

TC Document

I. Basic Information for TC

▪ Country/Region:	TRINIDAD AND TOBAGO
▪ TC Name:	Digital Innovations for Sustainable Environmental and Economic Recovery in Trinidad and Tobago
▪ TC Number:	TT-T1112
▪ Team Leader/Members:	Grant, Kayla Sharee (IFD/CTI) Team Leader; Stevenson, Claudia (IFD/CTI) Alternate Team Leader; Brathwaite, Neeca N. (CCB/CTT); Gonzalez Alzualde, Yohana Beatriz (IFD/CTI); Lopez Aragon, Carmen Carolina (VPC/FMP); Louis-Grant, Paula (VPC/FMP); Maria Alejandra Galeano (IFD/CTI); Sierra Liranzo, Mayrett (IFD/CTI); Vila Saint-Etienne, Sara (LEG/SGO)
▪ Taxonomy:	Client Support
▪ Operation Supported by the TC:	N/A
▪ Date of TC Abstract authorization:	28 Jul 2021.
▪ Beneficiary:	Office of the Attorney General and Ministry of Legal Affairs
▪ Executing Agency and contact name:	The University Of The West Indies
▪ Donors providing funding:	OC Strategic Development Program for Institutions(INS)
▪ IDB Funding Requested:	US\$200,000.00
▪ Local counterpart funding, if any:	US\$25,000.00 (In-Kind)
▪ Disbursement period (which includes Execution period):	24 Months
▪ Required start date:	December 16, 2021
▪ Types of consultants:	Individuals; Firms
▪ Prepared by Unit:	IFD/CTI-Competitiveness, Technology and Innovation Division
▪ Unit of Disbursement Responsibility:	CCB/CTT-Ctry Off Trinidad & Tobago
▪ TC included in Country Strategy (y/n):	Yes
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Institutional capacity and rule of law; Productivity and innovation

II. Objectives and Justification of the TC

2.1 Micro, small, and medium enterprises (MSMEs) have had to adopt new digital tools and technologies to ensure business continuity in the new normal and to respond to local and global consumer demands that are increasingly more digital in nature. Such technological adoptions include digital platforms (such as ecommerce, crowdfunding, knowledge sharing, service oriented,¹ social media, and media sharing platforms²), digital payment solutions (such as cryptocurrencies, mobile banking, etc.), digital marketing, and use of digital tools (such as artificial intelligence enabled chat bots, virtual reality interfaces, augmented reality training of employees, and online video platforms) for facilitating social distancing requirements and work from home. Firms are also collecting and consuming immense amounts of data – data from consumers

¹ Such as Uber, Airbnb, food delivery service apps such as Hugo, etc.

² Such as Spotify, YouTube, and Vimeo.

(via online searches, social media usage, health data collected from IoT devices, traffic data, etc.), products and services (quality standards, location of products in the supply chain, etc.), their employees, the weather, political news, and much more.

- 2.2 These digital innovations and the data they create are critical intangible assets of the firm. They are important elements of the business model that give firms competitive advantage in the market. Intellectual Property Rights (IPR)³ is one formal mechanism by which firms can protect and monetize their intangible assets. IP assets account for 70% or more of a business' perceived net value⁴ and is a major value driver in startups and firms. IP is a critical element for firms operating in the creative industries that have been severely impacted by COVID-19 and for high growth firms, which tend to be technology companies or innovative firms that make substantial use of digital technology. These high growth firms have not only survived but have grown during the COVID-19 pandemic and tend to drive growth and generate substantial new employment.⁵
- 2.3 Yet firms, especially small firms, tend to be reluctant to register IP and instead resort to alternative informal mechanisms (such as lead time) that in turn result in undercapitalization of intellectual assets leading to hurdles for the development of capital venture markets (De León and Donoso, 2017). The gaps include: (i) lack of awareness on the benefits of registering and valuing IP assets; (ii) limited valuation experts that can conduct IP asset valuation; (iii) the legal framework for secured transactions that include provisions for moveable collateral (intangible assets); (iv) financial institutions willing to accept IP assets as collateral; and (v) deficiency in IP monetization culture. Collateralizing IP assets is a novel concept in the T&T context which needs to be tested. It is currently being explored by Jamaica and Barbados, as well as more mature markets such as the US, Australia, and the UK. The efficient valuation of IP provides a first step for supporting MSMEs to obtain financing for continued expansion, and additional research and development for new lines of products and/or services are necessary.
- 2.4 Digital innovations hold great potential for supporting the Government of the Republic of Trinidad and Tobago in its sustainable development goals (SDGs) to drive positive environmental and social outcomes. Recognizing that economic recovery and resilience depends on innovation and collaboration; the role of innovation policy becomes extremely relevant and important to addressing complex and pressing technological, social and environmental challenges. Mission oriented programs and

³ IPRs consist of patents, trademark, industrial design, or copyright.

⁴ Uber brand valued at US\$70 billion, Facebook brand valued at over US\$33 billion, Airbnb brand valued at over US\$30 billion, etc. See http://www.wipo.int/edocs/mdocs/africa/en/wipo_ipas_tm_gbe_17/wipo_ipas_tm_gbe_17_t_3.pdf for more information. And see <https://www.lexology.com/library/detail.aspx?g=6f7dd161-e101-4809-9cb6-af37b853aae8>

⁵See OECD study on "High-Growth Firms and Employment". <https://www.oecd-ilibrary.org/docserver/861275538813.pdf?expires=1597755851&id=id&accname=guest&checksum=7252E85626F0D916D63FB20913658906>

policies offer a solution. Mission oriented⁶ innovation policies are policies that direct investment in innovation toward solving the prioritized challenges. It emphasizes the role of the public sector in giving 'direction' to economic growth and innovation such as the mission-oriented goal set by the American Government to get to the moon or the role that the Defense Advanced Research Projects Agency (DARPA)⁷ played in the IT revolution. A mission-oriented approach to innovation policy is a powerful systemic policy initiative that combines demand-side with supply-side instruments and thus enables the public sector to promote the development of specific technologies that are both shaping the modern economy and contributing to addressing societal challenges (Mazzucato, 2017). In a two-year project, the IDB led research that assessed the level of institutional capacity to implement MOPs in Chile, Colombia, and Mexico. There is great potential to apply this methodology in Trinidad and Tobago in areas such as tackling health challenges, renewable energy, climate change commitments, addressing violence and crime amongst youth, etc.

- 2.5 The objective of this project is to strengthen Trinidad and Tobago's Intellectual Property (IP) and innovation ecosystem to support small, and medium enterprises (SMEs) in leveraging digital technologies that drive innovation, competitiveness and growth and that contribute to sustainable environmental and economic recovery. This objective will be achieved through: (i) designing intangible asset valuation guidelines that will be a key step in supporting innovative firms to access finance with their intangible assets; (ii) the design of mission-orientated innovation pilot and policy recommendations for directing and stimulating private sector action toward the creation of digital innovations (and thus intangible assets) that contribute to social and environmental development outcomes; and (iii) the implementation of a dissemination and communication strategy.
- 2.6 **Complementarities.** The creation, protection, and utilization of IPRs play an important role in the national innovation ecosystem and in promoting national competitiveness. In this regard, the Trinidad and Tobago Intellectual Property Office (TTIPO)⁸ has played a critical role in the innovation ecosystem in addressing some of these gaps by encouraging IP creation through its IP help desks and public education programmes, registration and administration of IP, and promoting legal protection and enforcement of IP. This TC supports the larger effort by the with the Government of the Republic of Trinidad and Tobago's Vision 2030 goals of: (i) putting people first; (ii) building globally competitive businesses; and (iii) placing the environment at the center of social and economic development.⁹ It is also aligned with the Government of Trinidad and

⁶ Mazzucato, Mariana and Penna, Caetano. IDB. 2020. [The Age of Mission: Addressing Societal Challenges Through Mission-Oriented Innovation Policies in Latin America and the Caribbean.](#)

⁷ DARPA, a US Government funded agency, developed and advanced the concept of the ARPANET which led to the internet.

⁸ Created in 1997, the TTIPO is the local government agency responsible for handling the registration of intellectual property rights and for promoting inventiveness among citizens of Trinidad and Tobago.

⁹ The Government of Trinidad and Tobago is also aligned to achieving Sustainable Development Goals such as climate action, decent work and economic growth, reduced inequalities, amongst others. https://www.planning.gov.tt/sites/default/files/Trinidad_and_Tobago_SDG_VNR_Summary_Document.pdf

Tobago objectives contained within the “Roadmap to Recovery for Trinidad and Tobago Post COVID-19 Pandemic” report which highlights a focus on proactively moving towards a digital economy and on the objectives to: (i) social protection; (ii) retain and create jobs; (iii) boost aggregate demand; and (iv) minimize and remediate supply disruptions. The project will contribute to the United Nations Sustainable Development Goals as follows: (i) #9 Industry, Innovation and Infrastructure, specifically target 9.5 “Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per one million people and public and private research and development spending”; and target 9.B “Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities”.

- 2.7 This TC is timely in that there are a number of other complementary initiatives that are underway. These include: (i) IP Diagnostic Tool and IP Clinics led by T&T’s IPO; the National IP Training Centre (NIPTC); (ii) digital friendly regulatory and policy frameworks (such as the forthcoming data protection act and security interest in personal property act); (iii) CARIRI’s ongoing innovation programs and grant support to innovative firms; and (iv) University of the West Indies’ (UWI) St. Augustine’s research, innovation and entrepreneurship ecosystem, managed by the St. Augustine Centre for Innovation and Entrepreneurship (STACIE), which includes the promotion of entrepreneurship and support to businesses and individuals outside the University in bringing their ideas to market. Furthermore, STACIE engages with the University Office of Global Partnerships and Sustainable Futures which focuses on promoting the university’s teaching, research and advocacy on climate-smart and sustainability issues and deepening the university’s engagement in national and regional processes to advance the 2030 Sustainable Development Agenda.
- 2.8 **Synergies:** This TC is consistent with the Second Update to the Institutional Strategy (AB-3190-2) as it is strategically aligned with the development challenge of productivity and innovation, specifically addressing the special needs of small and vulnerable countries in fostering development through the private sector. It is aligned with the cross-cutting issues of: (i) institutional capacity and the rule of law, specifically through institutional strengthening toward improving the delivery of public service and facilitating a strong business climate; and (ii) climate change and environmental sustainability as it relates to innovation to support climate change resiliency. This program is aligned with the 2021-2025 Country Strategy for Trinidad and Tobago (GN-2888) as it aims to support the digital transformation agenda to achieve more sustainable and inclusive growth by way of supporting a digital friendly business environment. Regarding the IDB’s Corporate Results Framework 2020-2023 (GN-2727-12), firms and startups will be provided with technical assistance to encourage the development of innovative solutions to social and environmental challenges. The project is aligned with the priorities defined in the Innovation, Science and Technology Sector Framework Document (GN 2791-8) as it

relates to economies being able to take full advantage of the potential of the digital economy through digital technologies. The proposed activities support the following priorities of the IDB's Vision 2025: (i) the digital economy as it relates to improving the understanding of the valuation of intellectual property in the digital economy; and (ii) support to MSMEs as it relates to the design of proposed policy measures that can be implemented to support MSMEs in successfully operating in the digital economy. The TC is also consistent with Build Forward¹⁰ - the sub-regional strategy of Vision 2025 for the Caribbean. Finally, the TC is aligned to Ordinary Capital Strategic Development Program for Institutions (INS) (GN-2819-1) as it relates to encouraging mission-oriented innovation policies and programs that support the following priority areas of (i) climate change and environmental sustainability as it relates to the objective of expanding the knowledge base on climate change mitigation, adaptation, and sustainable energy geared towards leveraging climate investment; and (ii) inclusive economic growth as it relates to the objective of developing and applying new, multidisciplinary solutions and analytical frameworks that facilitate the implementation of tools enriched by frameworks/approaches from different social sciences that support policymakers to facilitate growth reforms and agendas in the region.

III. Description of activities/components and budget

- 3.1 Component 1. Intellectual Property Valuation in the Digital Economy (US\$100,000).** This component will support the design of IP valuation guidelines, particularly relevant for the digital economy. Key activities include: (i) an analysis of digital assets utilized by MSMEs in T&T; (ii) recommendations for the elements required for an IP collateralization framework that permits MSMEs to utilize intangible assets to access finance; and (iii) the design of IP asset valuation guidelines that support SMEs, especially those operating in the digital economy. Following an analysis of IP in the digital economy, the component will finance the design and implementation of workshops for: (i) MSMEs to understand the role of IP in the digital economy; and (ii) bankers, lawyers, accounts, auditors and insurance risk managers to be certified in valuation and valuation techniques in order to build local understanding and expertise in valuation, a necessary pre-requisite for the recognition and acceptance by financial institutions of IP assets as collateral. The expected outputs include the following: (i) diagnostic of digital assets utilized by MSMEs; (ii) report for recommending the framework necessary for IP collateralization; (iii) IP asset valuation guidelines and regulatory recommendations; and (iv) delivery of three training workshops.
- 3.2 Component 2. Mission-Oriented Innovation (US\$60,000).** This component will support the design of mission-orientated policies and programs to be implemented by relevant national agencies to stimulate research and digital innovations that address major societal and environmental challenges. This component will fund the following: (i) an analysis and prioritization of socio-environmental missions in T&T, especially those linked to SDG and NDC commitments; (ii) a report assessing the

¹⁰ Build Forward is a delivery-oriented initiative aimed at helping Caribbean countries define Sustainable Development Pathways for their transformation in a smart and resilient manner.

institutional capacity and making recommendations for mission-oriented policies that stimulate research and innovation in T&T towards major societal and environmental challenges, particularly those captured in Vision 2030; and (iii) the design of a mission-oriented pilot. The Government of Trinidad and Tobago, UWI and key local institutions will be trained to implement the methodology. This component will thus finance the following: (i) a diagnostic and prioritization of the socio-environmental missions; (ii) operations manual which will include the methodology for mission-oriented research and call for proposals design and policy recommendations for incentivizing mission-oriented innovation; and (iii) at least one training workshop.

- 3.3 **Component 3. Communication and Coordination (US\$65,000).** This component will finance: (i) a local Project Manager to coordinate the implementation of activities towards ensuring proper stakeholder engagement, timely execution, monitoring and reporting of the technical and financial aspects of the Project and the achievement of deliverables to the established quality standards; (ii) communication products (social media design, publications, etc.) and sensitization workshops to engage and sensitize target audiences in the innovation process and to ensure sustainability of initiatives; (iii) the development of public relations (PR) materials highlighting successful cases of IP monetization in T&T; (iv) evaluation; and (v) auditing.
- 3.4 UWI will provide in-kind contribution consisting of communication, financial and procurement support to the project. The UWI St Augustine Campus has a dedicated department for Special Projects, Bursary as well as the Campus Legal Office to assist with procurement and contracting. The Special Projects section of the Campus Bursary works within the Governance Framework and with the support of Legal Unit, Campus Procurement Unit, Campus Finance and General Purpose Committee and authorised signatories for award of Contracts.
- 3.5 The expected outcomes of the TC include increased awareness of the importance of developing IP assets in the digital economy.

The total cost of this TC will be US\$225,000 and will be financed through a contribution of US\$200,000 from resources of the Ordinary Capital - Strategic Development Program for Institutions (INS), and a contribution of US\$25,000 from the local counterpart (in kind).

Indicative Budget

Activity/Component	Description	IDB/Fund Funding	Counterpart Funding (in-kind)	Total Funding
Component 1. Intellectual Property Valuation for Promoting Exports in the Digital Economy	IP valuation guidelines and training	US\$100,000.00	US\$0.00	US\$100,000.00
Component 2. Mission Oriented Innovation	Design of Mission Oriented pilot program and policy recommendations	US\$60,000.00	US\$0.00	US\$60,000.00
Component 3. Communication and Coordination	Project coordination, communication, and auditing	US\$40,000.00	US\$25,000.00	US\$65,000.00
TOTAL		US\$200,000.00	US\$25,000.00	US\$225,000.00

IV. Executing agency and execution structure

- 4.1 **Executing Agency (EA).** This TC will be executed by the UWI through the STACIE with direct technical supervision by the Bank through the Competitiveness, Technology, and Innovation Division (IFD/CTI). The Unit of Disbursement Responsibility (UDR) will be the Country Office in Trinidad and Tobago (CCB/CTT). The UWI is focused on developing and nurturing innovation and entrepreneurship via its Research and Innovation Ecosystem (R&IE). The UWI supports small and medium enterprises within and outside of the University. STACIE drives innovation and entrepreneurship within the University and beyond, by connecting academia to industry, policymakers and decision-makers. By funding, protecting and commercializing new innovations, STACIE generates solutions that shape the future of the region. Recent IDB projects executed by STACIE (formerly known as the Office of Research Development and Knowledge Transfer) include ATN/ME-13186-TT - Development and Implementation of a Local Economic Development (LED) Framework for Regions with Extractive Industries and ATN/OC-14749-RG Caribbean Regional Entrepreneurial Assets Commercialization Hub (REACH). The UWI is a regional institution that has executed IDB regional IDB- financed projects such as RG-T1276 ("Regional Non-Communicable Diseases Surveillance System"). As such, it has the capacity and experience to execute the project.
- 4.2 **Executing mechanism.** The execution structure will be governed by the Bank's policy on Technical Cooperation (GN-2470-2). The IDB will assist in the Program's execution by liaising with the UWI when required, providing fiduciary support, providing monitoring and evaluation support, and ensuring that disbursement requests are received and processed in a timely manner. The disbursement requests and processing workflow will be led by the Team Leader of the Project. As a condition prior to first disbursement, the UWI will present evidence that there is an effective financial reporting system and internal structure in place. The UWI will also create a designated bank account for the funds of the project.
- 4.3 **Procurement.** The procurement of goods and non-consulting services will be carried out in accordance with "Policies for the Procurement of Works and Goods financed by the IDB" (GN-2349-15) and the contracting of consulting services will be carried out in accordance with the "Policies for the selection and contracting of consultants financed by the IDB" (GN-2350-15).
- 4.4 In accordance with a Technical Cooperation Agreement, signed between the IDB and the UWI, the UWI will act as the Financial Agent for the purposes of administering the grant resources that will finance the implementation of the project.
- 4.5 **Reporting.** The UWI will present to the Bank Semi-Annual Progress Reports¹¹ regarding the implementation of the activities of the Project to be submitted within sixty (60) days after the end of each Semester. In addition, a final report is expected to be submitted within six (6) months after the completion of the last project activity. The final report will present to the Bank the degree of fulfillment of the output indicators and progress toward the outcomes of the Results Matrix. The financial audit report of the project is to be submitted within ninety (90) days of the disbursement expiration date.

¹¹ The template of the semi-annual progress reports will be provided to the executing agency.

- 4.6 **Intellectual Property.** All knowledge products derived from this Technical Cooperation will be the Bank's intellectual property.

V. Major issues

- 5.1 As per lessons learned under ATN/OC-14749-RG¹², sustainability is a key risk that will be addressed through the following avenues: (i) creating a project steering committee¹³ with key public and private stakeholders who realize the benefits of the project and thus have incentive and agency to sustain momentum; (ii) during implementation, partnering on key activities (such as stakeholder workshops and training sessions) with organizations in the ecosystem that are already working on this topic area; and (iii) working very closely with the Government of Trinidad and Tobago as it pertains to both mission oriented innovation policies and intangible assets as collateral.
- 5.2 Given the lessons learned on the impact of COVID-19 on the execution of the projects in the 2020 pipeline, this project has been designed to leverage digital technologies for remote work and collaboration on the innovative solutions being proposed. The project activities, such as workshops, will be conducted virtually with minimum to no field work required.

VI. Exceptions to Bank policy

- 6.1 There are no exceptions to Bank policy.

VII. Environmental and Social Strategy

- 7.1 Given the nature of the program, there are no associated environmental or social risks. Based on the Environment and Safeguards Compliance Policy (OP-703) this operation is classified as "C". See Safeguards Policy Filter Report and Safeguards Screening Form.

Required Annexes:

[Request from the Client - TT-T1112](#)

[Results Matrix - TT-T1112](#)

[Terms of Reference - TT-T1112](#)

[Procurement Plan - TT-T1112](#)

¹² The lessons of the final evaluation of the REACH project will be applied to this project. The evaluation emphasized the importance of the composition of the project steering committee given that under REACH, the committee consisted primarily of public sector intellectual property offices; and (ii) raising visibility and awareness of the proposed outputs of the technical cooperation.

¹³ The project steering committee will provide guidance, technical advice and strategic support to ensure the success of the project. It will consist of at least four key public and private stakeholders that will be established at the start of the project's implementation period.

