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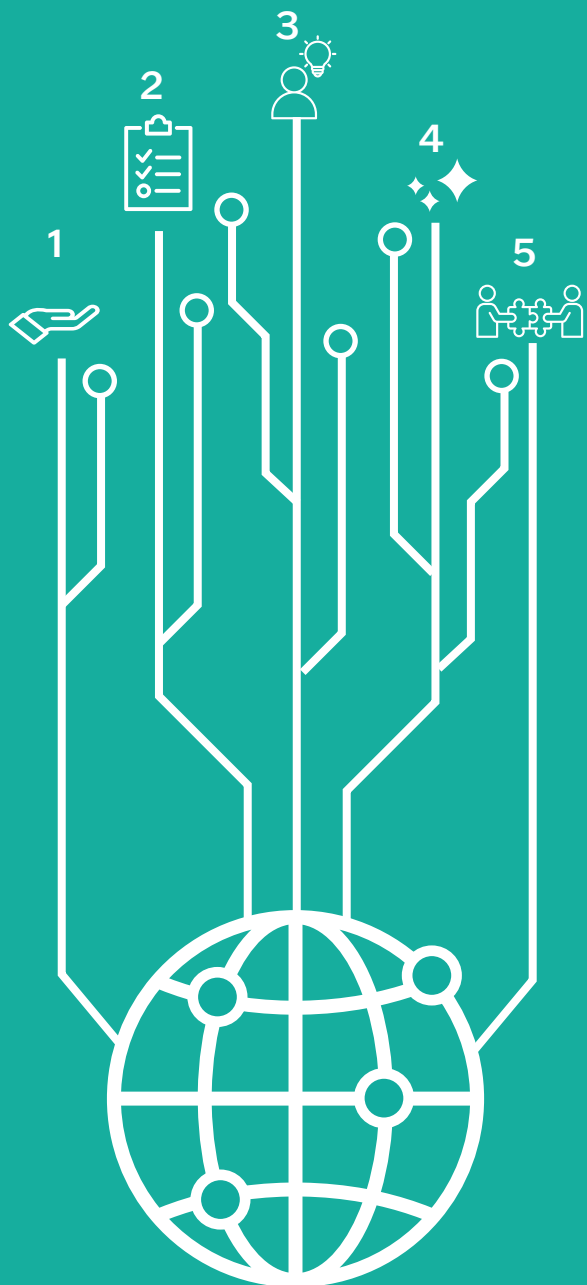
Independent Evaluation
Department

CONNECTING THE DOTS

EVIDENCE THAT
DRIVES CHANGE

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EBRD Independent Evaluation Department



ADVANCING DIGITAL FRONTIERS: INSIGHTS FROM EVALUATION

Digitalisation has become a cornerstone of modern development. Digitisation is the process of converting information from an analogue format to a digital one. When this process is used to improve performance within an organisation, it is called digitalisation. The impact of digitalisation on the broader economy and society is digital transformation. Digitalisation is possibly the preeminent driving force of innovation and continues to evolve rapidly. Disruptive digital technologies have the potential to transform or create new markets, products, and services. But with innovation comes both new opportunities and the challenges of managing groundbreaking complexity.

The path to digital transformation is challenging. It usually requires new approaches to the legal and regulatory environment. It brings significant risks ranging from data protection to the balance of power between the private and public interests. The risks require careful navigation and mitigation.

Digitalisation contributes to shaping the global risk landscape both directly and indirectly. The World Economic Forum Global Risks Report 2024 lists digital issues as contributing to several of the top 10 global risks. Cybersecurity threats, data privacy challenges, and technological governance underscore immediate risks. Digital resilience and adaptation strategies are integral to broader issues such as economic instability, geopolitical tensions, and social fragmentation.

Evaluation findings offer insights into how digital transformation can be managed for success. This issue of the “Connecting the Dots” series presents five independent evaluation insights drawn from ten independent evaluation reports and a knowledge paper from the European Bank of Reconstruction and Development (EBRD) and three other international financial institutions (IFIs) -- the Asian Development Bank (ADB), the European Investment Bank (EIB), and the World Bank Group (WBG).

5 Key Evaluation Insights

for Success in Digital Transformation



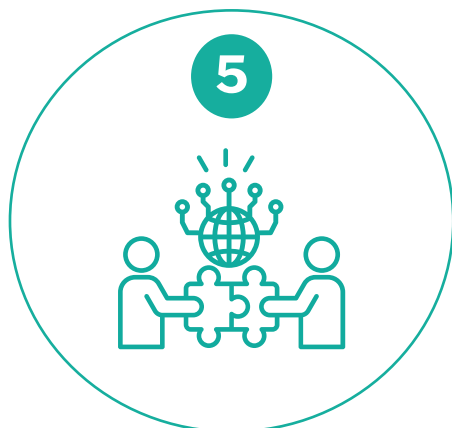
IFIs can play a catalytic role in bridging the digital divide, but there are challenges and risks.

Getting the policy and regulatory environment right, combined with comprehensive digitalisation strategies across sectors, opens the way for private sector participation.



To support digital transformation IFIs need to upscale capacity across functions, ranging from policy dialogue to project implementation.

Digital transformation projects present new levels of complexity and risk in maximising development impact. They need to be implemented on an accelerated timeline, due partly to the risks of technical obsolescence.



Engagement with the private sector and collaboration among IFIs can maximise the potential of digital transformation projects.

1

IFIs can play a catalytic role in bridging the digital divide, but there are challenges and risks.



Successful projects involving IFIs can narrow the digital divide by enhancing digital connectivity and increasing affordability. IFIs have recognised for more than a decade that digital technologies can enable and enhance transition. IFIs play a distinct role in catalysing the establishment and adoption of digital technologies to promote well managed digital transformation.

The WBG evaluation, *Creating Markets to Leverage the Private Sector for Sustainable Development and Growth (2019)* (Evaluation of WBG Creating Markets), found that digital transformation in information and communication technology (ICT) projects can, for example, foster innovation, generate demonstration effects, enhance corporate level skills, capacities and governance structures and support integration into value chains.

When successful, digital transformation such as modern telecommunications infrastructure can provide a platform for regional and national economic growth, market creation or expansion, greater competition, and reduced prices.

The *EIB Evaluation of ICT Projects – Synthesis Report (2009)* remarked on the effect of liberalisation of regulation on market expansion. Some EIB-financed ICT projects were found to contribute to a reduction of the digital divide between European countries or within regions and were considered essential projects for countries to maintain a position offering a latest generation mobile phone service.

The *Evaluation of WBG Creating Markets* highlighted projects that led to a drop in prices such as construction of the Kenya East African Submarine Cable System. Prices dropped, subscribers increased, and broadband internet coverage expanded. The extra supply of bandwidth placed additional pressure on competition, thus improving the conditions for the final users in terms of capacity, pricing, and services.

Digital transformation does not guarantee positive market-related outcomes and impacts. Market access may not be a universal benefit of digital transformation and market liberalisation may not always come with benefits for all users.

The *Evaluation of WBG Creating Markets* discussed market access challenges. “Providing market access to the poor and underserved remains a challenge. In both the financial inclusion space as well as ICT, reaching the base of the pyramid outside of the more densely populated areas like urban and peri-urban centres, proved difficult.”

Digital transformation may also come with significant risks. Disruptive digital technologies, by their nature, can lead to social risks such as large-scale job losses or weak inclusion in remote or disadvantaged communities. They can also present environmental risks. Other projects, such as e-government, may bring relatively new types of risk such as data privacy, confidentiality, misuse, protection of critical infrastructure and cyber security, or dependence issues where public sector functions or communications become reliant on free-to-access social media platforms.

The EBRD Independent Evaluation Department's knowledge paper, *Understanding Digitalisation: Case Study of Kafr El-Sheikh Wastewater Project (2023)* (EBRD *Kafr El-Sheikh Wastewater Project case study*) gave a practical example of both the environmental benefits and social risks of implementing a supervisory control and data acquisition system. The report identified significant positive outcomes – 15% energy reductions and 25% to 50% reduction in chemical use whilst also improving previously poor water discharge quality. However, the case study also identified that implementation could lead to a potential 70% decrease in staffing.

Digital transformation in projects can, for example, foster innovation, generate demonstration effects, enhance corporate level skills, capacities and governance structures and support integration into value chains.



2

Getting the policy and regulatory environment right, combined with comprehensive digitalisation strategies across sectors, opens the way for private sector participation.



An effective policy and regulatory environment combined with comprehensive strategies is a key driver of digital transformation. Policy and regulatory development must be accompanied by comprehensive or holistic strategies capable of reaching every part of the public and private sectors. Digital investment must be an integral consideration in the planning for every public, private or public-private investment.

The WBG Independent Evaluation Group report, *Mainstreaming the Approach to Disruptive and Transformative Technologies at the World Bank Group (2019) (Evaluation of WBG Mainstreaming Approach to Transformative Technologies)*, found that integrating disruptive technologies within sectoral and regional strategies/programmes can reduce duplication, enhance synergies between projects and digital technologies, and optimise the use of resources through public-private partnerships.

The ADB performance evaluation report, *Mongolia Customs Modernisation Project (2016) (Evaluation of ADB Mongolian Customs Modernisation)* provides a significant lesson on the combination of policy, regulatory and strategic dimensions. A customs modernisation project aimed at reducing corruption needs a holistic approach combining technical, policy, and capacity-building elements. In this case, the integration of three interrelated components -- IT infrastructure, laws and procedures, and coordination across relevant agencies.

Well-formed strategies facilitate private sector participation in digital transformation - accelerating, broadening and deepening digital transformation. This

means increasing the speed of achieving impacts from digital transformation beyond the physical project implementation. This includes potential impacts beyond a project's immediate sector or subject.

The *Evaluation of WBG Mainstreaming Approach to Transformative Technologies* found that the International Finance Corporation engagement with private sector innovators and disruptors could be accelerated and expanded by mainstreaming innovation and early-stage investments in multiple sectors (education, health, financial services, connectivity, logistics, power generation and distribution, and agribusiness.) Such a strategy of combining early mainstreaming and engaging with the private sector involves connecting disruptive technology solutions from around the world with businesses in developing countries, including those in traditional industries. This kind of connection enables the implementation of pilot projects and the establishment of new partnerships addressing development priorities.

The *Evaluation of the EBRD's policy dialogue performance and results 2017-2023 "Moving wheels of change"* presented the case of the Kyrgyz Republic. The EBRD and the UN provided continuous support across successive governments for prioritising digitalisation. Support was provided in areas such as e-registration, e-notary, e-patents, geographic information systems, remote identification, and e-archive systems. The overall support was successful and resulted in the implementation of e-governance reforms.

Digital investment must be an integral consideration in the planning for every public, private or public-private investment.



3

To support digital transformation IFIs need to upscale capacity across functions, ranging from policy dialogue to project implementation.



IFIs need to develop in-house digital expertise to support public and private sector counterparts through digital transformation. Their skills and knowledge base must align with the capacity building efforts of counterparts and the challenges counterparts face in digital transformation. This is likely to include legal, regulatory and strategic skills. The resource base should be attuned to the pace and complexity found in digital transformation projects. It was found that when resources were not developed sufficiently, capacity can soon be overwhelmed. Additionally, the fluid and fast-moving nature of digital technologies means that staff must be encouraged to keep their knowledge and skills current with technological advances and trends.

The WBG IEG report *Mobilising Technology for Development, an Assessment of World Bank Group Preparedness (2021) (Evaluation of WBG Mobilising Technology for Development)*, found that “Existing staff with disruptive and transformative technologies-relevant skills is insufficient to meet client demand, especially in areas such as regulatory reform, data privacy, cybersecurity, 5G networks, and AI, and, consequently, staff with these skills are often overstretched.”

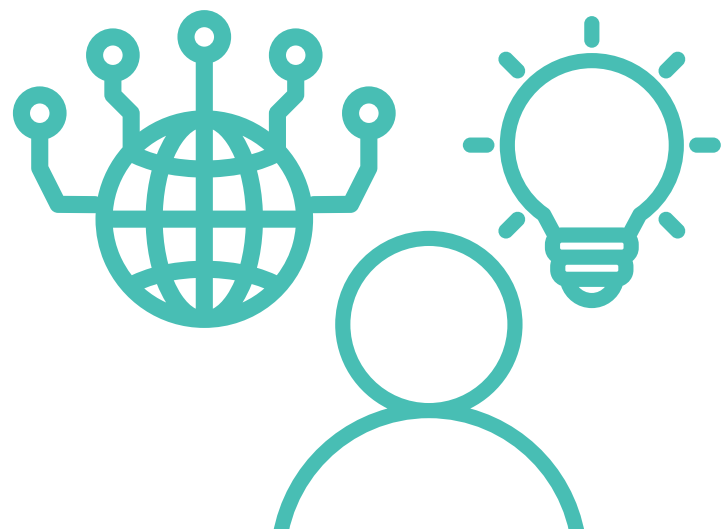
Capacity building in IFIs to deliver digital transformation goes beyond staffing and resourcing.

As described by the *Evaluation of WBG Creating Markets*, IFIs need the internal capacities to “... harness the opportunities and mitigate the risks posed by disruptive and transformative technologies....”

The *Evaluation of WBG Mobilising Technology for Development* highlighted that harnessing Digital Transformative Technology for development demands innovation, which is without precedent and risky. However, digital transformation projects are treated in the same way as other more traditional ones and the report stressed that the internal organisational culture was not being modernised to support informed risk taking and innovation to use Digital Transformative Technology as a force for development.

It may be possible to fill some IFI capacity gaps with local consulting skills. Evaluation lessons point to the value of early and proactive planning of expert involvement to enhance the effectiveness and sustainability of digital technologies in projects. For example, The ADB *TCR Validation Report Promoting Digital Technologies for Sustainable Development, Kazakhstan (2023)* commented on the opportunity during early-stage technical assistance to increase knowledge transfer among the funder, joint ventures and partnerships. Early and proactive engagement of consultants with skills and knowledge transfer in mind also has the potential to enhance sustainability. It is the natural counterweight to the risk that has been identified where over reliance on external consultants can reduce stakeholder ownership and ultimately diminish sustainability.

IFIs need to develop in-house digital expertise to support public and private sector counterparts through digital transformation.



4

Digital transformation projects present new levels of complexity and risk in maximising development impact. They need to be implemented on an accelerated timeline, due partly to the risks of technical obsolescence.



Disruptive digital technology projects are differentiated by the degree of technological innovation, speed of change in the project area, risks of obsolescence or failure and the accompanying need for new and untested legal and regulatory reforms or risk management approaches.

Evaluations have commented that projects tend to be complex, require more scrutiny and cannot be treated the same way as other infrastructure projects where considerable expertise is already available. This can all be summarised as the challenge of managing complexity.

Digital projects or digital transformation initiatives require IFIs to take an agile approach that incorporates both flexibility and future-proofing.

This approach features early risk assessment and technology gap analysis of IT infrastructure as essential steps. Building collaboration early amongst and between IT, operational, and business teams is crucial. Bringing these teams together should result in seamless coordination and alignment during the implementation of projects and initiatives.

A lesson presented in the *ADB Validation Report South Asia Subregional Economic Cooperation Information Highway (2020)* highlighted that ICT projects are very time sensitive due to rapid advances in technology, equipment and applications. The design of an ICT project should provide flexibility in adapting to market changes. Regional ICT projects, in which outputs are achieved by interconnecting individual country outputs, should have an overarching, hands-on, flexible mechanism to ensure the timely execution of project activities within and across the countries.

Even with an agile approach, some projects may last less long than expected due to rapid technological development. Evaluation findings include the example of the fast-changing IT environment where a project's IT infrastructure (e.g., operating systems, core data processing applications, network, and telecommunications technologies) have enough flexibility in terms of compatibility, connectivity, and modularity to integrate with subsequent technology development.

The EBRD *Kafr El-Sheikh Wastewater Project case study*, for instance, identified issues concerning potential technological obsolescence and commented on the potential for engaging with local champions to take on a project after its completion as a way of enhancing longevity. "The long-term sustainability of digital systems should not be taken for granted. Identifying local champions can help ensure the adoption and maintenance of these systems."

Fundamental to good agile project design is data collection, base lining and analysis in the conceptual and design phases, flowing through to effective monitoring of benchmarks in the results framework during implementation. There is a risk that the absence of sufficient data collection and analysis can result in poor implementation and weak results. The *ADB TCR Validation Report Regional: Implementing Information and Communication Technology Tools to Improve Data Collection and Management of National Surveys in Support of the Sustainable Development Goals (2021)* recognised the agile approach required in digital projects and the value of reviewing outcome and output indicators during implementation and adjusting them if they were found to be no longer appropriate.

Digital projects or digital transformation initiatives require IFIs to take an agile approach that incorporates both flexibility and future-proofing.



5

Engagement with the private sector and collaboration among IFIs can maximise the potential of digital transformation projects.



Private sector engagement can help mitigate the challenges of managing complexity and maximise project potential. Much of the evaluation learning in this area is around ICT projects. For example, the recognition that projects involving ICT require distinct handling compared to traditional infrastructure projects due to their complexity and the specialised knowledge needed from the private sector. Experience from e-government projects identified a concerted effort to engage with the private sector, which can enhance IT system usability and foster the acceptance of new processes.

The *Evaluation of ADB Mongolian Customs Modernisation* found that “Partnership between customs and the private sector should be a major thrust of a customs modernisation project. Extra effort must be devoted to ensuring proactive engagement with the private sector, particularly with the trading community. This can help ensure buy-in, improve the user-friendliness of the IT system, and facilitate

public-private partnership in customs administration. It can also assist in identifying issues and problems, and in facilitating acceptance of reengineered business processes for the newly introduced IT system.”

IFIs must consider cooperation and collaboration in managing complexity. The ADB *Validation Report for the South Asia Subregional Economic Cooperation Information Highway (2020)* commented that “Multilateral and bilateral agreement would be more helpful if undertaken before loan approval as it would indicate buy-in and commitment by participating countries.” Another ADB validation report made a similar remark on a submarine cable project connecting two island member countries: coordination among other development banks, the governments’ infrastructure priorities and neighbouring relations is crucial for timely project implementation.

Disruptive digital technologies will be ever more present in future IFI projects and programmes. Learning from past projects and programmes can assist all involved to navigate the complexities and challenges of digital transformation. The insights highlighted in this paper provide an outline of some of the key approaches and practices for harnessing the potential of digital transformation for transition impact.



References

Introduction

WEF, 2024. *Global Risks Report 2024*. January 2024.

Insight 1

EBRD, 2023. *Knowledge paper Understanding Digitalisation*. January 2023.

EBRD, 2023. *Case study of the Kafr El-Sheikh Wastewater Expansion Project in the Arab Republic of Egypt*. November 2023.

EIB, 2009. *Evaluation of Information and Communication Technology projects – Synthesis Report*. October 2009.

WBG, 2019. *Creating Markets to Leverage the Private Sector for Sustainable Development and Growth*. April 2019.

Insight 2

ADB, 2016. *Performance Evaluation report Mongolia Customs Modernization Project 2016*. July 2016.

EBRD, 2025. *Evaluation of the EBRD's policy dialogue performance and results 2017-2023 "Moving wheels of change"*. January 2025.

WBG, 2019. *Mainstreaming the Approach to Disruptive and Transformative Technologies at the World Bank Group*. March 2019

Insight 3

ADB 2020. *South Asia Subregional Economic Cooperation Information Highway - validation report*. May 2020.

ADB, 2023. *TCR Validation Report Promoting Digital Technologies for Sustainable Development, Kazakhstan*. November 2023.

WBG, 2019. *Creating Markets to Leverage the Private Sector for Sustainable Development and Growth*. April 2019.

WBG, 2021. *Mobilizing Technology for Development an Assessment of World Bank Group Preparedness*. April 2021.

Insight 4

ADB, 2020. *South Asia Subregional Economic Cooperation Information Highway*. May 2020.

ADB, 2021. *TCR Validation Report Regional: Implementing Information and Communication Technology Tools to Improve Data Collection and Management of National Surveys in Support of the Sustainable Development Goals*. April 2021.

EBRD, 2023. *Case study of the Kafr El-Sheikh Wastewater Expansion Project in the Arab Republic of Egypt*. November 2023.

Insight 5

ADB, 2016. *Mongolia: Customs Modernization Project, Performance Evaluation*. July 2016.

ADB, 2020. *South Asia Subregional Economic Cooperation Information Highway*. May 2020.

Acknowledgements

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