

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

BARBADOS

**MODIFICATION OF THE PUBLIC SECTOR MODERNIZATION PROGRAMME
(LOAN 4920/OC-BA) AND
SUPPLEMENTARY NONREIMBURSABLE INVESTMENT FINANCING "DIGITAL
TRANSFORMATION OF THE QUEEN ELIZABETH HOSPITAL"
(BA-G1006)**

MODIFICATION PROPOSAL TO LOAN CONTRACT 4920/OC-BA

This document was prepared by the project team consisting of: Javier Reyes (IFD/ICS), Project Team Leader; Luis Tejerina (SCL/SPH), Alternate Project Team Leader; Sebastian Bauhoff (SCL/SPH); Naveen Jainauth-Umrao (VPC/FMP), Johanna Peláez (VPC/FMP), Sara Vila (LEG/SGO), Janette Archer-Headley (CCB/CBA), Michelle Manzur, and Mariana Catano (IFD/ICS).

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ABBREVIATIONS	
DPB	Direct Payment to Borrower or Reimbursements
DPS	Direct Payment to Supplier
EHR	Electronic Health Record
ESPF	Environmental And Social Policy Framework
EU	European Union
EU-CIF	European Union Caribbean Investment Facility
M&E	Monitoring and Evaluation Plan
MDA	Ministries Department and Agencies
MHW	Ministry of Health and Wellness
MIST	Ministry of Industry, Innovation, Science and Technology
MOU	Memorandum of Understanding
IDB	Inter-American Development Bank
PEU	Programme Executing Unit
POM	Programme Operational Manual
PSG	Project Specific Grant
PSMP	Public Sector Modernization Programme
QEH	Queen Elizabeth Hospital

PROJECT SUMMARY
BARBADOS
MODIFICATION OF THE PUBLIC SECTOR MODERNIZATION PROGRAMME (LOAN 4920/OC-BA) AND
SUPPLEMENTARY NONREIMBURSABLE INVESTMENT FINANCING "DIGITAL TRANSFORMATION OF THE
QUEEN ELIZABETH HOSPITAL "
(BA-G1006)

Financial Terms and Conditions			
Beneficiary		Barbados	
Executing Agency		Ministry of Industry, Innovation, Science, and Technology (MIST)	
		Project Specific Grant (PSG)	Public Sector Modernization Programme
Disbursement Period:		30 months	4 years
Approval Currency:		Euro	U.S. Dollar
Source:		European Union Caribbean Investment Facility (EU-CIF)	IDB
Amount:	Euros (€)	4,381,650 ^(a)	0.00
	U.S. Dollars		40,000,000
Total Modified:	U.S. Dollars	4,337,833 ^(b)	44,337,833
Project at a Glance			
<p>Project Objective/Description: The main objective of the Grant resources would be to finance the digital transformation of the Queen Elizabeth Hospital (QEH) (the "Programme"), that complements the objectives of Bank Loan 4920/OC-BA ("Loan 4920/OC-BA"). Loan 4920/OC-BA's main objective is to improve the effectiveness of the Government of Barbados to enhance the competitiveness of its economy. This will be achieved through: (i) increasing the adoption of the digital channel to access public services by individuals and businesses; and (ii) an enhancement of the efficiency in the civil service and strengthening the skills in the public sector for a digital economy.</p>			
<p>Special Contractual Clauses prior to the First Disbursement: The MIST will provide evidence to the satisfaction of the Bank that it has approved and entered into effect an updated POM to include EU requirements for the implementation of the Grant (¶3.17).</p>			
<p>Exceptions to Bank Policies: None.</p>			
Strategic Alignment			
Challenges^(c):	SI <input checked="" type="checkbox"/>	PI <input checked="" type="checkbox"/>	EI <input type="checkbox"/>
Cross-Cutting Issues^(d):	GE <input checked="" type="checkbox"/> and DI <input checked="" type="checkbox"/>	CC <input checked="" type="checkbox"/> and ES <input checked="" type="checkbox"/>	IC <input checked="" type="checkbox"/>

^(a) Grant resources to be provided by the EU-CIF are subject to availability and approval by the EU. The funds will be administered by the Bank through a Project Specific Grant (PSG) that will be administered by the Bank according to Document SC-114 and under the terms of the 2020 "Framework Agreement between the Bank and the European Commission" (GN-2605-5). As contemplated therein, the commitment from the EU will be established through a separate contribution agreement (Contribution Agreement). EU resources will be available for disbursement once the Contribution Agreement has been signed between the EU and the Bank, and the funds from the EU are received by the Bank. The Bank will charge an administrative fee (up to an amount of €286,636) for administration of the EU resources.

^(b) The exchange rate used on October 24, 2022, was 0.99 Euro to one US Dollar. The EU PSG contribution payments will be made in Euros (€), and immediately converted to US Dollars when received by the Bank's Finance Department. The Finance Department will inform the Project Team of the exchange rate at which each contribution is converted.

^(c) SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

^(d) GE (Gender Equality) and DI (Diversity); CC (Climate Change) and ES (Environmental Sustainability); and IC (Institutional Capacity and Rule of Law).

I. SUMMARY OF THE MODIFICATIONS PROPOSED

- 1.1 This proposal for modification of the operation “Public Sector Modernization Programme” (PSMP) ([4920/OC-BA](#)), approved by the Board of Executive Directors of the Inter-American Development Bank on November 27, 2019 (Resolution DE-120/19), entails the addition of a non-reimbursable investment operation to complement the PSMP for €4,381,650 to be granted by the European Union Caribbean Investment Facility (EU-CIF).¹ The main objective of the grant resources would be to finance the digital transformation of the Queen Elizabeth Hospital (QEH). The present document sets out the progress of the PSMP, justifies the use of the resources and presents the proposed changes regarding the inclusion of a subcomponent and the EU-CIF grant budget increase.

II. MODIFICATION OF PROJECT 4920/OC-BA - BACKGROUND

A. Implementation progress

- 2.1 On February 6, 2020, the Loan Agreement No. 4920/OC-BA was signed between Barbados and the Bank to finance the PSMP for a total amount of US\$40 million from the resources of the Ordinary Capital with a final disbursement date on February 6, 2024. Table 1 summarizes the characteristics of the programme.

Table 1. Programme summary

Objectives
The main objective of this operation is to improve the effectiveness of the Government of Barbados to enhance the competitiveness of its economy. This will be achieved through: (i) increasing the adoption of the digital channel to access public services by individuals and businesses; and (ii) an enhancement of the efficiency in the civil service and strengthening the skills in the public sector for a digital economy.
Components
Component 1. Government digital transformation and service quality improvement (US\$30.5 million). Component 2. Enhancing HR management in the public sector (US\$6 million). Project management and administration, audits and monitoring and evaluation and contingencies (US\$3.5 million).
Main Expected Results
The main results of this project will be: (i) increase in the adoption of the digital channel to access public services by individuals and businesses by increasing the percentage of online applications for services like obtaining a work permit and renewing a driver's license, reaching at least 60% and 70% of online applications for these services; (ii) strengthening of the managerial efficiency and monitoring of investment projects through the use of a digital dashboard to manage investment projects; and (iii) improvement in the efficiency of the civil service by enhancing diversity management, HR information systems, job profiles and investments in training.

- 2.2 The PSMP reached eligibility for its first disbursement on April 20, 2020, which took place on May 27, 2020. Currently, the Bank has disbursed 31% of the total amount of the loan and all the activities of the programme have been initiated. First disbursement was processed within six months of the approval of the loan. It can be highlighted that the programme is a high procurement-intensive project and that a strong leadership from the

¹ The EU-CIF is a European Union regional financing blending facility aimed at mobilizing resources for development projects by combining grants from the European Development Fund with other resources, such as loans, to leverage additional financing and achieve investments in infrastructure.

executing agency the Ministry of Industry, Innovation, Science and Technology (MIST) is required to coordinate the different activities in its components. The implementation of the PSMP has been satisfactory, most of the contracts have been or are about to be awarded and it is expected that the extra workload for the implementation of this grant can be undertaken by the MIST.

- 2.3 **Challenges to be addressed with this intervention.** The QEH is Barbados' principal acute care medical facility. It is an accredited teaching hospital allied with the University of the West Indies, Cave Hill. It opened in 1964 to meet the medical, surgical, clinical, and treatment needs of the Caribbean and to act as a teaching hospital for those entering the medical profession. Its mission is to be the premier regional institution providing excellent, patient-centered, secondary, and tertiary health care services and health professional teaching in Barbados, the Eastern Caribbean, and beyond.
- 2.4 The Hospital currently has 519 beds, 2,400 staff, and roughly 35 departments delivering a range of patient services. The Accident and Emergency Department, for example, delivers emergency care to about 45,000 patients per year, supported by the Emergency Ambulance Service, which provides prehospital emergency care and transport 24 hours a day, seven days a week, 365 days a year. The Radiology and Medical Imaging Department receives an average of 50,000 requests and referrals per year for services including, CT scans, x-rays, and ultrasounds. The Pharmacy fills around 360,000 prescriptions annually and is open on weekdays and weekends.
- 2.5 Presently the QEH faces many efficiency and quality challenges. Monthly there are 50 clinical procedures that result in adverse outcomes, the median door-to-doctor time for accidents and emergencies is 6:15 hours² and, 23% of surgeries are canceled on the day of surgery.³ A diagnostic for the QEH was undertaken, using the Health Information System Stages of Continuous Improvement developed by Measure Evaluation ([EL#6. Report and Visualization on IT Functionality](#)). The main results from the exercise were that there are limited governance standards, data quality, and interoperability protocols, no integrated health information system, and a low level of human resources capacity building. The hospital has ancillary systems that do not comply with standard communication protocols such as LOINC and HL7.⁴
- 2.6 Digital transformation of a health institution will improve the quality of clinical services by providing safe, effective, timely, and integrated patient-centered care (IOM 2001; WHO 2018). These improvements can be achieved in several ways, including: reduced adverse events and complications (e.g., automated checks for potential drug interactions); improved adherence to evidence-based standards (e.g., via decision support, clinical protocols, and surgical safety checklists); reduced wait times (e.g., a shorter turnaround for lab results and improved scheduling); fewer cancellations (e.g., due to incomplete records); and enhanced patient experience (e.g., through faster care and discharge, and better-informed caregivers).⁵

² This is partly because triage is manual, and lab results are not integrated into an information system.

³ Due to the lack of a scheduler of surgeries, among other things.

⁴ Ancillary applications that conform to HL7 standards, including Vision (Meal Ordering/Planning), ZerrodPACS/RIS Solution, and SchuyLab-Laboratory Information System.

⁵ On average, it took practice staff (GP) a total of 8.5 minutes to process a paper referral and 6.3 minutes to process an electronic referral (Cannaby et al 2004. The cost benefit of electronic patient referrals in Denmark - full report).

- 2.7 In the specific context of the QEH, digital tools can facilitate improvements in efficiency and quality in several ways. First, they can enable the measurement of resource use, identifying areas of concern and tracking progress, e.g., by routinely measuring and reporting (Adler-Milstein et al., 2014), e.g., on surgical backlogs across all specialties, or identifying peak times in the Outpatient and Accident and Emergency Departments. Electronic Health Record (EHR) systems can also help reduce same-day cancellations due to missing clinical notes (currently an important reason for cancellations at QEH) and improving scheduling of surgeries. They can also free up staff to interact more and more effectively with patients by improving documentation and care management (Adler-Milstein et al., 2014; Campanella et al., 2016; Moore et al., 2020), and in this way, increase patient satisfaction with communication and overall. By making available clinical notes and providing decision support, EHR systems can also reduce the risk of errors (e.g., in prescribing medications with potential adverse effects; Roumeliotis et al., 2019) and improve adherence to clinical protocols and safety checklists (Bailey et al., 2013). Similarly, electronic scheduling systems can facilitate reductions in wait times for elective surgeries and outpatient care by better matching capacities to demand, as well as allowing patients to make appointments online or by phone, thus skipping waiting lines to make appointments.
- 2.8 **Request from the Government of Barbados.** The Government of Barbados has requested the Bank to increase, with grant resources of the European Union (EU) in the amount of €4.5 million, the PSMP (Loan 4920/OC-BA) to support the digital transformation of the QEH. The Government of Barbados recognizes that the MIST plays a pivotal role in this regard, both as executing agency for the PSMP and as the lead entity for the overall design and delivery of digital public services.
- 2.9 The Scope of the EU contribution falls under the objectives sought by the MIST with the PSMP. It has initiated several transformational projects designed to transition Barbados into an innovative digital economy. Among these are the digitization of Government records in a phased manner, including the digitization of public health records within the QEH, the design and deployment of an x-road-style national e-services platform, and a national digital ID and mobile ID to facilitate the effective consumption of digital public services by citizens and residents. The original design of the PSMP did not cater for wide sectoral interventions. However, the Government of Barbados has recognized that accelerating the modernization of its health sector is critical, especially given the impact of the COVID-19 pandemic on this sector, which was already experiencing tremendous challenges.
- 2.10 **Approval of the EU Grant.** On October 11, 2022, the Delegation of the European Union EU to Barbados informed the IDB that the Blending Framework Board approved a CIF for an amount of €4,381,650 to support the digital transformation of the QEH, within the PSMP. The funds will be administered by the Bank through a Project Specific Grant (PSG) according to Document SC-114 and under the terms of the 2020 “Framework Agreement between the Bank and the European Commission” (GN-2605-5). As contemplated therein, the commitment from the EU will be established through a separate Contribution

On average, it took hospital staff a total of 28 minutes to process a paper referral and 19 minutes to process an electronic referral (Cannaby et al 2004. The cost benefit of electronic patient referrals in Denmark - full report). According to Edwards (2006), 20-30% of administrative expenditure in health system was spent on paper-based management of which inefficiencies resulted in errors, duplication, wasted time and poor service (Edwards 2006. Case study: Denmark's achievements with healthcare information exchange).

Agreement. EU resources will be available for disbursement once the Contribution Agreement has been signed between the EU and the Bank, and the funds from the EU are received by the Bank. The Bank will charge an administrative fee in line with the EU remuneration calculation (see section C below) for the administration of the EU resources. The PSG implementation period is for 24 months.

- 2.11 The additionality of EU funding will have the following impact in the PSMP: (i) increased efficiency in the delivery of digital health services; (ii) better utilization of resources (human, time) and (iii) increased levels and quality of inter-departmental collaboration. Specifically, for the QEH the additional resources will contribute towards improved patient care and increased staff satisfaction.

III. PROPOSED CHANGES AND THEIR IMPACT

A. Objectives and components

- 3.1 There are no changes to the original operation, except for the addition of Subcomponent 1.6. It reads: This subcomponent will finance the following activities: (i) deploying technology solutions to improve patient care and staff experiences through the purchase of critical hardware: including, but not limited to, servers, personal computers, printers, and networking equipment as well as the purchase of a Health Information System (HIS); (ii) building the QEH's overall operational and human capacity to meet the growing demands of digital transformation; and (iii) developing a robust change management strategy to support the effective transition to digital delivery of core services and realization of a paperless QEH through, but not limited to, the hiring of consulting services in change management.
- 3.2 The inclusion of Subcomponent 1.6 is aligned with the objective of Component I of the PSMP, specifically with the goal to perform process-reengineering and digitize at least ten services. Implementing digital solutions within the QEH will increase the accessibility and efficiency of the service, not only by streamlining internal procedures but also by the implementation of a HIS, which will include a client portal. The outcome indicator related to this subcomponent is the 1.4 in the results matrix. The specific output for this new subcomponent is the hospital information system installed in the QEH, and it is identified as 1.9 in the results matrix.
- 3.3 **Beneficiaries.** The main beneficiaries of the original programme were the citizens of Barbados, particularly those who face high costs associated with accessing public services, individuals doing transactions in the country, the private sector, as well as civil servants who could benefit from activities such as training and fair access to employment and/or advancement opportunities. The direct beneficiaries of the digital transformation are the 45,000 patients of the QEH that receive health care in the hospital during a year.

B. Expected results and effectiveness framework

- 3.4 **Outcome indicators.** Although the vertical logic, as well as the strategic alignment of the original operation, remain unchanged, a specific outcome indicator for Subcomponent 1.6 has been included in the results matrix:

Table 2. New outcome indicator

Indicator	Unit of Measure	Baseline Value	Baseline Year	End of Project	Means of Verification	Comments
Percentage of patients who have an electronic medical record since the implementation of the HIS	Percentage	0%	2022	100%	Reports from the EHR System	The % of patients that went to the hospital in each year who have an electronic medical record. It does not necessarily include historical information.

3.5 **Monitoring and Evaluation Plan (M&E).** The structure and layout of the M&E Plan have not experienced relevant changes. Nevertheless, in response to the additional resources from the EU, various follow-up indicators have been added to the plan to facilitate monitoring the new subcomponent's implementation. Furthermore, an extended evaluation is now included, which will monitor the implementation of digital tools in the QEH and their impact in specific operational service standards such as: (i) day of surgery cancellation rate (same day) and (ii) % of patients in outpatient departments with unavailable notes.

3.6 **Economic analysis.** No changes to the logic behind and assumptions of the original Economic Analysis have been made. However, the document has been updated with the costs and benefits associated with Subcomponent 1.6. From the perspective of the Institution, and according to a conservative baseline scenario ⁶, the net present value of the economic benefits will almost double project costs. The present value of the expected net benefit for the time horizon (BD\$41.8 million) will result from economic benefits (BD\$87 million) that will be 1.93 times the present value of the needed investment/costs throughout the assessed 15-year period (BD\$45.2 million). This means that for every dollar invested in the project, almost US\$2 can be expected to be recovered. Benefits will offset costs from the third year after implementation ([EL#5. Economic Analysis](#)).

C. Financing and cost

3.7 This modification proposal increases the total amount of financing. The total cost of the programme will be US\$44.34 million which will include the grant resources of EU-CIF blend facility, that will be administered by the Bank. The IDB's administrative fee reaches an amount of €286,636, which is included in the EU-CIF contribution. ⁷ The disbursement period will be 30 months which enclose the implementation period plus 6 months for the reporting.

⁶ Benefits of the baseline scenario are also conservative as for comparable metrics, we are imputing lower benefit size than the equivalent target in strategic documents of the QEH: (i) baseline scenario of 2.7% reduction in pharmacy expenditure vs. KPI of 13.5% decrease in the number of prescriptions in the 2020-2023 budget programming; (ii) baseline scenario of 3% avoidable laboratory tests vs. KPI of 21% decrease in the number of laboratory tests in the 2020-2023 budget programming; and (iii) 50% incremental revenue from billed services to insured patients vs. the implicit incremental revenue associated to the projection for 2024/2025 in the 2022-2023 QEH Commitment for Results.

⁷ The IDB remuneration is calculated as follows: for TA activities ("TA support for EA"): €10,500 and IGR activities: 7% of €3,944,800, i.e., €276,136, thus totaling €286,636.

Table 3. Original and modified costs (in million US\$)
(Costs by subcomponent are indicative)

Components	IDB	EU-CIF €	EU-CIF*	Total
Component 1. Government Digital Transformation and Service Quality Improvement	30.5	3.845	3.8	34.3
Subcomponent 1.1 Design and implementation of an updated national digital strategy	3.3	0.00	0.00	3.3
Subcomponent 1.2 Implementation of online services for businesses and individuals	15.3	0.00	0.00	15.3
Subcomponent 1.3 Core digital infrastructure for online service provision	3.7	0.00	0.00	3.7
Subcomponent 1.4 Implementation of a Digital Document and Records Management System	5.5	0.00	0.00	5.5
Subcomponent 1.5 Strengthening of the managerial efficiency and monitoring of investment projects	2.7	0.00	0.00	2.7
Subcomponent 1.6 Improve efficiency and quality of the service provided by the QEH	0.00	3.845	3.806	3.8
Component 2. Enhancing HR Management in the Public Sector	6.0	0.00	0.00	6.0
Subcomponent 2.1 Workforce planning	0.5	0.00	0.00	0.5
Subcomponent 2.2 Skills for a high performing public service	1.7	0.00	0.00	1.7
Subcomponent 2.3 Strengthening HR management information systems	3.3	0.00	0.00	3.3
Subcomponent 2.4 Change management and communication	0.5	0.00	0.00	0.5
Project Management and Administration	2.0	0.00	0.00	2.0
TA Support for Executing Agency	0.00	0.150	0.146	0.2
Audits and Monitoring and Evaluation	0.5	0.00	0.00	0.5
Continuous Assessment and Final Evaluation	0.00	0.100	0.099	0.1
Contingencies	1.0	0.00	0.00	1.0
IDB administrative fees	0.00	0.286	0.283	0.3
Total	40.0	4.381	4.34	44.34

*By 10/24/2022 (€1=US\$0.99)

D. Implementation

- 3.8 **Executing mechanism.** The original arrangements for the execution of the PSMP will continue to be in place. The current Programme Operational Manual (POM) caters to the implementation of activities in other Ministries Department and Agencies (MDAs), and the use of an interinstitutional Memorandum of Understanding (MOU) is already a good practice in the current implementation of the project. The QEH will have an on-the-ground team responsible for the day-to-day execution of the project. On the other hand, the Programme Executing Unit (PEU) in the MIST will be strengthened with an additional project coordinator and a procurement officer dedicated to the processes of the QEH. The Programme will have three project coordinators, one assigned to Component 1, another assigned to Component 2 and the third assigned to the QEH processes. Each project coordinator will report to the PEU's project manager.
- 3.9 The MOU between the MIST and QEH will recognize the role of the Ministry of Health and Wellness (MHW) as the sectoral policy maker. The MHW will provide with the technical sectoral standards that guarantee that digital solutions coordinate with the rest of the health sector and will oversee the implementation of the programme only through its representation in the QEH board. An increased capacity to coordinate the subcomponent is necessary.

- 3.10 **Procurement with EU resources.** In accordance with the EU-IDB Framework Agreement (GN-2605-5), the following will apply: (i) all procurement processes financed partially or wholly with resources from the EU-CIF will be open to suppliers, consultants, contractors, and service providers from IDB member countries and also from countries recognized by the EU as eligible (countries included in the list published by the EU as an annex to the [“Practical Guide to Contract. Procedures for EU External Actions”](#)); and (ii) no economic resources shall be made available to, or for the benefit of, third parties -whether entities, individuals or groups of individuals-designated by the EU as subject to restrictive measures and identified in the sanctions list available at www.sanctionsmap.eu.
- 3.11 Should the EU determine that the resources of their contribution have been unduly paid or are incorrectly used by the Beneficiary, the Executing Unit, or their contractors, the EU may recover such funds from the Bank, and the Bank may, in turn, recover them from the Beneficiary.
- 3.12 **Other EU requirements.** The Beneficiary will execute communication and visibility activities defined for each project component, thereby providing credit to the fact that the Project has received funding from the EU. Also, the executing entity shall keep records of all transfers of ownership of assets, which are to be detailed in the corresponding EU form to be attached to the final report. This form must include all the assets purchased with EU resources above €5.000.
- 3.13 The Bank will provide an advance of funds according to the programme liquidity needs, that is substantiated by its current and anticipated commitments for a period of not less than 90 days and no more than 180 days. The PEU will control the utilization of the advance of funds and limit expenditure to planned and eligible activities and will maintain records of financial transactions in accordance with the Bank's fiduciary policies. The availability of EU resources by the Bank is linked to reporting and EU installment payment requirements as defined in the EU-IDB Contribution Agreement. The PEU shall retain relevant documentation during project implementation for a period of at least five years from the last disbursement date. Apart from Advance of Funds, financing can be provided by the Bank using the following disbursement methods: Direct Payment to Supplier (DPS) and Direct Payment to Borrower or Reimbursements (DPB).
- 3.14 The Beneficiary will comply with all additional EU requirements as stipulated in the Supplementary Agreement of the non-reimbursable financing agreement between the Government of Barbados and the Bank.

E. Risks

- 3.15 A risk assessment was performed with relevant stakeholders to identify risks associated with the execution of the Grant resources and to establish the most efficient way to structure the new additions to the Project Execution Unit. The assessment identified the following main risks relating to the project execution and governance and their mitigation measures: (i) continued delays in the supply chain due to COVID-19 could result in delays of the acquisition of the QEH equipment (medium-high). Mitigation measure: procurement processes shall start as early as possible given the lengthy procurement processes within the country; and (ii) fluctuations in the foreign exchange rate of the Euro was a concern for the participants (high) given that conversion to the US\$ had already decreased the total value of the Grant. Mitigation measure: adequate budgeting would be required since, in some cases, bids have come in way over the budgeted procurement amount.

- 3.16 Based on Bank's Environmental and Social Policy Framework (ESPF) (GN-2965-23), the operation is classified as Category "C", as it is expected to generate minimal to no negative environmental and/or social impacts, since this operation will not finance any infrastructure components or civil works.
- 3.17 **Special contractual clauses prior to the first disbursement.** The MIST will provide evidence to the satisfaction of the Bank that it has approved and entered into effect an updated POM to include EU requirements for the implementation of the Grant. The condition is justified so that the procurement and financial arrangements are enforced for the execution of the PSG.

IV. RECOMMENDATION

- 4.1 Based on the information and analysis provided in this document, Bank Management recommends that the Board of Executive Directors, based on the provisions of paragraph 3.29(c) of document DR-398-19 (Regulations of the Board of Executive Directors of the Inter-American Development Bank) and paragraph 6 of document CS-3953-4 (List of Matters that Can be Considered by the Board via Short Procedure), approve by short procedure the modifications described in this document, and that it approve the draft resolution attached to this document with a view to amending loan contract 4920/OC-BA "Public Sector Modernization Programme" (PSMP), according to the terms and conditions established in this document.
- 4.2 The team also recommends that the Board authorizes the President of the Bank or such representative as he shall designate, in the name and on behalf of the Bank: (i) to take the necessary actions for the Bank to administer the supplementary financing of up to €4.381.650 provided by the EU, which includes the Bank's administrative costs, as established in this document; (ii) to enter into such agreement or agreements as may be necessary with Barbados, as Beneficiary, for the purpose of granting it the supplementary financing chargeable against the EU contribution, with a view to executing the activities envisaged in this document; and (iii) to take such additional steps as may be necessary for the execution of the programme chargeable to the resources of the supplementary financing under item (i) of this paragraph 4.2.
- 4.3 The corresponding modifications will be reflected, as applicable, in an amendment to loan contract 4920/OC-BA.

Development Effectiveness Matrix		
Summary		BA-L1046
I. Corporate and Country Priorities		
1. IDB Development Objectives		Yes
Development Challenges & Cross-cutting Themes	-Social Inclusion and Equality -Productivity and Innovation -Gender Equality and Diversity -Climate Change and Environmental Sustainability -Institutional Capacity and the Rule of Law	
Country Development Results Indicators	-Government agencies benefited by projects that strengthen technological and managerial tools to improve public service delivery (#)* -Public registries strengthened (#)*	
2. Country Development Objectives		Yes
Country Strategy Results Matrix	GN-2953-1	(i) strengthening the institutional framework by supporting public sector management and public financial management system; and (ii) promoting a greater digitization of government
Country Program Results Matrix	GN-2948-2	The intervention is included in the 2019 Operational Program.
Relevance of this project to country development challenges (If not aligned to country strategy or country program)		
II. Development Outcomes - Evaluability		Evaluable
3. Evidence-based Assessment & Solution		8.0
3.1 Program Diagnosis		3.0
3.2 Proposed Interventions or Solutions		2.3
3.3 Results Matrix Quality		2.7
4. Ex ante Economic Analysis		9.0
4.1 Program has an ERR/NPV, or key outcomes identified for CEA		3.0
4.2 Identified and Quantified Benefits and Costs		3.0
4.3 Reasonable Assumptions		0.0
4.4 Sensitivity Analysis		2.0
4.5 Consistency with results matrix		1.0
5. Monitoring and Evaluation		7.5
5.1 Monitoring Mechanisms		2.5
5.2 Evaluation Plan		5.0
III. Risks & Mitigation Monitoring Matrix		
Overall risks rate = magnitude of risks*likelihood		Medium
Identified risks have been rated for magnitude and likelihood		Yes
Mitigation measures have been identified for major risks		Yes
Mitigation measures have indicators for tracking their implementation		Yes
Environmental & social risk classification		C
IV. IDB's Role - Additivity		
The project relies on the use of country systems		
Fiduciary (VPC/FMP Criteria)	Yes	Financial Management: Budget, Treasury.
Non-Fiduciary		
The IDB's involvement promotes additional improvements of the intended beneficiaries and/or public sector entity in the following dimensions:		
Additional (to project preparation) technical assistance was provided to the public sector entity prior to approval to increase the likelihood of success of the project		

Note: (*) Indicates contribution to the corresponding CRF's Country Development Results Indicator.

Evaluability Assessment Note: Proposal for the Modification of the Public Sector Modernization Program (BA-L1046)

The overall development objective of the modified project remains as increasing the efficacy of the Government of Barbados in improving the competitiveness of the country's economy.

To achieve this end, this loan maintains its focus on two specific areas in which the project intervenes. The first seeks to increase the use of the digital channel by individuals and companies to access public services. The second area focuses on a greater efficiency in public administration, as well as strengthening the public sector's capabilities to operate in a digital economy.

The project maintains the description of the efficacy gaps found in the original project, with the inclusion of additional gaps in the area of digital health services in terms of efficiency and quality in relation to the additional financing of donated resources destined for the digital transformation of Queen Elizabeth Hospital.

The economic analysis does not present updates to the logic and/or the assumptions, maintaining the dimensioning in the benefits generated by the digitalization of services, both for firms and for citizens, particularly for health services provided at Queen Elisabeth Hospital (QEH), and the reduction of delays in driver's licenses paperwork, among others. The project has updated its costs and benefits to incorporate funds from subcomponent 1.6. The analysis concludes with a Net Present Value of US\$41.8 million dollars and with an Internal Rate of Return of 30% (thirty percent).

The monitoring and evaluation plan includes two impact evaluations. One is an experiment aimed to identify the effectiveness in the adoption of digital services by citizens with a focus on the driver's license processes, and the other is a quasi-experimental evaluation (difference in differences) to measure the efficiency generated due to the transformation of health services provided at the QEH. The project does not specify which methodology will be used for the rest of the result indicators, but the assumption is that the before and after method will be used.

The project maintains a low level of risks and no mitigation measures were specified.

RESULTS MATRIX

Project Objective:	The main objective of this operation is to improve the effectiveness of the Government of Barbados to enhance the competitiveness of its economy. This will be achieved through: (i) increasing the adoption of the digital channel to access public services by individuals and businesses; and (ii) an enhancement of the efficiency in the civil service and strengthening the skills in the public sector for a digital economy.
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EXPECTED IMPACT

Indicators	Unit of Measure	Baseline Value	Baseline Year	Year 1	Year 2	Year 3	Year 4	End of Project	Means of Verification	Changes in the Original Matrix
Government effectiveness	Score	0.84	2017	0	0	0	0.92	0.92	Worldwide Government Indicators (WGI), World Bank	Unchanged
Competitiveness of the Economy	Score	4.2	2016/2017	0	0	0	4.70	4.70	Global Competitiveness Index, World Economic Forum	Unchanged

EXPECTED OUTCOMES

Indicators	Unit of Measure	Baseline Value	Baseline Year	Year 1	Year 2	Year 3	Year 4	End of Project	Means of Verification	Observations ²	Changes in the Original Matrix
1.1 Online applications for obtaining a work permit ¹	%	0	2018	0	0	0	60	60	Report provided by the Immigration Department		Unchanged
1.2 Online applications for renewing a driver's license ²	%	0	2018	0	0	0	70	70	Report provided by the Licensing Authority Department		Unchanged
1.3 Units in the government using a digital	Number of units	0	2018	0	0	0	5	5	Report provided by the PIU		Unchanged

¹ This data will be gender-disaggregated.

² This information will be gender-disaggregated.

Indicators	Unit of Measure	Baseline Value	Baseline Year	Year 1	Year 2	Year 3	Year 4	End of Project	Means of Verification	Observations ²	Changes in the Original Matrix
dashboard to manage investment projects											
1.4 Percentage of patients who have an electronic medical record since the implementation of the HIS	%	0	2022	0	0	0	100	100	Reports from the EMR System	The % of patients that went to the hospital in each year who have an electronic medical record. It does not necessarily include historical information.	Indicator included 2022 linked to the new Subcomponent 1.6 Digital transformation of the QEH
2.1 Diversity Management	Score	80	2018	0	0	0	90	90	“Building State Capacity in the Caribbean: The State of the Civil Service in Barbados”	This is the total score for the Diversity Management Index. This index provides information on the extent to which workers’ access to employment and/or advancement opportunities in the civil service may be curtailed due to differences	Unchanged

Indicators	Unit of Measure	Baseline Value	Baseline Year	Year 1	Year 2	Year 3	Year 4	End of Project	Means of Verification	Observations ²	Changes in the Original Matrix
										associated with race, ethnicity, language, gender, or disability	
2.2 Human Resource (HR) Information Systems	Score	1 ³	2018	0	0	0	3	3	"Building State Capacity in the Caribbean: The State of the Civil Service in Barbados"	This score makes reference to indicator 2, which is part of the Structural Consistency Index. This indicator measures whether the HR Information Systems (HRIS) enable a reasonable awareness of the quantitative and qualitative resources available, now and in the future, in the different organizational areas and units. For more information, please see	Unchanged

³ The score obtained by Barbados reflects a limited availability of human resource information. Information systems are in very early stages of development.

Indicators	Unit of Measure	Baseline Value	Baseline Year	Year 1	Year 2	Year 3	Year 4	End of Project	Means of Verification	Observations ²	Changes in the Original Matrix
										Underwood, J. (2018), "Building State Capacity in the Caribbean: The State of the Civil Service in Barbados", IDB Technical Note No. 1491, Washington	
2.3 Job Profiles	Score	3 ⁴	2018	0	0	0	4	4	"Building State Capacity in the Caribbean: The State of the Civil Service in Barbados"	This score makes reference to indicator 9 which is part of the Functional Capacity Index. The indicator measures whether job profiles include the selection of competencies that in each case are considered key for the success of the job-holder's performance. For more information, please see	Unchanged

⁴ The score obtained by Barbados reflects that the profiles required to fill the vacancies in most public organizations are defined, but with a strong emphasis on formal qualifications.

Indicators	Unit of Measure	Baseline Value	Baseline Year	Year 1	Year 2	Year 3	Year 4	End of Project	Means of Verification	Observations ²	Changes in the Original Matrix
										Underwood, J. (2018), "Building State Capacity in the Caribbean: The State of the Civil Service in Barbados", IDB Technical Note No. 1491, Washington	
2.4 Investment in Training	Score	0 ⁵	2018	0	0	0	2	2	"Building State Capacity in the Caribbean: The State of the Civil Service in Barbados"	This score makes reference to indicator 26 which is part of the Structural Consistency Index. The indicator measures whether investment in training is made via plans that are based on a needs assessment and designed to support the organization's stated priorities. For more information,	Unchanged

⁵ The indicator obtained by Barbados indicates that there are no systemic assessments of training requirements.

Indicators	Unit of Measure	Baseline Value	Baseline Year	Year 1	Year 2	Year 3	Year 4	End of Project	Means of Verification	Observations ²	Changes in the Original Matrix
										please see Underwood, J. (2018), “Building State Capacity in the Caribbean: The State of the Civil Service in Barbados”, IDB Technical Note No. 1491, Washington	

OUTPUTS

Outputs	Unit of Measure	Baseline Value	Baseline Year	Year 1	Year 2	Year 3	Year 4	End of Project	Means of Verification	Observations ² Changes in the Original Matrix
Component 1. Government Digital Transformation and Service Quality Improvement										
1.1 e-Government Strategies designed	# of strategies	0	2019	1	0	0	0	1	Report sent to the Bank by the PEU	Unchanged
1.2 Cybersecurity Strategies designed	# of strategies	0	2019	1	0	0	0	1	Report sent to the Bank by the PEU	Unchanged
1.3 Services operating in the online platform	# of services	0	2019	2	2	2	4	10	Report sent to the Bank by the PEU	Unchanged
1.4 People trained under the Digital Ambassadors programme	# of persons	0	2019	1,000	1,000	1,000	1,000	4,000	Report sent to the Bank by the PEU	Unchanged
1.5 Number of Digital	# of persons	0	2019	0	150	25	0	175	Report sent to the Bank by the PEU	Unchanged

Outputs	Unit of Measure	Baseline Value	Baseline Year	Year 1	Year 2	Year 3	Year 4	End of Project	Means of Verification	Observations ² Changes in the Original Matrix
Ambassadors Trained										
1.6 Data centers upgraded	# of data centers	0	2019	0	0	0	1	1	Report sent to the Bank by the PEU	This included the installation of equipment and redundancy Unchanged
1.7 Number of Ministries, Departments and Agencies (MDAs) using Records Management System operating	# of systems	0	2019	4	4	8	5	21	Report sent to the Bank by the PEU	Unchanged
1.8 Digital Dashboard for investment projects operating	# of dashboards	0	2019	0	0	1	0	1	Report sent to the Bank by the PEU	Unchanged
1.9 Hospital Information System installed in the QEH	# of systems	0	2022	0	0	0	1	1	Reports from the HIS System	Output included in this modification (2022) for Subcomponent 1.6 Justification: Indicator necessary to measure progress in the Digital transformation of the QEH.
Component 2. Enhancing HR Management in the Public Sector										
2.1 Functional Reviews of Ministries and Agencies completed	# of functional reviews	0	2019	3	3	0	0	6	Report sent to the Bank by the PEU	Unchanged

Outputs	Unit of Measure	Baseline Value	Baseline Year	Year 1	Year 2	Year 3	Year 4	End of Project	Means of Verification	Observations ² Changes in the Original Matrix
2.2 HR transformation strategy completed with a gender and diversity focus	# of strategies	0	2019	0	1	0	0	1	Report sent to the Bank by the PEU	Unchanged
2.3 training plans completed	# of plans	0	2019	0	1	0	0	1	Report sent to the Bank by the PEU	Unchanged
2.4 Competencies Framework for public sector employees completed	# of framework	0	2019	0	0	2	0	2	Report sent to the Bank by the PEU	Unchanged
2.5 Equitable and inclusive recruitment guidelines implemented	# of guidelines	0	2019	0	0	1	0	1	Report sent to the Bank by the PEU	Unchanged
2.6 HR systems implemented	# of systems	0	2019	0	0	0	1	1	Report sent to the Bank by the PEU	Unchanged
2.7 Change Management and Communications Strategy designed	# of strategies	0	2019	1	0	0	0	1	Report sent to the Bank by the PEU	Unchanged

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

PROPOSED RESOLUTION DE-___/23

Barbados. Modification of the Public Sector Modernization Programme (Loan 4920/OC-BA) and Supplementary Nonreimbursable Investment Financing GRT/ER-____-BA “Digital Transformation of the Queen Elizabeth Hospital”

WHEREAS:

The Board of Executive Directors of the Inter-American Development Bank (the “Bank”) approved, pursuant to Resolution DE-120/19, a financing for the amount of up to US\$40,000,000 from the resources of the Bank’s Ordinary Capital to cooperate in the execution of the Public Sector Modernization Programme (the “Project”);

The European Union subsequently approved a supplementary nonreimbursable investment financing for the amount of up to €4,381,650 to also cooperate in the execution of the Project; and

The supplementary nonreimbursable investment financing was not foreseen at the time the Bank approved the original loan financing for the Project referenced above.

The Board of Executive Directors

RESOLVES:

1. To authorize a supplementary nonreimbursable investment financing for the amount of up to €4,381,650 to be granted by the European Union to cooperate in the execution of the Project, in accordance with the provisions set forth in the Modification and Supplementary Financing Proposal (document PR-4746-1), and to amend the Project accordingly.

2. That the President of the Bank, or such representative as he shall designate, is authorized, in the name and on behalf of the Bank: (i) to enter into such agreement or agreements with the European Union as may be necessary to receive and administer resources for the amount of up to €4,381,650, subject to the terms set forth in the Financial Framework Partnership Agreement entered between the European Union and the Bank on 29 September 2020, or any amendment or reinstatement of such framework agreement; (ii) to enter into such agreement or agreements as may be necessary with the Government of Barbados, as beneficiary, to grant it a nonreimbursable investment financing for the amount of up to €4,381,650 to cooperate in the execution of the Project; this nonreimbursable investment financing supplements the financing approved by the Bank pursuant to Resolution DE-120/19; and (iii) to take such additional measures as may be pertinent for the execution of the Project.

3. That the authorization granted in paragraph 2(ii) above will only be effective once the Bank and the European Union have entered into the corresponding agreement or agreements to which reference is made in paragraph 2(i) above.

(Adopted on ____ 2023)

LEG/SGO/CCB/EZSHARE-1621835735-4230
BA-L1046 (Modification) and BA-G1006

DIGITAL TRANSFORMATION OF THE QUEEN ELIZABETH HOSPITAL

BA-G1006

CERTIFICATION

The Grants and Co-Financing Management Unit (ORP/GCM) certifies that the referenced operation will be financed through:

Funding Source	Fund Code	Currency	Amount up to
EU-IDB Financial Framework Partnership Agreement – 2020	ECR	EUR	4,381,650
		(USD eq)	4,337,833

For operations financed by funds where the Inter-American Development Bank (IDB) does not control liquidity, the availability of resources is contingent upon the request and the receipt of the resources from the donors. Additionally, in case of operations financed by funds that require a post-approval agreement with the donor, the availability of resources is contingent upon the signature of the agreement between the Donor and the IDB. (i.e.: Project Specific Grants (PSG), Financial Intermediary Funds (FIF), and single donor trust funds).

Certified by:

Signed Original

January 5, 2023

Maria Fernanda Garcia

Date

Chief

Grants and Co-Financing Management Unit
ORP/GCM