Chapter 1. Introduction

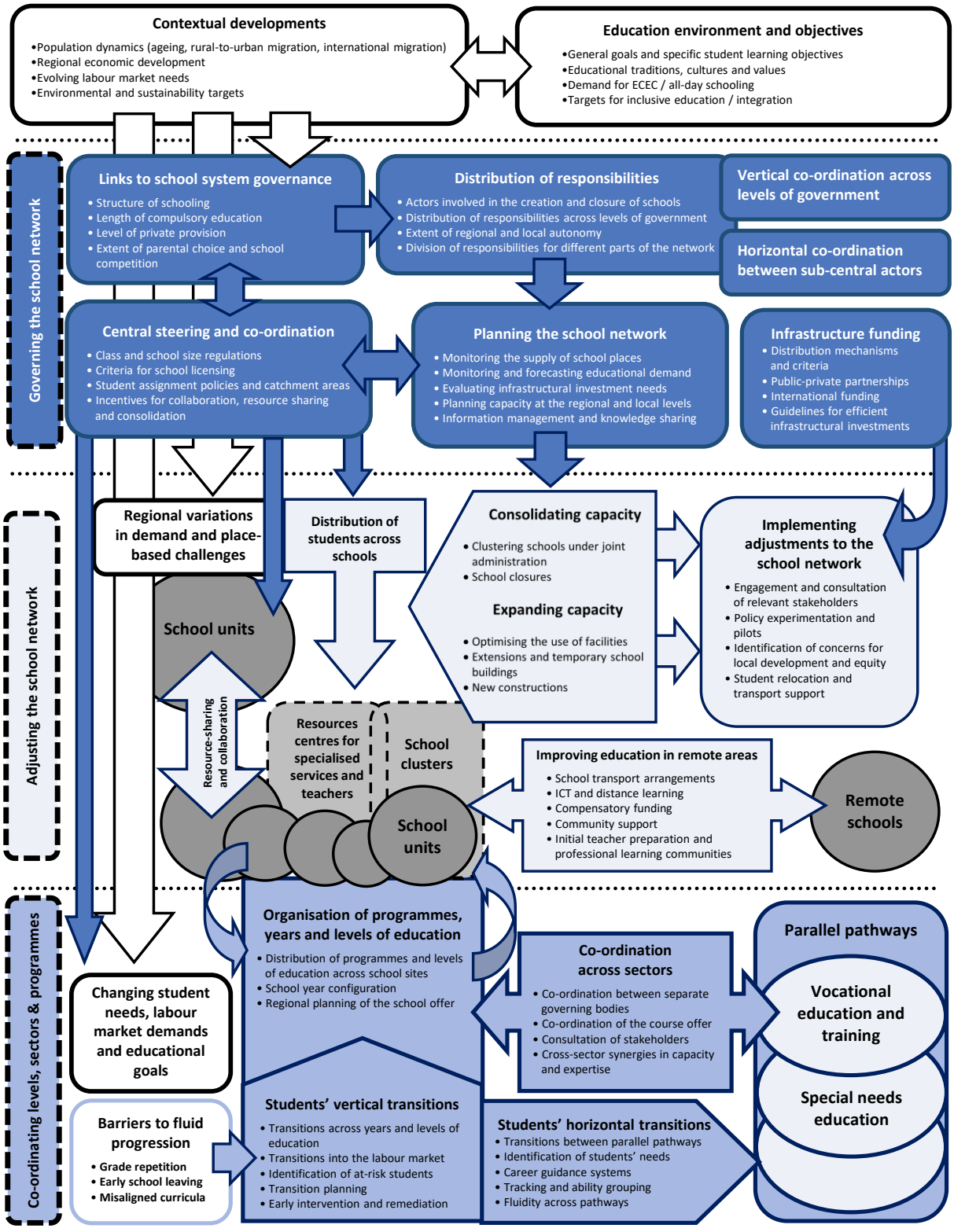
This report analyses policies that can help countries improve the organisation of school facilities, sectors and programmes to advance educational quality, equity and efficiency. This chapter introduces and provides the context for the subsequent analyses. First, it explains why the organisation of educational infrastructure matters and how the distribution and size of schools can affect a system's educational performance and efficiency. Second, it highlights the importance of coordinating educational levels, sectors and programmes to support these goals. Third, it explores major developments and trends in educational demand and students' needs that school systems need to respond to. The chapter then explains the report's methodology and the evidence on which it draws.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

This report provides analyses and advice on policies concerning the organisation of school facilities, sectors and programmes, considering both the physical school network (i.e. the entirety of a system's educational facilities), and the organisation of education services within this network. It is intended to help school systems meet their quality, equity and efficiency objectives and ensure that all students can benefit from a high-quality educational provision where they need it. The first part of the report (Chapter 2 and Chapter 3) is primarily concerned with policies affecting the size and distribution of school facilities as well as the relationships between them. The second part of the report (Chapter 4) focuses on education sectors, levels and programmes, the way they are co-ordinated and distributed across school sites and how this affects students' horizontal and vertical transitions through the system (see Figure 1.1 for an analytical framework and the themes explored in this report). A wide range of endogenous and exogenous developments, including demographic trends and policy changes, mean that educational demand and students' needs are constantly evolving. The central challenge addressed by this report is how the organisation of school facilities, sectors and programmes can enable school systems to respond to these changes and promote student success in an efficient and equitable way.The report examines how the distribution and size of schools impact expenditure, how the responsibility for their construction and maintenance is distributed, and which governance arrangements can facilitate the school network's ability to adjust in the face of changing demand and students' needs. It also analyses how assignment policies, parental choice and transport provisions shape the distribution of students across schools and takes stock of promising strategies to reduce student segregation and inequities in access. Finally – assuming the students' perspective – the report considers how the distribution of education services across school sites, the articulation of pathways and the relationships between sectors (including general and vocational, mainstream and special needs education) can support students' successful progression through the school system. The modalities of students' horizontal and vertical transitions, including tracking, selection and grade repetition policies, are evaluated both in terms of equity and their effectiveness in matching students to programmes that correspond to their interests and needs.

It should be noted that the subject of this report is in many ways linked to those of other thematic comparative reports prepared by the OECD School Resources Review, namely the funding of school education (OECD, 2017[1]) and the management of human resources (forthcoming in 2019): Efforts to improve the organisation of the school network and education services must be complemented by supportive funding mechanisms that are aligned with policy priorities and educational objectives. Likewise, adjustments to the school network affect both teachers and principals and the provision of high-quality education relies on qualified personnel to deliver it. While these issues are touched upon in the report at hand, more in-depth analyses of school funding and human resource policies can be found in the OECD review's first and third thematic reports.

Figure 1.1. Framework to analyse the organisation of educational facilities and services



1.1. Why physical resources in education matter

Although – compared to staff salaries – a relatively small share of educational expenditure is devoted to physical resources, funding for educational materials and the construction and maintenance of school buildings is one of the most significant investments in public infrastructure. Non-staff related spending accounts for 28% of the average OECD education budget and varies considerably across countries, ranging from 20% or less in Belgium, Ireland, Mexico and Portugal to more than 40% in the Czech Republic, Finland, Hungary and Latvia (see Chapter 2, Figure 2.5). There is no doubt that attracting, developing and retaining effective teachers is central to building a high-performing education system[1]. Yet, providing adequate facilities and materials where they are needed is a necessary condition for teachers to realise their full pedagogical potential and create effective learning environments with their students. The efficiency with which school systems employ physical resources and organise their educational offer and to achieve this end is thus critical to enhance their performance and their ability to focus on what matters the most for students' success.

Spending on physical resources in education is, in part, a function of the size and location of schools, their age and condition, as well as the educational programmes they provide, which may account for some of the observed variation across school systems. Yet, the level of spending on infrastructure and school materials also depends on the efficiency of their use, the timing of investments and negotiations at the point of purchase, as well as schools' capacity to enter mutually beneficial resource-sharing arrangements and to rationally distribute education services across school units.

Developing and maintaining infrastructures that provide all students with adequate spaces to learn is a fundamental condition for an accessible and high-quality education system. Meta-analyses have found particularly young students to be affected by the condition of their school buildings (Gunter and Shao, 2016[2]) and evidence suggests that some infrastructural improvements can exert a positive impact on teachers, students and the wider community (Cellini, Ferreira and Rothstein, 2010[3]; Conlin and Thompson, 2017[4]; Neilson and Zimmerman, 2014[5]). A central aspect of this is to ensure the geographic coverage of school networks and the proximity of education services to students' homes. Excessive distances and inadequate school transport arrangements can be detrimental to both attendance and students' outcomes. In and it itself, enhancing existing infrastructures beyond the point of adequacy is rarely the most effective way to improve students' learning experience. Yet, schools that are overcrowded or inadequately maintained, that lack facilities conducive to students' learning, health and comfort or that are too distant from their homes can thwart an education systems' pursuit of excellence.

1.2. Why the organisation of educational levels, sectors and programmes matters

Providing all students with a high-quality education where they need it depends not only on the construction and maintenance of school facilities, but also on the rational distribution of education services across school sites and the co-ordination of its various components. The failure to effectively organise educational levels, sectors and programmes risks causing the duplication and fragmentation of school services, barriers to students' smooth progression through the system and their inadequate preparation to transition into post-secondary education or the labour market. Authorities therefore need to engage in both the vertical co-ordination of school years and levels as well as the horizontal co-ordination of parallel sectors and programmes.

The vertical co-ordination of students' pathways across school years and levels of education is critical to ensure their smooth progression throughout compulsory and upper secondary education. Misaligned course contents, a lack of guidance or support, and weakly connected remote schools are just some of the many barriers that students can face along the way. Consequences such as year repetition, early school leaving, and unsuccessful transitions beyond secondary education remain a challenge in many OECD review countries. The failure to design pathways conducive to a smooth vertical progression of students throughout the system leads to both an inefficient and inequitable use of school resources, imposing significant individual and social costs (see Chapter 4, Figures 4.3 and 4.4).

The horizontal co-ordination of education services across sectors and programmes is equally critical for the efficient use of school resources. Offering students and families a variety of educational pathways and parallel programmes promises a diverse educational provision that matches each student's interests and potential. At the same time, it may lead to increased segregation, mismatches in students' pathway choices and a fragmentation of the educational offer. The horizontal co-ordination of education services across sectors and programmes and the ability to guide students to programmes that correspond to their interests and needs is therefore critical to reap the benefits of a diversified offer. Complex governance arrangements, fragmented school networks and a lack of co-ordination and oversight can contribute to misalignments or duplications in the educational offer and make it difficult to students to access programmes that match their interests and needs. In vocational education, for example, poor planning and weak incentives for co-operation between local authorities or between public authorities and private providers is prone to result in schools offering similar vocational programmes in close proximity to one another and, by extension, duplicating costs. Likewise, supporting students with special educational needs (SEN) relies on the effective co-ordination of resources and expertise between special needs providers and mainstream schools.

1.3. Trends affecting the organisation of school facilities, sectors and programmes

A number of demographic trends, economic and social changes, as well as new and evolving educational objectives have required countries to respond and adjust the way they organise their school infrastructure and the education services it delivers. They have caused changes in educational demand (that is, the number of school places required in a given area across educational levels and sectors), students' needs (encompassing both the need for specific pedagogical provisions and students' overall well-being), and education policy goals. There is no doubt that the impact of the developments elaborate below extends well beyond the organisation of school facilities and their educational offer, but their effect on tertiary and adult education as well as other areas of public spending is beyond the scope of this report.

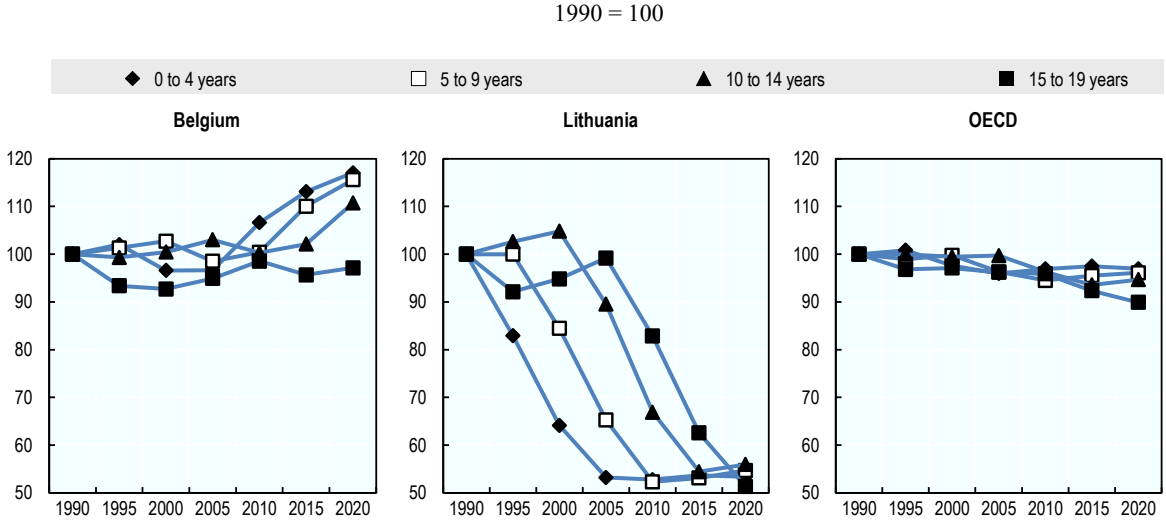
Demographic developments have placed different pressures on rural and urban school networks

Demographic developments, including regional and international migration and fluctuating birth rates, are an important factor in the change of educational needs and demand and affect how school systems can efficiently organise their educational offer. Some trends, such as declining fertility rates are widespread among advanced and emerging economies and, on average, OECD countries are projected to experience a continued population decline over the coming years, at least in their upper secondary

school-age population. Despite this general trend of shrinking student populations, there is considerable variation both between countries and their constituent regions.

While countries like Belgium have experienced a sharp rise in their primary and lower secondary student populations over the past decade (mainly due to international migration), declining birth rates and emigration have caused a drastic drop in the school-age population of some Central and Eastern European countries. In Estonia, for example, the number of students in general education dropped by 22% between 2005/06 and 2013/14 (see Figure 1.2). This trend is expected to continue in the longer term and has, despite a small rebound in recent years, left the country with a school network whose capacity greatly exceeds the number of students it serves (Santiago et al., 2016[6]).

Figure 1.2. Historical development and projection of the school-age population across OECD countries, in Belgium and Lithuania (1990-2020)



Source: OECD (2016), *Historical Population Data and Projections (1950-2050)*, https://stats.oecd.org/index.aspx?DataSetCode=POP_PROJ.

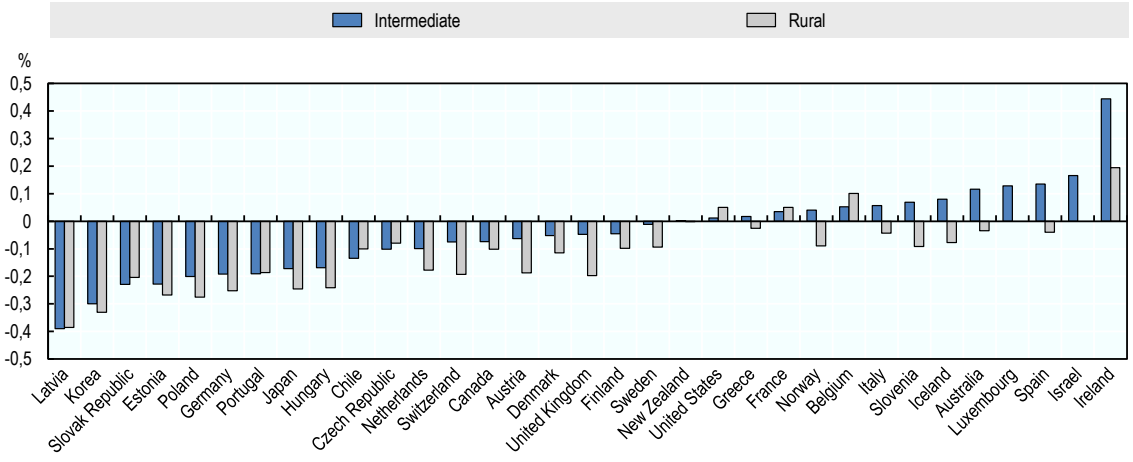
StatLink https://doi.org/10.1787/888933831089

The demand for school places is subject to significant regional heterogeneity, which has forced many OECD countries to respond to opposite developments across different parts of their school networks. In the Czech Republic, for example, internal migration and decreasing birth rates have caused considerable growth in the school-age population of Prague and the Central Bohemian region (3% and 14% between 2001 and 2012 respectively), while other parts of the country have grappled with a decline of up to 18% (Shewbridge et al., 2016, p. 61[7]). The rapid expansion of urban centres has often called for the construction or extension of educational infrastructure to provide sufficient school places and accommodate services like all-day schooling. By contrast, declining enrolment and the associated increase in the number of small schools has made the efficient provision of education increasingly difficult in many rural areas.

Rural-to-urban migration has been a universal trend among OECD countries and the rest of the world for over 50 years and cities continue to attract people hoping for better economic prospects, easier access to public services and a richer cultural offer. Between

1960 and 2013, the proportion of the population living in cities has increased across the world, reaching rates of up to 90% in OECD countries like Belgium (OECD, 2016, p. 64[8]). At the same time, rural areas in many OECD countries have been losing attractiveness, particularly among the young, resulting in a reduced population density and declining school-age population (OECD, 2016, p. 46[9]). Between 2001 and 2015, the absolute youth population below the age of 14 living in predominantly rural regions declined in almost all OECD countries, with the exceptions of Belgium, France, Ireland and the United States. By contrast, intermediate regions with mixed urban and rural populations have more frequently avoided this fate and even grown in some OECD countries over the past decades (see Figure 1.3).

Figure 1.3. Change in the absolute youth population (0-14) living in predominantly rural and intermediate areas between 2001 and 2015



Note 1: For Chile, change refers to the period 2002-15; For Netherlands: 2003-15; For Spain: 2002-15.
Note 2: Predominantly rural areas are those in which more than 50% of the population live in rural units; Intermediate areas are those in which 15% to 50% of the population live in rural local units.
Source: OECD (2017), Regional Demography, https://stats.oecd.org/index.aspx?DataSetCode=REGION_DEMOGR

StatLink https://doi.org/10.1787/888933831108

Increasing awareness of their educational benefits has led to rising demand for ECEC and all-day schooling

In a majority of OECD countries, the steady increase in women's labour market participation over the past decades has been paralleled by the expansion of early childhood education and care (ECEC) (OECD, 2016[8]). Increased parental demand and evolving family values have prompted many European governments, in particular, to expand ECEC services to allow parents to better reconcile work and family responsibilities (OECD, 2016[10]). High-quality ECEC is also increasingly recognised as effective in fostering the development of cognitive and non-cognitive skills that persist throughout a student's educational trajectory, particularly for children from less privileged socio-economic backgrounds (OECD, 2018[11]).

The importance of high-quality ECEC has been underlined by the United Nations' adoption of the Sustainable Development Goals in 2015 and the OECD's commitment to supporting Members and the international community in their achievement (OECD, 2016[12]). As part of Goal 4 (to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all"), countries have set themselves the target to ensure "that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education" by 2030 (United Nations, 2015[13]).

For similar reasons, many OECD systems in which it is not yet the norm, including Germany and Austria, have made the expansion of the school day in primary or secondary education a policy priority (OECD, 2018[14]). Like the expansion of ECEC, it is likely to support the labour market participation of parents, and mothers in particular. Providing students with a high-quality, integrated educational offer in the afternoon is also seen as a strategy to increase academic achievement, particularly among disadvantaged students. While all students would benefit from more learning time, extracurricular activities and guidance with their homework, advocates of all-day schooling argue that its benefits are particularly pronounced for children of families that are less capable of supporting them in this regard (Nusche et al., 2016[15]). Although few rigorous evaluations are available, some research has indicated a positive impact of extended days in kindergarten (Gibbs, 2014[16]) and sustained participation in high-quality afternoon activities at the primary and secondary level (Fischer and Klieme, 2013[17]). Yet, providing the infrastructure for all-day schooling and extracurricular activities can constitute a significant challenge and may require considerable adjustments to the organisation of instruction and the adaptation or expansion of educational facilities.

A greater recognition of special educational needs and increased emphasis on inclusion requires the adaptation of education services

School systems are increasingly emphasising the importance of recognising and providing inclusive learning environments for students with diverse educational needs. This commitment has been underlined by the goal to "ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations" by 2030, which was adopted as part of the United Nations' Sustainable Development Goals (United Nations, 2015[13]). Empirical evidence has added to the ethical arguments, demonstrating that educating students with disabilities in the least restrictive environments while providing additional supports improves their academic and life outcomes (Hanushek, Kain and Rivkin, 2002[18]). Due to the improved diagnosis of SEN and an increasing attention to students' right to participate in mainstream education, both the percentage of students identified with SEN and the proportion of them that are taught in inclusive settings has risen.

In light of these developments, education systems face the challenge to consistently and accurately identify students' educational needs and enable schools to meet them effectively. The misidentification of students' needs can have serious negative consequences for the students concerned and prevent systems from accurately targeting their resources to those who need them the most. At the same time, regulations increasingly aim to improve the accessibility of public facilities, which can require schools to make significant infrastructural adjustments (Leemans and von Ahlefeld, 2013, p. 15[19]). To ensure that these investments improve the opportunities of SEN students not only in terms of access but also educational quality, school systems also need to ensure the provision of adequate learning materials and well-prepared teachers and support staff.

Some school systems have recognised the potential of fostering the collaboration and moving towards a greater integration of mainstream and special needs providers. In some cases, this has taken structural forms, such as physically locating special needs provision in the same building as mainstream schools to provide opportunities for SEN students to take more classes in mainstream education settings. It can also involve efforts to build professional connections between mainstream and special education providers, and to encourage teachers with special education expertise to coach their colleagues.

Schools are expected to respond to new and evolving needs, in part due to international migration and increasing student heterogeneity

The academic and socio-emotional needs of students across the OECD have increased substantially over the past decade. Between the 2006 and 2015 PISA cycles, the percentage of students with an immigrant background in OECD countries increased from 9.4% to 12.6%, in line with the share of students who speak a foreign language at home (OECD, 2016, p. 421 ff.[20]). Increasingly diverse student populations, especially in urban areas, require many schools to provide specialised services and individualised support to meet their students' needs, reduce dropouts, year repetition, and poor labour market outcomes.

At the same time, the proportion of students who felt socially isolated in their school grew by nearly 10 percentage points between 2003 and 2015 – one of several OECD indicators pointing to students' growing socio-emotional needs (OECD, 2017, p. 345 ff.[21]). As the level of students' needs has increased, so too have ambitions to hold schools accountable for the measurable performance of all students. Thus, more than ever, schools must be enabled to continue their progress in helping a diverse range of students overcome the obstacles imposed by socio-economic and cultural disadvantage and to prepare them for responsible citizenship and success in the labour market.

Complex and highly differentiated school systems require efforts to ease students' vertical and horizontal transitions

As education systems grow increasingly complex (Burns and Köster, 2016[22]), their success relies on the capacity to ensure students' smooth progression through the system and access to appropriate support along the way. The failure to guide students along pathways that correspond to their educational interests and needs imposes significant individual and social costs as it increases inequities, the likelihood of school failure and skills mismatches in later life. Educational transitions are of particular significance in this regard as they constitute critical junctures in students' trajectories. Frictions and inefficiencies can arise from students' vertical transitions across years and levels of education (e.g. from pre-primary to primary school and from lower to upper secondary school), as well as their horizontal transitions between different school sectors (e.g. general and vocational education or mainstream and special needs education).

Chapter 4 addresses in detail how school systems can articulate the relationship between levels of education and different sectors within the school network to ease these transitions. Common barriers to students' vertical transitions include learning gaps and grade repetition, early school leaving and poor transitions into post-secondary education or the labour market. Common concerns in the horizontal co-ordination of the educational offer include early tracking into academically weak pathways, especially for disadvantaged students; an insufficient permeability between different educational

pathways; and inadequate arrangements for SEN students that provide them with limited learning opportunities.

Changing labour market needs create pressures for the vocational education and training sector to adapt its provision

Upper secondary vocational education and training (VET) programmes play a significant role in OECD education systems, educating nearly half of all upper secondary students across the OECD and over two thirds in some countries. As many jobs of the future are expected to require technical and interpersonal skills, but not necessarily at the tertiary level, policy makers have come to regard vocational education as central to their countries' economic and social success (Hoffman and Schwartz, 2017[23]; CEDEFOP and European Center for the Development of Vocational Training, 2017[24]; Richards, 2015[25]). The efficient provision of high-quality VET programmes requires the sector's careful co-ordination with both general education pathways and the world of work. Likewise, a lack of horizontal co-ordination is prone to lead to costly duplications in the VET offer.

For vocational programmes to be successful for both students and employers, it is increasingly recognised that VET must be a high-status pathway that develops flexible skill sets. Continuous changes in the skills profile sought by companies means that a wider and more flexible range of abilities is required from workers (Autor, Levy and Murnane, 2003[26]; Goldin and Katz, 2008[27]). Since firms rarely have a short-term incentive to unilaterally invest in the development of long-term human capital, education systems must design adequate funding mechanisms and support vocational programmes that meet these complex and changing demands (OECD, 2016[28]).

Educational facilities need to meet greater expectations and accommodate evolving pedagogical techniques

Evolving and increasingly ambitious goals arising both from within and outside the sphere of education place complex new demands on school infrastructures and learning environments. Growing concerns surrounding the consequences of climate change, for example, have led many countries adopt new standards for the construction of sustainable buildings and energy-saving infrastructures that schools are expected to comply with (Leemans and von Ahlefeld, 2013, p. 14[19]).

School facilities also need to be flexible to adapt to new pedagogical techniques and evidence on the effective use of learning environments. For example, the desire to equip students for the information age and prepare them for a world that is increasingly shaped by computers has prompted education systems to advance the integration of information and communication technology (ICT) in school buildings. Some systems require significant investments in their digital infrastructure in order to permit schools to fulfil ICT-related objectives. Accommodating new pedagogical approaches such as competency-based education and delivering on pledges to focus on student well-being may also require adjustments to learning environments and to the configuration of facilities within the school network (Leemans and von Ahlefeld, 2013, p. 15[19]).

1.4. The context for this report

This report was prepared as part of a major OECD study on the effective use of school resources resulting in the publication series *OECD Reviews of School Resources*. This publication series encompasses thematic comparative reports that synthesise the review's major findings on school resources policies, drawing on evidence from research and the project's country-specific analyses. The first three thematic reports cover the following topics: i) the funding of school education (OECD, 2017[1]); ii) responsive school systems (the present report); and iii) the management of human resources (to be published in 2019). Box 1.1 provides more information on the main features of the OECD review.

Box 1.1. The OECD School Resources Review

The *OECD Review of Policies to Improve the Effectiveness of Resource Use in Schools* (also known as the *School Resources Review*) was launched in 2013. This review is conducted in collaboration with countries and under the guidance of the OECD Group of National Experts (GNE) on School Resources, comprising representatives from all participating countries and other OECD Members. The review is designed to respond to the strong interest in the effective use of school resources evident at national and international levels. It provides analyses and policy advice on the use of school resources to help governments achieve quality, efficiency and equity objectives in education. It focuses on primary and secondary school education, although links to other levels of education are also established where relevant.

Key issues for analysis

School systems use a broad range of resources. This review primarily considers three types of closely interlinked resources:

- **Financial resources** (e.g. monetary transfers, school funding mechanisms).
- **Human resources** (e.g. teachers, school leaders, education administrators).
- **Physical resources** (e.g. buildings and school places, networks and clusters).

The overarching policy question guiding the review is "What policies best ensure that school resources are effectively used to improve student outcomes?" In considering policies to ensure that these resources are effectively used to improve student outcomes, the review focuses on four key issues for analysis: the governance of resource use (how to govern, plan and implement resource use); resource distribution (how to distribute resources across levels, sectors and student groups); resource management (how to manage, evaluate and follow up on resource use); and resource utilisation (how to utilise resources for different programmes and priorities).

Review objectives and methodology

The School Resources Review's analyses are designed to support governments in developing effective national education policies. In particular, the project proposes policy options to ensure that school resources are effectively and equitably used to improve student outcomes. The project provides opportunities for countries to learn from one another by exchanging best practices, and to gather and disseminate evidence on effective school resource policies. Through the public dissemination of its results, the project also seeks to inform policy debates on school resources among relevant stakeholders.

The project involves a reflection about the policy implications of the currently available evidence on the use of school resources in a wide range of national settings. The evidence is draws on includes relevant academic and policy papers published in peer-reviewed journals, detailed information provided by countries on their school resource policies, as well as the experience and perspectives of a wide range of stakeholders in participating countries. The work is undertaken through a combination of desk-based analysis, country reviews and periodic meetings of the GNE on School Resources, which provides feedback on substantive documents and determines priorities for further analytical work.

The work involves three major strands:

- **An analytical strand** draws together evidence-based policy lessons from international data, research and analysis. The analytical strand uses literature reviews, country background reports (CBRs) analyses data to investigate the factors that shape resource use in school systems. The CBRs use a common framework to facilitate comparative analysis and maximise the opportunities for countries to learn from each other.
- **A country review strand** provides individual countries with policy advice on resource issues tailored to their priorities, drawing on international evidence and the insights obtained by a team of experts visiting the country. For each country review, a team of up to five reviewers (including at least two OECD Secretariat members) analyses the CBR and subsequently undertakes an intensive case study visit of about eight days in length. Each study visit aims to provide the review team with a variety of perspectives on school resource policies and includes meetings with a wide variety of stakeholders. Country review reports are published in the series *OECD Reviews of School Resources*.
- **A synthesis strand** with the preparation of a series of thematic comparative reports. These blend analytical and review evidence and provide overall policy conclusions on specific themes.

Collaborations

This report was prepared within a broader framework of collaboration and a partnership with the European Commission (EC), which was established for the OECD School Resources Review. The support of the EC has covered part of the participation costs for members of the European Union Erasmus+ programme and contributed significantly to the preparation of a series of thematic comparative reports, including this publication. The review of Kazakhstan was undertaken in co-operation with the World Bank. Other international agencies collaborating with the project include Eurydice, the Inter-American Development Bank (IDB), the Organising Bureau of European School Student Unions (OBESSU), the Standing International Conference of Inspectorates (SICI), the United Nations Educational, Scientific and Cultural Organization (UNESCO) and UNESCO's Global Education Monitoring Report. Social partners are also involved through the contribution of the Trade Union Advisory Committee to the OECD (TUAC) and the Business and Industry Advisory Committee to the OECD (BIAC), which participate in the GNE as Permanent Observers.

1.5. Country participation and sources of information

The analysis in this report is based on multiple sources of evidence, including first and foremost the analysis of countries actively participating in the review. At the time of writing this report, 19 school systems were actively engaged in the review and will be referred to as the "OECD review countries" throughout. These 19 school systems represent a wide range of economic and social contexts, and illustrate diverse approaches to the organisation of school facilities, sectors and programmes, which enables this report to take a comparative perspective on key policy issues. In addition, this report seeks to go beyond information collected from OECD review countries by drawing on data collections and case studies from across the OECD and beyond, as well as the relevant international research literature.

Most of the OECD review countries also took part in a collection of qualitative data on the main features of their school funding approaches and prepared a detailed background report, following a standard set of guidelines. By July 2018, 12 of these school systems had also conducted a country review, undertaken by a review team consisting of members of the OECD Secretariat and external experts. Country reviews provide an independent analysis by the review team of identified strengths and challenges in the use of resources in these countries. In their analyses, the review teams have drawn on information gathered through interviews with a broad range of stakeholders, including social partners, during a main country review visit.

This report draws on four main sources of information:

- Eleven country review reports completed by OECD-led review teams for Austria, Belgium (Flemish Community), Chile, Colombia the Czech Republic, Denmark, Estonia, Kazakhstan, Lithuania, the Slovak Republic and Uruguay, as well as an ongoing country review of Portugal.
- Sixteen country background reports completed by the following school systems: Austria, Belgium (Flemish Community), Belgium (French Community), Chile, the Czech Republic, Denmark, Estonia, Iceland, Kazakhstan, Lithuania, Luxembourg, the Slovak Republic, Slovenia, Spain, Sweden and Uruguay.
- Seventeen responses to a qualitative data collection on national approaches to school funding provided by the following school systems: Austria, Belgium (Flemish Community), Belgium (French Community), Chile, the Czech Republic, Denmark, Estonia, Iceland, Israel, Kazakhstan, Lithuania, Portugal, the Slovak Republic, Slovenia, Spain, Sweden and Uruguay. The responses to selected questionnaire items were drawn on for part of the analysis in Chapter 2 and Chapter 3 and are summarised in comparative tables included in the respective chapters.
- A range of literature reviews bringing together research findings on relevant issues from as many school systems as possible beyond the OECD review countries. These literature reviews include, among others, OECD working papers on school size policies; the regulation of publicly funded private schools and student learning time.

1.6. The structure of this report

The report has four chapters. Following Chapter 1, which provides the context for the subsequent analysis and explains the importance of physical resources in education and the organisation of school sectors and programmes, Chapters 2-4 are concerned with the key substantive issues involved in the organisation of school facilities, sectors and programmes: *Governing the school network* (Chapter 2); *Adapting the school network to changing needs in urban, rural and remote areas* (Chapter 3); and *Co-ordinating educational levels and sectors to improve student trajectories* (Chapter 4). The chapters provide a description of different countries' approaches to organising school networks and education services; analyse strengths and weaknesses of different strategies; and provide recommendations for improving the organisation of school facilities, sectors and programmes.

Notes

[1] The management of human resources will be the subject of the School Resources Review's forthcoming third thematic report.

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