



## Executive Summary

# Financing for the EdTech Ecosystem

COVID-19 created the largest ever disruption of education systems, highlighting the fragility of education systems across the world. Investing in education produces well documented long-term benefits for individuals and societies. But it is feared that pandemic-induced learning losses may lead to significant challenges to prosperity and well-being for today's learners.

During COVID-19, long running debates about the potential of digital technologies moved closer to the top of the education sector's agenda. Three principal reasons to invest in the EdTech ecosystem have emerged.

First, we have learned that we need to build up the **resilience** of our education systems. We cannot rely purely on the traditional classroom model. Digital technologies, well applied, can help us find new ways of teaching and learning that don't rely on people always being in one location.

Second, we need to invest in equity and **educational justice** to realize the full ambition of SDG 4. Digital technologies offer many possibilities in all parts of an education system. Yet if policies are poorly targeted or partially implemented, the application of EdTech can significantly increase inequities.

Third, we need to reimagine education, **transforming learning outcomes** and unlocking the potential of the next generation. Digital technologies can help us deliver more personalized learning experiences, as well as equipping educators with new materials and approaches to work increasingly effectively with learners.

Turning these reasons into a compelling argument for investing in technology for education relies on breaking down four barriers.

Most obviously, many countries are not investing in EdTech because connectivity, and in some cases access to electricity, remains a fundamental issue. In other cases where connectivity is in place, data can be prohibitively expensive and access to devices weak. Digital learning cannot take place without **access to digital technology**.

Yet, while necessary and important, tackling access issues is not sufficient to deliver on any of the arguments for investment in digital technology for the sector. It is important to **consider the whole EdTech ecosystem**. We need to understand and act on the relationship between the things we invest in and build our knowledge about which interventions are likely to deliver most strongly.

Next, successful investment at scale will require **coalitions to form and act** in the interests of delivering common goals. At state level, for example, a joint vision and strong coordination across government will

be needed to tackle access issues. Mobilizing resources to invest holistically in digital learning will require further collaboration between governments and their networks of partners. And it is incumbent on the international community, including bilateral donors, to ensure it advises and supports in a joined up and collaborative way.

Finally, realizing the potential of digital technologies in education will require **significant new finance flows into the sector**. One estimate is that between 2021 and 2030, \$1.4 trillion will be needed to universalize digital learning. Requirements will vary widely from state to state, but innovative approaches will be needed to mobilize resources on this scale.

Mapping the EdTech ecosystem comprehensively is an important first step towards tackling these barriers, highlighting interdependencies between options for investment and building the case for collective planning and action. Work is continuing to build on early attempts to do this and quantify the additional resources that will be required.

Considering infrastructure, affordability, and technologies is critical. These investments can be categorized as underpinning the ability to access EdTech. Additional investment and whole government action will be needed to provide the most marginalized with electricity. Meanwhile, governments should also consider incentives to stimulate service providers to enter rural “last mile” markets. And investments in hardware and devices for education can be made via purchase or leasing.

Yet, equally essential are actions to strengthen the capacities and roles of educators, ensuring digital content is of high quality and locally relevant, and harnessing technology for administrative reform. This wide range of investments can be categorized as using EdTech to deliver better learning.

Priorities and costs will vary depending on the operating context but the principle that all these items, both those underpinning and those using EdTech, need to be in place to unlock the full potential of digital for education holds true in all situations.

Governments in low- and middle-income countries will likely need to combine a range of approaches to resource their plans for digital transformation in education. Innovative financing will be needed to mobilize sufficient resources to:

- **Generate additional development funds** by tapping new funding sources or by engaging new partners
- **Enhancing the efficiency of financial flows** by reducing delivery time and/or costs
- **Make financial flows more results-oriented** by explicitly linking funding flows to measurable performance on the ground

One important source of finance will be from domestic revenues, of which a growing share will need to be allocated to technology. In the short term, additional resources could be mobilized through inclusion of EdTech in national recovery stimulus packages. Approaches could include vehicles such as universal service funds and sovereign SDG bonds.

In many low- and middle-income countries, governments will need to borrow from multilateral development banks (MDBs) to finance domestic investments in EdTech. Education has not historically been a core sector for MDB finance, and where concessional loans in education have been taken out, they have often focused on investment in school buildings. Approaches could include EdTech-specific education bonds, or the International Finance Facility for Education, which will use MDBs’ innovative

capital leverage to make very low interest loans to governments over long time periods.

Blended finance presents a third set of approaches to innovative financing for EdTech. The planned Giga Connectivity Bond, for example, will invest in “last mile” infrastructure, research and data gathering, as well as real-time monitoring of school connectivity and local community connectivity. Meanwhile a range of successful public-private partnerships is emerging in this area. While highly context-specific, there are lessons from countries such as Argentina and Portugal that can be adapted.

Finally, private sector financing also offers potential. EdTech investors typically have overlapping goals covering the opportunity for scale, as well as the biggest possible impact on learning. Private equity and venture capital are beginning to focus on EdTech, with the digital learning market projected to reach \$350 billion by 2025. Meanwhile foundations are becoming more interested in directing resources towards private sector companies whose products or services have the potential to meet social needs.

Three broad recommendations emerge from this scanning of the landscape on EdTech financing.

First, we should take a **balanced approach to investing**, thinking about the consequences of every decision for the resilience of education systems, the strengthening of educational justice, and making a significant impact on learning levels. We need to **deliver for every learner, in every context**.

Second, planning and costing for EdTech investment should be **country led and context specific**. Governments should work to ensure that all areas of their EdTech strategies are resourced adequately, using a **mosaic of investment partners and approaches** as appropriate.

Third, we need to **concentrate efforts on a limited number of potentially transformative approaches to financing**, maximizing global cooperation and ensuring coverage of the full EdTech ecosystem. We should pool resources to **mobilize additional finance in a way that is coherent and easy to access** for governments looking to fund a digital transformation in their approach to education service delivery.