K-12 Education in India: Vision 2047

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FICCI

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Building a better working world

FICCI ARISE Foreword

The Indian economy is currently poised to move on a faster trajectory of growth and development. While a major part of the globe is facing several challenges caused by war, internal strife and economic slow-down, India in the current scenario is marching ahead and undisputedly is the fastest growing economy. The entire world, including many developed countries are looking to India for investment opportunities, because of its demographic advantage and its strong technological prowess in terms of highly qualified personnel and strong infrastructure in the related space. However, for strong economic growth and sustainable development, we will have to significantly improve and indeed, restructure our education systems in line with the best global practices and develop new-age competencies. Education landscape is dynamic, constantly evolving and is at the core of development imperatives that are relevant and sustainable.

Government of India has taken several initiatives to make learning affordable and accessible to all children. One of these being, The National Education Policy (NEP), 2020, that has introduced major educational reforms and, its implementation will be a game changer. It provides a revolutionary blueprint to take on the challenge of re-engineering India's schools, provides easy access to all and reorient the content and pedagogy towards experiential learning as opposed to the didactic. It recommends a multidisciplinary architecture to drive India's human capital development in the new knowledge economy.

The pillars of 'New India' will be built on the foundation of 'Digital Revolution.' The emerging knowledge economy will be driven by information, data and computing power. Developing human resources would require critical analysis, lateral thinking and inter-disciplinary applications. There is a complete unanimity that Schools will have to transition towards new-age learning mechanisms that closely mirror the future of work. In order to take full advantage of the emerging opportunities, a learning ecosystem will have to be created with innovative strategies, inter-connectedness and easy adaptability.

Historically speaking, India has had a reputation of a strong knowledge and philosophical base, being the oldest civilization of the world. The future learning ecosystem will necessarily have to incorporate, the learning from the past and blend them with futuristic requirement of society, which is increasingly becoming aspirational. Indeed, the world has so much to learn from us and we shall have to create appropriate paradigms to meet the diverse requirements of different segments. All stakeholders shall have to come together on a common platform, to initiate lifelong, experiential and interconnected learning journeys, a blueprint for new-age technology integration, promoting learning science, faculty development, developing enabling policies and investment framework for achieving the desired goals.

The FICCI and EY-Parthenon knowledge report, "K-12 Education in India: Vision 2047", while attempting to address the key challenges and opportunities for School education, has made relevant recommendations that would enable our existing systems to be transformed to meet the needs of future learners. Report presents a framework which can transform Schooling system, develop a cohesive ecosystem for the youth and take advantage of the new architecture in the journey to be future-ready global citizens.

Shishir Jaipuria

Chairman, FICCI ARISE

Praveen Raju

Co-Chairman, FICCI ARISE

Anirudh Khaitan

Co-Chairman, FICCI ARISE

EY-Parthenon Foreword

Since ancient times, education has been held in high esteem, with the "Guru-Shishya" approach and study of the Vedas. After Independence, our country made several strides to modernize education and make it more accessible to our vast population. There is no doubt that education is one of the most powerful tools to reduce inequality and empower citizens to achieve their true potential. The introduction of the National Education Policy 2020, 34 years after our last policy, has further given new life to the system.

However, we cannot stop here. With a population of over 375 million in the age group of three to nineteen years, India is home to the largest K-12 ecosystem in the world. The country is brimming with potential, but a lot still needs to be done to harness it.

We must set aspirational goals for K-12 education for India@2047, which will encourage us to keep pushing the boundaries on how the system is viewed and operated. Such targets have been highlighted in this report, which can be achieved with the implementation of 5 five-year plans over the course of the next 25 years. The plans are centered around four strategic pillars – student centricity, robust infrastructure, quality teaching and professional development, and governance and investment framework. These pillars address core aspects of school education, and aim to re-humanize the system.

Before delving into these strategic reforms, this report also explores the progress we have made so far, the demographics of the system, and recognizes the opportunities in front of us. We hope you enjoy reading the report as much as we enjoyed writing it.

Dr. Avantika Tomar

Partner, Education Practice
EY-Parthenon
Bengaluru, India

Amitabh Jhingan

Partner, Education Practice
EY-Parthenon
New Delhi, India

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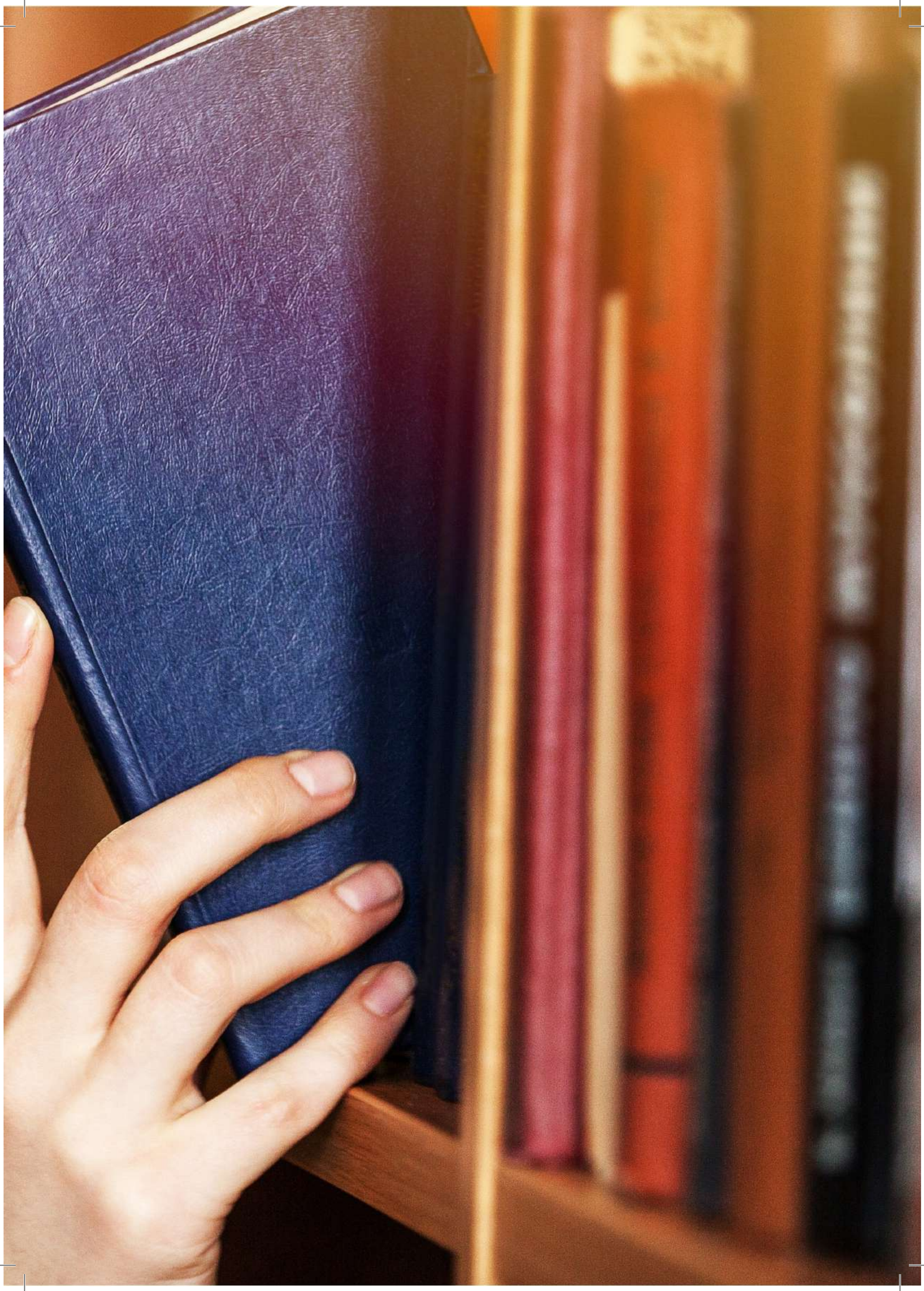
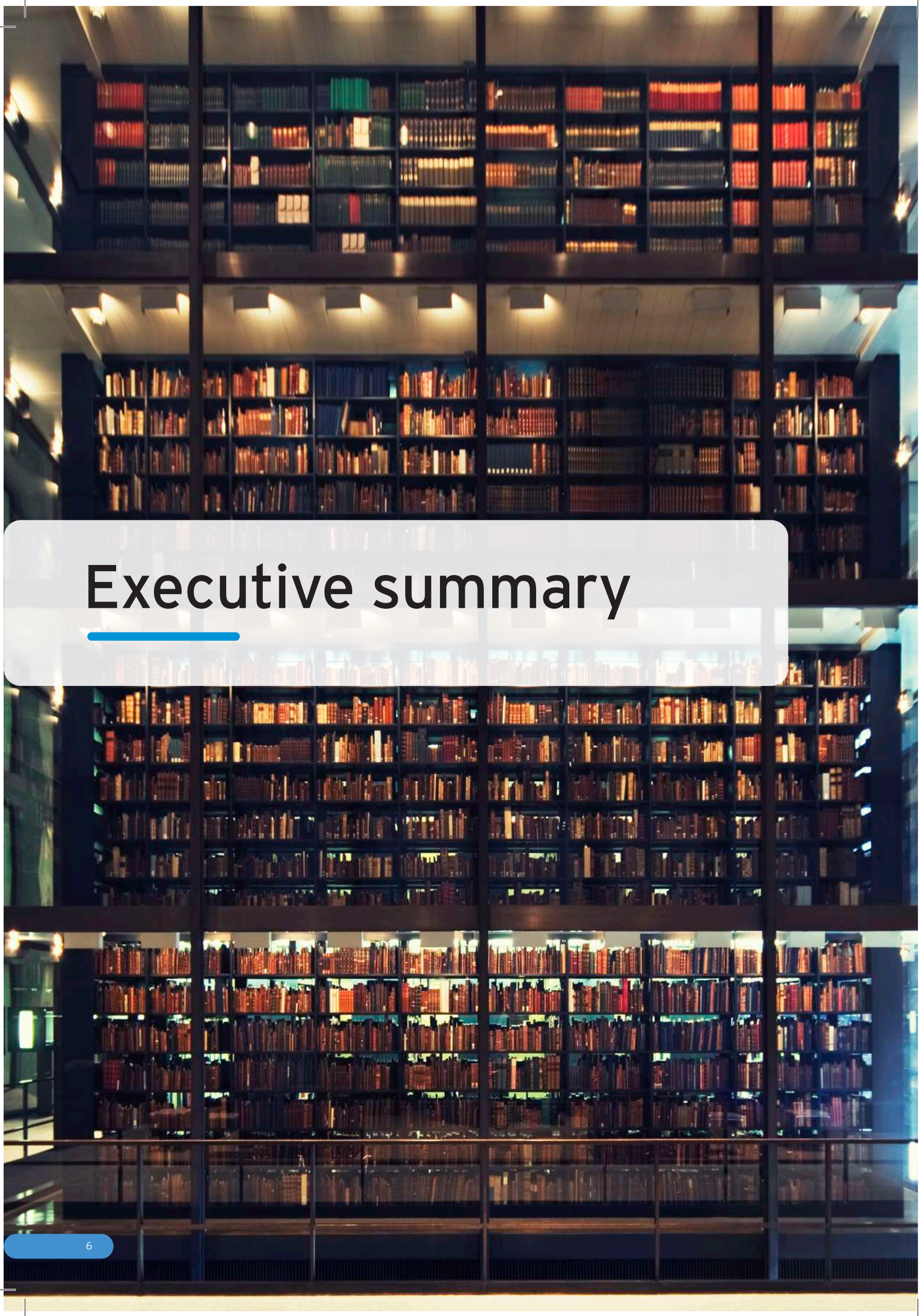




Executive summary

For the development of the K-12 system, stakeholders must focus on building a high quality learning environment for every student. It is thus necessary to overcome the current challenges of low GER in higher grades, shortage of well-qualified teachers, limited internet facilities, and complex regulations for setting up and operating schools. To enhance the current K-12 ecosystem in India, we propose to focus on the following key pillars:

Develop a student centric ecosystem

- Ensure uniform access to quality development, care and education
- Create clear academic and career pathways for vocational education
- Overhaul the curriculum to make it more enquiry-focused

Develop robust infrastructure

- Ensure provision of basic digital tools in government schools
- Develop and provide standardized technology platform solutions to schools at low cost
- Consolidate government schools for effective fund utilization

Ensure quality teaching and professional development

- Dedicate initial fund of INR 1,000 crores for teacher training
- Build innovative policies that allow private teachers to collaborate and train government school teachers
- Develop expertise to set global standards in teacher quality

Reform the governance and investment framework

- Make RTE act more outcome-focused
- Allow private schools to become for-profit institutions
- Provide flexibility in land area and ownership requirements
- Explore unique PPP models, such as hub and spoke model, etc.

1 Introduction

India celebrated 75 years of independence in 2022. In these 75 years, the country has achieved many goals and found solutions to critical problems in the education sector by increasing primary school enrolments, reducing the number of children out-of-school and improving the quality of teaching.

The Government of India has taken various initiatives to make learning affordable and accessible for all children. The National Education Policy (NEP) announced in 2020, for instance, has introduced major educational reforms to transform this space. During the time of pandemic-induced school closures, the Ministry of Education (MoE), the National Council of Educational Research and Training (NCERT), state governments and union territory administrations launched several programs to enable remote learning for children by providing support to parents, teachers, and caregivers.

Though a lot has been accomplished, much more needs to be done. India still has a long way to go.

Even though India has achieved a 100% gross enrolment rates (GER) in primary grades, students drop out of school as they advance through the system, leading to lower GER outcomes in higher grades.[1] As per the National Achievement Survey 2021, India witnessed a substantial drop in learning outcomes when compared to the scores in 2017, on the back of the pandemic, particularly in school children from vulnerable families facing myriad socioeconomic issues. Even the country's total spend on education (as a proportion of its GDP) lags behind other emerging economies. These challenges are further compounded by a shortage of professionally trained teachers and the widening gap between public and private education.

Urgent action is needed to overcome these learning losses and to arrive at solutions that will create a sustainable learning environment. This report addresses the disparities in the existing education system and draws a roadmap for all stakeholders to come together to achieve "Vision 2047". This "Vision 2047" prescribes the way forward for the country, building on the foundation created through policy interventions in the K-12 landscape since Independence.

India has made several accomplishments in the school education sphere since Independence, with NEP 2020 being the latest key development

Marquee Developments since Independence

1952

Mudaliar Commission

Also known as the Secondary Education Commission; the members were tasked with examining the existing secondary education system and presenting recommendations for its re-organization and improvement

1964

Kothari Commission

The Mudaliar Commission was followed by the Kothari Commission, also known as the National Education Commission, which made recommendations to reform and develop the Indian education system.

1968

National Policy on Education

On the basis of the Kothari Commission, the government announced the first National Policy on Education. It called for mandatory education up to the age of 14, the "three language formula", and improved teacher education.

1986

(New) National Policy on Education

The new education policy laid a greater emphasis on integrating women, SCs and STs. There was also a focus on a "child-centred" approach in primary education. The policy also expanded the open university system with IGNOU.

1995

Midday Meal Scheme

School meal programme to improve the nutritional levels of students in primary grades. In 2021, the Ministry of Education renamed the policy to PM-POSHAN and extended it to 24 lakh pre-primary grade students.

2009

Rashtriya Madhyamik Shiksha Abhiyan (RMSA)

Initiative launched by the government to develop secondary education in public schools throughout India. It aimed to increase the enrolment rates at the secondary level.

2009-10

RTE Act

The landmark act made education free and compulsory for students between the age of 6 to 14 years in India. RTE Act also specified recommended student-teacher ratios, teacher working hours and school working days.

2014

Beti Bachao, Beti Padhao

Campaign launched to ensure the safety and education of the girl child, including commitments to building more girls' toilets to reduce the number of female dropouts.

2015

Rashtriya Avishkar Abhiyan

Convergent framework launched to encourage children towards learning Science and Mathematics.

2020

National Education Policy

The first education policy of the 21st century, the NEP 2020 proposes numerous reforms in school education and higher education. The policy aims to transform India's education ecosystem by 2030.

2017

DIKSHA Platform

Launch of the Digital Infrastructure for Knowledge Sharing (DIKSHA), an open-source technology platform, for school students and teachers providing e-content, teacher training, mentorship, etc.

Source: British Council

To achieve India @ 100 years vision for K-12 schooling, the education system must transform by 2047 with strategic Five-Year Plans

Vision for K-12 Education in India in 2047

	Vision	Key Goals to Achieve
1st Five-year plan (2023-2027)	▶ Achieve a streamlined regulatory framework ▶ Reduce drop-out rates, teacher supply shortages and school closures	▶ Reduce out-of-school students; decrease enrolment drop of ~18.5% from primary to secondary (grade 5 to grade 9) and ~26.6% from secondary to senior secondary (grade 10 to grade 11) ▶ Discontinue dummy schools ▶ Re-evaluate RTE ▶ Ensure quality teacher recruitment and development
2nd Five-year plan (2028-2032)	▶ Achieve basic literacy amongst all students ▶ Ensure basic infrastructure facilities ▶ Provide modern curriculum delivery in all schools	▶ Provide basic infrastructure (electricity, water, etc.) across 100% government schools ▶ Provide transport facilities for students unable to access schools through personal means ▶ Conduct quality teacher recruitment to achieve a STR of 1:15 in primary grades and 1:20 in higher grades ▶ Promote "Teach by India" with Indian ed-tech platforms providing educational content and technology to the world
3rd Five-year plan (2033-2037)	▶ Provide curriculum in-line with global standards ▶ Enhancing skill-development and enquiry based learning ▶ Become a knowledge/resource sharing ecosystem	▶ Achieve the right blend in HEI enrolment and collaboration within domestic and international institutes ▶ Ensure 100% access to digital learning tools such as AR/VR headsets, tablets, etc. across all schools ▶ Ensure 100% student enrolment in relevant vocational courses in Grades 6-12
4th Five-year plan (2038-2043)	▶ Become a world leader in "Future Learning Systems" (adaptive learning, competency based learning, adaptive assessments etc)	▶ Ensure migrant learners in Indian K-12 education grow to 1.5 to 2 lakhs/year ▶ Build global capabilities measured by an increase in digital skills possessed by students and teachers ▶ Maintain repositories with 80 to 90% of subject matter in new-age and innovative digital formats
5th Five-year plan (2043-2047)	▶ Become one of the world leaders in education – helping shape capable citizens of tomorrow	▶ Attain PISA ranking within the top 10 countries from the current ranking of 72 ▶ Reach >95% graduation rate of relevant student cohort from academic and vocational high schools

NEP 2020 aims to revolutionise the Indian education system; the education sector is shifting towards digital platforms, supported by initiatives from the government and private players

Key trends and future opportunities in K-12 education in India

1 National Education Policy (NEP) 2020

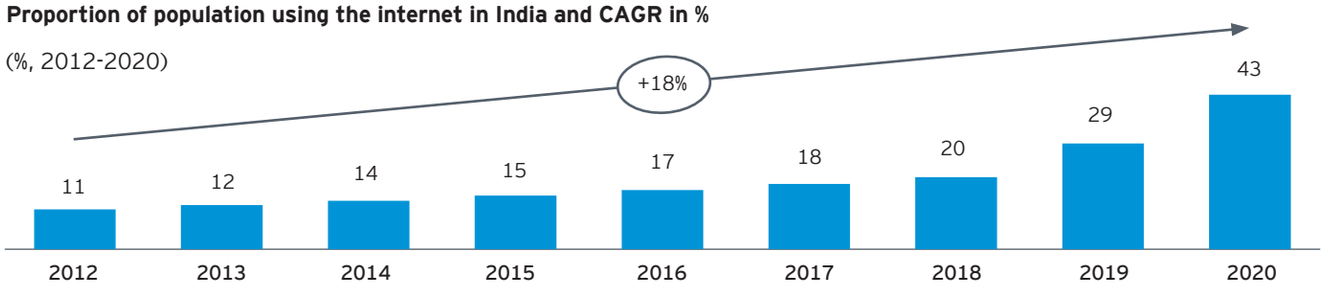
The National Education Policy 2020 is the first education policy of the 21st century and it replaces the 34-year-old National Policy on Education of 1986. The NEP lays out an ambitious plan, seeking rehaul and transformation across the educational value chain in India including K-12 education, higher education and teacher training with a focus on critical and experiential thinking. A few key illustrative reforms include:[2]

- **Early childhood care and education with new curricular and pedagogical structure:** The new policy aims to replace the 10+2 structure of school curricula to 5+3+3+4, corresponding to ages 3 to 8, 8 to 11, 11 to 14 and 14 to 18 years respectively. With this, the policy brings the students between the age of 3 and 6 years under the school curriculum
- **Standard-setting and Accreditation for School Education:** Currently, school governance functions are handled by a single body, i.e., the Department of School Education. This leads to conflict of interests and inefficiencies due to centralisation of power. To curb this, states/UTs aim to set up independent, state-wide bodies called State School Standards Authority to establish a set of standards for safety, security, basic infrastructure, number of teachers, financial probity, and sound governance
- **School Complexes:** The large number of small schools lead to inefficiencies in resource management and ineffective governance. NEP proposes grouping schools into school complexes to increase sharing of resources

2 Shift towards Digital Education

The education sector is undergoing a digital revolution, hastened by the onset of the pandemic. India in particular is seeing a dramatic uptick in the adoption of digital education initiatives, with UNESCO listing it among nine countries likely to shift towards digital education. The push towards a digitally enabled education has been helped by improving internet penetration and digital infrastructure in the country. Private players have launched advanced platforms and apps, enhancing the learning of school students. The government has also launched numerous initiatives to bolster e-learning for school students. These include PM e-VIDYA, DIKSHA, SWAYAM, ePathshala, among others.

Proportion of population using the internet in India and CAGR in %



Source: World Bank

Various teacher development initiatives have been proposed by NEP 2020, recognizing the inadequate teacher quality; the demand for international schools has risen on the back of rising disposable income

Key trends and future opportunities in K-12 education in India

3 Professional development of teachers

India's student-teacher ratio (STR) has been improving over the years, driven by the growth in the overall teacher's cohort in the country. However, there have been reports of the quality of teachers falling short. To improve teacher quality across Indian schools, some initiatives have been launched in the past years, while others initiatives have been planned in the NEP 2020. These include:[2]

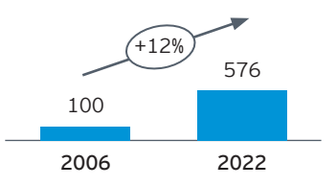
- **Continuous Professional Development (CPD):** For effective teaching, teachers will be provided access to online self-improvement platforms to learn the latest innovation and advances in their fields. NEP states that teachers would be expected to complete at least 50 hours of CPD every year, which will help teachers implement latest pedagogies to improve learning outcomes
- **Career Management Progression:** NEP emphasizes the importance of merit-based career progression to incentivize teachers to do their best work. For promotions and tenure, State/UT government will devise a structure which will include multiple parameters such as peer reviews, attendance, hours of CPD, among others
- **Professional Standards for Teachers:** To develop and maintain teacher quality and standards, the National Council for Teacher Education (NCTE) will devise the National Professional Standards for Teachers (NPST). These standards will lay out the roles and responsibilities for teachers at different states, and will also comprise the standards for performance appraisal

4 Rise in popularity of international boards

In the past decade, the two major international boards, i.e., International Baccalaureate (IB) and Cambridge Assessment International Education (also known as IGCSE) have grown significantly. Parents believe that such international boards imbibe concept-based learning better than local boards do, focus on research and critical thinking, and provide a better transition to studies abroad. Moreover, the international curricula are recognised for their focus on student-centric learning, emphasizing application-based critical thinking. However, the fee range for international boards schools is higher than Indian board schools. As the disposable income of India rises, more parents are expected to enroll their children in schools following an international board.

Number of IGCSE affiliated schools in India and CAGR in %

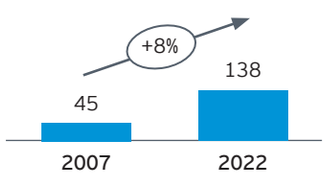
(2006, 2022)



Source: Cambridge International, Times of India

Number of IB affiliated schools in India and CAGR in %

(2007, 2022)



Source: International Baccalaureate, Times of India

2

Demographics for K-12 education in India

India, with over ~254 million enrolments and ~1.5 million schools, is one of the largest school education systems in the world due to a high proportion of younger population. It spans multiple affiliating boards, different modes of management and governance across state and central levels.

- K-12 schools in India are broadly of three types: Government schools, Private aided, Private unaided
- Of the ~254m students enrolled, ~46% students are enrolled in private schools (aided and unaided) whereas ~54% students are enrolled in government schools
- Recent years have witnessed a declining birth rate in India, which may signal that student demand at the primary grades has peaked. However, the demand at higher grades is rising on the back of higher GERs.
- K-12 segment in India is witnessing a rise in faculty members with ~9.7 mn faculty members in 2020-21. The Student Teacher Ratio (STR) has improved to 26 (2019-20) from 30 (2014-15)[1]

375 mn
Age 3-19 Population

~254 mn
School enrolments

~9.7 mn
Faculty members in Indian K12 system

3.1%
Government expenditure on education as a % of GDP

1.08 mn
Government schools

~54%
Proportion of students enrolled in government schools

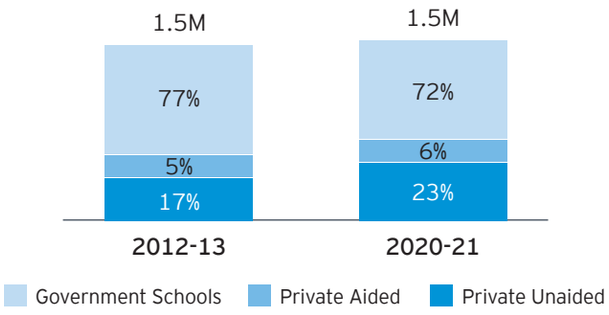
~46%
Proportion of students enrolled in private schools

~0.41 mn
Private and Other schools

Source: UDISE 2020-21, Economic Survey of India 2021-22

The number of schools in India has remained flat, but there are trends of increased private sector participation and a gradual urban shift

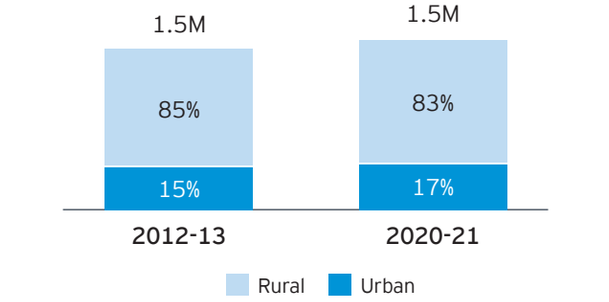
Number of schools in India across management
(2012-21)



Source: UDISE

Government schools are decreasing in number, largely due to consolidation – those with low student count being merged with other larger schools in the vicinity and merging of co-located government schools in some states. Private unaided schools witness growth primarily in the low-fee school segment.

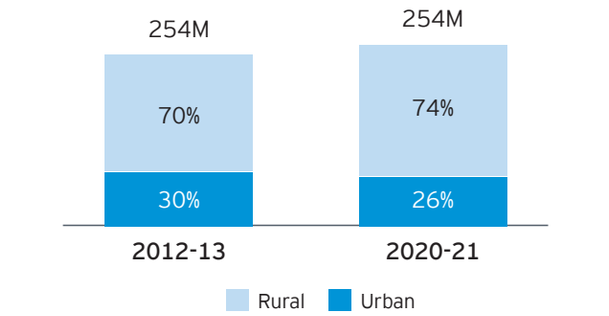
Number of schools in India across Rural-Urban
(2012-21)



Source: UDISE

Even though the number of schools in India have remained stagnant, the share of urban schools have been grown.

School enrolment in India across Rural-Urban
(2012-21)

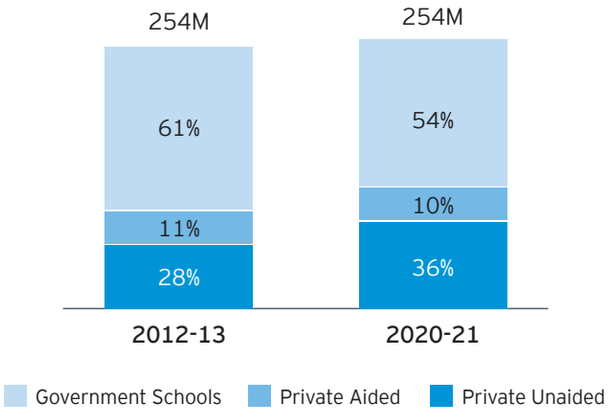


Source: UDISE

In 2012-13, urban schools, comprising only 15% of the total number of schools housed 30% of the total students. However, in 2020-21, urban schools, comprising 17% of the total number of schools, house 26% of total students. Rural enrolments witnessed a rise in this period, which was also contributed to by the movement of migrant labour back to hometowns during the pandemic.

Student enrolment has remained flat, but the proportion of students attending private schools has increased; more students are getting enrolled in higher grades

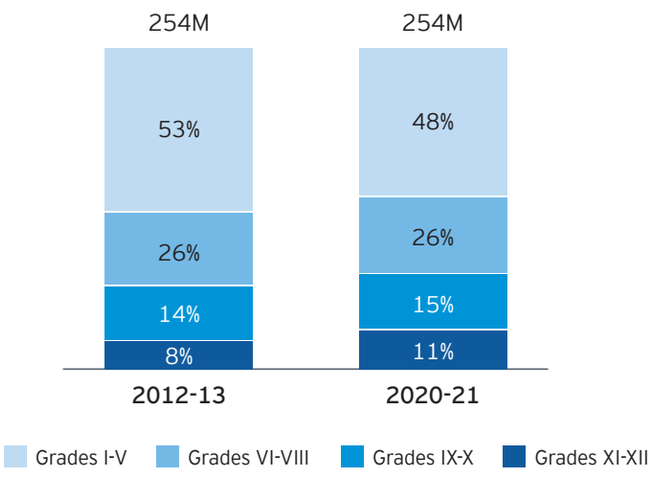
Student enrolment in India across management
(2012-21)



Source: UDISE

Enrolments in private unaided schools have increased in the last eight years. In India, it is observed that 73% of parents who chose a private school did so because they perceived it as offering a better learning environment, 12% for English medium education and 10% because of lack of availability of a government institution.[3]

Student enrolment in India across grades
(2012-21)

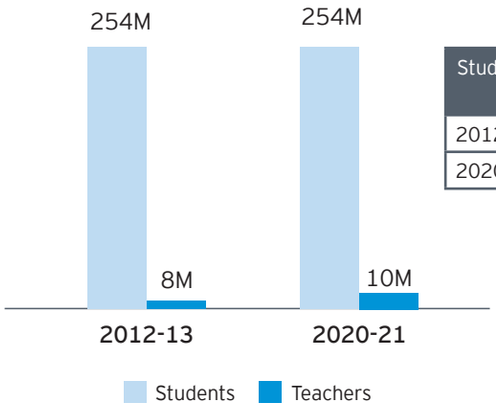


Source: UDISE

India has historically had a problem with students dropping out as they progress towards higher grades. Reasons behind drop outs have historically included lack of interest in studies, high costs, and household work. There has been an improvement in past years owing to the government's push towards providing free and accessible education, but the split remains skewed.

Over the years, STR has improved on the back of a rising number of teachers; GER in primary grades is falling and GER in higher grades is increasing

Student Teacher Ratio
(2012-21)

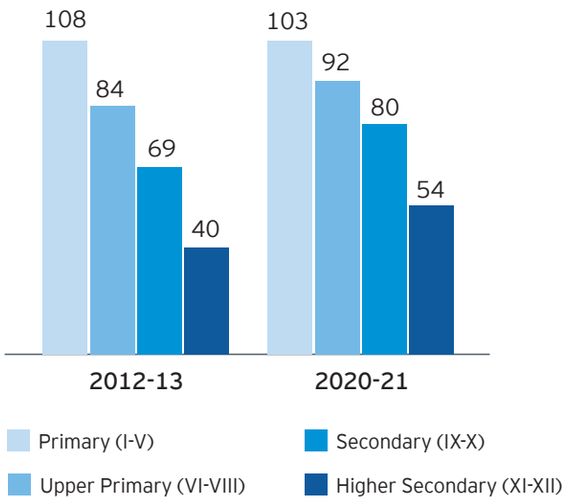


Student Teacher Ratio	
2012-13	32.5
2020-21	26.2

There has been a notable improvement in the STR due to a rapid growth in the number of teachers (~7.8m in 2012-13 to ~9.7m in 2020-21). However, there is segmental disparity as the STR in senior secondary school is ~47:1, as opposed to ~26:1 of the overall school system, as per UNESCO.

Source: UDISE

Gross Enrolment Ratio
(2012-21)

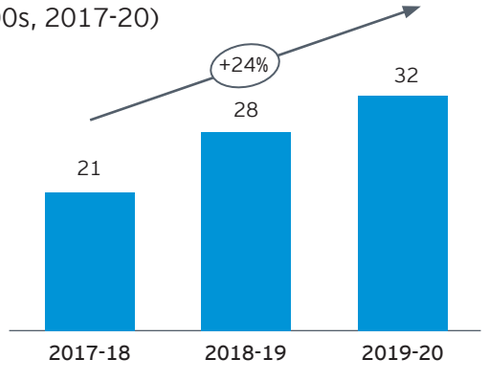


The GER in primary grades has declined over the years; on the other hand, the GER in the higher grades has increased. In absolute number terms, the enrolment for lower grades is likely to fall (and enrolment for higher grades are likely to rise) due to a fall in population growth with a decline in total fertility rates.

Source: UDISE

K-12 education expenditure by Central and State governments increased at a CAGR of ~16% from 2017-18 to 2019-20; highest growth was seen in expenditure towards scholarships, Sarva Shiksha Abhiyaan (SSA), infrastructure and digital reforms

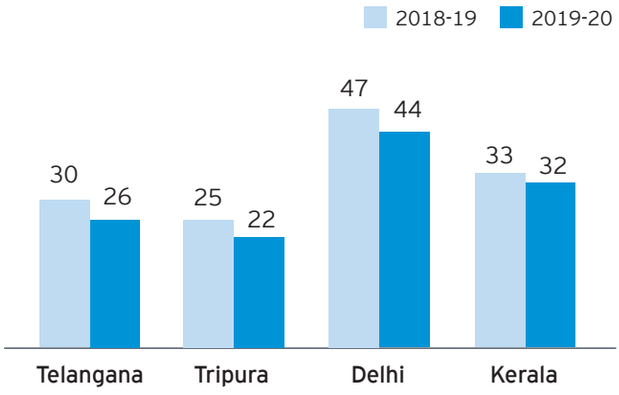
Expenditure per Student in India and CAGR in %
(in 000s, 2017-20)

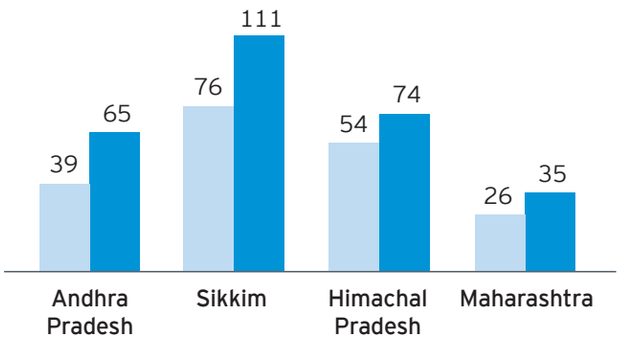


Source: Ministry of Education, UDISE

Expenditure per student rose over the years at a CAGR of 24% - expenditure on administration, government schools, aid, scholarships, teacher's training, textbooks, mid-day meals, SSA and vocational education grew, while expenditure towards non-formal education witnessed a drop. The government also introduced several digital reforms such as e-learning content, MOOCs and education channels on the television in this timespan.

Expenditure per Student by State
(in 000s, 2017-20)





Source: Ministry of Education, UDISE

As COVID came, all states increased their expenditure per student with the exception of Telangana, Tripura, Delhi, Kerala, Puducherry and Daman and Diu. Reasons for decline differed by state and ranged across categories.

Largest growth was seen by Sikkim and Himachal Pradesh, largely led by expenditure on government schools, Andhra Pradesh, largely led by expenditure on scholarships, assistance to local bodies and physical and digital infrastructure, Maharashtra, largely led by expenditure on aid to non-government schools and assistance to local bodies.


Ebis commolo ribus qui
Lorem Ipsum
Nam fecros quatempora ipidem. Ita

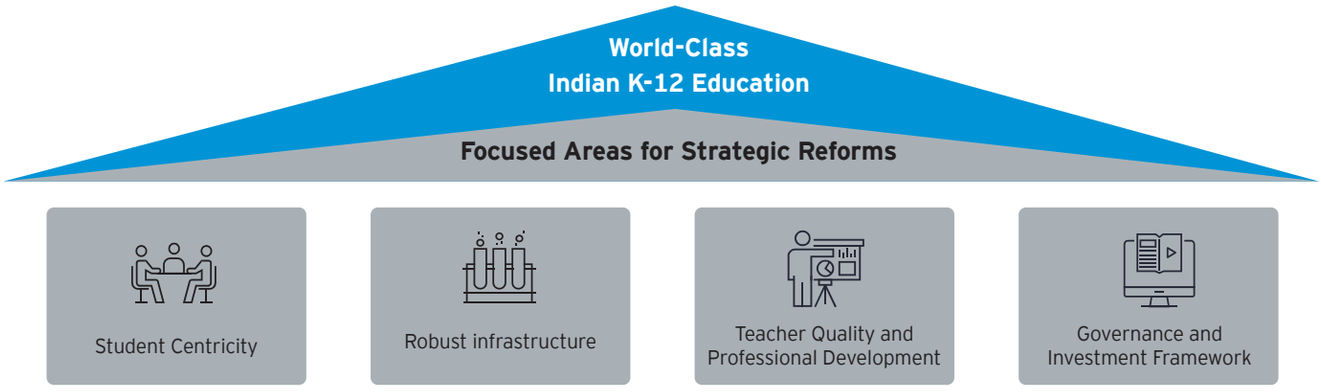
3

Strategic pillars of the Vision 2047

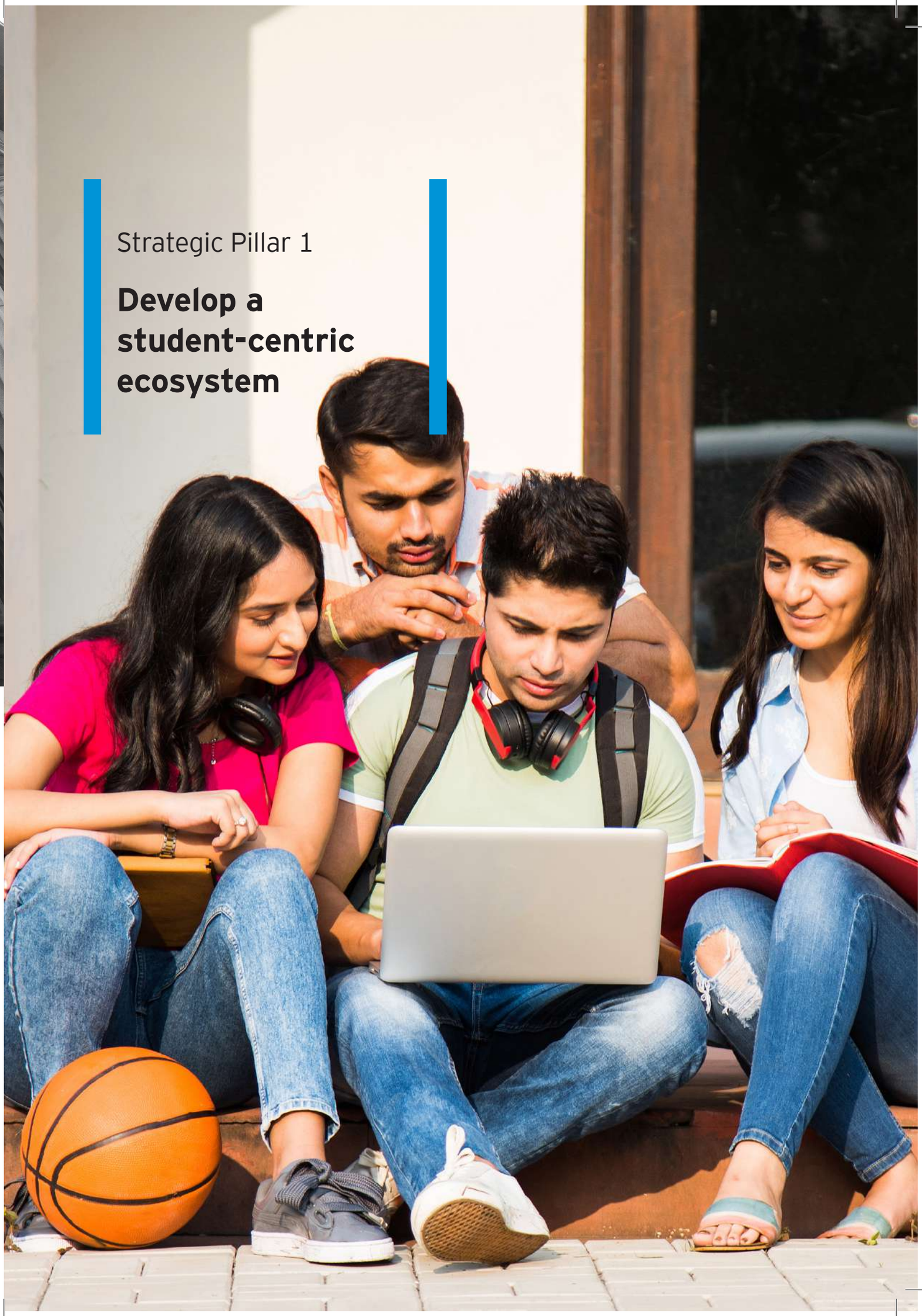
India should strive to create a student-centric K-12 ecosystem which emphasizes critical thinking and concept-based learning, moving away from rote memorization. Further, values of inclusiveness should be imbibed within the students to develop citizens of tomorrow.

To meet the objectives of outlined in the five-year plans of K-12's Vision 2047 and re-humanise school education, it is essential that India has focussed areas with strategic plans for reform. The areas for strategic reforms for K-12 school education are: student centricity, robust infrastructure, teacher quality and professional development, and governance and investment framework.

Strategic pillars



The rest of the report outlines the challenges that India faces in each of the focussed areas, and the 'key unlocks' to meet the objectives.



Strategic Pillar 1

Develop a student-centric ecosystem

A student-centric education system promotes all round development of the student, which is not restricted to the classroom, while encouraging them to take responsibility for their learning

Student Centricity

The Indian education system has historically followed a traditional approach to learning, wherein the teacher is considered the primary source of knowledge. The learning takes place in a classroom setting wherein the teacher acts as an instructor/lecturer and presents information to the students. This means that they become the most active and intellectually involved people in the classroom, while students act as passive recipients of information and rarely take ownership of their learning, which hinders both their motivation and personal development.

To shift the focus from the teacher to the student, innovation and development are the need of the hour. In other words, the learning environment must have learner's responsibility and activity at its heart, in contrast to the emphasis on instructor control and the coverage of academic content found in conventional, didactic teaching. By giving ownership to the students, student-centered learning makes them the co-creators of their learning. This manifests by taking input from students on deciding what, when, and how they wish to learn. With increased ownership, students would be more invested in their learning, and this would keep them more engaged. This approach to education will promote autonomous thought, independent learning, and creativity.

There are some common themes that successful student-centred learning programs share:

Flexibility and adaptability bolstered through online interactive educational platforms

Relevant and precise feedback for students

Focus on concept-based, critical and interdisciplinary thinking

Interest of students in the subject components

Roles of teacher in student-centred learning programs:

Resources

Guides

Mentors

Shortfall in quality teachers, limited technological infrastructure, lack of understanding of the benefits of vocational education, and current assessment systems are among the key challenges in achieving student centricity

Challenges to student-centric education ecosystem in India

Before understanding the key unlocks, it is essential to understand the key hindrances and roadblocks that currently exist within the ecosystem, preventing student centric educational institutions

1 mn

Good quality teacher shortfall

Source: UNESCO

Challenge: Earning teacher buy-in

- For the successful implementation of a student-centric ecosystem, teachers would need to change the way they impart education. However, India faces a deficit in the quantity of quality teachers, with inadequate teacher training

1.1 mn

Schools do not have internet facilities

Source: UDISE

Challenge: Logistical and Infrastructural Challenges

- Building a student centred system would require logistical changes in teacher staffing and evaluation of students. Limited technological infrastructural resources would also limit scalable implementation of such systems that cater to students' needs

60%+

Employers find voc-ed courses ineffective

Source: Times of India

Challenge: Ineffective vocational education system

- Students drop out of school in higher grades to pursue economic activities for their families, not considering the merits of vocational education pathways. This is due to limited job opportunities and a disconnect between vocational education and industry

Challenge: Assessment Criteria

- The evaluation of student performance in a student-centric ecosystem would prove to be challenging due to increased flexibility in learning. Hence, grading the students and making comparisons between schools, districts or states would be difficult with current assessment systems which would need to be reformed

1 Now

2 Next

3 New

As envisioned by NEP 2020, the policymakers must focus on reducing dropouts and aim to achieve 100% GER in school education by 2030

Fix the basics: Key unlocks required (Now)

Ensure quality and inclusive learning experiences, equality for disabled and economically disadvantaged students. Focus on re-humanization of K-12 education; build 4C's - character, capacity, conduct and calibre amongst students.

Inculcate 21st century skills such as design thinking, systems thinking, leadership, digital, media and financial literacy within school's curriculum.

To make schools of 2047 'future learning systems', focus on developing actionable blueprints for technological integration in school pedagogies.

Re-imagine the vocational education system in India, reformulating the programmes as demand-driven. Surveys note that only 18% of the vocational education students are able to get employment.[4]

Increase GER in secondary schools. The GER in schools for secondary and higher secondary grades for 2020-21 is still low at ~80% and ~54% respectively.[1] According to UNESCO, every additional year of education can raise an individual's income by 10% in developing countries.[5]

Develop mechanisms to track out-of-school students and make it easy for them to re-enter schools.

Key unlocks required at: K-12 Level Industry Level Policy-maker Level

1 Now

2 Next

3 New

For building student-centricity, schools should partner with both international partners and local NGOs; policy-makers should make STEM learning more hands-on

Explore adjacencies: Key unlocks required (Next)

Aim to collaborate with global schools, HEIs and international student bodies to co-create curriculum and allow students to engage in cultural exchange programs to develop students into global citizens.

Develop contextualized education resources (e-content, audio-visuals etc.) and introduce gamification in curriculum delivery via digital platforms. Gamification allows instant feedback in student's learning and provides flexibility to learn at their own pace.

By partnering with NGOs, aim to instill skills related to community participation and service leadership within students. This will help instill ideas of honesty, humility and trust in the students.

Collaborate with schools to share knowledge from global thought leaders, institutions and industry experts to establish 'Future Ready Forums' in schools

Introduce vocational and technical skills in Grade 9 – Grade 12 to familiarise students with the latest technological trends and disruptions.

Promote enquiry-focussed and project-based pedagogies within schools. Especially for STEM subjects, policy-makers should develop a hands-on and discovery-led pedagogy to improve students academic progress and understanding of real-world scenarios. Subjects such as basic coding should be made available for students in middle and secondary school.

Key unlocks required at: K-12 Level Industry Level Policy-maker Level

1 Now

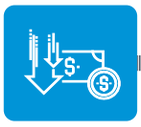
2 Next

3 New

To promote skill development from early years, policy makers should focus on integrating vocational education within the existing curriculum

Explore frontiers: Key unlocks required (New)

Schools should aim to make their campuses net-zero. This will also help align students with the 'net-zero' mentality and instilling ideas to lower carbon footprint within them.



Promote a multi-disciplinary approach. Provide students the flexibility to choose subjects as per their interests and develop individualized learning pathways for students.

As a part of the corporate social responsibility (CSR) program, the companies can aim to 'adopt' or partner with select lower income focussed public/private schools. The schools can use CSR funds to provide scholarships to students, as well as improve their infrastructural facilities.

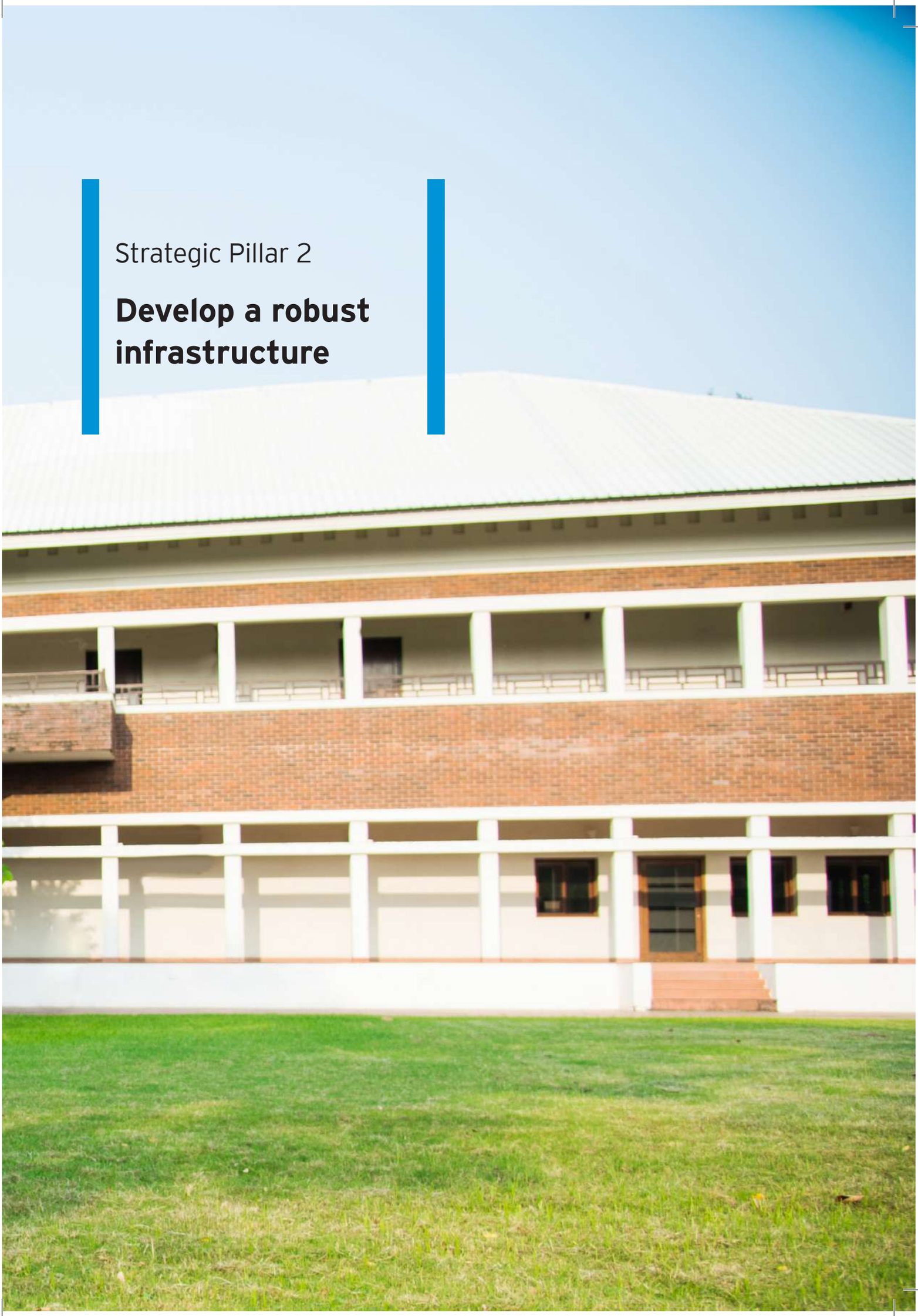
Aim to make the Indian education system a leader in the field by producing well-rounded graduates, measured through top ranks in international assessments and high enrolment and graduation rates at all levels

In order to ensure school quality and standards, develop regulations for schools to undertake third-party accreditations from national/international school quality assurance institutions.

Key unlocks required at: K-12 Level Industry Level Policy-maker Level

Strategic Pillar 2

Develop a robust infrastructure



Sufficient and strong physical infrastructure prevents hindrances in teaching and learning, with students and teachers being able to carry out their roles effectively

Robust Infrastructure

The best education institutions are the ones where students feel welcomed and cared for. They are areas where a safe, stimulating learning environment is created, where a wide range of learning experiences are available, and where good infrastructure and appropriate resources are provided. These resources help ensure a positive impact on the performance of a student, and functioning infrastructure and utilities lead to more efficient and effective learning. Attaining these qualities must be the goal of every educational institution.

Heavy investments are required in building modern schools in remote towns and villages. Good quality education should be within easy reach for every child. Schools must be equipped with modern teaching aids and strong internet bandwidth. The idea is that every school offers the same standard and quality of education across the country.

The pandemic led to a massive decline in physical infrastructure in schools being utilized, due to classes shifting online. The shift was towards technology infrastructure, and numerous schools across the globe, which did not already possess the required tools to take education online had to make significant investments in this field.

With online learning, the limited reach of online learning was palpable, owing to the digital divide in India. According to a recent survey conducted by leading economists in India, only 8% of the students in rural areas were studying online regularly. On the other hand, this figure of urban students was 24%. As noted in the study, the biggest reason for the limited reach of online learning was the lack of smartphones in households. Even in households with a single smartphone, the gadgets were reserved for the working adults.[6] Another problem was that schools were not sending the content to the students regularly. With visions and policies proposing a shift to digital and blended learning, it is crucial to recognize economic realities, especially in rural areas. Technological infrastructure support must be provided to the underprivileged; failure to provide for the economically weaker section will further widen socioeconomic inequalities.

8%

Rural students studied online regularly during the pandemic

Source: The Indian Express

24%

Urban students studied online regularly during the pandemic

Source: The Indian Express

India has not yet met its target of spending 6% of the GDP toward education; schools, especially in rural areas, have vast scope for improvement and development of physical and digital infrastructure

Challenges to infrastructural development in India

Sound physical and digital infrastructure are essential for creating a productive learning environment. The challenges faced in sphere have been highlighted below.

3.1%

Of GDP is spent towards Education

Source: Economic Survey of India, 2021-22

Challenge: Low overall spending on education

- NEP 2020 commits "to significantly raising educational investment, as there is no better investment towards a society's future than the high-quality education of our young people."[2] Although the allocation increased by ~INR 11,054 crore (an increase of ~12%) from the previous year, the current expenditure is far from the recommended 6% of GDP7
- The funds that are allocated are often not spent when required, which adversely impacts the intended targets they were earmarked for[2]

~40%

Schools without a playground

Source: Financial Express

~43%

Schools without a boundary wall

Source: Financial Express

Challenge: Schools have substandard physical infrastructure

- The Right to Education (RTE) mandates that schools must have adequate facilities for physical education with a proper playground and provision of a boundary wall to ensure safety of students
- Schools in rural India lack proper infrastructure facilities, particularly basic classroom furniture. NEP 2020 emphasises on setting up standards for quality checks at a state level, which is yet to implemented in all states

~75%

Schools without internet

Source: UDISE

~58%

Schools without computer facility

Source: UDISE

Challenge: Limited digital infrastructure facilities

- As per the UDISE 2021 report, ~75% of the schools across the country do not have internet facilities. Only ~14% of government schools, ~44% of private aided schools and ~53% of private schools had such facilities.

1 Now

2 Next

3 New

In a post COVID-19 era, government must promote and aid schools to establish basic digital infrastructure along with maintaining basic and equitable physical infrastructure

Fix the basics: Key unlocks required (Now)

Ensure a school's infrastructure conforms to 'School Quality Assessment and Assurance' (SQAA) framework guidelines. The infrastructure should be equally accessible by both abled and disabled students.

In order to promote holistic student development, aim to provide basic sports facilities to students. In case of space constraints, schools can develop partnerships with local sports institutions to provide sports facilities.

Schools must assess school's digital readiness. They can engage with ed-tech players to adopt digital tools, such as basic open source LMS, ERP, smart classroom hardware, etc. to improve their educational and operational efficiency.

Ed-tech players should build low cost, mass implementable and user-friendly technology tools that can be deployed within the academic and non-academic activities/operations of the schools.

Section 19 of the RTE Act, 2009 mandates schools to comply with various infrastructural norms.[8] Along with providing basic physical infrastructural facilities, schools should now be mandated to provide basic digital infrastructure facilities to students, such as high-speed broadband internet connectivity and classroom hardware support, etc. The government must aid public and select private schools (catering to lower-income students) to set up basic digital facilities in the school.

Focus on building school clusters that promotes greater resource efficiency, effective functioning and governance.

Key unlocks required at: K-12 Level Industry Level Policy-maker Level

1 Now

2 Next

3 New

As next steps, policymakers should aim to provide monetary support to set up basic research facilities in government and private aided schools across the country

Explore adjacencies: Key unlocks required (Next)

Develop institute wide SOPs for deploying digital tools and within the institute. Ensure school leadership, faculties and students buy-in on the use of digital interventions within learning spaces.

Develop an institute level committee comprising representatives from schools (head of school, teachers, students), parents, NGOs, who will be responsible for effective allocation of funds towards infrastructural (physical and digital) upgradation and maintenance.

Conduct competitions in partnership with third-parties and NGOs to drive adoption of tools for teaching, content creation, collaboration, etc.

Equip teachers with gadgets (laptops / tablets) to empower teachers to use creative forms of teaching techniques. For instance, in 2019-20, Delhi government equipped teachers in 1,100+ public schools with 60,000+ tablets.[9]

Ensure all government and private aided schools have basic research facilities such as science labs, computer labs, etc. Shared facilities can also be constructed for common usage of multiple schools

Key unlocks required at: K-12 Level Industry Level Policy-maker Level

1 Now

2 Next

3 New

Using advanced technology tools and interventions, schools should focus on adopting a data-centric approach to improve their academic and operational efficiency

Explore frontiers: Key unlocks required (New)

Focus on building 'anytime, anywhere' flexible model of schooling. Schools can deploy advance learning management and enterprise management digital tools to achieve this.

Deploy AI/ML equipped learning management systems and focus on converting attendance, student results, student's subject wise proficiency, etc., into soft data by inculcating digital tools within teaching and learning process.

Build institutional and industry partnerships to optimally utilize existing resources which can result in effective tech-transition for many schools.

As a part of CSR activities, private companies should be encouraged to 'adopt' or partner with government / private aided schools and provide support to schools to improve their physical and digital infrastructure.

Focus on consolidating government schools to ensure effective utilization of funds and better overall infrastructure through school complexes.

Define a set of principles and standards for industry players to develop digital solutions across educational value chain that can be plugged into the broader ecosystem, which can be used by all schools.

Key unlocks required at: K-12 Level Industry Level Policy-maker Level

Strategic Pillar 3

Ensure quality teaching and professional development

Continuous professional development of teachers can help nurture high quality students and facilitate delivery of positive academic outcomes

Teacher development

Teacher and teacher education have undergone paradigm shifts over the last few years – from being viewed as a vocation and craft to a profession with specialized knowledge and long-term preparation.

To attain a quality education, well-trained and qualified teachers are crucial. The World Bank estimates that an additional 68.8 million teachers will need to be recruited worldwide for primary and secondary education. According to this study, quality of teachers plays a crucial role in enhancing a child's learning and well being, positively impacting academic, social and labor outcomes of students.

In light of this, new teachers need to be well trained, and existing teachers need to constantly upskill to help students grow, learn, and contribute to nation building. Teacher development needs to focus on building the following characteristics in them:

Be self aware of strengths and areas in need of improvement

Set frequent learning targets for oneself

Build strong networks for knowledge sharing

Develop agility and embrace change

Even though the number of teachers is rising in India (leading to an improvement in the STRs), India is still falling short of well-trained quality teachers.

India's Right to Education Act 2009 lays down norms and standards for teachers, teaching and teacher-related governance. The National Education Policy 2020 recognizes teacher's central role in achieving the goals of the education system, and it calls for improvements in working conditions and overhauling teacher education.

The Policy calls for continuous professional development in the form of workshops and online teacher development modules, mandating a minimum of 50 hours being extended by every teacher toward these opportunities. Their career growth is also promoted in the form of tenure, promotions, and salary increases, with a focus on recognizing and encouraging outstanding work.[2]

The COVID-19 pandemic has further highlighted the role played by teachers in making education resilient. For such times of crisis, it is imperative for every teacher to be equipped with digital skills to ensure that education doesn't come to a halt.

Even though the number of teachers has increased rapidly, India still faces a shortage of quality teachers; STRs have improved in primary schools, but not as much for secondary schools

Challenges to teacher development in India

Well-trained teachers who are constantly upskilled in their respective fields can help ensure that quality education is being imparted to students. However, there are certain challenges encountered in carrying out faculty development, which have been highlighted below.

~7.3%

Schools with single teacher

Source: UNESCO State of Education report for India 2021

47:1

STR for senior secondary schools

Source: UDISE 2020-21

Challenge: Presence of single teacher schools, mostly in rural areas

- The Right to Education Act lays down norms and standards to be used to estimate and plan for teacher availability. The norm for STR is 30:1 for grade 1 to grade 5 (primary) and 35:1 for grade 6 to grade 8 (middle school/upper primary). The act also specifies full-time subject teachers for grades 6 and 8 and part-time teachers for art, physical and work education[8]
- The STR for the overall school system was 26:1 in 2020-21[1]. But, this is not the case at the school level. Among primary only schools, 22% of schools have an STR of more than 30:1. Secondary and senior secondary schools have STRs between 43:1 and 47:1.[11]

~69%

Teachers without job contract in non-government schools

Source: UNESCO State of Education report for India 2021

Challenge: Teachers without formal contracts

- As per UNESCO's State of the Education Report for India, in the government sector, the overall number of school teachers with contracts of more than three years' duration is high at 67%[11]. However, 28% of primary and secondary school teachers are found to be working with no contract, according to the same report. In the early childhood education sector, only 49% teachers report having contracts of longer duration than three years, while 35% report having no contracts. In the special education sector, only 13% report having contracts of more than 3 years' duration, and 80% have no contracts[11]

1 Now

2 Next

3 New

The policy makers must focus on improving the STR for secondary and senior secondary school grades in India; Funding towards faculty training initiatives must be increased

Fix the basics: Key unlocks required (Now)

Build clearly defined career progression mechanisms in schools to attract quality teaching talent.

Offer professional development opportunities to teachers in part-time, open and distance learning formats by linking it to their career pathways. This would ensure higher and effective teacher participation in professional development initiatives.

Ensure adequate recruitment of quality teachers and ensure higher salaries, better incentives at an overall industry level. Improve terms of employment to improve quality hiring of faculties in both public and private schools.

Funds for faculty training has declined by 89% from INR 1,158 crore in 2014-15 to INR 127 crore in 2022-23[12 13]. This is inconsistent with NEP, which instead recommends increasing resources for teacher training. Teacher training should be prioritized and the funding should be at least increased to past levels.

Uttar Pradesh and Bihar witness high teacher vacancies and shortages.14 Policy makers should focus on teacher rationalization by building effective processes for promoting teacher transfers in adverse STR schools across the country.

Key unlocks required at: K-12 Level Industry Level Policy-maker Level

1 Now

2 Next

3 New

In order to ensure effective knowledge transfer, peer learning techniques could be explored by K-12 stakeholders to train and upskill school faculties

Explore adjacencies: Key unlocks required (Next)

Train teachers to effectively deliver enquiry-based curriculum through regular mandatory in-house pedagogy trainings

Conduct regular third party training workshops on leadership, counselling students, classroom management, prevention of sexual harassment etc.

Develop peer learning mechanisms through online portals, where teachers from different schools share knowledge and train one another in areas of their subject matter expertise.

Develop policies that mandate private school faculties to train and upskill government school teachers on new pedagogies, technologies etc.

The overall student teacher ratio (STR) in secondary and senior secondary grades across India is 43:1 and 47:1[1], respectively. Focus on immediately increasing teacher workforce and aim to achieve STR of below 30 across senior school grades, as mandated by the RTE Act, 2009.

Key unlocks required at: K-12 Level Industry Level Policy-maker Level

1 Now

2 Next

3 New

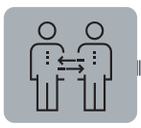
Policymakers should focus on setting up world-class teacher training institutes across the country and aim to develop India as a global provider of high quality and skilled K-12 faculties

Explore frontiers: Key unlocks required (New)

Deploy advanced technology tools and interventions in evaluating faculty performance and effectiveness. Key performance metrics, such as faculty performance feedback, student's learning outcomes, teacher absenteeism, etc., can be monitored to provide a real-time performance assessment of teachers within the school.

Based on the teacher performance statistics, remedial actions can be quickly taken to improve teacher performance and overall academic effectiveness within the school.

Develop tools for professional training in the use of ICT for teachers across all regions to support and promote active learning



Set up multiple 'Centres of Excellence' across the country for preparing and training world class teachers. Partner with education industry leaders and global teacher training institutions to train upcoming faculties on global best practices.

Aim for India to build global capabilities in high-quality trained teachers who are sought after for exchange initiatives at foreign universities

Key unlocks required at: K-12 Level Industry Level Policy-maker Level

Strategic Pillar 4

Governance and investment framework

The regulatory framework must be made less complex, with efficient clearance processes for easier navigation

Governance and Investment Framework

The Indian economy has grown significantly over the last decade, resulting in the need for revamping the educational system, to replace existing practices with ideologies that are better suited to meet the educational needs and requirements of the time to come.

This cannot be attained without achieving a strategic paradigm shift in the regulatory and governance framework of the education system. This has further been highlighted in the NEP 2020, which calls for "a 'light but tight' regulatory framework to ensure integrity, transparency, and resource efficiency of the educational system".[2] This indicates the importance associated with establishing a robust governance framework to achieve the educational vision envisaged in the policy.

Further, there is no better investment which a country can make towards the development of its society, than making an investment in ensuring the high-quality education of the young people in that country, and the NEP too endorses and envisions a substantial increase in public investment in education by both the central government and all State Governments, in order to attain the goal of education with excellence and the corresponding multitude of benefits to this Nation and its economy.

The investment framework for schools must not only focus on one-time expenditures, primarily related to infrastructure and resources, but must also delve into other areas critical to cultivate an educational system, such as:

Provisioning of quality early childhood care education

Ensuring foundational literacy and numeracy

Providing adequate and appropriate resourcing of school complexes

Providing food and nutrition

Investing in teacher development

Fund usage and management is critical, since even the low level of funding on education in India is frequently not spent in a timely manner, hampering the achievement of the intended targets of those funds. Hence, financial governance and management will focus on the smooth, timely, and appropriate flow of funds to facilitate their usage with probity and to avoid high volumes of unspent balances.

6%

Target spending, as a % of GDP, toward education by central and state government

Source: NEP 2020

3.1%

Actual spending, as a % of GDP, toward education in the year 2019-20

Source: Economic Survey of India (2021-22)

Schools across India grapple with complicated regulatory structures; public-private efforts have also historically been suboptimal due to inefficient systems

Challenges to a sound governance and investment framework in India

As highlighted previously, a robust governance and investment framework is an essential prerequisite for achieving a well-functioning K-12 education system in India. However, before understanding the key unlocks required to develop a sound framework, it is essential to understand the key hindrances and challenges that are currently present, due to the existing regulatory and governance framework in the country.

Challenge: Complex Regulatory Framework

- Over-regulated system with opaque structures for setting up and operating schools and overlapping regulations across levels of the government, centre, and states. These are present through stringent land norms, multiple licenses and 25% reservation for EWS under RTE[8]

Challenge: Suboptimal collaboration between private sector and government

- Synergies and collaborations between private and government K-12 sector have historically been suboptimal. Private players are dissuaded to participate due to complex regulatory framework and absence of any clear financially viable models. Also, delayed or insufficient financial reimbursements prove to be limitations for private players

Challenge: RTE Implementation causing financial constraints

- RTE norms such as maintaining STR and infrastructure are causing financial constraints for budget schools. Compensation provided by the government to private schools for reservations is insufficient when compared to actual cost incurred per child. States provide reimbursement based on recurring costs, and do not take into account capital costs. Hence, adherence to RTE norms are leading to closures of small-budget private schools

1 Now

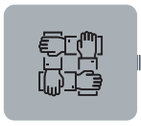
2 Next

3 New

India's schooling system urgently needs to re-imagine the heavy regulations and governance system of K-12 schools

Fix the basics: Key unlocks required (Now)

There is an immediate need to re-imagine the existing heavily regulated and restrictive policies governing the K-12 landscape in the country. For instance, in order to open an unaided private school in Delhi, schools need to move through at least 155 step process within the Directorate of Education and submit ~125 documents that passes through the hands of 40 officers.[15] With a similar situation of affairs in other states as well, rise of more affordable high-quality schools is not witnessed in India.



Review RTE Act, 2009 and make it outcome-focused. Streamline regulations to reduce overall licenses / approvals required, as well as reduce overlapping regulations at the national and state level.

Develop regulatory framework to enable seamless and secured partnerships between schools and upcoming technology/ed-tech companies.

Provide adequate compensation to private schools under RTE Section 12 (1) (c). Current compensation has been inadequate, not covering the actual costs of admitting and teaching students.

Since this pillar is associated with governance, key unlocks are at a policymaker level

1 Now

2 Next

3 New

As next steps for the governance and investment framework, policymakers should fund students directly, conceptualise for-profit schools and ease RTE regulations

Explore adjacencies: Key unlocks required (Next)

Aim to fund students directly instead of schools. This can be done via education vouchers, tuition waivers/ subsidies, tax-credit scholarships etc. This approach may also lead to students migrating to private schools, thereby reducing burden from public schools.

In order to further improve private sector participation in the Indian K-12 system, existing private schools should be given a chance to transition to for-profit school structure.

Limit regulations on school fee and provide flexibility in land area and school ownership requirements. Provide greater independence and autonomy to schools on their admission policies.

Since this pillar is associated with governance, key unlocks are at a policymaker level

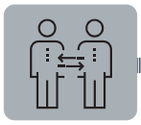
1 Now

2 Next

3 New

To make world-class governance systems, the education system should aim to attract investments from a wider set of groups and increase the efficiency of the PPP model

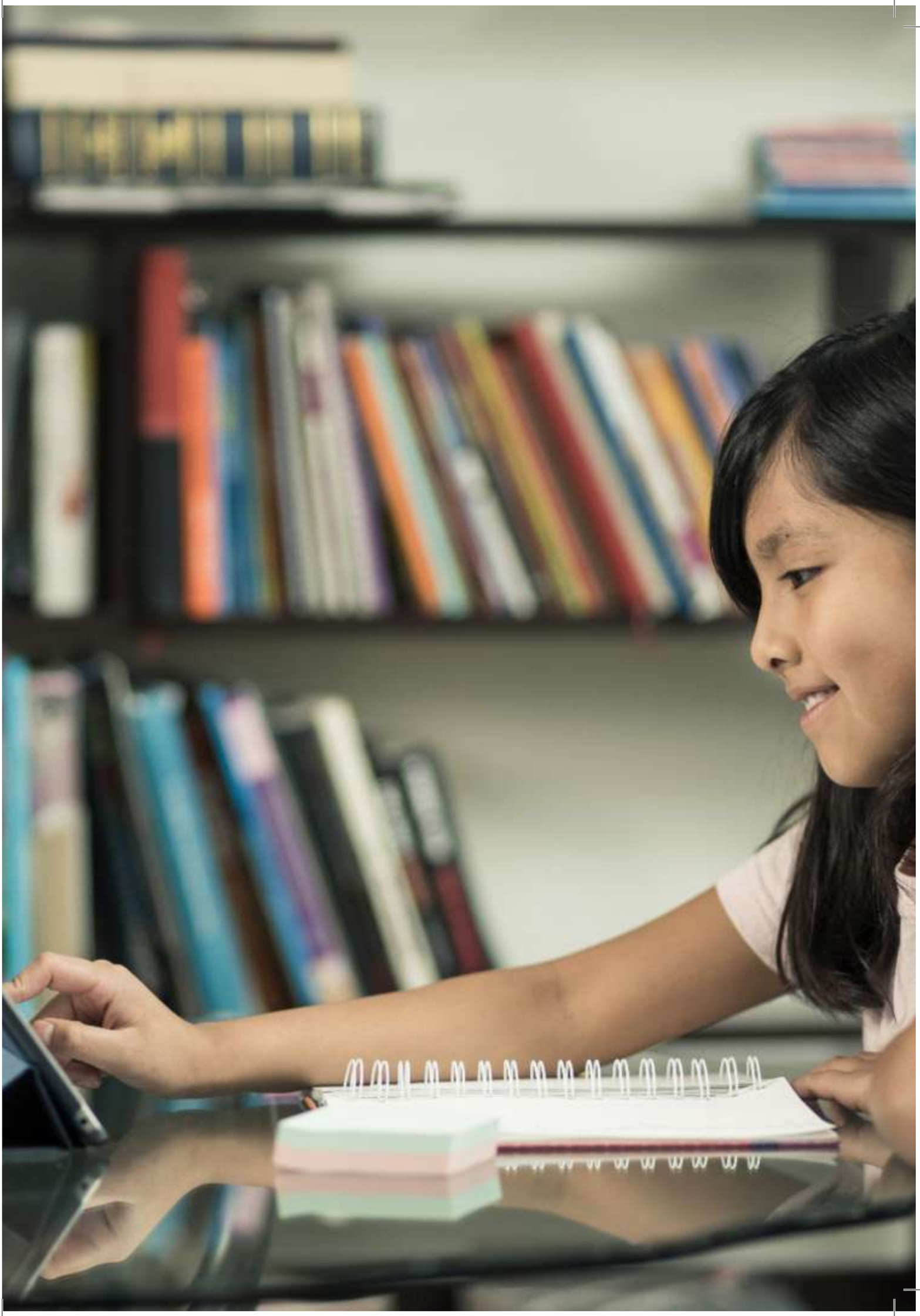
Explore frontiers: Key unlocks required (New)



Liberalize regulations to attract investment from foreign investors and international school chains. Availability payment concession and demand risk concession public private partnership (PPP) models can be explored by the policy makers to partner with private organisations and investors.

School twinning programs (PPP model) can be explored. Low performing public schools could be identified and they could be offered to private sector as PPP in the form of a Hub and Spoke model. A hub or performing school can mentor the low or non-performing schools to improve their performance efficiency.

Since this pillar is associated with governance, key unlocks are at a policymaker level



Bibliography

1. Website of UDISE+ - www.udiseplus.gov.in
2. "National Education Policy 2020", Ministry of Human Resource Development, July 2020
3. "State of the Sector Report on Private Schools in India", Central Square Foundation, 2020
4. "Vocational education mostly ineffective in India: Survey", The Economic Times, 2018
5. "Education policy: It is a higher class act", The Economic Times, June 2021
6. "Covid fallout: Only 8% rural kids in online classes, big shift out of pvt schools", The Indian Express, September 2021
7. "Education Budget 2022 increases by 11.86%: Major areas of union budget allocation, schemes covered, new plans", India Today, February 2022
8. "The Right of Children to Free and Compulsory Education Act, 2009", Ministry of Education, August 2009
9. "Delhi govt to provide over 2,000 tablets to new teachers", The Indian Express, June 2021
10. "The Right of Children to Free and Compulsory Education Act, 2009", Ministry of Education, August 2009
11. "State of the Education Report for India 2021", UNESCO, 2021
12. "Funding For Teacher Training Down 87% In 6 Years, As India's Central Expenditure On Education Declines", IndiaSpend, February 2019
13. "Budget allocations not in line with National Education Policy 2020: Experts", The Indian Express, February 2022
14. "India's missing teachers: Bihar, UP lead teaching vacancies in country", DNA India, October 2022
15. "Anatomy of K-12 Governance in India", Centre for Civil Society, October 2019

Glossary

- AR/VR Augmented Reality/Virtual Reality
- CPD Continuous Professional Development
- CSR Corporate Social Responsibility
- EWS Economically Weaker Section
- GDP Gross Domestic Product
- GER Gross Enrolment Ratio
- HEI Higher Education Institute
- IB International Baccalaureate
- ICT Information Communications Technology
- IGCSE International General Certificate for Secondary Education
- K-12 KG to Grade 12
- MoE Ministry of Education
- NCERT National Council for Education Research and Training
- NCTE National Council for Teacher Education
- NEP National Education Policy
- NPST National Professional Standards for Teachers
- PPP Public Private Partnership
- RTE Right to Education
- SSA Sarva Shiksha Abhiyaan
- STEM Science, Technology, Engineering and Mathematics
- STR Student Teacher Ratio
- UDISE Unified District Information System for Education
- UT Union Territory
- Voc-Ed Vocational Education

About EY-Parthenon's Education Sector Practice

The EY-Parthenon education consulting strategists help clients negotiate the changing currents in the sector so that they not only adapt but also adopt strategies in terms of globalization-driven skill sets and new collaborations.

With broad experience and deep sector knowledge, the education strategy consulting professionals at EY-Parthenon are helping leaders overcome challenges with bespoke, all-encompassing growth strategy plans, due diligence services and implementation support.

We have dedicated consultants in the following five segments of the sector:

Governments and Foundations	Pre-K and K-12 School Chains	Higher Education Institutions and TVETs	Indian and Global Ed-Tech Companies	Global Investors
Our clients include central and state ministries of education, supporting organizations and foundations. We have supported in developing short term and long-term growth strategy plans to reform systems.	Our teams provide services such as market needs assessment, strategic planning, performance analytics, operational improvement, financial advisory and organizational redesign.	Our teams help HEIs identify opportunities for differentiation through various modes, using our insights from global best practices. We also help TVETs formulate end-to-end strategies and help with executing the same.	We provide competitive landscaping, market analyses, go-to-market strategies, support on organic and inorganic growth like fundraising, acquisitions, partnerships, joint ventures or divestments.	We provide due diligence services to investors. From the pre-contract stage through the eventual integration or separation, we help guide decision-making and provide execution assistance.

Contact

Amitabh Jhingan
Partner
Amitabh.Jhingan@parthenon.ey.com

Dr. Avantika Tomar
Partner
Avantika.Tomar1@parthenon.ey.com

About FICCI Arise

FICCI Alliance for Re-Imaging School Education (FICCI ARISE)

FICCI ARISE is a collegium of members representing various facets of the education ecosystem who have come together to promote the need of quality education for all and the role independent schools can play in achieving this. The primary focus of the alliance is defining norms for standards and transparency, augmenting quality for 21st century readiness, ensuring policy advocacy and facilitating capacity building and access. The alliance advocates for a progressive policy environment that brings together public and independent schools to achieve Universal Quality Education in India.

FICCI ARISE endeavours to unify the sectors' voice at states and national level.

Our members and affiliates are education experts and represent leading schools, industry associations, consulting firms, think tanks, and foundations.

Contact

Dr. Rajesh Pankaj
Director and Head - Education and Skills
rajesh.pankaj@ficci.com

Team

FICCI Advisors and Key Contributors

- **Mr. Manit Jain**
  Governing Body Member, FICCI ARISE
- **Mr. Prabhat Jain**
  Governing Body Member, FICCI ARISE
- **Mr. Naga Prasad Tummala**
  Governing Body Member, FICCI ARISE
- **Mr. Deepak Madhok**
  Treasurer, FICCI ARISE

FICCI Team

- **Dr. Rajesh Pankaj**
  Director and Head - Education and Skills
- **Ms. Mallika Marwah Shukla**
  Senior Assistant Director - Education
- **Ms. Sukriti Bhardwaj**
  Senior Assistant Director - Education

EY Parthenon Team

- **Akshit Lakhotia**
  Associate
- **Nireeksha Makam**
  Executive
- **Vibhav Khandelwal**
  Executive
- **Paavani Gupta**
  Analyst

Notes:

EY offices

Ahmedabad
2nd floor, Shivalik Ishaan
Near C.N. Vidhyalaya
Ambawadi
Ahmedabad - 380 015
Tel: + 91 79 6608 3800

Bengaluru
6th, 12th and 13th floor
"UB City", Canberra Block
No.24 Vittal Mallya Road
Bengaluru - 560 001
Tel: + 91 80 4027 5000
+ 91 80 6727 5000
+ 91 80 2224 0696

Ground Floor, 'A' wing
Divyasree Chambers
11, O'Shaughnessy Road
Langford Gardens
Bengaluru - 560 025
Tel: + 91 80 6727 5000

Chandigarh
1st Floor, SCO: 166-167
Sector 9-C, Madhya Marg
Chandigarh - 160 009
Tel: + 91 172 331 7800

Chennai
Tidel Park, 6th and 7th Floor
A Block, No.4, Rajiv Gandhi Salai
Taramani, Chennai - 600 113
Tel: + 91 44 6654 8100

Delhi NCR
Golf View Corporate Tower B
Sector 42, Sector Road
Gurgaon - 122 002
Tel: + 91 124 443 4000

3rd and 6th Floor, Worldmark-1
IGI Airport Hospitality District
Aerocity, New Delhi - 110 037
Tel: + 91 11 4731 8000

4th and 5th Floor, Plot No 2B
Tower 2, Sector 126
NOIDA - 201 304
Gautam Budh Nagar, U.P.
Tel: + 91 120 671 7000

Hyderabad
Oval Office, 18, iLabs Centre
Hitech City, Madhapur
Hyderabad - 500 081
Tel: + 91 40 6736 2000

Jamshedpur
1st Floor, Shantiniketan Building
Holding No. 1, SB Shop Area
Bistupur, Jamshedpur – 831 001
Tel: + 91 657 663 1000

Kochi
9th Floor, ABAD Nucleus
NH-49, Maradu PO
Kochi - 682 304
Tel: + 91 484 304 4000

Kolkata
22 Camac Street
3rd Floor, Block 'C'
Kolkata - 700 016
Tel: + 91 33 6615 3400

Mumbai
14th Floor, The Ruby
29 Senapati Bapat Marg
Dadar (W), Mumbai - 400 028
Tel: + 91 22 6192 0000

5th Floor, Block B-2
Nirlon Knowledge Park
Off. Western Express Highway
Goregaon (E)
Mumbai - 400 063
Tel: + 91 22 6192 0000

Pune
C-401, 4th floor
Panchshil Tech Park
Yerwada
(Near Don Bosco School)
Pune - 411 006
Tel: + 91 20 4912 6000

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About EY-Parthenon

EY-Parthenon teams work with clients to navigate complexity by helping them to reimagine their eco-systems, reshape their portfolios and reinvent themselves for a better future. With global connectivity and scale, EY-Parthenon teams focus on Strategy Realized – helping CEOs design and deliver strategies to better manage challenges while maximizing opportunities as they look to transform their businesses. From idea to implementation, EY-Parthenon teams help organizations to build a better working world by fostering long-term value. EY-Parthenon is a brand under which a number of EY member firms across the globe provide strategy consulting services. For more information, please visit ey.com/parthenon.

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About FICCI

Federation of Indian Chambers of Commerce and Industry (FICCI) Established in 1927, FICCI is the largest and oldest apex business organization in India. Its history is closely interwoven with India's struggle for independence, its industrialization, and its emergence as one of the most rapidly growing global economies.

A non-government, not-for-profit organization, FICCI is the voice of India's business and industry. From influencing policy to encouraging debate, engaging with policy makers and civil society, FICCI articulates the views and concerns of industry. It serves its members from the Indian private and public corporate sectors and multinational companies, drawing its strength from diverse regional chambers of commerce and industry across states, reaching out to over 2,50,000 companies. FICCI provides a platform for networking and consensus building within and across sectors and is the first port of call for Indian industry, policy makers and the international business community

Address:
FICCI, Federation House, Tansen Marg,
New Delhi-110001
www.ficci.in; www.ficciarise.org

ey.com/en_in

@EY_India EY EY India EY Careers India @ey_indiacareers