

DOCUMENT OF THE INTER-AMERICAN DEVELOPMENT BANK

**REGIONAL**

**STRENGTHENING PRIVATE SECTOR DEVELOPMENT THROUGH INNOVATION IN  
THE EASTERN CARIBBEAN OECS MEMBER COUNTRIES**

**(RG-L1160)**

**PROJECT PROFILE**

This document was prepared by the project team consisting of: Sylvia Dohnert, Team Leader (IFD/CTI); Claudia Stevenson, Alternate Team Leader (IFD/CTI); Navita Anganu (IFD/CMF); Jennifer Doherty-Bigara (CSD/CCS); Vanderleia Radaelli (IFD/CTI); Edwin Goni (IFD/CTI); Nathalia Amarante Pufal (IFD/CTI); Matteo Grazzi (IFD/CTI), Sandra Lopez (IFD/CTI), Pauline Henriquez (IFD/CTI); Natasha Richardson (IDB-Invest); Ruth Houliston (IDBLab); Nidia Hidalgo (SCL/GDI); Cloe Ortiz de Mendivil (CCB/CBA), Maria Alejandra Galeano (IFD/CTI); Naveen Jainauth-Umraro (VPC/FMP); Johanna Pelaez (FMP/CBA), Javier Jimenez (LEG/SGO), Natalia Almeida (LEG/SGO), and Rochelle Franklin (CCB/CBA).

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## PROJECT PROFILE

### REGIONAL

#### I. BASIC DATA

<b>Project Name:</b>	Strengthening private sector development through innovation in the Eastern Caribbean OECS member countries		
<b>Project Number:</b>	RG-L1160		
<b>Project Team:</b>	Sylvia Dohnert, Team Leader (IFD/CTI); Claudia Stevenson, Alternate Team Leader (IFD/CTI); Navita Anganu (IFD/CMF); Jennifer Doherty-Bigara (CSD/CCS); Vanderleia Radaelli (IFD/CTI); Edwin Goni (IFD/CTI); Nathalia Amarante Pufal (IFD/CTI); Matteo Grazzi (IFD/CTI), Sandra Lopez (IFD/CTI), Pauline Henriquez (IFD/CTI); Natasha Richardson (IDB-Invest); Ruth Houliston (IDBLab); Nidia Hidalgo (SCL/GDI); Cloe Ortiz de Mendivil (CCB/CBA), Maria Alejandra Galeano (IFD/CTI); Naveen Jainauth-Umrao (VPC/FMP); Johanna Pelaez (FMP/CBA), Javier Jimenez (LEG/SGO), Natalia Almeida (LEG/SGO), and Rochelle Franklin (CCB/CBA).		
<b>Borrower:</b>	Caribbean Development Bank (CDB)		
<b>Executing Agency:</b>	Caribbean Development Bank (CDB)		
<b>Financial Plan:</b>	IDB (Ordinary Capital):	US\$	20,000,000.00
	Total:	US\$	20,000,000.00
<b>Safeguards:</b>	Classification:	FI	

#### II. GENERAL JUSTIFICATION AND OBJECTIVES

- 2.1 **Background.** The CDB has created a new Private Sector Division (PSD) to expand its action to strengthen private sector development in the Caribbean and requested support to complement operations [5156/OC-RG](#) which finances micro, small and medium enterprise (MSME) COVID-19 recovery (US\$24 million allocated) and [5414/OC-RG](#) which finances disaster resilience in MSMEs (US\$10 million allocated) with an operation to support innovation and technology adoption. The CDB contributes to the economic growth and sustainable and resilient development of 19 Caribbean countries. The CDB and the IDB have collaborated since 1977 with eight approved operations worth US\$234 million, to support the economic and social development of the Organization of Eastern Caribbean States' (OECS) member countries. The CDB partners with the IDB, the United Kingdom and Canada to support private sector development through the [Compete Caribbean Partnership Facility](#) (CCPF), which includes OECS countries as beneficiaries. A 2020 [agreement between the IDB, IDB-Invest and the CDB](#) reinforces their commitment to collaboration, and allows the IDB to finance, through the CDB, loans and technical assistance projects that support the economic growth and development of the borrowing countries of the CDB that are not members of the IDB.

- 2.2 **Economic growth.** Countries in the Caribbean have grown at 1.9% over the last decade, while other Small Island Developing States (SIDS) have grown at 4% [1].<sup>1</sup> The GDP/Capita of the OECS countries grew at an annual average of 1.45% between 2001 and 2019, and in 2020 their GDP contracted by 13.7% on average, due to COVID-19's impact on tourism. GDP is expected to grow by 8.8%, 6.2% and 4.1% in 2022, 2023 and 2024 respectively dependent on the tourism industry's post-COVID recovery [2]. Although like other Caribbean countries, their small size exposes them to economic shocks, and their location makes them vulnerable to natural disasters, an analysis of the growth gap between Caribbean countries and the other small economies of the world<sup>2</sup> since the 1990s identified lower Total Factor Productivity (TFP)<sup>3</sup> growth as the most important determinant of this growth gap [3]. Globally, TFP accounts for most of the growth differences across countries [4].
- 2.3 **Business Innovation.** One of the main drivers of TFP is private sector business innovation, including the creation or adoption of technology [5]. Considerably less businesses in the Caribbean invest in research and development or in innovation in products and services than those of other small world economies [6]. Businesses in the OECS innovate at even lower rates [7]. This operation defines innovation as a new or improved product or business process (or combination thereof) that differs significantly from previous products or process, and that have been made available to the market or brought into use by the firm, and digital technology adoption as "introducing methods for information processing and communication".<sup>4</sup>
- 2.4 **Although innovation and digital technology adoption are not equivalent, the latter reduces the cost of producing and disseminating knowledge and information – key inputs to innovation** – accelerates innovation cycles, enables entirely new digital products, services and business models or enhances traditional ones, and makes collaborative innovation possible [8]. One of the most prominent effects of COVID-19 has been the accelerated adoption of digital technology by businesses globally [9], and the increased risk of productivity dispersion between businesses and regions that adopt digital technology and the laggards – typically smaller businesses in rural/less-developed regions [10]. For all these reasons, this operation focuses on digital technology adoption as an enabler of innovation, as well as innovation more broadly.
- 2.5 **Recent data suggests better performance of OECS businesses that innovate or digitize,** which sold, on average, 29% more per worker and were 20% more productive than those that did not. Moreover, digitalization had significantly opened businesses' access to new markets and increased their capacity to produce goods and services [11].
- 2.6 **However, businesses in the OECS intending to innovate and/or to adopt digital technology experienced the following barriers ranked by prevalence:**

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<sup>1</sup> [See Bibliographical References for the whole document.](#)

<sup>2</sup> Defined as economies with less than 3 million in population.

<sup>3</sup> TFP is the portion of output not explained by the amount of inputs used in production ([The New Palgrave Dictionary of Economics](#)).

<sup>4</sup> Definitions are based on the Oslo Manual and further expanded in Innovation, Firm Performance, Gender (IFPG) Issues in Gender in the Caribbean (2021)

the level of available financial resources for innovation (63%); the lack of skills in the labor force required for innovation/digital technology adoption (44%), the degree of self-confidence for innovation (35%), and the relationship between cost to innovate and market size (33%). These barriers impact a sizeable number of firms – more than a third of OECS businesses are potentially innovative (37%) and nearly half are potentially digitally innovative (49%) – meaning that they intend to innovate or adopt digital technology but are stopped by these barriers. Nearly three quarters of potentially innovative businesses (73%) are credit-constrained [12].

- 2.7 **Additionally, OECS countries are highly vulnerable to natural disasters, which will increase with climate change, and heavily rely on fossil fuels.** If the Caribbean Community (CARICOM) countries invest optimally in renewable energy generation, they could save US\$5.7 billion between 2020 and 2040, reducing electricity costs, oil imports, and CO<sub>2</sub> emissions. Moreover, access to cloud-based digital technologies can accelerate the speed at which businesses recover from natural disasters, yet Caribbean Micro, Small & Medium Enterprises' (MSMEs) weak technical skills, and the cost and scale of the solutions have hampered their adoption [13]. On the climate mitigation front there is opportunity to expand technical assistance services for businesses to comply with environmental certifications and/or decrease their energy usage.
- 2.8 **The OECS lacks support for innovation and technology adoption.** A diagnostic report of innovation and entrepreneurship services reveals that OECS countries lack institutions or policies dedicated to promoting innovation. Although every country has between 1 and 3 public business support organizations (BSOs), their services focus on building the day-to-day operational capacity of MSMEs, such as management and record-keeping. A few BSOs support new businesses to develop business plans, yet more impactful entrepreneurship support services are limited. There are few mechanisms to bring new ideas to market: though a few tertiary institutions conduct research, they are disconnected from the private sector. Businesses complain about the inexistence of testing facilities and prototyping services for new products, and the high cost of protecting intellectual property. A few countries lack MSME policy frameworks [14]. Limited resources constrain the main BSOs in each island to start or expand new lines of support services [15], with limited qualified personnel and scant finance diminishing their action [16]. Occasionally, there have been donor financed programs to support innovation and technology adoption [17].<sup>5</sup> These appear to have been over-subscribed: only 8% of OECS businesses that have applied have gotten support (compared to 15% in the rest of the Caribbean), nevertheless a fifth of OECS businesses require technology adoption and management programs to ramp up at the end of COVID-19, and less than 40% of OECS businesses reported confidence in choosing the most appropriate technological responses to solve their needs [18].
- 2.9 **The previous paragraphs suggest that the following market failures hamper innovation and technology adoption in the OECS:** 1) very small markets exacerbate the underinvestment in knowledge production due to externalities that is typically observed in other markets; 2) information asymmetries between suppliers and borrowers limit the availability of financial products to support

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<sup>5</sup> For example, the World Bank financed CARCIP program for Grenada, St. Lucia, Dominica and St. Vincent and the Grenadines.

innovation and technology adoption; 3) coordination failures that prevent collective solutions to common problems.

- 2.10 **Gender and innovation.** Women-led businesses in the OECS report less interest in innovating or adopting digital technology than their male counterparts (22% vs. 31%), and half as many OECS women-led businesses use digital payments, inhibiting their growth. Women-led MSMEs also have lower levels of awareness and apply less frequently to technology adoption and management programs [19] and are less productive [20].
- 2.11 **Objective.** The objective is to increase the productivity of OECS micro, small and medium enterprises. The specific objectives are to (i) increase the supply of business development services to support innovation and technology adoption of MSMEs; and (ii) to expand credit financing for MSME innovation and adoption of digital technologies.
- 2.12 **Component 1. Strengthening business development services to support innovation and technology adoption (US \$13 Million).**<sup>6</sup> This component will deliver loans from the CDB to country governments to increase the supply of business services to support MSMEs in becoming more innovative, including adopting digital and/or low carbon resilient technologies. It will finance the following services, to be delivered by BSOs: **1) Innovation in MSMEs:** (i) courses to assist MSMEs to become more innovative, including training MSME managers and employees in advanced digital and innovation (design thinking) skills; (ii) matching grants to support the development of new products or services, including green products and digital products; (iii) large-scale campaigns on the impact of innovation and technology adoption on growth, profitability and climate resilience; **2) Technology adoption in MSMEs:** (iv) training of technology extension service providers, including on Information and Communications Technology and on environmentally sustainable technologies such as small scale renewable energy and resilient applications; (v) vouchers for consultancy services to adopt digital and/or climate technology, including supply chain digitalization and tracing, and green value chain approaches; (vi) digital marketplaces matching businesses to appropriate technology suppliers; **3) Policy frameworks and delivery mechanisms:** (vii) drafting policy frameworks promoting MSME digital, environmental and climate technology adoption and innovation practices; (viii) strengthening BSOs to deploy these programs, including training for financial climate governance (TCFD, ESG+ climate, etc.). Programs will be designed to be gender responsive – meaning that they will meet the specific needs of women entrepreneurs and managers, and there will be specific outreach to increase women-owned and women-led firms' participation in these programs.
- 2.13 **Component 2: Financial products for innovation and digital technology adoption (US\$7 million):** This component will provide financial products, through lines of credit (LOCs) intermediated by public and private financial institutions (FIs), to enhance MSME innovation and adoption of digital technologies. Preliminary research indicates demand for this product. Technologies that contribute to adapt to climate change will be prioritized. These financial products will package working

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<sup>6</sup> Services provided under this component will not finance the purchase of capital goods, licenses or software, which will be financed under Component 2.

capital and equipment financing needs of MSMEs with a proportion reserved for innovation and/or technology adoption.

- 2.14 **Beneficiaries and expected results.** The potential beneficiary countries are Antigua and Barbuda, the Commonwealth of Dominica, Grenada, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines.<sup>7</sup> Direct beneficiaries are MSMEs and BSOs accessing the program. Results will be measured by: (i) increased average sales per worker in beneficiary MSMEs; (ii) number of public support programs for innovation and technology adoption offered through BSOs; (iii) increased rate of innovation and adoption of digital technologies among participant MSMEs.
- 2.15 **Strategic alignment.** The program is aligned with the IDB's Second Update of the Institutional Strategy 2020-2023 (AB-3190-2) through the development challenge of (i) Productivity and Innovation by expanding support to increase both in MSMEs, and the cross-cutting issues of (ii) Institutional Capacity and Rule of Law by strengthening BSOs, and (iii) Gender Equality and Diversity by designing gender-responsive programs (¶2.12). The operation will also contribute to IDB Group Corporate Results Framework 2020-2023 (GN-2727-12) and will align with the IDB Group Climate Change Action Plan 2021-2025 (GN-2848-9) goal of helping countries and clients achieve low-carbon and climate-resilient development. This operation aligns with CDB's 2020-2024 Strategic Plan, which prioritizes digital transformation and climate resilience, and contributes to SDG8: Decent Work and Economic Growth and SDG9: Industry, Innovation, and Infrastructure. Lastly, this operation also promotes IDB's sub-regional initiative of smart and resilient investments for the Caribbean.<sup>8</sup>
- 2.16 **Financing Instrument.** This operation will be structured as a Global Credit Loan (GCL), since it involves financial intermediation to the beneficiaries (PR-203), and the "IDB-CDB Agreement" indicates that IDB's resources will generally be made available by means of Global Loans or Grants. The proposed amount is US\$20 million, financed with Ordinary Capital resources. The CDB will on-lend the resources through loans to countries (Component 1) and lines of credit to eligible financial intermediaries (Component 2) based on the eligibility criteria to be established in the loan contract and in the Operation Regulations (OR). The disbursement period will be 48 months, to be confirmed with the CDB during loan preparation. The Technical Cooperation [RG-T4080](#) "Strengthening management of projects to support private sector innovation and digital transformation in the Eastern Caribbean" (US\$270,000 expected to be approved in May 2022), will support sub-loan preparation.
- 2.17 **CDB as a borrower of IDB resources.** In 2020, the IDB, IDB Invest and CDB signed an agreement which sets out the standards applicable to operations between IDB and CDB. The proposed financing to the CDB complies with this agreement and with all three criteria (compatibility, complementarity and

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<sup>7</sup> Financing for Caribbean countries that are not members of the IDB may be provided through loans to the CDB, as stipulated in the Agreement Establishing the IDB (OP-601), and ratified in the 2020 agreement between the IDB, IDB-Invest and CDB (¶2.1).

<sup>8</sup> The sub-regional strategy of Vision 2025 for the Caribbean focuses on a delivery-oriented initiative aimed at helping Caribbean countries define Sustainable Development Pathways for their transformation in a smart and resilient manner.

additionality)<sup>9</sup> set forth in the Bank's Operational Policies and Strategies Manual, "Relationship with Subregional Financial Institutions – General Policy" (OP-601).

- 2.18 **Borrower and Executing Agency.** The CDB has had a long track record of borrowing GCLs from the IDB (see ¶2.1 and ¶3.2) and will be the borrower and the Executing Agency (EA) for this operation. The Operation Regulations (OR) will define in detail the use of the operation's resources.
- 2.19 **Institutional Coordination.** As a Caribbean development institution, CDB coordinates with all the CARICOM institutions, the Secretariat for the OECS, the Eastern Caribbean Central Bank, and the Caribbean's major donors. The CDB and IDB teams in this operation coordinate with other multilaterals active in the OECS, such as the World Bank, through the Eastern Caribbean Private Sector Development Coordination Group, which meets regularly.

### III. TECHNICAL ISSUES AND SECTOR KNOWLEDGE

- 3.1 **Bank's experience and lessons learned** from multiple completed operations that foster innovation and technology adoption in Latin America and the Caribbean, including from IDBLab and IDBInvest highlight the importance of: (i) addressing the ecosystem comprehensively, by developing strategies to focus stakeholders on a common objective and governance structure, with proper financing and long-term vision; (ii) strengthening the capacity of ecosystem actors; (iii) tackling the equity and financing gaps through public-private interventions; (iv) providing upstream support to prepare businesses for financing; and (v) efficiently structuring small transactions to ensure a favorable value proposition for borrowing clients.
- 3.2 **Lessons learned from previous work with CDB.** Completed GCLs to the CDB ([926/OC-RG](#); [975/SF-RG](#), and [1108/SF-RG](#)) highlight the following aspects that contributed to effective program implementation: (i) sound project design process; (ii) project consistency with CDB country strategies; (iii) CDB's responsive approach to clients; and (iv) high quality supervision by CDB. GCLs in execution ([5156/OC-RG](#)) benefitting MSMEs through development financial intermediaries (DFIs) has found a more limited number of eligible DFIs than originally expected, and a need by the DFIs for technical assistance to mainstream climate change and gender into the LOC. This current program is addressing this issue by expanding the universe of financial intermediaries, while [RG-T4080](#) is including a technical assistance component for execution agencies.
- 3.3 **Sector work and complementarity with IDB Group operations.** The understanding of innovation and technology adoption in the OECS has benefitted from CCPF sector work, and the program will scale-up and complement CCPF projects that support entrepreneurship, innovation, cluster, technology adoption and access to finance in the OECS. The operation will also complement IDB Lab's

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<sup>9</sup> Compatibility: CDB policies are consistent with those of IDB. Complementarity: since the IDB cannot lend directly to the OECS countries, CDB provides the channel for IDB support towards sustainable development in those countries. Additionality: this loan generates a multiplier effect by increasing the resources that CDB can provide to OECS countries, helping CDB to develop new products and expertise in the realm of private sector adoption of technology and innovation, and complements/scales up technical assistance already being delivered in the OECS (¶3.3).

EcoMicro support to FIs in the OECS to design and pilot green finance MSME products, and two ongoing IDB loans in the OECS which provide MSME loans for COVID-19 recovery, and for resilience to natural disasters.

#### **IV. ENVIRONMENTAL SAFEGUARDS AND FIDUCIARY SCREENING**

- 4.1 **Environmental and social risks.** As a GCL for a financial intermediary, this operation is classified as an FI, with low E&S risk. It is expected that the sub-loans will include subprojects classified as Category C according to the Bank's Environmental and Social Policy Framework (ESPF), since no infrastructure will be financed. The second tier FIs involved in Component 2 will be required to demonstrate their environmental and social management capacity to screen sub-projects.
- 4.2 **Procurement.** Pursuant to the IDB-CDB Agreement, the prevailing CDB Procurement Policies and Procedures for Projects Financed by CDB will apply for the procurement of goods, consulting services and services other than consulting services under sub-projects, financed with the Project's resources.
- 4.3 **Financial management.** The IDB will disburse the resources in accordance with the Financial Management Guidelines for IDB-financed Projects (OP-273-12). CDB will make disbursements to beneficiary countries and FIs under the provisions of the prevailing Disbursement Guidelines for CDB-Financed Projects and the stipulations of the OR.

#### **V. OTHER ISSUES**

- 5.1 **Risks.** There is a medium-high risk of a deterioration of the economic and financial environment if the macroeconomic situation of these countries continues to worsen due to the pandemic. The IDB will monitor this risk during implementation.
- 5.2 **Sustainability.** The program will be executed by the CDB's new PSD, which is being expanded and intends to develop new lines of support to the private sector through this operation. The program aims to build sufficient capacity within OECS innovation ecosystem actors to ensure the continuity of gender sensitized innovation and technology adoption programs.

#### **VI. RESOURCES AND TIMETABLE**

- 6.1 The preparation of the program will require US\$89,500 in administrative resources. It is triple-booked with IFD/CMF and CSD/CCS (see Annex V). The proposal for Operation Development (POD) will be distributed to the Quality and Risk Review (QRR) by May 9, 2022, and for consideration by the Bank's Board of Executive Directors on August 24, 2022 (see Annex IV).





## E&S Screening Filter

### Operation Information

Operation Name	
<b>Strengthening private sector development through innovation in the Eastern Caribbean OECS member countries</b>	
Operation Number	<b>RG-L1160</b>

### Operation Details

Organizational Unit	IDB Sector/Subsector
<b>IFD/CTI</b>	<b>PRIVATE FIRMS AND SME DEVELOPMENT</b>
Type of Operation & Modality	Original IDB Amount
<b>LON / GCR</b>	<b>\$20,000,000.00</b>
Environmental and Social Impact Categorization (ESIC)	Disaster and Climate Change Risk Classification (DCCRC)
<b>FI</b>	<b>Low</b>
Environmental and Social Risk Rating (ESRR)	
<b>Low</b>	
Executing Agency	Borrower
<b>BA-CDB</b>	<b>CARIBBEAN DEVELOPMENT BANK</b>
ESG Primary Team Member	Team Leader
<b>Luciano Bornholdt</b>	<b>Sylvia Eva Dohnert De Lascurain</b>
Toolkit Completion Date	Author
<b>17/02/2022</b>	<b>Bornholdt, Luciano</b>
Applicable ESPs	
<b>ESPS 1; ESPS 2</b>	

### Operation Classification Summary

Overriden ESIC	Overriden ESIC Justification
Comments	

Overriden DCCRC	Overriden DCCRC Justification



## E&S Screening Filter

Comments

### Summary of Impacts / Risks and Potential Solutions

The FI will support sectors with low level of direct impacts expected (e.g. non E&S relevant sector).

The FI will support sectors with low level of indirect/cumulative impacts expected (e.g. non E&S relevant sector).

The FI activities eligible for financing will be associated with low level of direct impacts.

The FI activities eligible for financing will be associated with low level of indirect/cumulative impacts.

The Borrower/Executing Agency has good organizational capacity and competency for E&S management and potential existing E&S management systems.

The FI will have exclusion criteria for the sub-projects and the sub-projects will have low direct impacts.

The FI will have exclusion criteria for the sub-projects and the sub-projects will have low indirect/cumulative direct impacts.

The average amount for sub-project/sub-loans will be between \$25,000 and \$100,000.

There are no contextual risks associated with the sub-projects under the FI (e.g. political instability, oppression of communities, armed forces in the project area).

No natural hazards, such as earthquakes, droughts, landslides, floods, wildfires, or others, including those caused or exacerbated by climate change, are likely to occur in the sub-projects area, and/or these may impact the sub-project, and/or the sub-project may exacerbate the risk from natural hazards to human life, property, and/or the environment.

The FI portfolio or sub-projects will not have impacts or risks on human health and the environment, have GHG emissions, generate waste and/or use pesticides.

The FI portfolio or sub-projects will not have impacts or risks on health and safety of the project-affected people. Impacts on the sub-projects themselves from natural hazards and climate change and/or risks associated with human rights.

The FI portfolio or sub-projects will not negatively impact people due to land acquisition.

The FI portfolio or sub-projects will not have significant impacts or risks on biodiversity and ecosystem services and/or introduce (intentionally or accidentally) alien, or non-native, species of flora and fauna.

The FI portfolio or sub-projects will not impact Indigenous Peoples.

The FI portfolio or sub-projects will not impact cultural heritage.

The FI portfolio or sub-projects will not negatively affect people due to their gender, sexual orientation or gender identity.



## E&S Screening Filter

### ESPS 1 - Assessment and Management of Environmental and Social Risks and Impacts

The Executing Agency will prepare and maintain an Environmental and Social Management System (ESMS) for the operation as defined under ESPS 1.

### ESPS 2 - Labor and Working Conditions

The FI portfolio or sub-projects will not have impacts or risks associated with child labor or forced labor in the workforce.

**Annex II – Preliminary ESRS****RG-L1160**

The general objective of this program is to increase the productivity of Organization of Eastern Caribbean States (OECS) micro, small and medium enterprises (MSMEs). The specific objectives are to (i) increase the supply of business development services to support innovation and technology adoption of MSMEs; and (ii) to expand credit financing for MSME innovation and adoption of digital technologies. Given the nature of the program's activities and according to the ESPF of the Bank, the operation has been classified as FI, and the subloans will be limited to Category "C". The program will not finance infrastructure, and no negative environmental or social impact are expected to be produced by the program. The EA, the Caribbean Development Bank, has an adequate ESMS and will require second-tier FIs to have an ESMS capable of screening sub-loans in order to exclude those capable of causing negative E&S impacts.

Considering that the operation will have minimum or non-existing environmental and social impacts, that it does not entail substantial or high socioenvironmental risks and that the risk of natural disaster and climate change is low, there are not existing specific requirements derived from the Environmental and Social Policy Frame (MPAS).

### Annex III - Index of Completed and Proposed Sector Work

Topic	Description	Status	Reference
SME and FI demand study for innovation and digital technology LOCs	SME and Financial Institution demand study: Consultancy Services to Assess the demand for a line of credit to existing MSMEs with a technical and technological upgrading focus, including the adoption of digital technology	Ongoing	
Technology and innovation services supply landscape analysis	Analysis of the supply of technical assistance services to support technology adoption and innovation in the OECS: Business Support Organization services as well as supply of ICT and other providers	To be commissioned	
Firm-level Datasets	Innovation, Firm Performance and Gender Issues in Enterprises in the Caribbean (2021)	Ready	<a href="#">Dataset and Questionnaire</a>
	Productivity, Technology and Innovation in the Caribbean (2014)	Ready	<a href="#">Dataset and Questionnaire</a>
	Latin America and Caribbean Enterprise Survey (2010)	Ready	<a href="#">Dataset and Questionnaire</a>
Data analysis	Innovation Behavior OECS (Consulting analysis for the IDB, 2022)	Ready	<a href="#">Analyses, Answers, Potential</a> (Private)
	Criteria and scoring to prioritize problems and solutions (Consulting analysis for the IDB, 2022)	Ready	<a href="#">Link</a> (Private)
	ECCB Commercial Banks Total Loans	Ready	<a href="#">Link</a> (Private)
	Preliminary data and vertical logic	Ready	<a href="#">Link</a> (Private)
	Business Potential Assessments OECS Digital and Green Tech 2020	Ready	<a href="#">Link</a> (Private)
	Business Potential Assessments OECS Digital and Green Tech 2021	Ready	<a href="#">Link</a> (Private)
Digital development reports	Caribbean Quarterly Economic Bulletin: Volume 10: Issue 3, January 2022: Digital Infrastructure and Development in the Caribbean (IDB, 2022)	Ready	<a href="#">Publication Presentation</a>

Topic	Description	Status	Reference
	Digital Transformation: Infrastructure Sharing in Latin America and the Caribbean (IDB, 2020)	Ready	<a href="#">Link</a>
	Annual Report of the Broadband Development Index: IDBA 2020: Digital Gap in Latin America and the Caribbean (IDB, 2021)	Ready	<a href="#">Link</a>
	Strategies and Business Models for Improving Broadband Connectivity in Latin America and the Caribbean: Guidelines for the Planning, Investment, and Rollout of Broadband Networks (IDB, 2021)	Ready	<a href="#">Link</a>
	Evaluating the Impact of Technology Development Funds in Emerging Economies: Evidence from Latin-America (IDB, 2008)	Ready	<a href="#">Link</a>
Eastern Caribbean studies	Together For Prosperity in the OECS: Growth, Development, and Adversity in Small Island Developing States (IDB, 2017)	Ready	<a href="#">Link</a>
	OECS Innovation and Entrepreneurship Ecosystem Diagnostic Scoping Report (Robert Martinez, Prepared for Compete Caribbean Partnership Facility, 2019)	Ready	<a href="#">Report, Presentation</a> (Private)
	Capacity Assessment for Digital Innovation in OECS Countries (IDB, CDB)	Ready	<a href="#">Link</a> (Private)
	Transformation in the Eastern Caribbean: A Need for Embracing Technological Change (Ricardo Sierra, Consulting report for the IDB, 2022)	Ready	<a href="#">Link</a> (Private)
Private sector in the Caribbean studies	Private Sector Assessment of Antigua and Barbuda (IDB, 2013)	Ready	<a href="#">Link</a>
	Private Sector Assessment of Dominica (IDB, 2013)	Ready	<a href="#">Link</a>
	Private Sector Assessment of Grenada (IDB, 2013)	Ready	<a href="#">Link</a>
	Private Sector Assessment of Saint Kitts and Nevis (IDB, 2013)	Ready	<a href="#">Link</a>
	Private Sector Assessment of Saint Lucia (IDB, 2013)	Ready	<a href="#">Link</a>
	Private Sector Assessment of Saint Vincent and the Grenadines (IDB, 2013)	Ready	<a href="#">Link</a>
	The Impacts of the COVID-19 Pandemic on Firms in the Caribbean (IDB Invest, 2021)	Ready	<a href="#">Link</a>
	Evaluación del impacto del COVID-19 en las industrias culturales y creativas (UNESCO, 2021)	Ready	<a href="#">Link</a>
	Firm Innovation and Productivity in Latin America and the Caribbean: The Engine of Economic Development (Chapters 3 and 7) (IDB, 2016)	Ready	<a href="#">Link</a>

Topic	Description	Status	Reference
	Engine of Growth?: The Caribbean Private Sector Needs More Than an Oil Change (IDB, 2016)	Ready	<a href="#">Link</a>
	Exploring Firm-Level Innovation and Productivity in Developing Countries: The Perspective of Caribbean Small States (IDB, 2017)	Ready	<a href="#">Link</a>
	COVID-19, Firm Innovation Strategy and Production Efficiency: A Stochastic Frontier Analysis of Caribbean Firms (Mohan and Strobl, 2021)	Ready	<a href="#">Link</a> (Private)
	Clusters in the Caribbean: Understanding their Characteristics, Defining Policies for their Development (IDB, 2017)	Ready	<a href="#">Link</a>
	Is There a Caribbean Sclerosis? Stagnating Economic Growth in the Caribbean (IDB, 2014)	Ready	<a href="#">Link</a>
	The Impact of Soft-Skills Training for Entrepreneurs in Jamaica (IDB, 2020)	Ready	<a href="#">Link</a>
	Tourism and Innovation: Leapfrogging the Caribbean Private Sector (Ibanez et al., Presented to Compete Caribbean, 2019)	Ready	<a href="#">Link</a>
	Understanding the Role of Fintech Companies and Regulations in Enabling Caribbean MSMEs to Innovate and Grow (Business Environment Reform Facility, 2018)	Ready	<a href="#">Link</a>
	Boost Caribbean – Building a Best Practice Ecosystem for increasing Equity investment in the Caribbean Region (European Investment Bank, 2018)	Ready	<a href="#">Link</a> (Private)
	Mainstreaming the cluster approach in the Caribbean region: The CCPF Cluster Capacity Building Initiative (Rabellotti and Conz, Consulting report for the IDB, 2021)	Ready	<a href="#">Link</a> (Private)
	Assessing the capacity to build clusters in small and vulnerable countries. Consulting report for the IDB (Dellavedova and Harmes-Liedtke, Prepared for Compete Caribbean, 2018).	Ready	<a href="#">Link</a> (Private)
	The Capacity Enhancement Plans (CEP) for Centre for Enterprise Development (CED)	Ready	<a href="#">Link</a> (Private)
	The Capacity Enhancement Plans (CEP) for Dominica Export and Import Agency	Ready	<a href="#">Link</a> (Private)
	The Capacity Enhancement Plans (CEP) for Grenada Hotel and Tourism Association	Ready	<a href="#">Link</a> (Private)

Topic	Description	Status	Reference
	The Capacity Enhancement Plans (CEP) for Grenada Investment Development Corporation's	Ready	<a href="#">Link</a> (Private)
	The Capacity Enhancement Plans (CEP) for Trade and Export Promotion Agency St. Lucia	Ready	<a href="#">Link</a> (Private)
	The Capacity Enhancement Plans (CEP) for Tourism and Hospitality Association of Guyana	Ready	<a href="#">Link</a> (Private)
Gender studies	Successful Afro-Caribbean Women Entrepreneurs: Business Challenges, Strategies and Motivations (Mendes and Thomas, Prepared for Compete Caribbean, 2018)	Ready	<a href="#">Link</a> (Private)
	Variability of Business Constraints by Growth Stage: A Qualitative Analysis of Women-Led Firms in the Caribbean (Smith, Lashley, and Thomas, Prepared for Compete Caribbean, 2018)	Ready	<a href="#">Link</a> (Private)
	Gender Diversity, Innovation, and Open Innovation in the Caribbean Region (Álvarez and Castillo, 2021)	Ready	<a href="#">Link</a> (Private)
	The Gender Gap in the Caribbean: The Performance of Women-Led Firms (Moore, Presbitero, and Rabellotti, 2017)	Ready	<a href="#">Link</a>
Secondary Source			
Digital development reports	Digital Development Dashboard: Antigua and Barbuda (ITU, 2022)	Secondary	<a href="#">Link</a>
	Digital Development Dashboard: Dominica (ITU, 2022)	Secondary	<a href="#">Link</a>
	Digital Development Dashboard: Grenada (ITU, 2022)	Secondary	<a href="#">Link</a>
	Digital Development Dashboard: Saint Lucia (ITU, 2022)	Secondary	<a href="#">Link</a>
	Digital Development Dashboard: Saint Kitts and Nevis (ITU, 2022)	Secondary	<a href="#">Link</a>
	Digital Development Dashboard: Saint Vincent and the Grenadines (ITU, 2022)	Secondary	<a href="#">Link</a>
	Caribbean Digital Transformation Project (The World Bank/OECS, 2020)	Secondary	<a href="#">Link</a>
	World Bank/OECS: Stakeholder Engagement Plan Caribbean Digital Transformation Program (The World Bank/OECS, 2020)	Secondary	<a href="#">Link</a>
	Technology and Resilience (Comin et al., 2022)	Secondary	<a href="#">Link</a>
	Digital Transformation Research Report and Guide Caribbean (Digicel Business)	Secondary	<a href="#">Link</a>
	Spurring growth and closing gaps through digitalisation in a post-COVID world: Policies to LIFT all boats (OECD, 2021)	Secondary	<a href="#">Link</a>



Topic	Description	Status	Reference
	MSME Digital Finance Resilience & Innovation during COVID-19 (IFC, 2021)	Secondary	<a href="#">Link</a>
Digital development reports: Benefits of digital technology adoption	How are digital technologies changing innovation? (OECD, 2019)	Secondary	<a href="#">Link</a>
	Digital Economics (Goldfarb and Tucker, 2019)	Secondary	<a href="#">Link</a>
	Digitalisation and productivity: In search of the holy grail – Firm-level empirical evidence from EU countries (OECD, 2019)	Secondary	<a href="#">Link</a>
	The Impact of Digitalisation on Productivity: Firm-Level Evidence from the Netherlands (OECD, 2021)	Secondary	<a href="#">Link</a>
	The Digital Transformation of SMEs (OECD, 2021)	Secondary	<a href="#">Link</a>
	Europe 4.0 (The World Bank, 2020)	Secondary	<a href="#">Link</a>
Digital development reports: Impact public programs to support digital technology adoption in firms	iSPRINT - Infocomm Media Development Authority (IMDA) (Singapore Tourism Board, 2015)	Secondary	<a href="#">Link</a>
	Impact evaluation of EU subsidies for economic development on the Hungarian SME sector (TIC) (Banai et al., 2017)	Secondary	<a href="#">Link</a>
	Las TIC en el desarrollo de la PyME (Zorzi, 2011)	Secondary	<a href="#">Link</a>
	A Case Study of the Korean Government's Preparation for the Fourth Industrial Revolution: Public Program to Support Business Model Innovation (Yang, Kim, and Yim, 2019)	Secondary	<a href="#">Link</a>
	Evaluation of the Digital Technology Adoption Pilot Program (National Research Council, 2013)	Secondary	<a href="#">Link</a>
Eastern Caribbean studies	Organisation of Eastern Caribbean States Systematic Regional Diagnostic (The World Bank, 2018)	Secondary	<a href="#">Link</a>
	Market Study for Fresh Produce St. Lucia, Grenada, Dominica and St. Vincent & the Grenadines (WUSC Caribbean, 2016)	Secondary	<a href="#">Link</a>
	The Reform and Modernisation of Micro, Small and Medium Sized Enterprises (MSMEs) In Grenada – Final Report (Government of Grenada, 2020)	Secondary	<a href="#">Link</a> (Private)
	Small Business Development Act 2009 (St Kitts and Nevis, 2009)	Secondary	<a href="#">Link</a>
	Eastern Caribbean Central Bank: Annual Economic and Financial Review December 2020 (ECCB, 2020)	Secondary	<a href="#">Link</a>
	Eastern Caribbean Central Bank: Economic and Financial Review June 2021 (ECCB, 2021)	Secondary	<a href="#">Link</a>
	Covid-19 and Beyond: Impact Assessments and Responses (OECS, 2020)	Secondary	<a href="#">Link</a>

Topic	Description	Status	Reference
	Ariza Annual Report 2020 (Ariza, 2020)	Secondary	<a href="#">Link</a>
	Assessment of Digital Trade and E-commerce Readiness and Associated Capacity-building Needs in Six Member States of the Organisation of Eastern Caribbean States (OECS) (Commonwealth Secretariat, 2021)	Secondary	<a href="#">Link</a>
	Rethinking Tourism & MSMEs in Times of Covid-19 (UNDP, 2021)	Secondary	<a href="#">Link</a>
	Rethinking Tourism & MSMEs in Times of Covid-19 – Sub-regional Diagnostic Report (UNDP, 2022)	Secondary	<a href="#">Link</a> (Private)
	Grenada Co-operative League Limited Annual Report 2020 (GCLL, 2020)	Secondary	<a href="#">Link</a>
	The Process Flow and Schematics for the Community College Entrepreneurship & Innovation Programme	Secondary	<a href="#">Link</a> (Private)
	Entrepreneurship and Innovation Programme: Proposal to Solicit a Contribution to the Establishment and Execution of the Programme at the St. Vincent and the Grenadines Community College	Secondary	<a href="#">Link</a> (Private)
	Innovation Hub – Sir Arthur Lewis	Secondary	<a href="#">Link</a>
Private sector and Economic Growth studies	UNIDO Industrial Development Report 2022 (UNIDO, 2022)	Secondary	<a href="#">Link</a>
	Linking Farmers and Agro-processors to the Tourism Industry in the Eastern Caribbean (The World Bank, 2015)	Secondary	<a href="#">Link</a>
	Can direct innovation subsidies relax SMEs' financial constraints? (Chiappini et al., 2022)	Secondary	<a href="#">Link</a>
	Productivity Growth: Patterns and Determinants across the World (Kim and Loayza, 2019)	Secondary	<a href="#">Link</a>
	It's Not Factor Accumulation: Stylized Facts and Growth Models (Easterly and Levine, 2001)	Secondary	<a href="#">Link</a>
	COVID-19 and Technology Adoption in Small and Medium-Sized Enterprises: The Impact and the Way Forward (World Economic Forum, 2021)	Secondary	<a href="#">Link</a>
	The Measurement of Scientific, Technological and Innovation Activities - Oslo Manual 2018 (OECD, 2018)	Secondary	<a href="#">Link</a>
Gender studies	Entrepreneurship and gender disparity in the Caribbean (Pounder, 2016)	Secondary	<a href="#">Link</a>
Climate and Digital	Unpacking the Multifaceted Climate Impact of ICT: Rebound and Other Effects (Ericsson, 2022)	Secondary	<a href="#">Link</a>

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<sup>1</sup> The information contained in this Annex is confidential and will not be disclosed. This is in accordance with the "Deliberative Information" exception referred to in paragraph 4.1 (g) of the Access to Information Policy (GN-1831-28) at the Inter-American Development Bank.

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