

KEYNOTE INTERVIEW

Bridging the digital divide



*Financing for technology-enabled infrastructure is crucial to ensure equitable and sustainable economic development, says **Danny Alexander**, vice-president for policy and strategy at the Asian Infrastructure Investment Bank*

Over the past decade, access to the internet has become an integral part of our daily lives. The expansion of the digital economy has made it the default way we communicate and do business, and the UN asserts that digital technologies directly contribute towards 70 percent of the targets contained within the Sustainable Development Goals.

Without greater and more inclusive internet access, then, the poorest and most marginalised groups risk being left behind. And this trend will only accelerate as digital innovation intensifies.

The Asian Infrastructure Investment Bank (AIIB) is a multilateral development bank (MDB) with 109 members, representing approximately 81 percent of the global population and 65 percent

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of global GDP. AIIB is an active member of the MDB family, the largest co-financing partner of the World Bank, and a permanent observer to the UN. It benefits from AAA-credit ratings from all three principal rating agencies.

Here, Danny Alexander, vice-president for policy and strategy, discusses the many opportunities and risks for development that are emerging within the digital infrastructure space.

Q Why is digital technology important for economic development?

Globally, 2.6 billion people lack internet access, despite the growing importance of digital connectivity. It is true that attracting investment in developing countries has been harder in recent years because of the pandemic, as well as financial and political risks, but there is also a recognition that digital technology is more important than it was even five years ago.

Digital technologies are drivers of productivity and comparative advantage. We saw during the pandemic that societies that were less digitally enabled struggled more. They had difficulties communicating effectively with their populations and were less able to manage diverse ways of working.

Today, there is an urgent need to bring the benefits of technology to

developing economies; this is why AIIB has designated 'technology-enabled infrastructure' as one of its four thematic priorities. But there are also challenges associated with facilitating technology adoption and raising the necessary investment. This is where an MDB like AIIB can come in to help achieve these goals, even when economic factors present challenges.

Q What has influenced global appetite to close the digital divide?

The International Telecommunication

Union estimates that almost \$450 billion of investment is needed this decade to close the digital divide. The need is highest in low-income economies, where connectivity is lowest and would have the greatest development impact. There is significant demand and opportunity.

But the digital divide cannot be addressed through public financing alone. In developing economies, private investors must deal with unfavourable currency and interest rates, liquidity ratios, and regional investment regulations that weigh on return profiles and

pose significant challenges for deploying capital. A few percentage points difference in weighted cost of capital or returns on invested capital can make all the difference.

These are things that, as an MDB, AIIB understands well. We can offer guarantees and finance in local currencies to address these challenges, to mitigate potential risks and to mobilise more private capital.

For example, in 2022 we worked with the Indonesian G20 presidency. Digital infrastructure was a key part of the agenda, and we produced a compendium on innovative methods to finance digital infrastructure. An organisation like AIIB can support private capital by co-investing and sharing industry expertise to help resolve many of the challenges.

Q How can private investment help bridge the digital divide, particularly in remote and economically disadvantaged areas?

In low-income countries, only 48 percent of the population is digitally connected and only 12 percent has fixed broadband access. The quality of service can be between two and five times worse than the equivalent in higher-income countries, with very low internet speeds.

In developing countries, a 10 percent increase in broadband penetration is associated with a 1.4 percentage point increase in GDP growth. The economic benefits are clear, and private investment will be paramount to fill the gap.

AIIB's competitive financing is helping mitigate the risks of private investment in developing economies. We recently helped to finance a multifunctional satellite project in Indonesia that provided high-speed internet access to 45 million people living on small and remote islands. These communities have previously not been able to secure access to good quality connectivity. We leveraged a public-private partnership structure to spread the risk and mobilise private sector capital and expertise. So far, all AIIB financing in digital infrastructure has been in support of private investment. We are enthusiastic to work with more private investors to help bridge the digital divide.



Q What impedes digital technology adoption in infrastructure?

Sectors such as energy, water and transportation are the foundation of economic prosperity but have been slow to digitalise. The infrastructure and construction sectors are among the least digitalised and lag considerably behind the average of all other sectors. That problem is not limited to just developing countries; the whole world of infrastructure is not taking advantage of technologies to reduce costs and improve efficiencies.

There are many reasons for this. Large infrastructure projects can take years to implement. This can make the pace of digital adoption very slow. Often, there are also worries about the extra cost of adopting new technologies and limited perceived returns. This might be true in terms of upfront cost, but the economic and environmental benefits across the operating life of an asset can be enormous.

Information asymmetry is a major barrier to technology adoption, limiting the transfer of technology from digitised sectors and from one country to another. That was a key reason why

we launched the InfraTech portal: a free public repository of technologies, case studies and providers, created to support infrastructure owners and operators in adopting technology that can improve profitability and sustainability.

The portal is about ensuring that infrastructure providers in developing countries have access to the most suitable technology. As an example, we recently helped to finance a water project in Central Asia and shared technologies with them to improve financial and environmental performance through water leak detection and remote control.

Once people see what can be achieved and have access to good information, infrastructure investors, owners and operators can move one step closer to embracing the best modern technology.

Q How important is being able to access power and shift to more sustainable energy sources?

This is a really important point, because the two things go hand in hand. Facilities like data centres consume almost 2 percent of the world's electricity and need very reliable sources of power. Promoting digital technology cannot come at the expense of also moving rapidly to implement climate transition though.

This is why AIIB is actively engaged in financing sustainable development, which includes access to reliable energy but does so in the context of promoting the transition to net zero. In practical terms, for example, this means promoting energy-efficient green data centres powered by renewable energy.

Q How important is international collaboration and co-operation?

The fragmentation of international efforts has hindered digital infrastructure finance, but today we are seeing more co-operation. We have been collaborating with other MDBs and national governments to scale financing

capacity, mobilise private sector investment and strengthen country-level collaboration.

For example, under the auspices of the Brazilian G20 presidency, we co-led the International Telecommunication Union's digital infrastructure investment initiative, together with other DFIs, to form a global working group that brings together governments, industry and others to address challenges specific to digital infrastructure. As an international institution, we are trying to bring global organisations together to address key financial and co-ordination issues that have hindered deploying investment at scale.

Q What are the main regulatory hurdles in digital infrastructure?

National governments are particularly important in addressing the regulatory challenges that affect the deployment and operation of digital infrastructure. Differing policies on data sovereignty and international data transfer create complexities for global digital infrastructure, requiring the harmonisation of regulations to aid cross-border data flows.

What's more, data privacy and cybersecurity regulations are key, particularly given increasing concerns over data protection and cyber-threats on critical infrastructure. Similarly, the expansion of new technologies such as

5G, the Internet of Things and artificial intelligence introduces new regulatory challenges, requiring updates to existing frameworks so that we can accommodate these advancements without stifling innovation.

We also need regulatory co-ordination to address the investment climate and competitive landscape across digital infrastructure, including around issues such as market entry barriers and monopolistic practices.

These complexities are why we launched the Digital Infrastructure Regulatory Risk Forum, established with the participation of more than 10 MDBs and international organisations, aimed at fostering greater collaboration around digital infrastructure policy and regulatory matters. The expert-level discussions focus on data privacy, cybersecurity, AI and related issues, to ensure there is a common platform to share knowledge.

Q How do you see the digital infrastructure sector evolving?

We are very optimistic about the sector's growth, because digital infrastructure is now a key feature of development in a way that it wasn't just a few years ago. Today, digital infrastructure is critical to maintaining global sustainable development, and bridging the digital divide will be a key issue this decade.

We also expect to see the pace of regulatory developments accelerate. That is something that needs to be monitored and understood. Likewise, there will be increasing demand for digital technologies and growing need to implement technological solutions within infrastructure projects. That will span everything from the rapid expansion of green data centres to investments in basic infrastructure like broadband, as well as all other infrastructure sectors. We need this to ensure that everybody on the planet has access to the same economic and social opportunities that digital technology can offer, while also supporting the net-zero transition. ■

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