ***Recommendation 5.3.2. Ensure that education authorities can track how the system is performing against national goals.*** The Ministry must design education policies for implementation in very different regional contexts, which brings particular challenges and opportunities. To ensure that centrally planned policies meet their goals, Bulgaria should consider developing customised tools for regional and municipal authorities, to help guide improvement in school sub-systems. Specific tools could include a regional "state of education" profile, as well as additional information that would not be included in the profile, such as national assessment results disaggregated by sub-groups within the region (for instance, municipalities).
- ***Recommendation 5.3.3. Make better use of system evaluation results for policy making and planning.*** To optimise investments in education data and the national assessments system, Bulgaria should carry out regular, robust implementation planning – for instance, through establishing annual or biannual action plans linked to its mid-term strategy. This would enable policy makers to sequence and adjust policy interventions, keep implementation on schedule and facilitate co-ordination. To build trust and facilitate a better understanding of education reforms, Bulgaria should improve public reporting on how evidence has helped guide policy. For instance, the government could dedicate a session of the Parliamentary Committee on Education and Science to discuss the findings of a state of education report.

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1 The Bulgarian education system

Over the past three decades, Bulgaria has carried out important structural reforms that have helped the country reach higher levels of socio-economic development. However, overall productivity gains have not fully translated into sustainable and inclusive growth: Bulgaria continues to face high levels of poverty and there are large educational disparities according to geographical location and socio-economic background. This chapter provides an introduction on how evaluation and assessment in Bulgaria's education system can support more effective teaching and learning, thereby directing the sector towards greater excellence and equity.

Introduction

Bulgaria has made significant progress over the past few decades to improve socio-economic development and governance. As a result, the country has improved living standards and established stronger, more democratic governance structures. Reforms have been supported by a strong commitment to European Union (EU) integration, which also led Bulgaria to launch education reforms aimed at raising learning outcomes, increasing equity and addressing governance challenges like how to manage the supply and demand of teachers and allocate school resources, with increasing levels of decentralisation. Bulgaria's 2016 Pre-school and School Education Act also introduced significant policy changes that, among other things, established a new framework to evaluate schools and started rolling out a new student-centred, competency-based curriculum.

Despite this progress, Bulgaria continues to face high levels of poverty and socio-economic inequalities. The education system has also been slower to converge with European standards compared to peer countries in the region. For example, 47% of students in Bulgaria did not achieve baseline levels of reading proficiency in the 2018 OECD Programme for International Student Assessment (PISA), compared to the Eastern Europe and Central Asia regional average of 42% (OECD/UNICEF, 2021[1]). This share is almost twice the average (23%) of both the EU and OECD averages. Bulgaria also faces increasing educational disparities according to geographical location and ethnic and socio-economic background. The government recognises that sustained education reform is key to improving national productivity, addressing the needs of an ageing population and raising the quality of life for its citizens. This chapter provides an introduction on how evaluation and assessment in Bulgaria's education system can support more effective teaching and learning, thereby directing the sector towards greater excellence and equity.

National context

Economic and political context

Economic growth is hindered by a declining population and a skills mismatch

Bulgaria has carried out important economic and fiscal structural reforms over the past three decades. At the end of the 1990s, the country implemented a comprehensive tax reform and other macroeconomic measures that, alongside healthy market expectations linked to EU accession, have contributed to strong growth. Between 2001 and 2005, the country's annual gross domestic product (GDP) growth rate increased from 3.8% to 7.2% (World Bank, 2021[2]). However, convergence with EU income levels has been slower than for other Central and East European countries. Bulgaria still has the lowest per capita income within the EU, at USD 24 800 (purchasing power parity, PPP), compared to an EU and OECD average of around USD 46 000 (PPP) (OECD, 2021[3]; World Bank, 2021[2]).

Among factors that impact the country's economic performance, labour market shortages linked to a declining population and skills mismatch is a growing concern (EBRD, 2019[4]). This scenario places fiscal pressure on government expenditure and slows economic growth. Bulgaria's economy faced a shortage of workers prior to the COVID-19 crisis, with the country's working-age population set to shrink by a quarter in under 20 years (OECD, 2021[3]). In order to sustain growth alongside a shrinking working-age population, Bulgaria will need to improve investment in education to address skill mismatches and ensure that more young people are prepared to succeed in the labour markets of the future.

Emigration, especially among young and skilled professionals, is a major challenge

Between 1985 and 2016, Bulgaria's population declined by around 1.9 million with almost 48% of this decline led by net emigration (Caritas Bulgaria, 2019[5]). Since the European labour market fully opened

its doors to Bulgarian workers – around 2018 – more than a 100 000 citizens (approximately 1.5% of the population) have left the country, with close to half of them (44.7%) under the age of 30 (Republic of Bulgaria, 2019[6]). Current emigration flows are mainly fuelled by socio-economic factors, such as the income gap between Bulgaria and other EU countries, as well as a lack of job and career advancement opportunities. Many young Bulgarians leave to pursue higher education abroad, typically pursuing degrees in computer science, engineering and medicine (Financial Times, 2018[7]). While the share of net migration in Bulgaria's overall population decline has gradually decreased from 39% in the early 2000s to under 10% in the period between 2011 and 2016 (Open Society Institute, 2017[8]), the percentage of young and skilled professionals leaving the country (around 9% of upper secondary graduates from Bulgaria completed their tertiary education abroad in 2018 (EC, 2020[9]), coupled with negative birth rates, remains a major challenge for the country's future development.

Bulgaria has been undertaking significant governance reforms but public sector accountability remains a concern

Bulgaria has undertaken significant decentralisation reforms since the early 2000s, which has seen the country move from a monocentric governance model to a multi-level system. Today, Bulgaria has 2 regional governance levels, with 6 planning regions and 28 districts, and 1 decentralised level with 265 municipalities (OECD, 2021[10]). In the education sector, a set of decentralisation reforms implemented from 2007 onwards have extended more autonomy to local bodies and schools. Efforts to strengthen Bulgaria's governance system, however, remain hampered by integrity risks. In 2020, the country ranked 69th (out of 180 countries) in the Transparency International Corruption Perceptions Index, making it the lowest-ranked EU member (Transparency International, 2021[11]). To address integrity risks, Bulgaria established an integrity body in 2016, with inspectorates under the Council of Ministers. However, these bodies remain susceptible to political influence and have limited capacity to investigate integrity claims (GAN Integrity, 2020[12]). As a result, lack of integrity and inefficient bureaucracy remain two of the most cited governance challenges in Bulgaria (WEF, 2018[13]) and almost one in every five Bulgarians report having paid a bribe to receive a public service (Transparency International, 2021[14]). This context has implications for the education sector, where lack of trust in government hinders the implementation of reforms, such as the new competency-based curriculum, more formative evaluation practices and reliable system and school accountability.

Social context

Despite improvements in living standards, poverty rates remain high

Bulgaria's economic growth has translated into better living standards for its population. Between 1990 and 2019, for instance, Bulgaria's Human Development Index (HDI)[1] value has increased by 15.3% (see Table 1.1) (UNDP, 2020[15]) and employment rates have risen from 41% in 2001 to 54% in 2017. Economic growth has positively impacted poverty reduction, with rising real wages and deflationary trends improving the purchasing power of poor households, which rose from 12% in 2015 to 7% in 2018 (at the 2011 PPP USD 5.5 per day line) (World Bank, 2021[2]; 2020[16]).

At the same time, growth and productivity gains have not spread evenly across Bulgaria, contributing to significant regional and demographic disparities. The country now has the most unequal distribution of disposable income in the EU (Eurostat, n.d.[17]) and, at last count, the share of the population at risk of social exclusion was higher in Bulgaria than the EU average – or 1.5 times higher in 2019 (OECD, 2021[10]). These inequality issues are compounded by limited levels of social spending and the poor redistributive effects of the fiscal system (World Bank, 2020[16]). In 2020, the COVID-19 crisis saw Bulgaria enter an economic recession and has reinforced pre-existing socio-economic disparities. Public instruments to support people during and in the aftermath of the crisis have been limited (Jeliazkova and Mineve, 2020[18])

and poverty is expected to rise in 2021 as a result of job and income losses, increasing the population's socio-economic vulnerability (World Bank, 2021[19]).

Table 1.1. Human development and socio-economic indicators, 2018 and 2019

	HDI value (2019)	Life expectancy at birth[1] (2019)	Expected years of schooling (2019)	GDP per capita (PPP USD) (2019)	GNI per capita (PPP USD) (2017)
Bulgaria	0.816	75	14.4	24 561	23 325
Croatia	0.837	78	15.0	29 973	28 070
EU	0.900	81	16.8	46 467	44 635
Serbia	0.799	76	14.8	18 989	17 192

Note:
1. Total number of years of schooling a child of school-entry age can expect to receive if prevailing patterns of age-specific enrolment rates stay the same throughout the child's life.
Source: Adapted from UNDP (2020[15]), "Human Development Report 2020: Bulgaria", http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/BGR.pdf (accessed on 20 April 2021); Wolrd Bank (2021[2]), World Bank Open Data, https://data.worldbank.org/.

A significant share of Bulgaria's population and economic output is concentrated in the southwest region of the country

Around 85% of Bulgaria's population, which is numbered at around 7 million people, is classified as ethnic Bulgarian, according to the country's most recent census (NSI, 2011[20]). Bulgaria also has one of the EU's largest Roma communities, estimated at 700 000 to 800 000 people or around 10% of the population (according to Council of Europe estimations), as well as other minority groups (EC, n.d.[21]; Volen, 2016[22]). These minority groups typically reside in rural and remote regions of the country and many live in vulnerable conditions (EC, n.d.[21]; Volen, 2016[22]).

A significant share of Bulgaria's economic activity is concentrated in urban areas, especially in its southwest region. The difference in GDP per capita is highly pronounced between regions. In the Sofia City area, for instance, where one-fifth of the population lives, GDP per capita corresponds to that of the United Kingdom average (in PPP) (OECD, 2021[3]), while the regions in the northwest of the country are the poorest in the EU. These disparities have encouraged many to migrate to major cities or emigrate abroad, leading to significant depopulation in certain areas of the country.

Key features of the Bulgarian education system

Governance of the education system

Bulgaria's National Development Programme 2030 highlights the importance of a highly-skilled population for the country's socio-economic development

Bulgaria identified education and skills development as 1 of the 13 national priorities under the government's 10-year national development strategy, Bulgaria 2030. This plan was adopted by the Council of Ministers in 2020 and aims to increase the quality of human capital by training highly educated, innovative and active individuals, who are well prepared to transition from school to the labour market (Council of Ministers, 2020[23]). Bulgaria 2030 outlines the government's commitment to: i) increase participation in pre-school and school education and reduce early leaving rates; ii) improve the quality of education;[2] and iii) make education more responsive to the needs of the labour market. Each of these goals are associated with a key indicator and target: i) reduce the share of early leavers from education and training from 12.7% to 7%; ii) increase the share of 25-64 year-olds involved in education and training

from 2.5% to 7%; and iii) decrease the average share of low performers in PISA from 46% to 25% (average for PISA's 3 subject domains) (Council of Ministers, 2020[23]).

In line with overall objectives set by Bulgaria 2030, the Ministry of Education and Science (hereinafter the Ministry) has developed a *Strategic Framework for the Development of Education, Training and Learning in the Republic of Bulgaria 2021-2030* (hereinafter the Strategic Framework for Education), which is a more detailed long-term strategy focused exclusively on the education sector. The Strategic Framework for Education is based on a diagnosis of the Bulgarian education system's strengths, weaknesses, opportunities and threats (SWOT) and was oriented by EU standards of educational quality, inclusiveness and lifelong learning. The document sets out seven priorities (Box 1.1), which are accompanied by a set of objectives and an extensive list of actions aimed at guiding the country's education improvement efforts. However, there is no clear prioritisation of the most important issues and actions under these broad areas and there are a limited number of indicators to help direct and monitor progress. At the time of writing, the Ministry had not yet put in place an implementation plan for the strategy. However, in December 2021, the government announced plans for a new education programme to start revising and updating laws regulating the sector with the goal of making education more inclusive and improving co-ordination among stakeholders at the school level, state and local authorities, as well as across society (Fileva, 2021[24]).

Box 1.1. Policy priorities of the Bulgarian Strategic Framework for Education

The Bulgarian 10-year education strategy sets out seven broad priority areas for its education system:

1. Competencies and talents.
2. Motivated and creative teachers.
3. Effective and lasting inclusion.
4. Educational innovation, digital transformation and sustainable development.
5. Realisation in the professions of the present and the future.
6. Lifelong learning.
7. Effective and efficient governance and network participation.

For each priority, the strategy sets out objectives and main activities that will be undertaken. A selection of these objectives are:

- **Objective 1.1.** Training focused on the formation and development of key competencies and skills for living and working in the 21st century.
- **Objective 2.1.** Increasing the attractiveness and prestige of the teaching profession and providing the education system in the long run with teachers in all educational institutions and disciplines.
- **Objective 3.1.** Overcoming regional, socio-economic and other barriers to access to education.
- **Objective 4.1.** Promoting and developing a culture of innovation.
- **Objective 5.1.** Vocational education and training (VET) corresponding to the dynamics of the labour market.
- **Objective 6.1.** Expanding opportunities for lifelong learning.
- **Objective 7.1.** Transitioning from a standardised approach to educational management institutions to governance based on creativity and innovation.

Source: Ministry of Education and Science (2020[25]), *Strategičeska Ramka za Razvitie na Obrazovanieto, Obučenieto i Učeneto v Republika Bălgarija (2021-2030) [Strategic Framework for Development of Education, Training and Learning in Republic of Bulgaria (2021-2030)]*, https://www.mon.bg/upload/24429/Strategicheska-ramka_proekt_12112020.pdf (accessed on 23 February 2021).

Education policy is driven primarily by the Ministry

As part of broader decentralisation policies, responsibilities for school education in Bulgaria are organised across three government levels: national, regional and municipal (OECD, 2021[10]) (Table 1.2). However, schools have the autonomy to plan and manage their own budget and school staff (World Bank, 2014[26]). Education policy is co-ordinated by the Ministry, which is responsible for informing and implementing strategic priorities and legislative acts, as established by the National Assembly and the Council of Ministers. The Ministry comprises (among other units) 16 specialised directorates, including an Inclusive Education Directorate, a Vocational Education and Training Directorate and an Education of Bulgarians Abroad and School Network Directorate. Each of Bulgaria's 28 administrative regions has a regional department of education (RED) that reports to the Ministry and is responsible for helping to implement national pre-school and school education policies. Until recently, REDs had a mandate to monitor and evaluate schools but with the creation of a new National Inspectorate of Education (hereinafter the Inspectorate), the REDs are now responsible for providing methodological support to schools. The heads of these regional departments are also responsible for appointing school principals in their region (see Chapter 4).

Table 1.2. Responsibilities across government levels in the Bulgarian education system

Central government	Districts	Municipalities
Higher education Special and disciplinary schools	Employment and vocational training	Pre-school education Early, primary and secondary education (delegated) Construction and upkeep of buildings Canteens and extracurricular activities

Source: Adapted from OECD (2021[10]), *Decentralisation and Regionalisation in Bulgaria: Towards Balanced Regional Development*, https://doi.org/10.1787/b5ab8109-en.

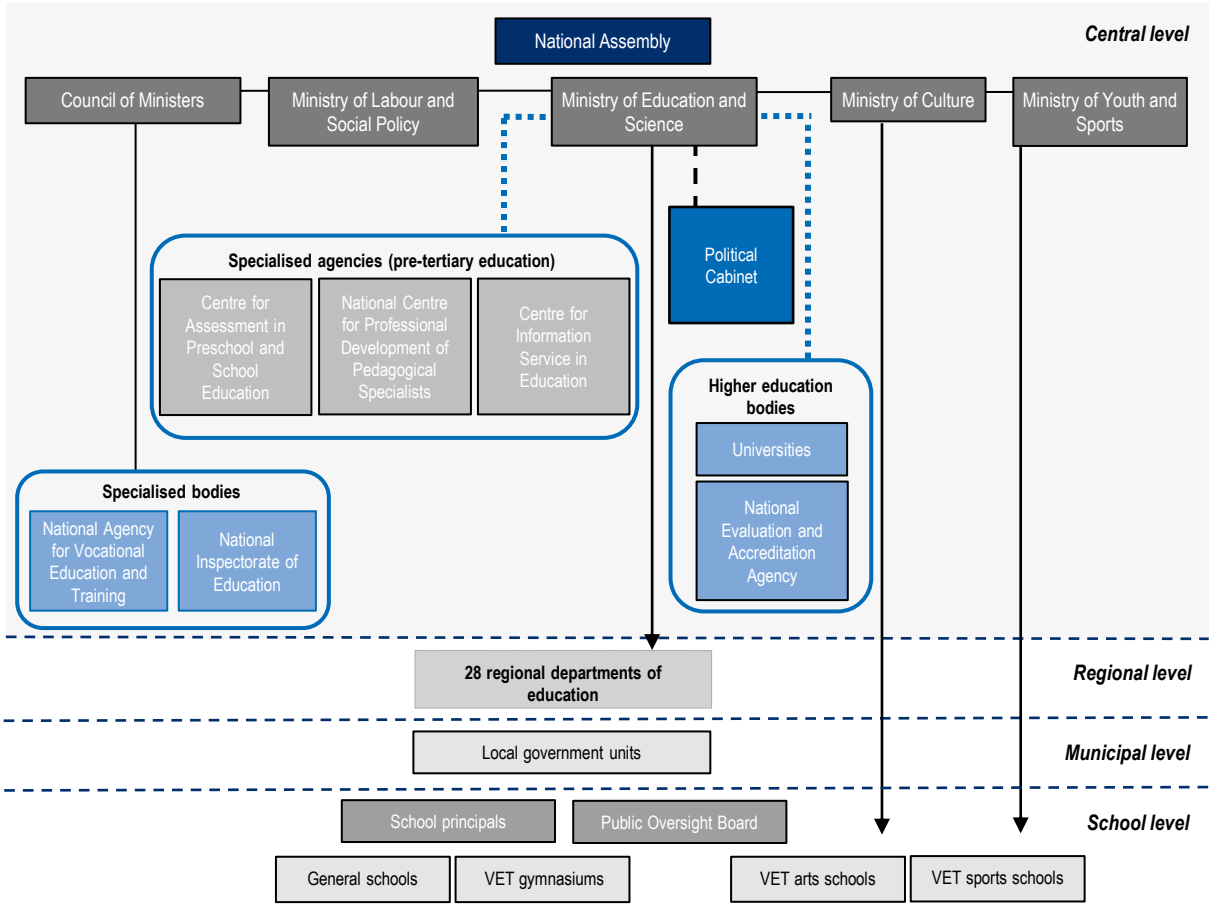
Bulgaria has introduced several major education reforms in recent years

Bulgaria has undertaken several large-scale education reforms over the past years to try to address inefficiencies and inequities in the system. In 2007, the country began to rationalise its school network in the context of demographic trends and it has subsequently introduced a per capita-based funding formula for schools and given more autonomy to school principals over financial affairs and decision making (World Bank, 2014[26]). Another cycle of major reforms was introduced in 2016 with the Pre-school and School Education Act, which has sought to modernise the country's curriculum – through a new emphasis on competencies and student-centred approaches – and make education more inclusive. Through this act, all schools are required to implement measures to reduce early school leaving and integrate students from vulnerable demographics. A recent amendment to the act in 2020, has made schooling compulsory from age four, to ensure that more children are prepared to enter their primary education. Another priority has been to improve the quality and relevance of the country's VET offering, to ensure that programmes are better linked to labour market needs and more attractive to students with a range of preferences and competencies. For example, Bulgaria has strengthened consultation with the private sector in designing its VET offering and it has developed a career guidance system as well as a more modular (as opposed to subject-based) curriculum. In addition, Bulgaria has been working with the EU to establish a track for dual VET (which combines school-based study with workplace training) and updated its national strategy for VET in 2019 to reflect this priority. The recently announced national education programme and pandemic recovery efforts represent critical opportunities for Bulgaria to strengthen the foundations for implementing its education reform agenda.

The Ministry relies on specialised bodies for technical expertise

Bulgaria has several specialised public bodies that provide technical expertise to support the government in developing and administering the education system (Figure 1.1). The Centre for Assessment of Pre-school and School Education (hereafter the Centre for Assessment) organises, prepares and conducts external assessments of student learning and is responsible for managing Bulgaria's participation in international assessments on pre-tertiary education (see Chapters 2 and 5). Bulgaria also established a new Inspectorate in 2018, which was modelled after European inspection systems to carry out external school evaluations (see Chapter 4). Other specialised agencies include the National Agency for Vocational Education and Training, which has a mandate to license activities in the VET system and control the quality in licensed training institutions, and the National Evaluation and Accreditation Agency, responsible for accreditting tertiary education providers. Some of these bodies are subordinate to the Ministry while others, such as the Inspectorate and the National Evaluation and Accreditation Agency are independent. However, independent bodies are not insulated from political influence. For example, the prime minister appoints the director of the Inspectorate without having to undergo a formal confirmation process.

Figure 1.1. System of education governance in Bulgaria



Note: Different types of secondary schools are included in the organigram because some of them are managed by ministries other than the Ministry. Earlier levels (early childhood education and care [ECEC] and primary) are under the responsibility of the Ministry.
Source: (Bulgaria, 2021[27]), *Country Background Report for the OECD Review of Evaluation and Assessment in Education: Bulgaria*, Unpublished.

Bulgarian schools have high levels of autonomy to manage their budget and staff and develop their curricula

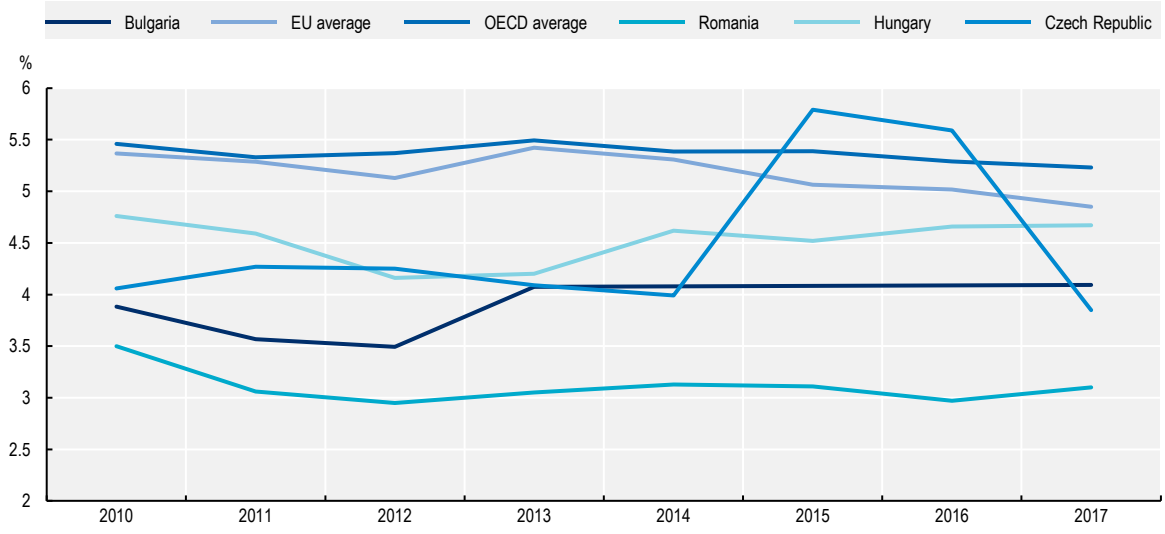
As part of broader decentralisation reforms, Bulgarian schools have been given autonomy to determine how they spend resources. Since 2008, schools have had a delegated budget, meaning that although school funding is still dependent on government allocation, schools have full control over how to use their allocated budget once received. School principals are also responsible for appointing teachers and any other decisions related to managing the teaching staff (World Bank, 2014[26]). Moreover, the current Pre-school and School Education Act allows a stratum of schools (so-called "innovative schools", see Chapter 4) to choose and design their curricula and implement them based on student needs. Part of the curriculum is then developed by teachers and approved by the principal of each school (according to stakeholders who spoke with the OECD review team, around 10% of the curriculum is developed at the school level). School-based curricula are guided by the framework curriculum developed by the Ministry, together with state education standards, which set out national learning goals for each subject at the end of each stage of schooling.

Funding of the education system

Public spending on education has increased but remains low compared to peer countries

Bulgaria has among the lowest rates of government expenditure on education in the EU (Figure 1.2). However, prior to the pandemic, Bulgaria had sought to raise spending: expenditure on education increased by 14% between 2010 and 2018 – significantly faster than the EU average of 3.7% (UIS, n.d.[28]). The most significant expenditure gains so far have been in secondary, as well as pre-primary and primary education, which grew by 23% and 18% respectively (UIS, n.d.[28]). Expenditure in tertiary education, meanwhile, declined by 11% over the same period (EC, 2020[29]).

Figure 1.2. Share of government expenditure on education as a percentage of GDP, 2010-17

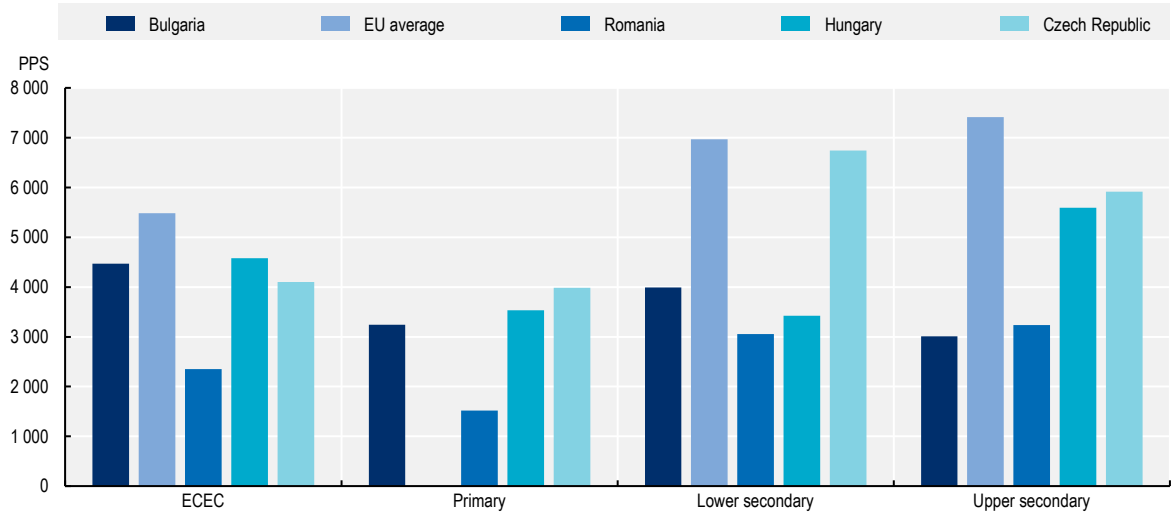


Note: Data for Bulgaria from 2014 to 2016 are missing.
Source: UIS (n.d.[28]), *UIS.Stat*, http://data.uis.unesco.org/ (accessed on 23 September 2021).

StatLink https://stat.link/p6d3nl

In terms of public per student spending, funding in Bulgaria is well below the EU average (Figure 1.3), though above that of some neighbouring countries. For example, when looking at lower secondary education, Bulgaria spends 3 990 PPS (Eurostat Purchasing Power Standard)[3] per student, more than Romania (3 053 PPS) and Hungary (3 421 PPS) but less than the Czech Republic (6 740 PPS) and EU average of 6 968 PPS (Eurostat, n.d.[17]). Bulgaria also spends much less per student than the OECD average across all education levels (see section on key indicators). While increasing investment in education is one of the government's main priorities, this is likely to be difficult in light of the ongoing COVID-19 pandemic, which is putting additional pressure on public budgets and increasing the demand for resources in other sectors.

Figure 1.3. Public expenditure on education per student based on full time equivalent, by education level, 2017



Note: The EU average for primary education is not available.
Source: Eurostat (n.d.[17]), *Eurostat Database*, https://ec.europa.eu/eurostat/data/database (accessed on 23 February 2021).

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Rising teacher salaries will drive expenditure in the future and increase spending pressures

According to the OECD Teaching and Learning International Survey (TALIS), lower secondary teachers in Bulgaria are on average 49 years old, compared to the OECD average (of countries participating in the survey) of 44 (OECD, 2019[30]). More than half of the teacher workforce in Bulgaria (51%) is aged 50 years old or above, compared to 34% on average among OECD countries (OECD, 2019[30]). Teacher shortages have already started to emerge in recent years and, even with a declining student population, significant pressure to replace the large cohorts of retiring teachers is expected (EC, 2019[31]). Moreover, the COVID-19 pandemic may motivate older (and thus more vulnerable) teachers to retire early, as has been evidenced in other countries like the United States (NEA, 2020[32]), further accelerating the need for new teachers. To help raise the status of the teaching profession and recruit new teachers, the Bulgarian government has started to increase teacher salaries, with plans to raise salaries to 120% of the national average salary (EC, 2019[31]). Since 2010, around a third of the growth in public expenditure on education has gone towards teacher salaries and teachers' average gross wage has increased from 94% of the national average in 2016 to 117% in 2020 (EC, 2020[29]; 2020[9]). Recently, Bulgaria has cut tuition fees for individuals entering pedagogy courses and has begun to reimburse transportation and accommodation costs for teachers working in rural and remote areas (EC, 2019[31]). These measures have the potential to

increase the attractiveness of the teaching profession; however, they will also place additional pressure on the country's education budget in the years to come. In such a context, it is critical that wage gains are associated with measures that raise teaching effectiveness. Chapter 3 examines how the teacher appraisal system can help translate greater investment into better learner outcomes and skills.

Bulgaria has been working to increase the efficiency and fairness of education funding but important disparities between municipalities remain

School education in Bulgaria is mainly funded by the central government (around 97%) (Bulgaria, 2021[27]). However, public schools also receive funds from municipal budgets (directed at infrastructure, heating, food and student transportation) and can fundraise to supplement their resources. Funds are distributed to schools based on the type of educational institution, the number of students enrolled and by education level. The funds from the state budget allocated to local governments for schools is also linked to a regional coefficient, which considers geographic location (i.e. whether the municipality is close to the regional centre) and population size. Introduced in 2018, this financing model is a recent development and aims to support a fairer and more efficient distribution of funds, minimise regional disparities and ensure that funding modalities support modernisation reforms. The government has also established that education funds from the state budget are apportioned annually and that, each year, the budget must be higher (as a share of GDP) than the previous one.

Bulgaria's new school funding model aims at directing more financial resources towards small kindergartens and schools, helping to smooth out disparities in the pre-tertiary school system. However, educational infrastructure in many regions remains underfunded, with schools often lacking basic facilities or equipment. For example, in poorer municipalities, adequate heating remains a challenge during the winter months (EC, 2019[31]). Funding as it relates to infrastructure remains heavily dependent on the fiscal capacity of municipalities, as well as parental support. Although the government has plans to link external school evaluation results to additional funds, this will not be made available until all schools have been inspected, which will take time (see Chapter 4). Finally, governance issues contribute to the misalignment between the provision of quality education and funding. For example, municipalities have no real decision making power when it comes to questions related to school quality, such as hiring municipal school directors or teaching staff (OECD, 2021[33]).

Structure of schooling in Bulgaria

Main characteristics of the structure of schooling

In Bulgaria, participation in education is compulsory between the ages of 4 (since 2020) and 16. This corresponds to pre-primary education, which runs for three years, until the completion of the first stage of upper secondary education (see Table 1.3). The mean years of schooling in the country[4] has increased slightly over the past 15 years and is broadly commensurate with EU and OECD averages (11 years) (UIS, n.d.[28]). Basic education is provided free of charge, except in private schools, and most students do not change schools up until they enter upper secondary education. Almost all schooling in Bulgaria is provided through the public system – 95.5% of Bulgaria's 4 425 schools are public and only around 2% of students in Bulgaria attend private schools (Bulgaria, 2021[27]).

Table 1.3. Structure of the education system in Bulgaria

<table>
<tr><th>ISCED 2011</th><th>Starting age</th><th>Grade</th><th>Note</th><th colspan="5">Education programme</th></tr>
<tr><td>8</td><td></td><td></td><td>Tertiary education</td><td colspan="5">PhD programmes - 3-4 years</td></tr>
<tr><td>7</td><td></td><td></td><td>Tertiary education</td><td colspan="3" rowspan="2">Integrated bachelor's and master's programmes – 5-6 years</td><td colspan="2">Master's programmes - 1-2 years</td></tr>
<tr><td>6</td><td></td><td></td><td>Tertiary education</td><td colspan="2">Bachelor's programmes - 4 years</td></tr>
<tr><td>5</td><td></td><td></td><td>Tertiary education
(not mandatory to access ISCED 6)</td><td colspan="5">Professional bachelor's programmes - 3 years</td></tr>
<tr><td>4</td><td></td><td></td><td>Post-secondary non-tertiary education
(not mandatory to access tertiary education)</td><td colspan="5">Non-tertiary VET education - 1 year</td></tr>
<tr><td rowspan="8">3</td><td>18</td><td>XII</td><td rowspan="2">Stage two of secondary education</td><td rowspan="2">General secondary education - 2 years</td><td rowspan="2">Secondary education (combining general and VET at stage two) - 2 years</td><td colspan="2">Secondary education (combining general and VET at stage two) - 1 year</td><td rowspan="2">Secondary education (combining general and VET at stage two) - 2 years</td><td rowspan="5">Secondary education (combining general and VET since stage one) - 5 years</td></tr>
<tr><td>17</td><td>XI</td><td rowspan="4">Secondary education (combining general and VET since stage one) - 4 years</td><td>Secondary education (combining general and VET at stage two) - 1 year</td></tr>
<tr><td>16</td><td>X</td><td rowspan="3">Stage one of secondary education
(compulsory)</td><td colspan="2" rowspan="3">General secondary education - 3 years</td><td colspan="3" rowspan="3">Secondary education (combining general and VET at stage one) - 3 years</td></tr>
<tr><td>15</td><td>VIIII</td></tr>
<tr><td>14</td><td>VIII</td></tr>
<tr><td rowspan="3">2</td><td>13</td><td>VII</td><td rowspan="3">Stage two of primary education
(compulsory)</td><td colspan="5" rowspan="6">Primary education - basic education (single structure)</td></tr>
<tr><td>12</td><td>VI</td></tr>
<tr><td>11</td><td>V</td></tr>
<tr><td rowspan="4">1</td><td>10</td><td>IV</td><td rowspan="4">Stage one of primary education
(compulsory)</td></tr>
<tr><td>9</td><td>III</td></tr>
<tr><td>8</td><td>II</td></tr>
<tr><td>7</td><td>I</td></tr>
<tr><td rowspan="3">02</td><td>6</td><td rowspan="3"></td><td rowspan="3">Pre-primary education
(beginning of compulsory attendance)</td><td colspan="5" rowspan="3">Pre-primary education</td></tr>
<tr><td>5</td></tr>
<tr><td>4</td></tr>
<tr><td rowspan="4">01</td><td>3</td><td rowspan="4"></td><td rowspan="4"></td><td colspan="5" rowspan="4">Early childhood educational development</td></tr>
<tr><td>2</td></tr>
<tr><td>1</td></tr>
<tr><td>0</td></tr>
</table>

Note: The blue triangles represent the different pathways to tertiary education.

Bulgaria's declining student population required a rationalisation of the school network

Bulgaria's declining population has required a rationalisation of the school network. The country's student population has decreased by around a third since the early 2000s and over 1 000 schools have been closed, mostly in remote areas (Republic of Bulgaria, 2019[6]). This trend is likely to continue as the school-age population (3-18 year-olds) is expected to decline further, by around 9% by 2030 (EC, 2019[31]). Although the overall student population is decreasing, urban areas are declining at a slower rate than rural areas (World Bank, 2017[34]). In some large urban localities, the student population is even increasing, as a result of internal migration. Since the country's youth are now mainly concentrated in urban areas (75% of the population under working age in 2019) (NSI, 2020[35]), there will likely be far fewer schools in rural areas in the future. For example, the number of kindergartens across the country has decreased by 11.4% between 2013 and 2017, with 283 kindergartens in small- and medium-sized municipalities being closed over the period (Republic of Bulgaria, 2019[6]). In Bulgaria's big cities meanwhile, 47 new kindergartens have been opened, with 24 in Sofia alone (Republic of Bulgaria, 2019[6]). While this rationalisation may be necessary, it also risks limiting access for students from rural and remote areas, where Bulgaria's ethnic minorities are most present (Minority Rights Group International, 2018[36]). To address this risk, Bulgaria annually publishes a list of "protected schools" – or schools that cannot be closed if it means that a significant number of students will have to travel very long distances in order to attend school (Council of Ministers, 2020[37]).

At the same time, authorities are under pressure to continue opening more schools in urban areas, particularly if they are to extend instructional time. Between Grades 1 and 12, students have traditionally spent half the day at school and half the day completing homework and independent study at home (State University, 2021[38]). In primary school, students can also benefit from "extended care", or *zanimalnya*, whereby they spend the second half of the day completing their study tasks under the guidance of a teacher – though this is only granted upon the explicit request of parents (State University, 2021[38]). In large urban areas, many schools offer "double-shift" instruction due to the shortage of school premises (State University, 2021[38]) – obstructing an extension of instructional time.

Most students who finish basic education enrol in VET upper secondary schools

Upper secondary education in Bulgaria is divided into two stages: stage one is mandatory (Grades 8-10) and stage two is not (Grades 11-12). Under this structure, students are selected into different study programmes at Grade 7 (around age 13), where they will either follow an academic programme in a general secondary school or "gymnasium", attend a profiled high school that specialises in areas such as foreign language or mathematics, or choose to enrol in a VET programme in a secondary vocational education school. This process of selecting students into upper secondary school is partly based on students' results in an external assessment taken after Grade 7 (see Chapters 2 and 5). Students with the best results have access to elite, high-performing schools. Around 52% of students in upper secondary education in Bulgaria (after Grade 7) enrol in VET programmes, compared to a EU average of 48% and 43% among OECD countries (2019) (UIS, n.d.[28]). However, only VET students who chose to take an examination linked to VET qualification at the end of their course are granted a professional qualification diploma. Around one-third of upper secondary VET graduates choose not to obtain this professional qualification, which might indicate that VET is not their first study choice but rather a more practical and less academic pathway towards higher education. Starting in 2022, the VET qualification examination will become mandatory for students in this track (Bergseng, 2019[39]).

Pathways through Bulgaria's school system may reinforce inequalities

Tracking into different schools and study programmes begins at a very young age in Bulgaria, at around age 13 when students are in Grade 7. This is one of the earliest selection systems amongst OECD and EU economies, where student tracking does not take place until students are around age 16 (OECD,

2020[40]). In Bulgaria, not only are students at this stage sorted into general and VET pathways but also several programmes within these general distinctions. These programmes are offered by different schools, which vary significantly in terms of quality (rather than as options within the same school). While having a diverse range of school types and programmes can cater for the diverse needs of students, without careful regulation and implementation it can also increase horizontal stratification (see Chapter 2).

Upper secondary education is therefore highly selective, with a strong societal emphasis on identifying the very top students for placement in elite schools. Bulgaria has one of the highest rates of 15-year-olds who attend an academically selective school and also the highest "isolation index" between socio-economically disadvantaged and high-achieving students, according to PISA (OECD, 2019[41]). Indeed, some of the main critiques of early tracking systems relate to risks for low-achievers (as tracking tends to deprive low-performing students of the positive peer effects from high-performance students) and the fact that students in vocational tracks usually follow a very different curriculum that sets them on a learning trajectory from which it is subsequently hard to escape (Korthals, 2015[42]; OECD, 2016[43]). There is also significant concern that tracking systems usually reinforce existing socio-economic inequities, as socio-economically disadvantaged students tend to be disproportionately grouped into the tracks considered of lower quality (Oakes, 2005[44]). Private tutoring is also a very common practice among students and parents in Bulgaria, a factor that could further increase the gap in access to quality education between students who count on extra resources for preparing for the Grade 7 test and those coming from poorer socio-economic backgrounds.

Main trends in participation, learning and equity

While significant reforms have been introduced to modernise and improve the education and training system, Bulgaria continues to face a number of important challenges – not least, deteriorating participation rates and learning outcomes, skill mismatches, an ageing teaching workforce and problems of equity, with gaps observed between provinces and for certain segments of the population.

Participation

Extending compulsory education to reach higher enrolment rates in pre-primary education is a priority for the country but barriers to access persist

Raising participation in ECEC is a central priority for Bulgaria. The benefits of having children enrol in education at a young age in terms of long-term development and equity are recognised in the decision to make pre-school education compulsory for children from four years of age from 2020. This and other recent reforms were introduced to increase participation rates in pre-primary education, which have been low and actually decreasing since 2015 (Eurostat, n.d.[17]; EC, 2020[29]). In 2019, only 83% of children aged 4-7 years old were enrolled in pre-schools, compared to an EU average of 95% (Eurostat, n.d.[17]). Recently, Bulgaria has launched an EU-funded programme to support the most disadvantaged children by financing care-related fees, providing parental education as well as pedagogical, psychological and social support for children (EC, 2020[29]). Such initiatives may warrant expansion.

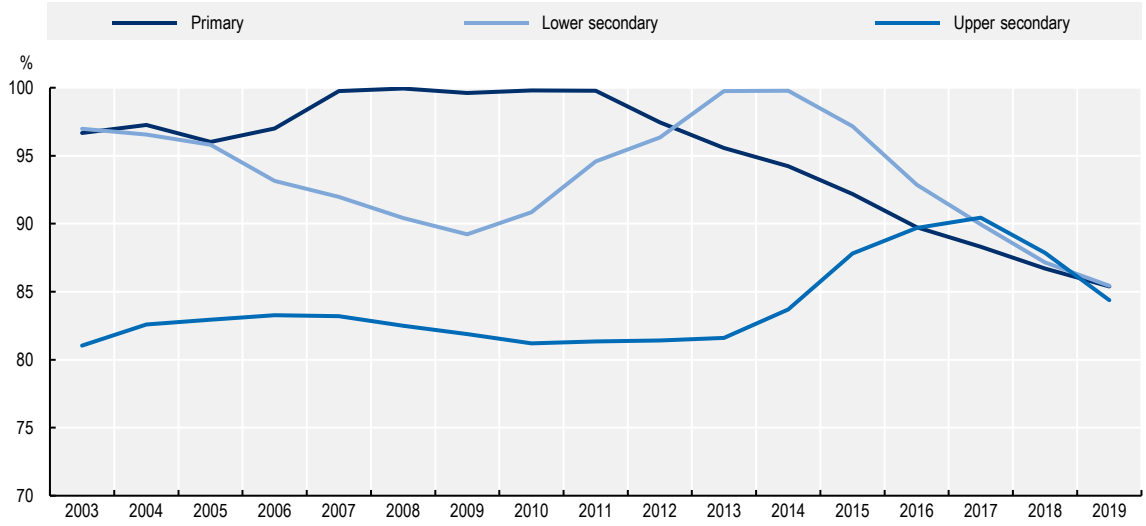
Anecdotal evidence and limited participation in early childhood education among certain demographic groups, such as the country's Roma population, suggest that entry barriers remain. Families may be discouraged from enrolling their children in early childhood education before the age of four on account of its cost and lack of complementary services. Prior to the age of four, full-day pre-school programmes charge parents fees and the latter may also be discouraged by the insufficient provision of transportation services, food and school supplies. In addition, parental leave policies in Bulgaria provide parents with attractive salary replacements up until their children reach the age of two (EC, 2021[45]). Other factors influencing access to this level of education include limited classroom space and policies that prioritise the

children of working parents, among others (World Bank, 2018[46]). Perhaps, as a result, the participation of Roma children in pre-primary education in Bulgaria remains much lower than among other ethnic groups and below the EU target of 95%. It stood at 70% in 2016, the most recent year with available data (Volen, 2016[22]). However, it is important to note that the country has achieved a marked improvement over a relatively short period of time, with only 40% of Roma children of pre-school age participating in education in 2011 (Volen, 2016[22]).

Bulgaria has made impressive progress in upper secondary enrolment but this may be tested by declining levels of enrolment in both primary and lower secondary education

Data suggest that enrolment has declined steadily for both primary and lower secondary education over recent years (Figure 1.4). The primary enrolment rate has declined from close to "full" net enrolment in 2010 (99%) to 85% by 2019, while secondary enrolment has declined from 92.5% in 2015 to 85% in 2019 (UIS, n.d.[28]). Part of this change in the data might be explained by changes in how data are collected and other challenges in Bulgaria's education monitoring and information system (see Chapter 5). However, the data that are currently available suggest that the country now has one of the lowest rates of lower secondary enrolment amongst peers (85%) and this has been a concern for Bulgaria. By comparison, the net rate of lower secondary enrolment stood at 98% in Serbia and 97% in Hungary and Poland in 2019 (UIS, n.d.[28]). Only Romania has seen a similar noticeable decline (though less marked) since 2010 – from 94% in 2010 to 91% by 2018 (UIS, n.d.[28]). At the same time, Bulgaria has made impressive gains in increasing the upper secondary enrolment rate relative to regional peers, registering one of the sharpest increases in the region alongside Poland, with a particularly steep climb since 2014. Net enrolment rates have climbed steadily from 81% in 2010 to 90% by 2017 (UIS, n.d.[28]). However, it appears that enrolment had begun to fall since 2017, perhaps in response to the declining share of students completing earlier education levels, with the COVID-19 pandemic representing another set of risks to upper secondary participation and completions.

Figure 1.4. Net enrolment rate by level of education in Bulgaria, 2003-19



Source: UIS (n.d.[28]), *UIS.Stat*, http://data.uis.unesco.org/ (accessed on 23 September 2021).

StatLink https://stat.link/89spj7

The percentage of students who do not complete the academic year is similar between basic and upper secondary education

According to national data, in the academic year 2019/20, 2.5% of all students enrolled in basic education did not finish the academic year, very similar to the situation in upper secondary education (2.4%) (NSI, n.d.[47]). This percentage is higher in remote areas – the rate of students dropping out before completing the academic year reaches 30% in villages and over 15% in small towns (EC, 2018[48]). It is also higher among Bulgaria's minority groups, such as the Roma (45% of Roma do not complete secondary education) (Republic of Bulgaria, 2019[6]), as well as amongst persons with disabilities.

Bulgaria's National Statistical Institute (NSI) separates the reasons behind school dropout rates into three categories: i) family reasons; ii) unwillingness; and iii) going abroad. According to national data, "going abroad" is the main reason behind early school leaving up until upper secondary education (NSI, 2020[35]). Indeed, a massive tracking campaign carried out in 2017 and 2018 suggested that over 80% of school-age children not enrolled in Bulgarian schools were actually living abroad (EC, 2018[48]). However, NSI data suggest that "family reasons" also account for a significant share of dropouts – in 2018/19, 41% of students that dropped out of primary schooling and 39% of students that dropped out of lower secondary schooling did so for "family reasons", compared to 50% and 42% that dropped out because they went abroad (for primary and lower secondary respectively) (NSI, 2020[35]). School closures, especially in small settlements, are also believed to play a role in the high number of school dropouts (Republic of Bulgaria, 2019[6]). Other factors such as negative attitudes towards the educational process and difficulties in learning also influence higher dropout rates (Republic of Bulgaria, 2019[6]).

The implications of the COVID-19 pandemic on schooling in Bulgaria, as elsewhere, are only just starting to be understood. However, the indicators point to the likelihood of the economic, educational and social pressures behind dropping out being exacerbated. Some of the children who struggled the most to adapt to school closures and the transition to online classes, for example, might not come back to school. This is particularly true for the most disadvantaged and vulnerable students. A survey from the United Nations Children's Fund (UNICEF), for instance, showed that 8% of students did not participate in distance learning or did not participate regularly due to barriers to accessing online learning (Yankova, 2021[49]).

More Bulgarians are participating in tertiary education compared to the past decade but the transition to the labour market is still difficult

Gross enrolment in tertiary education[1] has steadily increased since 2010 – from 58% in that year to 73% in 2019 (UIS, n.d.[28]). This is high compared to Bulgaria's regional peers – in 2018, the gross enrolment ratio stood at 64% in the Czech Republic, 51% in Romania and 50% in Hungary (UIS, n.d.[28]). In part, these high enrolment figures are linked to a lack of attractive vocational and technical pathways after school, as well as issues around secondary education (and specifically, selection and certification practices) (see Chapter 2) that constrain a smooth school to work transition for young people. In 2020, from the total number of students enrolled in tertiary education (without counting those following a doctoral degree), most (63%) were enrolled in bachelor's degree programmes (ISCED[2] 6), compared to 4% in shorter "professional bachelor's" courses (ISCED 5) and 33% in master's degree courses (NSI, 2020[35]). Recently, however, there has been a decline in the total number of students enrolled in tertiary education. In 2019/20, the number of students enrolled was 19% lower at the bachelor's education level and 16% lower at the master's level than in 2014/15 (NSI, 2020[35]). The number of PhD students also decreased but by a lower rate: only 3% in the same timeframe (NSI, 2020[35]).

Participation in tertiary education in Bulgaria however, is not necessarily linked to better labour market outcomes. Employment rates amongst recent tertiary graduates (those aged 20-34, not in education and training) in 2018 was slightly below the EU-28 average, at 84.5% (compared to the EU-28 average of 85.5%) (Eurostat, 2019[50]). This was lower than the same demographic group in peer countries in the EU, such as Hungary (91.5%), Latvia (91%) and Romania (89%) but higher than rates in the Western Balkans

(69% in Serbia, 66% in Montenegro and 55% in North Macedonia) (Eurostat, 2019[50]). This may be due to issues around the quality and relevance of tertiary education. A high share of students are enrolled in a small number of subjects, suggesting some misalignment with both labour market needs and Bulgaria's economic development goals. In 2018, 32% of tertiary graduates held qualifications in business, administration and law, and 13% in social sciences, journalism and information. Only 3% held qualifications in natural sciences, mathematics and statistics, 4% in information and communication technology (ICT) and 12% in engineering, manufacturing and construction (Eurostat, n.d.[17]).

Learning environment and outcomes

International assessments suggest that many Bulgarian students have not reached baseline proficiency in core subjects

The average learning outcomes of 15-year-old students in Bulgaria have remained relatively low overall since the country's first participation in PISA in 2000. Comparing results from 2018 with previous cycles, there has been a significant statistical decline in reading learning outcomes as compared to 2012 scores (436 to 420) and also in science, compared to 2015 scores (446 to 424). On the other hand, Bulgaria has made progress in mathematics, as compared to 2006 results (413 to 436) (Figure 1.5). Today, students in Bulgaria perform lower than their peers in OECD countries across all subject domains, particularly in reading (73 score point difference) (OECD, 2019[51]). Moreover, a high share of students still do not achieve baseline levels of proficiency, with 32% of 15-year-old pupils scoring below Level 2 (considered low performance) in all 3 subjects (compared to an EU average of 14% and OECD average of 13%) (OECD, 2019[51]). Only 5.5% scored above Level 5 in at least 1 subject, compared to an EU average of 14% and OECD average of 15.7% (OECD, 2019[51]).

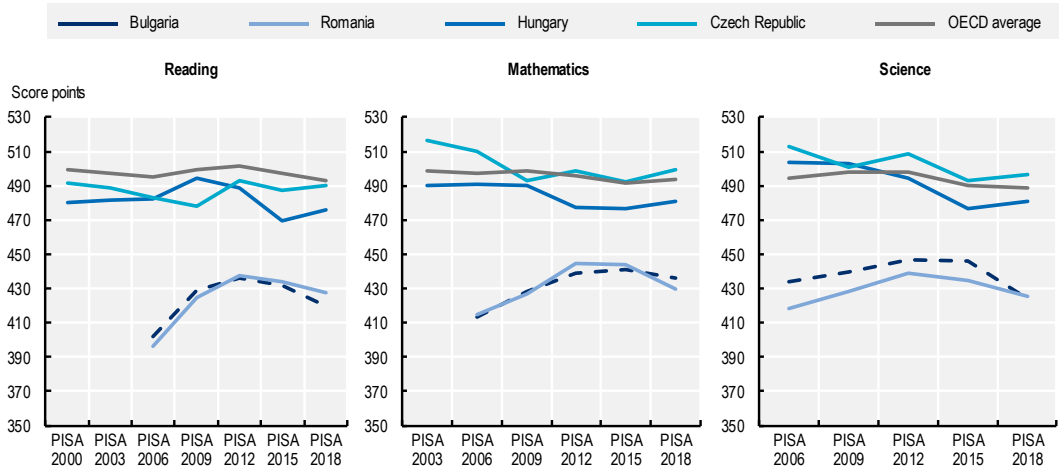
The particularly low average score registered for reading in PISA 2018, which is below most lower-income countries and countries with lower levels of education spending (Figure 1.5), could indicate issues around confidence and engagement in learning that become more problematic as students move through the system and literacy is presumed. In primary school, Bulgarian students appear to perform well in reading tasks – the country's average score for reading at Grade 4 is one of the highest internationally (at 552) in the 2016 Progress in *International* Reading Literacy Study (*PIRLS*) and above the PIRLS scale centre point of 500 (IEA, 2017[52]). The fact that PIRLS is a curriculum-based assessment while PISA is a skills-based assessment could further suggest that low PISA scores relate to the instructional practices that still dominate in Bulgaria, which are focused on the reproduction of knowledge and tend to neglect higher-order competencies and the application of knowledge to real-world contexts. Another worrying trend is that Bulgaria's average scores for Grade 4 in the Trends in Mathematics and Science Study (TIMMS) have declined over the period between 2015 and 2019, in both mathematics and science – from 524 to 515 and 536 to 521 respectively, though both remain above the Trends in International Mathematics and Science Study (TIMSS) scale centre point of 500 (IEA, 2020[53]). The most marked declines have been in the "knowing" cognitive domain (which decreased by 16 points in mathematics and 25 points in science between 2015 and 2019) (IEA, 2020[53]).

Limited student engagement in Bulgarian schools can disrupt learning

Many Bulgarian schools seem to face difficulties with motivating and engaging students. Truancy levels are high compared to other PISA-participating economies. As much as 44% of students in Bulgaria reported they had skipped a whole day of school at least once (OECD average 21%) and 57% had arrived late at school (OECD average 48%) (OECD, 2019[54]). Indeed, student truancy has a negative effect on the learning environment and, therefore, on student performance and engagement (OECD, 2019[54]). PISA 2018 results show that on average across OECD countries, skipping classes and being late for school have a detrimental effect on reading performance (a decline in 37 and 26 score points respectively)

(OECD, 2019[54]). Moreover, during the COVID-19 pandemic, with periods of physical school closures, keeping students engaged in an online environment where classes often took place added extra pressure on teachers, parents and students themselves. This is particularly the case for students from disadvantaged backgrounds, as they are more likely to lack the parental support, resilience, learning strategies or engagement to learn on their own (OECD, 2020[55]).

Figure 1.5. Trends in PISA average scores by PISA cycle



Source: OECD (2019[51]), *PISA 2018 Results (Volume I): What Students Know and Can Do*, https://doi.org/10.1787/5f07c754-en.

StatLink https://stat.link/qwhpo4

Bulgaria is working hard to support its teachers but lack of training tailored to teachers' needs remains a challenge

Although overall participation in continuous professional development has increased over recent years (85% of lower secondary teachers in 2013 compared to 96% in 2018 (OECD, 2019[56])), a significant share of Bulgarian teachers still lack training in specific areas. In TALIS 2018, 19% of teachers reported a high need for further training in their subject field (compared to an EU average of 6%), 20% for further training on the curriculum (compared to an EU average of 5%), 17% for further training around pedagogical competencies (compared to an EU average of 8%) and 23% for further training in ICT skills (compared to an EU average of 16%) (OECD, 2019[56]). Teachers in Bulgaria also reported a higher need than the EU average for training in student behaviour and classroom management, in teaching in a multicultural or multilingual environment and for teaching children with special needs (OECD, 2019[56]). The latter was reported as particularly acute (OECD, 2019[56]). Currently, teachers in the country count heavily on the support of colleagues to upgrade their skills and implement new ideas. In TALIS 2018, 86% of teachers in Bulgaria reported that they and their colleagues support each other in implementing new ideas, compared to an OECD average of 78% (OECD, 2019[56]). Participation in more formal training, however, appears to be restricted by high costs – 60% of teachers report this issue, compared to 44% in the EU-23 (OECD, 2019[56]; EC, 2019[31]). The Bulgarian government is attempting to provide more opportunities for professional development amongst the teaching workforce: a 2016 ordinance strengthens regulation around teachers' continuous professional development and allows new institutions to provide courses and programmes for teachers, subject to approval from the Ministry.

Equity

Dropout rates and early school leaving are higher in rural and remote areas, and learning outcomes also differ significantly by geographic location

The growing rate of school dropouts is a concern in Bulgaria and this risk is particularly pronounced in remote and rural areas. At the same time, the percentage of students classified as early school leavers (18-24 year-olds who completed at most lower secondary education and are not involved in further education) is also high in rural areas, reaching as much as 24.5%, compared to an EU average of 11% (Eurostat, n.d.[17]). It seems that the dropout rate and percentage of early school leavers are also correlated with municipality size: large municipalities and provinces perform better than small ones (Desislava, Zornitsa and Yavor, 2017[57]). Indeed, students in rural areas also lag when it comes to learning outcomes, which may partially explain the higher percentage of school leavers and dropout rates in these areas. According to PISA 2018 results, 15-year-old students in urban areas scored as much as 115 points higher than those in rural places, compared to an OECD average of 48 points (OECD, 2019[51]).

Gaps in both participation and learning outcomes are persistent and observed amongst different ethnic groups and socio-economic levels

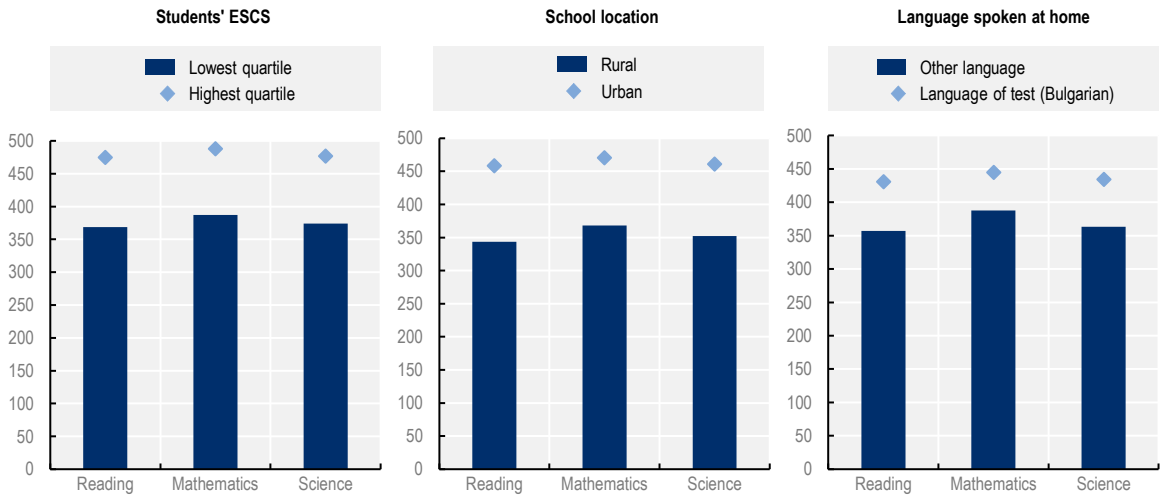
Census data collected in 2011 found that 23% of Roma children and 12% of Turkish-origin children aged between 7 and 15 were not in school, compared to only 6% among the rest of the population in the same age category (UNICEF, 2016[58]). Though one can observe an increase in the share of Roma finishing primary school and even secondary and tertiary education, Roma children remain significantly underrepresented in non-compulsory early childhood and pre-primary education, which has been shown to have an important impact on educational attainment later on. Roma families appear to be discouraged by fees associated with non-compulsory pre-school education (World Bank, 2018[46]), are less aware of the benefits of pre-primary education and are disadvantaged by selection criteria that prioritise working parents. Access is also limited by fewer facilities in rural and remote areas and classroom space limitations in large urban areas (Open Society Institute–Sofia Foundation, 2020[59]).

Similar gaps can also be seen across different ethnic groups when it comes to learning outcomes – which may reflect and compound participation gaps. In PISA 2018, 6% of Bulgarian students reported speaking another language at home (OECD, 2019[60]). The performance gap between this group and those whose mother tongue is Bulgarian is significant. A score point difference of 74 in reading (OECD, 2019[60]) is the highest gap in the EU. Inequalities are also large and persistent among students from disadvantaged socio-economic backgrounds. Students from poorer families in Bulgaria performed much lower than their peers from wealthier families in all domains of PISA 2018 but especially in reading (106 score point difference) (Figure 1.6). This gap is not only larger than the average among OECD countries (89 score point difference) but also wider than some neighbouring countries, such as North Macedonia and Serbia (80 and 73 score point difference respectively) (OECD, 2019[51]). Indeed, it seems the country is struggling to support its most vulnerable students in the long term. For example, a greater share of students whose parents do not hold a higher education qualification achieved below Level 2 proficiency in reading in 2018 than in 2000 (when Bulgaria first participated in PISA). Such a situation is particularly worrisome for the country since there has been no significant increase in the PISA coverage number of such students (

Figure 1.7).

The current COVID-19 pandemic has only reinforced these inequalities and deepened learning losses. In Bulgaria, as in many other parts of the world, students who suffered the most from school closures and learning disruption were those from the most socio-economically vulnerable and disadvantaged families. Among the main barriers to learning was a lack of resources and a lack of parental support. In one survey, 8% of students reported that they could not participate in online classes (or at least not regularly) due to a lack of technological devices or Internet, and 50% of parents reported that they had been unable to support their children's education (Yankova, 2021[49]).

Figure 1.6. Differences in performance on PISA 2018 between student groups, by subject



Note: All score point differences are statistically significant.
Source: OECD (2019[60]), *PISA 2018 Database*, https://www.oecd.org/pisa/data/ (accessed on 26 August 2020).

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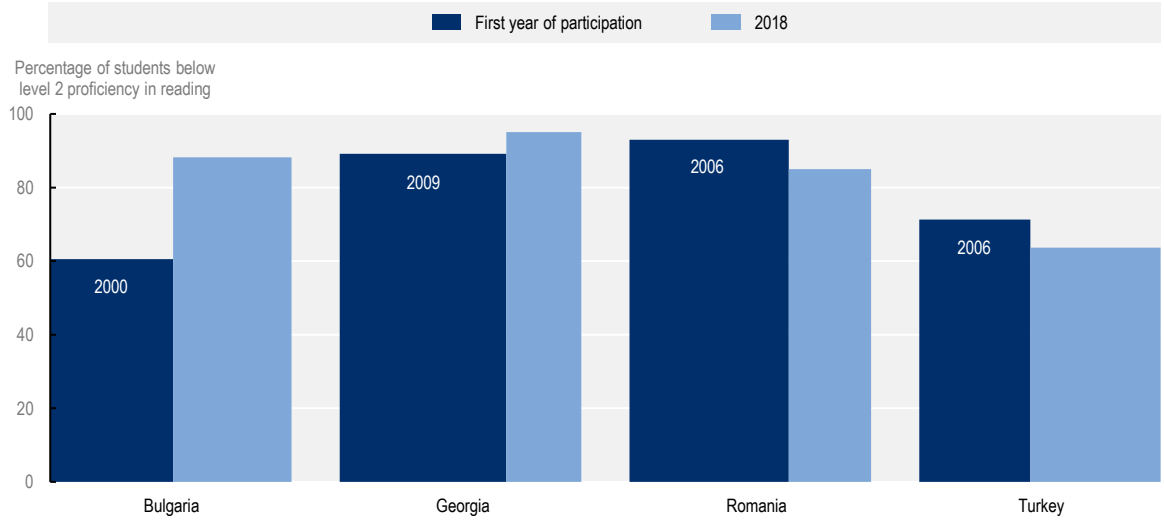
Figure 1.7. Reading proficiency among students whose parents do not hold a higher education qualification



Note: Sample is restricted to students whose parents do not hold a higher education qualification.
The width of the columns represents the number of students whose parents do not hold a higher education qualification and are scaled to be proportionate within each country.
The area of each column represents the number of students whose parents do not hold a higher education qualification who performed below Level 2 proficiency in reading.
Data from Bulgaria and Romania are from 2006 because coding for parental education was different in 2000, when they first participated.
The four countries are selected because their coverage indices in 2018 were below that of the OECD average. Baku (Azerbaijan) is excluded because it did not previously participate as a municipality.
Source: OECD/UNICEF (2021[1]), *Education in Eastern Europe and Central Asia: Findings from PISA,* https://doi.org/10.1787/ebeeb179-en.

StatLink https://stat.link/ro0k3q

Key indicators

No.	List of key indicators	Bulgaria	OECD
	Background information		
	Economy		
1	GDP per capita PPP, constant 2017 international USD (2020) (World Bank)	22 384	42 288
2	GDP annual growth rate (2020) (World Bank)	- 4.2	- 4.7
	Society		
3	Population annual growth rate (2020) (World Bank)	- 0.7	0.4
4	Population aged 14 years or less (%) (2020) (World Bank)	15	18
5	Fertility rate (births per woman) (2018) (World Bank)	1.6	1.7
6	Rural population (% of total population) (2020) (World Bank)	24	19
7	Youth unemployment rate (aged 15-24 years old) (2019) (modelled International Labour Organization [ILO] estimate, World Bank)	9	12
	Total unemployment rate (2020) (modelled ILO estimate, World Bank)	6	7
	Education indicators		
	System		
9	Official entrance age of pre-primary education (2020) (UIS)	3	3
10	Official entrance age of compulsory education (2020) (UIS)	5	5.6
11	Duration of compulsory education (years) (2020) (UIS)	11	11
	Students		

No.	List of key indicators	Bulgaria	OECD
12	Net enrolment rate, primary education (2019) (UIS)	85	99
	Net enrolment rate, lower secondary education (2019) (UIS)	85	98
	Net enrolment rate, upper secondary education (2019) (UIS)	84	93
13	Share of students enrolled in vocational programmes in upper secondary level (2019) (UIS)	52	43
14	Share of primary students enrolled in private schools, (2019) (UIS)	2	12
	Share of lower secondary students enrolled in private schools (2019) (UIS)	6	16
	Share of upper secondary students enrolled in private schools (2019) (UIS)	5	21
	Teachers		
15	Ratio of students to teaching staff, primary education (2017) (UIS)	15	15
	Ratio of students to teaching staff, lower secondary education (2017) (UIS)	13	14
	Ratio of students to teaching staff, upper secondary education (2017) (UIS)	13	13
16	Share of female teachers, pre-primary education (2018) (UIS)	100	96
	Share of female teachers, primary education (2018) (UIS)	93	82
	Share of female teachers, lower secondary education (2018) (UIS)	80	69
	Share of female teachers, upper secondary education (2018) (UIS)	77	61
	Finance		
17	Total government expenditure on education as % of GDP, all levels (2017) (UIS)	4.1	5.2
18	Government expenditure on pre-primary education as a % of GDP (2017) (UIS)	0.9	0.5
	Government expenditure on primary education as a % of GDP (2017) (UIS)	0.8	1.4
	Government expenditure on secondary education as a % of GDP (2017) (UIS)	1.5	1.8
19	Initial government funding per pre-primary student, constant PPP USD (2017) (UIS)	6458.80	8109.25
	Initial government funding per primary student, constant PPP USD (2017) (UIS)	4529.11	8964.56
	Initial government funding per lower secondary, constant PPP USD (2017) (UIS)	5463.31	10227.94
	Initial government funding per upper secondary student, constant PPP USD (2017) (UIS)	4102.41	9520.66
	Learning outcomes		
20	Mean students' performance in reading (PISA 2018)	420	487
21	Percentage of students below PISA Proficiency Level 2 in reading (PISA 2018)	47	23
22	Percentage of variance in reading performance explained by student's socio-economic background (PISA 2018)	15	12

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Notes

[1] Total number of years of schooling a child of school-entry age can expect to receive if prevailing patterns of age-specific enrolment rates stay the same throughout the child's life.

[2] Through, for instance, making the teaching profession more attractive and investing in educational infrastructure. Its specific aims include enhancing functional literacy, the development of creative and critical thinking and civic engagement.

[3] PPS is the technical term used by Eurostat for the common currency in which national accounts aggregates are expressed when adjusted for price level differences using PPPs.

[4] Average number of completed years of education of a country's population aged 25 years and older, excluding years spent repeating individual grades.

[5] Total enrolment in tertiary education regardless of age expressed as a percentage of the population in the 5-year age group immediately following upper secondary education.

[6] ISCED is the reference international classification for organising education programmes and related qualifications by levels and fields.

2 Making student assessment an integral part of student learning

Bulgaria's Pre-school and School Education Act (2016) introduced a new competency-based curriculum, new learning standards and more formative approaches to assessing students, including the use of start-of-year diagnostic tests and the implementation of qualitative marking. However, while these policies have the potential to enhance learning, changes in school and classroom assessment practices have been slow to implement and the country's high-stakes selection and examinations culture continues to reinforce the perception of student assessment as a primarily summative exercise. This chapter recommends tangible steps Bulgaria can take to use assessment as a means to improve teaching and learning.

Introduction

Student assessment can be a key enabler of student learning by helping teachers, students and parents determine what learners know and what they are capable of doing. This information may also help educators identify specific learning needs before they develop into more serious obstacles, as well as support students in making informed decisions about their educational trajectories. Meaningful assessment practices are especially important in light of the COVID-19 pandemic, facilitating the adaption of instruction where learning has been disrupted. In Bulgaria, student assessment policies have undergone several changes in the last six years as part of broader reform efforts introduced by the Pre-school and School Education Act (2016) to modernise schooling. In particular, the new competency-based curriculum provides a foundation for achieving national goals and improving the educational outcomes of all students, supporting them and the country to advance.

However, the intended impact of Bulgaria's education reforms has not yet come to fruition and there is a notable implementation gap at the school and classroom levels. Schools and teachers will need to make assessment a central part of the learning process in order to better detect and address learning issues, redress inequalities related to background or location and promote the complex competencies needed for success in school and beyond. The role of standardised assessment in Bulgaria also needs to be reviewed: national assessments and examinations are not currently contributing to improvements in the quality of education in the classroom or to the choices students make about their pathways. These factors exist within a highly competitive and traditional schooling environment whereby assessment is primarily viewed as a way to sort students into prestigious schools. Overcoming these challenges and establishing a more inclusive and competency-based approach to education will likely require further structural changes to schooling in Bulgaria. In the meantime, there are tangible steps the country can take to use assessment as a means to improve teaching and learning practices and outcomes.

Student assessment in Bulgaria

Bulgaria's competency-based curriculum introduced important changes to student assessment policy, such as start-of-year diagnostic tests, qualitative marking and expected learning outcomes for each subject and grade level. While these policies have the potential to enhance the quality of education, tangible changes in school and classroom practices have been slow to take effect. Teacher assessments continue to focus on traditional summative tests with a narrow emphasis on a limited range of tasks as opposed to broader, deeper learning. This encourages an educational approach that risks undermining student agency, engagement and progress. The ability of teachers to adopt new assessment practices is constrained by political and public expectations of how students in Bulgaria should be assessed and successful achievement demonstrated. This is, in part, a cultural legacy of education under the Soviet bloc, which was characterised by centralisation, control and a focus on memorisation combined with a culture of competition and performance in contests and examinations. This is not unique to Bulgaria: several other education systems in the region have confronted or are confronting similar challenges (Li et al., 2019[1]; Kitchen et al., 2017[2]; OECD, 2019[3]).

Bulgaria's national assessment and examination practices, which centre on a high-stakes sorting and examinations culture, have further entrenched these more traditional attitudes. The wider assessment ecosystem is not conducive to implementing the intended changes of Bulgaria's competency-based curriculum. To move forward, the country needs to create the conditions for teachers and students to take the lead on assessment practices that enable learning. This requires shifting the focus from summative, high-stakes assessment to emphasising formative practices and an improvement-led assessment culture from the earliest years. Supporting teachers in developing these pedagogical skills while simultaneously changing public attitudes towards assessment – and education more broadly – will be key to building buy-in for the new competency-based curriculum among educators and society at large. This chapter will discuss

the different types of student assessment practices currently found in Bulgaria (Table 2.1) and identify elements that could support the country in making this shift. Some details are covered in more depth in Chapter 5, which looks further into how Bulgaria's national assessments can support system-level monitoring and help advance national education goals.

Table 2.1. Overview of student assessment in Bulgaria

Reference standards	Types of assessment	Body responsible	Process	Guideline documents	Frequency	Primary use
National Curriculum Framework	Classroom assessment	Teachers	School-readiness assessment at the end of pre-primary education	State Educational Standard (SES) for Evaluation of the Results of Student Learning (2016)	Once	Certification of readiness for transition to primary education
			Start-of-year readiness/ diagnostic assessment		Once a year	Assessing gaps in learning
			Continuous assessment (current and term assessment)		Up to four times per term (subject-dependent)	Monitoring student progress during a school year
			End-of-year/end-of-phase examination		Once a year	Completion of grade level/phase
	National assessment	The Center for Assessment	Census-based National External Assessments (NEAs) (Grades 6, 7, 10)	SES for the Evaluation of the Results of Student Learning (2016)	Three in total; takes place annually	Monitoring system performance Selection mechanism for upper secondary school (Grade 7)
	National examination	The Center for Assessment	State Matriculation examination (Grade 12)	SES for the Evaluation of the Results of Student Learning (2016)	Once	Diploma of completion of upper secondary education; application to tertiary education
			State Matriculation examination for acquiring professional qualification (Grade 12)	Vocational Education and Training Act (latest amendments: 2018)	Once	Certification of acquisition of vocational qualification
International Association for Evaluation of Educational Achievement (IEA) Standards	International assessment	International Association for Evaluation of Educational Achievement (IEA)	Progress in International Reading Literacy Study (PIRLS) (Grade 3)		Five years	Measurement of system performance
			Trends in International Mathematics and Science Study (TIMSS) (Grades 3, 7)		Four years	Measurement of system performance
International Programme for International Student Assessment (PISA) Standards	International assessment	OECD	PISA (15-year-olds)		Three years	Measurement of system performance

Source: Ministry of Education and Science (2020[4]), *OECD Review of Evaluation and Assessment: Country Background Report for Bulgaria*, Ministry of Education and Science of Bulgaria, Sofia.

Overall objectives and policy framework

High-performing education systems successfully align curriculum expectations, subject and performance criteria and desired learning outcomes (Darling-Hammond and Wentworth, 2010[5]). National learning goals and expected outcomes, as expressed through qualifications frameworks, curricula and learning standards, help establish an education culture within which assessment supports learning. Bulgaria's reforms under the Pre-school and School Education Act signalled a clear effort to establish a coherent, learner- and learning-focused policy framework. However, more than five years on, the changes to teaching and learning envisaged by the reform have not yet materialised in classrooms, nor has the desired effect on student outcomes. Considerable gaps between the intended curriculum, the taught curriculum and the assessed curriculum persist and further implementation and alignment efforts are required.

The new curriculum aligns with international frameworks and continues to be updated

Bulgaria's move towards a competency-based curriculum aims to modernise teaching and learning, in line with international trends, emphasising the mastery and practical application of knowledge and skills, as well as reorienting the teacher's role from a source of information to that of a mentor or learning partner (Government of Bulgaria, 2020[6]). The Pre-school and School Education Act established nine interdependent and transversal competencies to be embedded across school education for both general and vocational education and training (VET) programmes. These competencies reflect the European Parliament and Council of Europe's *Recommendation on Key Competences for Lifelong Learning* (2006, updated 2018), with the addition of sustainable development, healthy lifestyles and sports competency. Efforts were made to take into account and align with international competency frameworks to ensure Bulgarian students have opportunities to study and work abroad after school and that their skills are competitive internationally.

The introduction of the new curriculum, overseen by the Directorate for the Content of Pre-school and School Education within the Ministry of Education and Science (hereafter, the Ministry), has been gradual. The 2021/22 academic year marks the first time that all students in Bulgarian schools are following the new curriculum. Further curriculum updates are planned with the goal of developing more flexible and modular VET programmes and updating general curricula to better promote the key competencies (Government of Bulgaria, 2020[6]). Bulgaria's National Recovery and Resilience Plan[1] also commits to better promoting science, technology, engineering and mathematics (STEM) skills as well as further developing core cognitive skills (Government of Bulgaria, 2020[7]). While these are important developments, it is essential that further reform efforts do not distract from the implementation and consolidation of previously updated curricula. Change takes time and a sustained focus on core priorities is important for impact and for avoiding curricular reform fatigue among teachers, trainers and school leaders, which can make improvements even harder to achieve. Specifically, Bulgaria will need to prioritise classroom-level curricular implementation for younger students and in priority competencies, such as language literacy and mathematical and scientific competency, to ensure that all students are supported in developing the core attitudes and skills that provide the foundations for future learning.

Multiple instructional documents aim to guide the organisation of teaching and learning but can lack clarity and coherence

As part of broader education reforms, Bulgaria introduced a range of new policy documentation relating to the organisation and content of teaching and learning (Table 2.2). The State Educational Standard (SES) for General Education sets out expected learning outcomes by the end of each education phase in every subject. The Framework Curricula, included in the SES for Curriculum, set out organisational aspects for different types of education (i.e. by school or programme type and delivery mode) at each education phase and for each subject. Grade-level subject syllabi are intended to guide teachers' classroom planning. For the first time, these documents provide expected learning outcomes related to subject competency as well

as suggested activities that teachers can do to support the development of these competencies, the share of time dedicated to assessing students and the different modes of assessment to be employed (e.g. continuous assessment, examination, homework, projects, etc.). They also identify links between subject competencies and the nine transversal competencies. While these are all important and necessary resources and many appear of good quality in and of themselves, there is a lack of clarity among teachers as to the role of each one and a lack of coherence among the documents themselves.

Table 2.2. Policy documentation to support schools and teachers in organising and planning learning

Policy document	Date	Purpose	Content
Pre-school and School Education Act	2015	To establish the overall aims and objectives of pre-school and school education.	• Sets out the academic subjects and transversal competencies to be studied in pre-school, general and vocational education. • Outlines the role of the various policy documents related to the content of pre-school and school education.
SES for General Education	2015	To determine the goals, content and characteristics of general education at the school level.	• Outlines learning objectives for general education by subject and education level, including specific areas of competency, expected learning outcomes and related transversal competencies. • Details the frameworks for the State Matriculation examinations in general subjects, including type of examination, duration, content, assessed competencies, format, distribution of marks and pass threshold.
SES for Curriculum	2015	To set out the characteristics, content and organisational structure of the curriculum.	• Prescribes the general content to be included in subject syllabi depending on the level, type and form of education. • Determines the rules for the content of the structure of school and individual curricula, as well as the conditions for their approval. • Details 24 Framework Curricula, which determine (according to school type, level and programme) organisational elements (e.g. distribution of school weeks and hours across grades and subjects, compulsory subjects).
Subject syllabus	2016-21	To establish the requirements and expected learning outcomes for every subject at every grade.	• Outlines, for every subject and grade level, expected outcomes, key educational content, recommended distribution of compulsory school hours, specific methods and forms of student assessment, interdisciplinary connections and suggested activities for acquisition of the key competencies.
School curriculum	Annual	To determine the organisation of school curricula.	• Establishes, for each school year and class, the organisation of the school day, the subjects and hours for compulsory and elective curricula, and the foreign languages and sports activities to be studied. • Developed and approved by the school leader and Pedagogical Council.
Individual curriculum	Annual	To determine curricula for students with specific needs.	• Establishes organisation of school hours across subjects, for students requiring something different to that outlined in other documents. • Developed by the personality development support team and approved by the principal.

Teachers struggle to navigate curriculum documents and apply changes to their classroom practice

Teachers implementing Bulgaria's new curriculum have been provided with more curricular information than ever before. However, a sense of confusion about the role of the various documents prevails, as well as a perception that the curriculum is overloaded (Ministry of Education and Science, 2019[8]). Interviews undertaken by the OECD review team also indicate that, rather than using the syllabi as intended, teachers continue to rely heavily on textbooks for their planning, teaching and assessment of learning. While the Ministry perceives that the expected learning outcomes act as learning standards, teachers do not consistently apply them in the classroom to support student assessment and there is little monitoring or accountability to incentivise them to do so (Ministry of Education and Science, 2020[4]).

This misapplication may be partly due to ambiguity in the content of the outcomes. Although most are defined as expected results and some are process- or skill-focused, others better describe teaching activities or specific content knowledge (Dimitrova and Lazarov, 2020[9]). For example, in the Grade 6 history and civilisations syllabus, students are expected to "determine causes and consequences of historical events, and research and select information via the Internet" (process/skill-focused), but also "know the most significant conflicts of the period and describe historical figures" (content knowledge) (Ministry of Education and Science, 2016[10]). Furthermore, the suggested teaching and assessment approaches can be very generic and are often repeated across grades and subjects. Teachers of Grade 12 mathematics, for instance, are told that assessment can take the form of an oral examination, written test, classwork or practical work (Ministry of Education and Science, 2020[11]). This adds no value to the information included in higher-level documents.

Each of these challenges – perceived overload, use of textbooks over syllabi and low application of the expected learning outcomes – suggests a considerable gap between the uses of the curricular documentation as intended by the Ministry and the real-life application as carried out by schools and teachers. The Ministry has tried to address these challenges, for example by publishing informative brochures and running a set of regional workshops in 2019, yet the disparities between the intended and implemented curriculum continue to impede the overall success of Bulgaria's curricular reforms.

A new national evaluation and assessment framework provides detailed instructions regarding the organisation and administration of assessments

Complementing various curricular documents, Bulgaria also introduced a new student assessment framework in 2016, the SES for the Evaluation of the Results of Student Learning (Ordinance 11). This Ordinance aims to align student assessment practices with a competency-based approach, namely by encouraging a greater focus on diagnosing and monitoring student progress across the school year. Specifically, the framework establishes the main types (normative, criterion and mixed) and forms (diagnosis, prognosis, certification, information, motivation, selection) of assessment, as well as how to organise classroom- and school-level assessment, National External Assessments (NEAs), State Matriculation examinations and the certification of learning across education phases (Ministry of Education and Science, 2016[12]).

Ordinance 11 introduces some important changes to Bulgaria's more traditional student assessment approaches, including the use of qualitative marking and diagnostic assessments in classrooms. However, it also remains focused on the organisational elements of different assessments, such as detailed requirements for timing, frequency and administration. Despite the fact that a move to a competency-based curriculum requires changes in the pedagogical approach to assessment, Ordinance 11 offers minimal information or guidance to support teachers to make such changes.

Implementing competency-based assessment remains a challenge

The introduction of a competency-based curriculum poses a challenge to student assessment practices in any education system because competencies are difficult to assess: they combine knowledge, skills and attitudes and are underpinned by dimensions that are hard to capture but are learned simultaneously (EC, 2010[13]). There are some specificities in Bulgaria's education system that may have made this shift towards more multi-dimensional assessment even harder to achieve. First, school-level assessments are currently constrained by multiple intermittent, often high-stakes, traditional assessments of student learning, as prescribed in Ordinance 11. These approaches create a negative backwash effect on the curriculum, as "teaching to the test" narrows the focus of learning in the classroom (OECD, 2013[14]). Moreover, Bulgaria's extensive and frequent changes to curricular documentation may be reducing the space, or at least perceived space, for teachers to understand and engage in more innovative assessment practices. For example, during interviews conducted by the OECD review team, teachers implementing project-based learning in primary education expressed concerns about replicating these approaches in Grades 5-7 when classroom assessment carries consequences for students' progression and preparations for the high-stakes external assessment in Grade 7 begin.

At the same time, Bulgarian teachers face a highly traditional educational culture among the wider public that emphasises high-stakes assessment and quantitative marking. Both system and institutional actors reported to the OECD team that they have tried to reduce reliance on traditional assessments and increase more competency-based approaches (e.g. projects or case studies) but such efforts often lead to complaints from parents. This context may influence teachers to avoid changing instruction altogether or to implement changes while maintaining traditional types of assessment, meaning more classroom time dedicated to administering assessments as opposed to acting upon the results to enhance learning.

Professional capacity in Bulgaria is another obstacle. When introducing a competency-based approach, systems need to develop the expertise and technical capacity of teachers to design, develop, deliver and evaluate more complex assessments (Nusche et al., 2014[15]). This requires training for teachers but also for other actors in the system such as, in Bulgaria's case, those working in national assessment agencies or those based in the regional departments of education (REDs) that offer methodological support to schools. However, training for the new curriculum in Bulgaria has been limited to teaching professionals only and has been knowledge-focused as opposed to pedagogy-focused, meaning that assessment practices may have been neglected. Although some specific assessment-focused training is available to teachers in Bulgaria, it is rare and focuses on preparing students for national or international examinations and assessments. Even in cases whereby teachers are creating their own assessments, these appear to be about measuring the acquisition of knowledge as opposed to measuring competencies.

Classroom assessment

Ongoing and regular identification and interpretation of evidence about student learning is a key component of effective instruction (Black and Wiliam, 2018[16]). In Bulgaria, however, alongside the over-reliance on traditional formats, classroom assessment is often viewed by teachers and students – and society – as a validation exercise rather than an integrated part of the learning process.

Teachers in Bulgaria must administer frequent classroom assessments

The purpose of classroom assessment in Bulgaria, as defined in Ordinance 11, is to establish students' educational outcomes and determine their progress. To this end, teachers are expected to undertake frequent classroom assessments during the academic year (Table 2.3). The school year begins with a diagnostic assessment for all students to ascertain entrance levels of performance and identify areas for support. Following this, regular assessments must take place for all students to determine current marks. The frequency is dependent on the number of subject teaching hours per week and can amount to

four assessments per academic term for core subjects such as mathematics and Bulgarian language and literacy. These assessments can be oral, written or practical and administered individually or by group.

Table 2.3. Different types of classroom assessment administered to students in Bulgaria

Type of assessment	Purpose	Scope	Timing	Format
Diagnostic assessment	To establish entrance level and assimilation of key concepts from the previous year, identifying deficits and measures to overcome them	All students	Within three weeks of the start of the school year	Written test
Continuous assessment	To establish the student's current mark and to support the achievement of the expected learning outcomes	All students	Between two and four times an academic term	Oral, written and practical tests, and according to the scope - individual and group
Equivalency examinations	To support the transition of an upper secondary student from one class or school to another	Students transitioning from one school or pathway to another		Written test
Corrective examinations	To enable students who receive a poor mark (2) an opportunity to improve their annual grade	Students who receive a 2/"poor" mark in end-of-year assessments	Annually from Grade 5; from two weeks after the end of the school year and two weeks before the start of the next one	
Resit examinations	To give students the opportunity to change their end of stage assessment	Students who want to improve their end-of-year assessments	End-o- phase – Grade 7, Grade 9, Grade 12	Three subjects maximum, no resits except in Grade 12

Source: Adapted from Ministry of Education and Science (2016[12]), *Наредба No. 11 от 1 Септември 2016 г. за Оценяване на Резултатите от Обучението на Учениците [Ordinance No.11 of 01 September 2016 for the Evaluation of the Results of Student Learning]*, https://www.lex.bg/en/laws/ldoc/2136905302 (accessed on 18 August 2021).

Bulgarian teachers use qualitative and quantitative descriptors when assessing students

When conducting classroom assessments in Bulgaria, teachers of students from Grades 1-12 must assign a qualitative descriptor (excellent, very good, good, intermediate or poor). Ordinance 11 provides generic descriptions for these. For example, an "excellent" should be awarded only to students who "achieve all the expected results from the curriculum, and master and independently apply all new concepts". For students in Grades 4-12 only, this qualitative descriptor must be paired with a numerical mark ("excellent" equates to a mark between 5.50 and 6.00; "poor" equates to a mark between 2.00 and 2.99). For continuous assessments, teachers must report results to students within two weeks of administering the test and enter them into the relevant school information system.

Bulgaria's introduction of qualitative descriptors is positive and could support students and teachers to better contextualise numerical marks within the learning process. Moreover, the exemption of younger students from receiving numerical marks is in line with other countries in the region although numerical marks are introduced earlier (e.g. Grade 2 in Serbia) or later (e.g. Grade 5 in Georgia and Romania), depending on the system. However, without student-, subject- and task-specific clarification, Bulgaria's qualitative descriptors cannot direct students on how to improve. Teachers are not required to formally record nor report such targeted feedback so while students receive their marks promptly, these marks are not always justified (Ministry of Education and Science, 2020[4]). Teachers in Bulgaria also seem focused on numerical marks: interviews undertaken by the OECD review team suggest that even when assessing project-based learning, teachers developed complex formulae to calculate a student's mark. This may

reduce the impact of written comments by becoming the main focus of learners' attention (Elliott et al., 2016[17]).

As well as assigning qualitative and quantitative descriptors for continuous assessments, teachers must assign an end-of-term (Grades 4-12) and end-of-year evaluation (Grades 1-12). In Grade 1, this is a general mark for all subjects; from Grade 2, marks are awarded for each subject. These evaluations should be based on both the student's performance in continuous assessments and a final examination. The lowest value, "2" or "poor", is considered a "fail" and requires either additional support only (Grades 1-3) or additional support and a resit examination if awarded at the end of the year (Grades 4-12). If the mark does not improve in the resit examination, students must repeat the school year.

This emphasis on achieving a better mark in order to proceed to the next grade, as opposed to focusing on ensuring a fuller mastery of the subject, has the potential to narrow learning further. Moreover, PISA data indicate that this policy is not effectively supporting the remediation of learning gaps. Grade repetition is not common in Bulgaria: only 4.5% of students participating in PISA 2018 reported having repeated a grade, which was below the OECD average of 11.4% (OECD, 2020[18]). While this is positive – grade repetition is both educationally and financially inefficient – given that PISA data also indicate that around a third (32%) of Bulgarian 15-year-olds failed to meet minimum proficiency levels in any of the three core PISA disciplines (reading, mathematics and science), many Bulgarian students appear to be advancing through the school system without having learning gaps identified and addressed. This raises several concerns about the focus on examinations and numerical marks over learning, the accuracy of teachers' judgements and the extent to which assessments evaluate important knowledge and skills.

Students are also awarded a final evaluation at the end of each education phase, which is entered on the relevant certificate of completion. Particularly for lower education phases, the inclusion of end-of-year results on certificates of completion is not common among OECD countries or other countries in the region. This practice means that even Bulgaria's continuous assessments have high-stakes consequences because they feed into the end-of-year evaluations that determine progression to the next grade level, appear on certificates and, in some grade levels, inform competitive selection processes for school places. This practice risks undermining more formative forms of assessment.

Formative assessment is not consistently applied in classrooms

In many education systems, the move to competency-based curricula has been paired with more formative approaches to assessment. In addition, there have been efforts to create a better balance between this and summative assessment in the classroom, recognising that both play a role in student learning. Bulgaria's Ordinance 11 establishes formative approaches to assessment, such as the use of start-of-year diagnostic tests. Such tests can produce detailed information about individual students' strengths and weaknesses and should inform future planning, differentiated instruction and remedial efforts (OECD, 2013[14]). In the wake of school closures and disrupted instruction during the COVID-19 pandemic, such efforts are particularly valuable (OECD, 2020[19]). In Bulgaria, there is scope to expand formative approaches with younger learners as teachers cannot assign numerical marks to students in Grades 1-3 and there is an explicit expectation to implement remedial measures in the case of "poor" performance.

In reality, for both younger and older students in Bulgaria, formative classroom assessment is not a common practice and there appears to be some misunderstanding among teachers about the difference between summative and formative assessment methods and how they are interrelated. For example, some practitioners who spoke with the OECD review team did not distinguish between formative assessment and continuous assessment. In fact, continuous assessment can serve both summative and formative purposes (Muskin, 2017[20]). Furthermore, the start-of-year diagnostic assessments are not consistently applied and do not always serve the intended purposes (i.e. identifying gaps in students' learning, tailoring teaching and learning to students' needs, or supporting evidence-based progress-focused conversations between teachers, learners and parents). Other countries mandating diagnostic assessments

(e.g. Romania and Serbia) face similar challenges (Maghnouj et al., 2019[21]; Kitchen et al., 2017[2]). In Bulgaria, teachers appear more likely to use diagnostic tests to establish an entry-level mark, with a view to comparing this to an exit-level mark at the end of the school year. Some subject syllabi even appear to promote this approach (Ministry of Education and Science, 2017[22]) while, during interviews conducted by the OECD review team, teachers sometimes referred to facing resistance from parents when recommending their child receive remedial instruction following the diagnostic test. Although there are some effective remediation efforts within the system, such as the Support for Success programme, these also reinforce the idea that remediation is an additional support mechanism rather than being a key element of effective assessment cycles within classroom practice.

Bulgaria's assessment policy framework may be contributing to these misconceptions or misapplications. Ordinance 11 lacks clear comparative definitions of formative and summative assessment that outlines their distinct roles. Although ultimately the two approaches are synergic and cannot be clearly separated (Black and Wiliam, 2018[16]), for teachers working in a system under transition, clarification around the two approaches would be useful. Furthermore, by requiring very regular continuous assessment with numerical marks, Ordinance 11 directs teachers to implement assessments that emphasise performance as opposed to process or improvement. There is also little time within the assessment schedule for formative feedback loops, particularly given that Bulgaria's academic year is comparatively short (EC/EACEA/Eurydice, 2020[23]) and that teachers perceive the curriculum to be overloaded. Although there is some reference to the formative function of assessment within Ordinance 11, time pressures make realising this seem unlikely. For example, between the end-of-year examinations and corrective examinations, there may only be two weeks for remedial efforts.

National assessments

National assessments are designed to provide nationally comparable information on student learning, principally for system monitoring. As such, Bulgaria's national assessments are covered primarily in Chapter 5 of this report. Like examinations, national assessments are usually externally designed and administered but, unlike examinations, they do not carry consequences for students' progression. In addition to enabling national system monitoring of learning outcomes, they can also serve other purposes, such as ensuring that students meet national learning standards and supporting broader school accountability efforts. Across the OECD, the vast majority of countries (around 30) have national assessments to provide reliable data on student learning outcomes that is comparative across different groups of students and over time (OECD, 2015[24]). Bulgaria's national assessment does not currently measure progress over time and has limited pedagogical value. Moreover, the assessment's selection function has been criticised for pressuring students and encouraging a narrow focus on test preparation. These features not only prevent the national assessment system from serving either monitoring or formative functions but also risk having an adverse effect on students who do not plan to attend competitive, elite upper secondary schools.

Bulgaria's national assessment system has significant implications for students

Students in Bulgaria sit census-based national assessments at three key transition points in their schooling: Grade 4 (end of primary education), Grade 7 (end of lower secondary education) and Grade 10 (end of compulsory education). These National External Assessments (NEAs) are developed and administered by the Center for Assessment of Pre-school and School Education (hereafter, the Center for Assessment). All students are assessed in mathematics and Bulgarian language and literature and some choose to take assessments in foreign languages. The NEA uses a single test instrument to serve multiple purposes, including system monitoring and identifying individual student progress (see Chapter 5).

In some respects, the NEA reflects national assessment systems found in other European Union (EU) and OECD countries; however, a unique feature of Bulgaria's NEA is that it can have important implications for individual students. In all three grades, NEA results are entered onto the student's certificate of completion for the education phase, although a minimum level is not required for phase completion. For a small share of Grade 4 students, NEA results help determine academic selection into high-performing, elite schools that specialise in mathematics or foreign languages. For a similarly small number of Grade 10 students, specifically those transitioning from an integrated school to a school that offers the second stage of upper secondary, the NEA also informs admission processes. The implications of NEA results in Grade 7 are much more significant, as explained below. For this reason, although the Grade 7 NEA is covered in detail as a system evaluation tool in Chapter 5, it also needs to be taken into account when reviewing how effectively assessments and examinations are supporting learning at the level of individual students. The fact that the NEA also has some consequences, for teachers and schools (see Chapters 3 and 4), means that its influence on the teaching and learning that takes place in the system is significant.

National examinations

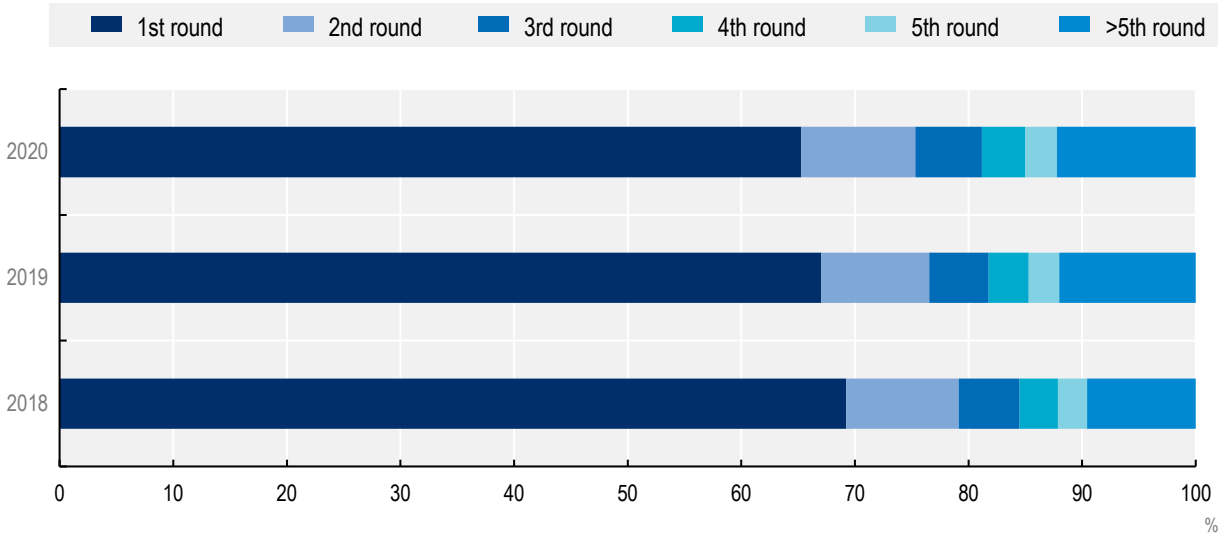
National examinations are centrally developed standardised assessments that have formal consequences for students. In Bulgaria, the State Matriculation examination in Grade 12 certifies student achievement at the end of upper secondary education and supports progression to tertiary education, for example by allocating state scholarships. Most OECD countries administer national examinations at the end of upper secondary education for one (or both) of these purposes; however, national examinations are becoming less common at other key transition points, as policy makers seek to remove barriers to progression and reduce early tracking (Maghnouj et al., 2020[25]). This is not the case in Bulgaria where the Grade 7 NEA acts as a national examination at the end of lower secondary education.

The Grade 7 NEA acts as a national selective examination to allocate students to upper secondary education

The Grade 7 NEA has two key uses. The first is to assess student proficiency in core skills, which helps to fulfil a system monitoring function and determine whether students have achieved the minimum standards required to graduate and progress from lower secondary education. The second use, which is more challenging, aims to inform the placement of students into upper secondary school. The selection process sees students access their NEA results on line then apply to an unlimited number of schools of their choice. REDs determine a minimum score required for entry into each school, based on students' Grade 7 NEA results and teacher-assigned marks for mathematics and Bulgarian language and literature. The weighting of results is at the discretion of each school so that a profiled school with mathematics and science pathways may place more weight on mathematics results. Students are then offered a school place and if they do not accept the offer, they enter a second round of selection, then a third and so on until all students have been placed.

Under this ranking system, around two-thirds of students get their first choice of school (see Figure 2.1). This suggests that many students are not applying to over-subscribed or highly selective schools and so the competitive pressures of the examination are not the same for all students. However, a small share – around one in ten – participate in the ranking process more than five times and a considerable share – around one in four in 2020 – go through it three times or more. This could signal that either these learners have not been sufficiently supported to apply for schools or programmes that realistically suit their abilities or that the opportunities available to them are limited because the schools perceived to be of higher quality are over-subscribed and highly selective, for example, or because other available schools are an unattractive choice.

Figure 2.1. The share of students whose school application is accepted by application round, 2020



Source: Data provided to the OECD from the Centre for Assessment.

StatLink https://stat.link/68rucj

The high stakes associated with the Grade 7 NEA have implications for educational quality and equity

Interest in the Grade 7 NEA results, known as the "Little Matura" to the general public, is intense among parents and the media alike. From the view of broader society, enabling students to transition to a good school is now the NEA's main role (Dimitrova and Lazarov, 2020[9]). In 2019/20, when the COVID-19 pandemic led to school closures and learning disruption, Bulgaria's ombudsman proposed cancelling the Grades 4 and 10 NEAs, backed by a petition signed by 18 000 people (Kovacheva, 2020[26]); there was no public discussion about cancelling the Grade 7 NEA.

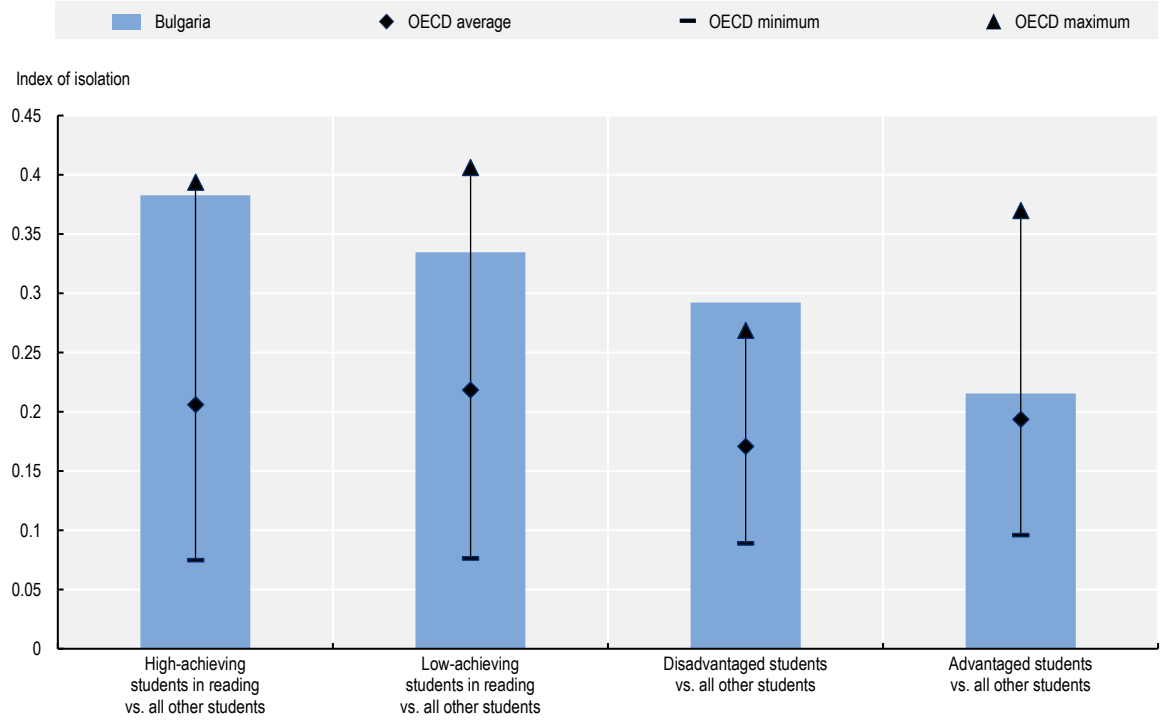
Until 2010, the Grade 7 NEA was explicitly designed in two parts: a compulsory part 1 determined minimum proficiency in core skills across all students; an optional part 2 fed into the competitive selection process and was only required for students applying to specific elite schools – about 40% of the cohort. Now, even though all students must participate in the selection process, disparities in educational outcomes across Bulgaria's school network mean that, for students in rural areas at least, school choices are limited and competition for places varies considerably. Although students have the option to apply to schools outside their region, as schools with higher educational outcomes tend to be located in urban areas and clustered in Sofia, only those students with the means to travel or leave home for upper secondary education can access these opportunities. This process raises equity concerns and means that Grade 7 in general, and the NEA in particular, carries high stakes for many students. Moreover, it indicates that the large share of students getting their first "choice" may mask significant disparities in opportunity.

Despite these concerns, some teachers maintain positive attitudes towards the Grade 7 NEA, identifying it as an important factor in motivating students, testing their capacity to perform under stress and facilitating upper secondary teaching by grouping students by ability. While this may be true, the high-stakes nature of the Grade 7 NEA has considerable negative implications for the education system. First, in response to the pressure on students in Grade 7, families may engage in private tutoring. Although evidence and data regarding the extent of private tutoring in Bulgaria are scarce, anecdotal evidence reported to the OECD review team indicates that, among families that can afford it, private tutoring in the months – or even years – leading up to the Grade 7 NEA is widespread. Moreover, this is a common practice in neighbouring

countries which also have high-stakes examinations at key transition points (Kitchen et al., 2019[27]; 2017[2]). Internationally, such practices have been seen to increase the achievement gap between advantaged and disadvantaged students (Zwier, Geven and van de Werfhorst, 2021[28]).

Furthermore, while having a greater variety of school types and programmes can cater for the diverse needs of students, without careful regulation and implementation, it can also increase horizontal stratification as students' background may inform decisions about school choice more strongly than their interests or aptitudes. As shown in Figure 2.2, Bulgarian schools are more highly segregated along socio-economic lines than in any OECD member country. On paper, Bulgaria has up to 10 different school types available to students in upper secondary education and 14 different curricula pathways through the profiled subjects, offering students the greatest level of choice among EU countries (EC/EACEA/Eurydice, 2020[29]). However, academic selection means that educational pathways are often decided at age 13 and that real choice by the time students reach upper secondary level is highly constrained. While there may be advantages to providing older students with a range of pathway choices that can better tailor to their strengths, needs and ambitions, very early tracking, as seen in Bulgaria, has been shown to strengthen the association between socio-economic background and achievement and widen the learning differences between students (EC/EACEA/Eurydice, 2020[29]; Levin, Guallar Artal and Safir, 2016[30]; Woessmann, 2009[31]).

Figure 2.2. Indicators of academic and school segregation in Bulgaria and OECD countries, 2018



Note: The index of isolation is related to the likelihood of a representative type (a) student to be enrolled in schools that enrol students of another type. It ranges from 0 to 1, with 0 corresponding to no segregation and 1 to full segregation.
Source: OECD (2019[32]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, https://doi.org/10.1787/b5fd1b8f-en.

StatLink https://stat.link/3yfrp0

Bulgaria's Grade 7 NEA and associated selection process may also be inhibiting educational quality in other ways. International research indicates that the existence of academically selective schools does not

have a positive association with a school system's overall performance (Andrews, Hutchinson and Johnes, 2016[33]). In fact, some research suggests that academic streaming and specialisation are much more common in low-performing education systems (Daniell, 2018[34]). At the same time, the NEA may inhibit the implementation of the competency-based curricula as the high-stakes nature can have a distorting effect on the curriculum. Finally, as the assessment does not yet assess competencies in a meaningful sense, teachers and students are less motivated to spend learning time on these skills.

State Matriculation examination results certify completion of upper secondary education and support progression to tertiary education

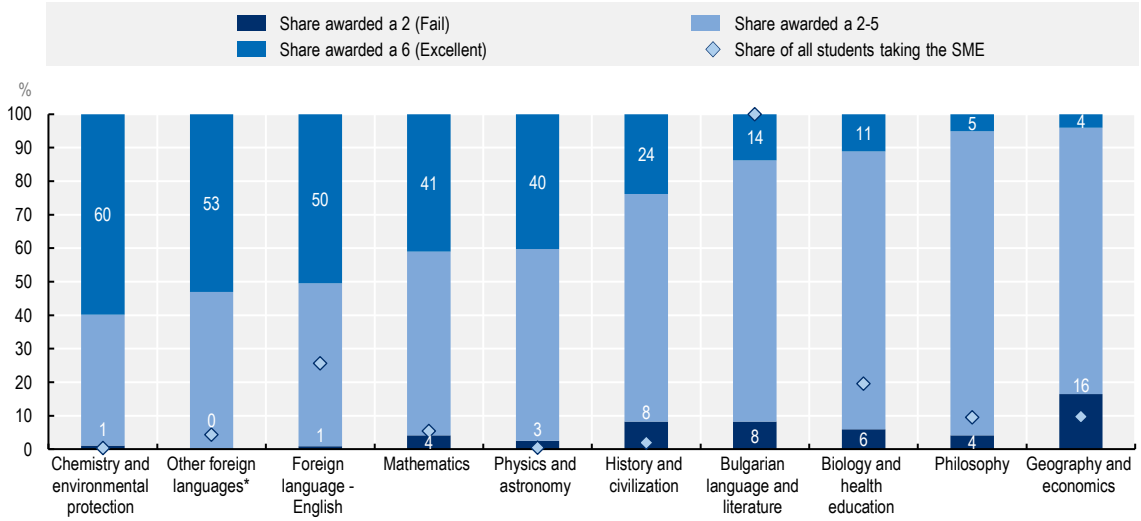
Bulgaria's State Matriculation examinations perform several functions. Since the school year 2007/08, students in Bulgaria must pass the State Matriculation examination in order to certify completion of upper secondary. Students who successfully complete this examination, and their upper secondary education courses, receive a diploma of upper secondary education. However, the State Matriculation examination is not compulsory; students who do not take or pass the examination are still awarded a certificate of completion of Grade 12 with which they can progress into post-secondary vocational education programmes.

The State Matriculation examination also supports progression into higher education. All students applying to tertiary education must have successfully passed the State Matriculation examinations and many universities or university programmes use the results from the State Matriculation examination as part of their specific criteria for selection and enrolment. This aligns with international practices: most OECD countries have centralised examinations at the transition point between schooling and tertiary education (OECD, 2017[35]) and an increasing number of countries use a single examination for both school graduation and university selection purposes. Nevertheless, in Bulgaria, some universities or faculties continue to set their own examinations or selection criteria; this includes the most competitive ones (e.g. medicine).

All students opting to take the State Matriculation examination must take Bulgarian language and literature and, as of 2012, a second compulsory examination in a subject of their choice. Students also have the option to take the examination in an additional two subjects. For students in general education who have studied profiled programmes, the additional subjects must come from among their profiled subjects (e.g. a foreign language). Compared to other countries in the region, most students in Bulgaria sit fewer examinations and with a narrower coverage of the curriculum. In Albania, North Macedonia and Romania for example, alongside optional subjects, national examinations at the end of upper secondary education have three compulsory subjects: the native language, a foreign language and mathematics (or computer skills in Romania). In recent years, the most popular elective subjects among Grade 12 students in Bulgaria were English, and biology and health education. Very few students opted to take physics and astronomy or the chemistry and environmental protection examinations, and only 7% choose to take mathematics, subjects more aligned with Bulgaria's national priorities to enhance STEM skills (Figure 2.3). The OECD review team heard that this may be due to students opting to take subjects that are perceived to be less demanding.

Finally, results from the State Matriculation examinations are used to award state scholarships for students progressing to higher education in public universities. For a student to be able to apply to receive one they must perform among the top 10% of students in Bulgarian language and literature and at least meet the national average in their second subject. Alternatively, for mathematics, physics and astronomy or chemistry and environmental protection, they must come in the top 30% of students sitting the examination and meet or exceed the national average in Bulgarian language and literature. The government prioritises certain courses or fields for state scholarships; these are decided annually by the Council of Ministers.

Figure 2.3. Share of students taking State Matriculation examinations and achievement level, 2020



Note: * Includes data for examinations in French, German, Italian, Russian and Spanish.
SME: State Matriculation examination.
Source: Data provided to the OECD from the Center for Assessment.

StatLink https://stat.link/iwkq7r

Administration and marking of the State Matriculation examination is highly trusted

Development and administration of the State Matriculation examinations are overseen by the Center for Assessment and processes are tightly controlled and carefully monitored (Table 2.4). Numerous expert and technical commissions annually carry out different stages of the design, administration and marking process. There are also high-security measures such as video surveillance in examination centres and police escorts for the movement of papers. This has helped to build a high level of public confidence in the process over a reasonably short amount of time. The Center for Assessment has also been working to strengthen the State Matriculation examination's validity, reliability and integrity to encourage higher education institutions to accept results as a metric for admissions decisions. These efforts have been successful: currently, 38 out of 52 higher education institutions in Bulgaria accept the results as an entry requirement for their programmes, although they may also choose to apply additional criteria. As explained above, those that do not accept the exam's results, tend to be the most competitive institutions or programmes. However, there are signs that this is changing too: in 2021, a Council of Ministers decision formally enabled law faculties to accept undergraduate students solely based on the results of the State Matriculation examinations. These are positive developments, since prior to 2008, all tertiary institutions applied their own entry criteria, making the transition into higher education less transparent.

Table 2.4. Design and procedural considerations for the State Matriculation examination

Topic	Specifications	Notes
Testing mode	Paper-based. Oral and practical examination where relevant.	
Testing conditions	Administered in schools; students sit the examinations in a school in their region but not necessarily the school in which they studied. Examination rooms are under video surveillance.	Overseen by regional commissions.

Topic	Specifications	Notes
Test subjects	Compulsory 1. Bulgarian language and literature. 2. Profile subject (compulsory modules only). Optional 1. Student's free choice.	For vocational students: Compulsory 1. Bulgarian language and literature. 2. State examination for awarding professional qualifications.
Item types	Mixed approach (closed-ended or fixed-response *and* open-ended).	For each subject, the item types and their distribution are prescribed in the SES for Profiled Programmes.
Marking	Computer-based marking by humans.	Results are published on line around two weeks after the examinations. The diploma of secondary education specifies a general performance mark.
Management and leadership	At the national level: The Center for Assessmet, overseen by the Ministry. At the regional level: REDs, which establish regional commissions for the administration of the examinations.	The Center for Assessment establishes national commissions: for the preparation of examination tasks in each subject; for assessing the examination tasks; for inspecting the examination papers in each subject; for classification and declassification of examination papers; for electronic processing of the papers.
Use of results	Certification of completion of secondary education. Application to higher education (38/52 higher education institutions). Awarding of state scholarships for tertiary studies.	Vocational students are also issued a certificate of vocational qualifications. Results can be transformed into equivalent marks for the European Credit Transfer and Accumulation System (ECTS) and recorded in the European annexe to the diploma for secondary education.

Source: Ministry of Education and Science (2016[12]), *Наредба No. 11 от 1 Септември 2016 г. за Оценяване на Резултатите от Обучението на Учениците [Ordinance No.11 of 01 September 2016 for the Evaluation of the Results of Student Learning]*, https://www.lex.bg/en/laws/ldoc/2136905302 (accessed on 18 August 2021).

Safeguards are in place to mitigate potential negative effects of the State Matriculation

There is a risk that high-stakes assessments might distort the education process by narrowing the curriculum and putting an excessive focus on assessed skills (OECD, 2013[14]). It is therefore important to establish safeguards that manage the pressure and attention placed on a particular assessment. For the State Matriculation examination, Bulgaria has several such measures in place. For example, students who do not pass the examination have the opportunity to take the test again an unlimited number of times. The pass mark for all subjects is 30% and few students (6-8%) fail the examinations at the first sitting. In fact, in many subjects, a substantial share of students achieve the highest mark; this is particularly true of foreign languages where over half of the cohort achieve "excellent" scores (Figure 2.3).

While the very low rate of failure in the State Matriculation examination could help minimise the sense of academic pressure students may experience, it is important that results accurately reflect student competencies. At age 15, 47% of students in Bulgaria were considered to have not reached minimum proficiency (Level 2) in reading in PISA 2018 whereas 2 years on, only 8% of students taking the State Matriculation examinations in 2020 failed the examination in Bulgarian language and literature. Although some students will have chosen not to continue into the final stage of upper secondary education, the wide disparity between these shares indicates considerable inconsistencies in how minimum proficiency is defined. Furthermore, awarding an "excellent" to such large shares of students can devalue the examination and render it less illustrative of the differences in students' abilities. Efforts to mitigate the consequences of this high-stakes test, therefore, need to be more carefully balanced with the examinations' purpose and design to ensure an accurate reflection of minimum proficiency and sufficient mark distribution among students.

Another safeguard of the State Matriculation examination is that students choose three of the four examination subjects and may even choose to only sit the two compulsory subjects. This level of flexibility allows students to select subjects based on their study interests, personal strengths and any possible requirements for admission into the further education or training pathway of their choice. Nevertheless, while this element of choice can be important in motivating older students to continue with their education and personalise their pathways, it must not be to the detriment of ensuring a minimum common base of core knowledge and skills.

Recent revisions indicate efforts to embed a competency-based approach within examination materials

In the 2021/22 academic year, Bulgaria will implement newly updated curricula for Grade 12, revised to embed a competency-based approach to instruction and new requirements of profiled education (see Chapter 1). Accordingly, the specifications for the State Matriculation examination in each subject have been updated and will be administered starting in May 2022. While some assessed competencies under the new subject specifications are still expressed in terms of what students should know (e.g. "Knows the main processes in the development of the Bulgarian literary language"), the vast majority are expressed through higher-order cognitive verbs that require demonstrating specific skills (e.g. "Evaluates texts according to the success of the communicative goal" and "Analyses and creates written texts, adequate to the communicative situation"). This contrasts significantly with the previous iterations of the State Matriculation examinations' specifications, which demonstrated learning in much more abstract and general terms (e.g. "Knows the structure and functioning of a work of art" [Bulgarian language and literature]). Although it remains unclear how these changes will be reflected in the design of new test items, the updated specifications signal a shift from knowledge recall to more complex outcomes and higher-order competencies and provide a useful reference from which item writers can ensure the State Matriculation examinations test student competencies in real-world contexts.

National student assessment agencies

The Center for Assessment is responsible for national assessments and examinations

Bulgaria's Center for Assessment is responsible for developing and approving test material for the NEAs and the State Matriculation examinations, as well as supporting REDs and school management teams to administer the tests. The Center for Assessment also manages Bulgaria's participation in international assessments and undertakes an analysis of the national and international assessment results. This information is reported periodically to the Ministry to help monitor the quality of schooling. As the Center for Assessment's mandate has expanded in recent years with the introduction of new national testing instruments (and at additional grade levels), the centre's responsibilities have outgrown its resources. The number of permanent staff is small (around 20 individuals) and external experts are recruited annually to help design and manage various testing instruments. While this process helps mobilise and strengthen assessment expertise within Bulgaria, it also inhibits the development of institutional memory and expertise within the Center for Assessment. To ensure the range of assessment tools are relevant and sustainable, the Ministry will need to ensure the Center for Assessment has adequate financial and human resources, as well as support to develop the expertise of staff in areas of need, such as psychometrics. Chapter 5 of this report explores this further.

Policy issues

There is a clear political will to improve educational outcomes for all students in Bulgaria. However, despite numerous high-level reforms in recent years, such practices are not yet a reality in many Bulgarian classrooms. Narrow assessment approaches focused on knowledge memorisation are deeply entrenched and a longstanding strong focus on summative scores is hindering the use of more formative practices that have the potential to improve learning outcomes. While the government has taken initial steps to address these issues, for example by introducing diagnostic assessments at the start of the school year, teachers need additional training and support to use these tools effectively and develop their classroom assessment literacy. Bulgaria also needs to review the validity and fairness of the upper secondary education entrance examination, while critically questioning its place in the overall school system in the longer term. Finally, by introducing improvements to the validity of the State Matriculation examination, Bulgaria can take advantage of an opportunity to positively influence learning and assessment in classrooms while also facilitating students' transitions beyond formal schooling. Together, these efforts are critical if Bulgaria is to achieve its dual goals of enhancing the educational quality and improving outcomes for all students.

Policy issue 2.1. Building a shared understanding of student assessment as a means to support teaching and learning

Bulgaria has a clear intention to modernise pedagogical and other educational approaches within its school system. Nevertheless, extensive reform to policy documentation has not been accompanied by pedagogical innovation or practical changes in student assessment. As a result, student assessment at the classroom and system levels does not align with the type of learning valued in Bulgaria's new curriculum, diminishing the intended impact of reforms. This is, at least in part, a cultural challenge evident in other countries in Eastern Europe and Central Asia. However, it is also symptomatic of an implementation gap following the 2016 curricular reforms. To fully realise the promise of its educational reforms, Bulgaria needs to communicate the need and rationale for adopting new approaches to assessment, especially in the classroom. At the same time, school leaders and teachers will need support to implement pedagogical changes. Enhancing the link between assessment and learning in a clear and coherent policy framework, as well as providing practical supports for educators to apply in the classroom can help in these regards.

Recommendation 2.1.1. Establish a coherent national vision of student assessment

There are contradictions within Bulgaria's current evaluation and assessment policy framework that send mixed messages about the role and purpose of student assessments. Ordinance 11 calls for frequent classroom assessment in all subjects with the assignment and reporting of numerical marks. This is not conducive to measuring more complex competencies and does not allow time for impactful feedback loops. Bulgaria's emphasis on high-stakes, summative assessments may also inhibit the intended changes. For example, the Grade 7 NEA, originally intended as a system monitoring tool, has become the pivotal moment in a child's education, with strong potential for a negative backwash effect on the curriculum in preceding grades. Recent policy efforts have tried to address some of these challenges by including formative assessment among the criteria covered by the new school inspection criteria, for example. However, there remains a pressing need for a shared national vision of student assessment that is clear and can be applied to real-life teaching and learning situations, as well as to high-level policy processes and communications with stakeholders.

Formulate a high-level national vision of student assessment

Bulgaria needs to clearly establish student assessment as a critical and central part of the learning process in the minds of students, educators and the wider public. Establishing broad consensus around a common vision of assessment that can be upheld across administrations and levels of government will be crucial in achieving deeper and more long-lasting changes in teaching and learning. This shared vision should be formalised in both legislation and accompanying explanatory materials for different audiences to establish a clear reference point for actors across the education system in years to come. Such documentation has proved useful in high-performing education systems as a way of enhancing transparency around national values with regard to assessment practices. In New Zealand, for example, a national vision of assessment has helped ensure that key principles, endorsed by a broad coalition of actors, have informed reform processes for over a decade (Box 2.1).

Box 2.1. Formalising a national vision of assessment in school education in New Zealand

In 2011, New Zealand's Ministry of Education introduced a *Position Paper on Assessment* (2011[36]). The paper provides a formal statement of the country's vision for assessment at the school level. It places assessment firmly at the heart of effective teaching and learning and describes what the assessment landscape should look like if assessment is to be used effectively to promote system-wide improvement within and between all layers of the schooling system. The paper broadly informs and directs policy processes rather than describing in detail how to achieve the ideal assessment landscape. The intention was to promote a shared philosophy among parents, teachers, school leaders, school boards, Ministry of Education and other sector agency personnel, professional learning providers, writers of educational materials and researchers, as well as journalists, commentators and other thought leaders who access, publish and comment on assessment data. As of 2021, it remains in place, having informed and directed policy reviews across multiple administrations.

The paper was informed by a comprehensive expert review of assessment practices in New Zealand and includes a presentation of the context, current assessment practices and approaches and detailed illustration of how assessment can drive learning for the learner, the school and the system as a whole. The key principles highlighted in the paper are: the student is at the centre; the curriculum underpins assessment; building assessment capability is crucial to improvement; an assessment capable system is an accountable system; a range of evidence drawn from multiple sources potentially enables a more accurate response; effective assessment is reliant on quality interactions and relationships.

Source: Nusche, D. et al. (2012[37]), *OECD Reviews of Evaluation and Assessment in Education: New Zealand 2011*, https://doi.org/10.1787/9789264116917-en; Hipkins, R. and M. Cameron (2018[38]), *Trends in Assessment: An Overview of Themes in the Literature*, https://www.nzcer.org.nz/system/files/Trends%20in%20assessment%20report.pdf (accessed on 18 August 2021); NZ Ministry of Education (2011[36]), *Ministry of Education Position Paper: Assessment [Schooling Sector],* Ministry of Education of New Zealand, Wellington.

While existing policy documentation in Bulgaria often focuses on logistical and organisational aspects, the national vision of assessment should adopt a more substantive, evidence-based approach. It should include a clear statement of purpose, providing the rationale for a shift in assessment culture and underlining what the new approach means for pedagogy. Given their absence in other policy documentation, a comprehensive overview of the various components and instruments included in Bulgaria's national assessment framework, as well as their different purposes, added value and how they work together would also be useful. In this way, developing the shared national vision for assessment can help build a new assessment culture but also align Bulgaria's broader evaluation and assessment framework for the education sector.

Engage stakeholders in developing the new vision of student assessment

The complexity of 21st century education systems means that a vision imposed from above is unlikely to gain traction and may exacerbate mistrust (Viennet and Pont, 2017[39]). To achieve real change in Bulgaria's student assessment practices, the full range of education stakeholders will need to be engaged in an evidence-based discussion on the role of assessment and how it can best support learning, as well as establishing practical steps for implementing change. The Ministry should identify key stakeholders (e.g. students and parents, school community, system actors, researchers, non-governmental organisations, media) and facilitate a national conversation by holding a combination of in-person and online workshops and consultations. This will support more efficient use of resources, as well as a more inclusive and timely process that can facilitate real change. For example, in 2015, Ireland introduced the Junior Cycle Profile of Achievement, a new reporting process for student achievement which shifted from a focus on end-of-cycle examination to emphasising ongoing assessment for and of learning, and continuous formative feedback to students. The government held regular consultations with key actors and representatives of the profession were able to voice concerns about the extra workload the changes would bring to educators. As such, the government and the teacher unions established five immutable principles of the reform focused on supporting teachers during the implementation stages (OECD, 2020[40]). Reform implementation became a more collaborative process and has received wider buy-in from the profession.

In Bulgaria, the Directorate for the Content of Pre-School and School Education would be well-placed to oversee these consultations, as this body organised workshops in the past to support Bulgaria's curricular implementation. The Ministry could also partner with external actors (e.g. a non-governmental or international organisation) to offer some external validation of the process, which may help build consensus. Reviewing good practices nationally and internationally, such as achieving a strategic balance of formative and summative assessment and building assessment capacity among educators and other actors across the system, could help the government ensure the consultation process is informed by evidence. Mapping current assessment practices and regulations would also be important in this regard.

Clarify and better communicate expected learning outcomes to guide student assessment

Many OECD countries have introduced learning outcomes and performance standards to help enhance teaching and assessment practices (OECD, 2013[14]). These define and illustrate in measurable terms what students are expected to master at a certain level of education and can support teachers and other actors responsible for preparing assessment material to develop valid assessment instruments and thus elicit more reliable data about student progress (OECD, 2019[3]). With the move to a competency-based curriculum, Bulgaria introduced expected learning outcomes by subject and grade level. However, perceived curriculum overload, a proliferation of related documentation and a lack of specificity mean that Bulgaria's expected learning outcomes are not consistently used in classrooms. This should not trigger a rewriting of the expected learning outcomes, as a lot of good work has already been done in developing these across the curricula. However, Bulgaria can strengthen the existing set of expected learning outcomes by making them more coherent, accessible and practical. This can be achieved through the following actions:

- **Enhance the structure and layout of the outcomes to support clarity**. Currently presented as a list and organised according to subject content, teachers in Bulgaria often misinterpret learning outcomes as a checklist of content to cover rather than a means of assessing and improving learning (Ministry of Education and Science, 2019[8]). Presenting the outcomes as part of a learning progression across consistent subject skill areas over an education phase could help address this and may reduce the sense of overload. It could also encourage subject teachers across age groups to collaborate.
- **Build-in performance standards**. Several countries that have well-established learning standards, have broken down expected outcomes into different levels to support teachers in

evaluating students' progress towards mastery. For example, the Assessing Pupils' Progress initiative (2010) from England in the United Kingdom provided detailed criteria against which judgements could be made about students' progress in relation to National Curriculum levels (Ofsted, 2012[41]). Teachers were provided with various materials for their subject and age group: a handbook to guide them in implementing the approach; guidelines for assessing pupils' work in relation to the performance levels; a one-page matrix organising success criteria; and annotated student work that exemplified national standards at each level (Ofsted, 2012[41]). In Bulgaria, defining each performance level in more measurable terms and illustrating these with examples of student work would help equip teachers to apply the expected outcomes in their classroom and help students assess their own progress.

- **Make expected learning outcomes accessible to students and parents**. To encourage students' self and peer assessment, and foster parental engagement in learning progress, Bulgaria could develop a version of expected learning outcomes accessible to those who are not pedagogical or subject professionals. In England, for example, schools commonly transformed the Assessing Pupils' Progress criteria into "I can…" statements that were expressed from a student's point of view. While teachers may find such statements oversimplify success criteria, they can support learners, particularly younger ones, to better understand what is expected of them.

Ensure alignment and coherence with wider evaluation and assessment practices

Aligning other components of Bulgaria's evaluation and assessment framework with the national vision of student assessment will help implement the vision and reduce inconsistencies in practice. Previous OECD analysis of education policy processes has found that proactively aligning policies at different levels of the system (e.g. institution, local or system levels) can facilitate stakeholder buy-in, capacity building and greater clarity in terms of progress (OECD, 2019[42]). Bulgaria's national vision of assessment should not therefore only inform approaches to student assessment but also underpin broader evaluation and assessment efforts in the following areas:

- **School evaluation**: The national vision should trigger updates to Bulgaria's school quality criteria (see Chapter 4). Including these in school evaluation rubrics could encourage schools to build their assessment capacity in line with the philosophy set out in the national vision.
- **Teacher development and appraisal**: Bulgaria will need to review the professional profile for teachers to ensure that standards related to assessment align with the national vision (see Chapter 3). Promoting a new assessment culture through initial teacher education and continuous professional development, as well as through the attestation and other appraisal processes could further incentivise adherence to the new vision of student assessment.
- **System evaluation**: The design, purpose and use of the NEAs, as well as other external assessments, will also need to be considered in developing Bulgaria's new vision of assessment (see Chapter 5).

Communicate the vision in a strategic way to build trust and support for change

Once achieved, Bulgaria will need to find ways to ensure that the national vision remains a "living" document for actors across the system. One way to do this is to establish a website dedicated to the national vision of student assessment. For example, when introducing the Project for Autonomy and Curricular Flexibility in 2017 to support the implementation of a new curriculum, Portugal's Ministry of Education established a website as a digital resource for reflection and the sharing of practices, as well as a digital library for reference documentation to support teachers in their curricular and pedagogical decisions (Portuguese Ministry of Education, 2021[43]). Four years on, the website continues to grow and to document and support the implementation of the project and the curriculum reform. The site includes official legislative and other documentation relating to the reform, examples of good practice from across

the country, access to webinars and presentations to support implementation and regularly updated news and events.

In Bulgaria, this website or digital platform could initially document the national conversation, with news about upcoming online and in-person events, summary records of meetings, consultation exercises and expert reviews. Once developed, the vision and any associated strategies or action plans can be presented on the platform. This would also be a suitable place to house digital versions of expected learning outcomes and support materials. Over time, the website can become a one-stop-shop for student assessment in Bulgaria, with content aimed at teachers, students, parents and the wider public. Several other recommendations in this chapter suggest specific ways to use this platform.

Recommendation 2.1.2. Adapt the reporting of student learning information to promote a broader understanding of assessment

As in other countries, Bulgaria faces the challenge of balancing the tensions between stated commitments to broader forms of assessment on the one hand and public, parental and political pressure for accountability in the form of scores and rankings on the other. While attention to results and data is a positive feature of education systems, an overemphasis on these may have a negative impact and undermine the formative role of assessment (OECD, 2013[14]). Changing specific marking and reporting practices will therefore be important in making the national vision of student assessment a reality in classroom practice. Other OECD countries where summative scoring has tended to weigh heavily, such as France, have found revisions to student reports and marking to be a particularly effective way to communicate and embed new expectations

Make classroom and school-level marking practices more conducive to student learning

Marking plays a central role in the work of effective teachers. It can provide important feedback to students and help teachers identify possible misunderstandings (Elliott et al., 2016[17]). Currently, teachers in Bulgaria are encouraged to formally mark students' work regularly and to do so in a timely manner. However, marking is time-consuming and can contribute significantly to the non-teaching workload of teachers. Furthermore, research indicates that overemphasising numerical marks, as in Bulgaria, can also discourage learners' effort and motivation if the information hurts self-confidence or conveys to the student that return on effort is low (OECD, 2013[14]). Furthermore, it does not facilitate progress as students are not supported in understanding their current level in concrete terms or what to do to improve.

Therefore, it is important that Bulgaria's policy efforts around classroom and school-level marking processes work to strike a balance between effectiveness, in terms of impact on student learning and efficiency in terms of use of teachers' time. This can be achieved by:

- **Reducing the required frequency of continuous assessments**. Across all grades, reducing the frequency with which teachers are required to formally award, report and log qualitative and quantitative descriptors will give teachers more time for deeper marking, meaning they can better articulate to students what they can already do well and what they need to improve. It will also create space within the curriculum and learning time for that marking to be fed back to students in meaningful ways so they can engage with their results and work with teachers to act upon them.
- **Reframing qualitative descriptors to better promote progress**. The current labels used for qualitative descriptors in Bulgaria offer a summative judgement of student achievement in the specific assessment. Reframing these labels as signposts within a progression towards mastery of a competency or skill would better position assessment as part of the learning process. For example, instead of excellent, very good, good, intermediate or poor, Bulgaria's qualitative descriptors could be expressed as exemplary, accomplished, developing, emerging and undeveloped, as such language can be more motivational for low-performing students.

- **Requiring descriptive feedback**. Written feedback, including corrective feedback, is highly effective for enhancing the learning of new skills and tasks (Wisniewski, Zierer and Hattie, 2020[44]). However, it is also labour intensive for teachers and there are ways to provide more detailed descriptive feedback without requiring written evidence, as well as ways to facilitate these more constructive feedback processes. For assessment to have a greater impact on learning, Bulgaria should require teachers to regularly provide descriptive feedback to students beyond the qualitative descriptor. This should be individual written feedback at least once a semester; on other occasions, it could be more feasibly conducted as oral feedback, either individually or in small groups, class feedback that targets a specific common problem across the student group or more granular marking through which teachers direct students' attention to errors through more detailed marking approaches but without elaborating on these in written comments. Descriptive feedback can also be facilitated by enhancements to the expected learning outcomes, as described above, which provides teachers, students and parents with a common language. Furthermore, reporting templates (see below), could facilitate this type of formative feedback by requiring teachers and/or students to identify what has gone well in a specific assessment and what could be better in the future.

Strengthen reporting to help students and parents understand broader progress

Internationally, many education systems explicitly prescribe record-keeping and reporting procedures for student assessment (Li et al., 2019[1]). This often goes beyond logistical requirements such as timing and includes more substantive guidance such as providing common report card templates (Box 2.2). In Bulgaria, besides some information in Ordinance 11 regarding the timing of reports to students, recording and reporting student progress is at the discretion of schools or teachers, which can lead to inconsistencies in practice. To make reporting more conducive to student progress, the Ministry should develop a national report card template that makes space for descriptive and formative feedback, as well as summative scores. By requiring students to input their own learning targets and to log reflections on the teachers' comments about their progress, the report cards could also support students in driving their own learning.

The Ministry should also develop guidance materials to explain how teachers, students and parents should use these report cards. Such actions could help facilitate more impactful classroom assessment practices while imposing a standardised procedure that reduces external pressure on teachers to focus on numerical marks. In particular, the Ministry should provide guidance on how to report feedback to parents, per the requirements set out in Ordinance 11. This can be done by sharing best practices for improving communication between teachers and parents (e.g. phone calls, email, videoconference, in-person and the circumstances under which each mode is most pertinent, as well as the frequency of communications). This guidance could be located on the digital platform for assessment (see Recommendation 2.1.1).

Box 2.2. Enhancing the recording and reporting of student assessment data in Denmark

Since 2006, all primary and lower secondary schools in Denmark must provide Individual Mandatory Student Plans (IMSPs) tracking student progress. These include a summary of students' results and qualitative feedback on how these will be followed up. For national assessments, formative comments on student performance are included but not marks. The IMSPs are not a simple report card or performance tracker but rather a working tool for teachers, forming the basis of discussions between students and teachers, as well as with parents. They also provide a record of student achievement throughout compulsory education, easing transitions between grades. Denmark's IMSPs continue to evolve, including conversion to digital format to make them more accessible to students, parents and teachers. The digital platform enables teachers to collate information on progress, goals and student

assessments, as well as recording the specific goals for the individual student, a progress status in relation to the goals and a monitoring section describing how and when to follow up.

Source: Shewbridge, C. et al. (2011[45]), *OECD Reviews of Evaluation and Assessment in Education: Denmark 2011*, https://doi.org/10.1787/9789264116597-en; OECD (2020[46]), *Education Policy Outlook: Denmark*, http://www.oecd.org/education/policy-outlook/country-profile-Denmark-2020.pdf (accessed on 18 August 2021).

Policy issue 2.2. Developing the capacity of teachers to use formative assessment

Research has shown that the application of formative approaches to assessment can contribute to substantial achievement gains (Black and Wiliam, 1998[47]). They can be particularly effective for lower-achieving students, thus helping to reduce inequities in learning outcomes and raising overall achievement (OECD, 2013[14]). Formative assessment will also be critical in learning recovery following disruptions to schooling in 2020 and 2021 during the COVID-19 pandemic (OECD, 2020[19]). In Bulgaria, where large shares of students do not master basic skills and where learning gaps and disengagement start young, embedding formative assessment practices in the classroom has the potential to have a considerable positive impact on learning for all students. While formative assessment is generally underdeveloped in Bulgaria, these practices can be built upon the country's start-of-year diagnostic tests and regular classroom assessments.

Many school-based actors in Bulgaria already aim to make assessment more meaningful and motivational for students. However, as in many OECD countries, formative approaches are commonly misunderstood as "summative assessment done more often" or as practice for a final summative assessment (OECD, 2013[14]). This is partly related to Bulgaria's assessment culture but also the high visibility of standardised assessments, which puts pressure on teachers to adapt their own assessment practices to mimic the format of national assessments. There is therefore considerable opportunity for Bulgaria to clarify teachers' understanding of formative assessment, develop their related skills and provide them with practical supports to implement more formative assessments in the classroom.

Recommendation 2.2.1. Promote the use of diagnostic assessments to help teachers better understand and adapt to the learning needs of students

Diagnostic assessment is a type of formative assessment that helps establish a student's starting point for learning, identify students at risk of failure or disengagement, and plan for an appropriate and more personalised intervention (OECD, 2013[14]). In Bulgaria, however, inconsistencies between system-level outcomes in national and international assessments among older students indicate that gaps in learning develop early in their schooling and go undetected or unresolved as they progress through the system. While the introduction of mandatory start-of-year diagnostic testing is a very positive initiative, this has become a missed opportunity for Bulgarian educators to improve learning outcomes because the diagnostic tests are not consistently deployed effectively in the classroom. This is in large part because of weak formative assessment literacy among teachers and the lack of guidance and support they receive on how to design, administer and use diagnostic assessments.

Prioritise younger students and core subjects to have a greater impact in the long term

To make the most of the mandatory start-of-year diagnostic assessments, Bulgaria needs to introduce a national programme to enhance the quality of their design and use. Addressing any training or other support initiatives at the entire teacher cohort from the start is likely to diminish the impact. Therefore,

Bulgaria should identify key subjects and grade levels for which to prioritise more targeted efforts to enhance diagnostic assessments. Following a pilot period of experimentation and exploration among this more targeted group of professionals, Bulgaria can adopt a staggered implementation approach to reach the full cohort of teachers. This will allow the Ministry to identify components of good practice before investing significant resources in scaling them.

Given that diagnostic assessment is a key component of identifying learning needs and informing early intervention approaches and that the earlier learning gaps are identified and addressed, the more impact remediation can have, Bulgaria should prioritise enhancing the quality of diagnostic assessments for the youngest learners first. In terms of subject areas, PISA 2018 results indicate that proficiency in reading, mathematics and science among Bulgarian 15-year-old students is well below the OECD average. National assessments and examinations suggest that mathematics performance is particularly low. At the same time, through the specialist mathematics schools, Bulgaria has a pool of specialist subject teachers that could collaborate with mathematics teachers in non-specialist schools to share their expertise. Bulgaria might therefore focus initial efforts to enhance the administration and use of diagnostic assessments on the teaching of mathematics in the early years of primary education.

Support teachers to make full use of start-of-year diagnostic assessments

A national programme to enhance the quality of diagnostic assessments will need to tackle both issues of assessment design and how results are used by teachers. In particular, such a programme will need to consider the limitations of the Center for Assessment's capacity to centrally design diagnostic tests, as well as teachers' time, motivation and capacity to engage in associated training or to experiment with new resources. It should focus in particular on building teachers' understanding of the formative purpose of such assessments and how they can be used to change the classroom conversation on learning from one of summative judgement to a collaborative effort by teachers and students to develop core competencies using assessment evidence as a guide. Without measures to address these factors, the assessment data generated from the diagnostic tests will have little impact on classroom assessment, pedagogy and learning. To address this, Bulgaria should take the following actions:

- **Introduce clear and tailored reporting requirements for diagnostic assessments**. Bulgaria will need to provide an incentive or accountability mechanism to ensure that the start-of-year diagnostic assessments inform teaching over the longer term. Requiring teachers to share qualitative feedback from the diagnostic assessments in students' report cards (see Recommendation 2.1.2) at the beginning of the school year can facilitate this and provide a reference point for the student and teacher to monitor progress and design an individualised learning plan. Critically, this reporting should not include a numerical mark but rather focus on descriptive feedback, identifying what the student can already do and what knowledge or skills need strengthening. Clear expected learning outcomes, broken down into progress levels (see Recommendation 2.1.1) would also support teachers in this process.
- **Develop a central database of diagnostic assessment tools for teachers**. Bulgaria's diagnostic assessments need to provide fine-grained information that allows teachers to uncover specific strengths and difficulties of individual students in relation to the curriculum. Developing such assessments is a labour-intensive process and requires a high level of expertise. Currently, teachers in Bulgaria, as in many other education systems, have neither the time nor the skills to do this. Education systems, including Estonia, France and Romania, have found it more efficient and effective to provide teachers with centrally developed diagnostic assessments and related tools. In Estonia specifically, diagnostic tools are digital, which facilitates both administration and results analysis (OECD, 2019[42]). In France and Romania, the assessments are standardised nationally for key grade levels. Initially, Bulgaria's Center for Assessment may lack the internal expertise and resources to achieve either of these approaches so external actors may be called upon for support. This could include private assessment design companies, academic researchers

within higher education institutions, non-governmental education organisations, such as Teach for Bulgaria, or international organisations.

- **Establish supports for administering and using diagnostic assessments**. Teachers in Bulgaria would benefit from guidelines for best practice and modelled examples of successful application and use of diagnostic assessment in classrooms. In Estonia, for example, each diagnostic assessment tool is accompanied by a series of e-tasks that enable teachers to easily individualise teaching and learning and group students for different activities based on their performance in the tests (Innove, n.d.[48]). In Chile, diagnostic assessments introduced for the return to in-person learning following COVID-19 school closures were accompanied by a video mentoring programme for school management teams through which experts from the national administration worked with school staff to identify their main needs related to the assessments, explain and explore specific tools and guidance that could address these needs and then analyse and evaluate their experiences (OECD, 2020[19]). In Bulgaria, REDs could perform a similar role, working with groups of teachers to plan, implement and analyse diagnostic assessments in their classrooms. In addition, participants in the pilot programme for primary level mathematics teachers (as recommended above) can help build a bank of useful resources and key guidelines for future participants based on their own experiences. The guidelines and supports can then be collated on the digital platform for assessment (see Recommendation 2.1.1).
- **Provide teachers with the time and space to engage with results from diagnostic assessments**. In a context where the curriculum is already perceived to be overloaded, it is important that Bulgarian teachers feel they have the time and space to adapt their teaching in response to their students' needs, as determined through the start-of-year diagnostic tests. This chapter has already recommended reducing the required frequency of formal classroom assessment (see Recommendation 2.1.2). However, to further support the use of diagnostic assessments, Bulgaria could also consider introducing an assessment-free period in the first half of the first semester to allow teachers and students to engage and respond with the results of the diagnostic assessments before having to prepare for the next assessment.

Recommendation 2.2.2. Foster real change at the classroom-level by making training on formative assessment a priority for all teachers

School change scholars suggest that unless teachers and school leaders understand and share the policy meaning, it is unlikely to get implemented (Viennet and Pont, 2017[39]). Embedding formative assessment in classroom practice requires changing schools and teachers' practices, their beliefs and the pedagogical materials they design and use. Therefore, as in other countries in the region, encouraging greater use of formative assessment in Bulgaria will require concerted efforts, not only to develop teachers' assessment literacy but also to build an understanding of why it matters (Kitchen et al., 2017[2]; Maghnouj et al., 2020[25]). Just as teachers require additional support related to curriculum content and subject knowledge following curricular reform, they also require guidance and training related to specific pedagogical components, including assessment practice. Although training opportunities have been made available to support curriculum implementation in Bulgaria, there is no evidence that these have explicitly covered new approaches to assessment. This gap must be addressed to align the intended, implemented, assessed and learned curricula in Bulgaria.

Strengthen the development of formative assessment practices in initial teacher education (ITE)

Research indicates that if teachers do not learn to meaningfully apply formative assessment practices during their initial education, this will limit their ability to apply formative assessment throughout their career (Earl, 2007[49]). Meaningful application requires a strong understanding of the concepts and theories behind

formative assessment but also a practical experience of using formative assessment in the classroom. In Bulgaria, assessment practices are currently treated as a transversal component of ITE and it is rare, if not unheard of, for teacher candidates to engage in programme modules explicitly dedicated to formative assessment. In some respects, it is positive that assessment practices are not dismantled from subject knowledge and pedagogy. However, new teachers in Bulgaria could benefit from more explicit instruction about formative assessment, especially since they are graduates of a school system that did not promote such approaches. Without addressing this issue in ITE, Bulgaria may replicate existing assessment practices rather than implement new ones. To ensure that formative assessment is a prominent feature of ITE, Bulgaria could:

- **Identify key components of formative assessment practices to be included in ITE programmes**. The Ministry should prioritise the formative practices that it expects all teachers across Bulgaria to master. This could include elements identified in academic literature as particularly effective (e.g. questioning, feedback, and self and peer assessment) (Black and Wiliam, 2018[16]) as well as elements more specific to Bulgaria's assessment framework (e.g. diagnostic testing). These components should then form the basis of curricular guidelines or requirements relating to formative assessment for ITE providers.
- **Include formative assessment in practical components of ITE**. In many education systems, and certainly in Bulgaria, ITE programmes tend to rely on a knowledge-based and didactic approach to preparing teachers rather than an applied, competency-based approach. To develop formative assessment practices more effectively, programme providers and trainers will need to work closely with school leaders and mentors to align their understanding of the key components of formative assessment and identify expectations for teacher candidates' application of these components in the classroom. In particular, any school or university-based mentors working with trainee teachers during their practicum will need their own training and guidance on supporting the development of formative practices.
- Establish incentives and accountability processes to motivate ITE providers and beginning teachers to embed formative assessment practices. Having identified the key components of formative assessment to be included in ITE programmes and appropriate ways in which these can be applied to the teaching practicum, the Ministry should embed these within programme accreditation standards for providers. This would help incentivise providers to adhere to the new guidance more closely. At the same time, the components should also be mirrored within the professional profile for beginning teachers (see Chapter 3); in this way trainee and novice teachers, as well as their mentors and tutors, will be more motivated to develop associated skills.

Ensure that teachers have access to quality continuous professional development on formative assessment

To reach the wider cohort of teachers, beyond those in the earliest stages of their career, promoting quality professional development on formative assessment will be crucial. This implies instructing teacher education providers to develop programmes related to strengthening formative assessment practices and encouraging teachers to participate in this training. As many teachers, particularly older ones, may be more likely to hold more traditional views of assessment practices and may be more reluctant to take up new approaches, the new training opportunities will need to be of very high quality and have a wide reach. Such training should be based on evidence of what makes professional development impactful, such as active learning, school-embedded training and a sustained duration (OECD, 2020[19]). In Sweden, for example, pedagogical training within schools have had a positive impact by creating a space for teachers to independently plan a teaching sequence using formative assessment tools, discuss the plan with colleagues, then teach the lessons and evaluate their experience (OECD, 2019[42]). In Bulgaria, this type of initiative could be meaningfully facilitated through the REDs, which now have a role to provide methodological support to teachers. In order for this to occur, however, staff within the REDs will need their

own training and support mechanisms (see below). Designing the programme in collaboration with higher education institutions could also be a way of enhancing collaborative relationships between teachers, schools and higher education staff.

Changing practices across all teachers will take time and progress will be asymmetrical with some teachers more open to change than others. These asymmetries can be used in a positive way. Those teachers who engage with formative assessment practices more proactively from the start can play a role in supporting other teachers in their schools to implement change, through mentoring or coaching schemes, for example, running in-school teacher-led training or simply through sharing good practice. In this way, formal professional development opportunities can be complemented by school-based peer support. However, for this to be a sustainable approach to stimulating wider change, these teachers would need formal recognition of their role and supportive school-level structures. For example, the role could be recognised within the appraisal process or through professional development credits (see Chapter 3).

Recommendation 2.2.3. Equip teachers with a range of practical support to facilitate formative assessment in the classroom

While training and learning opportunities are important in redressing teachers' misconceptions of formative assessment and establishing a baseline of related knowledge and skills, supporting teachers in integrating formative assessment in their classroom practice will require ongoing support and resources that are grounded in or are easily transferable to their own practice. Specifically, teachers need access to practical tools that can be adapted to meet the needs of their students and methodological support at the local level. Bulgaria can support teachers in this way by developing online support, such as videos, rubrics and templates, and enhancing the in-person support offered by the REDs.

Provide teachers with resources to support formative assessment practices

Over the last 20 years, a wealth of research has been undertaken on formative assessment and practices have been applied and tested. Bulgaria can benefit from this body of knowledge and resources by making it available to teachers in easily accessible and digestible formats. The online assessment platform (see Recommendation 2.1.1) would make an ideal home for these tools. A similar resource has been developed by the Australian Institute for Teaching and School Leadership (AITSL) which collates information about assessment and feedback as well as other classroom practices, in a digital library for teachers. The library includes documents with a range of formats from evidence summaries to videos of classroom practice and assessment tools and guides (AITSL, n.d.[50]). Bulgaria should consider gradually building a library of guidance materials as well as videos modelling feedback processes in the classroom, student report card templates, marked examples of students' work, rubrics for assessing students learning against expected learning outcomes and video tutorials on key aspects of formative assessment.

Build capacity at the regional level to support teachers' formative assessment

Analysis of impactful policy processes related to teacher development has revealed that designing initiatives that address needs at a local level can be particularly impactful (OECD, 2020[19]). In Bulgaria, REDs should take responsibility for supporting teachers with formative assessment in the classroom. By assigning them this role, the Ministry would be better positioned to identify clear outcomes against which to monitor the performance of staff in REDs. For instance, similar to the Norwegian model (Box 2.3), the Bulgarian Ministry could identify some basic guidelines for REDs to support teachers with formative assessment while still allowing the REDs to develop their own programmes. The Ministry could monitor progress by collecting feedback from teachers and school leaders about the kinds of support they have as well as their understanding and application of formative assessment practices.

Box 2.3. Supporting schools to strengthen assessment through regional initiatives in Norway

Norway's Assessment for Learning programme (2010-18) was developed to support schools, training providers and local authorities to improve formative assessment practices in classrooms across the country. The Directorate for Education and Training set guiding principles for the content and organisation of the programme, while local authorities were charged with local-level implementation. Around 90% of municipalities were involved in the programme across two phases.

The programme was based on four principles for quality formative assessment, outlined in Norway's Education Act. These are that students learn better when they: i) understand what to learn and what is expected of them; ii) obtain feedback that provides information on the quality of their work or performance; iii) are given advice on how to improve; and iv) are involved in driving their own learning process and self-assessment. In order to help implement the programme, a range of core documents are provided by the directorate to municipalities. This includes: a base document describing the aims of the programme, common guidelines, roles and responsibilities for all participants; planning, self-evaluation and reporting templates for schools; and a pupil survey producing results at the national, school owner and school levels. The directorate also organised seminars and conferences for participating local authorities and provided online training and resources for schools.

Final evaluations found that participation had led to a more learning-driven assessment culture, increased use of formative assessment practices, improved curriculum planning and improved research and development culture among schools. The learning networks among participating schools aided the exchange of knowledge and provided peer support for implementation. However, the scope of change varied, indicating that some participants needed more time to bring about significant change.

Source: OECD (2020[51]), *Education Policy Outlook: Norway*, https://www.oecd.org/education/policy-outlook/country-profile-Norway-2020.pdf (accessed on 18 August 2021); Hopfenbeck, T. et al. (2013[52]), "Balancing Trust and Accountability? The Assessment for Learning Programme in Norway: A Governing Complex Education Systems Case Study", https://doi.org/10.1787/5k3txnpqlsnn-en.

Policy issue 2.3. Enhancing the validity and fairness of examination and selection processes into and out of upper secondary education

Bulgaria provides multiple pathways as students move into upper secondary education, all of which enable access to tertiary level. In principle, this encourages students to think about their futures as they progress through school, selecting study programmes that are well-suited to their ambitions and providing opportunities to change pathways if that ambition changes. In reality, students in Bulgaria rarely change pathways and the Grade 7 NEA, which was initially implemented as a system monitoring tool, plays an outsized role in determining students' educational destinies. Moreover, student selection occurs markedly earlier (around age 13) in Bulgaria than in most countries across Europe and the OECD (around age 16), exacerbating challenges to system quality and equity. Using an examination to help sort students into different schools can help improve fairness by ensuring that tracking decisions are not determined solely by teacher judgements and reducing the scope for manipulation. However, there are elements of Bulgaria's Grade 7 NEA, such as the lack of safeguards to mitigate the adverse effects of high-stakes testing and a negative backwash on curriculum, that distort both learning and the selection process. To improve student transitions into upper secondary education, Bulgaria should design an examination and student allocation process which is better matched to the purpose of selection.

Compared to the NEA, Bulgaria's State Matriculation examination, which students take at the end of upper secondary education, is perceived as a more valuable tool from the perspective of facilitating student

transitions. The integrity and reputation of this examination have increased in recent years thanks to its secure development, administration and marking procedures. As a result, the vast majority of eligible students now opt to sit the State Matriculation examination and a growing number of higher education institutions accept its results as part of their admissions criteria. The State Matriculation examination has also facilitated a certification process for Bulgaria's upper secondary education system by standardising, at least to some extent, the transition into tertiary education. Safeguards, such as subject choice and opportunities to resit are also in place to alleviate potential negative effects on student outcomes. However, there is scope to align the State Matriculation examination more closely with the subject areas covered in Bulgaria's national curriculum and with broader development goals, given, for example, that very few students choose to take the examination in high-demand STEM subjects.

Recommendation 2.3.1. Reform the selection process into upper secondary education to increase equity and facilitate quality learning in Grade 7

While in the longer term, Bulgaria may want to rethink the value of having a selection examination at age 13 within the context of a broader reflection on the structure of school cycles and programmes, in the immediate term there is a need for reliable, external input at the transition point between lower and upper secondary education, in particular for those students applying to the most in-demand schools. This will imply rethinking the Grade 7 examination to improve its validity from the perspective of selection and notably making a much clearer distinction between the NEA and a Grade 7 to 8 selection examination, and revising the content of the tests to better reflect the curriculum. This also means reviewing how the test outcomes are used in the selection process, including whether the test is mandatory or optional, enhancing the reliability of data by removing classroom marks and providing additional information and support to students to inform their choice of programme and school.

Introduce a new standardised examination specifically for the selection process

Academic research on assessment design warns of the risks associated with using a single test for multiple purposes, particularly in situations where the information required from the assessment for each purpose is not the same (Morris, 2011[53]). In instances where multiple purposes are present, the main purpose of the assessment should be clearly stated and mutually recognised by all stakeholders (OECD, 2013[14]). This is not the case with the Grade 7 NEA which, for system actors, has the primary purpose of providing information about system performance, but for teachers, parents and students is a vehicle for school and pathway selection for upper secondary education. To decouple the system monitoring aims from the selection process, Bulgaria should take the following steps:

- **Remove the selective function from the NEA**. By removing performance in the NEA in Grade 7 from the selection process for students' transitions into upper secondary school, Bulgaria can focus on developing and strengthening a low-stakes, more formative national assessment as a tool for evaluating and improving system performance. Chapter 5 provides more detailed recommendations for this process.
- **Introduce a new selection examination that is more fit for purpose**. Once the national assessment and the selection examination have been decoupled, Bulgaria can focus on developing a new selection examination specifically designed to inform admission to upper secondary school which is more fit for purpose. In particular, Bulgaria should clarify the purpose of the selection process in general: is it a way to identify the highest-performing students in academic terms, for allocation into the highest-performing schools, or is it a means by which students can be matched to the pathways and schools most suited to their abilities and ambitions? Estimates indicate that only the top 5% of academic performers can be fairly identified through a selective academic examination alone (Vernon, 2017[54]). Therefore, in the shorter term at least, while the

selection process remains compulsory for all students, the focus of the selection process should be the latter – matching students to the most appropriate pathways and schools for them.

- **Clearly communicate this change to the wider public**. Developing a new examination specifically designed for the selection process is an opportunity to reduce the perceived stakes of the examination as, in the longer run, the participation of all students will cease to be a requirement. However, to realise this opportunity, the Ministry must clearly communicate to all stakeholders that the new examination and selection process is not a reference point for judging system or school quality. This communication effort will need to go hand in hand with similar efforts regarding the reformed national assessment for Grade 7. Ultimately, the most powerful signal will be to move that national assessment to Grade 6, as suggested in Chapter 5. Prior to that, virtual conferences with educators and parents, as well as wider communications efforts through national media will be important.
- **Include relevant stakeholders in initial development discussions**. This includes representatives from different types of upper secondary schools, covering the full range of pathways available, as well as representatives from the lower secondary schools. In addition, actors from the REDs and the Center for Assessment should be involved. Actively involving these actors in the development and design of the new selection process, at least initially, could help build consensus around the changes and trust in the new examination system.
- **Maintain current responsibilities for development and administration**. Although the purpose and design of the new examination will be reformed, the structures currently in place for managing the examination and selection should be maintained. This means that the Center for Assessment should lead the development and administration of the new examination and REDs should continue to oversee the online selection process. Ensuring continuity in management and development could help ease the transition to a new examination and selection process. These bodies have already developed the required capacity and well-trusted processes; leaving them in their roles could help facilitate buy-in for reforms.

Design a selection examination that assesses a broader set of competencies to better inform selection into different pathways

As the aim of the Grade 7 selection process should be to best match students to upper secondary pathways and institutions, the selection examination must assess broader competencies. Currently, the Grade 7 NEA only considers student performance in Bulgarian language and literature, and mathematics. A new examination that assesses a wider set of competencies could offer more tailored information on the specific profiled pathway students might be best suited to, or the appropriateness of VET or general education. There are different possible approaches to achieving this, such as designing different examinations for different pathways or programme types with students being entered for the examinations corresponding to their chosen pathways or a single examination which generates information on a broader set of skills which are then matched against the demands of the various pathways in secondary education. The Netherlands uses a well-respected examination of the second type to inform student transitions to secondary education (Box 2.4).

Box 2.4. Designing tests to inform student transitions to secondary school in the Netherlands

In the Netherlands, all students take an extended learning achievement test at the end of primary education, which helps provide information on the most suitable type of secondary school for them. The majority of students (85%) take a test designed by the Central Institute for Test Development (CITO). The CITO test has a multiple-choice format covering various subjects (Dutch language, mathematics and study skills) as well as an optional subject, world orientation (geography, history, biology). The results provide information on students' mastery of key skills across these subject areas; as such, the final score does not only provide information about the student's learning achievement but can also indirectly indicate aspects of intelligence, motivation, concentration and drive to learn. Students' scores are sorted into three score bands. Through extensive research conducted by CITO, based on these score bands, each student receives an individualised report advising suitability for each of the available pathways. Notably, none of the bands indicate the immediate rejection of a student from a specific pathway. Rather, the advice is to seek more extensive research at the school level, with the student and parents, as well as their teachers. In 2014, the OECD reported that these tests are recognised as having excellent psychometric properties, are highly reliable and are well-respected within the Dutch education system. CITO's research indicates that secondary schools most commonly use students' scores as a second opinion to complement the primary school's recommendation and as a good predictor of student suitability rather than as a formal prescription of the type of school a child must enter.

Source: Nusche, D. et al. (2014[15]), *OECD Reviews of Evaluation and Assessment in Education: Netherlands 2014*, https://doi.org/10.1787/9789264211940-en; van der Lubbe, M. (n.d.[55]) *The End of Primary School Test*, Central Institute for Test Development, Amsterdam.

In Bulgaria, a continued focus on strengthening students' core skills is required in order to increase the share of students reaching at least minimum proficiency in literacy and numeracy in particular. At the same time, the sheer number of available pathways and school types makes the development of separate examinations more challenging. Therefore, one way forward could be to combine an assessment of core skills with an evaluation of broader competencies. In this way, the new selection examination could be designed in two parts:

- **Part one** could assess students' current ability and readiness for upper secondary education by determining a basic level of core skills in key subjects. Initially, this would be Bulgarian language and literature, and mathematics, however, given the stated focus on promoting STEM skills in the period 2021-30, Bulgaria may also consider introducing examination items on scientific knowledge. This part of the examination may include multiple-choice or non-complex constructed response items suitable for objective scoring.
- **Part two** could assess students' aptitude for different pathways through more complex items which aim to assess subject-specific higher-order skills and a range of key transversal competencies. Similar to the Dutch example, and in line with the move towards competency-based education, the focus of the examination should be on key skills in these areas as opposed to testing subject-based knowledge. In this way, the examination can provide information about a student's aptitude for a certain type of skill. This will require items that are more focused on the application of learned knowledge in real-world settings. These skills should be mapped against the skills' demands of the prospective secondary pathways; Thus, more granular information about a student's performance on the examination in the specific skill areas can provide useful information about the pathway they are suited to. By broadening the scope of assessed skills, Bulgaria can also help to reduce the negative effect the current examination has in narrowing the focus of the curriculum.

The relative weighting of marks across the two parts should be decided in collaboration with relevant representatives from a range of upper secondary schools so that decisions reflect schools' priorities and encourage stakeholder support for the changes. However, the higher weighting, or larger share of marks, should be awarded in part two to ensure that higher-order skills are given due attention. While the examination scores will be on a single, national scale – an important requirement for transparency and comparability – the minimum number of marks required for entry into each school could still be determined at the regional level, similar to the current system.

In the short term, enable students to opt in to the selection process

As well as enhancing the Grade 7 selection examination to make it more fit for purpose, tackling the challenges of Bulgaria's early tracking system will likely require larger-scale reforms to improve the transition between Grades 7 to 8. However, given the intense public attention on this moment in children's educational journeys, implementation of any reforms in this area poses considerable challenges and are likely to face resistance. Therefore, a phased approach may be required with smaller more urgent changes to enhance the fairness of the current process in the short term and larger-scale changes that can help gradually reduce the role and impact of selection on children's futures in the longer term.

Prior to 2010, the selection process into upper secondary schooling was optional and only applied to students wanting to attend certain schools. These schools were typically the highest-performing gymnasia, or specialist schools for foreign languages or mathematics. Around 40% of students opted into the selection process and other students enrolled in local schools or VET programmes. Once the selection process was coupled with the Grade 7 NEA, a census-based approach was adopted meaning that all students must participate in the selection process, even if they do not apply for competitive places. Not only does this increase the administrative burden of the selection process but it also exposes many students to undue academic pressure and worsens the negative backwash effect on the curriculum.

Bulgaria should make the new selective examination optional. Turkey, which until recently also had a compulsory selection process in place, provides a good international example of moving to an optional process (Box 2.5). At first, the majority of students will likely continue to opt in to the selection process. However, some students will be happy to be automatically allocated to their local upper secondary school, which could immediately help to address some inequities caused by academic segregation and reduce some of the risk of school dropout. To facilitate this process, based on historical oversubscription trends, REDs will need to work with schools in their region to determine which schools can offer places and how many, to students not participating in the selection process. Schools for which admission has been historically competitive will not be able to accept students that do not participate in the new selection process. At each stage of the online ranking process, students should be allowed to retire from the competitive process and opt to be automatically allocated to their local upper secondary school.

Box 2.5. Reducing the role of selective admissions for upper secondary education in Turkey

Turkey has recently reformed upper secondary school placement procedures to help address inequities created by early tracking. The previous mandatory Transition from Elementary Schools to Secondary Schools Examination (*Temel Eğitimden Ortaöğretime Geçiş Sistemi*, TEOG) required students to rank their school preferences. They were then allocated one of their preferred schools based on results in a centralised examination (70% weighting) and average scores in lower secondary classroom assessments (30% weighting). While the TEOG was considered a fair and transparent examination, it also created a high level of competition and excessive pressure on learners, as well as narrowing the curriculum and promoting private tutoring that takes place out of school.

In response to these criticisms, the government abolished the TEOG in 2017 and announced a new system based on catchment areas, students' interests and overall achievement in lower secondary. Around 10% of school places in the top schools are still determined by an optional centralised examination. In 2018/19, about 85% of the cohort chose to take this examination, which determined around 13% of places. However, Turkey expects candidate numbers to fall as families and schools become familiar with the new system. While the reform's intentions are positive, Turkey needs to carefully manage oversubscription to those schools considered better quality and mitigate continued inequities as advantaged students tend to have better access to information, private tutoring and quality schools in their area. Early analysis indicates an immediate reduction in the effect of school types and students' socio-economic status on mean national assessment scores following the changes; continued monitoring over the long term is required to validate this.

Source: OECD (2020[56]), *Education Policy Outlook: Turkey*, https://www.oecd.org/education/policy-outlook/country-profile-Turkey-2020.pdf (accessed on 18 August 2021); Kitchen, H. et al. (2019[27]), *OECD Reviews of Evaluation and Assessment in Education: Student Assessment in Turkey*, https://doi.org/10.1787/5edc0abe-en.

Reduce the influence of teacher-assigned marks from the selection process

At present, school allocation is overseen by REDs and takes into account students' results on the Grade 7 NEA as well as teacher-assigned marks for classwork. Although this approach could help to reduce the high-stakes nature of the NEA, in the Bulgarian context, it creates negative consequences that outweigh potential benefits. First, as individual schools have the full autonomy to determine the weight of teacher-assigned marks when considering applicants, including this criterion reduces transparency and increases the opportunity for schools and well-informed students and parents to manipulate the system. Second, there is evidence to suggest that teacher-assigned classroom assessments are neither very reliable (i.e. they are not consistent between classrooms across the country) nor valid (i.e. they do not assess the full spectrum of competencies covered within the curriculum, even for the core subjects). Finally, by including teacher-assigned marks, the current system encourages a negative backwash effect on the curriculum because teachers find themselves under pressure from students, parents and school leaders to give high marks in Bulgarian language and literature and mathematics throughout the academic year so their students can access the school of their choice. Once a new, more robust selection examination has been introduced, Bulgaria should considerably reduce the inclusion of teacher-assigned marks from the selection process. For example, the weight of teacher marks could be limited to a maximum of 20% of the admission score. This measure could be reviewed in the longer term, once classroom assessment has become more reliable and valid through reinforced training and support for teachers.

Support students to make more informed choices suited to their aptitudes and ambitions

The current selection process, which allows for an unlimited number of initial school choices, is not conducive to encouraging students – with support from parents and schools – to make careful decisions about their school pathways. As a result, students are more likely to take a default choice where they rank schools based on their perceived quality and reputation as opposed to their own interests, ambitions and academic ability. To counter this, Bulgaria should strengthen the guidance and information available to students at the end of lower secondary education. If students are to be expected to apply to schools and programmes that are more suited to their interests and ambitions, they need support to understand what different schools offer. Bulgaria should therefore require REDs to develop and maintain comprehensive information portals with guidance on the selection process, profiles for the different schools and programmes available in the region, as well as information related to further education and employment pathways beyond upper secondary education. Schools providing lower secondary education should also be required to provide information to their students about the different pathways and school types available

to them. To encourage schools to strengthen this aspect of their role, supporting students with decisions about their future educational and career pathways could be integrated into the revisions of Bulgaria's school quality standards and indicators (see Chapter 4).

In addition, specific targeted supports for disadvantaged learners will be required in order to help counteract inevitable asymmetries in access to information and guidance. Possible interventions could include incentivising highly competitive upper secondary schools to reach out to primary or lower secondary schools with higher shares of disadvantaged students to enhance the information those students receive about their options and support them in their application process. REDs could also be required to implement information outreach programmes with disadvantaged or vulnerable communities to ensure they have access to quality information about the options available to them and the processes to follow. Requiring REDs to include information about these efforts in their reporting to the Ministry could help engage them. Finally, schools providing lower secondary education should be encouraged to offer more individualised advice, particularly to disadvantaged students who may not have equal recourse to such advice from familial or social networks as their advantaged peers.

In the longer term, require schools to apply to become selective and delay selection

There is little evidence that education systems with academically selective schools have higher outcomes than non-selective systems and they often promote segregation either by academic ability or socio-economic status, or both. As such, these systems reduce the opportunity for the positive crossover effects that come from having more academically and socially diverse student cohorts, particularly for lower-performing or disadvantaged students. These positive effects include higher individual academic outcomes, lower dropout rates, more positive behaviours inside and outside the classroom and the development of broader social networks (Sacerdote, 2011[57]). Many of negative effects can be seen in Bulgaria as between-school segregation and differences in student outcomes are high compared to international peers. Although this challenge begins early, affecting primary and lower secondary schools too, the effects are heightened by the fact that, in Bulgaria, student selection occurs very early. Thus, the segregation that develops informally in earlier years of education becomes formalised once all students are sorted into upper secondary schools at age 13.

Over the longer term, Bulgaria should explore ways of reducing the level of academic selection and stratification in the system by minimising the pool of selective schools at the upper secondary level. This pool should be determined by quotas according to school type and should be applied regionally. In this way, Bulgaria can avoid having a homogenous pool of high-performing, elite gymnasia in general education and instead have a more heterogeneous pool of selective schools that encompasses general and vocational schools, as well as gymnasia, secondary and integrated schools. Moreover, via the quota, the pool of competitive schools could be more evenly distributed across the country; currently, the majority of elite, highly selective schools are located in the capital Sofia.

Schools that want to be selective would be required to apply to REDs to be considered in the quota. The criteria by which REDs then select schools should be established nationally by the Ministry to reduce any potential manipulation of the system. This criterion could be based on school evaluation performance as a means of incentivising continuous school improvement. It could also take into account outreach responsibilities for these more elite schools, such as partnering with a low-performing, non-selective school to provide peer learning, staff coaching and leadership support, for example. The criteria could also take into account the socio-economic diversity of the school, favouring more diverse schools and thus encouraging further outreach efforts. Applying this process annually would be burdensome for REDs and potentially very disruptive for students, parents and school staff. Therefore, the school application process should be repeated every five years (i.e. a complete cycle of upper secondary education).

Although a considerable reform, the introduction of quotas alone will not be enough to minimise school segregation entirely. Addressing this challenge fully will require further structural reforms that look deeper into the architecture of the Bulgarian education system. First, to help ensure all students in Bulgaria achieve a minimum level of competency in core curriculum areas and to keep a range of pathways available as students mature and their ambitions develop, Bulgaria must seriously consider delaying the student selection process until the end of compulsory education (i.e. Grade 10). In introducing academic selection and the transition to upper secondary education and specialisation at age 13, Bulgaria is among a minority of countries; across the OECD, the most common age of first tracking is 16. Although some other systems do have early tracking and some even earlier than Bulgaria, in many cases, these approaches are in the process of being reformed (e.g. Germany, Turkey), occur within countries with generally more equal societies and so tracking is not as strongly tied to socio-economic status (e.g. Austria, the Czech Republic) or within systems in which there is less of a perceived hierarchy between different pathways and school types (e.g. the Netherlands, Switzerland).

Knowing that segregation within the Bulgarian system starts even earlier than the formal selection process at the transition to upper secondary, measures to address stratification in lower levels of schooling should also be considered. This could include removing selection processes at earlier ages for the small number of elite specialised schools or reforming school admission practices at the primary level.

Recommendation 2.3.2. Enhance the validity of the State Matriculation examination to ensure it more fully fulfils its dual purpose

Examinations, like all quality assessments, must demonstrate both high reliability and validity. Reliability refers to the extent to which the assessment is consistent in measuring what it sets out to measure; validity refers to how appropriate an assessment is in relation to its objectives (OECD, 2013[14]). At present, Bulgaria's State Matriculation examination demonstrates a relatively high degree of reliability, which is critical given the stakes it carries for students. This is an important achievement in a context where trust in government processes tends to be low and the perceived risks of corruption high. However, its validity could be improved, both in terms of certifying achievement against national learning standards and signalling suitability for transition to higher education. This is particularly important given the backwash that the examination has on what is taught, learned and assessed throughout upper secondary education. Building on its success in strengthening the reliability of the State Matriculation examination over the last decade, Bulgaria must now think more strategically about leveraging this examination to better support its curriculum and broader skills objectives. This can be achieved by expanding the breadth of core and transversal competencies assessed by the examination and ensuring it more consistently discriminates student performance.

Improve alignment with the competency-based curriculum and curricular priorities

- **Ensure examinations include items that ask students to apply their knowledge and skills in relevant, practical contexts**. State Matriculation examinations for all subjects should include items that use authentic data and/or sources and are set in real-world contexts. For example, in Bulgarian language and literature, students could be asked to engage with a wide range of literary and non-literary texts covering different forms and media, rather than solely using traditional texts from the literary canon. Tasks in mathematics could require students to use authentic data and practical contexts in addition to assessing more abstract knowledge of mathematical formulae. The Center for Assessment could provide item writers with clearer guidance on this requiring, for example, at least 20 points (out of 100) to be assigned to items of this nature. This requirement could be a starting point with the weighting of such tasks increasing over time as item writers, teachers and test takers become more familiar with them. Developing such items will need to be

an ongoing effort and their quality should be reviewed annually to improve items for the following year.

- **Introduce a compulsory examination in mathematics**. Currently, only 5-10% of Bulgarian students choose to take a State Matriculation examination in mathematics each year, despite the fact that mathematics remains a compulsory subject in the upper secondary curriculum. This contrasts considerably with other countries in the region where mathematics is a compulsory examination subject. Like Bulgarian language and literature, which is also a compulsory part of the curriculum, mathematics should become a compulsory subject in the examination. This will both help to raise its profile during upper secondary education and incentivise better teaching and learning. At the same time, differentiation will be required between those students who study mathematics within their selected profile and those who only study it within the compulsory curriculum. Bulgaria should therefore consider offering different types of mathematics examinations for students to choose from. In Norway, all students take an examination in mathematics but students in social science studies take "Mathematics S" courses while natural science and mathematical students take "Mathematics R", which has a stronger focus on pure mathematics and a small amount of probability (Maghnouj et al., 2019[21]). In England, at the end of upper secondary education, although mathematics is not a compulsory subject, students seeking a qualification in mathematics have multiple subjects to choose from. For example, students can opt to take a final examination in core mathematics (focused on practical skills to be applied in work, study or everyday life), mathematics (for those studying general mathematics at this level) or further mathematics (focused on advanced mathematics skills as a bridge to further study in tertiary education).
- **Establish a school-based component that provides an opportunity to assess broader skills**. As more OECD countries have adopted competency-based curricula, there has been a growing interest in performance-based assessments, such as experiments or projects, which require students to mobilise a wider range of skills and knowledge, and demonstrate complex competencies like critical thinking and problem solving (OECD, 2013[14]). Integrating an assessment approach of this nature within a national examination can help balance central expertise and teacher ownership to facilitate maximum validity and reliability. Bulgaria should therefore consider creating an additional compulsory requirement for all students to complete a school-based project. These project-based assignments would be long-term, in-depth projects that students complete within their school by applying skills they learned prior to the examination. These projects should be practical and aim to assess interdisciplinary competencies. In Bulgaria, this approach could build on the growing enthusiasm for project-based learning that is a key feature of innovative approaches to teaching and learning in the cohort of innovative schools (see Chapter 4). Students could be awarded a final mark for their work which is equivalent to a final examination mark. The project could be embedded within the compulsory hours already mapped out in the upper secondary curriculum for civic education, helping to raise the profile of this subject and ensure that students have adequate time and guidance to carry out a quality project.

Enhance the examination's power of discrimination to ensure it is a useful indicator of student proficiency

To support students' transitions into pathways beyond school, the results of upper secondary education examinations should help illustrate where a student's strengths lie and accurately signal to future education providers or employers a student's level of competency in the relevant subject. Currently, Bulgaria's State Matriculation examination is not fully fulfilling this role because high shares of students in several subjects are awarded a mark deemed "excellent". At the same time, the distribution of marks varies considerably between subjects meaning that an "excellent" in one subject may indicate a level of proficiency that is not matched by an "excellent" in another subject. This leads to speculation about the perceived difficulty of

certain subjects, which may be influencing students' choices about which subjects to take more than their own ambitions or aptitudes. Bulgaria could benefit from taking the following steps to increase the State Matriculation examination's ability to discriminate between students' different performance levels:

- **Remove the pre-determined pass/fail cut score**. Currently, any students scoring less than 30% on the State Matriculation examination are deemed to have failed and must retake the examination. This approach is very transparent and easy to communicate to all stakeholders. However, it fails to take into account variations in the level of difficulty in the examinations from year to year. This could be misleading as an increase in the pass rate may be caused by the inadvertent use of an easier test rather than an increase in the absolute level of achievement. In addition, this approach fails to link results in the examination to the expected levels of achievement, as expressed in the national curriculum. Bulgaria should move towards a criteria-related system for awarding a pass or fail. Specifically, test items and student responses should be analysed against expected levels of achievement so that, for a student to pass the examination, examiners must judge them to have achieved minimum proficiency in pre-established standards (OECD, 2013[14]). Many OECD countries use this approach, such as Latvia, Lithuania and Slovenia, when marking national examinations at the end of upper secondary education. Although this approach can be more complicated to explain to the general public, it provides a more meaningful interpretation of student success and can also be a more useful tool for teaching, learning and assessment.
- **Investigate the disparities in achievement across subjects**. Differences in the share of top (excellent) and bottom (fail) marks awarded to students taking different subjects require further investigation to be better understood. For example, 60% of students taking the examination in chemistry and the environment receive a mark equivalent to "excellent" and 1% "fail", compared to those taking the examination in geography and economics, of whom 4% receive an "excellent" and 16% "fail". There are many possible reasons for this. It could be that the chemistry examination is easier or that the standard of teaching across schools is higher. The OECD review team heard that it may be due to the profile of students choosing those subjects: geography is a popular choice among students in VET schools, whose overall achievement in upper secondary education may be lower than students in general schools. It may also be linked to the fact that a much higher number of students take the geography examination compared to chemistry (4 430 students compared to 184 students in 2020). Reasons for the difference between results in these two subjects may not be the same as the explanation for differences between other subjects. Each of these possible causes requires attention. To identify and address the root cause of these imbalances, Bulgaria should undertake a comprehensive investigation of the issue. This could be overseen by the Center for Assessment but should include a review panel composed of independent experts who were not previously involved in examination design and marking processes.

Table 2.5. Table of recommendations

Policy Issues	Recommendations	Action Points
Building a shared understanding of student assessment as a means to support teaching and learning	Establish a coherent national vision of student assessment	Formulate a high-level national vision of student assessment
		Engage stakeholders in developing the new vision of student assessment
		Clarify and better communicate expected learning outcomes to guide student assessment
		Ensure alignment and coherence with wider evaluation and assessment practices
		Communicate the vision in a strategic way to build trust and support for change
	Adapt the reporting of student learning information to promote a broader understanding of assessment	Make classroom and school-level marking practices more conducive to student learning
		Strengthen reporting to help students and parents understand broader progress
Developing the capacity of teachers to use formative assessment	Promote the use of diagnostic assessments to help teachers better understand and adapt to the learning needs of students	Prioritise younger students and core subjects to have greater impact in the long term
		Support teachers to make full use of start-of-year diagnostic assessments
	Foster real change at classroom-level through making training on formative assessment a priority for all teachers	Strengthen the development of formative assessment practices in initial teacher education (ITE)
		Ensure that teachers have access to quality continuous professional development on formative assessment
	Equip teachers with a range of practical supports to facilitate formative assessment in the classroom	Provide teachers with resources to support formative assessment practices
		Build capacity at regional level to support teachers' formative assessment
Enhancing the validity and fairness of examination and selection process into and out of upper secondary education	Reform the selection process into upper secondary education to increase equity and facilitate quality learning in Grade 7	Introduce a new standardised examination specifically for the selection process
		Design a selection examination that assesses a broader set of competencies to better inform selection into different pathways
		In the short term, enable students to opt in to the selection process
		Reduce the influence of teacher-assigned marks from the selection process
		Support students to make more informed choices suited to their aptitudes and ambitions
		In the longer term, require schools to apply to become selective and delay selection
	Enhance the validity of the State Matriculation examination to ensure it more fully fulfils its dual purpose	Improve alignment with the competency-based curriculum and curricular priorities
		Enhance the examination's power of discrimination to ensure it is a useful indicator of student proficiency

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Note

[1] Bulgaria's National Recovery and Resilience Plan is an investment and reform plan for 2021-26. It is part of Bulgaria's involvement in the European Commission's NextGenerationEU recovery instrument, through which the commission supports member countries to repair immediate economic and social damage resulting from the COVID-19 pandemic.

3 Using appraisal to motivate and support the professional growth of teachers

Bulgaria has introduced several reforms that aim to enhance the teaching profession. For example, Bulgaria introduced a differentiated career structure for teachers, increased salaries and made continuous professional learning a mandatory requirement. Bulgaria has also updated the core content for initial teacher education, eliminated tuition fees for many initial teacher education programmes and updated the country's teacher standards. Despite this progress, there is a growing need for greater coherence across initiatives, especially as these reforms have important financial implications for the government. This chapter looks at how Bulgaria could link changes to structural teacher policies in order to help recruit the best and most motivated teacher candidates, as well as encourage practising teachers to develop their competencies.

Introduction

Research suggests that what teachers know and do is the strongest direct school-based influence on student learning outcomes (Darling-Hammond, 2000[1]; OECD, 2005[2]). At present, Bulgaria is facing two main challenges related to the teaching profession: the need to update teachers' competencies to improve student learning within the context of a new school curriculum and the need to expand the number of new entrants to the profession to replace an ageing cohort of teachers. This chapter looks at how Bulgaria could strengthen both summative and formative teacher appraisal processes at different points in a teacher's career to help address these issues. Specifically, Bulgaria should introduce a formative, school-based appraisal process to provide regular feedback to teachers on their strengths, weaknesses and professional development needs. Such feedback will be essential to modernise and improve teaching practices. Bulgaria should also reform career progression procedures to better encourage teachers' development of relevant knowledge and skills. This will involve revising Bulgaria's teacher standards (the professional profile for teachers) to identify the competencies teachers need for different career levels and using them as the criteria for a more consistent and objective attestation appraisal for promotion. Bulgaria should also require new teachers to undergo a summative appraisal to establish a baseline that all newly certified teachers must meet. Furthermore, Bulgaria should improve initial teacher education and professional development programmes, and focus them more centrally on developing the student-centred approaches teachers need to deliver the country's new competency-based school curriculum.

The teaching profession in Bulgaria

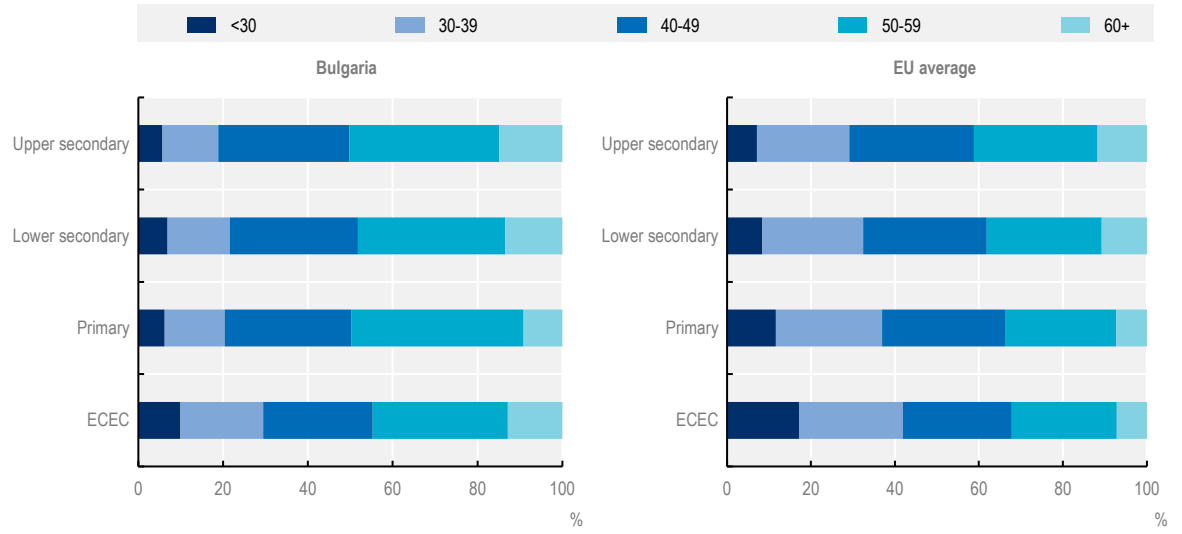
In recent years, Bulgaria has introduced a range of policies to develop the teaching profession and attract new teachers. Most of these reforms were initially proposed in Bulgaria's National Strategy for the Development of Pedagogical Staff 2014-2020, the Pre-school and School Education Act 2016 and a series of related ordinances. Specifically, the reforms include new teacher standards, a teacher career structure that requires an accumulation of continuous professional development credits and degrees, and an established set of core content for initial teacher education programmes. With the introduction of these reforms, Bulgaria has established structures and frameworks to strengthen the teaching profession in ways similar to other European countries. However, a number of these reforms related to the teaching profession have only been partially implemented or have not yet had the desired impact.

The teaching workforce in Bulgaria

Bulgaria is making efforts to replace retiring teachers with new entrants to the profession

As in most European Union (EU) and OECD member countries, the teacher workforce in Bulgaria is mainly female and works primarily in municipal or state-owned schools, meaning they are public sector employees. The country has a declining school-age population, largely caused by a reduction in the number of births and migration flows (Ministry of Education and Science, 2014[3]), which would normally decrease the overall demand for teachers. However, the teaching population in Bulgaria is older (Figure 3.1), which has created pressure to replace retiring teachers. For example, 48% of lower secondary teachers in Bulgaria are age 50 or above, compared to an EU average of 38% (EC/EACEA/Eurydice, 2021[4]). Bulgaria has already introduced several policy measures to attract new entrants to the profession, including significantly increasing teachers' salaries and covering the cost of tuition fees for initial teacher education programmes. These actions have contributed to a growing number of new teachers in recent years. For example, in 2020, almost 1 000 more new teachers began working in schools compared to 2016 (Ministry of Education and Science, 2021[5]).

Figure 3.1. Teachers' age by the level of education they teach, 2019



Note: ECEC – Early childhood education and care.
Source: Eurostat (2021[6]), *Classroom Teachers and Academic Staff by Education Level, Programme Orientation, Sex and Age Groups [educ_uoe_perp01]*, https://ec.europa.eu/eurostat/data/database (accessed on 20 July 2021).

StatLink https://stat.link/tnahc8

There are acute teacher shortages in parts of the country and for certain subject areas

Bulgaria is facing teacher shortages in particular curriculum subject areas, including mathematics, physics, astronomy, computer science and information technology (IT). These shortages are especially acute in socio-economically disadvantaged parts of the country. To help address this issue, the Ministry of Education and Science (hereinafter the Ministry) introduced Motivated Teachers in 2020, a national programme designed to recruit subject specialists with diverse backgrounds into the teaching profession (EC/EACEA/Eurydice, 2021[4]). Bulgaria is also experiencing a shortage of primary school teachers, teachers of foreign languages and some vocational education and training (VET) subjects (EC, 2019[7]). In addition to working with professional and non-profit associations to recruit and prepare new teachers, the government is currently working with the World Bank to develop a new teacher forecasting model that will help Bulgaria to better identify specific shortage areas and manage the teaching workforce. Within this context, there may be scope to introduce additional measures to encourage teachers to work in hard-to-staff areas and subjects.

Teacher career structure and salary progression

Bulgaria has introduced a new teacher career structure that places significant emphasis on the completion of professional development activities

Bulgaria's teacher career structure consists of three levels: teacher, senior teacher and chief teacher. Promotion to higher levels is based on pre-requisites such as a teacher's years of experience and completion of professional development but, from the school year 2021/22, will also consider appraisals of a teacher's performance (Table 3.1). Adding a performance appraisal to the teacher promotion process will ensure that career progression is based on evidence of teachers' effectiveness and not just their participation in learning activities. Similar to differentiated career structures found in a growing number of OECD countries, higher career levels in Bulgaria are associated with salary increases and additional responsibilities (Schleicher, 2012[8]). This structure helps reward teachers for developing their knowledge

and skills and taking on new tasks. It can also benefit the school, especially if a teacher's new tasks focus on improving teaching and learning, as they do in Bulgaria. For example, the functions of senior and chief teachers in Bulgaria include serving as mentors to new teachers, as well as analysing student assessment and examination results in the school (Ministry of Education and Science, 2019[9]). However, Bulgaria may not be leveraging the competencies of more experienced teachers as there is not much distinction between the responsibilities of senior and chief teachers.

Table 3.1. The teacher career structure in Bulgaria

	Teacher	Senior teacher*	Chief teacher
Pre-requisites	Completing an accredited initial teacher education programme resulting in a degree or professional qualification, including passing a practical examination	At least 10 years of work experience as a qualified teacher	Holds the position of senior teacher
		The required professional development qualification credits (i.e. 48 hours or 3 credits in 4 years)	The required professional development qualification credits (i.e. 48 hours or 3 credits in 4 years)
		At least a 4th or 5th professional qualification degree (i.e. 16 hours of training each) from a higher education institution, including an oral or written examination	At least a third professional qualification degree (i.e. a one-year professional-pedagogical programme) or higher from a higher education institution
		As of 2021/22, attestation appraisal results of at least "meets requirements"	As of 2021/22, attestation appraisal results of "exceptional performance"
Number of teachers (2020/21)	32 898	43 977	1 852

Note: * Fast track to the senior teacher level: obtaining a larger number of professional development qualification credits, a third, second or first professional qualification degree and "exceeds requirements" or higher on the attestation appraisal.
Sources: Ministry of Education and Science (2020[10]), *Country Background Report for Bulgaria*, Ministry of Education and Science of Bulgaria, Sofia; Ministry of Education and Science (2021[11]), "Additional detailed information for the preparation of the OECD Report on Bulgaria", Ministry of Education and Science of Bulgaria, Sofia.

Bulgaria has increased teachers' salaries to boost the attractiveness of the profession

In recent years, Bulgaria has implemented one of the highest increases in annual teacher salaries in Europe (EC, 2019[7]). While remuneration remains among the lowest in the EU, the average salary of pre-school and school teachers in Bulgaria increased by almost 79% between 2016 and 2020 (EC, 2020[12]). The Bulgarian Union of Teachers welcomed this as a measure that would boost the status of the teaching profession and increase the number of teachers (ETUC, n.d.[13]). The average salary was estimated to be 15% higher than the average salary in the country in 2021 (Ministry of Education and Science, 2021[5]). This change has already started making the profession more competitive. For example, regional departments of education (REDs) reported to the OECD review team that they face increased difficulty in hiring methodological experts who could earn more by working as teachers.

Bulgaria is among the countries in Europe in which salary progression is swift and significant in a teacher's initial 15 years of employment. For example, it typically takes lower secondary teachers in Bulgaria 15 years or fewer to reach the minimum salary of a chief teacher, which was 37% more than that of teachers at the beginning of their careers in the school year of 2018/19 (EC/EACEA/Eurydice, 2020[14]). This salary increase was significantly higher than the salary progression in most of Bulgaria's Balkan neighbours, although lower than in many other European countries, like Slovenia (50.8%) and Hungary (45%) (EC/EACEA/Eurydice, 2020[14]). It is difficult to compare Bulgaria to other European countries with respect to teachers' salary progression over the entirety of their careers because Bulgaria does not statutorily define salary ranges for teachers. Instead, an annual ordinance sets the minimum starting salary

for each of the three levels of the teaching career based on priorities in the annual state budget, while a collective labour agreement sets out conditions like yearly increases for years of service. However, it is clear that teachers in Bulgaria can obtain their most substantial pay rises within a relatively short period of time. In contrast, significant pay increases over the length of a teacher's career may have a positive impact on teacher retention (EC/EACEA/Eurydice, 2020[14]).

As well as salary increases linked with career progression, teachers in Bulgaria can receive "additional labour remuneration", based on an annual analysis of their work. Per school, this remuneration totals up to 5% of the annual amount of funds for salaries (Ministry of Education and Science, 2021[5]). The different types of additional remuneration are established by law with their corresponding minimum pay levels decided through collective bargaining processes. Schools also have considerable autonomy to set additional criteria for these bonuses within their internal rules, making it somewhat difficult to implement additional remuneration policies fairly and equitably across schools. Teachers in Bulgaria also receive allowances for taking on additional responsibilities, completing continuous professional development that leads to professional qualification degrees (see below) and having further formal qualifications (e.g. in a foreign language, a doctorate) (EC/EACEA/Eurydice, 2020[14]).

Bulgaria has revised requirements for initial teacher education and continuous professional development

Requirements for entry to initial teacher education programmes vary and tuition was recently eliminated

Like many other European countries, Bulgaria has both concurrent and consecutive models of initial teacher preparation that lead to either a bachelor's or master's degree (EC/EACEA/Eurydice, 2021[4]). These programmes generally last three or four years (concurrent) or one year (consecutive). Bulgaria has over 40 faculties, colleges and higher education departments, which offer initial teacher education (as of 2014) (Ministry of Education and Science, 2014[3]). Entry requirements vary by institution but typically consider grades from the State Matriculation examination at the end of upper secondary education or performance on an entry examination (EC, 2018[15]). OECD countries commonly use a combination of these methods, along with interviews, to select candidates for initial teacher education (OECD, 2014[16]).

There are indications that the quality of applicants to Bulgaria's initial teacher education programmes has not been high. According to the National Strategy for the Development of Pedagogical Staff 2014-2020, high school graduates who chose higher education programmes related to the pedagogical profession tended to have a relatively low level of readiness (Ministry of Education and Science, 2014[3]). Moreover, initial teacher education graduates enter the profession at low rates in recent years (i.e. only 60%, according to Bulgaria University Rating) (EC, 2019[7]). The low transition rate between initial teacher education and work represents potentially significant resource inefficiencies, especially considering that Bulgaria eliminated tuition at public higher education institutions in 2020 for students studying pedagogy and other areas with expected labour shortages (EC, 2019[7]).

There is a core content framework for initial teacher education programmes but it has not yet had a significant impact on the curriculum

Like the majority of OECD countries, Bulgaria has established a core content framework for initial teacher education programmes, including minimum hours of study in compulsory academic disciplines (e.g. pedagogy, information and communication technology [ICT]), electives and the practicum (OECD, 2014[16]). In 2021, the core content framework was updated to increase the amount of study time in important areas like pedagogy, competency-based teaching approaches and inclusive education. However, the length of the practicum (e.g. 10 European Credits Transfer System [ECTS] credits for lower secondary concurrent programmes) remains short by European standards (EC/EACEA/Eurydice, 2021[4]).

Core content frameworks can help to ensure that programmes cover essential topics and reduce variability in initial teacher preparation. However, as reported to the OECD review team, Bulgaria's framework has had a minimal impact on the content of programmes, which remain teacher-centred and focused on theory over practice. To address this, the Ministry established the Increasing the Competencies of Teachers Who Prepare Future Teachers programme in January 2021 to train faculty members in competency-based approaches and to help ensure that these approaches are covered in initial teacher education programme curricula. Accreditation is another measure OECD countries use to ensure that programmes are successfully preparing teacher candidates in core content areas. However, Bulgaria's accreditation process does not do this and is general to all higher education programmes in professional fields. As a result, accreditation criteria are not specific to initial teacher education or based on teacher standards, which is the case in an increasing number of OECD countries (OECD, 2020[17]).

Bulgaria has introduced mandatory training requirements for teachers but there are issues with quality and relevance

Bulgaria has made teachers' continuous professional learning mandatory, similar to most European countries (EC/EACEA/Eurydice, 2018[18]). As of 2016, there is an expectation that teachers take two types of continuous professional development: compulsory training for continuing qualification credits and longer programmes that lead to one of five successive qualification degrees for career progression (Table 3.2). Positively, the government provides earmarked funding to schools to cover some staff development costs, which can help remove some barriers to participation. Data from TALIS 2018 revealed that almost 60% of lower secondary teachers in Bulgaria reported that high costs prohibited their participation in training, although it was unclear whether this referenced mandatory professional development, for which schools bear the cost, or professional development for career progression (OECD, 2019[19]). There is also encouraging preliminary evidence that Bulgaria's mandatory requirements have increased participation rates in continuous professional development. TALIS 2018 found that 96% of lower secondary teachers in Bulgaria attended at least 1 professional development activity in the year prior to the survey, compared to around 85% in the 2013 cycle of TALIS (OECD, 2019[20]).

Table 3.2. Continuous professional development that is mandatory or required for career progression in Bulgaria

Type	Providers	Contents	Format	Required amount	Quality assurance	Cost
Professional development leading to qualification credits	Many, including specialised service units (i.e. state-owned bodies), universities, scientific organisations and Ministry-approved training organisations	Ministry determines topics and identifies them annually in a National Programme for Qualifications	Varies, may include courses, webinars or workshops, lengthier training at universities, presentations in master classes or fora	48 hours every attestation period of 4 years (1 credit per 16 hours of training)	Accredited and monitored by the Ministry	Generally covered by the school
Professional development leading to qualification degrees	Only higher education institutions (five as of the school year 2020/21)	Higher education institutions determine topics	A combination of in-person (or online) and independent study, followed by an examination or written work	Varies from a minimum of 16 hours for 5th and 4th degrees to a maximum of 200 hours for a 3rd degree	Not accredited or monitored	Covered by the teacher

Source: Ministry of Education and Science (2019[9]), *Ordinance No 15 of 22.07.2019 on the Status and the Professional Development of Teachers, Principals and Other Pedagogical Specialists,* Ministry of Education and Science of Bulgaria, Sofia.

Still, lower secondary teachers in Bulgaria reported a particularly high need for training in their subject area, the curriculum, pedagogy, ICT and student behaviour, compared to the average across European countries that participated in TALIS 2018 (OECD, 2019[19]; EC/EACEA/Eurydice, 2019[21]). The Ministry's 2020-21 National Programme for Qualifications, which identified priority topics for continuing qualification credits, deliberately targeted these needs. However, issues with the relevance and quality of training could limit its impact on teaching practices. For example, the Ministry has approved a large number of training providers but stakeholders reported that accreditation procedures consist of vetting paperwork rather than quality. In addition, the Ministry does not play any role in ensuring that qualification degree programmes develop teachers' competencies in ways that are relevant to their effectiveness and career progression. Instead, providers have total discretion in determining what topics these programmes cover.

Teachers are also required to participate in school-based professional learning

Teachers in Bulgaria also participate in job-embedded team learning in the form of 16 academic hours of mandatory "internal institutional qualification" every year. Research demonstrates that this type of professional learning can lead to sustained improvements to teachers' competency (Schleicher, 2011[22]). School-based training in Bulgaria can take the form of discussions, methodological support, research, sharing of innovative practices and mentorship (Ministry of Education and Science, 2019[9]). Teachers commonly work and learn together in subject- or level-based methodological groups. In a positive step, Bulgaria now requires schools to assign new teachers a mentor within two months of their hiring but this does not always happen in practice. While these types of school-based activities are positive features of Bulgaria's professional learning system, their potential to strengthen teaching quality will largely depend on the extent to which teachers have the time and support to meaningfully engage.

Teacher appraisal in Bulgaria

Bulgaria has several distinct appraisal processes (Table 3.3). These serve a variety of purposes, such as certifying new teachers, rewarding them with financial bonuses and informing career progression. The latter process, a new attestation appraisal, will inform promotion decisions starting in the school year of 2021/22. The attestation appraisal has some features commonly found in OECD countries, such as a review of a teacher's professional portfolio. However, overall, the different appraisal processes remain largely disjointed. For example, they do not assess a teacher's performance against a set of clear reference standards for quality teaching to consistently encourage teachers to develop and demonstrate knowledge and skills in important areas.

Table 3.3. Types of teacher appraisal in Bulgaria

Types of appraisal	Reference standards	Body responsible	Guideline document	Process	Frequency	Use
Initial certification	Completion of initial teacher education					For the professional qualification of "teacher" certified by either: 1. a diploma for an educational qualification degree 2. a certificate of professional qualification (for students with a degree in another field)
	Acquired competencies necessary to exercise the profession	Higher education institutions with accredited programmes	Ordinance on the State Requirements for the Acquisition of the Professional Qualification of "Teacher" (07.11.2016)	Completion of an accredited initial teacher education programme	Once	

Types of appraisal	Reference standards	Body responsible	Guideline document	Process	Frequency	Use
	Practical examination					
	None	Examination commission of the higher education institution	Ordinance on the State Requirements for the Acquisition of the Professional Qualification of "Teacher" (07.11.2016)	Conducting and defending a pedagogical situation or lesson	Once, at the end of the practicum internship that concludes initial teacher education	
Probation appraisal	None	Principal	Labour Code	At the discretion of the principal	Once, if the principal requires a probation period	For employment status (permanent contract or termination of contract)
Attestation appraisal	Criteria based on the professional profile, school type and school development strategy	Attestation commission	Ordinance No. 15 on the Status and the Professional Development of Teachers, Principals and Other Pedagogical Specialists (22.07.2019)	Teacher self-evaluation, review of professional portfolio, possible consideration of other evidence (e.g. from control activities)	Once every four years	For promotion, guidance for raising qualifications and professional development support
Appraisal for promotion to chief teacher (when necessary)	Criteria developed by a school commission and approved by the Pedagogical Council	Principal, with input from the Pedagogical Council	Ordinance No. 15 (22.07.2019)	Principal conducts a selection process based on the criteria	Voluntary if more teachers meet requirements than available positions	For promotion to chief teacher
Annual appraisal of achieved results of work for additional labour remuneration	Indicators for evaluating the results of the work of pedagogical specialists	A commission determined by the Pedagogical Council Principal (in small schools)	Ordinance No. 4 on Regulation and Payment of Labour (20.04.2017)	Awarding points for each indicator on an assessment card	Annually, after the end of the school year (no later than 1st October)	For additional remuneration

Source: Ministry of Education and Science (2020[10]), *Country Background Report for Bulgaria*, Ministry of Education and Science of Bulgaria, Sofia.

Bulgaria has introduced teacher standards

In 2015, Bulgaria introduced professional profiles for 12 different types of "pedagogical specialists", including teachers and principals (see Chapter 4). This established clear expectations for the role of teachers within the context of Bulgaria's national education goals (e.g. in reducing student dropout and raising student achievement) as well as the new competency-based curriculum framework. The profile covers important domains of teaching (Table 3.4), and is intended to be used for self-evaluation, appraisal and to determine training priorities (Ministry of Education and Science, 2019[9]). However, Bulgaria could make greater use of the profile as a lever for teacher development. For example, the profile does not differentiate expectations according to levels of the teacher career structure so that teachers who demonstrate increased mastery of competencies in the profile can progress and receive a promotion. Furthermore, competencies for trainee teachers, which Bulgaria introduced in 2021, do not align with the profile. This disconnects teachers' initial training from their ongoing development, whereas research

recommends that countries improve teaching quality by establishing a continuum of learning throughout a teacher's career (OECD, 2005[2]).

Table 3.4. Bulgaria's professional profile for teachers: Standards and examples of sub-standards

Competencies	Knowledge, skills and attitudes	Examples of sub-standards
Pedagogical	Initial professional training (pedagogical, psychological, methodological, special subject preparation)	10 sub-indicators, including: • Knows techniques and ways to develop communication skills, critical and constructive thinking in children and students, to effectively search, extract, select and assess the usefulness of information from various sources.
	Planning lessons or pedagogical situations	5 sub-indicators, including: • Defines clear educational goals, plans techniques for learning and motivating children/students, for the realisation of intra-subject and inter-subject connections, and predicts the expected results.
	Organising and managing the educational process	11 sub-indicators, including: • Encourages the acquisition of key competencies.
	Assessing the progress of students	4 sub-indicators, including: • Has skills and provides the lens and timely information about the individual development and the achieved results of the child/student, informs the parents about them and determines measures for additional support, counselling and correction, using constructive feedback to improve their teaching work. • Builds skills in children/students for self-esteem, self-criticism and self-improvement.
	Management in separate groups or classes	9 sub-indicators, including: • Knows and applies constructive approaches to collaboration, to direct students to learning autonomy through the acquisition of key skills rather than mechanical memorisation.
Social and civil	Teamwork	4 sub-indicators, including: • Creates and maintains constructive professional relationships.
	Work with parents and other stakeholders	4 sub-indicators, including: • Supports and encourages the efforts of parents of children/students with special educational needs, learning difficulties or disadvantages to deal with various social problems.
	Identifying own needs for continuing qualification, defining and achieving goals oriented towards continuous professional development	

Source: Ministry of Education and Science (2019[9]), *Ordinance No 15 of 22.07.2019 on the Status and the Professional Development of Teachers, Principals and Other Pedagogical Specialists,* Ministry of Education and Science of Bulgaria, Sofia.

The main requirement to become a teacher in Bulgaria is the completion of an accredited initial teacher education programme

To obtain professional qualifications, teachers in Bulgaria must complete a three- or four-year bachelor's degree programme in education or a bachelor's degree in a specific field followed by a year of teacher education. These academic requirements are similar to those found in other European countries (EC/EACEA/Eurydice, 2020[14]). Initial teacher education in Bulgaria concludes with a practical-applied state examination consisting of the trainee teacher's delivery and defence of a pedagogical situation or lesson for an examination commission composed of lecturers at the higher education institution and the trainee's practicum mentor. While it is positive that the examination is rooted in candidates' real teaching practice, it lacks consistency. Each higher education institution conducts its own examination and they

have thus far not assessed candidates against consistent standards to ensure that they have acquired a baseline of knowledge and practices.

Bulgaria does not have a consistent appraisal for the probation process

Bulgaria lacks a consistent probation appraisal process for new teachers, which is a common measure to confirm teaching competency in other European countries (EC/EACEA/Eurydice, 2021[4]). In Bulgaria, probation appraisals are not required but when they are conducted, they vary by school. The school principal can base the appraisal on any evidence they deem appropriate, such as classroom observations, the teacher's professional portfolio, student achievement or the opinion of parents, other teachers and experts from the RED (Ministry of Education and Science, 2020[10]). Appraisal results are used to grant a permanent contract or, if negative, terminate a fixed-term contract.

A new attestation appraisal process aims to inform career progression decisions

Bulgaria will start implementing its new attestation appraisal of teachers in the school year of 2021/22. This process requires teachers to undergo an attestation appraisal every four years, although there is a fast track under certain circumstances (Table 3.3). The appraisal intends to inform decisions about career progression, as well as provide encouragement and guidance for improving teachers' competencies. A strength of the attestation appraisal is that it intentionally addresses underperformance. Poor results trigger a systematic remedial response that includes a support plan, mentorship and re-appraisal. Multiple low ratings may lead to the cancellation of a teacher's contract. However, there is scope to revise the design of this process to further support teachers' development. For example, each school's pedagogical council has full autonomy to define five criteria for the appraisal process and establish a scale for determining levels of achievement. This means that appraisal criteria vary, which does not support consistent judgements of performance or encourage teachers to develop competencies in the professional profile.

The current process also raises concerns about the integrity of appraisers' judgements. Members of the appraisal commission such as the teacher's employer (e.g. school principal), a RED advisor and representatives of the pedagogical council are all likely to have working relationships with the teacher, which makes it difficult to ensure their impartiality. The additional step required to become a chief teacher also raises concerns since a school commission proposes both the selection criteria and the number of chief teacher positions available within the school. If there are more qualified teachers than available positions, the principal organises a selection process. While having a formal process to select chief teachers is positive, without careful management, the involvement of teachers' peers could undermine trust in the promotion.

Finally, the attestation appraisal currently lacks direct evidence of teaching practice to inform judgements and feedback. While the appraisal is based on a teacher's self-evaluation and professional portfolio, classroom observations, which are essential for measuring teacher competency authentically, are not mandatory (OECD, 2013[23]). Moreover, teachers receive their appraisal results in the form of one of five ratings on an attestation card (i.e. meets minimum requirements; partially meets requirements; meets requirements; exceeds requirements; or exceptional performance). The card does not provide room for descriptive feedback, which will makes it difficult for teachers to understand what specifically they can do to develop their practices.

No appraisal process focuses primarily on teachers' development but school principals regularly conduct classroom observations

Bulgaria's new attestation appraisal process does not provide opportunities for regular dialogue and feedback with teachers on their strengths, weaknesses and professional development needs. These elements are characteristic of regular appraisals in many OECD countries (OECD, 2013[23]). For example,

Mexico has a comprehensive teacher appraisal system that includes both appraisals for probation as well as regular appraisals for improvement, which together are seen as transversal parts of a teacher's career pathway (OECD, 2018[24]). While not part of formal appraisal processes, principals in Bulgaria are obliged to observe teachers in the classroom on a periodic basis. This obligation is consistent with the country's vision of principals as pedagogical leaders (see Chapter 4). However, principals reportedly face challenges evaluating teachers and receive no preparation or support on how to translate their classroom observations into feedback that helps teachers develop their professional competencies (Ministry of Education and Science, 2020[10]). Specifically, there are no common observation grids, annotated videos or other tools that can help school principals form a valid perspective on teacher performance.

School-based appraisal for additional remuneration takes place annually, which is not common in other countries

Bulgaria has a long-standing evaluation of "achieved results of work" to grant teachers additional remuneration on a yearly basis. The school's pedagogical council (or the principal if the school has under 10 teachers) establishes a commission to award teachers up to 100 points based on 10 regulated criteria. This appraisal process does not necessarily reinforce the most important areas of teaching knowledge and skill: the criteria overlap with but are distinct from the contents of teachers' professional profile and schools can decide on which criteria to use and adjust the points awarded for each. In addition, there are issues with the fairness of the criteria and appraisal process, which is a common problem with performance-based rewards schemes of this type (OECD, 2013[23]). One criterion, for example, relates to whether teachers have students who participated and won prizes in competitions like academic Olympiads. Schools may opt to award more points for that, which would be unfair to teachers who work with disadvantaged students. Schools also have the discretion to determine how to assess the criteria and do not receive any training or guidance on how to do so fairly and consistently. In contrast, OECD countries more commonly reward teachers' performance by connecting salary increases to career progression after conducting an appraisal for promotion (OECD, 2013[23]). This approach can help align teacher rewards with national education goals, such as encouraging the use of formative assessment and student-centred instruction.

Policy issues

Bulgaria has introduced reforms to attract new teachers and develop teachers' competencies in line with changing expectations for their role and a shift towards more student-centred methods. Many of these reforms have significant financial implications for the Bulgarian government, such as major salary increases and the elimination of tuition fees for students in initial teacher education. If Bulgaria does not link these investments to structural policies that help recruit the best and most motivated teacher candidates, as well as encourage practising teachers to develop their competencies, it is unlikely they will contribute to overall improvements in teaching and learning. To ensure the success of these reforms, Bulgaria should differentiate the professional profile according to the stages of the teacher career structure and use this profile as the basis for the appraisal for career progression and a regular, formative appraisal process that gives teachers feedback on their practices. This will help to steer changes in teaching to improve student learning and motivate teachers to develop relevant knowledge, skills and attitudes. To address current and forecasted teacher shortages, Bulgaria will not only need to financially invest in new teachers but also work with higher education institutions to better prepare them, for example by introducing a summative appraisal of new teachers' performance and providing induction support. This can help raise the quality of future teaching cohorts.

Policy issue 3.1. Ensuring that appraisals support teachers' ongoing development

Bulgaria has already achieved a major step by establishing a professional profile that provides a shared language around expectations for what teachers should know and be able to do. These standards can help inform teachers' self-evaluations and continuous professional development. However, the professional profile does not relate to the teacher career path, nor does it serve as the main criteria to appraise teachers' performance for career progression. Bulgaria should differentiate the professional profile by career level and make the attestation appraisal more consistent and reliable. This will help reward teachers for developing their competencies and therefore leverage public funds to improve teaching quality. Bulgaria also needs to make changes to the in-school appraisal of teachers, as the annual appraisal for performance-based bonuses lacks objectivity and these funds could be spent in other ways to strengthen teaching practices, especially since teacher salaries have been increased. Furthermore, principals' regular observations of teachers are not treated as an important appraisal process. For example, principals receive no preparation or support on how to evaluate or provide feedback to their staff. Bulgaria should instead make regular, school-based appraisal an essential lever to support teachers' development, as it is in many OECD countries (OECD, 2013[23]). Working with teachers to develop these reforms can help build support for these changes. Bulgaria might also consider establishing a professional self-regulatory body to take responsibility for the professional profile and oversee the attestation appraisal process.

Recommendation 3.1.1. Revise the professional profile for teachers to support appraisal and motivate development throughout a teacher's career

While it is positive that Bulgaria has introduced professional teacher standards and is working to establish a merit-based career structure, some design features of these policies limit their potential to motivate teachers to update their skills, knowledge and practice. In particular, Bulgaria's professional profile does not define the specific competencies teachers are expected to develop for each stage of their careers and the career path itself does not meaningfully distinguish between the functions of senior and chief teachers, nor offer substantial salary increases over time. Another design issue is that the competencies for trainee teachers do not relate to the professional profile. To address these concerns, Bulgaria should create a professional profile that defines the competencies teachers need at each stage of their careers, from new entrant to chief teacher. This would help fulfil the country's goal of creating a unified and consistent system for teachers' initial and continuous development (Ministry of Education and Science, 2014[3]). It would also clearly communicate what competencies teachers need to develop and demonstrate in their attestation appraisals to show that they are meeting expectations or are ready for promotion. Performance-based career progression and associated salary increases can help the Bulgarian government further leverage its increased investment in teachers to make real improvements in the education system. Importantly, working with teachers and key stakeholders to make these revisions would ensure they are feasible, as well as encourage greater understanding and ownership over the professional profile.

Identify the competencies teachers will need to be promoted and take on responsibilities at higher levels of the career path

Bulgaria should revise the professional profile to define the competencies teachers need to acquire and demonstrate to move up the career path. For example, while new teachers need to know how to plan lessons that enable diverse groups of students to achieve national learning outcomes, more experienced teachers would need to do this with a greater level of confidence, flexibly adapt their lessons and produce detailed records to inform subsequent planning. More experienced teachers may also need different sets of knowledge, skills and attitudes to serve as mentors, organise professional development for teachers

and take on other responsibilities to support teaching and learning in their schools. Importantly, the revised professional profile should link to the teacher career structure, which is not currently the case since Bulgaria's standards present a general set of competencies that apply to all teachers.

The teacher career path should distinguish more clearly between the functions of senior and chief teachers since many are the same or overlap. For example, senior and chief teachers are both responsible for developing the school curriculum (Ministry of Education and Science, 2019[9]). To promote teachers' continuous development, Bulgaria should make chief teachers responsible for leading schoolwide activities and taking on systemwide roles to support improvement. This could include helping to co-ordinate school self-evaluations and serving as contracted external school inspectors with the Inspectorate of Education (hereinafter the Inspectorate) (see Chapter 4). In making these revisions, Bulgaria could look to countries like North Macedonia, where the government recently developed a clear progression between teacher career levels, responsibilities and professional standards that describe the competencies needed for each level (Box 3.1).

Review the salary progression over the course of a teacher's career to ensure that it is sufficiently motivating

It is positive that Bulgaria already links higher teacher career levels with higher pay. However, considering the country's significant investment in raising teacher salaries, it is important that the higher wages used to attract teachers into the profession link to progressive salary increases that also encourage teachers to develop higher levels of competency and take on responsibilities that require greater mastery throughout the course of their careers. At present, pay increases connected to different career levels in Bulgaria are not as significant as in some other countries. Furthermore, the majority of the increases can occur within a teacher's first 15 years of service, which is a short amount of time. The Ministry could work with the teachers' unions and relevant stakeholders to review the salary structure with the aim of ensuring that salary steps for each career level are sufficiently rewarding. In the long term, Bulgaria might consider adding another level to the career structure to give teachers more opportunities to obtain a significant pay raise well into their careers. In considering these types of changes, Bulgaria could look at countries like Kazakhstan, which has a five-stage career structure in which the highest levels are connected to substantial salary increases to motivate competency development and reward teachers for taking on new roles (Box 3.1).

Box 3.1. Peer learning examples from Kazakhstan and North Macedonia

Differentiated teacher competencies in the North Macedonian teacher standards

In 2016, the Bureau for Development of Education (BDE) of the Republic of North Macedonia, with technical and financial support from the United States Agency for International Development (USAID), developed a proposal for a merit-based career structure with different career levels based on clearly defined teacher standards. The new career structure aimed to encourage and reward increasing levels of teaching competency with opportunities to take on new roles and responsibilities.

The 2016 teacher standards differentiate between a set of values and core professional competencies expected from all teachers and competencies expected from teachers at different levels in the career structure, such as teacher-mentors and teacher-advisors (see table below).

	Teacher-mentor	Teacher-advisor
Responsibilities	Provides guidance and assistance to novice teachers and helps them prepare for the teacher confirmation examination. Also provides support to other teachers.	Co-ordinates teacher networks. Monitors and appraises students from the teacher education programme during their practicum. Contributes to school self-evaluation and

	Appraises the novice teacher regularly and provides feedback.	school planning.
Competencies	These build on core competencies and place a stronger emphasis on those related to the promotion of education in the school as a whole. For example, the teacher-mentor should have skills and abilities directed at increasing the effectiveness of the work of the school and the achievement of its objectives.	These build on both core professional teacher competencies and those of teacher-mentors. The teacher-advisor should demonstrate leadership aptitudes both in classroom practices but also as a key agent in the promotion of quality educational work at the school and regional levels.

Teacher career and salary progression in Kazakhstan

Kazakhstan introduced professional standards for teachers in 2017, which also led to a new teacher career system in 2018. The standards establish and describe what knowledge and skills teachers should have at five different career stages: i) teacher; ii) teacher-moderator; iii) teacher-expert; iv) teacher-researcher; and v) teacher-master. Each stage is associated with salary increases over a teacher's base salary (e.g. 40% for a teacher-researcher, 50% for a teacher-master). Although career progression is still not linked to professional standards in Kazakhstan, the country plans to align these two.

Source: MCEC (2016[25]), *Teacher Core Professional Competences and Standards*, http://www.mcgo.org.mk/pub/Kompetencii_standardi_za_nastavnici_ENG.pdf (accessed on 20 July 2021); OECD (2020[26]), "Raising the quality of initial teacher education and support for early career teachers in Kazakhstan", https://doi.org/10.1787/68c45a81-en; OECD (2019[27]), *Education Policy Outlook 2019: Working Together to Help Students Achieve their Potential,* https://doi.org/10.1787/2b8ad56e-en.

Incorporate the acquired competencies for entry into the teaching profession into the differentiated professional profile for teachers

Bulgaria should create a "new teacher" level in the revised professional profile that sets out the knowledge, skills and attitudes of teachers at the beginning of their careers. At present, the competencies required for entry into the profession do not align with the professional profile, thus disconnecting teachers' initial education from their continuous development. In adding a level for new teachers, Bulgaria could look at the Australian Professional Standards for Teachers, which define competencies across four stages, from graduate to lead teacher, reflecting the continuum of a teacher's development (Box 3.2). Like Australia, Bulgaria should use the "new teacher" competencies to inform the design and accreditation of initial teacher education programmes, as well as the appraisal of new teachers (see Policy issue 3.2).

Box 3.2. The Australian Professional Standards for Teachers

The development of the Australian Professional Standards for Teachers (the Standards) was the result of extensive research, a consultative process and analysis of standards by employers, teacher registration authorities and professional associations. After drafting, the Standards were tested in different situations across sectors of the education system, geographic locations and school types. They were then subject to a validation process that included online surveys and focus group sessions. Formally introduced in 2011, the Standards aim to guide professional learning and teacher practice in the country. They introduced what teachers are supposed to know and be able to do at different career stages, setting common parameters with the goal of improving teaching quality.

Developed by the Australian Institute for Teaching and School Leadership (AITSL), there are seven standards in total, which differ according to career stage (four levels). For example, a teacher needs to fulfil certain requirements in order to become a registered teacher after graduation or to achieve lead teacher certification. Below is an excerpt from Standard 1, which illustrates the progression of knowledge, practices and professional engagement of teachers from the graduate to lead career stage.

Standard 1: Know students and how they learn			
Focus area 1.3. Students with diverse linguistic, cultural, religious and socio-economic backgrounds			
Graduate	Proficient	Highly accomplished	Lead
Demonstrate knowledge of teaching strategies that are responsive to the learning strengths and needs of students from diverse linguistic, cultural, religious and socio-economic backgrounds.	Design and implement teaching strategies that are responsive to the learning strengths and needs of students from diverse linguistic, cultural, religious and socio-economic backgrounds.	Support colleagues to develop effective teaching strategies that address the learning strengths and needs of students from diverse linguistic, cultural, religious and socio-economic backgrounds.	Evaluate and revise school learning and teaching programmes, using expert and community knowledge and experience, to meet the needs of students with diverse linguistic, cultural, religious and socio-economic backgrounds.

Source: AITSL (2011[28]), *Australian Professional Standards for Teachers*, http://www.aitsl.edu.au/docs/default-source/apst-resources/australian_professional_standard_for_teachers_final.pdf (accessed on 20 July 2021).

Make teaching experts responsible for revising the professional profile and other reforms, in consultation with practising teachers and key stakeholders

Research suggests that when teachers share responsibility for the development of professional standards, this not only builds their ownership of the standards but also incorporates their expertise (OECD, 2013[23]). The Ministry has already conducted successful consultations to inform recent changes to teacher policies. It should continue this approach and conduct consultations with teachers' unions and practising teachers across the country to revise the professional profile and develop new competency levels. The Ministry should also conduct consultations with key education stakeholders to gather a broad range of perspectives from those who are knowledgeable about teachers' work, including initial teacher education and training providers, RED staff, school principals and representatives of the Inspectorate. Consultations should engage stakeholders in revising policies and processes to implement the professional profile, including the attestation appraisal, and gather input on support that would help them with implementation (see Recommendation 3.1.4).

The Ministry should identify a small group of experts who have a sophisticated understanding of ongoing professional development for teachers over the course of their careers and charge this group with revising the profile and managing the reforms to initial teacher education, continuous professional development and appraisal that this chapter recommends. These teaching experts could, for example, be part of a new or expanded unit within the Ministry's Directorate of Policies for Strategic Planning, Teacher Training and Qualifications. In the medium to long term, Bulgaria might consider establishing a professional self-regulatory body for teachers to assume responsibilities for developing the profession, including management of the professional profile. This would help to raise the status of the profession, which is low: only 18% of Bulgarian teachers who participated in TALIS 2018 agreed that their role is valued in society (OECD, 2020[29]). In establishing this type of body, Bulgaria could look at examples from several OECD countries, including Australia, New Zealand and Scotland (United Kingdom).

Recommendation 3.1.2. Modify the attestation appraisal to objectively and consistently assess real teaching practice and support teacher development

Bulgaria's new attestation appraisal process lacks some of the key elements that research identifies as important to ensuring the integrity of appraisals that have high stakes for a teachers' career. For example, the appraisal is not conducted by external evaluators with no relationship to the teacher, nor is it based on consistent standards of performance (OECD, 2013[23]). Without these elements, it is difficult to guarantee the fairness and reliability of appraisal decisions and to reward teachers for developing the knowledge and skills that are most relevant. Bulgaria should revise the attestation appraisal process to address these issues and require teachers to demonstrate how they are supporting the learning of all students. Such changes will help the country move away from a narrow historical focus on the top-performing elite towards a more inclusive system that supports every child to do their best.

Introduce more objectivity and externality into the new attestation appraisal process

The current design of attestation commissions, whose input has direct consequences on teachers' careers, could lead to conflicts of interest. For methodological experts in REDs, this is because they need to establish a supportive relationship with school staff to improve teaching and learning (see Chapter 4). For school principals and representatives of the pedagogical council, their proximity to the teacher being appraised impacts their objectivity (OECD, 2013[23]). Importantly, these actors should have opportunities to provide regular feedback to teachers about their performance. The school principal's input, in particular, should also have a role in the attestation process since they are most familiar with the teacher's work; however, the process needs a greater degree of externality to ensure fairness.

To achieve this, Bulgaria should require that only impartial actors external to the school lead teacher attestation appraisal commissions or validate decisions made by local actors. Methodological experts from neighbouring REDs could fill this role. This would need to be carefully organised considering the already heavy workload of REDs (see Chapter 4). In the longer term, the Ministry could select, contract and train external appraisers to lead the attestation appraisal process. These appraisers could include senior or chief teachers and staff of central education bodies with high levels of competency in pedagogy. While this option would provide an optimal level of objectivity, it would also require significant time and resources to implement and may not be feasible in the short term.

Use the professional profile to appraise teachers' performance, including their use of student-centred teaching approaches

The Ministry should use the revised professional profile to evaluate teachers under the new attestation appraisal process. Specifically, appraisers should determine whether teachers are working towards or have achieved the competencies for a specific career stage in the profile. As presently designed, teachers use the professional profile for their self-evaluations and schools may draw on this to define their own criteria for attestation appraisals. However, this process does not ensure consistency across schools. By contrast, OECD countries typically evaluate teachers against common standards and performance indicators, which encourages judgements that are more consistent and focuses appraisal on the key aspects of teaching that matter most for student learning (Santiago et al., 2013[30]). The Ministry should specify – in regulated procedures and the guideline recommended below – that appraisers should pay particular attention to teachers' use of student-centred teaching approaches when assessing their performance against the professional profile. Senior teachers and chief teachers should also provide evidence that relates to their additional responsibilities to support teaching and learning.

Add a classroom observation to the attestation appraisal process

Classroom observations are generally the most important source of information for appraisals because they offer a wealth of direct evidence of teaching practice that proxies of teaching quality, like portfolios, cannot obtain (OECD, 2013[23]). Bulgaria should therefore make a classroom observation or site visit a required source of evidence for the attestation appraisal. This is not currently mandated. By adding classroom observations, the attestation appraisal process will benefit from multiple sources of evidence of teachers' work. This will help appraisers make a more authentic assessment of teachers' performance, which is particularly important given that the appraisal has high stakes for a teacher's career.

Revise the attestation appraisal and other pre-requisites for career progression to take into account the learning of all students

At present, the contents of teachers' portfolios for their attestation appraisals include evidence of students' progress towards learning objectives in the curriculum, such as the acquisition of key competencies and teachers' work with vulnerable students (Table 3.5). These are positive examples of evidence that rewards teachers for supporting the learning of all students. However, other sources of evidence may reinforce a narrow focus on top-performing, elite students, such as the policy that exempts teachers from taking the examination to complete one of the qualification degrees for career progression if their students performed well in academic competitions. To support all students in achieving national learning standards, the Ministry should:

- **Stop requiring proof that students have won prizes in Olympiads and other competitions for the attestation appraisal and career progression**. The Ministry should no longer require teachers to provide this type of evidence in their portfolios. Moreover, student success in competitions should not exempt teachers from career progression requirements. These sources of evidence do not support Bulgaria's goals of improving educational equity and inclusion because student success in academic competitions depends on factors that are beyond the teacher's control. They may also punish teachers with large shares of disadvantaged students who may lack the support or prior preparation to do well in such competitions.
- **Not use parental and student input for the attestation appraisal**. This type of input, which appears to be collected in the portfolio, should not factor into high-stakes teacher appraisal decisions because parents and students are not pedagogical experts with a firm understanding of the characteristics associated with high-quality teaching (OECD, 2013[23]). In Bulgaria, there is also a risk that this input will be influenced by the traditional focus on high-achieving, elite students, increasing the pressure for them to do well on examinations and creating opportunities for parents' lack of support for new teaching methods to hinder the implementation of education reforms like the use of formative assessment. Parental and student input could instead feed into a more formative teacher appraisal process.
- **Gather evidence of the extent to which teachers are supporting the learning of all students**. The Ministry should require that teacher attestation portfolios include documentation of student-centred teaching approaches that support the learning of all students (e.g. via sample lesson plans, student assessments and student work). At present, this is not a clear requirement. Classroom observations should also provide evidence of the extent to which teachers have created inclusive classroom environments and are individualising instruction.

Table 3.5. Contents of teachers' professional portfolios in Bulgaria

Ordinance No. 15 of 22 July 2019 on the Status and the Professional Development of Teachers, Principals and Other Pedagogical Specialists
Art. 66 (3) The professional portfolio shall be compiled by the pedagogical specialist and shall include materials that prove: 1. The dynamics of the professional performances of the pedagogical specialist, as well as of the children/students with whom he/she works. 2. The results and acquisition of competencies achieved by children and students in the educational process. 3. Participation in the implementation of the policies of the institution. 4. Professional development and career development.
Art. 84. (1) In the process, the attestation commission shall use documents, certificates and materials from the professional portfolio of the respective pedagogical specialist, which shall prove: 1. The achieved results and progress of the children or students whom he/she teaches, supports, consults. 2. The availability of diplomas and prizes from the participation in competitions, contests, Olympiads and others, of the children or students and the specialist, including certificates from parents, other teachers and students regarding successful learning and participation in the life of the class and the school, from children and students at risk, with special educational needs and/or with chronic illnesses. 3. Professional performances, professional improvement and career growth, etc.

Source: Ministry of Education and Science (2019[9]), *Ordinance No 15 of 22.07.2019 on the Status and the Professional Development of Teachers, Principals and Other Pedagogical Specialists, Ministry of Education and Science of Bulgaria*, Sofia.

Develop new guidance and training for a revised attestation appraisal process

The Ministry has already provided training and tools to support the implementation of the new attestation appraisal. For example, in the school year of 2020/21, principals could participate in training on "attestation as an assessment process – criteria, indicators, areas of attestation". An ordinance also provides a sample attestation card, including descriptions of teachers' performance at three levels. Once the attestation appraisal is revised, the Ministry should develop a guideline that provides detailed descriptions of how to conduct each major element of the appraisal. Providing tools that help appraisers make consistent and fair judgements about whether a teacher is ready for promotion would also support the implementation of the revised attestation appraisal process. A particularly important reference for both the attestation appraisal and a new regular appraisal will be performance indicators and descriptors that relate to a revised professional profile. These indicators should describe what competencies appraisers are looking for and how teachers might demonstrate them. In developing these, Bulgaria could look at the North Macedonian teaching standards and the Australian Professional Standards for Teachers (Boxes 3.1 and 3.2), which both provide descriptors for different career levels. In addition, the Ministry should also revise the attestation card template to include space for descriptive feedback.

All evaluators involved in the attestation appraisal process will require training on how to contribute to and/or lead the appraisal process. This training should cover how to make reliable judgements about teachers' performance and provide feedback that helps teachers improve their practice. For example, Chile provided training to contracted external evaluators for its appraisal process (*Docentemás*) that included opportunities to learn about the different appraisal elements, review concrete examples of performance levels and discuss practice judgements with peers (Santiago et al., 2013[30]).

Monitor the process for appointing teachers to the chief teacher role to ensure fairness

At present, a school commission proposes selection criteria and the number of chief teacher positions in the school to the pedagogical council that, in turn, proposes this to the principal. The principal organises a selection process if there are more qualified teachers than available positions. If a teacher's peers propose selection criteria based on their knowledge of the candidates, this raises concerns about the fairness of promotion decisions. In general, OECD countries do not include teachers' colleagues in decisions that affect career progression because it is difficult to ensure their objectivity (OECD, 2013[23]). Bulgaria should thus pay close attention to how schools implement the process of appointing chief teachers. For example,

the Ministry could work with the Inspectorate to use external school evaluations to review this process when they check schools' procedures for appointing staff (National Inspectorate of Education, 2016[31]). Depending on the findings, the Ministry might consider changing the appointment process to, for example, ensure that the principal and other members of the school leadership team are responsible for all steps, including determining the selection criteria and the number of positions.

Recommendation 3.1.3. Provide feedback on teachers' performance and support their ongoing development between attestation appraisals

While school principals in Bulgaria are expected to periodically monitor teachers' work (Government of Bulgaria, 2016[32]; Ministry of Education and Science, 2019[9]), there is no regular appraisal process for professional development. This type of appraisal commonly involves appraisers who work in the school, like the principal or teacher's supervisor, obtaining direct evidence of teaching practice and engaging in ongoing, often informal dialogue and feedback with the teacher on their strengths, weaknesses and professional development needs (OECD, 2013[23]). The feedback teachers receive from these appraisals can help encourage their self-efficacy, for example in using more student-centred approaches, and help them better understand and direct their own learning. As a result, high-quality regular appraisals can be an effective and efficient way to strengthen teaching and learning. Bulgaria should thus make an annual school-based appraisal a key tool to support teachers' development. It should be clear that these appraisals differ from the high-stakes processes that inform teacher career progression, which should have some degree of externality. School-based actors are well placed to conduct these regular appraisals because they are most familiar with the teacher and can encourage open and honest sharing of needs and feedback.

Establish a methodology for regular developmental appraisals

The Ministry should create a methodology for a regular appraisal process to support teachers' professional development. It should include the following elements, which are common to effective formative appraisal processes in OECD countries:

- **The professional profile as the basis for the appraisal**. Teacher standards are an essential part of an effective appraisal system because they provide a common reference point for both teachers and principals that establishes clear expectations, encourages consistent judgement and focuses the appraisal on key aspects of teaching that matter most for student learning (Santiago et al., 2013[30]). Using Bulgaria's professional profile as the basis for the regular appraisal process would therefore be more consistent than leaving schools to develop appraisal criteria independently.
- **Multiple sources of evidence of teaching practice**. Bulgaria already has several sources of evidence that could inform a regular appraisal process. However, some sources, such as student test scores and competition results, could incentivise teachers to help high-achieving students excel rather than helping all students to learn. If Bulgaria wishes to include measures of student performance in regular teacher appraisals, this data should account for the different realities teachers face across the country (e.g. diverse student backgrounds or school location). Moreover, the regular appraisal should include direct evidence of teaching practice. Principals can do this by observing teachers' interactions with students and reviewing teachers' portfolios, which should document their work, as well as challenges and reflections on their practice (Goe, Biggers and Croft, 2012[33]). As mentioned above, other sources of evidence could include parental and student input gathered through surveys. Using multiple sources of evidence in this way will provide an authentic picture of a teacher's strengths and development needs (Goe, Biggers and Croft, 2012[33]).

- **An individual development plan**. While Bulgarian schools already create a continuous professional development plan for staff, teachers should work with their principals to create an individual development plan in which they identify specific goals to develop their practice, including goals for student learning and activities to achieve them. Teachers should develop their individual plan annually, taking into account the professional profile, results from self-evaluation and attestation appraisals, as well as objectives in the school development plan. A range of countries, from neighbouring North Macedonia to Viet Nam, use personal development plans on either an annual or multi-year basis to support teachers in strengthening their practice (Mcaleavy, Ha and Fitzpatrick, 2018[34]; OECD, 2019[35]). Importantly, these plans should be practical and easy to use, so that they do not become a compliance-based administrative task for teachers and principals.
- **Regular professional dialogue and constructive feedback**. Teachers and principals should have scheduled meetings to discuss the teacher's individual development plan at the beginning and end of the appraisal cycle. Principals should also provide constructive feedback to teachers after conducting classroom observations and reviewing their portfolios.

Issue practical guidelines, tools and training to support regular appraisal

The Ministry will need to provide clear direction to schools on how to implement a new regular appraisal process that supports teachers' development. This should take the form of an official guideline to articulate to different stakeholders the purpose of the new regular appraisal and each step in the process. While having an official policy on the regular appraisal will help establish this new policy initiative, its success in supporting teachers' professional development will depend on how well it is implemented. To support implementation, Bulgaria should also connect regular appraisal to school evaluation procedures. For example, the Inspectorate should check and provide feedback on schools' regular appraisal practices as part of school inspections and schools should use regular appraisal results at an aggregate level as evidence to inform their self-evaluations (see Chapter 4).

To support the implementation of the regular appraisal process, the Ministry should develop tools and resources to help principals make judgements about teachers' performance and provide constructive feedback on how teachers can develop their practice (Table 3.6). This material could be posted on line to make it easily accessible to school staff. In developing and sharing these tools, Bulgaria could draw inspiration from the AITSL's website, which offers a range of online appraisal tools and resources for schools (AITSL, 2021[36]). Bulgaria should also provide principals with training on how to conduct regular appraisals. At present, principals are not required to complete any training on this or other aspects of school leadership, which could be included as part of the mandatory programme for new principals recommended in Chapter 4. Furthermore, it is important that both principals and teachers are given sufficient time to meaningfully engage in this exercise so that it does not become a purely administrative requirement.

Table 3.6. Tools and resources to support the implementation of regular appraisal

Tools and resources to support evidence gathering and making judgements about teachers' practices
A common appraisal instrument. This would identify indicators and descriptors in relation to each standard in the professional profile. It would allow principals to record a teacher's performance level in relation to each indicator and describe the reasoning behind the judgement.
Examples of what good teaching looks like. These could include videos showing how teachers' practices at different stages of their careers demonstrate the competencies in the professional profile, like the videos developed by the AITSL.
Examples of schools' effective practices for conducting classroom observations.

Tools and resources to support goal setting, dialogue and feedback focused on professional development
A template for teachers' individual development plans and guidance on how to develop goals (e.g. by reflecting on the professional profile, past appraisal results).
Tools to prompt discussions in scheduled teacher-principal appraisal meetings (e.g. about the individual development plan and teachers' learning needs).
A template for principals to provide written appraisal feedback. This might contain headings and prompts that help principals provide meaningful comments to teachers about their strengths, weaknesses, development needs and suggestions for ways to improve. This would provide a reference to track teachers' progress and provide the basis for input to attestation appraisals.
Examples of schools' effective practices for providing feedback to teachers.
A tool to identify relevant professional development to address teachers' learning needs. For example, this tool could automatically suggest possible professional learning opportunities based on the results of a teacher's appraisal. One example of this is the iObservation tool, developed by Learning Sciences International, a firm based in the United States (US), which directly links appraisal scores with professional development resources such as books or curriculum materials.

Source: Goe, L., K. Biggers and A. Croft (2012[33]), *Linking Teacher Evaluation to Professional Development: Focusing on Improving Teaching and Learning*, National Comprehensive Center for Teacher Quality, Washington, DC; AITSL (2021[36]) (2021), *Explore All Our Tools and Resources*, https://www.aitsl.edu.au/tools-resources (accessed on 9 July 2021).

Recommendation 3.1.4. Use a more objective process to reward teachers for their performance

A unique feature of the Bulgarian school system is an annual assessment of teachers that results in a performance-based reward. This "additional labour remuneration" is a long-standing supplement to teacher salaries. However, since Bulgaria has significantly increased teacher pay and may need to continue doing so over time, now is an opportune moment to evaluate how the funds allocated to the additional labour remuneration could be used more effectively and efficiently. In the short term, for example, Bulgaria might redirect funds to incentivise teachers to work in hard-to-staff schools or high-demand subject areas. In the medium to longer term, once teachers are rewarded for their performance through promotion to a higher career level (i.e. with significantly higher salaries for the top categories), there may no longer be a need for this policy and funds could be spent in other ways to support teachers in improving their practice.

Consider ending the annual assessment for additional labour remuneration

Compared to the annual assessment for additional labour remuneration, Bulgaria's attestation appraisal offers a more consistent and objective process for rewarding teachers' performance, especially once revised as recommended above. For example, while criteria for the annual assessment for additional labour remuneration are regulated, a commission of the teacher's peers or their principal (in small schools) can adjust the points to be awarded for each criterion (up to a maximum of 20% of the total) and has total discretion to determine how decisions are made (Ministry of Education and Science, 2017[37]). To make the allocation of rewards more objective, Bulgaria should consider alternative ways to incentivise teachers.

Bulgaria's ultimate goal should be to establish a professional career structure that rewards teachers for their performance through promotion to higher career levels. Importantly, these higher career levels will need to be associated with substantial raises that extend well into a teacher's career so that they do not reach a maximum salary within too short a period. This system will likely take several years to fully implement, at which time Bulgaria might consider discontinuing the annual assessment for additional labour remuneration altogether. There may be resistance to this change and the government should work with the teachers' unions to carefully plan for the transition. In the short term, Bulgaria should consider adjusting the additional labour remuneration scheme so that it not only rewards individual teachers but helps address broader educational challenges. For example, redirecting funds to motivate teachers to work in hard-to-staff schools or teach subject areas in high demand (see Recommendation 3.2.2. Make sure

that the best candidates become teachers and fill shortage areas) could provide incentives to individual teachers while simultaneously addressing Bulgaria's teacher allocation issues.

Policy issue 3.2. Meeting the demand for new teachers and supporting their development

Bulgaria is recruiting a large number of new teachers to replace the ageing teaching population. To ensure these new entrants have a positive impact on student learning, they will need high-quality training and support to teach effectively in the classroom. The Ministry has already introduced reforms to improve the initial preparation of teachers, namely by establishing a common initial teacher education framework with a guaranteed number of hours of study in key areas. This is a positive development since it ensures all new teachers, regardless of where they complete their studies, will have a minimum level of exposure to important topics like pedagogy and inclusive education. However, teacher trainees are still not sufficiently prepared in the student-centred approaches needed for Bulgaria's school curriculum, which was a major impetus behind the creation of the Increasing the Competencies of Teachers Who Prepare Future Teachers programme. This programme aims to help providers update their initial teacher education curricula to better address modern teaching approaches.

As a priority, Bulgaria should introduce additional measures to improve the quality and relevance of initial teacher education programmes and establish a minimum threshold for admission. Bulgaria will need to make sure that the bar for entry is not too restrictive, at least in the short term, considering the ongoing demand for new teachers. Without managing the supply and demand of teachers, as well as providing incentives for teachers to work in harder-to-staff regions of the country and teach subject areas facing shortages, Bulgaria will likely continue to struggle to address inequities in the education system and improve teacher quality. To address the latter, Bulgaria should also make sure that all newly employed teachers get the support they need to meet the demands of their job. At present, not all new teachers receive a mentor, even though schools are required to provide one, and mentors themselves do not receive training and support for their role.

Recommendation 3.2.1. Make sure that initial teacher education programmes help teachers develop the competencies they will need at the start of their careers

Bulgaria recently amended an ordinance to increase the number of hours devoted to compulsory subjects in initial teacher education (e.g. pedagogy, inclusion) and identify the competencies teacher trainees should acquire, including competencies related to the delivery of the school curriculum. However, the extent to which these amendments will influence initial teacher education programmes is unclear, as earlier efforts to establish a common framework of core content for initial teacher education reportedly did not make an appreciable difference to programme design. Furthermore, Bulgaria's initial teacher education programme accreditation process is based on criteria that are applicable to all higher education programmes in all professional fields, meaning that providers do not have to demonstrate on a regular basis that their programmes meet requirements specific to the teaching profession. Bulgaria should now do more to ensure that initial teacher preparation actually changes. This will mean introducing more relevant quality assurance measures and further supporting improvements to the design of the initial teacher education programme curriculum and the practical-applied examination.

Make accreditation requirements specific to initial teacher education

Bulgaria should amend the accreditation criteria for initial teacher education programmes to ensure that programmes conform to the ordinance on requirements for the professional qualification of "teacher". This ordinance sets out the core content framework and the basic structure of the practical-applied examination

trainee teachers must pass at the end of their programme. Accreditation criteria should also establish requirements for programme outcomes that are specific to teaching. Specifically, the criteria should describe what trainee teachers should know and be able to do by graduation, as set out in "new teacher" competencies that are part of a revised professional profile (see Recommendation 3.1.1). Providers would then need to demonstrate how their programme curricula and assessments, including the practical-applied examination, will address and evaluate these competencies. This use of teacher standards for accreditation is consistent with practices in many education systems, including Australia, Estonia, Ireland and several states in the US (OECD, 2019[38]). In Bulgaria, it should spur changes to programmes to help raise the quality of initial teacher education.

Establish a working group to help initial teacher education providers redesign their programmes and make other recommendations to improve initial teacher preparation

The reported lack of changes to initial teacher education curricula after Bulgaria's introduction of a regulated framework of core content indicates that providers need more support to redesign their programmes. The Ministry's new Increasing the Competencies of Teachers Who Prepare Future Teachers programme should provide this type of support. However, Bulgaria should expand on and further engage participants in this programme by creating a working group involving initial teacher education providers, policy makers and key stakeholders to help providers make design changes to their programmes to meet new accreditation requirements recommended above, including requirements related to the core content framework and helping trainee teachers acquire "new teacher" competencies. Indeed, the "new teacher" competencies should serve as the basis for the working group discussions, as research shows that using teacher standards to inform ongoing dialogue and reflection in this way can have a significant impact on the design of programmes to improve teacher quality (Révai, 2018[39]). Some specific tasks the working group should undertake include:

- **Developing guidance to describe how different programme types should prepare trainee teachers to develop the "new teacher" competencies they will need by graduation**. In particular, advice should address how the core content areas and practicum of initial teacher education should cover student-centred, competency-based approaches so that new teachers are prepared to deliver the school curriculum. In developing this type of guidance, the working group could look at the work of the Board of Studies, Teaching and Educational Standards (BOSTES) (now the New South Wales Education Standards Authority) in New South Wales, Australia. BOSTES developed a guideline to provide advice about how initial teacher education programmes should teach student assessment to help meet the graduate competencies of the Australian Professional Standards for Teachers (Box 3.3). The working group could also provide advice on how providers could use their practical-applied examinations to assess trainee teachers' acquisition of "new teacher" competencies. Furthermore, they could advise how providers could help trainee teachers understand the competencies set out in the professional profile. Programmes may, for example, create trainee teacher communities of practice to support collaborative learning about how to use the professional profile (Call, 2018[40]).
- **Identifying additional requirements for the practicum**. In a positive way, Bulgaria has regulated the design of the practicum to ensure that it is of a minimum length and involves teacher trainees in classroom teaching and broader school activities and to clearly set out mentors' responsibilities (Ministry of Education and Science, 2016[41]). However, initial teacher education providers told the OECD review team that there are remaining weaknesses with the practicum. For example, it sometimes begins late in the programme and mentors are not well trained. The Ministry could address these issues by expanding the regulated requirements. For example, these could also cover:
  - **The timing of practicum placements**. More back-and-forth between practice teaching and coursework over the duration of initial teacher preparation would encourage greater reflection

on teaching practice and closer connections with schools. Bulgaria might also consider whether the duration of the practicum could be extended to provide even more teaching practice opportunities.

  - **Preparation and guidance for mentors**. Initial teacher education programme providers should provide training, a guideline and resources that relate to mentors' regulated responsibilities. This will help to ensure that mentorship is a meaningful development opportunity for new teachers.

- **Reviewing the core content of programmes that prepare teachers of secondary subjects for possible revisions**. Initial teacher education programme providers told the OECD review team that programmes to prepare secondary subject teachers can be overloaded with too many hours of academic content and not enough pedagogy.

Box 3.3. Key elements of content on student assessment for initial teacher education programmes in New South Wales, Australia

In 2013, BOSTES, the former initial teacher education accrediting body in New South Wales, Australia, conducted a study to determine how the state's initial teacher education programmes were covering student assessment and reviewed the research literature identifying gaps in teachers' student assessment competencies in Australia. BOSTES then produced *Learning Assessment: A Report on Teaching Assessment in Initial Teacher Education in NSW [New South Wales]* (2016[42]), which established 24 key elements of assessment knowledge, skills and understanding that beginning teachers should develop in their initial teacher education programmes. For example:

- Key Element 1: Beginning teachers need to have knowledge about and a clear understanding of how the NSW standards-based curriculum is constructed and how the various elements work together. They should recognise and understand the principles that underpin the development and implementation of NSW curriculum.
- Key Element 4: Beginning teachers need to know summative and formative assessment purposes and how the two can be brought together. They need to know how to incorporate both purposes for assessment into teaching and learning programmes.

Source: BOSTES (2016[42]), *Learning Assessment: A Report on Teaching Assessment in Initial Teacher Education in NSW*, https://educationstandards.nsw.edu.au/wps/wcm/connect/c204171e-a570-4947-8107-dc934ab2f70b/learning-assessment-report.pdf?MOD=AJPERES&CVID (accessed on 21 July 2021).

Recommendation 3.2.2. Make sure that the best candidates become teachers and fill shortage areas

Bulgaria needs to take more measures to ensure the quality of new graduates from initial teacher education programmes. This should include the establishment of a minimum threshold for entry to programmes, particularly if the need to replace the ageing teaching population is not as urgent now as it was five years ago, as some stakeholders indicated to the OECD review team. This would help to ensure that the government is not funding the initial preparation of entrants who, in the end, may not be suitable for the profession. In the medium to long term, Bulgaria could further restrict entry to programmes by establishing higher admission requirements. This will help to make the profession more attractive to high performers (Hobson et al., 2010[43]). At the same time, Bulgaria needs to address areas of acute teacher shortage. The government introduced a three-year Motivated Teachers programme in 2020 to train and support qualified teachers with no teaching experience, professionals from other fields and teachers who want to

earn qualifications in high-demand subject areas, to take on teaching positions in schools that have a shortage of staff or serve vulnerable communities. Now, Bulgaria could do more to incentivise experienced teachers to work in harder-to-staff schools or subject areas. Any decisions about entry requirements and incentives to fill shortage areas should be based on systematic forward planning to manage the labour market.

Work with higher education institutions to establish a bar for entry to initial teacher education programmes

The Ministry and initial teacher education providers should work in partnership to establish a minimum threshold for acceptance into initial teacher education programmes, taking into account the demand for teachers (see below). At present, Bulgaria does not have minimum requirements for admission, other than passing the State Matriculation examination. This suggests that intake may vary significantly across programmes and new admission criteria could include, for instance, a minimum grade in Bulgarian language and other relevant subjects on the State Matriculation examination for concurrent programmes. Albania introduced this type of threshold to improve teacher quality. As of the school year 2019/20, all entrants to initial teacher education programmes in Albania that lead to bachelor's degrees were required to have an average mark of 7.5 out of 10 in their combined upper secondary education and state *matura* examination results, which was higher than the marks required for other bachelor's degree programmes (Maghnouj et al., 2020[44]). This type of policy can help to ensure that candidates have achieved a basic level of competency in key subject areas, which is ultimately important for student learning. Countries with strong education systems also tend to look for candidates with high levels of literacy and numeracy, strong interpersonal and communication skills, a willingness to learn and motivation to teach (Barber and Mourshed, 2007[45]). In OECD countries, providers commonly use a combination of methods to select candidates, most often secondary grade point average, followed by other measures designed specifically for admission to initial teacher education, such as interviews, competitive examinations and standardised tests (OECD, 2014[16]). Bulgaria could establish a higher threshold for entry to programmes over time once there are no longer concerns about a general teacher shortage. This will help to make the profession more attractive to high performers (Hobson et al., 2010[43]).

Use systematic forward planning to respond to the demand for teachers and target specific shortage areas

Bulgaria has developed a new staffing database that keeps track of information like the number of trainee teachers, qualified teachers who are seeking employment and schools that have vacancies (Ministry of Education and Science, 2019[9]). The Ministry could use this database to help identify and address specific shortage areas, including:

- **Introducing more incentives to attract experienced teachers to harder-to-staff regions of the country**. At present, the government provides teachers with funding for transportation or rent if their place of work is in a settlement outside of their place of residence (Ministry of Education and Science, 2020[46]). Bulgaria could consider introducing additional financial and non-financial incentives, such as a salary stipend, career fast track or priority in transferring to the next teaching position for teachers who choose to teach for a minimum number of years in harder-to-staff schools. These types of incentives could benefit students by helping to attract more experienced teachers, in contrast to some components of the Motivated Teachers programme, which are targeted to individuals with no teaching experience.
- **Ensuring that alternative route programmes into teaching are selective and well-designed**. As part of the Motivated Teachers programme, Bulgaria has introduced shorter alternative route programmes that lead to teaching qualifications. The Ministry should ensure that these programmes are selective, with well-designed content and up-to-date faculty, as recommended for

initial teacher education programmes above. Highly selective alternative route programmes can produce effective teachers who perform about the same as teachers from traditional routes after two years on the job (Boyd et al., 2007[47]).

Recommendation 3.2.3 Formalise the appraisal of new teachers and provide them with effective induction support

It is common practice across Europe for new teachers to undergo a formal summative appraisal at the end of an induction year (EC/EACEA/Eurydice, 2021[4]). However, Bulgaria lacks a consistent process to appraise new teachers' performance against common standards. Instead, school principals decide whether probation is warranted for newly employed teachers and determine how to evaluate them for successful completion of the probation. While Bulgaria lacks a formal appraisal process, it has introduced induction support to support high-quality teaching in the form of mentorship for new teachers. If well-designed, this can increase new teachers' competency and job satisfaction and positively influence student achievement (OECD, 2014[16]). However, the OECD TALIS 2018 study found that only 34% of young lower secondary teachers in Bulgaria reported having participated in some type of induction when they joined their current school (compared to an EU average of 46%) (OECD, 2019[19]). Introducing an appraisal process based on the "new teacher" competencies in the revised professional profile and mandating an induction year will support the development of new teachers' skills and self-efficacy in line with the changing expectations for the role of teachers in Bulgaria. More standardised induction support will also help to retain new teachers, which Bulgaria has identified as a key challenge (EC/EACEA/Eurydice, 2018[18]).

Conduct an attestation appraisal of new teachers

As currently designed, teachers will not undergo an attestation appraisal until their fourth year of employment. Bulgaria should, instead, require all new teachers to pass an attestation appraisal at the end of a one-year probation period. This will confirm that they have developed the competencies that are appropriate for their career level, including knowledge and use of the student-centred teaching practices that align with the school curriculum. In the short to medium term, while Bulgaria is trying to produce a large number of new teachers and improve the quality of initial teacher preparation, it will also serve a quality assurance purpose. Specifically, it will establish a baseline that all new teachers must meet and provide a structured exit for those who prove to be poorly suited to the profession.

An attestation appraisal process for new teachers should consist of the same elements as the regular attestation appraisal process, as revised (see Recommendation 3.1.2. Modify the attestation appraisal to objectively and consistently assess real teaching practice and support teacher development). This type of performance-based assessment is generally used in OECD countries that require new teachers to teach for a probation period for full certification. In New Zealand, for example, provisionally certified teachers are assessed against teacher standards based on classroom observations, teacher self-appraisal and dialogue with their appraiser (OECD, 2013[23]). Bulgaria, like Hungary and Poland, could make it a condition for promotion up the career ladder (EC/EACEA/Eurydice, 2021[4]). Bulgaria should also supplement the attestation appraisal with monitoring within the school throughout the probation period. School principals should conduct frequent classroom observations and provide regular feedback to support new teachers' development.

Regulate a mandatory induction programme for new teachers

Bulgaria does not regulate specific mentorship requirements or any other induction support for new teachers. This lack of regulation is associated with lower participation rates in induction in European countries (EC/EACEA/Eurydice, 2021[4]). Bulgaria should:

- **Identify the key elements of an induction programme and who will provide them**. Bulgaria should define the responsibilities of mentors of new teachers in much the same way that the duties of mentors of trainee teachers are set out in regulations. In addition, Bulgaria might consider introducing other induction support that is common in European countries, like structured, school-based collegial support (e.g. scheduled dialogue with the principal and colleagues, assistance with lesson planning and assessment) and professional development activities like courses or seminars (EC/EACEA/Eurydice, 2018[18]). REDs in Bulgaria could plan and monitor the implementation of the induction programme, while principals could manage the implementation of induction in their schools.
- **Provide mandatory training, a guideline and ongoing support to all mentors**. A pillar of Bulgaria's induction support should be mentorship provided by senior teachers who are trained and well-supported. The Ministry should develop free mandatory training to all teachers selected to be mentors. This could take the form of a practical seminar that covers content like new teachers' competencies, how to conduct classroom observations, provide meaningful feedback and initiate constructive conversations to support new teachers' professional learning. A guideline should set out expectations for the role and provide practical resources for mentors, which could be developed based on surveys of mentors' needs and feedback from new teachers. REDs could also establish networks for mentors to share effective practices. Furthermore, mentors and mentees could have opportunities to receive training together, for example in student-centred, competency-based teaching approaches, as this should be a primary focus of mentors' support.
- **Confirm that schools are offering induction support to new teachers**. The Inspectorate's external school evaluations should check whether schools are providing new teachers with induction support like mentorship and whether they are of sufficient quality (see Chapter 4). If there are issues that result in guidelines for improvement, REDs should provide follow-up support to help schools address them.

Policy issue 3.3. Ensuring that continuous professional development addresses the learning needs of teachers and students

Bulgaria has introduced several reforms to its teacher professional development system in the past decade. These types of changes are having a positive impact on teachers' engagement in professional learning. For example, lower secondary teachers in Bulgaria reported participating in around 4 different professional development activities in the 12 months prior to the TALIS 2018 survey, compared to an EU average of 3.5 different activities (OECD, 2019[19]). However, Bulgaria has a range of professional development providers and programmes and the current accreditation process for ensuring their quality and relevance risks leaving teachers with little information to navigate the system and access the support they need to improve their practice. Addressing these concerns and aligning the professional development system more closely to national education goals (e.g. formative assessment to improve student learning outcomes, inclusive education) can help Bulgaria leverage the significant public investment it is making in the teaching workforce. Efforts to support professional learning in school and on line can complement enhancements to the quality and relevance of formal training.

Recommendation 3.3.1. Enhance the relevance and quality of professional learning

Having a range of professional development providers can be a positive feature of an education system, as long as the training meets quality standards (OECD, 2005[2]). Bulgaria has a large continuous professional development market with many providers offering programmes that lead to continuing qualification credits. These include specialised service units (i.e. state-owned bodies regulated by the Ministry), universities, scientific organisations and training organisations approved by the Ministry. As of

2021, 247 training organisations offering 4 431 programmes were listed on the Ministry's online information register (Ministry of Education and Science, 2021[5]). Bulgaria lacks rigorous quality assurance and monitoring procedures to ensure that programmes are relevant and of high quality. A regulatory amendment came into force in January 2021 that allows participants to provide feedback about programmes on the Ministry's information register. This should help with quality assurance but does not replace the need for a formal mechanism that ensures programmes align with the professional profile and meet other requirements.

Bulgaria also needs to make better use of information to improve the relevance of training. The Ministry currently determines priority areas to include in the National Programme for Qualifications on an annual basis and, in 2020, the prioritisation was reportedly based on a needs analysis; however, it is not clear how this information was obtained or whether it is collected every year (Ministry of Education and Science, 2021[5]). To maximise Bulgaria's return on investment in strengthening the teacher professional development system, the Ministry should explore ways to connect professional qualification degree programmes more closely to the competencies required for career progression and to address broader challenges, like allocating teachers to high-demand subjects. At present, higher education institutions make all of the decisions about the contents of professional qualification degree programmes and the Ministry does not accredit them. As a result, there is no guarantee that these programmes will cover essential competencies or support Bulgaria's broader education goals.

Conduct more rigorous quality assurance procedures

Bulgaria's accreditation criteria for training organisations and programmes address important areas. They require providers to demonstrate that their programmes are both practical and theoretical and that their objectives and methods relate to the professional profile. However, the Ministry needs a more rigorous process to confirm whether programmes are meeting these requirements. One way the Ministry can do this is by devoting sufficient staff to conduct accreditation reviews. These staff members should receive guidance to ensure that they feel comfortable rejecting providers and programmes that do not meet quality standards. The Ministry also needs a process for following up with providers if participants raise concerns about the quality of programmes on the information register. This could include conducting ad hoc inspections. At present, officials at the national or regional level are authorised by the Ministry to conduct inspections but the extent to which these are being conducted in practice is unclear. Any programmes that do not meet the Ministry's quality standards should lose their accreditation.

Systematically collect information about the learning needs of teachers and students to inform priority areas in the National Programme for Qualifications

On an annual basis, the Ministry should identify areas of teaching and learning that are most in need of improvement to inform the National Programme for Qualifications. When such areas are identified, training providers can then develop targeted programmes to help teachers develop in those areas. The following actions can help systematically identify priority areas for teacher development:

- **Survey methodological experts in REDs and principals about training priorities in their region or school**. Methodological experts work with teachers to improve their practices and organise continuous professional development, while school principals are expected to conduct regular classroom observations and develop a continuous professional development plan for school staff. These actors are generally well aware of teachers' training needs. The Ministry could require both groups to complete a simple questionnaire to identify gaps in teachers' competencies in relation to the professional profile and national education goals.
- **Collect anonymised attestation appraisal results, once available**. In the future, the Ministry could require each RED to provide a list of common competency gaps identified by appraisers in the new attestation appraisal process.

- **Triangulate results of attestation appraisals with results from external school evaluations and student assessments**. The Ministry should use the Inspectorate's annual analysis of the quality of education in Bulgaria, as well as the results of external student assessments, to identify weaknesses in teaching practices and student learning. For example, results from international assessments, the National External Assessments (NEAs) in Grades 4, 7 and 10 and the State Matriculation examination at the end of upper secondary can help identify weaknesses in core competency areas.

Make better use of professional qualification degrees to support teachers' growth for career progression

At present, the Ministry does not play a role in co-ordinating or overseeing professional qualification degree programmes. As a result, there is no way to ensure that these programmes prepare teachers to take on more complex functions and additional responsibilities at higher career levels. To enhance the links between the professional qualification degree programmes and career progression, the Ministry should:

- **Establish an external quality assurance measure**. Providers that offer training for professional qualification degrees should be required to demonstrate how their programmes will develop teachers' competencies for specific career levels**.** For example, the Ministry could introduce accreditation criteria to require that the content of these programmes reflects the revised professional profile for senior and chief teachers.
- **Expand the Increasing the Competencies of Teachers Who Prepare Future Teachers programme**. Bulgaria should consider expanding this innovative programme to include individuals who teach professional qualification degree programmes. Like initial teacher education professors, they also need a firm grounding in student-centred, competency-based approaches to education.
- **Work with providers to review the costs of programmes**. A significant proportion of lower secondary teachers in Bulgaria reported that costs prevented their participation in formal training (OECD, 2019[19]). Although teachers are rewarded for investing in their learning, Bulgaria must still ensure that programmes are not so expensive that they discourage teachers from pursuing professional development and career progression opportunities.

Consider using professional qualification degrees to meet different needs within the education system

Given the high cost of teacher salaries and training programmes, Bulgaria should consider how to leverage the professional qualification degree system to not only strengthen the competencies of individual teachers but also support broader national education goals. Similar to the changes this OECD review recommends to Bulgaria's additional labour remuneration policy (see Recommendation 3.1.4), the Ministry could revise the professional qualification degree system in different ways to help prepare teachers for working in rural areas or to teach high-demand subject areas. For example, Bulgaria could offer three different types of professional qualification degree programmes that allow teachers to:

1. **Develop competencies for higher career levels and new roles**, as outlined above.
2. **Expand their skills within their existing career level**, which would provide teachers with opportunities to enhance their competencies in areas that are key to the professional profile, Bulgaria's education goals and school curriculum (e.g. formative assessment).
3. **Gain qualifications to teach different subject areas**. At present, the three-year Motivated Teachers programme provides teachers with opportunities to gain qualifications in high-demand subject areas (see Recommendation 3.2.3). Bulgaria might consider using professional qualification degree programmes to offer this type of training opportunity on an ongoing basis.

The Ministry could work with higher education institutions and key education stakeholders to explore how to implement this system, which would be similar to the additional qualification system in Ontario, Canada (see Box 3.4).

Box 3.4. Additional qualification courses for teachers in Ontario, Canada

The Ontario College of Teachers in Ontario, Canada, was established in 1996 as the professional self-regulatory body for teachers. Its responsibilities include accrediting continuous professional development programmes for additional qualifications (AQs). There are five types of AQ courses, including some specifically for VET teachers. They include:

- Additional basic qualification courses, which lead to qualification in another division of the school system (e.g. primary) or specific curriculum subjects at the intermediate or senior level.
- One-session additional qualification courses, which cover specific topics (e.g. classroom management, mentoring, student assessment and evaluation, teaching combined grades) or deepen teachers' knowledge and skills in specific curriculum subjects.
- Three-session or specialist additional qualification courses, which are longer programmes that involve intensive study of a division or curriculum subject or lead to qualification as a principal or supervisory officer.

Approved providers of AQ courses include higher education institutions, teachers' unions, principals' organisations, district school boards and curriculum subject organisations. Higher education institutions must seek accreditation for their AQ courses, even though they have academic immunity and undergo a separate initial teacher education accreditation process. Providers design their programmes according to Ontario College of Teachers framework guidelines, which establish core content, learning objectives, instructional strategies and assessment methods. The college periodically updates the guidelines in a process that involves posting drafts online for input.

Source: Ontario College of Teachers (2021[48]), *Additional Qualifications*, https://www.oct.ca/members/additional-qualifications (accessed on 13 July 2021).

Recommendation 3.3.2. Support teachers' collaborative learning in schools and online

School-embedded professional development, such as peer learning opportunities, can have a large impact on teaching practices and significantly reduce the cost of formal training (Kraft, Blazar and Hogan, 2018[49]; Opfer, 2016[50]). Bulgaria already has measures to support teachers' learning in the school. For example, teachers are required to complete 16 hours of an "internal institutional qualification" every year (i.e. discussions, methodological support, research, sharing of innovative practices and mentorship) and schools must develop a continuous professional development plan for staff, which draws on the school's four-year development strategy and teacher attestation appraisal results. These are all positive features of Bulgaria's professional development system for teachers. While enhancing the relevance and quality of formal training providers should be the Ministry's immediate priority, developing new measures to further support teachers' school-based and virtual learning is a cost-effective way to complement these efforts.

Support schools in implementing internal institutional qualifications to improve teaching and student learning

To build on in-school learning opportunities in Bulgarian schools, the Ministry could provide guidance and training to specifically support collaboration and peer learning among teachers. This support could focus

on methodological groups for a particular subject or grade level and the Ministry could implement these activities using a train-the-trainer model. For example, the Ministry of Education in Georgia trained facilitators in primary schools to co-ordinate teacher learning circles, starting with mathematics teachers (OECD, 2019[51]). This model could cover a range of collaborative activities, such as peer classroom observations and providing feedback to other teachers to improve student outcomes. The Ministry could also develop online guidelines, templates and resources to help facilitators and teachers with these activities.

Further develop online peer learning

The Ministry has already established online platforms and networks to support peer learning among teachers. However, many of the teachers who spoke with the OECD review team reported using teacher-initiated social media groups to discuss and share practices with their colleagues and none mentioned the Ministry's platforms. While the Ministry's efforts to support peer learning on line should be commended, especially since so many teachers have been required to teach remotely in the last year as a result of the COVID-19 pandemic, it appears that more could be done to raise awareness about the existence of these platforms. Specifically, the Ministry should encourage teachers to share lesson plans and examples of student assessments on E-learn (see Chapter 2).

As recommended above (see Recommendation 3.1.3) and in Chapter 4, the Ministry should also consider expanding E-learn into a platform that offers resources to support teacher appraisal and school improvement. What the Ministry could ensure, and something not guaranteed in social media groups, is that resources meet minimum standards of quality. The Ministry could, for example, encourage peer-review of materials uploaded to the platform. This is the case in Moscow, Russian Federation, where teachers upload material to a municipal platform and moderators review the content before it is shared as a resource (Mos.ru, 2016[52]). A less formal peer-review process, whereby teachers can comment on or rate material on the platform, could be another way to ensure that the most helpful tools reach the greatest number of teachers. Furthermore, the Ministry should consider how teachers from innovative schools could contribute to online peer learning (see Chapter 4).

Table 3.7. Table of recommendations

Policy Issues	Recommendations	Action Points
Ensuring that appraisals support teachers' ongoing development	*Revise the professional profile for teachers to support appraisal and motivate development throughout a teacher's career*	Identify the competencies teachers will need to be promoted and take on responsibilities at higher levels of the career path
		Review the salary progression over the course of a teacher's career to ensure that it is sufficiently motivating
		Incorporate the acquired competencies for entry to the teaching profession into the differentiated professional profile for teachers
		Make teaching experts responsible for revising the professional profile and other reforms, in consultation with practising teachers and key stakeholders
	Modify the attestation appraisal to objectively and consistently assess real teaching practice and support teacher development	Introduce more objectivity and externality into the new attestation appraisal process
		Use the professional profile to appraise teachers' performance, including their use of student-centred teaching approaches
		Add a classroom observation to the attestation appraisal process
		Revise the attestation appraisal and other pre-requisites for career progression to take into account the learning of all students
		Develop new guidance and training for a revised attestation appraisal process
		Monitor the process for appointing teachers to the chief teacher role to ensure fairness
	Provide feedback on teachers' performance and support their ongoing development between attestation appraisals	Establish a methodology for regular developmental appraisals
		Issue practical guidelines, tools and training to support regular appraisal
	Use a more objective process to reward teachers for their performance	Consider ending the annual assessment for additional labour remuneration
Meeting the demand for new teachers and supporting their development	Make sure that initial teacher education programmes help teachers develop the competencies they will need at the start of their careers	Make accreditation requirements specific to initial teacher education
		Establish a working group to help initial teacher education providers redesign their programmes and make other recommendations to improve initial teacher preparation
	Make sure that the best candidates become teachers and fill shortage areas	Work with higher education institutions to establish a bar for entry to initial teacher education programmes
		Use systematic forward planning to respond to the demand for teachers and target specific shortage areas
	Formalise the appraisal of new teachers and provide them with effective induction supports	Conduct an attestation appraisal of new teachers
		Regulate a mandatory induction programme for new teachers
Ensuring that continuous professional development addresses the learning needs of teachers and students	Enhance the relevance and quality of professional learning	Conduct more rigorous quality assurance procedures
		Systematically collect information about the learning needs of teachers and students to inform priority areas in the National Programme for Qualifications
		Make better use of professional qualification degrees to support teachers' growth for career progression
		Consider using professional qualification degrees to meet different needs within the education system
	Support teachers' collaborative learning in schools and online	Support schools in implementing internal institutional qualifications to improve teaching and student learning
		Further develop online peer learning

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4 Supporting school improvement through evaluation

Bulgaria has a longstanding culture of elite schools that reinforce educational inequalities. To address this issue, the country recently introduced a new school evaluation system that includes several features commonly found in OECD education systems, such as new school quality standards and a new National Inspectorate of Education, which has an inspection cycle that targets low-performing schools. This chapter examines how Bulgaria can fully implement its new school evaluation framework to build a better understanding of what school quality means and direct stakeholders towards the common goal of increasing the equity and quality of the education system can help strengthen the school evaluation process and ensure that Bulgaria's new Inspectorate, REDs and schools themselves all work.

Introduction

Bulgaria has introduced a new school evaluation system that includes several features commonly found in OECD countries. In particular, these include the establishment of a new national school inspectorate, the National Inspectorate of Education (hereinafter the Inspectorate) and new quality standards describing aspects of the school environment that are most important to student learning and development. Bulgaria also introduced a differentiated inspection cycle whereby schools that receive poor results undergo evaluations more frequently. Together, these elements provide a strong basis for external school evaluations that aim to provide recommendations for improvement. While such policies and tools have the potential to strengthen school practices, Bulgaria will need to rapidly scale external evaluations and improve their development function if they are to have the desired impact. This will require building the capacity of regional departments of education (REDs) which, according to Bulgaria's Pre-school and School Education Act (2016), are now responsible for providing methodological support to schools. Defining REDs' support activities and clarifying their role in relation to the work of the Inspectorate will be crucial to ensuring Bulgaria's new school evaluation system effectively leads to improvements in school quality.

It will likely take time to implement these new external evaluation processes. Therefore, it is imperative that Bulgaria simultaneously proceed with plans to develop instruments for school self-evaluation so that schools can immediately start driving their own improvement. School actors will need support to pursue improvement activities. While it is positive that Bulgaria's school funding formula aims to provide more equitable financing, not all schools are able to fundraise for the additional resources needed to implement some innovative initiatives and support, which may incur costs. These considerations are essential in light of concerns about Bulgaria's low student outcomes. For example, OECD Programme for International Student Assessment (PISA) results have shown a decline in recent years, with a high percentage of students not reaching basic proficiency in reading and mathematics (OECD, 2019[1]; IEA, 2020[2]). Moreover, despite efforts to make schools more inclusive and reduce dropout, net enrolment in primary and lower secondary schools has declined and there are persistent inequalities in learning outcomes among students from different backgrounds and in different regions of the country (OECD, 2019[1]; UNESCO UIS, n.d.[3]). Building a better understanding of what school quality means among the public and key education stakeholders can help strengthen the school evaluation process and ensure that Bulgaria's new Inspectorate, REDs and schools themselves all work towards the common goal of increasing the equity and quality of the education system.

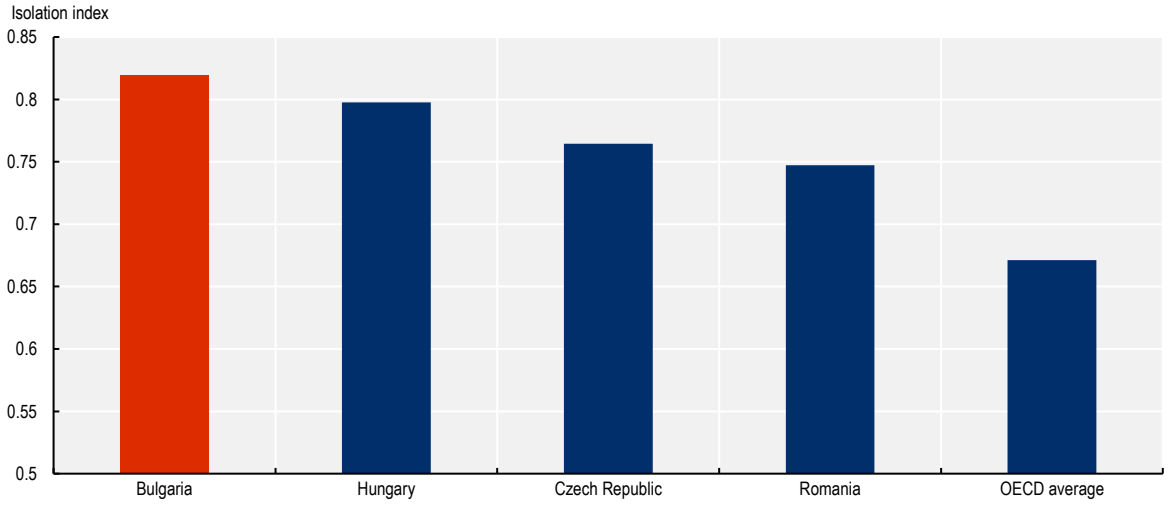
School governance in Bulgaria

As part of broader decentralisation reforms, Bulgarian schools have the autonomy to manage their own resources, make pedagogical decisions and manage relations with the national Ministry, REDs, municipalities and the school community (see Chapter 1). To improve the quality of schooling for all children, Bulgaria has introduced policies to develop school leadership and distribute school funding more equitably. The Ministry of Education and Science (hereinafter the Ministry) has also engaged one-fifth of its schools in an Innovative Schools initiative, which aims to foster creative teaching, learning and school management strategies.

However, the social and academic segregation between schools in Bulgaria is among the highest of PISA participants (Figure 4.1). This reflects the country's longstanding culture of elite schools that often serve the highest achieving students, recruit the most qualified staff and have access to additional resources. Moreover, many actors still lack a clear understanding of how to improve school quality and gaps in policy design risk hindering their impact. For example, Bulgaria does not require school principals to undertake initial training in school quality management and other leadership responsibilities. Without comprehensive school evaluation processes and policies that compensate for the disparities between Bulgaria's most

advantaged and disadvantaged schools, the country will likely continue to face challenges in raising student learning outcomes.

Figure 4.1. Isolation of disadvantaged students from high-achieving students in reading



Note: Data are restricted to schools with the modal International Standard Classification of Education (ISCED) level for 15-year-old students.
The isolation index of disadvantaged students from high-achieving students measures whether socio-economically disadvantaged students are concentrated in schools distinct from those that enrol high-achieving students. The index is related to the likelihood that a representative disadvantaged student attends a school that enrols high-achieving students. It ranges from 0 to 1, with 0 corresponding to no segregation and 1 to full segregation (see Annex A3 of the PISA report, Volume II, for a more complete description).
A socio-economically disadvantaged student is a student in the bottom quarter of the PISA index of economic, social and cultural status (ESCS) in his or her own country/economy.
Source: OECD (2019[4]), *PISA 2018 Results (Volume II): Where All Students Can Succeed*, https://doi.org/10.1787/871e3509-en.

StatLink https://stat.link/1a0srv

School leadership in Bulgaria

Bulgaria's school leaders are responsible for school quality management

Like principals in OECD countries, school leaders in Bulgaria are responsible for school improvement, including defining school goals, observing instruction, supporting teachers' professional development and working with teachers to improve instruction (Schleicher, 2015[5]). On average, lower secondary principals in Bulgaria are about the same age as those across OECD Teaching and Learning International Survey (TALIS) participating countries (53 years old versus an OECD average of 52 years old) (OECD, 2019[6]). The proportion of female principals at that level in Bulgaria, like the proportion of female teachers, is higher than the OECD average (73% vs. 47% of school leaders and 80% vs. 68% of teachers) (OECD, 2019[6]). The majority of school principals are employed by the Ministry's REDs and work in municipal and non-specialised state-owned schools (i.e. schools not for sports or the arts) (Ministry of Education and Science, 2020[7]).

Bulgaria has introduced measures to professionalise and develop school leaders

School principals do not need to participate in initial training on school leadership but they must meet continuous professional development requirements

School principals in Bulgaria must be qualified teachers with at least five years of teaching experience. This is a common requirement in European countries (EC/EACEA/Eurydice, 2020[8]). In a positive way, there are open competitions for the role. However, some evidence suggests that a candidate's "political compatibility" with school authorities is an important factor in the selection process and that members of the selection commission, who are appointed by the principal's future employer (commonly the RED), do not have the competencies needed to make merit-based decisions (Leadership in Education, 2011[9]). At the same time, Bulgaria has taken steps to better prepare new principals for their job. In particular, the National Center for the Professional Development of Pedagogical Specialists recently designed optional training for newly appointed principals that is free of charge and covers areas like labour law, communications and finances. However, unlike many OECD countries, Bulgaria does not require initial training on school leadership either before or upon starting the position. This has caused some challenges. For example, new principals reportedly face difficulties evaluating teachers (Ministry of Education and Science, 2020[7]).

While the initial training of school principals is not mandatory, Bulgaria introduced new continuous professional development requirements for principals in 2016. This includes 48 hours of training by approved providers every 4 years and 16 hours of internal, school-based learning every year (Government of Bulgaria, 2016[10]). Participation rates in professional development among principals are reportedly high but there appear to be gaps in terms of content. For example, 100% of lower secondary principals reported attending at least 1 professional development activity in the year prior to the 2018 TALIS survey but 29% reported that they had never received any instructional leadership training on how to improve teaching and learning in their schools (OECD average: 17%) (OECD, 2019[6]). This highlights the need for support to conduct school self-evaluation so that principals can better identify and address areas of weakness in school practices.

A professional profile for directors articulates school leadership standards

In 2015, Bulgaria introduced school leadership standards – the professional profile for directors – which set out what a principal should know and be able to do. A strength of Bulgaria's professional profile for directors is that it presents a vision of the principal as both an administrator and instructional leader who is responsible for monitoring and evaluating school activities to direct change (Table 4.1). However, as with Bulgaria's professional profile for teachers (see Chapter 3), the professional profile for directors is not differentiated according to the levels of the school leader career structure. A growing number of countries do this to help guide principals' ongoing professional learning and provide relevant criteria for performance appraisals. In addition, some of the wording in the professional profile is vague. For instance, one of the skill areas under resource management is "has leadership skills" but there is no description of what these skills are within the context of budget management.

Table 4.1. Professional profile for school directors

Competency	Director's knowledge, skills and attitudes
Pedagogical	This includes seven areas of knowledge, skills and attitudes, including: • Knows innovative educational technologies, techniques and methods for teaching and assessment, applicable in the educational process. • Applies the competency approach in their work in the acquisition of key competencies by students according to Article 77, paragraph 1 of the Pre-school and School Education Act.

Competency	Director's knowledge, skills and attitudes
Management	Administrative and legal culture, which covers six areas, including: • Knows and applies innovative approaches in management practice. • Knows the state policy in the field of pre-school and school education and implements strategic and programme documents for determining priorities related to the development of the institution.
	Planning, organising and controlling, which covers 15 areas, including: • Has knowledge and skills for strategic and operational planning, effectively implements policies for the development of the institution. • Analyses the results of the activity of the institution and outlines measures for increasing the quality and efficiency in the work. • Approves the activities, procedures, criteria, indicators and tools for self-assessment of the activity of the educational institution in accordance with the state educational standard for quality management in the institutions. • Establishes criteria for the degree of fulfilment of the team's obligations by creating an internal system for monitoring, evaluation, feedback and decision-making for change.
	Resource management, which covers 22 areas, including: • Defines the directions, goals and tasks for the development of the educational institution and prepares an adequate plan for their implementation. • Creates an atmosphere of security, trust, tolerance, co-operation and mutual assistance in the team. • Stimulates pedagogical specialists to create, implement and promote innovations and good practices.
Social and civil	Fourteen areas, including: • Creates and supports good practices in a multicultural educational environment and does not allow discrimination. • Builds partnerships and interacts effectively with parents. • Assists control bodies and institutions in carrying out controls and inspections. • Identifies their own needs and sets goals aimed at continuous professional development.

Source: Ministry of Education and Science (2016[11]), *Ordinance No 15 Of December 8, 2016 on the Inspection of Kindergartens and Schools*, Ministry of Education and Science of Bulgaria, Sofia.

There is a new attestation appraisal process for school leaders

While Bulgaria's Pre-school and School Education Act (2016) did not introduce major changes to the appointment process of school principals, it did introduce a new attestation appraisal that aims to increase accountability for the individuals working in this role. Similar to the attestation process for teachers, principals will undergo an attestation appraisal once every four years and results will inform career progression (see below) or, if they are poor, trigger remedial supports that include a professional development plan, mentorship and re-attestation. However, the appraisers and sources of evidence that inform judgements are slightly different for the attestation of principals and teachers.

For principals, an attestation commission representing the employer (commonly the RED) and the school's teaching staff and Public Council (i.e. school board) conducts the appraisal. The appraisal process considers direct evidence of principals' work obtained from inspections and other monitoring activities, as well as the principal's self-assessment, portfolio and results from school self-evaluations. Like the process for teachers, the attestation appraisal of principals could be more consistent and better support principals' development. For example, the principal's employer selects five criteria for the appraisal based on the professional profile, the type of school and the school development strategy. While this type of flexibility can be positive in a regular, developmental appraisal process, it does not support consistent judgements for career progression. Furthermore, the attestation card that communicates the appraisal results provides no room for written feedback and the regulated appraisal procedures do not include a discussion of results with the principal.

Principals in Bulgaria are also subject to an annual appraisal of the results of their work for additional remuneration. For this appraisal, a commission representing the principal's employer and the school

financing body evaluates the principal's performance. While indicators for the appraisal are regulated, not all relate to the professional profile for school directors, which would ensure that they are relevant to principals' performance. Nor are they all fair given schools' different contexts. For example, principals are evaluated on their ability to attract additional sources of funding for their school, which could be particularly difficult in socio-economically disadvantaged areas (Ministry of Education and Science, 2017[12]). The employer has full discretion to determine additional criteria and make judgements about the principal's performance, which raises concerns about a lack of consistency and transparency.

There is a career structure for principals but promotion does not lead to more school leadership responsibilities or salary increases

Bulgaria has a career structure for principals and other pedagogical specialists in the school who are not teachers (e.g. psychologists or heads of information and communication technology [ICT]). The career structure consists of two successive degrees and legislated requirements for promotion include the completion of two types of continuous professional development: one leading to qualification credits and one leading to qualification degrees (Table 4.2). This means that the career structure for school principals largely depends on the quality and availability of learning opportunities that are relevant to school leadership. However, the Ministry's quality assurance procedures for training providers and programmes are not stringent. Furthermore, while there was training on school leadership for qualification credits in 2020-21, there was a lack of relevant training for qualification degrees.

Table 4.2. Requirements for promotion in the school principal career structure

Second degree*	First degree
Five years of experience as a principal	The second degree in the principal career structure
	A master's degree and qualification as a teacher
The required professional development qualification credits (i.e. 3 credits in 4 years, which equates to 48 hours)	The required professional development qualification credits (i.e. 3 credits in 4 years, which equates to 48 hours)
At least a fifth or fourth professional qualification degree (i.e. 16 hours of training each) from a higher education institution, including an examination	At least a third professional qualification degree (i.e. 200 academic hours) from a higher education institution
As of the school year 2021/22, attestation appraisal results of at least "meets requirements"	As of the school year 2021/22, attestation appraisal results of "exceptional performance"

Note: * Fast track to the second degree: obtaining a third professional qualification degree and "exceeds requirements" (the second-highest result) on the attestation appraisal, in addition to the required professional development qualification credits.
Source: Ministry of Education and Science (2019[13]), *Ordinance No 15 of 22.07.2019 on the Status and the Professional Development of Teachers, Principals and Other Pedagogical Specialists*, Ministry of Education and Science of Bulgaria, Sofia.

While it is not yet common practice, some countries with career structures for school leaders differentiate competencies, responsibilities and salary levels for each career level (OECD, 2013[14]). As with teacher career structures (see Chapter 3), this can encourage principals' ongoing development, incentivise them to seek promotion and reward them for taking on new responsibilities. Bulgaria's career structure is not set up this way. There are additional responsibilities associated with the first and second degrees but they do not relate specifically to the principal role and promotion does not lead to a salary increase (EC/EACEA/Eurydice, 2020[8]).

Funding limitations and disparities have impacted schools' ability to deliver education but Bulgaria is making efforts to equalise the distribution of resources

Bulgarian schools have a fair amount of autonomy to make financial decisions in key areas that are important to school quality. For example, PISA 2015 found that 93% of participating students from Bulgaria were in schools where principals or teachers reported having considerable responsibility for deciding on budget allocations within the school, compared to an OECD average of 76% (OECD, 2016[15]). The vast majority (97%) of school funding in Bulgaria comes from the state budget but funding can also come from European funds, revenue generated by the school and municipal governments, which may provide targeted, complementary finances (e.g. to deal with the decline in the school-age population).

In theory, the diversity of funding sources and the autonomy of schools to manage their own resources can help to make funding responsive to local educational needs. However, in reality, the current system does not lead to standardisation in the quality of provision, as funding is tied to the number of students in a school, not the school's performance. While the government plans to provide additional funds to schools based on their external school evaluation results, this will not be made available until all schools have been inspected, which will take some time. In addition, broader governance issues in Bulgaria also disconnect school funding from the quality of provision. For example, municipalities, which are responsible for allocating national funds to schools, have no real power when it comes to making decisions about school quality, such as hiring municipal school directors or teaching staff (OECD, 2021[16]). A lack of sufficient finances also hinders the work of Bulgarian schools, which often lack basic equipment, science laboratories and sports facilities, and digital and information technology (IT) infrastructure (EC, 2019[17]). This is especially the case in poorer municipalities where schools struggle to maintain basic infrastructure like heating (EC, 2019[17]).

In recent years, Bulgaria has made efforts to address school funding disparities. In 2018, the country has introduced a new funding model which includes a "regional coefficient" that distributes funds to local governments based on school characteristics, such as the type of school, as well as demographic and geographic features (e.g. population of the municipal centre, distance from a settlement of over 100 000 inhabitants) (see Chapter 1). Bulgaria has also recently invested in building schools' digital infrastructure and repairing buildings, both of which are objectives of the country's new ten-year education strategy, *Strategic Framework for the Development of Education, Training and Learning in the Republic of Bulgaria 2021-2030)* (hereinafter the Strategic Framework for Education) (Ministry of Education and Science, 2020[18]). Furthermore, the government provides earmarked funding to schools to cover the costs of teachers' professional development needs, which are often a school improvement expense.

Bulgaria's Innovative Schools initiative is introducing new approaches to teaching and school organisation from the bottom up

Bulgaria introduced an Innovative Schools initiative in 2017 with the goal of improving educational outcomes and developing students' key competencies. Schools apply to the Ministry's Innovative Schools Commission to conduct projects for up to four years in one or more of the following four areas: the management and organisation of the school, teaching methods, the learning environment and curriculum content. To participate, schools must demonstrate that their project complies with national and European education priorities and commit to sharing their experiences. However, the initiative uses its own indicators to monitor innovative projects, which do not link to national school quality standards. As of the school year 2020/21, there were 504 innovative schools, representing 21.5% of schools across the country (Ministry of Education and Science, 2021[19]). In 2019, the Ministry launched a related application-based initiative, Innovations in Action, to provide LEV 2 million (around EUR 1 million) for the dissemination of innovative school practices. In the 2020/21 school year, this initiative funded networks of 604 innovative and non-innovative schools and 20 fora on innovation (Ministry of Education and Science, 2021[19]).

Innovative school projects appear to be having an impact on education in Bulgaria. For example, results from one project led the government to extend the school year by two weeks to increase students' learning time. In addition, staff of several innovative schools told the OECD review team that their projects have helped improve students' learning outcomes. One secondary school, for instance, reported that the grade point average (GPA) increased in key curriculum subject areas and the absence rate declined after they implemented a project to increase student teamwork, communication skills, curiosity and functional literacy. However, schools do not receive any government funding for their projects, thus requiring them to generate their own budgets from outside sources, which may reinforce inequities in the education system. The Ministry has also identified insufficient monitoring and impact assessment as a weakness of the programme (Ministry of Education and Science, 2020[18]). Another concern is that schools are responsible for organising their own networks to disseminate results, so there is no guarantee that at-risk schools will benefit from the innovations developed elsewhere.

School evaluation in Bulgaria

Bulgaria has introduced important changes to its school evaluation system. There are new school quality standards that focus on management and educational processes. The recently established Inspectorate, a national body modelled after European inspection systems, uses these standards to carry out external school evaluations. Moreover, REDs, which previously had responsibilities for monitoring and evaluating schools, now have a mandate to provide methodological support. These changes intend to raise the quality of education; however, Bulgaria continues to face challenges in terms of using evaluations to drive improvements in schooling. One such challenge relates to capacity. For example, the new Inspectorate aims to conduct around 130 inspections per year, meaning it will take around 34 years to evaluate all 4 425 schools located across the country (Ministry of Education and Science, 2020[7]). In a positive way, a risk assessment that considers a school's State Matriculation examination results, number of graduates and context (e.g. the socio-economic status of the region or municipality) helps prioritise low-performing schools for the first rounds of inspection. While this approach allows education officials to identify schools with the greatest needs, changing school practices will require closer co-ordination with REDs. This is another challenge for Bulgaria since REDs do not systematically use the Inspectorate's findings and recommendations to support school improvement. A final challenge relates to the lack of a self-evaluation culture within Bulgarian schools. Without support and encouragement, schools are unlikely to reflect meaningfully on their performance, set goals and develop their own improvement plans.

Table 4.3. Types of school evaluation in Bulgaria

Type of school evaluation	Reference standards	Body responsible	Guideline document	Process	Frequency	Use
External school evaluation	National inspection criteria covering: 1. Educational process 2. Management of the institution	National Inspectorate of Education	Ordinance No. 15 of 8 December 2016 for the Inspection of Kindergartens and Schools National Inspectorate of Education's Inspection Manual	1. Preparatory stage (mainly organisational) 2. Actual stage (onsite visit) 3. Final stage (information collected is processed, summarised and analysed) 4. Delivery of inspection report and recommendations	At least one inspection every five years or less depending on previous inspection results	• To obtain an independent expert assessment of the quality of education at a school and identify improvement guidelines. • To guide policies to improve the quality of the educational process.

Type of school evaluation	Reference standards	Body responsible	Guideline document	Process	Frequency	Use
School self-evaluation	None	School principal, with input from the Public Council and Pedagogical Council	Pre-School and School Education Act	At the discretion of the school	At the discretion of the school	• For school quality management, including organisational development.

Source: Government of Bulgaria (2016[10]), *Pre-school and School Education Act;* Ministry of Education and Science (2016[11]), *Ordinance No 15 of 8 December 2016 on the Inspection of Kindergartens and Schools,* Ministry of Education and Science of Bulgaria, Sofia; Ministry of Education and Science (2020[7]), *Country Background Report for Bulgaria*, Ministry of Education and Science of Bulgaria, Sofia.

External school evaluation

Bulgaria has developed school quality standards based on models in EU countries

Bulgaria's Inspectorate first introduced school quality standards in 2016. The standards contain criteria, indicators and sub-indicators that inspectors now use to conduct external school evaluations. The standards were developed with feedback from key stakeholders (National Inspectorate of Education, 2020[20]), which ensures they capture a range of perspectives and helps build support for their use (Faubert, 2009[21]). In terms of content, the standards cover two areas that are particularly important to school quality: the educational process (i.e. teaching and learning) and the management of the institution (Table 4.4) (OECD, 2013[14]). They also address inclusive education practices and encourage schools to work towards certain national priorities like preventing school dropout (Ministry of Education and Science, 2020[18]). Another positive feature of the standards is that they include some of the practices that experts identify as effective for improving student outcomes, such as teamwork among school staff, teacher-student interaction and cognitive activation strategies (e.g. self-assessment) (OECD, 2016[22]). However, some of the indicators in the standards lack balance. For example, while the focus on monitoring learning outcomes is positive, there is an overemphasis on summative indicators (e.g. students' success in Olympiads and academic competitions). There is also a lack of attention on more formative pedagogies, which are essential for deep and inclusive learning. Moreover, Bulgaria's school quality standards do not yet address school self-evaluation, which can be an effective way to lead improvement from within the school.

Table 4.4. Bulgaria's school quality standards

Criteria	Examples of indicators
Area: Educational process	
Effectiveness of interaction in the learning process	• Use of appropriate and diverse teaching methods, approaches, techniques and technologies
Effectiveness of interaction for the personal development of students	• Development of skills in students for self-assessment, self-criticism and self-improvement
Monitoring the progress of students and evaluating their learning outcomes	• Results from external evaluations, Olympiads, competitions, etc. • Results of State Matriculation examinations • Monitoring the level of acquisition of competencies in students
Socialisation and education in the educational process	• Maintaining positive discipline
Coverage, inclusion and prevention of dropping out of the education system of children and students of compulsory pre-school and school-age	• Effectiveness of prevention measures • Effectiveness of intervention measures • Effectiveness of the interaction between the participants in the educational process to reduce the educational system dropout rate
Degree of satisfaction with the educational process	• Degree of satisfaction of students, pedagogical specialists and parents
Area: Management of the institution	

Sustainable development of the school	• Strategic management • Teamwork in school
Effective resource management	• Appropriate management of financial resources for the development of the school
Management and development of the physical environment	• Introduction of IT resources in the overall activity of the school
Development of the institutional culture in the school	• Effectiveness of the system for intervention and support in cases of harassment and violence
Partnership management	• Proactivity of the director
Degree of satisfaction with the management of the institution	• Degree of satisfaction of students, pedagogical specialists and parents

Source: National Inspectorate of Education (2020[23]), *Criteria, Indicators and Subindicators*, https://nio.government.bg/инспектиране/критерии/ (accessed on 27 November 2020).

The concept of school quality is still not well understood by all actors in the education sector or the general public

Despite efforts by the Ministry and Inspectorate to promote Bulgaria's new standards, the concept of school quality is not yet broadly understood. Instead, school quality is commonly associated with having students do well on State Matriculation examinations rather than making use of effective practices to improve the outcomes of all students. To build a more comprehensive understanding of school quality, Bulgaria articulated a national vision of a good school in its ten-year *Strategic Framework for the Development of Education, Training and Learning* (Box 4.1). A number of OECD countries have developed this type of national vision to guide evaluation processes and focus on the ultimate purpose of ensuring that every school is a good school (OECD, 2013[14]). While Bulgaria's national vision reflects some of the country's new school quality standards, it is not being used to help guide external evaluations. Moreover, schools lack the self-evaluation tools to benchmark the extent to which they are achieving this vision.

Box 4.1. Bulgaria's vision of the school in 2030

Vision for education, training and learning in the Republic of Bulgaria in 2030

In 2030, all Bulgarian young people graduate from school as functionally literate, innovative, socially responsible and active citizens, motivated to upgrade their competencies through lifelong learning.

The institutions of pre-school and school education in 2030 offer the safest, healthiest, most ecological and supportive environment, where educational traditions, innovative pedagogical solutions and digital development coexist. They constantly evolve as spaces for learning and development, for recreation and interaction between children, students, parents and the local community, united by shared values to achieve a common goal – the formation of knowledgeable and capable individuals able to make responsible choices and to achieve their goals in a dynamic and competitive social environment.

Source: Ministry of Education and Science (2020[18]), *Strategičeska Ramka za Razvitie na Obrazovanieto, Obučenieto i Učeneto v Republika Bălgarija (2021 - 2030) [Strategic Framework for the Development of Education, Training and Learning in Republic of Bulgaria (2021-2030)]*, Ministry of Education and Science of Bulgaria, Sofia.

Bulgaria now has centralised inspections to improve school quality management but the Inspectorate lacks human and financial resources

Until 2018, the Ministry's 28 REDs were responsible for monitoring and evaluating schools. Bulgaria has established a national Inspectorate with the aim of standardising educational quality by shifting the process

for external evaluations away from compliance checks towards more systematic support for school improvement (National Inspectorate of Education, 2020[20]). The new Inspectorate is a legal entity within the government's Council of Ministers and the director is a civil servant appointed by the prime minister. The Inspectorate's main responsibilities are to manage Bulgaria's school inspection framework and conduct inspections. It also ensures the quality of inspections, for example by periodically surveying the principals of inspected schools (National Inspectorate of Education, 2020[24]). Other responsibilities that fall under the Inspectorate's remit include analysing the quality of education and publishing a summary of school inspection results and guidelines for improvement on the Inspectorate website. In OECD countries, these types of activities often generate important sources of information for policy makers and the public.

As of December 2020, Bulgaria's new Inspectorate had conducted evaluations in 160 schools, which translates to around 4% of all schools in the country. At this rate, it will take several years for the Inspectorate to evaluate all schools, let alone achieve its official mandate of inspecting all kindergartens and schools at least once every five years. The primary reason for the Inspectorate's slow progress is a lack of financial and human resources (Ministry of Education and Science, 2020[7]). The Inspectorate's financing comes from the state budget and other minor sources of revenue (e.g. fees for training external inspectors) (Council of Ministers, 2018[25]). However, this is not sufficient to recruit quality inspectors, especially since inspector salaries are reportedly lower than school principal salaries. Another constraint is that the Council of Ministers limits the Inspectorate to employing a maximum of 13 inspectors to keep costs low (Council of Ministers, 2018[25]). As a result, the Inspectorate does not have enough permanent staff to achieve its mandate, even with the support of contracted external inspectors (see below).

Teams of internal and external inspectors conduct inspections

The Inspectorate contracts external inspectors to help conduct school inspections. The size of inspection teams varies between two to four inspectors depending on the size of the school; however, the head of the inspection team is always an internal inspector. Despite the importance of their role, internal inspectors in Bulgaria are not required by law to have a background in education, although this is preferred (EC/EACEA/Eurydice, 2016[26]). By contrast, regulations that set out prerequisites for external inspectors are strict. For example, external inspectors must have a master's degree and five years of experience in a field corresponding to the inspected activity and they must complete training provided by the Inspectorate (Council of Ministers, 2018[25]). Positively, there are professional development opportunities for both external and internal inspectors. External inspectors can periodically update their inspection competencies through the Inspectorate's online learning activities (National Inspectorate of Education, 2020[24]). On the other hand, internal inspectors can participate in seminars offered by the Standing International Conference of Inspectorates (SICI) to which the Inspectorate belongs.

School inspections are consistent with international practice and technology has allowed them to continue despite the COVID-19 crisis

Bulgaria's inspection process consists of three stages that are common in other European countries: the *preparatory stage* involves gathering information about the school, the *actual stage* includes an onsite visit and the *final stage,* during which inspectors analyse all collected information to develop the inspection report (EC/EACEA/Eurydice, 2016[26]). The sources of evidence used for school inspections in Bulgaria are also common internationally (EC/EACEA/Eurydice, 2016[26]). These include administrative information, questionnaires and interviews with school staff, parents and students, and classroom observations. During onsite visits, inspectors observe up to 30% of the school's classes (National Inspectorate for Education, 2019[27]). This is crucial to gather information about the quality of instruction. However, classroom observations can be as short as 20 minutes rather than the length of a whole lesson and they do not result in feedback to teachers (National Inspectorate for Education, 2019[27]).

Inspection teams make significant use of technology to conduct the inspection process. In general, inspections are "blended", meaning that the preparatory and final stages are conducted electronically and the school visit is usually onsite. Visiting schools in person is essential to gathering evidence of teaching and learning in the classroom. During the COVID-19 crisis, the Inspectorate has been able to adapt the inspection process to continue conducting external school evaluations. Specifically, inspectors have been conducting virtual observations of remote learning on digital platforms. This approach has allowed Bulgaria to continue monitoring teaching and learning processes despite disruptions to in-person schooling.

Bulgaria has introduced measures to support school improvement in follow-up to inspections

When conducting external school evaluations, inspectors rate a school's performance against each indicator of the quality standards. The overall inspection result is expressed as a qualitative rating of unsatisfactory (below 30%), satisfactory (30% to 50%), good (50% to 75%) or very good (over 75%) (Ministry of Education and Science, 2016[11]). Once the inspection is completed, school principals receive oral feedback, as well as a report with findings for each of the evaluated criteria, guidelines for improvement and recommendations for specific, concrete actions to address areas that received lower marks. For example, a sample report for a school that received "very good" overall results contained guidelines to improve the "effectiveness of the interaction for personal development of students" criterion, in part because inspectors observed student self-assessment and teamwork in only 1 out of 11 classes. The Inspectorate also sends follow-up questionnaires to each inspected school to confirm whether the measures recommended were useful and understandable. This practice helps continuously improve the inspection process.

A positive feature of Bulgaria's inspection system is the focus on low-performing schools. Specifically, the Inspectorate conducts a risk analysis based on information like a school's State Matriculation examination results, the number of graduates and context (e.g. the socio-economic status of the region or municipality) to identify which schools should undergo an inspection first. Moreover, Bulgaria has a differentiated inspection cycle, meaning that schools with poor inspection results are subject to more frequent follow-up inspections (Table 4.5). As of February 2021, Bulgaria's Inspectorate has conducted four six-month follow-up inspections in response to unsatisfactory inspection results. Other countries such as Ireland, the Netherlands and New Zealand have introduced this type of differentiated inspection cycle to help reduce inequities in the education system by focusing resources and attention on schools that need the most support to improve (OECD, 2013[14]). While such policies can help Bulgaria do the same, the need to conduct follow-up inspections at the same time as first-time inspections represents a significant workload, highlighting the need to sufficiently staff and fund the new Inspectorate.

Table 4.5. The differentiated school inspection cycle in Bulgaria

Inspection result	Frequency of inspection
Very good	Every five years
Good	Every three to four years
Satisfactory	Every one to two years
Unsatisfactory	Every six months to one year, as recommended by the inspection team

Source: Council of Ministers (2018[25]), *Rules for the Structure and Functions of the National Inspectorate of Education*, Council of Ministers of Bulgaria.

Additional positive developments are Bulgaria's plans to help low-performing schools improve by providing earmarked funds and regional support. Like many OECD countries, Bulgaria has made a middle tier of REDs responsible for providing hands-on support to schools after inspections. The Inspectorate is required to share inspection reports with REDs and notify them if a school under their jurisdiction needs methodological guidance to implement improvement guidelines or if the quality of teaching and learning is insufficient (Ministry of Education and Science, 2016[11]). However, REDs' specific responsibilities following national inspections are not clearly established and they do not seem to use the school quality standards to support school improvement. Understaffing and the need to update experts' knowledge and skills, in addition to moving away from their previous role of monitoring and controlling school quality, further complicate efforts to transition REDs to a school support role. The confusion caused by shifting responsibilities between regional divisions and a national body has led to the duplication and overlapping of functions in other public sectors in Bulgaria, reflecting the country's ongoing struggle to successfully implement decentralisation reforms (OECD, 2021[16]).

Some post-inspection procedures that support accountability are missing

While inspection results factor into employers' consideration of school principals' performance, Bulgaria lacks some requirements that are common in other countries to hold schools accountable for their performance and encourage them to act upon recommendations for improvement. Specifically, inspection reports are not posted publicly, in contrast to the practice in an increasing number of European countries (EC/EACEA/Eurydice, 2016[26]). Principals have full discretion to share inspection reports internally or externally. In addition, Bulgaria does not require all schools to develop an action plan in response to inspection findings, unlike many European countries, including other countries in South East Europe that have recently introduced school evaluation, such as North Macedonia and Serbia (OECD, 2019[28]; Maghnouj et al., 2020[29]).

School self-evaluation

The Ministry is developing a new ordinance requiring schools to conduct regular self-evaluations

Most OECD countries require schools to undertake self-evaluations annually or every two years (OECD, 2013[14]). However, Bulgaria does not have any specific requirements for school self-evaluation frequency, procedures or criteria (Government of Bulgaria, 2016[10]). Schools in Bulgaria are broadly responsible for quality management, which includes self-assessment and development planning (Government of Bulgaria, 2016[10]). For example, principals are required to draft four-year development strategies, which the school's Public Council (i.e. the school board) approves and the Pedagogical Council (i.e. all teaching staff plus the principal) adopt. In 2017, Bulgaria repealed an ordinance mandating that schools conduct self-evaluations every two years to inform their development strategies. The ordinance was only in place for a year and as of 2021, the Ministry is developing a new ordinance on school quality management that will set out self-evaluation requirements within the context of the country's school evaluation framework. This will be an essential step to help drive school-led improvement in Bulgaria. New self-evaluation requirements can encourage schools to regularly reflect on their practices and use results to inform their school development plans (OECD, 2013[14]). Most importantly, they can help Bulgaria's schools improve the quality of instruction and work towards national goals for student outcomes, like functional literacy and lifelong learning. For example, new self-evaluation requirements can help to ensure that Bulgaria's principals and school staff examine the extent to which teachers use adaptive instruction in their classrooms or how teachers support students to assess their own learning (both indicators in Bulgaria's school quality standards) and identify any needed changes.

School-level data and their use

School-level data support evaluation processes but there is limited data for benchmarking purposes

Internationally, data about schools' contextual features and student outcomes (e.g. standardised examination results; student retention rates, etc.) commonly inform school inspections and self-evaluations. Some of these data allow schools to benchmark their performance against schools operating in similar contexts, which can be particularly useful for self-evaluation. Bulgaria's Inspectorate has an Electronic Inspection Management System (ESMS), which houses data that inspectors use for inspections, including administrative data (e.g. student, teacher and school demographics) and learning outcome data (i.e. results from National External Assessments [NEAs] in Grades 4, 7 and 10 and the State Matriculation examination). While it is positive that Bulgarian schools can access their own data in this system (only during the inspection), they do not have an easy way to access data that allows them to compare their performance to similar schools. In a positive way, the Center for Assessment of Pre-school and School Education (hereinafter the Center for Assessment) provides data from NEAs and the State Matriculation examination that allows schools to benchmark results by gender, as well as against national and regional averages. However, there is no option for comparing schools with similar student characteristics, such as socio-economic background and minority ethnic group. These insights could help schools to understand better and address disparities in learning outcomes (see Chapter 5).

Policy issues

Bulgaria has made significant progress in developing a modern school evaluation framework that includes many features commonly found in OECD and other European countries. However, the concept of school quality it promotes is not yet well understood and the new roles and responsibilities of the Inspectorate and REDs are not yet well established. Ensuring that the public and key education actors have a better understanding of what school quality means and articulating how REDs and the new Inspectorate should work together is critical if Bulgaria's external school evaluation system is to yield improvements in teaching and learning. While having a differentiated inspection cycle can help Bulgaria target low-performing schools, this evaluation model works best when most schools already have a well-developed capacity to evaluate and improve their own practices. This is not yet the case in Bulgaria, which has a nascent culture of school self-evaluation. However, resource limitations prevent the country from rapidly scaling external inspections to cover all schools. The government, therefore, needs to both expand and refine the new external evaluation system while also proceeding with plans to require schools to conduct regular self-evaluations. For the latter to be effective, Bulgaria will also need to support schools with resources and training so that they have the capacity to improve their practices.

Policy issue 4.1. Building a common understanding of school quality

Bulgaria recently introduced the Inspectorate and centralised inspections to shift away from narrow, regional compliance checks of schools towards evaluations of school quality based on national standards (National Inspectorate of Education, 2020[20]). Many OECD countries have introduced standards-based school evaluations to help direct schools and education systems as a whole towards a common set of goals (OECD, 2013[14]). However, in Bulgaria, the vision of school quality as a collection of policies and practices with the potential to raise student outcomes is still not well understood by all actors in the education sector or the public. Instead, school quality is often interpreted narrowly as having students who obtain high results on State Matriculation examinations. This is a limited measure of school success and also a poor metric for evaluating the school effectiveness because it reflects factors affecting student

performance that are beyond a school's control (OECD, 2013[14]). Without a more modern and comprehensive understanding of school quality, there is a risk that Bulgarian stakeholders will not engage with the work of the Inspectorate or understand and embrace the importance of national education reforms, like the new adaptive teaching practices that will help students develop transversal competencies for future success.

Recommendation 4.1.1. Clearly communicate what school quality means

In a growing number of OECD countries, national visions of a good school and external school evaluation reports communicate to the public what school quality means. In a positive way, Bulgaria's ten-year *Strategic Framework for the Development of Education, Training and Learning* includes a vision of what a school should look like in 2030 that complements the new Inspectorate's standards by succinctly describing key aspects of school quality. While this vision could be a useful communication tool, it may not permeate beyond the pages of the *Strategic Framework for the Development of Education, Training and Learning* without a purposeful effort to inform school actors and the public. At present, the Inspectorate does not publish school inspection reports because it is not required to do so and wants to avoid the negative consequences associated with rankings and decontextualised comparisons between schools. However, in the absence of more transparent and contextualised information about a school's performance, many stakeholders in the Bulgarian education system still compare schools, relying mainly on State Matriculation examination results. With careful management, public inspection reports could help to communicate a more comprehensive understanding of school quality in Bulgaria and make schools more accountable to their community. The Ministry could also provide the public with more information about schools that exemplify good school quality to help facilitate a culture of improvement.

Create clear links between Bulgaria's national vision of a school in 2030 with the school quality standards used for evaluation

Bulgaria already plans to review and revise its school quality standards and indicators in preparation for the release of a new ordinance that will make self-evaluation mandatory for all schools. This reflective and adaptive approach to policy making can help build coherence across the different elements of Bulgaria's new school evaluation system. However, the school quality standards should also consider the national vision of a school in 2030. In particular, the indicators used to illustrate Bulgaria's school quality standards should align with the country's ambition that schools provide all children with a safe and supportive environment to develop their competencies (Box 4.1). For example, the indicators on reducing the share of low performers could be more appropriate for monitoring student learning progress than results from national external assessments, Olympiads and academic completions. The Ministry and the Inspectorate should consider working with key education stakeholders to ensure that the national vision and school quality standards convey the same clear message about what good schooling means in Bulgaria. To ensure consistency even further, the indicators used for monitoring the Innovative Schools initiative should also reinforce and complement the school quality standards.

Once aligned with school quality standards, Bulgaria should develop a plan for communicating the vision to the public. For example, the Ministry, REDs and the Inspectorate could present the vision on their various websites. The Inspectorate could also feature the vision prominently in inspection manuals and communication material pertaining to the new ordinance on school quality management (see Policy issue 4.3). Creating links between the national vision and school quality standards and making the vision a key reference across education platforms can help raise awareness and deepen understanding of Bulgaria's modern and comprehensive definition of school quality.

Revise the school evaluation framework to confirm that school quality means supporting the progress of all students

Among the most common guidelines for improvement that the Inspectorate issued over three months of inspections at the end of 2020 was that kindergartens and schools should increase students' participation and improve their results in Olympiads and other competitions (National Inspectorate of Education, 2021[30]). This communicates a view of school quality based on the achievements of high performers and creates a risk that schools will pay less attention to the progress of low-performing students. The Inspectorate should therefore revise the school quality standards to delete the measure that relates to student participation and success in Olympiads, competitions or academic contests. Positively, other indicators in the school quality standards, like students' results on State Matriculation examinations and their acquisition of competencies, yield important information about outcomes for all learners. The standards also look at schools' inclusive practices (for example, see the indicators relating to the "coverage, inclusion and prevention of dropping out" criterion in Table 4.4).

To help communicate a more comprehensive understanding of school quality, the Inspectorate should consider adding specific indicators to the evaluation framework that relate to the progress and outcomes of vulnerable student groups. Such indicators are addressed in frameworks in other countries, like Scotland (Education Scotland, 2015[31]). In Bulgaria, indicators might include, for example, raising the attainment and attendance rates of students who do not speak Bulgarian at home. There would need to be some flexibility to ensure the relevance of indicators for diverse school contexts. However, explicitly measuring whether inclusion policies are having a positive impact on student outcomes would encourage schools to work towards the national goal of supporting students from different backgrounds (Ministry of Education and Science, 2020[18]).

Publish external school evaluation reports that are brief, holistic and qualitative

Bulgaria's new Inspectorate should develop a report specifically for the public to share key findings from school inspections. This practice would not only increase transparency in the education system but also help promote a more comprehensive understanding of school quality. The sample inspection report provided to the OECD review team contained some features that could be useful to the public, such as an explanation of the scoring system. However, while a public report should have fewer details than the reports schools receive, it should also provide a contextualised and descriptive overview of the school's practices in relation to quality standards. Publishing public reports of school inspections on line can also help communicate an authentic picture of school quality. In developing a template for public inspection reports, Bulgaria might consider one or both of the following models:

- **A one- or two-page summary of the report**. Bulgaria could develop a short document that is similar to the report prepared for parents in Scotland. It states a school's strengths, main recommendations for improvement and concludes with a table presenting a descriptive rating (e.g. "good") for each evaluated area (Education Scotland, 2021[32]). This type of short summary report would be an easy way for Bulgaria to communicate key findings from school inspections to the public.
- **A more detailed holistic report**. Bulgaria could develop a more holistic public report, similar to the example of Ireland's Whole School Evaluation report (see Box 4.1), which is longer than a one- or two-page summary but shorter than a typical existing inspection report in Bulgaria (e.g. about half the length). Like Ireland, Bulgaria should focus this type of public report on the quality of school practices. At present, Bulgaria's inspection reports identify the overall score for the school up front, which focuses readers' attention on a number rather than what schools are actually doing. The new report could begin with information about the school's context and a summary of findings and recommendations. It could also avoid information that encourages the ranking of or competition between schools, like students' results on State Matriculation examinations. The Inspectorate

might consider changing the format of its reports for schools to match this one but still include a non-public appendix that gives more detailed inspection results to schools.

The Inspectorate should also revise the contents of public reports that summarise external school evaluation activities. At present, the reports focus on scores in different evaluated areas and name schools that received the highest and lowest results (National Inspectorate of Education, 2021[30]). This decontextualised information does not convey the characteristics of the school or the quality of its underlying practices. The summary reports should instead provide an overview of what inspected schools are doing effectively and where they need to improve. The public external school evaluation reports recommended above will provide information about individual school results.

Box 4.2. Whole School Evaluation reports in Ireland

Ireland's Department of Education has published external school evaluation reports since 2006. The reports do not include numerical data that could be used to rank schools, although these data are used extensively to inform school evaluations. The reports consist of the following components:

- A one-page introduction that includes a brief explanation of what a Whole School Evaluation is and the main areas that the report covers ("How to read this report").
- A small table listing the date of the inspection and inspection activities.
- One paragraph on the school context (e.g. the proportion of learners for whom English is an additional language, a description of the attendance rate).
- A one-page summary of the main findings and recommendations presented as bullet points.
- Detailed findings and recommendations for each evaluated area (e.g. the quality of school leadership and management, the quality of teaching, learning and pupil achievement). These are half a page to one page each and qualitative. Each area or sub-area is described with a descriptor (e.g. satisfactory, good) and examples of school practices illustrate the judgement.
- An explanation of each of the five descriptors, from weak to very good, including their meaning and the different terms inspectors use for each level (e.g. "very good" can also be expressed as "of a very high quality", "very effective practice", "very successful", etc.).
- An appendix containing the school's response to the report.

Source: Department of Education and Skills of Ireland (2021[33]), *Whole School Evaluations (WSE)*, https://www.education.ie/en/Publications/Inspection-Reports-Publications/Whole-School-Evaluation-Reports-List/ (accessed on 26 May 2021).

Showcase schools that have made progress and are doing well to meet quality standards

The Ministry could use its website to recognise publicly the schools that are implementing effective practices. For example, on a regular basis (e.g. once a quarter), the inistry might feature a school that is doing well in meeting school quality standards and working towards national education goals, like preventing student dropout. Once a baseline level of performance has been determined through an inspection, the Ministry could also highlight schools that demonstrate improvements or perform well given their socio-economic level. Recognising these schools publicly could help foster improvement in all schools, especially those operating in disadvantaged contexts. The Ministry could select which schools to showcase from among those whose practices are shared on a new school improvement platform (see below). These efforts will further encourage education stakeholders and the public to

view school quality as a range of good practices and not just success on State Matriculation examinations.

Recommendation 4.1.2. Help schools develop a better understanding of school quality and lead their own development

In a positive way, the Inspectorate shares schools' good practices on its website, including actions that support Bulgaria's education goals (National Inspectorate of Education, 2021[34]). Now that school self-evaluation will soon become a regular requirement, Bulgaria should develop more resources to help schools build a better understanding of school quality, including setting out the relationship between school evaluation and school development planning and how these actions can lead to improvements in teaching and learning practices (Maghnouj et al., 2020[29]). Developing action plans in response to external school evaluations will also help to ensure that schools understand expectations for their role in determining and enacting improvements.

Develop an online platform to support school improvement

Bulgaria should create a dedicated online platform to make school self-evaluation and school improvement resources easily accessible. For example, the Ministry and the Inspectorate might consider expanding E-learn, the Ministry's e-library of teacher practices, into a platform that provides research, tools and training to help schools improve their practices. School staff could visit the platform to access the school self-evaluation guideline and tools recommended in this review (see Recommendation 4.3.2. Build schools' capacity to conduct self-evaluations and act on results). The platform could also house examples of effective school practices that the Inspectorate collects through external school evaluations. In creating this platform, Bulgaria could consider the National Improvement Hub as an example. This platform was developed in Scotland, United Kingdom (UK), to provide schools with a range of resources, including examples of classroom practices that have a positive impact on student learning, tools to develop effective self-evaluation processes and summaries of research on how to improve teaching and learning (Box 4.3).

Box 4.3. The National Improvement Hub in Scotland, UK

The Scottish government has an online platform for collaboration and sharing school-level good practices called the National Improvement Hub. The hub includes research articles on what works in schools, official documents and guidelines such as the school evaluation framework, teaching and assessment resources, exemplars of good practices selected by school practitioners. School staff are encouraged to use the hub and give feedback for improvement, as well as to participate in occasional workshops, organised both on line and at various locations across Scotland.

Effective practices on teaching and learning are compiled into the "teaching toolkit" for teachers to use as reference material in designing their classroom practice. The practices in the toolkit focus on issues most schools in Scotland face, such as extending school time, peer tutoring, school uniform, etc. For each practice, the toolkit identifies its impact as measured by impact evaluations and its cost.

Source: Education Scotland (2021[35]), *National Improvement Hub*, https://education.gov.scot/improvement (accessed on 2 June 2021).

Require all schools to develop action plans based on external school evaluation results

Other European countries that have recently introduced school evaluation have determined that there is value in making the need for follow-up to school inspection results very explicit. This is something that

Bulgaria should consider, for example by introducing the requirement that all schools prepare development plans in response to the Inspectorate's findings. This can help communicate that external school evaluations are intended both as an accountability tool to confirm schools are working effectively towards the national vision for schooling and as a resource to help schools plan and prioritise how they will improve the quality of their practices. It will also help to clarify the roles that schools and REDs should play in follow-up to evaluations. For example, schools that receive poor results should develop their action plans in partnership with their RED. The Inspectorate could develop a template for the development plan to help schools reflect on the inspection report and determine improvements that they can internalise through school planning and regular self-evaluation. The education Ministry in Luxembourg, for example, created a pre-defined standard form for schools to adapt to set their own improvement goals (OECD, 2013[14]). Austria has also had success requiring schools to develop and implement their own improvement plans (OECD, 2019[36]). Bulgaria's Inspectorate could make this template accessible to schools on the online platform recommended above and, over time, post examples of good development plans as a resource for schools.

Policy issue 4.2. Ensuring that external school evaluations support school improvement, especially in at-risk schools

Prior to 2018, the Ministry's regional education inspectorates (now REDs) were responsible for monitoring, controlling and supporting schools. These responsibilities are now divided between the new national Inspectorate, which conducts external school evaluations, and REDs, which are expected to provide hands-on support to schools following inspections. Moving school inspections to an independent national body can help consolidate professional expertise in school evaluation and enable inspectors to make more consistent and fair judgements about school performance, as well as provide recommendations on how schools can improve their practices (OECD, 2013[14]). This type of external school evaluation has the potential to strengthen and standardise education quality, especially in a country like Bulgaria where there are major regional disparities in the provision of education and significant gaps in student outcomes according to socio-economic status and ethnic background, especially among the Roma population (see Chapter 1). It is therefore positive that Bulgaria's new Inspectorate has a differentiated inspection cycle that targets low-performing schools.

While the Inspectorate represents an important achievement for the Bulgarian education system, REDs have not yet transitioned fully to their new supportive role. In many countries, this type of "mediating layer" between territorial authorities and the national government typically provides targeted support to schools by encouraging networking, making sure that schools understand reforms and communicating the experiences of schools back to national authorities (Mourshed, Chijioke and Barber, 2010[37]). However, REDs in Bulgaria currently lack clear direction about what specific support activities fall under their new remit. They also do not appear to use the school quality standards to inform the type of support they provide to schools. Significant capacity issues within the new Inspectorate and REDs further hinder the successful implementation of Bulgaria's new external school evaluation system, namely staff shortages and a lack of experts with experience in school self-evaluation and development (Ministry of Education and Science, 2020[7]).

Recommendation 4.2.1. Clarify and formalise REDs' new mandate for monitoring and supporting schools

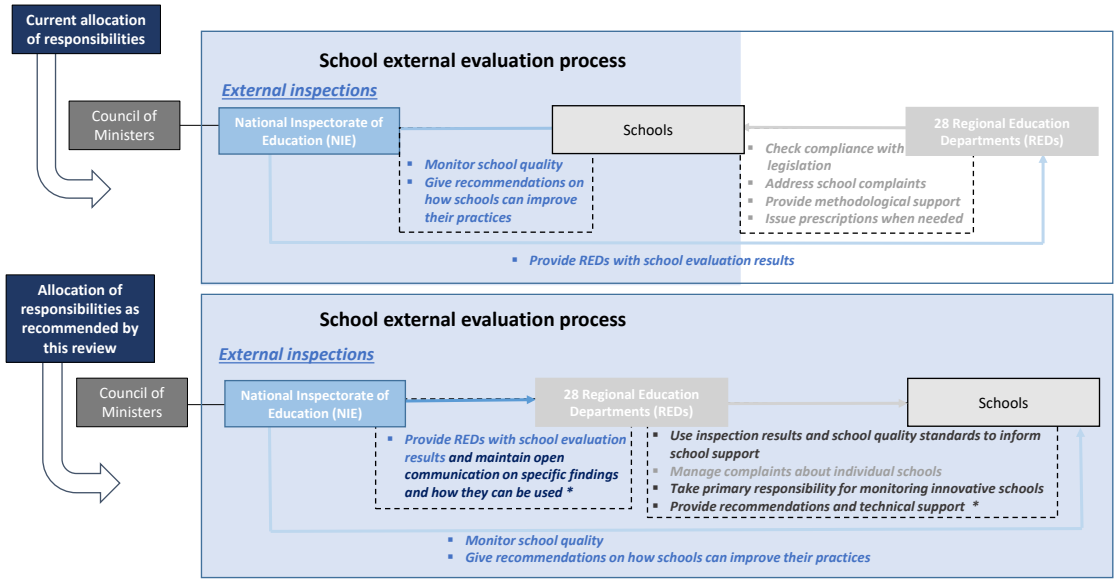
Bulgaria's Pre-school and School Education Act (2016) states that REDs are management and control administrations responsible for providing methodological support to schools and helping them implement improvements recommended by the Inspectorate (Government of Bulgaria, 2016[10]). However, due to gaps in regulation, their specific responsibilities in relation to those of the new Inspectorate remain unclear.

For example, REDs do not have clear guidance on what specific support activities fall under their new remit. Bulgaria will need to bring clarity to the role of the REDs so that they can build on the work of the Inspectorate and effectively support school quality.

Amend regulations to set out the new responsibilities of REDs

The Ministry should amend relevant ordinances to set out the actions REDs should take in relation to external school evaluations. At present, there is an ordinance that details the Inspectorate's responsibilities but there are no provisions addressing the responsibilities of REDs with respect to school evaluations. Without such provisions, it is unclear what exactly REDs should be doing. For example, representatives of the Inspectorate told the OECD review team that they do not know how or whether REDs are making use of school inspection results. New regulatory language should describe explicitly how REDs should follow up on inspection results, monitor schools and work with the Inspectorate (see below and Recommendation 4.3.3). This will clarify their new responsibilities and give them legal weight. It will also communicate to REDs and actors in the education sector exactly how the role of these regional bodies has shifted from control towards support. This may require training and changes to staffing within REDs in order to ensure that experts have adequate experience and a clear understanding of their role in supporting school development (see Recommendation 4.2.2).

Figure 4.2. Current and suggested responsibilities for the Inspectorate and REDs in their role of monitoring and supporting schools



Note: Darker shades of text indicate new tasks for the Inspectorate and REDs, recommended through this review.

Adjust the activities of REDs to complement the Inspectorate

At present, REDs conduct three main types of activities: monitoring to support schools, checking schools' compliance with education legislation and dealing with complaints. Typical school support activities provided by REDs include working meetings, open lessons as well as training and fora for teachers of

different curriculum subjects. Methodological experts in each RED have full discretion to establish annual school monitoring activities and many develop their work plan prior to the beginning of the school year. As a result, the type of support provided by REDs is therefore largely dependent on individual methodological experts and may not take into account a school's performance in relation to the Inspectorate's quality standards. Moreover, the planning period makes it impossible for REDs to consider findings and recommendations from the increasing number of inspection reports when planning their work.

Another challenge associated with the responsibilities of REDs is that, if a RED determines a school has not met its duties, it may issue prescriptions that compel schools to act. This practice not only distracts from the new Inspectorate's recommendations, it also undermines Bulgaria's school quality standards, which do not inform what prescriptions REDs give to schools. Despite this, prescriptions seem to be a common activity: one RED informed the OECD review team that they had issued prescriptions to about half the schools in their region in the past year. Of the types of prescriptions cited by RED representatives, not all would actually help a school improve its practices. For example, one RED prescribed training for teachers to help them better prepare students for external assessments and exams. This would likely put additional pressure on schools to "teach to the test", a detrimental practice that narrowly focuses on subjects covered in examinations rather than on developing the competencies students need for lifelong learning. In order for Bulgaria's new school evaluation system to yield the desired results, it is imperative that REDs are an integrated part of the school evaluation process and complement the work of the national Inspectorate. To facilitate this, the Ministry should adjust the activities of REDs as follows:

- **Use inspection results to inform school support**. REDs should systematically review the Inspectorate's findings and use information from the risk analysis and inspection reports to inform how often they visit a school, what areas to monitor and what type of support they provide. For example, if the Inspectorate finds that a school has weak strategic management and teamwork, the RED might provide the school principal with coaching or training on how to improve the school's development. In defining supports, Bulgaria could look to Wales, UK, where regional consortia and local authorities help school staff improve teaching and learning practices, as well as support whole school improvement (Box 4.4). In general, REDs should focus their efforts on schools that receive lower inspection results (i.e. "unsatisfactory" or "satisfactory").
- **Stop issuing prescriptions to schools**. The Ministry should instruct REDs to discontinue the practice of issuing prescriptions to schools, as this role now falls under the responsibility of the new Inspectorate. Ending the use of prescriptions would help clarify that the primary role of REDs is to support school improvement. This change would also allow methodological experts to focus on helping schools – particularly low-performing ones – to develop action plans that address the Inspectorate's recommendations and provide technical support to ensure that schools can enact their plans.
- **Review the regional role in compliance checks**. With respect to monitoring schools' compliance with rules and regulations, Bulgaria will want to make sure that REDs are not duplicating the Inspectorate's work. Specifically, the Inspectorate will need to review its inspection framework against guidelines for compliance and auditing to remove overlap and ensure all relevant criteria are covered. One option is for the Ministry to make the Inspectorate solely responsible for monitoring compliance as part of regular external school evaluations. To keep schools accountable, Bulgaria could transition to this approach once external school evaluations and school self-evaluations are more established (e.g. after the Inspectorate has conducted a full cycle of evaluations). A national body may also consider carrying out financial or administrative audits, to help promote transparency and reduce opportunities for corruption, especially as Bulgaria continues broader decentralisation efforts (OECD, 2021[16]).
- **Manage complaints about individual schools but involve the Inspectorate if needed**. REDs could maintain their role in dealing with school complaints. In Bulgaria and many other countries, schools are usually the first point of contact for complaints, followed by regional or local authorities

(Van Bruggen, 2010[38]). These actors are generally considered the most appropriate bodies to respond to complaints because they employ and manage the performance of school staff. However, if a RED is unable to resolve a complaint, the issue could be channelled to the Inspectorate for a possible special inspection.

- **Take primary responsibility for monitoring innovative schools**. At present, REDs and members from the Innovative Schools Commission inspect schools that participate in Bulgaria's Innovative Schools initiative. To make the monitoring of innovative schools more efficient, Bulgaria might involve REDs as the main actors responsible for directly monitoring innovative schools, while the commission could analyse the results of monitoring activities and work with the Ministry's Innovative Schools Directorate to develop plans to address any implementation challenges. The criteria used to monitor the work of Innovative Schools should clearly build on Bulgaria's school quality standards.

These proposed changes will require major adjustments in the way that REDs currently organise their work, as well as changes to relevant legislation. This transition will take time, especially since many of the changes require input from the Inspectorate, which is only currently able to conduct around 130 inspections per year. Bulgaria will need to ensure that both the Inspectorate and REDs have sufficient human and financial resources to fulfil their mandates (see Recommendation 4.2.2. Build REDs' capacity to support school quality and Recommendation 4.2.3. Ensure the Inspectorate can fulfil its mandate).

Box 4.4. Supports provided by Challenge Advisors in Wales, UK

In Wales, UK, local authorities and regional education consortia employ several different types of staff, including specialists in different teaching and learning areas, and a large number of Challenge Advisors. The Challenge Advisor positions were created specifically to support principals to build in-school capacity to meet school quality standards. There are four main aspects to their role, set out as National Standards for Challenge Advisors:

1. Supporting school evaluation and improvement (e.g. supporting school leaders to conduct classroom observations and improve the quality of teaching, supporting effective target setting as part of strategic planning).
2. Arranging effective support and intervention (e.g. identify resources to address school needs, facilitate school-to-school networking).
3. Developing school leadership (e.g. mentoring, coaching and using evidence to review performance and impact).
4. Building school-to-school capacity (e.g. determining ways in which good schools can support others).

Source: Welsh Government (2014[39]), *National Standards for Challenge Advisors*, https://gov.wales/sites/default/files/publications/2018-03/national-standards-for-challenge-advisers.pdf (accessed on 8 June 2021); EC/EACEA/Eurydice (2016[26]), *Assuring Quality in Education: Policies and Approaches to School Evaluation in Europe*, http://doi.org/10.2797/678.

Provide formal opportunities for the Inspectorate and REDs to work together

In addition to formally adjusting responsibilities, Bulgaria should put in place measures to establish a strong working relationship between the Inspectorate and REDs to help support school improvement. At present, they do not communicate regularly with each other. Some RED staff with whom the review team spoke were not well aware of the Inspectorate's work. For example, they expressed a misconception that the Inspectorate's external school evaluations were still in the pilot phase. In developing new measures,

Bulgaria could look at practices in other countries that have a national inspectorate and supportive subnational education bodies. Scotland's inspectorate, Education Scotland, uses partnership agreements to describe how the inspection body will work with local authorities to build their capacity to help schools improve and attain national education goals. The staff of Education Scotland and each local authority also meet as needed to discuss school improvement matters (Education Scotland, 2016[40]).

Recommendation 4.2.2. Build REDs' capacity to support school quality

At present, most experts who work in REDs provide schools with methodological support and control in different curriculum subject areas. There is often one RED expert with a specific mandate to support principals; however, the responsibilities associated with this position do not include helping principals with school improvement following an external school evaluation. Staffing shortages and workload challenges also hinder the support function of REDs. For example, representatives of three different REDs told the OECD review team that they had issues attracting candidates for expert positions. One reported that they had received no applications in competitions for IT and mathematics experts. Stakeholders also told the OECD review team that experts may not have enough recent experience working in schools to be well versed in school procedures, like the competency-based curriculum. Despite this, experts are not currently required to participate in training. Bulgaria will need to address these capacity issues to ensure that RED experts can better support schools.

Develop specific positions for school improvement experts in REDs

The Ministry should create positions in each RED for dedicated school improvement experts who will provide support to principals in response to external school evaluation results and in conducting new school self-evaluations for development. In the short term, the Ministry should consider filling these roles by re-orienting the mandates of experts who already work with principals and possibly those with a broad portfolio to support curriculum and educational quality at different school levels. The Ministry should ensure that school improvement experts are not the direct employers of principals since this could conflict with their support function. In establishing these roles, the Ministry could look at similar positions in subnational education bodies in other countries, like the Challenge Advisors in Wales (Box 4.4).

In the medium to long term, REDs should recruit new school improvement experts with knowledge and experience in school self-evaluation and improvement to supplement existing staff or replace those who leave. At present, senior experts in REDs are only required to have a bachelor's degree and two years of professional experience (Eurydice, 2018[41]). The Ministry might consider making prerequisites for the position of school improvement expert more stringent and targeted. In Wales, for example, Challenge Advisors are expected to have at least five years of experience in a school leadership role (e.g. as a school principal or senior leader) (EC/EACEA/Eurydice, 2016[26]). Bulgaria could recruit school improvement experts from among the higher levels of the teacher career path and principals who have experience with school self-evaluation and development. Experience as an external inspector with the Inspectorate might also be an asset.

To implement this type of restructuring, the Ministry will need to develop job descriptions that align with the new roles and competencies expected of RED methodological experts. Candidates should then participate in merit-based job competitions involving transparent selection criteria that relate to the competencies needed for each role. To avoid a shortage of experts, Bulgaria will need to ensure that the positions are sufficiently attractive before making recruitment procedures more selective (see below).

Build experts' capacity to support school staff

The Ministry will need to make sure that RED experts participate in training that will help them acquire new knowledge and skills to support teachers and principals. This should include training on student-centred,

competency-based teaching practices in the National Programme for Qualifications (see Chapter 3). New school improvement experts should also take part in training on school self-evaluation and development so they can support schools in these areas (see Recommendation 4.3.2. Build schools' capacity to conduct self-evaluations and act on results). Once Bulgaria has developed a cadre of well-trained RED experts, the Ministry could work with REDs to create a mentorship system so that new experts can benefit from the knowledge of their more experienced colleagues.

Address factors that contribute to the understaffing of REDs

There appear to be several issues that are contributing to a shortage of methodological experts and a lack of interest in the role, namely that experts have heavy administrative workloads and salaries – in comparison to recently increased teachers' wages – are low. Bulgaria will need to address these issues to ensure that REDs can fulfil their mandate. Specifically, the Ministry should:

- **Review and consider redistributing experts' workload**. The Ministry should conduct a review of experts' workload to determine where changes are necessary to reduce any burdens and enable REDs to focus more on support. For example, the Ministry might consider delegating some responsibilities, like serving on different commissions, to teachers at higher levels of the career path. RED representatives cited these as particularly time-consuming. In the long term, shifting responsibility for the attestation appraisal process to external evaluators, as recommended in Chapter 3, will also help reduce experts' workload and enable them to devote more time to school support.
- **Consider a further increase in experts' salaries to align with their new role**. Bulgaria has significantly increased teachers' salaries over the past five years (see Chapter 3) (EC, 2019[17]). While the salary for experts also increased by around 15% in August 2020, this raise may not have kept up with the increase in teachers' salaries (BNT, 2020[42]). As RED experts should take on different responsibilities that require higher levels of experience and competencies, the Ministry should consider whether these changes warrant a further increase in experts' salaries. Importantly, this increase should be part of broader efforts to restructure the workforce in Bulgaria's education sector, namely that being a RED expert is part of an esteemed pathway for educators who can move between teaching, school leadership and other system roles.
- **Determine other factors that might be contributing to staffing challenges**. The Ministry could also survey REDs to identify other factors that might be making expert positions less attractive. The findings from this exercise could inform other policy initiatives to recruit and retain qualified staff.

Recommendation 4.2.3. Ensure the Inspectorate can fulfil its mandate

Bulgaria's new Inspectorate will have an important role in helping to improve the quality of education. However, the Inspectorate currently lacks the human and financial resources needed to conduct external evaluations of all schools (Ministry of Education and Science, 2020[7]). Bulgaria will need to address this capacity issue to ensure the effective implementation of its school evaluation framework. As this new body develops, Bulgaria will also need to ensure that Inspectorate staff have a strong understanding of quality teaching and learning to inform their judgements, which will help to enhance their credibility. At present, internal inspectors are not required to have a background in education and there are no processes to reduce political interference in the appointment of the Inspectorate's director. While the Inspectorate can establish its own minimum selection criteria for staff, these are currently less stringent than those in many European countries (e.g. two or three years of experience in a school versus five years or more) (EC/EACEA/Eurydice, 2016[26]; National Inspectorate of Education, 2020[43]). Taking steps to ensure the Inspectorate can operate as intended and build its role as a technical agency will be crucial if it is to fulfil its mandate and have a positive impact on school quality.

Provide the Inspectorate with sufficient human and financial resources

The Ministry should work with the Inspectorate to review their allotment of internal inspectors and their budget with a view to making adjustments. The Inspectorate needs a sufficient number of internal inspectors to lead the evaluation of all kindergartens and schools in the country once every five years (or more), with support from external inspectors. At present, the Council of Ministers has rules limiting the Inspectorate to employing only 13 inspectors (Council of Ministers, 2018[25]). Although not directly comparable, Albania's national inspectorate employed 30 inspectors for a much smaller education system (Maghnouj et al., 2020[44]). The Ministry should also ensure that the Inspectorate receives sufficient state funding to employ more internal inspectors at a competitive salary and to cover the costs of work resulting from recommendations in this review. This may require adjustments to rules at higher levels of government.

Require internal inspectors to have relevant experience and a background in education

In Bulgaria, the only regulated requirements for internal inspectors relate to their role as civil servants. This makes the prerequisites less stringent than those for external inspectors, despite the expectation that internal staff will lead inspection teams. Bulgaria should revise the Council of Ministers rules to make a teaching qualification and at least five years of experience in the education part of the regulated requirements to become an internal inspector. Bulgaria could also make the attainment of a higher level on the teacher career path a prerequisite for inspector positions (see Chapter 3). Additional selection criteria could include expertise in school evaluation and school improvement, analytical skills and knowledge of relevant legislation, which are common requirements internationally (Faubert, 2009[21]). As mentioned above, Bulgaria will also need to increase internal inspectors' salaries if they are not high enough to attract experienced educators or principals.

Bolster the Inspectorate's role as an independent technical body

While securing a civil service position in Bulgaria requires participating in an open merit-based competition, in reality, there is evidence to suggest that loopholes still exist (Zankina, 2018[45]). To bolster the Inspectorate's role as an independent technical agency, Bulgaria should take steps to ensure that appointments are free from political interference and staff have the relevant competencies and experience to evaluate schools. Strengthening the selection criteria for inspectors, as outlined above, can help achieve this goal. However, the prime minister appoints the director of the Inspectorate and there are no guidelines about what qualifications this person should have or approval process for the General Assembly to review and confirm the appointment. While it is common for government administrations to appoint heads of ministries and technical agencies, Bulgaria should consider ways to ensure the appointment process for selecting the Inspectorate's leadership does not undermine the trust and technical quality of this body.

Recommendation 4.2.4. Use external school evaluations and the Innovative Schools initiative to support equity and inclusion

Over the next 10 years, Bulgaria aims to create a more equitable, inclusive education system (Ministry of Education and Science, 2020[18]). However, there are currently significant gaps in participation and learning outcomes among students in different districts and from different ethnic groups. For example, the performance gap on PISA 2018 between students whose mother tongue was Bulgarian and those who reported speaking another language at home was equivalent to over two years of schooling (OECD, 2019[46]). Bulgaria should make changes to the school evaluation system to better support national goals related to helping all students develop the competencies needed for success. In particular, support provided in a follow-up to external school evaluations, such as networking opportunities and funding, should target low-performing schools to help them improve. These efforts will help to ensure that attention and resources stay focused on students and schools at risk of falling behind. Bulgaria should also consider

how the large-scale Innovative Schools initiative could further support equitable improvements across the education system by including schools that would not otherwise have the funds to implement innovative projects.

Introduce a formal school networking programme for schools that need extra support

Through the Innovations in Action initiative, the Bulgarian government provides funding to support the dissemination of innovative school practices. This includes funding for school networking between innovative and non-innovative schools. Schools establish these networking relationships themselves using an online platform. While this initiative is positive, there is no guarantee that these relationships will include schools that are struggling to meet quality standards. Bulgaria should, instead, make sure that at-risk schools benefit from peer learning, which is a powerful support for school improvement (OECD, 2013[14]). The Ministry should work with the Inspectorate to establish a formal school networking programme that pairs schools that received the two lowest ratings on their external school evaluations ("unsatisfactory" and "satisfactory") with schools that received a rating of "very good". School improvement experts in REDs could help to facilitate these networks. For example, REDs could arrange meetings between school principals and school visits to observe teaching and learning practices. The Inspectorate could monitor the impact of the networking activities when conducting follow-up inspections with the schools that received lower ratings. In developing this type of initiative, Bulgaria could look at international examples of networking programmes that have paired schools based on inspection results. Serbia's SHARE programme, for example, combined 10 to 15 hours of classroom observations in "model schools" with constructive peer feedback sessions (Maghnouj et al., 2020[29]).

Target proposed school improvement funds at schools that receive poor results on their external school evaluations

Once all state and municipal institutions have undergone an initial inspection, Bulgaria plans to provide state funds to improve the quality of instruction in schools that receive either high or low results on their external school evaluations (Government of Bulgaria, 2016[10]). High-performing schools will have the discretion to spend the funds on their improvement activities and to incentivise staff, while low-performing schools will need to spend funds according to a distribution scheme approved by the local government. Internationally, external school evaluation results are not strongly linked to financial rewards (OECD, 2013[14]). Since rewarding high-performing schools with financial resources has the potential to reinforce inequities in the education system, Bulgaria should consider providing them with non-financial rewards instead. This will free up more resources to raise standards in lower-performing schools, which is essential to creating a more equitable education system. The Ministry's website, for example, could showcase high-performing schools (see Recommendation 4.1.1. Clearly communicate what school quality means) and will already be rewarded with greater autonomy and space to innovate by being subject to fewer external school evaluations.

Bulgaria should also consider how to direct resources for school improvement to low-performing schools as soon as possible. As of December 2020, only 160 institutions had been evaluated out of 4 225 schools in the country. It will therefore take some time for the Inspectorate to evaluate all institutions and thus give all schools access to state funds to improve instructional quality. In the meantime, the government should begin providing indirect financial support to low-performing schools by funding the kinds of regional technical supports recommended above, including a school networking programme.

Review the Innovative Schools initiative to determine whether there are schools that are under-represented

The Ministry reportedly does not provide funding for projects developed as part of the Innovative Schools initiative in order to give schools greater freedom from the normative framework. This means that schools

need to find funding from other sources to support their innovative projects. Some schools rely on non-governmental organisations (NGOs) and other donations to fund activities like training for school staff and changes in infrastructure. For example, one school that spoke with the OECD review team stated that an NGO donated LEV 200 000 (just over EUR 100 000) to their project. Many schools in Bulgaria are unlikely to have access to donor funding at this level. Therefore, the Ministry should conduct a review to determine the extent to which this policy prevents schools from applying to the Innovative Schools initiative because they lack access to external funding. This analysis would also reveal whether existing innovative schools have difficulty funding their projects.

Bulgaria should use the results of this review to inform changes to expand access to the initiative. For example, the Ministry might consider providing funding to schools that pass the application process and are under-represented among innovative schools. These might be schools that have certain contextual features, like their school type (e.g. vocational), location (e.g. in poorer municipalities) or student population (e.g. schools that already receive extra state funds for having a concentration of students from vulnerable groups above 20%). The funding could be used for specific aspects of the projects, similar to the Netherlands' Schools Have the Initiative (*School aan Zet)* programme, which ran from 2012 to 2016. This programme was designed to be temporary and encourage Dutch schools to become familiar with new reforms by allowing them to access funding for, among other things, visits from independent experts to support the implementation and evaluation of their projects (OECD, 2014[47]). The Ministry should place conditions on this type of funding for accountability purposes, such as requiring schools to report on how they are working with non-innovative schools to disseminate the results of their projects.

Policy issue 4.3. Making regular school self-evaluation mandatory and building schools' capacity for development

Bulgaria's efforts to strengthen external school evaluation are important and have the potential to raise the quality and equity of the school system. However, it will likely take time to inspect all schools and build the capacity of REDs to support school improvement. It is therefore imperative that Bulgaria simultaneously proceed with plans to develop instruments for school self-evaluation so that schools can start driving their own improvement immediately. The current lack of requirements for regular school self-evaluation is a significant gap. While it is positive that the Ministry is developing a new ordinance on school quality management that will make regular self-evaluation mandatory, a similar ordinance was briefly in place and repealed in 2017, highlighting the need to learn from previous experience and make self-evaluation a meaningful exercise for schools. For example, the repealed ordinance did not give schools flexibility to adapt self-evaluation to fit their needs or reference the Inspectorate's school evaluation framework, which was still under development. To be effective, school self-evaluation and external evaluation processes should be complementary and mutually reinforcing so that all schools are consistently encouraged to focus on areas that are most important to quality provision (OECD, 2013[14]).

Several factors could prevent Bulgarian schools from conducting effective self-evaluations and making improvements to their practices. In particular, schools will need support to build their capacity for self-evaluation and access to data to help easily benchmark their outcomes against comparable schools. These elements do not yet exist in Bulgaria. Another risk factor is a lack of capacity among school leaders to plan and implement school improvements. Unlike a majority of European countries, Bulgaria does not require principals to complete any initial training for their role (EC/EACEA/Eurydice, 2013[48]; Sağlam, Geçer and Bağ, 2017[49]). This can leave principals unprepared for their responsibilities, especially considering they have a significant amount of autonomy. Addressing these risk factors can help establish self-evaluation as an important exercise, which is crucial since it will take several years before the new Inspectorate can conduct inspections of all schools.

Recommendation 4.3.1. Ensure that new school self-evaluation requirements support school development

Bulgaria will need to make sure that the new ordinance on school quality management encourages schools to internalise quality standards and use self-evaluation to support their own development (OECD, 2013[14]). In a positive way, the Inspectorate already plans to revise the school quality standards to address school self-evaluation once the new ordinance is released. Many OECD countries include this area in their standards to encourage schools to use self-evaluation for improvement and to ensure that inspections provide feedback on the quality of their processes (OECD, 2015[50]).

Ensure that the new ordinance on school quality management addresses key aspects of self-evaluation that will help schools drive their own development

The Ministry and the Inspectorate should jointly develop the new ordinance on school quality management with input from key stakeholders. The OECD review team's discussions with stakeholders in Bulgaria suggested that different Ministry directorates were more involved in the development process than the Inspectorate. Engaging the Inspectorate will help to ensure that new requirements for school self-evaluation are consistent with the overall school evaluation framework. The Ministry and the Inspectorate should ensure this ordinance clearly connects self-evaluation to school development by referencing:

- **The development purpose and frequency of school self-evaluation**. Like roughly a dozen European education systems, including Estonia, Ireland, Scotland and Spain, Bulgaria should identify self-evaluation as a tool to inform school development plans (EC/EACEA/Eurydice, 2016[26]). Bulgaria should also require schools to conduct self-evaluations at least every two years, as was the requirement in the previous ordinance. This will fit well within Bulgaria's four-year school development planning cycle.
- **Core quality indicators**. In most OECD countries, schools are given the flexibility to adapt self-evaluation to their needs, which helps them better integrate this process into their regular development activities (Chapman and Sammons, 2013[51]; OECD, 2015[50]). Bulgaria's new ordinance should require schools to focus their self-evaluations on a small number of core indicators that are drawn from the Inspectorate's school quality standards but give schools the flexibility to choose from other indicators depending on their context and goals. The specific core indicators should be set out in a manual that the Inspectorate can easily revise as needed (see below). They should relate to national education goals for student outcomes, which will encourage schools to work towards overall system improvement.
- **Key roles and responsibilities**. In a positive way, the previous ordinance identified the key individuals that should be involved in the school self-evaluation process, including the principal, the Pedagogical Council, a staff team, and parents and students. This makes school self-evaluation a shared responsibility. In the new ordinance, Bulgaria should identify chief teachers as the school staff who are responsible for helping to co-ordinate self-evaluations (see Chapter 3). The new ordinance should also clarify what role other actors in the education system should play in supporting school self-evaluation and development, especially REDs and the Inspectorate.

Use external school evaluations to assess whether schools are conducting self-evaluations and provide feedback on their quality

The Inspectorate should proceed with revising the school quality standards so that external school evaluations address the quality of school self-evaluations. This could mean reinstating the indicators and sub-indicators on school quality management that were in the 2016 iteration of the standards (see Table 4.6). These addressed whether schools were using self-evaluation for development. Once Bulgaria

develops guidelines, tools and training for school self-evaluation (see below), the Inspectorate might consider revising the indicators to capture the extent to which school staff make use of these materials.

Table 4.6. The Inspectorate's previous indicators on management of school quality

Criterion	Indicators	Sub-indicators
Management of school quality	Efficiency of self-evaluation	The pre-school/school has defined activities, procedures and criteria for preparing an internal evaluation of the quality of education.
		Built capacity for collection, processing, interpretation and use of data.
		Measures are taken to improve quality as a result of the self-evaluation.
	Interconnection between self-evaluation and improvement	Measures to improve quality are proposed at meetings of the Pedagogical Council.
		The Public Council offers quality improvement policies and measures.
		Feedback from teachers, students and parents is taken into account when taking measures to improve quality.
		The . Strategy and Action Plan are updated according to proposed measures for quality improvement.

Source: National Inspectorate of Education (2016[52]), *School Evaluation Criteria,* National Inspectorate of Education, Sofia.

Recommendation 4.3.2. Build schools' capacity to conduct self-evaluations and act on results

Introducing meaningful self-evaluation takes time and support. Schools may find it challenging to gather and analyse evidence, engage the school community in the self-evaluation process and devise recommendations for improvement. As a result, most OECD countries provide schools with guidelines, online resources and training on self-evaluation. This is particularly important in contexts like Bulgaria, where a culture of open discussion and trust, which is important for effective self-evaluation, is not well established. To enable Bulgarian schools to conduct self-evaluation and compare their performance constructively to schools operating in similar contexts (e.g. based on location or characteristics of students), the Ministry will need to provide adequate resources and data. In OECD countries, this type of data is often made accessible to schools through Education Management Information Systems (EMIS). Bulgaria is in the early stages of developing a new EMIS (see Chapter 5) and should make sure that schools can use the information collected there to inform their self-evaluation and development efforts.

Develop a school self-evaluation manual, resources and practical tools

The Inspectorate should develop a school self-evaluation manual that provides an overview of the steps in the self-evaluation process. The manual should contain a small number of core quality indicators, as recommended above, that align with the Inspectorate's school evaluation framework. The manual should also include a simple list of prompting questions to help schools determine how they are doing in relation to the indicators (e.g. "how good is our school?"; "how can we make it better?"; "are teachers' skills being put to good use?"; and "how good is learning and teaching in our school?") (Riley and Macbeath, 2000[53]). Providing descriptors and benchmarks of what "poor" to "very good" quality looks like for each indicator can also help schools make judgements about their practices.

Bulgaria should make self-evaluation resources, such as evidence-gathering tools and descriptions of schools' effective practices, available to schools on an online platform (see Recommendation 4.1.2). For example, Ireland's Department of Education and Skills has a school self-evaluation website that provides sample interviews and questionnaires, detailed "stories from schools", including videos showing how school staff conducted self-evaluations, and examples of self-evaluation reports and school improvement

plans (Department of Education and Skills of Ireland, 2021[54]). The Bulgarian Inspectorate could solicit these tools from schools and collect more through external school evaluations.

Provide training and guidance to school staff responsible for school self-evaluation

The Inspectorate should have a mandate to develop training to build the capacity of schools to conduct effective self-evaluations. The extent to which schools received training on school self-evaluation when the previous ordinance on school quality management was in place in 2017 is unclear. Most OECD countries treat this as a necessary investment, particularly when school self-evaluation is first introduced as a requirement (OECD, 2013[14]). In Bulgaria, training seminars should be available to principals and other school staff who will be responsible for self-evaluation, like chief teachers, through the National Programme for Qualifications (see Chapter 3). The seminars should cover key areas like how to gather evidence, analyse data and develop school improvement plans. Over time, the Inspectorate should use information gathered through external school evaluations to refine the training to address areas of need.

School improvement experts in REDs should also provide ongoing coaching to schools on how to conduct self-evaluations (seeRecommendation 4.2.2. Build REDs' capacity to support school quality). In many European countries, including Belgium (German-speaking community), Estonia and Poland, schools can request that external specialists give them self-evaluation advice and support on topics like which data collection tools to use and how to act on findings (EC/EACEA/Eurydice, 2016[26]). In the future, Bulgaria should make this type of coaching mandatory if an external school evaluation determines that a school is struggling with self-evaluation and development planning.

Provide schools with data that they can use to benchmark their performance against schools with similar demographic features

The Inspectorate should work with the Ministry's directorate responsible for building a new EMIS to provide schools with data that allow them to compare their performance with schools that share their contextual features, as well as regional or national averages. For example, Bulgaria could build a user-friendly portal in the new EMIS to provide schools with benchmarking data (see Chapter 5). This should cover key school quality indicators, particularly those that relate to national education goals for student outcomes, such as national external assessments results and completion and enrolment rates by different student categories (e.g. socio-economic background, ethnic group, gender). Importantly, this portal should not facilitate the ranking of schools but rather support schools in conducting self-evaluations by revealing whether comparable institutions are obtaining different outcomes. School staff can also use this information to improve their teaching, learning and school management practices.

Recommendation 4.3.3. Strengthen principals' instructional leadership

Having established a merit-based process for appointing school principals, Bulgaria's Pre-school and School Education Act recently put in place measures to develop school leadership further. While the process for selecting school principals has remained largely unchanged, a new attestation appraisal (similar to attestation appraisal for teachers) was developed to hold principals accountable for their performance. The attestation appraisal will be implemented for the first time in the school year of 2021-22 and will be used to inform a principals' progression along a career path that consists of two degrees (see Table 4.2). Principals are also required to meet new requirements for continuous professional development and have access to training that is relevant to their role. For example, Bulgaria's 2020-21 National Programme for Qualifications included seven or eight training opportunities for principals (e.g. practical training for principals of educational institutions, practical module for positive communication with teachers). However, preparation specifically covering instructional leadership practices, which are associated with real school improvement, may be lacking (Orphanos and Orr, 2014[55]). Bulgaria should require principals to participate in mandatory initial training and continuous professional learning on

practices relevant to all of their major responsibilities. To encourage school principals to continuously develop their leadership competencies, Bulgaria should explore ways to align incentives with the principal career path.

Provide principals with initial training on instructional leadership and collaborative professional learning opportunities

The Ministry should make school leadership training free and mandatory for newly appointed principals. Bulgaria's National Center for the Professional Development of Pedagogical Specialists, which is a Ministry body, recently designed training for new principals that covers areas like labour law, communications and finances. In a positive way, this training is already free of charge and reportedly engages school leaders in examining practical case studies. However, it is not mandatory and does not seem to cover instructional leadership explicitly. The centre should expand the contents of the training to provide practical preparation in all areas of school leadership, including instructional leadership duties like heading school self-evaluation, planning and implementing school improvement, as well as advising teachers on how to improve the quality of instruction (see Chapter 3). To cover the main areas of importance, training will likely need to be longer than its present length of 16 hours. By comparison, training for new principals in the Czech Republic is 100 hours and in France one year (EC/EACEA/Eurydice, 2013[48]).

The Ministry could also expand Bulgaria's recently introduced requirements for teacher mentorship (see Chapter 3) to include a new mentorship programme for principals. Working with REDs, the Ministry could pair new principals with experienced principals and make sure that the latter are well prepared to provide mentorship support. For example, the Ministry could develop a practical training seminar for principal mentors that covers topics like coaching and providing feedback, as well as issue a guideline setting out expectations for the role of principal mentor. Examples of principal mentorship programmes can be found in OECD education systems like England (UK), Estonia, New Zealand and Slovenia (Pont, Nusche and Moorman, 2008[56]). This type of collaborative, job-embedded learning is particularly beneficial to school leaders. Another type of professional learning for principals could also entail joining school inspection teams as external inspectors. Working with experienced inspectors to conduct external evaluations of other schools can help principals better understand the Inspectorate's school quality standards, benchmark school practices against these and learn how to develop appropriate interventions to improve performance.

Further develop the school principal career structure to reward the development of motivated school leaders

The Ministry should review the purpose of the new principal career structure and, if it is intended to encourage principals' development as school leaders, consider how it can better motivate principals to grow professionally. As recommended for teachers in Chapter 3, one way the Ministry could do this is by identifying additional responsibilities for each of the first and second degrees of the principal career path and higher competencies in the professional profile for school directors. There may also be scope to include elements linked to improving performance in disadvantaged schools. The Ministry should also connect salary increases to each degree. Without additional remuneration, there may be little incentive for school leaders to develop their leadership capacity and move up the career ladder.

Career progression should be the primary means for Bulgaria to reward principals financially for their performance. This means that Bulgaria should discontinue the salary bonus for principals based on an annual analysis of their work, similar to the recommendation for teachers in Chapter 3. An attestation appraisal for career progression, once revised as recommended below, will provide a more consistent, transparent and objective process to reward principals for their performance. For example, it will be based on common standards and transparent sources of evidence, unlike the annual analysis of work.

Align the professional qualification degree programmes with the school principal career structure

The Ministry should also play a role in overseeing professional qualification degree programmes for principals to ensure that they develop school leadership competencies for career progression. A scan of two universities' offerings in 2021 revealed no programmes on school management or leadership for the fifth or fourth professional qualification degrees, which are required for moving up the school principal career ladder. To address this, the Ministry should encourage providers to develop programmes based on competencies set out in the professional profile for school directors. Other changes recommended in Chapter 3 to enhance the relevance and quality of professional development programmes also apply to school leaders' professional learning. For example, the Ministry should collect information about principals' learning needs systematically to inform priority areas in the National Programme for Qualifications and conduct more stringent quality assurance procedures.

Make the attestation appraisal of school leaders more objective, consistent and transparent

While the attestation appraisal of school principals intends to improve accountability, principals are currently measured against criteria set by individual attestation commissions, rather than the professional profile for school principals. Furthermore, the principal's employer (often REDs) leads the attestation process and selects members to the appraisal commission, which creates opportunities for political interference. The Ministry should therefore make similar changes to the attestation appraisal process for school leaders as those recommended in Chapter 3 for teachers. In particular, the Ministry should revise the appraisal process so that principals are assessed against consistent standards – specifically, the competencies for a particular career level in a revised professional profile for school directors – rather than criteria that vary with each appraisal. This will promote greater transparency in the process and encourage more consistent judgements of principals' performance against important areas of knowledge and skill. Furthermore, the Ministry should replace the attestation commission with independent appraisers. Having independent appraisers would help ensure the integrity of the attestation appraisal. Bulgaria could do this by making experts from neighbouring REDs or contracted external appraisers with school leadership experience responsible for conducting attestation appraisals. The Ministry should develop a guideline and training so that appraisers are well prepared to assess principals' practices and provide feedback.

Incentivise school leaders to work in struggling schools

Bulgaria should consider incentivising talented principals to work in schools in rural or socio-economically disadvantaged areas. These schools are often most in need of a strong school leader capable of improving teaching and learning practices but among the hardest to staff. At present, Bulgaria does not provide any allowances or incentives for principals working in disadvantaged or remote schools (EC/EACEA/Eurydice, 2020[8]). Furthermore, school leadership in rural areas may be less attractive because principals' base salaries are differentiated according to the size of the school and rural schools tend to be smaller. Incentives could include a salary stipend or a career fast track, as recommended for teachers in Chapter 3. For example, Kazakhstan provides an allowance and housing support to principals in rural schools (OECD, 2019[51]). Non-financial incentives might include recognition for outstanding school leadership in different regions. This type of reward would also help to communicate to the public what school quality means in Bulgaria.

Table 4.7. Table of recommendations

Policy Issues	Recommendations	Action Points
Building a common understanding of school quality	Clearly communicate what school quality means	Create clear links between Bulgaria's national vision of a school in 2030 with the school quality standards used for evaluation
		Revise the school evaluation framework to confirm that school quality means supporting the progress of all students
		Publish external school evaluation reports that are brief, holistic and qualitative
		Showcase schools that have made progress and are doing well to meet quality standards
	Help schools develop a better understanding of school quality and lead their own development	Develop an online platform to support school improvement
		Require all schools to develop action plans based on external school evaluation results
Making sure that external school evaluations support school improvement, especially in at-risk schools	Clarify and formalise REDs' new mandate for monitoring and supporting schools	Amend regulations to set out the new responsibilities of REDs
		Adjust the activities of REDs to complement the inspectorate
		Provide formal opportunities for the inspectorate and REDs to work together
	Build REDs' capacity to support school quality	Develop specific positions for school improvement experts in REDs
		Build experts' capacity to support school staff
		Address factors that contribute to the understaffing of REDs
	Ensure the inspectorate can fulfil its mandate	Provide the inspectorate with sufficient human and financial resources
		Require internal inspectors to have relevant experience and a background in education
		Bolster the inspectorate's role as an independent technical body
	Use external school evaluations and the Innovative Schools initiative to support equity and inclusion	Introduce a formal school networking programme for schools that need extra support
		Target proposed school improvement funds to schools that receive poor results on their external school evaluations
		Review the Innovative Schools initiative to determine whether there are schools that are under-represented
Making regular school self-evaluation mandatory and building schools' capacity for development	Ensure that new school self-evaluation requirements support school development	Ensure that the new ordinance on school quality management addresses key aspects of self-evaluation that will help schools drive their own development
		Use external school evaluations to assess whether schools are conducting self-evaluations and provide feedback on their quality
	Build schools' capacity to conduct self-evaluations and act on results	Develop a school self-evaluation manual, resources and practical tools
		Provide training and guidance to school staff responsible for school self-evaluation
		Provide schools with data that they can use to benchmark their performance against schools with similar demographic features
	Strengthen principals' instructional leadership	Provide principals with initial training on instructional leadership and collaborative professional learning opportunities
		Further develop the school principal career structure to reward the development of motivated school leaders
		Align the professional qualification degree programmes with the school principal career structure
		Make the attestation appraisal of school leaders more objective, consistent and transparent
		Incentivise school leaders to work in struggling schools

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5 Building a system-level monitoring framework that can advance national education goals

Bulgaria has a national vision for its education system and is modernising education data systems to help track progress and evaluate policy. While some of the basic components needed to monitor and evaluate education reforms already exist, many of Bulgaria's national tools and processes for system evaluation remain nascent and communication among different actors is not adequate to build trust in the reforms. This chapter suggests several policy measures that Bulgaria can take to advance its system evaluation efforts to help achieve national education goals.

Introduction

Bulgaria has made several policy changes in recent years to raise the quality of its education system. The government has, for example, introduced a new competency-based curriculum, established a National Inspectorate of Education and developed a new school financing model (see Chapter 1). While some of the basic components needed to monitor and evaluate the impact of these changes already exist, many of Bulgaria's national tools and processes for system evaluation remain nascent and communication among different actors is not adequate to build trust in the reforms. This chapter suggests several policy measures that Bulgaria can take to strengthen system evaluation. Specifically, the chapter will address the country's new education management information system (EMIS) and the National External Assessment (NEA) of student learning, which serve as the two main sources of information about the education sector. These tools need to provide actors with timely and trustworthy data so that policy makers at both the central and local levels can take informed decisions. School-level actors and the public also need more evidence about the education system to develop a better understanding of where and why students are falling behind in their learning and what actions can help achieve national education goals. Such processes are especially important in Bulgaria, where broad decentralisation reforms have led to mixed results (OECD, 2021[1]).

Key features of system evaluation in Bulgaria

System evaluation frameworks generate and use information to develop education policies and hold the government and other stakeholders responsible for achieving stated objectives (OECD, 2013[2]). Bulgaria already has many components of a system evaluation framework (Table 5.1). For example, several government agencies collect data and conduct research on issues relevant to their work, and the country regularly participates in international assessments and surveys that provide credible metrics for monitoring performance. Despite these positive features, there are several weaknesses in terms of Bulgaria's national tools and processes for system evaluation. The NEA, for example, has been measuring learning outcomes since 2007 but the scoring system does not generate trend data that are comparable across years. Moreover, current data collection processes are not co-ordinated across state administrative bodies and there is no regular analysis and reporting on the performance of the education system as a whole. While it is positive the Bulgarian government is already addressing some of these issues, namely by developing an integrated EMIS, further strengthening national tools and processes for evaluation is crucial. Without such efforts, it will be difficult for Bulgaria to fully understand and address persistent educational challenges, such as high dropout rates and poor learning outcomes. Developing stronger national tools and using evidence to evaluate and shape education policies will enable Bulgaria to better monitor the impact of reforms, improve transparency in decision-making processes and help communicate progress towards achieving national education goals.

Table 5.1. System evaluation in Bulgaria

References for national vision and goals	Tools	Body responsible	Outputs
Bulgaria 2030 (10-year national development plan) *Strategic Framework for the Development of Education, Training*	Administrative data	Ministry of Education and Science	
		National Statistical Institute	Data and data compendia (e.g. statistical yearbook *Education in the Republic of Bulgaria 2020*).
	National assessment	Center for Assessment of Pre-school and School Education	National External Assessment.

References for national vision and goals	Tools	Body responsible	Outputs
and Learning in the Republic of Bulgaria 2021-2030	International assessments	Center for Assessment of Pre-school and School Education	Programme for International Student Assessment (PISA, age 15, mathematics, science and reading). Trends in International Mathematics and Science Study (TIMSS, Grades 4 and 8). Progress in International Reading Literacy Study (PIRLS, Grade 4). International Civic and Citizenship Education Study (ICCS, Grades 8 and 9).
	School evaluations	National Inspectorate of Education	No aggregate reports on the quality of education processes in schools. Only individual school-level reports (not publicly available).
	Policy evaluations	No established processes	Some reports have been compiled with development partners, e.g. "Assessment and recommendations regarding the educational environment in pre-school institutions, schools in Bulgaria, including schools offering vocational education and training," prepared with the World Bank (2020).
	Reports and research	Various public agencies in the education sector, including the Ministry of Education and Science	No overall report on the education system; various specialised agencies periodically report on their respective areas of work.
		Non-governmental organisations (NGOs) and international organisations (IOs)	Research on different topics, including educational equity amongst Roma populations, etc.

High-level documents articulate goals for school education and lifelong learning

Policy goals provide a reference point against which actors can assess performance and are thus an important tool for accountability and driving system improvement. Bulgaria has a set of clear, long-term goals for the education sector, which are contained within the government's Bulgaria 2030 development strategy and the sector-specific Strategic Framework for Education. Both documents articulate education goals from pre-primary to the upper secondary sector, as well as lifelong learning (Table 5.2). By defining long-term goals in this way, the Bulgarian government helps reinforce policy continuity, a considerable achievement since evidence suggests the country struggles with a high turnover of civil service personnel, in both senior and technical-level positions (EBRD, 2019[3]). To focus education reform efforts, countries often associate goals with specific, time-bound targets that enable the public, opposition parties and future administrations to get a sense of how policies have performed and any needs for adjustment. Bulgaria publishes its national education goals alongside quantitative indicators, which help to steer different policy actors. However, some indicators do not measure progress in a way that can meaningfully support system evaluation and detailed action plans have not been developed to support the implementation of long-term education strategies.

Bulgaria's education goals have been defined through evidence and consultation

Bulgaria has developed two high-level policy documents that set goals for its education sector. The first is Bulgaria 2030, which identifies the government's general priorities over a ten-year period, including in the area of education. Positively, this strategy was formulated through an assessment of the country's socio-economic development since EU accession and key challenges that remain in light of national development goals and international commitments. It was steered by Bulgaria's Council of Ministers and formulated by the Ministry of Finance in consultation with national and international development partners. The second policy document, the *Strategic Framework for the Development of Education, Training and Learning in the Republic Of Bulgaria* (2021 – 2030) (hereinafter, the Strategic Framework for Education), is more sector-specific and implementation-oriented. The Ministry of Education and Science (hereinafter, the Ministry) formulated this latter document, which covers the same time horizon as Bulgaria 2030 but establishes a more detailed set of policy goals and interventions required to achieve them. In particular, the framework expands the five education goals of Bulgaria 2030 into seven priority areas (Table 5.2) that were identified through a strengths, weaknesses, opportunities and threats (SWOT) analysis, a vision of schooling in Bulgaria by 2030 and consultation with education-specific stakeholders. Importantly, the Strategic Framework for Education takes into account other relevant government strategies and regulations affecting the education sector, as well as eligible financing facilities, which stand to support its implementation and in turn the implementation of Bulgaria 2030.

Table 5.2 Bulgaria's strategic priorities for the education sector

Strategic priority areas	Education goals of Bulgaria 2030	Priorities of the Strategic Framework for Education
Inclusion in education	1. Inclusion in education	1. Effective and lasting inclusion
Empowering teachers	2. Attractiveness and prestige of the teaching profession	2. Motivated and creative teachers
Improving the quality of education	3. Quality of education	3. Competencies and talents
		4. Realisation in the professions of the present and the future (labour market relevance)
Lifelong learning	4. Lifelong learning	5. Lifelong learning
Using innovation and information and communication technology (ICT) in education	5. Digitalisation and educational innovations	6. Educational innovation, digital transformation and sustainable development
Governance and network building		7. Effective and efficient management and participation in networks

Monitoring indicators do not fully measure progress towards national education goals

Most OECD countries associate their education goals with a set of outcome indicators. This practice provides a metric to guide and assess progress towards longer-term goals. Both the Bulgaria 2030 strategy and the Ministry's Strategic Framework for Education contain a set of indicators with specific targets that enable the public to hold the government and other implementers to account. However, some indicators do not support performance measurement sufficiently. The indicator for measuring inclusive education, for instance, tracks overall school participation across Bulgaria at different key stages of schooling but does not measure participation among the specific vulnerable groups that figure disproportionally in the country's out-of-school population. While Bulgaria does not compile data based on ethnicity, it does compile data on vulnerable students based on parents' income level and other factors, which has been used to provide additional support to certain schools (see Chapter 4) and regions, for instance through the country's new funding model (see Chapter 1) and the large-scale School for Success project. Without more detailed and disaggregated indicators that track education outcomes for vulnerable groups, Bulgaria may struggle to measure the inclusiveness of its education system as well as other national education goals. A number of

OECD countries, such as Australia and the United States (US), compile data disaggregated by student background to reveal and address disparities present in their education systems.

Implementation plans have not been developed to support education strategies

The Ministry plans to prepare two mid-term implementation plans linked to its Strategic Framework for Education. While Bulgaria has begun to pursue activities linked to policy priorities set out under the framework, it does not yet have the first of these two implementation plans in place and this may slow and complicate the implementation of planned interventions. Deliberately planning for the implementation of policies can help keep actors on course, channel restricted resources to where they are needed most and reinforce accountability. In the wake of the COVID-19 crisis, implementation has become even more challenging and therefore mid-term action plans will need to have more flexibility built in, to allow for policy adjustments when needed. One way to achieve this is by establishing intermediate targets to ascertain if policy goals are on track and changes are needed to achieve goals (for instance, by associating each major planned activity with a set of output indicators).

Tools for system evaluation have been poorly co-ordinated and not fully developed

Most OECD countries compile education statistics using a variety of instruments, such as national assessments and school questionnaires. Importantly, these tools and processes should complement not duplicate each other to increase the efficiency and accuracy of data collection. Bulgaria has established some of the institutions and processes required to gather information and monitor the performance of the education system. Its NEA provides data on learning outcomes and statistical bodies compile most of the key education statistics collected through the United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics (UIS)/OECD/Eurostat joint data collection programme. However, until recently, the Ministry's education database has not been harmonised with other parts of the state administrative system nor with international reporting requirements. Moreover, the NEA does not generate data that are comparable across cycles. Bulgaria needs to continue to upgrade and co-ordinate its evaluation tools to support system accountability and improvement.

Education data collected by the Ministry have not been harmonised with other state administrative systems, nor with international reporting requirements

The Ministry collects comprehensive data for administrative purposes. Schools record their data (on attendance, grades, etc.) in either paper or electronic format and upload them once a month to the regional department of education's (RED) electronic ledger. This information is then stored in the Ministry EMIS. The time lag between when schools collect data and when authorities aggregate it at the system level has meant that users cannot maintain up-to-date records on highly dynamic phenomena such as school dropout.

Another major challenge facing the collection of education data in Bulgaria has been the lack of co-ordination within the sector and across state agencies. In many OECD countries, national statistical agencies use data collected by their education ministries to fulfil international reporting requirements. This practice helps lower costs, reduces the reporting burden on schools and tends to improve overall data coverage and availability. In Bulgaria, however, the Ministry has used its own data protocols, statistical definitions and methodologies, which are not fully compatible with EU reporting requirements. Compatibility issues exist, for instance, around data on vocational education and training (VET) colleges, which the National Agency for Vocational Education and Training produces, and in the definition of International Standard Classification of Education (ISCED) levels and education personnel. As a result, the country's National Statistical Institute (NSI) does not currently use data from the Ministry EMIS but compiles its own data directly from education institutions through an annual statistical survey.

Finally, the Ministry's existing EMIS does not connect to data collected by other education agencies, such as the Center for Assessment, which stores results from the NEA and state matriculation examination. This arrangement limits the type of analysis researchers and policy makers can do to understand system performance because they have to connect different databases manually. To address some of these challenges, the Ministry is creating a new integrated EMIS, which represents a valuable opportunity to improve the efficiency of data collection and management in Bulgaria's education system.

The Ministry is creating a new EMIS

Since 2014, the Ministry has been working to establish a new EMIS with the aim of improving the collection and use of administrative data. Several modules for the new EMIS have already been developed and the entire system is expected to be operational for use over the 2021/22 school year. The new system has many positive features, including that new student and teacher data will be verified against the National Population Database then submitted to the Ministry, which will create an anonymised personal profile for the student or teacher linked to the country's unique citizenship number. This will enable the Ministry to track progress through the teaching and learning process and enable researchers to track outcomes against a range of background characteristics. Privacy protocols have been established, in line with the General Data Protection Regulation (GDPR). In addition, the EMIS will include a school-level module so that school actors can directly input their data into the central database, reducing the current time lag between the collection and aggregation of information. These changes will enable policy makers to directly access information across interoperable databases and reduce the data entry burden on schools. The new EMIS has been established as a single service platform, wherein teachers and students can access a range of tools, such as spaces for online learning and textbooks.

The new system is a considerable achievement and should significantly improve the quality of information available on the education system, as well as create opportunities for more complex analysis. However, there may be areas for further development. For instance, while the new EMIS was developed through strong and inclusive consultation within the Ministry (underpinned by a 40-person working group comprised of staff from different directorates), there seems to have been limited consultation with other education agencies and the NSI. Including these actors in the development and implementation of the new EMIS can help reduce the risk that they will continue to collect their own data in parallel to the central process once the Ministry has implemented its new EMIS. Moreover, while students, teachers, schools and Ministry staff can access certain datasets within the system through a unique identifier, the Ministry may consider developing a public interface, where discrete datasets can be accessed by any interested party. They may also consider consulting with a wider range of stakeholders – for instance, other (relevant) administrative data producers and NGOs – to ensure that EMIS data are comprehensive and can be used for a variety of purposes.

Bulgaria regularly participates in international assessments and surveys to measure learning outcomes and school environments

Bulgaria participates in several international assessments and surveys that provide reliable and comparable measures of how the education system performs in comparison to other economies and over time. Bulgaria has participated in every round of both PIRLS and PISA since they first began in the early 2000s, except one round of PISA (in 2003), and in every round of the Teaching and Learning International Survey (TALIS) since its inception in 2008. In addition, Bulgaria has regularly participated in TIMSS since its inception. Initially, the country participated in the study at Grade 8 level (in 1995, 1999, 2003 and 2007) but, since 2015, has participated in the assessment at Grade 4 level. This decision was made since the study of science is not a core part of the curriculum at Grade 8.

The Center for Assessment manages Bulgaria's participation in international assessments and surveys, and conducts analysis with this data to understand how the education system is performing over time. Positively, Bulgaria also uses data from international studies to set national benchmarks, such as the share of Grade 4 students scoring below intermediate benchmarks in mathematics (using TIMSS data). This practice provides a clear measure of learning outcomes that can help monitor system performance. At the same time, studies like PISA and TIMSS cannot help monitor implementation of the national curriculum.

NEAs are administered regularly but their current design and use hinder system monitoring and formative functions

National assessments can serve as an important tool for collecting reliable, recurrent data on learning outcomes with the goal of monitoring education systems, informing policy and supporting strategic planning. Results from such assessments can also have formative functions because they can serve as external references to strengthen teachers' classroom-based assessments. Since 2007, Bulgaria has conducted annual, census-based NEAs at three grades of schooling. NEAs are run at Grades 4, 7 and 10, which, respectively, mark the completion of primary, lower secondary and first stage of upper secondary education. The latter is the end of compulsory education in Bulgaria. The NEAs' stated objectives (Table 5.3) are broadly positive and reflect two of the main purposes of national assessment systems in OECD countries: to monitor student learning to inform policy- and system-level interventions (i.e. a monitoring function) and to generate information that can help improve student learning at the school and student levels (i.e. a formative function). As a result, the NEA generates both system- and student-level data, which is an ambitious and positive policy decision with the potential to help address many of Bulgaria's educational challenges, including concerns that students are not meeting national learning standards.

However, the design and implementation of Bulgaria's NEA system as well as the country's broader assessment culture (see Chapter 2) currently hinder the instrument's ability to serve its monitoring and formative purposes effectively. This is mainly because, in practice, the NEA fulfils a different purpose: to help select students into schools. Specifically, the Grade 7 NEA, which takes place when most students leave their basic school (covering Grades 1-7), is used to identify which students will attend elite secondary schools that specialise in mathematics or foreign languages, among other areas. As a result, the Grade 7 NEA currently acts more as an examination. This is a unique feature of Bulgaria's assessment system, as the vast majority of OECD countries do not use a national assessment for examination purposes but rather have separate instruments for system monitoring and selecting students. While NEA results also have a selective function in Grades 4 and 10, this is to a much lesser extent since only a minority of students change schools after these grades.

Table 5.3. Key features of Bulgaria's NEA

Feature	Specifications
Stated objectives	1. To diagnose individual progress and the educational needs of students. 2. To monitor educational progress, for the implementation of policies aimed at improving the quality of education. 3. To establish the degree to which students are achieving learning goals (by subject and grade levels) identified in the curriculum. 4. To establish the degree to which expected results were achieved, based on the state educational standard for general educational preparation in the respective subject, at the end of a given education stage.
Grades and frequency	Annual assessment in Grades 4, 7, 10.
Population tested	All eligible students (census).
Mode	Paper-based (the digital literacy assessment is administered by computer).
Variables collected	Information on: gender (male/female); students' age; language spoken at home; type of school (public/private) and geographic area (urban/rural); no proxy for socio-economic background.
Marking	Conducted by regional commissions comprised of RED representatives and teachers (the Grade 4 NEA was

	marked by teachers in the school until 2019 but has since been marked centrally).	
Scoring	Raw points, associated with a six-point scale for interpretation.	
Use of results	Student selection; system monitoring; school performance.*	
Test subjects and item types	Bulgarian language and literature (compulsory in Grades 4, 7 and 10).	Item types: multiple-choice, open-ended and (in Grades 7 and 10) essay tasks.
	Mathematics (compulsory in Grades 4, 7 and 10).	Item types: multiple-choice, open-ended.
	Foreign language (optional in Grades 7, and 10).	Item types: multiple-choice, open-ended, essays and oral.
	Digital literacy (optional in Grade 10).	Item types: multiple-choice.

Note: * Results from the NEA serve as one of the indicators for monitoring student progress and learning outcomes within Bulgaria's school quality standards (see Chapter 4). Results are also included in the student's certificate of completion for the relevant phase of education, although success in the assessment is not a requisite for graduation to the next level.
Source: Ministry of Education and Science (2021[4]), *OECD Review of Evaluation and Assessment: Country Background Report for Bulgaria*, Ministry of Education and Science of Bulgaria.

Another key issue with the NEA is that the system lacks some of the basic features that typically allow national assessments to measure learning outcomes against national standards. This partly involves Bulgaria's lack of basic psychometric resources for the NEA, such as proficiency scales, processes for calibrating items and criterion-referenced scoring. Moreover, Bulgaria does not take steps to offset the potential risks associated with having a census-based assessment, which can easily accrue high stakes by forming judgements about individual students, teachers and schools. For example, administering the NEA at the end of the school year and end of curriculum cycles, including scores on student certificates of completion and not investing in formative measures like interpreting and communicating results for different audiences, all convey a message that the NEA's dominant purpose is purely summative. These factors reinforce a strong traditional focus on competition and performance in assessments, rather than using assessment as a formative tool to support teaching and learning.

Reporting on the performance of Bulgaria's education system is limited

To make system evaluation a meaningful exercise, countries need to report on the performance of their education systems and use this information to support planning and accountability. Across the OECD, many countries produce annual reports on the state of their education systems and make these publicly available. A growing number are also starting to publish evaluations of major policies and programmes. These policy evaluations typically take place shortly after implementation or in the form of *ex ante* reviews to support future decision making (OECD, 2018[5]). In Bulgaria, regular reporting on the performance of the education system is limited. The country's capacity to compile these reports has been hampered by issues related to the collection and management of data across the sector (e.g. lack of trend data from the NEA). Positively, the Ministry reports on thematic issues and disseminates core administrative data. However, much of the analysis and research conducted by the Ministry is not accessible to the public or even to other sectoral agencies.

Some education data are publicly available but there is no regular report on the state of the education system

Bulgaria compiles and publishes data on the education system through the NSI's annual statistical yearbook. This yearbook provides descriptive information on the number of schools, students and teachers, at different levels of schooling, and disaggregates these figures by various characteristics (including gender, geographical location and legal status of the school). It also provides information on school attendance and other data to give education stakeholders a sense of system performance against key indicators such as teacher-student ratios, dropout rates and regional differences in the density of students and school resourcing. However, Bulgaria does not produce regular reports that explain how the

education system is performing against national goals. Data that could inform this reporting, such as analysis from NEA results and school inspection findings, are not systematically collected and reviewed in one place but, instead, held by different technical education agencies (such as the Center for Assessment and the National Inspectorate of Education (hereinafter the Inspectorate)). As a result, it is difficult for stakeholders to get a sense of how the education system is performing as a whole.

Bulgaria produces ad hoc reports on specific education issues

The Ministry as well as other sectoral bodies conduct evaluations and ad hoc research on topics relevant to their areas of work. The Ministry's Strategic Policies Development Division, which manages most of the Ministry's research work, does not have a specific, fixed budget line for research but is allocated funds for specific projects. In recent years, the Ministry has prepared reports on the drivers of early school leaving, Roma participation in schooling and other issues around participation and inclusive education. It has also recently produced research on how the COVID-19 pandemic has affected learning processes and student performance in Bulgaria (Ministry of Education and Science, 2021[6]). This signals a commitment to improving policy through evidence and many of the thematic areas reflect Bulgaria's commitment to improving educational equity. However, education research has been hampered by data limitations – specifically, a lack of reliable and timely student-level data. For instance, the Ministry cannot thoroughly evaluate its performance in addressing early school dropouts or regularly report on this issue to the public, since it cannot access data on early school leaving that is adjusted for overall population shifts (for instance through outward migration). Thorough policy evaluation and reporting will likely become more important in the wake of the COVID-19 pandemic, as administrators seek to rapidly offset learning losses and make difficult decisions about the allocation of limited funding.

Evaluation institutions

System evaluation requires public sector resources and technical skills to collect and manage reliable, quality datasets and to exploit education information for evaluation and policy making. Many OECD countries have established evaluation institutions that sit outside or at arm's length from education ministries, which can contribute to independent system evaluation. These institutions may produce evaluations of major policy programmes or annual reports on the education system, among other tasks. They typically receive public funding to ensure they have sufficient capacity but their statutes and operating rules ensure the independence and integrity of their work. While Bulgaria has technical education agencies that conduct evaluation activities, there is no dedicated body responsible for research and evaluation across the entire education system. Providing independent and periodic system evaluation is particularly important for Bulgaria, where political priorities risk interfering with research activities and public funding can be volatile.

Bulgaria does not have a dedicated body for analysis of the education system

Many different actors carry out system-level analysis in Bulgaria but these activities take place intermittently and are often under-resourced. There is no dedicated public body tasked with conducting periodic research and evaluation on system performance; however, the Strategic Policies Development Division within the Ministry typically co-ordinates system-level research. This division is responsible for developing education strategies, background papers and other policy inputs and frameworks, based on instruction from the Minister. In February 2020, the Strategic Policies Development Division merged with the Teacher Training and Qualification Division. While this merger highlights the critical role that teachers play in Bulgaria's development plans for the sector, it may result in a more myopic focus on a single system-level priority, at the expense of others. The Strategic Policies Development Division is also small, with only eight employees, and relies heavily on contracting external experts and researchers. While many countries rely on external support to conduct system evaluation activities, the Ministry's capacity constraints limit its ability to evaluate major policies and programmes systematically and monitor how large-scale reforms are affecting students, teachers and schools.

Specialised government bodies in the field of education carry out data compilation and research but this information is rarely used for system-wide analysis

A number of specialised government bodies in the field of education process their service data to inform operational planning. The National Center for Professional Development of Pedagogical Specialists, for instance, compiles an annual report to summarise the courses it delivered, the topics covered and the satisfaction of participants. The Inspectorate has also signalled plans to compile a summary report once it completes a full cycle of school evaluations. However, these strands of research activities are not compiled regularly for system-wide analysis.

Policy issues

Bulgaria has established many of the building blocks needed for a robust monitoring and evaluation system that can help inform education policy. The country has set clear goals and standards to guide the development of its education sector over the long term and regularly compiles administrative data and information on student learning outcomes through national and international assessments. Bulgaria also consults with stakeholders in formulating education policy and conducts research on systemic issues. In these respects, Bulgaria's system evaluation practices are similar to those of OECD and other European Union (EU) member states. However, the country still faces major educational challenges, including high dropout rates, a large share of students who do not achieve baseline levels of proficiency in reading and mathematics, and significant disparities in outcomes based on student background and geographic location.

To address these challenges, Bulgaria introduced several reform goals through the Pre-school and School Education Act (2016), which sets out new approaches to teaching and learning and emphasises the importance of inclusion. However, there are major issues with available evidence to review performance at different levels of the system. Primarily, the NEA cannot support trend analysis, meaning that Bulgaria does not have a national instrument to monitor learning outcomes over time. Moreover, while there are ongoing efforts to streamline data collection and management procedures across the education sector, there are currently parallel processes for collecting data, which reduces efficiencies and capacity to carry out quality checks. This context also limits the amount of information that is disseminated in user-friendly ways. Without more reliable and accessible education data and clearer lines of accountability, it will likely remain difficult for system-level actors in Bulgaria to direct policy and educational resources as well as monitor progress towards achieving national education goals.

Policy issue 5.1. Ensuring Bulgaria's new EMIS becomes a source of quality data for a variety of users

Bulgaria compiles most of the key education statistics collected internationally. The NSI also prepares an annual statistical yearbook on *Education in the Republic of Bulgaria*, which uses administrative data to provide periodic snapshots of the sector's key features. Historically, there have been issues with the availability and collection of education data but the Ministry is upgrading its EMIS, which will introduce important developments. For example, the new system will use unique student identification numbers that link to Bulgaria's unique citizenship number. This feature should provide the Ministry with new data on school participation and education outcomes, including by different demographic characteristics.

To optimise its investment in the new EMIS, Bulgaria should ensure that it adopts the approach of most OECD countries, which is to view an EMIS as "a system of people, technology, models, methods, processes, procedures, rules and regulations" (UNESCO, 2008[7]), rather than as a technology solution exclusively. In particular, the Ministry should continue to review the practices and standards it uses to compile and share education data, in partnership with other bodies that could use its data or provide new data to its system – namely the NSI. This will be important to ensure that new data are secure, accurate and can be used for a variety of purposes, making the new EMIS an accessible and insightful tool for policy makers and the public at large.

Recommendation 5.1.1. Prepare to establish the new EMIS as Bulgaria's central source of education data

Bulgaria's new EMIS represents an important opportunity to modernise and integrate the collection management and use of education data. Nevertheless, planning gaps remain in terms of the protocols for defining and collecting data and verifying its quality. These are new concerns for Bulgaria, as the former EMIS required principals to check data during the process of manually aggregating information into the central database and there were no links to other state databases through civil identity numbers or detailed student files. While these changes will make school reporting more efficient through digitisation and allow for complex analysis, the Ministry will need to prepare for the implementation of this new tool and ensure that it will serve as the official go-to source of information for all education stakeholders. This will require working with other state agencies to ensure the new EMIS uses data definitions that align with national and international reporting standards. Bulgaria will also need to redefine staff roles and provide adequate support to manage the new EMIS. Successfully implementing this tool is key to providing the quantitative information needed to improve system evaluation in Bulgaria.

Establish common definitions and protocols for retrieving data from schools

The launch of Bulgaria's new EMIS represents an important development that will integrate various databases and make the process of data collection more efficient. The Ministry can maximise the benefits of this new system by establishing common data definitions and collection methods so that new users have a shared understanding of what information to report. These data definitions and protocols should align with national and international reporting standards. Without such efforts, Bulgaria risks different public agencies continuing to collect education data for their own purposes. This is currently the case with the NSI, which collects some of its own data from schools because the Ministry's definitions of ISCED levels and education personnel do not align with international definitions.

To establish the new EMIS as Bulgaria's central source of official education data, the Ministry should map the data requests that schools currently receive, as well as required reporting requirements, to identify and eliminate any redundancies. Some indicator mapping has already been done as a part of the development of the new EMIS; however, the Ministry should involve other public agencies in this process to produce a comprehensive set of data definitions and rules about who can request information from schools. Such

procedures help restrict outside access to school information, funnel data retrieval to the education database and reduce the reporting burden on schools by limiting outside data collection to information that is not available in the EMIS (e.g. interviews with teachers).

Transition all school reporting processes to a digital format

As the Ministry implements its new EMIS, it should continue planned efforts to increase the efficiency of school reporting. At present, schools and classroom teachers collect data in a paper-based or electronic format, depending on the school. Regardless of the collection method, principals must check their school's data before administrators can upload it to the Ministry's central database. However, this increases the reporting burden. Moreover, entering data manually can result in missing or incomplete data, despite having the principal review the data. This may contribute to inconsistencies around rates of enrolment and grade repetitions. For instance, surveys suggest that a significant share of students who drop out of Bulgarian schools have emigrated abroad but this trend is not reflected in the Ministry's database. As a result, Bulgaria's dropout rate may not only reflect students who have left schooling altogether but also those who are continuing their education elsewhere. To address these issues and generate more timely education data, the Ministry should scale up the digitisation of school reporting by ensuring that all schools are able to upload data directly to the appropriate modules of the new EMIS and receive training on how to use this tool. Similar opportunities should be provided for relevant RED staff so they can support schools in using the new EMIS. As the system matures, ICT literacy should be included in job descriptions for teachers, school principals and relevant RED staff. In addition, the Ministry should consider equipping the new EMIS with a feedback form that could help new users to raise queries around calculation or definitional standards, or to flag any technical issues.

Create quality assurance procedures to verify the accuracy of data entry

The Ministry should ensure that the new EMIS produces high quality, policy-relevant data. While establishing common definitions and progressively digitising school reporting should make data collection in Bulgaria more efficient, it may also increase the risk of data errors, as more actors upload their data directly. Errors can lead to very different insights on issues, such as the extent to which and reasons why students are dropping out of the school system. Accurate data are essential to ensuring that policy makers correctly understand what is happening in the education system and providing accountability information.

Quality assurance systems are particularly useful in countries like Bulgaria, where sharp capacity disparities exist at the school and local government levels (UNESCO, 2020[8]). Many OECD countries conduct strict data validation and auditing procedures to systematically check data and flag inconsistencies. Quality assurance measures are typically built directly into EMIS systems or/and countries conduct regular quality checks, such as visiting a sample of schools to confirm that the data collected aligns with school records. In Bulgaria, a central body – for instance the National Audit Office – could take responsibility for conducting quality checks on Ministry EMIS data, to ensure that they align with standards used by the EU and other international partners. Moreover, if the new Inspectorate finds disparities between the data reported in the EMIS and the information it encounters when evaluating a school, it should report these disparities to Ministry EMIS staff.

Define roles and provide support to staff responsible for managing the new EMIS

The Ministry should ensure that the new EMIS is equipped with adequate staff who are trained sufficiently to develop and manage the new system. At present, the Ministry plans to assign around six technicians to operate the new EMIS but the precise number of staff and their roles is not confirmed. EMIS staff will also require training and ongoing support. While the Ministry already has programmers who can code education data based on specific requests (e.g. to determine how many textbooks are needed for a given class and school year), there are a limited number of statisticians who can conduct analysis with available data to

inform policy. In many OECD countries, staff with different areas of expertise (for instance, in data management and analysis, each with different data access rights) manage the EMIS and have access to professional development opportunities. To build staff capacity to implement Bulgaria's new EMIS, the Ministry should identify the roles and skills required to complete tasks required to manage the system (Abdul-Hamid, 2014[9]). The actions outlined above (mapping data definitions, regularly identifying new indicators and revising data protection protocols) offer examples of the types of tasks that the EMIS staff could complete. Other tasks might include responding to glitches in the system, developing feedback loops and training for users, as well as looking for partnerships with other data producers. Depending on the tasks identified, the roles within this team could include not only technicians but also statisticians and/or personnel with legal training.

Recommendation 5.1.2. Develop the functionalities of the new EMIS and improve the availability of quality data to support accountability and policy making

While the finalisation and implementation of Bulgaria's new EMIS should be one of the Ministry's main priorities, it is important that this new system evaluation tool is easily accessible and can support accountability and policy making. This warrants reflection on how to ensure that the new EMIS supports robust monitoring of progress against national goals, that its data are accessible to the public and that they can be used in a variety of ways to support system evaluation efforts. This is important to ensure that the government has the information it needs to conduct evaluations and inform policies for system improvement and that the public has the information it needs to participate actively in efforts to improve system performance.

Create a public interface for the new EMIS with built-in analytical functions

Many OECD countries now provide open access to their education data, meaning that external users (i.e. those outside government agencies) can access data through a public web portal. Open access to government data can strengthen trust and transparency in the education system and it is an effective way to generate new insights on system performance. At the same time, providing access to student and teacher level data makes the anonymisation and protection of this information even more critical (see Recommendation 5.1.1). Bulgaria already publishes some education data through its annual statistical yearbook *Education in the Republic of Bulgaria*. However, the yearbook provides a limited snapshot of the data available and it presents data in Portable Document Format (PDF) format, preventing cross-source analysis and a user-friendly way to manipulate data and conduct unique analysis. To access other official education data, external parties must submit a written request to the Ministry, which will then share the request with its Center for Information Services (CIS), which will provide data in table form. While it is positive Bulgaria has routes available for researchers to access a variety of education datasets, there are currently no tools to make data a more accessible and functional tool for education stakeholders and the public.

Bulgaria's investment in the new EMIS will accrue the greatest gains if a wide range of users can easily access and use the data. A public interface, with a range of analytical functions, is an increasingly common feature of EMIS systems in OECD countries and can help generate demand for system evaluation. While it is positive the Bulgarian government contracts external experts to conduct education research for specific projects or issues, there are no tools for public actors to easily review and analyse education data. Creating a public interface with a sophisticated range of functions for the new EMIS would allow users to analyse data, visualise the findings and export information through a variety of formats. The Ministry should prioritise sharing a balanced set of indicators, possibly through a digital dashboard, that not only relate to administrative data (e.g. the number of schools) but also inputs (e.g. levels of funding) and outcomes (e.g. external assessment data). To contextualise this date, the platform should present this information alongside different options, for example by disaggregating anonymised data by student socio-economic

background, gender or geographic region. Bulgaria's existing EMIS cannot generate these types of graphs or other data visualisations and adding these functionalities to the new EMIS would help convince stakeholders, such as school principals, of the utility of accurate reporting.

Ensure the new EMIS collects data to monitor progress towards national education goals

Without more deliberate data collection, the Bulgarian government will continue to lack the information it needs to conduct system evaluation and inform education policies. Bulgaria has defined a set of indicators to review its long-term education strategies. However, in a number of cases, this indicator framework does not provide adequate information to measure the desired objectives. For instance, to support the national goal of improving inclusive education, Bulgaria should regularly collect data to track learning outcomes among students from different ethnic groups; such information was last available in the 2013 cycle of the NEA. Mapping the national indicator framework against available sources of information can help the Ministry identify information gaps and signal a need for the new EMIS and other data collection tools, like the NEA, to improve data collection in order to better measure progress. This can also help improve accountability for system performance and co-ordinate policy efforts. The Ministry should consider carefully which indicators it would like to retain and which it would like to replace while ensuring consistency for the duration of the strategic planning cycle (i.e. until 2030). New indicators could be included as part of the development of the first mid-term implementation plan under the Strategic Framework for Education.

In particular, the Ministry might construct indicators around student engagement and wellbeing. Research has shown that issues around student engagement could be an important driver of low educational attainment in Bulgaria, with studies reporting that Roma are less likely to see the benefits of education and that truancy levels are significantly higher in Bulgaria than in other PISA-participating economies. Student engagement and wellbeing are likely to become still more important in the future – the government's decision to add an additional (compulsory) pre-primary year will be costly unless it is accompanied by changes in attitudes towards learning – that sees more students motivated to learn, rather than obliged to.

Policy issue 5.2. Establishing a national assessment system that supports system monitoring and helps improve learning outcomes

The stated objectives of Bulgaria's NEAs (Table 5.3) are broadly positive and reflect the main purposes of national assessment systems commonly found in OECD countries: national assessments as a tool to help monitor student progress against learning standards, inform policy making at the system level and support teaching and learning at the school level. Bulgaria established its NEA in 2007 and has gradually expanded coverage to collect system- and student-level data for three grades of schooling. However, the design and implementation of the NEAs hinder their capacity to serve as an effective system-monitoring and formative tool. Bulgaria's broader assessment culture, which emphasises assessment as a validation exercise rather than an integrated part of the learning process, further reinforces the perception that NEAs are summative and have high stakes for students. The selection function attributed to the Grade 7 NEA is of particular concern, as it serves as an examination, in reality undermining its intended monitoring and formative purposes.

If Bulgaria wants to rely on these assessments to produce data that can guide system improvement and support learning, the NEA should be decoupled from its selection function. Bulgaria should also prioritise investments in essential psychometric resources to strengthen its national assessment system, as the NEA currently lacks proficiency scales that link to national learning standards, calibrated test items and a criterion-referenced scoring system. Without these elements, the NEA can help rank students in a particular cohort by their achievement levels but cannot meaningfully support learning or inform system evaluation by generating reliable trend data. There is a general awareness of these problems within

Bulgaria's central government and education agencies but reforming the NEA will require political will as well as financial resources and technical capacity.

Recommendation 5.2.1. Reinforce the monitoring and formative potential of the NEA

Bulgaria's national assessment system currently has multiple purposes, including monitoring system performance and curriculum implementation, measuring individual student progress and selecting students into secondary school. While national assessments can serve a variety of purposes, fulfilling different goals requires different design decisions (Newton, 2007[10]). In Bulgaria, the conflation of purposes attributed to the national assessment system makes it difficult for policy makers and the Center for Assessment to navigate which design options would best ensure the NEA fulfils its stated goals. For example, the Grade 7 NEA has been changed from a census to a sample several times in the last decade with limited consultation, leading to some confusion among stakeholders about the main role of the assessment (i.e. if it is for system monitoring or selecting students). This combination of purposes also leads to a distortion between the assessment's intention and how it is implemented in practice.

It is therefore crucial that the Ministry, with the support of other stakeholders, such as the Center for Assessment, narrow down the primary purposes of the NEA to focus on monitoring system performance and providing formative information to support teaching and learning. Specifically, the Bulgarian government should remove the selective function of the NEA in all grades. Now is an opportune moment to consider such a major change to the national assessment system, since it would give Bulgaria a chance to align NEA instruments with the new competency-based curriculum that was recently rolled out. However, these changes will need to be communicated to the stakeholders who will be most affected, namely educators, parents and students. Outreach efforts will be crucial to helping build a more comprehensive understanding of student assessment in Bulgaria.

Discontinue the practice of using NEAs to select students into schools

While examinations, like assessments, provide data on student knowledge, there are important differences in the main purpose of these testing instruments. Examinations typically help make decisions about student progression, by certifying achievement and/or selecting students into the next level. At present, Bulgaria's Grade 7 NEA is a high-stakes examination for students since it determines what secondary school students attend (see Chapter 2). The NEA in Grades 4 and 10 also have some consequences for students, although to a much lesser extent since only a minority of students change schools at these levels. The use of the NEA as a selective tool leads to confusion about its role in the Bulgarian education system and has adverse consequences, such as encouraging private tutoring and putting pressure on young students. If the NEA is to serve as a tool for monitoring and improving the education system, it cannot have any direct consequences for students. To make this distinction, the Grade 7 examination should be replaced with a new low-stakes assessment (see below). A separate selective examination can be administered for students who wish to compete for places in elite schools (see Chapter 2) or earn specific qualifications (i.e. foreign languages).

Clearly communicate NEA reforms to build a broader understanding of student assessment

One of the main barriers to successfully implementing education policy is the lack of recognition that "…the core of change processes requires engaging people" (Viennet and Pont, 2017[11]). When introducing any changes to the NEA system, the Bulgarian government should actively engage with a range of stakeholders to communicate clearly the objectives, rationale and processes of reform. These efforts will help ensure that changes to the NEA system are well understood and that the new national assessment is considered an integral part of Bulgaria's shared vision for student assessment (see Policy issue 2.1. in Chapter 2). The most important change to the NEA system recommended by this review would be to discontinue its selective function, especially in Grade 7. Since the Grade 7 NEA has been historically

perceived as a selection tool, changing this understanding will likely be a long and complex process. It is therefore important the Ministry explain to policy makers, school principals and teachers, as well as parents and students, why this change is being made. Specifically, the Ministry should emphasise that having a more formative, low-stakes national assessment will not only help identify levels of student performance but also inform pedagogy and help measure progress towards national education goals. For example, the Ministry could organise virtual workshops with principals and teachers to discuss how such a tool would be particularly important to help assess and address learning losses following the COVID-19 pandemic.

Recommendation 5.2.2. Ensure the design of the NEA system aligns with its monitoring and formative purposes and supports national education goals

The main purposes of national assessment systems in most EU and OECD countries are to support system monitoring, provide formative information about learning and serve as an accountability tool (OECD, 2013[2]). Bulgaria's NEA has similar stated purposes, in addition to a student selection function. However, the design of the NEA instruments does not provide data to monitor progress over time nor does it support accountability. For example, the NEA is not included as an indicator in the national goals set out in the Strategic Framework for Education and the lack of reliable trend data prevents the NEA from monitoring curriculum implementation. Moreover, considering the NEA is a census assessment, the absence of comprehensive reporting of results and support for schools and teachers to use this information, represents a missed opportunity for the NEA to inform pedagogy. As Bulgaria works to strengthen its national assessment system, the government will need to reflect on several key decisions about the NEA's design, as outlined in Table 5.4. The following section provides recommendations on how Bulgaria could reinforce the assessment's system monitoring function and maximise its formative potential as a tool for driving system improvement.

Table 5.4. Key decisions regarding national assessments

Topic	Options	Advantages	Disadvantages
Subjects	Many	Broader coverage of skills assessed	More expensive to develop, not all students might be prepared to take all subjects
	Few	Cheaper to develop, subjects are general and can target a larger student population	More limited coverage of skills assessed
Target population	Sample	Cheaper and faster to implement	Results can only be produced at high, aggregate levels
	Census	Results can be produced for individual students and schools	More expensive and slower to implement
Grade level	Lower	Skills can be diagnosed and improved at an early stage of education	The length of the assessment and the types of questions that can be asked are limited
	Upper	More flexibility with respect to the length of the assessment and the types of questions that are asked	Skills cannot be evaluated until students are in later stages of education
Scoring type	Criterion-referenced	Results are comparable across different administrations	Results require expertise to scale and are difficult to interpret
	Norm-referenced	Results are easier to scale and interpret	Results are only comparable within one administration of the assessment
Item type	Closed-ended	Cheaper and faster to implement, items are more accurately marked	Can only measure a limited number of skills
	Open-ended	A broader set of skills can be measured	More expensive and slower to implement, marking is more subjective in nature
Testing mode	Paper	The processes are already in place and the country is familiar with them, requires no additional capital investment	Results are produced more slowly, seen as more old-fashioned

Topic	Options	Advantages	Disadvantages
	Computer	Results are produced more quickly, more cost-effective in the long term, seen as more modern	New processes have to be developed and communicated, requires significant initial capital investment

Source: Adapted from DFID (2011[12]), "National and international assessment of student achievement: A DFID practice paper", https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/67619/nat-int-assess-stdnt-ach.pdf (accessed on 13 July 2018); OECD (2011[13]), *Education at a Glance 2011: OECD Indicators*, https://doi.org/10.1787/eag-2011-en.

Create a criterion-referenced scoring system so that results are comparable across years

Comparability is key for an assessment whose main purpose is to monitor educational progress. Currently, NEA results cannot be compared across years because test items are classical and scores are reported as non-transformed raw points (Danchev et al., 2015[14]). Center for Assessment officials acknowledge that this scoring system prevents the NEA from generating trend data to monitor the education system over time. However, there have been no changes to the design of NEA instruments, due to capacity constraints within the centre, as well as the fact that the NEA continues to be used for selective purposes, i.e. school admission. Moving to a criterion-referenced scoring method for the NEA should be a top priority, as this would allow the assessment to fulfil its stated purposes of measuring the progress and implementation of education reforms, as well as the extent to which students are achieving national learning goals.

To develop and implement the NEA as a criteria-referenced assessment, the Center for Assessment must define performance levels and align these with Bulgaria's national learning standards. Such details should be described in technical documents alongside proficiency scales, rules on developing items and other test specifications. This practice will promote greater transparency in the assessment system and allow researchers and experts to critically evaluate and provide feedback that can lead to further improvements in the NEA's instruments. The Bulgarian government should ensure the Center for Assessment has the adequate financial capacity and assessment expertise to implement this important change and develop the associated technical documents.

Change target population and administration timeline of the national assessment

To better support the formative and monitoring purposes of its national assessment system, Bulgaria should consider changes to the NEA's target population and administration timeline. Such changes would help distance the assessment from its previous role as a selection instrument and send a strong signal about the refined purposes of the NEA system. This review team recommends the following configuration:

- **Move the census-based primary school NEA to Grade 2**. At present, Grade 4 marks the end of the initial stage of primary education in Bulgaria and the first academic year that students take an external standardised assessment. While results from international assessments (PIRLS and TIMSS) and the Grade 4 NEA can support system monitoring, NEA results at this level also select a minority of students into elite schools. This review recommends that Bulgaria eliminate the Grade 4 NEA and replace it with a full cohort assessment in Grade 2. Importantly, the new Grade 2 NEA should not serve as a selection instrument but rather a formative tool to support system monitoring and student learning. The Grade 2 assessment also needs to be appropriate for young learners (age 8) and have a faster turnaround of results so that teachers can use them to support student learning (see Recommendation 5.2.3).

  Many OECD countries already administer national assessments in at least one grade of primary education and having student-level results earlier will give teachers in Bulgaria more time to identify and address learning gaps before they become problematic. Since most students in Bulgaria do not change schools during the initial stage of primary education, eliminating the Grade 4 NEA will also help delay student tracking until the beginning of secondary school. This change may require

elite primary schools to develop new admission systems, which could be based on the number of places available, grade point average or other pre-established criteria. Keeping the Grade 2 NEA as a census will not only complement diagnostic and classroom assessments but also provide reliable information about system performance at a different level of primary education because policy makers will already have system-level data for Grade 4 students through international assessments.

- **Consider administering the NEA during lower secondary education**. Once the Grade 2 NEA is well established, Bulgaria could consider re-introducing a national assessment during lower secondary education. While the Grade 7 NEA marks the end of lower secondary education (ISCED 2), it is mainly used to select students into the most competitive upper secondary schools in the country. This review recommends several changes to the way that Bulgaria allocates students into secondary schools (see Chapter 2). However, keeping the NEA in Grade 7 will make it difficult to signal that the new national assessment is a purely formative and system-monitoring tool. Moving the lower secondary NEA to a different grade (e.g. Grade 6) and making it a sample would help reinforce the understanding that this assessment does not carry any stakes for students while still providing valuable information about learning outcomes close to the end of a curriculum cycle.
- **Consider having an NEA during upper secondary education**. Bulgaria should reconsider the design of the Grade 10 NEA. This is an important transition point from a policy perspective and having achievement data at this level can provide information about the extent to which students have mastered national learning standards at the end of compulsory schooling. At the same time, Bulgaria already implements its Grade 12 Matriculation examination, which provides learning data at the end of upper secondary education (see Chapter 2). In the long term, if Bulgaria would like to have reliable data in the first years of secondary school (PISA could play this role but does not provide information on the extent to which students are mastering the national curriculum), it could continue implementing its Grade 10 census assessment. The Grade 10 assessment would not only inform policy at the system level but its results could also feed into Bulgaria's external school evaluation framework (see Chapter 4). However, in the context of limited financial resources and also to avoid testing fatigue, this assessment should not take place annually but on a three-year basis.

Since teachers administer the school-based diagnostic tests at the start of each academic year, Bulgaria should consider moving the NEA's administration to the middle of the school year to ensure the assessments do not overlap and create a testing burden on schools and students. Positioning the administration of the NEA in the middle of the school year would also further distinguish the national assessment as a system monitoring tool with low stakes for students. Table 5.5 provides a summary of the proposed changes to Bulgaria's national assessment system.

Review the subjects assessed

It is common for national assessments to cover literacy and numeracy, as these skills provide a foundation for learning. Among OECD countries with national assessments at the lower secondary level, around 64% test students in literacy and 60% test students in mathematics on an annual basis (Maghnouj et al., 2019[15]; 2015[16]). This review recommends that Bulgaria continues, over the medium term, to cover mathematics and Bulgarian language and literature in all grades assessed by the NEA. This arrangement will ensure consistency across testing instruments and allow researchers to conduct longitudinal analysis.

If Bulgaria administers the NEA as a sample to older cohorts, the optional foreign language examination should be removed from the suite of national assessment subjects. At present, foreign language tests in English, French, German, Italian, Russian and Spanish are an optional part of the Grade 7 and 10 NEAs and lead to a qualification in accordance with the Common European Framework of Reference for

Languages (Ministry of Education and Science, 2021[4]). However, the inclusion of these tests as part of the NEA creates stakes for students and seems to reflect Bulgaria's historical emphasis on elite foreign language schools that prepare students for study and work abroad. Considering the costs associated with developing and implementing tests in various foreign languages, these subjects should be distinct optional examinations that are separate from the NEA system to avoid detracting investments from core subject tests that align more closely with national priorities.

Instead of focusing on foreign languages, Bulgaria could consider broadening the knowledge areas covered in later grades of the NEA to increase the assessment's validity in terms of curriculum coverage. For example, if Bulgaria chooses to have a national assessment during upper secondary education, this assessment could cover digital literacy, which is considered a fundamental 21st-century competency, or civic, ecological and intercultural education, which are among the core competency areas identified in Bulgaria's Pre-school and School Education Act (2016). The government already has legislation that enables such subjects to be covered within the NEA. Bulgaria could administer these subjects on a rotating basis. Australia's uses a similar approach to measure different subjects each year, which helps to reduce the cost of developing and administering multiple tests at the same time.

Table 5.5. Overview of proposed changes to Bulgaria's national assessment system

Grades	Frequency	Population	Subjects	Primary purpose
Grade 2	Annual (middle of school year)	Census	Bulgarian language and literature, mathematics	Formative
Grade 6	Annual (middle of school year)	Sample	Bulgarian language and literature, mathematics	System monitoring
Grade 10	Every three years (middle of school year)	Census	Bulgarian language and literature, mathematics, digital literacy, civic, ecological and intercultural education subjects on a rolling basis	System monitoring

Revising test items to align the NEA with Bulgaria's new competency-based curriculum

The current NEA system already includes a mix of multiple-choice, open-ended and (in Grades 7 and 10) essay writing tasks. Having a range of item types can help measure a wider range of skills, including the higher-order thinking skills reflected in Bulgaria's new curriculum. This is positive considering the country's Strategic Framework for Education identifies strengthening the competency-based approach to education as a national priority. However, while this review did not examine sample questions from the existing NEA, the Center for Assessment informed the OECD review team that the content of NEA questions does not currently align with Bulgaria's competency-based curriculum and tend to focus on memorising and recalling knowledge rather than applying critical thinking skills. Bulgaria also acknowledged the need to develop more complex open-ended questions in the State Educational Standard for the Evaluation of the Results of Student Learning (Ordinance 11).

These changes will require revising the NEA's framework to ensure that test items do not encourage memorisation and that proper item-writing convention is followed, such as reviewing the tests and items for potential bias and varying the placement of distractor choices (i.e. incorrect options in a multiple-choice test) (Anderson and Morgan, 2008[17]). Distractor choices should also represent common mistakes made by students. These changes will enable the NEA to monitor the implementation of the national curriculum and learning goals, which are among its stated purposes. Moreover, despite the fact that Bulgaria has in theory already finalised the implementation of the new curriculum, teachers still struggle to integrate new educational approaches in their classroom practice (see Chapter 2). Aligning the NEA to Bulgaria's competency-based curriculum can therefore provide a helpful model for how teachers can draft test questions that assess transversal and higher-order competencies.

Collect relevant contextual information to effectively monitor equity

Many factors influence the learning process, from the classroom environment and teacher quality to students' socio-economic background and school location. As a result, most national assessments include background questionnaires to collect information about students, teachers and schools, which can be analysed to help contextualise results. By identifying where interventions could help improve performance and the overall learning experience, this information can inform policy, which is one of the primary purposes of Bulgaria's NEA. Currently, the NEA does not collect comprehensive background information on factors that may influence learning outcomes. Some contextual information (e.g. level of parental education) is available from other administrative databases; however, these are not easily linked to the NEA database. As Bulgaria develops and implements a new NEA system, the Center for Assessment could identify what kind of contextual information is already (or will be) collected through Bulgaria's EMIS system and make sure it is used when presenting NEA results. For areas or topics that might not be covered by the EMIS, the Center for Assessment could create background questionnaires to address topics of interest. For example, having questions on student wellbeing in the post-COVID-19 context could reveal insights on how students have coped with disruptions to schooling. Targeted background questionnaires (for instance, questions to help classify the student's socio-economic background) could also provide more regular and timely data to monitor Bulgaria's national education goals, thereby reducing the country's reliance on discrete indicators from international assessments and surveys.

Consider moving to computer-based delivery of the NEA in the future

Although most countries still administer their national assessments via paper and pencil, a growing number are introducing computer-based assessments (CBAs) (Clarke and Luna-Bazaldua, 2021[18]). The advantages of moving to CBAs are significant, especially in terms of increasing test reliability since a CBA is less likely to be affected by human error and integrity breaches. It is also considerably cheaper to administer CBAs in the long term and they have the advantage of delivering results more quickly. Bulgaria has recently moved to mark all NEA submissions electronically and this will now be done by a randomly-selected regional commission, rather than a commission from the same region as the school, increasing the reliability of the national assessment system. In the future, Bulgaria could conduct a feasibility study to evaluate the system's readiness for administering a computer-based assessment. Once any technical and financial concerns have been addressed, Bulgaria should transition the NEA from paper to computer delivery.

Recommendation 5.2.3. Disseminate results from NEAs to inform education policy and support learning

National assessments are only as valuable as the extent to which different stakeholders understand and use their results. While revising its national external assessment system, Bulgaria should consider how to disseminate NEA results so they inform policy and support school improvement efforts. While it is positive that the Ministry commissions ad hoc analysis of NEA data, there is no regular report that summarises results and provides relevant insights for policymaking. At present, the Center for Assessment shares school level NEA results in a digital format that compares a particular school with regional and national averages. Since 2018, schools have also been required to publish their average NEA score on their website, which aims to promote transparency and accountability. However, schools do not receive detailed information about how their students performed and stakeholders cannot make comparisons based on similar characteristics like socio-economic background. This also leads to media outlets ranking school performance, which perpetuates a narrow understanding of school quality and undermines the formative potential of the national assessment system.

For individual students, NEA scores are presented via a private online portal as well as in the students' relevant certificate of completion at the end of each education phase (i.e. initial primary; basic education; initial high school). Providing a raw score on student certificates contributes to the perception that NEA results have consequences, which in reality is only true for students who wish to compete for places in elite schools. Moreover, while teachers have access to their students' NEA scores, the results do not inform teaching and learning processes. For example, teachers receive no analysis of how students perform on particular test items to identify common errors. Such materials can serve as a basis for developing strategies to address areas of low performance. Moreover, the lack of information about the NEA's proficiency levels and other technical details prevent the assessment from helping develop teacher assessment literacy. To make the most of its investments in strengthening the NEA, Bulgaria will need to develop a comprehensive strategy to disseminate results in ways that support the assessment's potential as a formative tool for system evaluation.

Disseminate NEA results in a way that avoids the perception of having high stakes

Census-based testing generates data that allow schools to compare their average performance with other schools. While this level of comparison allows for greater transparency and can support broader school accountability measures, it often results in schools with the greatest concentration of students from more advantaged backgrounds continually being considered the most effective. It also undermines the potential formative function of these assessments. Media outlets sometimes rank regions and schools without any contextual information using Bulgaria's census-based NEAs. Although it is hard for the Ministry and the Center for Assessment to impede such actions, it is important they monitor how NEA data are presented and make it easier for actors to report more contextual information by, for example, allowing access to comprehensive information on the NEAs that can be found online (see previous section). For example, it would be more appropriate to compare the NEA results of schools located in the same geographic location, with similar student populations (i.e. students with similar socio-economic backgrounds) as well as comparable structures (i.e. compare multi-grade schools with each other) (Box 5.1). This would encourage more meaningful benchmarks of performance. The Ministry should also take steps to reduce the association of NEA results with high stakes for schools and teachers. Anecdotal evidence suggests that it is common for school principals to use student NEA results primarily as a way to assess the quality of teachers, which can encourage practices that are detrimental to student learning, such as teaching to the test (see Chapter 3). More appropriate use of census-based NEA data would be to inform the Inspectorate's risk assessment formula to identify which schools it should prioritise for external evaluation (see Chapter 4).

Box 5.1. Presenting contextualised assessment results in Sweden

In Sweden, an online portal, with data from SIRIS (*Skolverkets Internetbaserade Resultat- och kvalitetsInformations System*, Information System on Results and Quality) and SALSA (*Skolverkets Arbetsverktyg för Lokala Sambands Analyser*, Local Relationship Analysis Tool) and operated by the National Agency for Education, provides contextualised data on student and school performance. Along with results from Grade 9 national tests and upper secondary course examinations, SIRIS provides basic statistical data for schools, such as the number of students and teachers, student-teacher ratios, teacher qualification levels and spending, as well as data on grades and promotion, such as the number of students who have achieved the basic level and are eligible for admission into upper secondary schools.

The statistical model SALSA provides performance data on specific schools and municipalities regarding for example, the proportion of pupils who have passed the minimum level at the Grade 9 assessment. This is displayed alongside the "expected value" which is calcuted based on certain

background information such as parents' level of education and the percentage of students with a foreign background.

Source: OECD (2013[2]), *Synergies for Better Learning: An International Perspective on Evaluation and Assessment*, https://dx.doi.org/10.1787/9789264190658-en; Nusche, D. et al. (2011[19]), *OECD Reviews of Evaluation and Assessment in Education: Sweden 2011*, https://doi.org/10.1787/9789264116610-en.

Ensure NEA data supports system monitoring

Reporting results to the public is an important part of using the NEA to promote transparency and inform education policies. While it is positive that Bulgaria publishes NEA results online, the information available to the public is very limited, with no in-depth analysis or user-friendly platforms that allow users to explore the data. Moreover, Bulgaria does not have a national report that assembles NEA results and other education data to inform policy making. To fulfil its purpose of being a system monitoring tool, NEA data should be part of a comprehensive state of education report (see Recommendation 5.3.1). The NEA results should be presented at the national and regional level but also disaggregated by characteristics relevant to education policy, such as gender, school type and student socio-economic status (see Recommendation 5.2.2). This type of analysis and reporting can help identify learning disparities and provide evidence for targeted policy interventions. Once the NEA scoring system has become criterion-referenced, trend analysis of the NEA data should also be included in the state of education report to inform stakeholders about progress over time. Such efforts would help generate greater public accountability for system performance.

In addition to the state of education report, Bulgaria should also consider other ways to make data from the new national assessment system more accessible to stakeholders. As the Ministry develops and implements its new EMIS system (see Policy issue 5.1), there are plans to link data from the NEA and other information on student performance with the administrative database. NEA results could then be linked to figures such as student-teacher ratios, teacher qualification levels and school funding, etc. This kind of information should be made available in the suggested EMIS public interface with built-in analytical functions (see Recommendation 5.1.2), allowing for more comprehensive dissemination of NEA results. Finally, in order to make NEA information even more accessible and visible, the Ministry could dedicate a page on its official website to the national assessment system. This webpage would allow the public to find technical documents regarding the NEAs and a link to the new EMIS system where NEA results, along with other indicators, will be available.

Introduce reporting mechanisms that support learning and school improvement

In addition to monitoring system progress, national assessments can also inform pedagogy by providing timely and reliable feedback on student learning. At present, Bulgaria's NEA system provides limited information to support improvement in teaching and learning processes. For example, teachers struggle to understand how the NEA can support their teaching practices. This is partly caused by the lack of targeted dissemination mechanisms that would allow teachers to better understand and use NEA results to support learning in their classrooms. There is also an absence of support to help schools use average results to inform improvement efforts. Census-based testing like the NEAs (for Grades 2 and 10) could generate reports for a more formative use at different levels of the education system (OECD, 2013[2]) (see Box 5.2 for different report level examples). Bulgaria could consider having the following reports:

- **School-level reports**, presenting the performance of individual schools with benchmarks for contextualised comparisons such as schools from the same region, same district and socio-economic level. These reports can also contain analysis of individual questions, topics or skills so that teachers and school principals can identify in what areas and with what competencies

students struggle the most. To ensure that detailed school information is not used for narrow accountability purposes, detailed school-level reports should only be accessible to school-level officials, while the Inspectorate can continue to use school averages to inform its risk assessment formula (see Chapter 4).

- **Report for teachers**, at the classroom level, containing data on the extent to which each student in a class has achieved national learning standards. The report should contain information on how students perform on each item of the NEA (i.e. item-level analysis), emphasising areas in need of improvement. This information should be presented alongside contextualised comparison groups, such as gender, linguistic minorities, socio-economic background, etc. Providing such data to teachers would be crucial to help them engage with the results in a formative manner. Teachers can use this report to identify and support the individual learning needs of students and benchmark their in-classroom assessments. As this report contains confidential information about individual students, it should only be available to school-level officials.
- **Report for students**, for Grade 2 assessment. This report should provide information about the extent to which an individual student has achieved expected learning goals, as set out in the curriculum. Results could be compared to national, regional and other relevant benchmarks. Care should be taken to avoid the perception that results carry stakes and results should no longer be included in the students' relevant certificate of completion at the end of each education phase. Instead, results could be discussed as part of regular parent-teacher meetings. Teachers might be provided guidance on how to discuss the results within broad categories of the student meeting or not meeting national expectations, rather than focusing solely on specific scores. These reports should only be accessible to individual students (or their parents) and relevant teachers.

Box 5.2. Assessment reports for different stakeholders: The Measures of Academic Progress (MAP) in the US

In the US, the MAP assessments are a set of private, computer-adaptive tests that are available in reading, mathematics and science for students in kindergarten through Grade 12. Entire school districts have participated in testing, which provides the opportunity to produce district-, school-, class- and student-level reports. All reports are offered online.

- *District reports* are intended for the superintendent and educational specialists working within the district office. They summarise the results of all students in the district and disaggregated by grade. Results are compared to regional and national benchmarks.
- *School reports* are intended for principals and teachers. They show results from an individual school disaggregated by grade and by class.
- *Class reports* are intended for teachers. They summarise the results of a class and show the results of individual students from the class. If students have taken the test more than once, trend data for those students are also shown. In addition to overall performance, teachers can also see how long students took to complete the test and how they are performing on specific sub-skills.
- A *student report* is intended for students and parents. It shows in detail how a student performs in specific areas benchmarked against national percentiles.

Source: NWEA (2021[20]), *MAP Suite*, https://www.nwea.org/the-map-suite/ (accessed on 9 November 2021).

Policy issue 5.3. Strengthening regular performance monitoring to guide system improvement

Bulgaria has undertaken fundamental education reforms. At the same time, financial resources are limited and the Ministry will need to make hard choices about where money is spent. These decisions are further complicated by the COVID-19 pandemic, which has worsened existing education challenges and introduced new ones. A rapid assessment conducted by the United Nations Children's Fund (UNICEF), for example, suggested that at least 50 000 school-age children in Bulgaria experienced significant learning disruption during the crisis and a fifth of surveyed students reported performing worse (UNICEF, 2020[21]). The closure of schools is likely to have had the biggest impact on certain vulnerable groups, such as children from lower-income households or with disabilities who may not have had access to parental support, resources for learning or customised pedagogical support. These students will likely need additional support to overcome learning gaps. Moreover, new funding streams have emerged to support recovery, such as the Next Generation EU COVID recovery package, and the Bulgarian government will need to decide how to allocate this funding outside pre-existing planning cycles. Moving forward, these policy choices may be contentious, making trust and clarity in decision making ever more important.

Positively, Bulgaria already disseminates basic information on the features of the education system and carries out ad hoc policy evaluations and research. These efforts demonstrate a commitment to transparency and improving policy through evidence. However, Bulgaria's education data are not regularly analysed, disseminated and used to guide system improvement strategically. To achieve its 2030 vision and the objectives of the Strategic Framework for Education, Bulgaria needs to keep sight of its stated goals and more clearly communicate its reform agenda to education stakeholders across the country, not least the REDs. These efforts will be critical to building trust with the wider public, to avoid major roadblocks and help the Ministry crowdsource new solutions – in light, for instance, of the fact that the country's education reforms are likely to affect certain school environments differently.

Recommendation 5.3.1. Establish an independent body to produce regular analytical reports on system performance

The Bulgarian government does not produce regular reports on how the education system is performing. This is problematic because it means that different education actors – not least, the Ministry and its REDs – do not have timely and comprehensive analysis to flag issues, track progress and support evidence-based policy debates. Performance monitoring has been hindered by data constraints but also by capacity constraints. Currently, system monitoring and evaluation is the responsibility of the Ministry's Strategic Planning Unit (SPU) but this unit does not have sufficient resources to monitor system performance regularly. The unit's location within the Ministry also makes it vulnerable to political influence, which would undermine confidence in its analysis and reporting. Many OECD countries have established independent bodies to ensure regular, objective monitoring of the education system and to commission research on major policies and issues. The independence afforded to these bodies enables them to conduct rigorous, objective analyses of data and present messages that may challenge education authorities. Their autonomy strengthens trust in their findings and the likelihood that their research will be used to inform constructive debates between different stakeholder groups – particularly among those that are distrustful of the government or with a specific interest to defend.

Prescribe a clear mandate to the body

The body should be mandated to produce regular reports on the performance of the education system. It would also be well placed to produce evaluations of major education policies and carry out research on progress towards strategic goals. Its reporting should cover both general education and VET, in order to track how students perform and move across different pathways. Since resource constraints may preclude

the creation of a new stand-alone agency, the Bulgarian government should consider establishing a high-level board or commission that would set a research agenda, commission the work and ensure that this work is robust. This body should comprise representatives of different education agencies (such as the Ministry, the National Agency for Vocational Education and Training and the Inspectorate) to ensure that its work gets buy-in from the government as well as independent, non-state actors, to ensure objectivity. It should have a clear legal footing that supports its independence.

The research itself should be conducted by independent experts or by existing bodies such as the Inspectorate. The Inspectorate should be considered, in particular, to compile regular reports on system performance. This has been the approach in the Netherlands, where the Dutch Inspectorate for Education compiles the country's periodic state of education report and other system evaluations and research. The benefit of this second approach is that the Inspectorate can capture a more qualitative picture behind headline quantitative metrics and thus translate education data into an analytical narrative. Tasking the Inspectorate with conducting system-level evaluation and research could also help the body to plan its annual activities and place inspections in a broader context of how the system is performing.

Design a research agenda that covers critical issues

The high-level board or commission should establish a multi-year research agenda. A multi-year research agenda would strengthen the legitimacy of the body, particularly if it is linked to Bulgaria's national development strategy and national budgeting processes. Setting a multi-year research agenda could also help to provide a new, independent organisation with a sense of mission from the start. The research agenda should include a regular analytical report on the education system as well as a set of a discrete tasks, such as *ex ante* or *ex post* impact assessments of major government policies and/or reports on important thematic issues.

Box 5.3. Many EU countries have established independent bodies for education research

The National Education Council (CNE) of Portugal

In Portugal, the CNE was created in 1982 as a superior consultation body for the Minister of Education and Universities, with the goal of "proposing measures that [guarantee] the permanent adaptation of the education system to the interests of Portuguese citizens." It has progressively increased the inclusivity of its governance and membership, and today it comprises a wide range of education stakeholders and provides independent advice to the government on national education issues.

The CNE publishes reports on a range of themes such as lifelong learning in the national debate on education, indicators of the education system and the motivation of Portuguese youth for training in science and technology. An important contribution is the annual publication of a *State of Education* report, which provides an analysis of key education data. The first issue of the report, published in 2010, offered a detailed investigation of student pathways, while the second issue provided an in-depth examination of the current qualifications of the Portuguese population. The report also provides recommendations on measures to improve the quality of basic and secondary education, including comments on existing policy initiatives. In 2011, the report presented recommendations on school evaluation, the funding of public schools, education for children aged 3 years and under, the reorganisation of the school network, and specific education programmes.

The Dutch Research Council (NWO)

In the Netherlands, the Ministry of Education and the Dutch Research Council (NWO) have established the Netherlands Initiative for Education Research (NRO). This organisation does not conduct its own

research but is responsible for co-ordinating the research agenda of the Ministry by soliciting and reviewing external requests to perform research.

The NRO has a steering group, comprised of representatives of fundamental research, educational practice (primary and secondary education), policy research, the professional association of teachers and practice-oriented research. It, therefore, serves a broad range of constituencies. It also has four programme councils that are responsible for research programming and each has a slightly different focus for commissioning research (for instance, one is focused on research that supports daily educational practice, another is responsible for policy-oriented research). The NRO has a vision and strategy, which help the body to link these different research areas together under broad priorities and secure the body's role as an official provider of education research. It also has a structural annual budget of almost EUR 15 million, with any new programmes around specific themes of current importance added with an additional one-off budgetary allocation.

Source: NRO (2021[22]), *Netherlands Initiative for Education Research*, www.nro.nl/en/ (accessed on 23 September 2021); Santiago, P. et al. (2012[23]), *OECD Reviews of Evaluation and Assessment in Education: Portugal 2012*, https://doi.org/10.1787/9789264117020-en.

The body may choose to focus initially on *ex post* impact assessments. The Bulgarian government has recently implemented two policies that entail significant costs – namely, a policy to increase teacher salaries by a significant margin and the introduction of an additional (compulsory) pre-school year. The research body could conduct evaluations on these policies a couple of years after they were first implemented, to ascertain whether they are achieving their aims and are an efficient use of taxpayer money or if they should be adjusted. In determining how to increase teacher salaries, for instance, a set of complex factors need to be taken into account (Li et al., 2019[24]), which include:

- Projections on retirement.
- The long-term fiscal impact of more teachers moving up the salary scale.
- How the new salary structure can best incentivise improvement and reinforce other initiatives.
- The trade-offs between salary increases and other investments that could support system goals.

Over time, the body could also develop reports on important thematic issues. These could focus on topics associated with significant public funding or on recurrent issues highlighted in the annual report. For instance, Bulgaria has recently split its primary and secondary education into two additional stages and there are concerns that this decision will track students too early and lead to the closure of schools in rural areas. A thematic study on the causes and consequences of student dropout, using longitudinal data to gauge the impact of different policy measures, could be highly informative for system planning.

Assign the body to produce a periodic analytical report

One of the priority items in this research agenda could be to produce an annual or biannual analytical report on the education system. This report would provide insights on education system trends, including NEA results (see Recommendation 5.2.3) and could demonstrate how the system is performing in relation to national strategic goals. Most OECD countries regularly publish these reports and they provide important information to a variety of stakeholders and researchers. The report could also provide qualitative information, for instance insights from school evaluations and feedback from the sector's main stakeholders. In particular, Bulgaria might consider a section on student engagement and wellbeing. Research has shown that issues around engagement could be an important driver of low educational attainment in Bulgaria – with studies reporting that Roma are less likely to see the benefits of education and that truancy levels are significantly higher in Bulgaria than in other PISA-participating economies. Student engagement and wellbeing are likely to become still more important in the future – the government's decision to add an additional (compulsory) pre-primary year will be costly unless it is

accompanied by changes in attitudes to learning that see more students feeling encouraged to learn, rather than obliged to. In Norway, the Education Mirror (their annual sectoral report) uses its national Pupil Survey and PISA data to monitor information about student-teacher relationships, student motivation, the levels of home support that students receive and student wellbeing (Norwegian Directorate for Education and Training, 2014[25]). Another model for this report could be the state of education report compiled by the Dutch Inspectorate of Education (Box 5.3).

Ensure that the research body's work has buy-in with key decision makers and partners

The research body's work should be a valuable resource for different system-level actors in Bulgaria and help to inform national policy debate around education. This resource, in turn, could generate more demand for system-level evaluation and encourage more information sharing. OECD countries have thus worked to increase stakeholder engagement with their national evaluation institutions – for instance by inviting them to propose research topics, provide comments on research and evaluation findings and/or co-finance research projects.

Recommendation 5.3.2. Ensure that education authorities can track how the system is performing against national goals

The Ministry plays a paramount role in education policy in Bulgaria. It carries out most policy planning, regulates the sector, and territorial education authorities and schools rely heavily on central funding. At the same time, the Ministry must design education policies for implementation in very different regional contexts, which bring particular challenges and opportunities. To ensure that policies centrally planned by the Ministry meet their goals, Bulgaria must be able to track how different parts of the system are performing on a regular basis. Stronger performance monitoring would enable the Ministry to see how its policies are playing out in different contexts, identify emerging issues and recalibrate its policies and/or extend additional support. This is also important for accountability purposes – sending a signal to stakeholder groups and local communities that the government is committed to accountability, which should help to build trust and co-operation towards reform. Tools to monitor system performance against national goals would not only be helpful for the Ministry. The latter should also consider developing customised tools for regional and municipal authorities, which would help to guide support for improvement in school sub-systems.

Regularly consult with REDs to ascertain how they are performing against national targets and challenges faced

The Ministry needs more information from the REDs on how their reforms are affecting teaching and learning in schools and the specific challenges that REDs are facing. While the Ministry reports very positive communication with the REDs, the review team encountered some uncertainty within the REDs around the implementation of Pre-school and School Education Act (2016) reforms, capacity constraints and uneven quality of engagement between the REDs and the schools in their jurisdiction. To ensure that the Ministry gets the information it needs, it should regularly consult with the REDs in a structured and open discussion around how each region is performing against national development goals and additional support that could be provided. These consultations could be used to gather information for the analytical state of education report Recommendation 5.3.1, providing qualitative information on the state of education – for instance critical challenges faced in certain regions and noteworthy activities to address them. Finally, it could provide space for the Ministry to request additional data required to monitor against the Strategic Framework for Education (OECD, 2020[26]).

Provide tools to track performance in regional school sub-systems and guide improvement

Bulgaria's REDs would benefit from having more access to information on how their region is performing relative to others, to guide their work with local schools. This resource would help regional authorities to target support, signal needs to the central government and identify other regions for peer learning. Regional authorities in poorer regions may find it harder to identify peers that have successfully tackled major policy issues such as student dropouts or teacher shortages. This resource could enable REDs to provide more strategic support to schools and connect to good examples for peer learning.

A regional report on key outcome indicators could take the form of a regional "state of education" profile, based on input provided by the REDs and analysis conducted by an independent evaluation institution (see Recommendation 5.3.2). It should include national assessment data if changes are made to the NEA, as outlined in Recommendation 5.3.2. NEA results should be reported against a national average and against the average of a group of regions with similar characteristics. This report would reinforce accountability and transparency further if it is made public. The REDs could be provided with additional information that is not included in a regional profile, such as NEA results disaggregated by sub-groups within the region (e.g. municipalities).

Recommendation 5.3.3. Make better use of system evaluation results for policy making and planning

Bulgaria has made a significant step to improve its education data and this chapter proposes further measures to strengthen the NEA (see Policy issue 5.2), which would produce valuable data on learning outcomes. Bulgaria should optimise this investment by ensuring that the results of system evaluation are used to inform policy. Implementation planning based on evidence should be strengthened and the use of evidence to inform policy should be made visible to the public. These two measures will help the Ministry to target limited resources and build trust in its reforms among the public.

Use the results of reporting and system evaluation to produce regular implementation plans

Regular implementation planning can help policy makers to sequence and adjust policy interventions, keep the implementation process on schedule and facilitate co-ordination. This is particularly important when resources are limited, reforms are new and policies may be contentious. Regular implementation planning can also help to prevent sudden policy changes, which may lead to the abandonment of planned reforms.

The Ministry should consider establishing annual or biannual action plans, linked to its mid-term strategy. This practice could help the Ministry to adjust its policies in response to new challenges and opportunities, while still keeping sight of its long-term objectives and planned reforms. This has been an approach taken in Ireland, for instance, where the government produces an Annual Action Plan on Education. The action plan is formulated in consultation with important stakeholders, through a variety of means – including an online call for submissions, input from other departments, regional fora, thematic workshops and other meetings with key stakeholders (Department of Education, 2017[27]).

Dedicate a session of the Parliamentary Committee on Education and Science to discuss the findings of the state of education report

Bulgaria could consult with the public and make the case for policy choices clearer, by dedicating a parliamentary session to discuss the findings of a state of education report (outlined in Recommendation 5.3.1). This is a practice used in many OECD countries to hold the government accountable and embed the use of evidence in the policy-making process. The report could be discussed in a meeting of the Parliamentary Committee on Education and Science, and critical stakeholders should be invited to attend. Transparency would be increased by publishing a video of proceedings on the

Ministry's website. Orienting the session around the findings of a state of education report would help the government to collect constructive feedback. The session should be attended by a high-level representative of the Ministry, who would give insights on how the results of system evaluation are being used to inform policy.

Table 5.6. Table of recommendations

Policy Issues	Recommendations	Action Points
Ensuring Bulgaria's new EMIS becomes a source of quality data for a variety of users	Prepare to establish the new education management information system as Bulgaria's central source of education data	Establish common definitions and protocols for retrieving data from schools
		Transition all school reporting processes to a digital format
		Create quality assurance procedures to verify the accuracy of data entry
		Define roles and provide support to staff responsible for managing the new EMIS
	Develop the functionalities of the new EMIS and improve the availability of quality data to support accountability and policymaking	Create a public interface for the new EMIS with built-in analytical functions
		Ensure the new EMIS collects data to monitor progress towards national education goals
Establishing a national assessment system that supports system monitoring and helps improve learning outcomes	Reinforce the monitoring and formative potential of the NEA	Discontinue the practice of using NEAs to select students into schools
		Clearly communicate NEA reforms to build a broader understanding of student assessment
	Ensure the design of the NEA system aligns with its monitoring and formative purposes and supports national education goals	Create a criterion-referenced scoring system so that results are comparable across years
		Change target population and administration timeline of the national assessment
		Review the subjects assessed
		Review test items to align the NEA with Bulgaria's new competency-based curriculum
		Collect relevant contextual information to effectively monitor equity
		Consider moving to computer-based delivery of the NEA in the future
	Disseminate results from NEA to inform education policy and support learning	Disseminate NEA results in a way that avoids the perception of having high-stakes
		Ensure NEA data supports system monitoring
		Introduce reporting mechanisms that support learning and school improvement
Strengthening regular performance monitoring to guide system improvement	Establish an independent body to produce regular analytical reports on system performance	Prescribe a clear mandate to the body
		Design a research agenda that covers critical issues
		Assign the body to produce a periodic analytical report
		Ensure that the research body's work has buy-in with key decision makers and partners
	Ensure that education authorities can track how the system is performing against national goals	Regularly consult with REDs to ascertain how they are performing against national targets and challenges faced
		Provide tools to track performance in regional school sub-systems and guide improvement
	Make better use of system evaluation results for policymaking and planning	Use the results of reporting and system evaluation to produce regular implementation plans
		Dedicate a session of the Parliamentary Committee on Education and Science to discuss the findings of the State of Education report

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OECD Reviews of Evaluation and Assessment in Education

BULGARIA

Over the past three decades, Bulgaria has carried out important structural reforms which have helped the country reach higher levels of socio-economic development. However, long-standing social disparities and income inequalities remain and Bulgaria's overall productivity gains have not fully translated into sustainable and inclusive growth. In this context, the country holds education as key to improve the nation's future economic potential and increase the quality of life of its population. For example, the national development strategy, Bulgaria 2030, sets out an ambitious reform plan that identifies the importance of raising learning outcomes and addressing inequities in order to sustain socioeconomic growth. This review provides recommendations on how evaluation and assessment in Bulgaria's education system can support the country in reaching its goals.

Co-funded by
the European Union

PRINT ISBN 978-92-64-90912-0
PDF ISBN 978-92-64-68311-2