October 2018

# Digital Agenda 2030: Special Capital Expenditure Requirements for 2019–2023

This is the version of the document approved by ADB's Board of Directors that excludes information that is subject to exceptions to disclosure set forth in ADB's Public Communications Policy 2011.

Asian Development Bank

## ABBREVIATIONS

| | | |
|---|---|---|
| ADB | – | Asian Development Bank |
| ERP | – | Enterprise Resource Planning |
| ISTS | – | Information Systems and Technology Strategy |
| IT | – | information and technology |
| NSO | – | nonsovereign operations |
| OIST | – | Office of Information Systems and Technology |

## GLOSSARY

**Analytics:** qualitative and quantitative techniques and processes to extract, categorize, and analyze data to study trends and patterns.

**Artificial intelligence and machine learning:** ability of a computer program to think and learn or emulate human intelligence.

**Big data:** extremely large data sets that may be analyzed to reveal patterns and trends for decision making.

**Change management:** actions to support individuals, teams, and the organization to adopt new technologies and/or processes.

**Cloud:** use of remote servers hosted on the internet to store and manage data instead of on a local server in an organization.

**Data governance**: policies and standards for data, including management and ownership of data, to ensure quality, accountability, accuracy, and timeliness.

**Digital transformation:** achievement of major improvements in organizational performance by harnessing digital technology to modernize business processes.

**Enterprise Resource Planning:** an integrated suite of business applications for automating and supporting a range of administrative and operational processes, including finance, human resources, procurement, budget, travel, and asset management.

**Master data management:** the management of an organization's data enabled by technology.

**Robotic process automation:** use of software with capabilities to manage high-volume, repetitive tasks.

**NOTE**

In this report, "$" refers to United States dollars.

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## EXECUTIVE SUMMARY

The vision of the Asian Development Bank (ADB)'s Strategy 2030 is to achieve a prosperous, inclusive, resilient, and sustainable Asia and the Pacific. It sets the course for ADB to respond effectively to the region's changing needs and is aligned with major global commitments. As a trusted development partner, ADB will add value to its developing member countries by combining finance, knowledge, and partnerships. ADB will take a country-focused approach, applying differentiated approaches to meet the diverse needs of its developing member countries. ADB will expand and diversify its private sector operations, mobilize financial resources for development, and strengthen its role as a knowledge provider.

Critical to the implementation of Strategy 2030 will be the digital transformation of ADB through the use of secure, modern information and technology (IT) systems and digital processes to enhance effectiveness, efficiency, and resilience.

Under previous IT investments, including Information Systems and Technology Strategy III and Real-Time ADB IT reforms, significant progress has been made in modernizing the organization's IT systems. Despite this progress, substantial further reforms are needed to replace aging technologies, automate extensive manual processing, and overcome a legacy of unconnected and siloed systems. Additional investment is needed to support resiliency, growth in operations, decentralization, and innovation. Addressing cybersecurity threats is essential in the face of the growing level of risk globally.

Lessons learned from previous IT reforms show the importance of strong governance and commitment from management and key stakeholders, timely procurement, modernization of business processes, integrated systems, dedicated staff resources for project implementation, and focus on user experience and change management.

The Digital Agenda 2030 provides the vision and road map for ADB's digital transformation. It builds on the progress made under the Information Systems and Technology Strategy III, including the Real-Time ADB IT reforms commenced in 2016, and responds to huge demand throughout the organization and among clients and partners for more modern and connected IT systems.

The Digital Agenda will be implemented in stages. Stage 1 will build and optimize ADB's core IT systems and position the organization to benefit from rapid digital changes in Asia and the Pacific. It will set the foundation for ADB's digital transformation. Subsequent stages will further advance digital transformation, driving greater integration and connectedness of IT systems and improvements in digital products and services.

The Digital Agenda comprises six programs, each with a vision, as follows:

(i) **Operations:** To empower operations to be integrated, flexible, efficient, inclusive, and transparent with accountability;
(ii) **Financial Services:** To enable flexible and innovative financial products and services;
(iii) **Administrative and Corporate Services:** To renovate corporate systems;
(iv) **Digital Workplace and Connected Data:** To create open, collaborative platforms for seamless client, partner, and staff engagement and connected data;
(v) **Enabling the Digital Backbone:** To foster IT service excellence through optimal use of secure, modern technology; and

(vi) **Digital Innovation Sandbox:** To prepare ADB for the future by experimenting with new technologies in an innovation sandbox.

Under Stage 1, ADB will implement 16 projects under the 6 programs over 2019–2023. These projects were identified through an extensive consultation process. The projects selected will not meet all needs for IT and digital support in ADB. They were determined to be the highest priorities, taking into consideration the organization's capacity to deliver and adopt new systems. Upon approval of the special capital expenditure budget, detailed business cases will be developed for each project for approval of the IT and Data Committee.

The goals of Stage 1 are:

(i) data governance strengthened to ensure consistency and accuracy of data, including through standardized data definitions;
(ii) business processes modernized and automated;
(iii) new technologies adopted;
(iv) technology infrastructure and services in headquarters and field offices enhanced, including cybersecurity and technology resiliency;
(v) ability to work remotely, anytime, anywhere improved;
(vi) capacity to build and share knowledge enhanced; and
(vii) capacity to harness emerging technologies to meet business needs developed.

The Digital Agenda will deliver a range of benefits, including operational efficiency and effectiveness, quality, resiliency, risk reduction, and compliance. It will also build a collaborative environment for exploring new and emerging technologies to help solve business challenges and strengthen ADB's agility and responsiveness. [This information has been removed as it falls within exceptions to disclosure specified in paragraph 97 (viii) of ADB's Public Communications Policy (2011).]

By achieving at least 6% efficiency gain, ADB would realize its return on the Stage 1 investment. Implementation will be anchored in strong governance, monitoring and reporting arrangements, supported by effective change management and capacity building. The Board will be kept informed of progress through the Work Program and Budget Framework, the annual budget process, and regular briefings. In support of Strategy 2030, the Digital Agenda will contribute to achieving ADB's corporate results.

The proposed special capital expenditure for Stage 1 is $118.3 million. As Stage 1 projects are rolled out, they will require ongoing maintenance and support. Budget for these incremental administrative costs as well as depreciation costs from the special capital expenditure will be subject to annual approval in the ADB budget.

The Digital Agenda is vital for ADB to be able to meet the high expectations of clients and stakeholders as set out in Strategy 2030 in an environment of accelerating change in information and digital technologies.

## I. INTRODUCTION

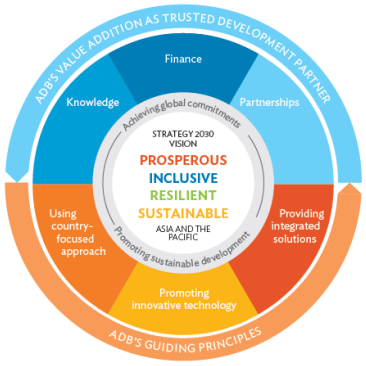
1. The vision of the Asian Development Bank (ADB) is to achieve a prosperous, inclusive, resilient, and sustainable Asia and the Pacific (Figure 1). Strategy 2030 sets the course for ADB to respond effectively to the region's changing needs by focusing on poverty and inequalities, gender equality, climate change, livable cities, rural development, governance, and regional cooperation.[1]

2. Strategy 2030 recognizes that rapidly changing digital technology is resulting in profound changes to the way people live, work, interact, and do business in Asia and the Pacific, and is bringing new opportunities.

3. To deliver a stronger, better, and faster organization, ADB will enhance human resources, maintain a strong country presence, improve its products and instruments, modernize business processes, and improve operational efficiency.

4. Critical to the implementation of Strategy 2030 will be the digital transformation of ADB through the use of secure, modern information and technology (IT) systems and digital processes to enhance effectiveness, efficiency, and resilience.

**Figure 1: ADB's Vision, Value, and Guiding Principles**




Source: Strategy 2030.

5. The Digital Agenda 2030 provides the vision and road map for ADB's digital transformation. It builds on the progress made under the Information Systems and Technology Strategy (ISTS) III,[2] including the Real-Time ADB IT reforms commenced in 2016, and responds to huge demand throughout the organization and among clients and partners for more modern and connected IT systems. The Digital Agenda will be implemented in stages with Stage 1 covering 2019–2023.

## II. CURRENT STATE OF INFORMATION AND TECHNOLOGY IN ADB

6. Under previous IT investments, including ISTS III and Real-Time ADB IT reforms, significant progress has been made in modernizing the organization's IT systems (Appendixes 1 and 2). Ongoing initiatives include (i) upgrading and putting in place systems for operations, financial services, and administrative and corporate services; (ii) building the foundation for collaboration and knowledge services; and (iii) strengthening technology infrastructure, cybersecurity, and adopting cloud platforms. Efforts to strengthen data governance have begun. Innovative technologies have been used in IT mobility and dashboards. Despite this progress, significant further reforms are needed to replace aging technologies, automate extensive manual processing, and overcome a legacy of unconnected and siloed systems.

7. **Aging technologies.** ADB's technology infrastructure is aging. Most of the systems are at least 15 years old (Appendix 3). The core accounting mainframe system is nearly 40 years old.

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[1] ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific.* Manila.
[2] ADB. 2013. *Information Systems and Technology Strategy and Capital Expenditure Requirements: 2013–2018.* Manila.

The first phase of the Disbursement System Modernization Project being implemented under the Real-Time ADB IT reforms is replacing the mainframe system with a modern platform. Future phases will modernize the disbursement processes and address more complex functions, such as multicurrency needs, and automate remaining manual transactions.

8. The finance and human resources systems run on a highly customized Enterprise Resource Planning (ERP) System that is 16 years old and lacks a fully automated planning, forecasting, and budgeting capacity. ADB's systems for sovereign operations run on old technologies that are inflexible, costly, and difficult to maintain. eOperations and the Procurement Review System are highly customized and do not fully meet departments' needs. Client and implementing agencies have limited access and transaction capabilities. This hinders timely exchange of information at key stages of the operations cycle.

9. ADB produces more than 1,900 internal reports using systems that run on 10-year-old technology that is no longer supported by the software vendor. These reports must be rationalized and migrated to a modern platform.

10. **Unconnected systems and data.** The lack of connected systems and extensive manual processing have resulted in inconsistencies, inaccuracies, and gaps in data. Authoritative information is difficult to find in ADB's systems, and significant effort is spent validating and cleaning data.

11. Largely to compensate for shortcomings in current corporate IT systems, individual departments have built more than 600 management information systems. As a result, multiple content repositories are stand-alone facilities, making them inaccessible and difficult to search to support a knowledge-based organization. This environment creates information silos, extensive duplication of data, and a proneness to errors as information is reconciled with corporate systems. Likewise, ADB's cash operations have been managed in multiple systems, resulting in complex monitoring and reconciliation.

12. The Board Information System, launched in 2001, includes multiple unconnected systems and requires extensive manual work, making it difficult to locate Board documents and meet growing business needs. The production of two major institutional reports—the Annual Portfolio Performance Report and the Development Effectiveness Review—takes extensive effort to manually create and reconcile data extracted from different source systems.

13. **Outdated IT infrastructure.** Despite technology infrastructure improvements, the current meeting and IT office facilities are inefficient. Staff members cumulatively spend more than 1.5 million hours annually in meetings across 150 conference rooms in headquarters and field offices. Furniture is designed for using paper rather than technology, lighting is inadequate, cabling infrastructure is nonexistent, and the audio and video technologies are outdated. This causes poor user experience and inefficient meetings that are often delayed due to technical difficulties and contributes substantially to lost productivity.

14. To support greater decentralization, field office IT systems need to be renovated. Computer data centers in field offices often lack adequate space, cooling systems, security, and power resiliency.

15. The immediate priority for resiliency in critical financial systems is in place. However, more needs to be done to prepare ADB's other systems to withstand a major disruption in Manila, such

as from a large earthquake. Steps also need to be taken to improve the resiliency of ADB's IT workforce.

16. **Emerging demands, challenges, and opportunities.** With the expected growth of private sector operations to reach one-third of ADB's operations in number by 2024, investment is needed to further enhance the new platform for nonsovereign operations (NSO) being developed. In view of the growing diversification in its operations, ADB needs enhanced forecasting tools and improved cash position visibility for treasury functions.

17. In line with international trends and with the increasing reliance on digital technologies, ADB's exposure to the risk of cyberattacks is increasing. The scale and nature of cybersecurity threats globally continue to grow and evolve rapidly. In response, ADB needs to continue to invest in cybersecurity.

18. ADB has limited capacity and resources to incorporate emerging technologies. The escalating pace of digital change in the global environment creates challenges and opportunities for ADB and its clients and partners. New technologies will impact the way we work, how we manage financial products, and how we interact with each other. This will include eliminating distances by working virtually, creating new opportunities for partnerships, and enhancing productivity through artificial intelligence and the Internet of Things.

19. **Need for additional IT investment.** Additional investment in digital technologies is vital for ADB to be able to meet the high expectations of clients and other stakeholders as set out in Strategy 2030 in an environment of accelerating information and digital technological change. [This information has been removed as it falls within exceptions to disclosure specified in paragraph 97 (i and viii) of ADB's Public Communications Policy (2011).]

## III. LESSONS LEARNED

20. Historically, three factors have contributed to the fragmented state of IT in ADB. First, ADB has supported department-specific IT development, with inadequate attention to wider ADB corporate needs. Second, IT systems were developed to automate existing business processes through extensive customization rather than consideration of business process modernization and use of off-the-shelf systems. Third, data governance has not been addressed comprehensively, including a lack of common definitions, contributing to inconsistencies, inaccuracies and gaps in data, and major manual efforts to compile and reconcile data.

21. ADB's experience, supported by international best practice, shows that successful IT projects have the following features:

(i) strong governance with commitment and active involvement from all the main stakeholders to ensure strategic alignment of the project to corporate goals;
(ii) timely and skilled procurement support and vendor management;
(iii) modernization of business processes rather than automation of existing manual processes;
(iv) limited customization of systems and high ability to connect with other systems;
(v) dedicated staff resources for project implementation; and
(vi) dedicated resources and efforts devoted to user experience and change management.

22. ADB has incorporated these lessons into the current IT reforms. It has implemented stronger governance across all current projects with monthly or quarterly steering committees, with representation from all main stakeholders. ADB has made significant investment in change management. Change management was a key factor in the successful implementation of Office 365 throughout the organization, including the practice of having departmental "champions." These individuals advocated the new ways of working in their respective departments and conducted coaching and information-sharing sessions with their colleagues.

23. ADB's reforms to institutional procurement, adopted in 2016, have been instrumental in enabling timely and effective procurement actions in support of the Real-Time ADB IT reforms.[3] Wherever possible, off-the-shelf systems have been purchased, rather than heavily customized solutions, to provide a stronger base for data connectivity and efficiency.

24. In implementing major and complex projects, such as the Disbursement System Modernization and NSO projects, the provision of dedicated staff by the stakeholder departments has been essential to drive project implementation.

25. The Office of Information Systems and Technology (OIST) has strengthened its disciplines to ensure effective systems integration and to enable data coherence. Cybersecurity, technology resiliency, and user-centric design have been embedded in the design of new platforms.

26. To enhance the IT understanding and capacities of staff, ADB has significantly increased the scale of activities, such as training sessions, awareness-raising briefing sessions, and demonstrations of new technologies. ADB held more than 150 IT training sessions in 2017.

27. OIST adopted a new organizational structure in 2017 to ensure enhanced client orientation and an improved service delivery model. A valuable innovation has been the establishment of a "war room" to facilitate regular, collaborative reviews of project progress.

## IV. DIGITAL AGENDA 2030

28. The Digital Agenda 2030 provides the vision and road map for ADB to harness IT to enable a stronger, better, and faster organization in line with Strategy 2030.

29. The Digital Agenda will facilitate the dramatic modernization of business processes using modern and secure IT systems and digital processes to enhance effectiveness, efficiency, and resiliency. It will (i) provide real-time access to data on all aspects of ADB operations and administration; (ii) create digital platforms that facilitate the production of a range of knowledge products and services and make them readily accessible to stakeholders; (iii) provide a customer relationship management tool to ensure availability of external client and partner information in real time; (iv) support innovative financial products; and (v) foster a culture of innovation and responsiveness to changing client needs through partnerships and other approaches. The systems created by the Digital Agenda will underpin ADB's ability to provide enhanced knowledge services.

30. The Digital Agenda will be implemented in stages. Stage 1 spans 2019–2023 and focuses on building the foundation for digital transformation. This foundation will set the course for

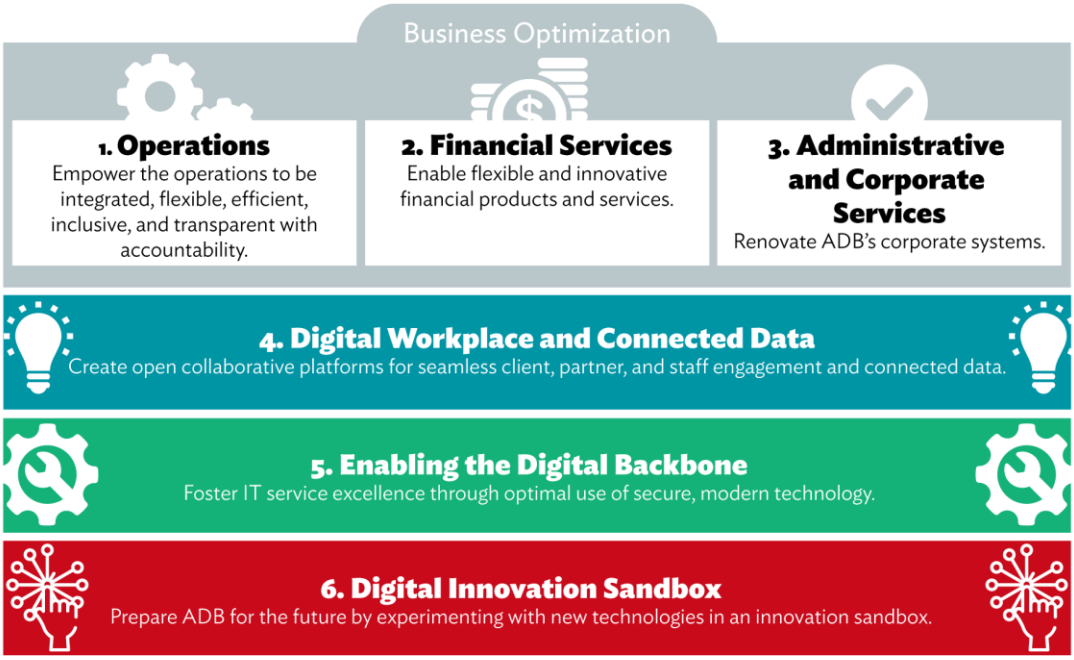
[3] ADB. 2016. Institutional Procurement and Contract Administration. *Administrative Orders*. AO 4.07. Manila. ADB takes a principles-based and less-prescriptive approach for procurement of goods and services. This approach promotes value for money by considering factors other than cost only, such as efficiency and quality.

achieving the vision of the Digital Agenda. Subsequent stages will further advance ADB's digital transformation, driving greater integration and connectedness of IT systems and improvements in digital products and services (Appendix 4).

31. The Digital Agenda comprises the following six programs, each with a long-term vision, which will run through 2030 (Figure 2):

(i) Operations,
(ii) Financial Services,
(iii) Administrative and Corporate Services,
(iv) Digital Workplace and Connected Data,
(v) Enabling the Digital Backbone, and
(vi) Digital Innovation Sandbox.

**Figure 2: Digital Agenda 2030: Programs and Visions**




ADB = Asian Development Bank, IT = information and technology.
Source: Asian Development Bank.

## A. Operations Program

32. The vision of the Operations Program is to empower operations to be integrated, flexible, efficient, inclusive, and transparent with accountability. The program will build on the Real-Time ADB IT reforms to streamline and automate processes that support operations.

33. Stage 1 will address challenges around existing aging technologies, heavily manual and siloed processes, inconsistencies, and inaccuracies in data. Project and portfolio information will be easily accessible, allowing better business decisions through defined and consistent data. Users will be empowered to generate self-service reports. In later stages, the focus will be on building capacity to collaborate seamlessly with clients, partners, and other international financial institutions.

## B. Financial Services Program

34. The vision of the Financial Services Program is to enable flexible and innovative financial products and services. The program will support the areas of financial control, treasury, and risk management.

35. In Stage 1, the Comprehensive Loan Accounting and Servicing System will be upgraded, the new disbursement system will be optimized, cash management processes will be managed more efficiently under a new consolidated system, and a more robust Credit Risk Management System will be put in place. Routine tasks will be automated. In later stages, emerging technologies will be used to support new digital financial products and services for clients and partners.

## C. Administrative and Corporate Services Program

36. The vision of the Administrative and Corporate Services Program is to renovate ADB's corporate systems that are collectively known as the Enterprise Resource Planning (ERP) System. The system comprises various applications for financial processing, human resources, payroll and compensation, budgeting, benefits and entitlements, travel, asset management, resident mission financial accounting, and consultant administration and reporting. Adopted in early 2000, the ERP System includes 20 standard modules and 60 customized applications that are increasingly difficult to maintain and expensive to support. Many are stand-alone systems, resulting in unconnected data. Replacing and modernizing the existing system will significantly increase efficiency and quality in the processing of transactions for administrative and corporate processes.

37. In Stage 1, the road map for the new ERP System will be formulated and selected components will be modernized. In later stages, guided by the road map, a new system will be put in place. This will consolidate resident mission financial systems into the corporate ERP System to effectively support decentralization. The new system will incorporate modern technologies, such as machine learning and robotic process automation, that will maximize efficiency in managing transaction processing for administrative and corporate services.

## D. Digital Workplace and Connected Data Program

38. The vision of the Digital Workplace and Connected Data Program is to create open, collaborative platforms for seamless client, partner, and staff engagement and connected data. This vision will create the workplace of the future for knowledge workers with access to data and knowledge anytime, anywhere. Historically, many IT systems were built for the specific needs of a department, often in isolation from other departments. These systems focus on controlling a specific process, with limited attention to overall institutional coherence, integration, and usability. As a result, accessing reliable information is complex and time-consuming.

39. In Stage 1, the program will link systems and data to create a coherent system, provide access to reliable information, and support knowledge management efforts. It will put in place standards and practices to organize and manage critical information in a sustainable manner. In later stages, further enhancements to the digital workplace will use emerging technologies, such as machine learning and robotic process automation. This will result in more integrated data, easier access to real-time and reliable information, and seamless navigation across systems.

### E. Enabling the Digital Backbone Program

40. The vision of the Enabling the Digital Backbone Program is to foster IT service excellence through optimal use of secure, modern technology. There is a growing need for computing infrastructure, storage, networks, cloud-based platforms, cybersecurity, and disaster recovery capability. This demand will increase further because of the Digital Agenda. The program will ensure security systems remain robust in the face of growing cybersecurity threats. Automated tools are needed to manage complex IT programs and projects. ADB's growing country focus will be supported through improved IT infrastructure and field office support.

41. Stage 1 includes IT infrastructure modernization, cybersecurity, and IT service delivery optimization. In later stages, ADB will expand its capability to support clients and partners anywhere, on any device, and anytime. New technologies will be leveraged to enable support through artificial intelligence. ADB will continue to enhance its cybersecurity capacities to meet new challenges.

### F. Digital Innovation Sandbox Program

42. The vision of the Digital Innovation Sandbox Program is to prepare ADB for the future by experimenting with new technologies in an innovation sandbox. A sandbox is a safe platform, separate from ADB's IT systems, in which the viability of new technologies is tested and reviewed before deciding to pilot them. ADB needs to be able to quickly exploit new technologies to meet business needs and improve its efficiency and effectiveness. Currently, no institutional platforms exist to support interest in emerging technologies, such as big data and machine learning.

43. In Stage 1, departments will be able to experiment with new, emerging technologies to solve business challenges in a systematic, safe, and collaborative environment. The experiments will be supported by technology partnerships with start-ups, academia, international organizations, civil society organizations, ADB members, private sector, and others. The sandbox will lay the foundation for emerging technologies to be integrated into ADB's systems. The program will directly support innovation, promote digital knowledge products and services, and enable digital transformation. During Stage 1, ADB will assess the progress and scope of the remaining program.

## V. STAGE 1 PROJECTS

44. ADB will implement 16 projects in Stage 1 under the 6 programs as follows: 5 projects under Operations Program, 5 under Financial Services Program, 1 under Administrative and Corporate Services Program, 1 under Digital Workplace and Connected Data Program, 3 under Enabling the Digital Backbone Program, and 1 under the Digital Innovation Sandbox Program (Appendix 5).

45. These projects were identified through an extensive consultation process with ADB staff and Management, including the IT and Data Committee. They were determined to be the highest priorities, taking into consideration the organization's capacity to deliver and adopt new systems. Assessments were undertaken for each project to determine the high-level objectives, scope, governance arrangements, risks, business benefits and outcome, and cost estimates. Upon approval of the special capital expenditure budget, detailed business cases will be developed for each project for the approval of the IT and Data Committee (see Section VI on governance).

## A. Operations Program

46. The following five projects will be implemented under this program during Stage 1.

### 1. Sovereign Operations

47. The current sovereign operations systems support project processing by project teams and provide data for institutional reporting. While the systems have been improved and simplified over the past 9 years, system flexibility and integration have yet to be achieved. Current challenges include extensive manual processes, limited online collaborative access, difficulties in obtaining accurate and timely reports, and lack of a system to capture and maintain institutional relationships. The management information needs of the regional departments have not been fully addressed.

48. New systems will replace eOperations, Procurement Review System, Consultant Management System for technical assistance, and ADB Disclosure Management System. Full replacement of the Consultant Management System will come after detailed business process reengineering has been conducted as part of the Administrative and Corporate Services Program. A new integrated platform will enable the modernization of business processes and support country-focused operations and customer relationship management. Automated and integrated end-to-end sovereign processes will enable a seamless flow of data, and flexible reporting and analytics.

49. The unique needs of each regional department and its clients will be facilitated by the new systems, which will capture the best practices of these departments and synchronize data with the enterprise sovereign operations systems.

50. Overall, the project will improve collaboration with borrowers, executing and implementing agencies, and other stakeholders. Timely information will be available on demand to Management and sovereign operations managers to help strengthen decision making. The reduced need for multiple manual data entries and reporting spreadsheets will improve productivity.

### 2. Nonsovereign Operations

51. Building upon the outputs of the NSO Project's end-to-end process automation under the Real-Time ADB IT reforms, this project will support the planned growth of ADB's NSO. It will capitalize on emerging technologies to further enhance NSO front-end operations, data services, transaction processing, analytics, and reporting. The project will enhance client engagement through a Customer Relationship Management System and portal. Deal origination processes will be improved by using real-time data services and automating data collection for integrity due diligence. The quality of portfolio management will be increased through artificial intelligence and analytics.

### 3. Board and Institutional Management

52. Currently, various siloed systems, such as the Board Document System, eBoard, eServe, and the Board Calendar, are used to support Board and institutional management processes. The project aims to increase efficiency by providing an integrated system that allows Management and Board members to access information anytime, anywhere. Solutions will be put in place to create dashboards and manage approvals more efficiently.

### 4. Partner Fund Management System Phase 2

53. This project will enable greater capacity and capability for expanding the scope and management of ADB's funding partnerships. This project is divided into two phases: Phase 1, under Real-Time ADB IT reforms, covers the automation of fund accounting and reporting, while Phase 2 will automate the management of partner relationships and funds. Implementation of this project will result in improved risk management and transparency. It will also drive greater efficiency in partner fund management as well as provide comprehensive and timely portfolio reports and dashboards.

### 5. Corporate Report Automation

54. This project will support the automation of the Development Effectiveness Review, the Annual Portfolio Performance Report, and affiliated reports. The production of these reports is largely manual and time-consuming. The project will further refine data definitions and enhance the repository for organizational data through master data management. This project will reduce manual processes, provide self-service analytics and dashboards, and improve data definitions and accuracy. A suite of reporting tools and products for improved results, performance analysis, and reporting will be made available both internally and externally.

## B. Financial Services Program

55. The following five projects will be implemented under this program during Stage 1.

### 1. Comprehensive Loan Accounting and Servicing System Upgrade

56. The Comprehensive Loan Accounting and Servicing System is used to record and process loans, equity investments, and other financial products. This project will upgrade the current platform to take advantage of the latest innovations and ensure scalability for future enhancements. It will also provide the capability to better integrate with other systems, contributing to improved access to data, process workflow, and user experience.

### 2. Disbursement System Modernization

57. The modernization of the nearly 40-year-old technology platform for loan, grant, and technical assistance disbursement has been initiated under the Real-Time ADB IT reforms. This project will modernize the disbursement-related business processes for sovereign financial operations. The new system will be enhanced to provide more client-focused financial product features, the capability to handle complex and rare transactions currently processed manually, and real-time access to data.

### 3. Cash Operation Optimization

58. The project will improve existing systems and add new applications to efficiently process cash transactions and consolidate enterprise-wide cash data from various sources. This will enable more accurate forecasts of cash flows and the ability to identify patterns in various portfolios and across multiple currencies. In addition, incorporating innovative solutions, such as machine learning, data analytics, and data visualization, will help identify trends and make forecasts. This will speed up the cash management process.

### 4. Derivative Valuation Adjustments

59. Derivative instruments are used to ensure borrowing investments and loan operations activities are properly hedged, and funding and cash flow sources are aligned. With the increasing lending volume and corresponding treasury borrowing and investment activities, derivative transactions are becoming important for ADB's financial operations.

60. The project will acquire an off-the-shelf system to provide greater capability for various valuation adjustments. This will enhance the valuation of the derivative portfolio. The initiative will bring operational efficiency and transparency through accurate financial reporting and disclosure. Decision-making capability will be enhanced, helping to improve the quality of trades and lower the cost of funding.

### 5. Risk Management System

61. ADB has two major risk management systems: the Treasury Risk Management System and the Credit Risk Management System. They require complete, accurate, and integrated data from various source systems for operations and financial services to support the growing volume and complexity of operations. These systems will be enhanced to ensure consistent and integrated data from lending and treasury operations to facilitate risk analytics, monitoring, and reporting, and provide the risk information necessary for decision making. The Credit Risk Management System will be integrated with the nonsovereign system to expedite review and processing of NSO transactions. Additional Treasury Risk Management System modules will be deployed to enable timely identification and mitigation of market risks.

## C. Administrative and Corporate Services Program

62. Under Stage 1, the existing ERP System will be reviewed, and a modernization road map will be formulated during 2019–2020. During the first phase, the travel system and an enterprise-wide learning platform will be modernized, and integrated budget and time management systems will be established.

## D. Digital Workplace and Connected Data Program

63. Stage 1 of the program will build a digital workplace where staff, clients, and partners can access data and mobile applications. This will be achieved through the following actions under a single project:

(i) improving the information and data governance function, including establishing data stewardship and a data dictionary;[4]
(ii) implementing a change management for adoption of new automated processes;
(iii) modernizing the intranet platform for MyADB and ADB Today newsletter;
(iv) rationalizing and replacing the more than 600 Lotus Notes stand-alone applications through an internal ADB AppStore[5] to enable sharing of common ADB tools;
(v) modernizing the search function to allow retrieval of relevant information;
(vi) rationalizing and migrating the more than 1,900 legacy operational reports into a modern platform;
(vii) digitalizing and migrating archives to a new platform; and
(viii) providing geo-located data to improve ADB's operations and knowledge services.

[4] Data dictionary is a repository of data definitions and relationships to other data.
[5] ADB AppStore is an online platform through which ADB tools can be shared and downloaded.

## E. Enabling the Digital Backbone Program

64. The following three projects will be implemented under this program during Stage 1.

### 1. Information and Technology Infrastructure Services

65. This project will focus on the following areas:

(i) **Field office data center modernization.** All field office data centers will be provided with dual power supplies, suitable air conditioning, and physical security controls to enhance their effectiveness and reliability. Selected services will be moved to the cloud, taking into consideration the uniqueness of each field office. This will improve system performance in field offices where IT infrastructure may be less developed.

(ii) **Conference room and office modernization.** Physical infrastructure will be modernized to support a major improvement in the efficiency of ADB's meetings and video conferences. Modern audio and video equipment and room control panels will be provided. These will be integrated with Office 365 for a seamless user experience. Meeting rooms in headquarters and field offices will be upgraded with cabling, power outlets, charging stations, and furniture. Office space will be optimized to support the delivery of the Digital Agenda.

(iii) **Business and information and technology resiliency.** A hub of IT staff and contractors outside Manila will be piloted to ensure continuity in IT support for ADB's operations in case of disasters. The project will also move critical financial systems from Geneva into the cloud. The rest of ADB's systems will be moved to the cloud in later stages of the Digital Agenda.

(iv) **Enterprise automation.** A platform will be provided to automate the deployment and configuration of settings and software to multiple infrastructure components, such as servers, networks, and storage. The result will be faster, more stable, and higher-quality IT delivery. A platform for robotic process automation will be implemented to ease labor-intensive and repetitive tasks, such as billing and periodic report preparation.

(v) **Real-time monitoring and anomaly detection.** Monitoring infrastructure will be established to collect real-time availability and performance metrics for IT systems. Potential issues will be identified before users experience them.

(vi) **Data infrastructure modernization.** Master data management infrastructure will be put in place to support improved data accuracy and governance. A data analytics platform will be implemented that will enable ADB's large amounts of data to be searched and analyzed. The existing data warehouse[6] will be modernized to assimilate data from old and new IT systems, including cloud data sources.

### 2. Cybersecurity

66. This project will strengthen IT security and ensure the consistent application of controls across the organization and with partners and suppliers. Strengthened cybersecurity will improve resiliency by enabling continuous IT security testing; developer training; and faster and more thorough incident detection, prevention and response, including automation.

[6] Data warehouse is a repository for data from internal and external sources.

### 3. Information and Technology Service Delivery Optimization

67. Under this project, initiatives will be implemented to enhance service delivery and support capabilities. These include (i) implementing an automated project and portfolio management tool that tracks benefits, risks, and cross-project dependencies; (ii) accelerating user adoption of IT products and services; (iii) providing the same IT experience across ADB locations; and (iv) equipping ADB with an advanced IT facility for learning. The project also aims to simplify and optimize overall user experience. This will help to promote easy-to-use application systems that will significantly increase productivity, improve user satisfaction, and reduce the need for technical support. Additionally, this project will enhance ADB's license compliance management.

## F. Digital Innovation Sandbox Program

68. ADB will experiment with emerging technologies in areas such as fintech[7], robotic process automation, artificial intelligence, machine learning, and big data to address business challenges. Such innovative technologies have the potential to help ADB transform its internal business functions to be more agile, responsive, and relevant to its stakeholders.

# VI. IMPLEMENTATION

## A. Governance

69. The IT and Data Committee, chaired by the Vice-President, Administration and Corporate Management and comprising heads of department from a range of departments, is responsible for (i) formulating a One-ADB view on IT priorities and making investment decisions; (ii) monitoring the progress of IT investments, including ensuring planned benefits and efficiencies are fully realized; (iii) overseeing the formulation of ADB's data governance framework; and (iv) ensuring all initiatives are supported by change management processes. The Data Management Sub-committee is responsible for establishing a framework for data governance in ADB, including policies and standards, and management and ownership of data to ensure quality, accountability, accuracy, and timeliness.

## B. Project Management, Financial Control, Monitoring and Reporting

70. Upon the approval of the special capital expenditure for Stage 1, in coordination with the Budget, Personnel and Management Systems Department, OIST will prepare implementation guidelines and financial controls for the capital investment for Stage 1. Design work will be undertaken for each project as the basis for the detailed business case to be presented to the IT and Data Committee for approval.

71. The business case will include information on the following:

(i) background and rationale;
(ii) objectives, scope, and outputs (including business process reforms and improvements to data accuracy as applicable);
(iii) business benefits and outcomes;
(iv) project stakeholders and governance mechanism;
(v) project implementation plan and approach, and change management;
(vi) risk and mitigation measures;

[7] Fintech (financial technology) refers to modern technologies for financial services, including mobile payments, loans, fund raising, asset management, fraud detection, and management of operational, credit, and market risks.

(vii) dependencies; and
(viii) critical success factors.

72. For each project business case approved by the IT and Data Committee, a project governance structure will be established. Project will consist of sponsoring departments or offices and OIST, project working groups at different levels, and steering committees that comprise heads of departments and/or vice presidents. Steering committees are responsible for monitoring progress and timely achievement of outputs and outcomes. Standard templates will be used by all projects for monitoring and reporting.

73. In the case of complex projects, a business project management unit will be established to prioritize and coordinate activities and outputs. For example, a cross departmental project management unit will be formed for the Sovereign Operations Project, which involves at least 10 departments.

74. Regular monitoring at the portfolio level is undertaken by the IT and Data Committee. A midterm review to assess progress will be undertaken. The Board will be kept informed of progress through the Work Program and Budget Framework, the annual budget process, and regular briefings. In support of Strategy 2030, the Digital Agenda will contribute to achieving ADB corporate results.

## C. Change Management

75. Change management plans will be prepared for each project. Change management includes consulting and communicating with users and stakeholders, training, and improving customer experience. Staff will be supported to expand their understanding of new digital technologies and their capacities to use new IT systems through an enhanced program of training, seminars, and briefing sessions. With the guidance of the Strategy, Policy and Review Department, changes to business processes agreed upon by all the stakeholders will be reflected in the relevant documents, as appropriate.

## D. Risks and Mitigation Measures

76. There are six main risks to the successful implementation of Stage 1. These risks and the corresponding mitigation measures are presented in Table 1.

**Table 1: Risks and Mitigation Measures**

| Risks | Mitigation Measures |
|---|---|
| New information and technology platforms are adopted that automate existing manual processes without business process improvement. | Strong project governance to ensure business process redesign, led by key stakeholders. |
| The capacities of the new systems are not fully used by staff and departments. | Change management included in every project to ensure staff and departmental views are incorporated in the design, and capacity building is provided. |
| In projects requiring collaboration across departments, delays occur in reaching agreement on the scope and design of the project. | Strong project governance, including providing sufficient staff and other resources dedicated to project management; ensuring comprehensive consultations with all relevant stakeholders; and providing adequate project timelines to allow for |

| Risks | Mitigation Measures |
|---|---|
| | extensive consultations with all relevant departments. |
| Delays due to prolonged procurement processes. | Extensive preplanning activities with the Office of Administrative Services and use of the principles-based procurement approach, including proofs of concepts and benchmarking using industry best practices. |
| Costs increase due to unanticipated change in project scope. | Strong project management and governance, and inclusion of contingency in the project budget. |
| New information and technology platforms become obsolete due to rapid changes in technology. | Use of cloud and managed services to ensure up-to-date technologies, and the Digital Innovation Sandbox Program to keep abreast of technological advances. |

Source: Asian Development Bank.

## VII. BUDGET AND FINANCING ARRANGEMENTS

77. [This information has been removed as it falls within exceptions to disclosure specified in paragraph 97 (i and viii) of ADB's Public Communications Policy (2011).]

### A. Capital Investment

78. – 80. [This information has been removed as it falls within exceptions to disclosure specified in paragraph 97 (i and viii) of ADB's Public Communications Policy (2011).]

## B. Multisourcing Approach

81- 82. [This information has been removed as it falls within exceptions to disclosure specified in paragraph 97 (i and viii) of ADB's Public Communications Policy (2011).]

## C. Impact of the Cloud on Administrative Expenses

83. – 84. [This information has been removed as it falls within exceptions to disclosure specified in paragraph 97 (i and viii) of ADB's Public Communications Policy (2011).]

## D. Implications of Maintenance and Support Services on Administrative Expenses Budget

85. [This information has been removed as it falls within exceptions to disclosure specified in paragraph 97 (i and viii) of ADB's Public Communications Policy (2011).]

## E. Impact of the Stage 1 Investment on Information and Technology Budget, 2020–2030

86. [This information has been removed as it falls within exceptions to disclosure specified in paragraph 97 (i and viii) of ADB's Public Communications Policy (2011).]

## F. **Benchmarking Technology Expense Budget in International Financial Institutions**

87.- 89. [This information has been removed as it falls within exceptions to disclosure specified in paragraph 97 (i and viii) of ADB's Public Communications Policy (2011).]

## VIII. BUSINESS BENEFITS

90. The Digital Agenda will deliver a range of benefits, including operational efficiency and effectiveness, quality, resiliency, risk reduction, and compliance. It will also build a collaborative environment for exploring new and emerging technologies to help solve business challenges and transform ADB into an agile and responsive organization.

91. **Operational efficiency and effectiveness.** Modernized and integrated business systems for operations and financial services will enable faster turnaround time, support higher volume of transactions, and accommodate the growth and complexity of ADB's portfolio. Greater capacity and capabilities to manage and expand partnerships with borrowers, executing and implementing agencies, and other stakeholders will also be enabled. Online portals will provide easy and timely access to information and will support collaboration. Electronic submission of documents will: reduce transaction costs for operations; enable a transparent, faster, and more efficient process; and reduce paper consumption.

92. In addition, the Digital Agenda initiatives will support seamless data integration and ultimately the single source of truth[16] for corporate reports and knowledge products. This will increase accessibility, reduce time to find information, and enable flexibility in generating reports. Departments will be able to plan more efficiently, provide timely responses to partners and other stakeholders, and have accurate information to aid in decision making.

93. **Quality.** Automation of various reports will improve the quality of ADB's data and reports. Initiatives will also be implemented to improve and standardize the IT user experience across headquarters and field offices.

94. **Resiliency.** Adopting more cloud-based systems will improve organizational resiliency as well as the scalability and agility of operations. The modernization of IT infrastructure will also facilitate uninterrupted IT operations in the field offices and ensure resiliency against large-scale disasters in Manila.

95. **Risk reduction and compliance**. Management of operational risks will be improved. Obsolete and aging platforms will be replaced. IT security threats will be reduced through better visibility, control, and management of IT assets.

96. **Efficiency gains.** Digital transformation has the potential to achieve significant efficiency gains. The Digital Agenda is expected to result in savings and staffing optimization arising from business process modernization and the replacement of old technologies with modern, advanced technologies. [This information has been removed as it falls within exceptions to disclosure specified in paragraph 97 (i and viii) of ADB's Public Communications Policy (2011).]

## IX. RECOMMENDATION

97. It is recommended that the Board approve the special capital expenditure amounting to $118,300,000 for the Digital Agenda 2030: Special Capital Expenditure Requirements for 2019–2023.

[16] Single source of truth refers to the practice of structuring data so that every data point is stored only once; any change in the data at source will be automatically updated in integrated systems.

## HISTORY OF INFORMATION TECHNOLOGY AT ADB

1. In 1978, Asian Development Bank (ADB) established the Computer Services Unit and its first computer system became operational in 1981. Since then ADB has made progress in upgrading technologies and automating office processes to support operations and respond to business needs.

2. The first Information Technology Strategy, 1993–1996 centered on the development of a networked computing infrastructure.[1] This established the technology infrastructure and various client–server information systems, including electronic mail (e-mail), and a document management system.

3. Following this, ADB approved the Information Systems and Technology Strategy (ISTS I) in 1998 to put in place new information systems for core financial and human resources management, known as the Enterprise Resource Planning System.[2] It also strengthened the technology infrastructure and the delivery of information materials through a media archive system, an upgraded TV studio, and inhouse briefing theaters.

4. In June 2004, ADB approved the Information Systems and Technology Strategy and Capital Expenditure Requirements: 2004–2009 (ISTS II).[3] This built on the achievements of ISTS I. ISTS II included information systems covering core operations for project processing and portfolio management; a document management system for knowledge management; and automated systems for budget, travel, and consultant management. ISTS II upgraded the e-mail system, data storage, web content management, payment gateway, and mainframe operating system and replaced several obsolete systems with customized applications extended from the Enterprise Resource Planning System. The Operations Dashboard was introduced to simplify management reporting. eOperations, an online system that enables the capture and recording of outputs and outcomes during the implementation of sovereign operations, was launched in 2010.

5. To address strategic business changes, ADB formulated the Information Systems and Technology Strategy III (ISTS III) which was approved in 2013.[4] ADB implemented six ISTS III technology initiatives in response to the Midterm Review of Strategy 2020.[5] These efforts centered on: providing access to information and services; increasing internet capacity across ADB; and enabling online meetings via videoconferencing, voice, or chat from desktops or laptops. The simplification of eOperations, the introduction of the client portal to facilitate disbursement, and the development of an end-to-end Procurement Review System were also initiated during this period.

6. In 2016, ADB adopted the Real-Time ADB Information Technology (IT) reforms, funded from the ISTS III special capital expenditure budget, to expedite IT modernization and to incorporate new systems for the nonsovereign operations and management of partner funds. The

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1 ADB. 1998. *Our Framework Policies and Strategies: Toward e-Development in Asia and the Pacific.* Manila.

2 ADB. 1998. *Information Systems and Technology Strategy and Capital Expenditure Requirements: 1998–2002*. Manila.

3 ADB. 2004. *Information Systems and Technology Strategy and Capital Expenditure Requirements: 2004–2009*. Manila.

4 ADB. 2013. *Information Systems and Technology Strategy and Capital Expenditure Requirements: 2013–2018*. Manila.

5 ADB. 2014. *Midterm Review of Strategy 2020: Meeting the Challenges of a Transforming Asia and Pacific*. Manila. The six ISTS IIII projects implemented in response to the Midterm Review of Strategy 2020 include: High Availability and Performance Management, Mobile Applications, Network Architecture Improvements, Remote Access, Unified Communications, and Wireless Access.

Real-Time ADB IT reforms aimed to: further automate, simplify, and integrate key systems; improve collaboration; strengthen data quality; replace manual processes; increase resiliency; and enable greater agility and mobility.

7. The establishment of the Organizational Resiliency Active Data Center, an offshore active disaster recovery site in Geneva, Switzerland, significantly improved the resiliency of ADB's critical financial systems. New cloud technologies and systems were put in place for institutional procurement, talent management, and the human resources service desk. To safeguard against threats, ADB has strengthened cybersecurity and cloud security, increased IT security awareness, and simplified access management and authentication. To improve submission of disbursement requests, ADB implemented the Client Portal for Disbursements and Technical Assistance Claims Partner projects. ADB's IT infrastructure has been strengthened to provide a secure platform, as well as services for cloud-enabled solutions in headquarters and field offices.

8. ADB has adopted cloud-based systems, including Office 365 productivity tools and e-mail and Skype integration for the telephony systems. These systems are enabling greater collaboration and resiliency, including the ability to work anywhere, anytime. ADB has deployed new mobile phone standards, tablets, laptops and hybrid devices. In addition, the introduction of enterprise mobile management tools and better data roaming services have helped improve productivity.

9. Other ongoing IT reforms include: automation of nonsovereign operations and modernization of related business process; replacement of the mainframe disbursement system for loans, grants, and technical assistance; automation of fund management; and introduction of treasury systems for structured products.

## REAL-TIME ADB INFORMATION TECHNOLOGY REFORM PROJECTS: KEY OUTCOMES AND STATUS

| Projects | Key Outcomes | Completion or Expected Completion Date |
|---|---|---|
| Organizational Resiliency Active Data Center | The offshore active disaster recovery site enables and assures the resiliency of ADB's critical financial systems. This has reduced the potential data loss during a crisis from 4–5 days to 3 hours. | 2017 |
| Microsoft Office 365 Implementation | Office 365 adopted to improve workplace collaboration anytime, anywhere, using modern cloud-based office productivity tools, OneDrive, and Outlook e-mail.<br><br>Unified communications that leverage Skype for Business rolled out to further enhance voice and video communications, and 10 pilot conference rooms modernized to maximize in-room video conferencing experience. | 2017<br><br>2018 |
| IT Mobility | Shift from desktop to notebook computers and other mobile devices supports organizational resiliency and drives greater efficiency. The process for provisioning of mission notebooks was simplified.<br><br>New end-user device standards introduced; innovative password-less access provided, including facial recognition enabled devices; and two mobile applications developed for ease of approval. | 2017<br><br>2018 |
| Institutional e-Procurement | A new online system established for institutional procurement of goods and services. This has significantly improved procurement turnaround times, streamlined the approval processes, and enhanced governance, compliance, and transparency. Modules for requisition, purchase approval, sourcing, purchase order generation, receiving of goods and services, and inventory completed.<br><br>Remaining modules for invoicing and supplier information management, accruals and budget integration will be completed.<br><br>Roll out to the field offices. | 2017<br><br>2018<br><br>2019 |
| Human Resources Systems | MyCareer online talent management platform enables staff and managers to manage their career and will allow the organization to search for talent required for specific projects.<br><br>The HR4U portal empowers staff with a search tool for human-resources-related topics and serves as a single system to address human-resources-related inquiries and concerns. The initial release covers benefits, insurance, and others. | 2017 – 2018<br><br>2018 |

| Projects | Key Outcomes | Completion or Expected Completion Date |
|---|---|---|
| Cloud Foundation Services | Secure integration across ADB systems in the cloud. It has generated better connectivity for headquarters and the field offices, in some by as much as 300% increase in internet capacity. | 2018 |
| Disbursement System Modernization | Technical Assistance Claims Partner Portal rolled out. This has shortened the turnaround time of claims processing by up to 50% and provides users anytime, anywhere access to monitor their claims.<br><br>ADB's legacy core disbursement systems replaced by a modern, flexible, and user-friendly platform. | 2018<br><br>2019 |
| Treasury System Improvements | Post-trade processing and pricing of treasury structured products implemented to address current system limitations on booking, post-trade processing, and valuation. These will increase the range of ADB treasury product offerings, lower cost of funding, and improve efficiency of treasury operations through process automation. | 2018 (post-trade processing)<br><br>2019 (pricing) |
| IT Security | Improved IT security and management of cybersecurity risks through the following:<br>(i) Adaptive security awareness program by using a flexible online tool for IT security learning courses launched ADB-wide, increasing staff awareness rate from 41% to 93%.<br>(ii) Appropriate user access across ADB systems.<br>(iii) Adoption of an automated detection tool has improved the IT security incident detection rates while decreasing the time to detect an incident from an average of 6 hours to 1 hour, resulting in significant staff time savings.<br><br>The delivery of the remaining components including identity management and security testing for Real-Time ADB projects. | 2018<br><br>2019 |
| Partner Fund Management System Phase 1 | A new platform created to manage ADB's partner funds. This will enhance strategic management of partner funds, strengthen internal control and reduce risks, and improve transparency and efficiency.<br><br>Phase 1 (under the Real-Time ADB IT reforms) covers the automation of fund accounting and reporting that is currently performed manually. | 2019 |
| Content and Collaboration | Rolling out SharePoint as ADB's content and collaboration platform<br><br>Using SharePoint, actions under this initiative include:<br>(i) improved knowledge sharing and collaboration through pilots on country and donor briefing notes, tacit knowledge harvesting, and community building; | 2019 |

| Projects | Key Outcomes | Completion or Expected Completion Date |
|---|---|---|
| | (ii) a pilot that demonstrates discoverability of technical assistance reports and terms of reference;<br>(iii) improved information access; and<br>(iv) rationalized content from shared drives and eSTAR in SharePoint. | |
| IT Service Management | Improved user experience in headquarters and in field offices through the following initiatives:<br>(i) All channels and points of contact unified to create a true single-point-of-contact for users and service desk teams are brought into one place;<br>(ii) Standards and best practices adopted for IT service management to improve its current service processes;<br>(iii) Modern service desk tool adopted to provide better functionalities and multiple benefit; and<br>(iv) Innovation pilots implemented, including transforming one or two copy centers into an IT service hub, exploring the feasibility of having a conversational application (chatbot), identifying use cases, and determining how these can help reduce the volume of first level support services. | 2019 |
| Enhanced Disaster Recovery Infrastructure | Enhanced disaster recovery infrastructure will (i) add capacity to the disaster recovery site and include the recovery coverage of other key systems not currently hosted in Geneva, (ii) enable the return to Manila processing after a Geneva activation, and (iii) add capability for the Office of Information and Systems Technology to test those systems without impacting normal operations. | 2019 |
| Nonsovereign Operations | An integrated system introduced to support the full range of nonsovereign operations from front-end to deal origination to back office processes. | 2020 |

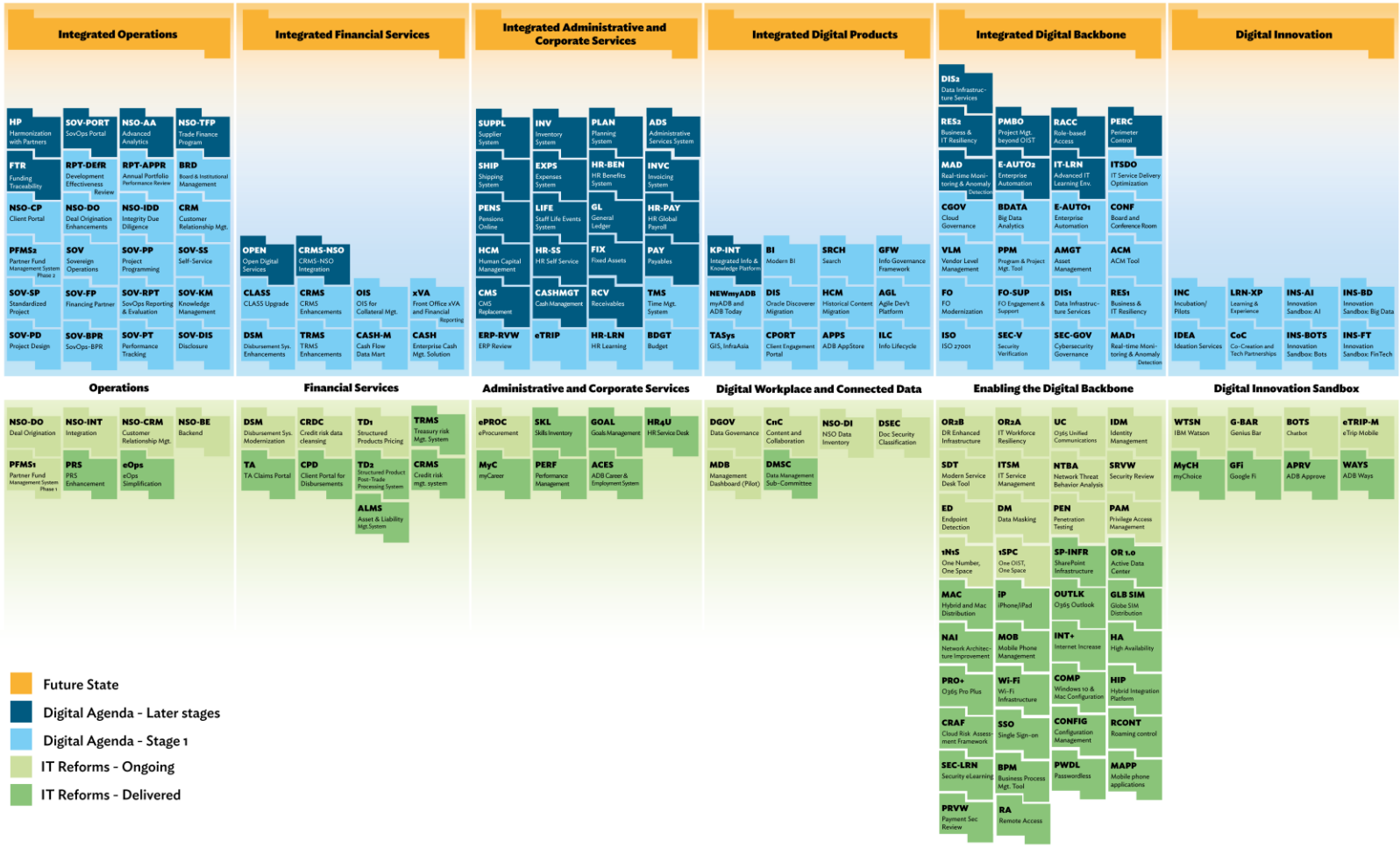
Source: Asian Development Bank.

## PLATFORMS AND APPLICATIONS EXPECTED TO BE REPLACED BY THE DIGITAL AGENDA 2030

[This information has been removed as it falls within exceptions to disclosure specified in paragraph 97 (i) of ADB's Public Communications Policy (2011).]

## DIGITAL AGENDA 2030 ROAD MAP

The road map depicts the identified priorities of Stage 1 and indicative priorities of later stages of the Digital Agenda, toward achieving the visions of the six programs. It recognizes the achievements made under the Real-Time ADB IT reforms, funded by Information Systems and Technology Strategy III, as the foundation to promote ADB's digital transformation. Each building block in the road map represents an output under each program and is color-coded to indicate its status and funding source. The road map shows the breadth and scale of the Digital Agenda and the conceptual framework underpinning the design and implementation of Stage 1 and later stages.




Source: Asian Development Bank

## DIGITAL AGENDA STAGE 1 PROJECTS (2019–2023): OBJECTIVES AND OUTPUTS

[This information has been removed as it falls within exceptions to disclosure specified in paragraph 97 (i and viii) of ADB's Public Communications Policy (2011).]

**DIGITAL AGENDA STAGE 1:**
**INDICATIVE CAPITAL INVESTMENT**
($'000)

[This information has been removed as it falls within exceptions to disclosure specified in paragraph 97 (i and viii) of ADB's Public Communications Policy (2011).]

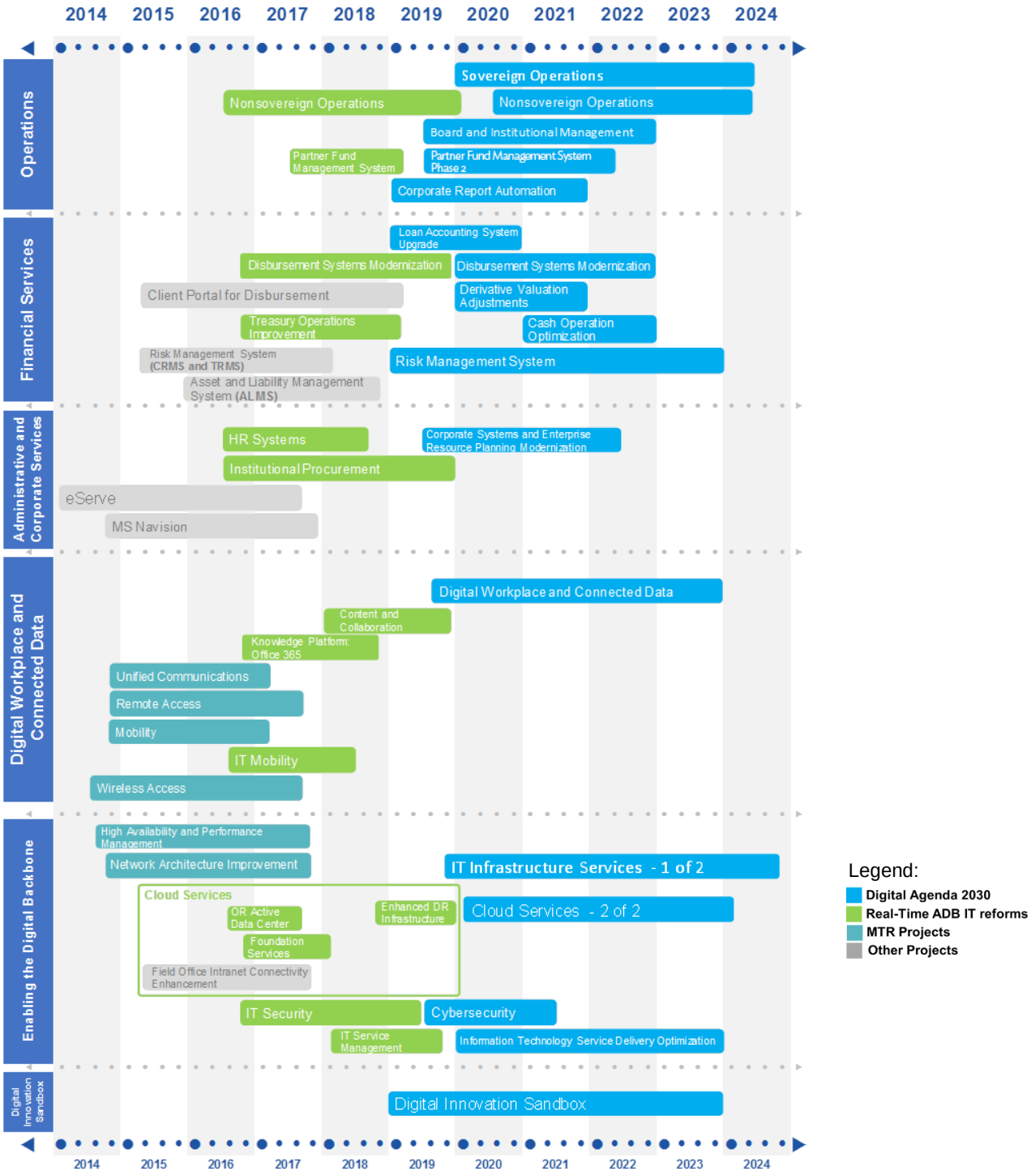
**DIGITAL AGENDA STAGE 1:**
**INDICATIVE ANNUAL COST OF MAINTENANCE AND SUPPORT SERVICES**
($'000)

[This information has been removed as it falls within exceptions to disclosure specified in paragraph 97 (i and viii) of ADB's Public Communications Policy (2011).]

**DIGITAL AGENDA STAGE 1:**
**INDICATIVE TOTAL INFORMATION AND TECHNOLOGY ADMINISTRATIVE EXPENSES, EXCLUDING DEPRECIATION**
($ million)

[This information has been removed as it falls within exceptions to disclosure specified in paragraph 97 (i and viii) of ADB's Public Communications Policy (2011).]

## DIGITAL AGENDA STAGE 1: INDICATIVE PROJECT TIMELINE




O365 = Microsoft Office 365. CRMS = Credit Risk Management System. TRMS = Treasury Risk Management System. ALMS = Asset and Liability Management System. HR = Human Resources. DR = Disaster Recovery. OR = Organizational Resilience. IT = information and technology. MS = Microsoft. MTR = Strategy 2020 Midterm Review.

Source: Asian Development Bank.

**DIGITAL AGENDA STAGE 1:**
**INDICATIVE DEPRECIATION SCHEDULE**
($'000)

[This information has been removed as it falls within exceptions to disclosure specified in paragraph 97 (i and viii) of ADB's Public Communications Policy (2011).]

**DIGITAL AGENDA STAGE 1:**
**INDICATIVE IMPACT ON INFORMATION AND TECHNOLOGY BUDGET**
($ million)

[This information has been removed as it falls within exceptions to disclosure specified in paragraph 97 (i and viii) of ADB's Public Communications Policy (2011).]

**DIGITAL AGENDA STAGE 1:**
**INDICATIVE BENEFITS AND EFFICIENCY GAINS**

[This information has been removed as it falls within exceptions to disclosure specified in paragraph 97 (i and viii) of ADB's Public Communications Policy (2011).]