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Report No: PAD995

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED LOAN
IN THE AMOUNT OF US\$ 20.00 MILLION

TO

JAMAICA

FOR A

YOUTH EMPLOYMENT IN THE DIGITAL AND ANIMATION INDUSTRIES PROJECT

June 16, 2014

Social Development Unit
Sustainable Development Department
Latin America and the Caribbean Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective June 16, 2014)

Currency Unit = Jamaican Dollars
JMD\$1 = US\$ 0.008
US\$1 = JMD \$111.250

FISCAL YEAR

April 1 – March 31

ABBREVIATIONS AND ACRONYMS

CARIMAC	Caribbean Institute of Media and Communication
CPS	Country Partnership Strategy
CPTC	Creative Production and Training Center
CQS	Consultant Qualification Selection
CRP	Community Renewal Programme
DA	Designated Account
DBJ	Development Bank of Jamaica
FM	Financial Management
FMA	Financial Management Assessment
GoJ	Government of Jamaica
HEART Trust/NTA	Human Employment and Resource Training Agency
IBRD	International Bank for Reconstruction and Development
ICB	International Competitive Bidding
ICR	Implementation Completion Report
ICT	Information and Communication Technologies
IDA	International Development Association
IFR	Interim Financial Reports
IMF	International Monetary Fund
ISR	Implementation Status Report
JAMPRO	Jamaica Promotions Corporations
JNBSF	Jamaica National Building Society Foundation
JSDF	Japan Social Development Fund
JSIF	Jamaica Social Investment Fund
KMA	Kingston Metropolitan Area
LIME	Landline, Internet, Mobile and Entertainment
M&E	Monitoring and Evaluation
MIIC	Ministry of Industry, Investment and Commerce
MoE	Ministry of Education
MoFP	Ministry of Finance and Planning
MoH	Ministry of Health
MoU	Memorandum of Understanding

MSTEM	Ministry of Science, Technology, Energy and Mining
MTR	Mid-term Review
MYC	Ministry of Youth and Culture
NCB	National Competitive Bidding
ORAF	Operational Risk Assessment Framework
PAD	Project Appraisal Document
PDO	Project Development Objective
PIOJ	Planning Institute of Jamaica
PIU	Project Implementation Unit
POM	Project Operational Manual
PRAM	Procurement Risk Assessment and Management System
PSOJ	Private Sector Organization of Jamaica
QCBS	Quality and Cost Based Selection
RD+i	Research, Development and Innovation
TOR	Terms of Reference
UWI	University of West Indies
WB	World Bank

Regional Vice President:	Jorge Familiar
Country Director:	Sophie Sirtaine
Sector Director:	Ede Jorge Ijjasz-Vasquez
Sector Manager:	Markus Kostner
Task Team Leader:	Fabio Pittaluga

JAMAICA

Youth Employment In Digital And Animation Industries (P148013)

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PAD DATA SHEET*Jamaica**JM Youth Employment in Digital and Animation Industries (P148013)***PROJECT APPRAISAL DOCUMENT***LATIN AMERICA AND CARIBBEAN**LCSSO*

Report No.: PAD995

Basic Information			
Project ID P148013	EA Category C - Not Required	Team Leader Fabio Pittaluga	
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints []		
	Financial Intermediaries []		
	Series of Projects []		
Project Implementation Start Date 01-Aug-2014	Project Implementation End Date 31-Jul-2019		
Expected Effectiveness Date 1-Oct-2014	Expected Closing Date 31-Jan-2020		
Joint IFC No			
Sector Manager Markus Kostner	Sector Director Ede Jorge Ijjasz-Vasquez	Country Director Sophie Sirtaine	Regional Vice President Jorge Familiar
Borrower: Jamaica			
Responsible Agency: Ministry of Science, Technology, Energy and Mining			
Contact: Telephone No.:	Ms. Kaydian Smith 1-876-929-8990	Title: Email:	Principal Director ksmith@mstem.gov.jm
Project Financing Data(in USD Million)			
<input checked="" type="checkbox"/> Loan	<input type="checkbox"/> IDA Grant	<input type="checkbox"/> Guarantee	
<input type="checkbox"/> Credit	<input type="checkbox"/> Grant	<input type="checkbox"/> Other	
Total Project Cost:	20.00	Total Bank Financing:	20.00
Financing Gap:	0.00		

Financing Source	Amount
Borrower	0.00
International Bank for Reconstruction and Development	20.00
Total	20.00

Expected Disbursements (in USD Million)

Fiscal Year	2013	2014	2015	2016	2017	2018	2019	2020	0000
Annual	0.00	0.00	6.00	3.00	4.00	4.00	3.00	0.00	0.00
Cumulative	0.00	0.00	6.00	9.00	13.00	17.00	20.00	20.00	0.00

Project Development Objective(s)

The Project development objective is to support youth employment in the digital and animation industries in Jamaica

Components

Component Name	Cost (USD Millions)
Component 1: Skills and Capacity to Enhance Employability and Entrepreneurship	10.00
Component 2: Establishment of Startup Jamaica	5.60
Component 3. Early Stage Investment for Tech Startups	1.60
Component 4. Support to Science, Technology and Innovation	0.80
Component 5: Project Administration	2.00

Institutional Data

Sector Board

Social Development

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Public Administration, Law, and Justice	Public administration-Education	25		
Information and communications	Information technology	25		
Health and other social services	Other social services	50		
Total		100		

I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

Themes			
Theme (Maximum 5 and total % must equal 100)			
Major theme	Theme	%	
Social dev/gender/inclusion	Other social development	50	
Social dev/gender/inclusion	Social Inclusion	50	
Total		100	
Compliance			
Policy			
Does the project depart from the CAS in content or in other significant respects?	Yes []	No [X]	
Does the project require any waivers of Bank policies?	Yes []	No [X]	
Have these been approved by Bank management?	Yes []	No [X]	
Is approval for any policy waiver sought from the Board?	Yes []	No [X]	
Does the project meet the Regional criteria for readiness for implementation?	Yes [X]	No []	
Safeguard Policies Triggered by the Project	Yes	No	
Environmental Assessment OP/BP 4.01		X	
Natural Habitats OP/BP 4.04		X	
Forests OP/BP 4.36		X	
Pest Management OP 4.09		X	
Physical Cultural Resources OP/BP 4.11		X	
Indigenous Peoples OP/BP 4.10		X	
Involuntary Resettlement OP/BP 4.12		X	
Safety of Dams OP/BP 4.37		X	
Projects on International Waterways OP/BP 7.50		X	
Projects in Disputed Areas OP/BP 7.60		X	
Legal Covenants			
Name	Recurrent	Due Date	Frequency
Setting up of Project Steering Committee		31-Oct-2014	
Description of Covenant			
The Borrower shall not later than three months after the Effective Date, establish and thereafter operate and maintain throughout the implementation of the Project, a PSC, including representatives of MSTEM, MIIC, PIOJ, MYC, JAMPRO, HEART Trust/NTA, DBJ, MOFP and MOE, and chaired by MSTEM. (Schedule 2, Section I. A. 3 (a)).			
Name	Recurrent	Due Date	Frequency

Setting up Advisory Board		30-Nov-2014	
Description of Covenant			
The Borrower shall not later than four months after the Effective Date, establish and thereafter maintain throughout the implementation of the Project, an Advisory Board with composition, functions and responsibilities acceptable to the Bank, including representatives of MSTEM, DBJ and the private sector entities participating in the Project. (Schedule 2, Section I. A. 4 (a)).			
Name	Recurrent	Due Date	Frequency
Recruiting of Startup Jamaica Management Team		31-Jan-2015	
Description of Covenant			
To facilitate the effective implementation of Parts 1(d), 1(e),1(f) and (2) of the Project, the Borrower shall no later than six months after the Effective Date recruit a team of professionals (Startup Jamaica Management Team), including a manager, with terms of reference, qualifications and experience satisfactory to the Bank. (Schedule 2, Section I. A.5 (a)).			
Name	Recurrent	Due Date	Frequency
Memorandum of Understanding with JNBSF, LIME, Oasis500 and DBJ		30-Nov-2014	
Description of Covenant			
In carrying out Part 2 of the Project, the Borrower shall not later than four months after the Effective Date, enter into a Memorandum of Understanding (MOU) with JNBSF (“JNBSF MOU”); an MOU with LIME (“LIME MOU) and an MOU with Oasis500 (“Oasis500 MOU”) (henceforth MOUs) satisfactory to the Bank setting out the commitments of the parties. (Schedule 2, Section I. B.3 (a)).			
Name	Recurrent	Due Date	Frequency
Memorandum of Understanding with DBJ		30-Nov-2014	
Description of Covenant			
In carrying out Part 3 of the Project, the Borrower shall not later than four months after the Effective Date, enter into an MOU with DBJ (“DBJ MOU”) outlining DBJ’s commitment to provide management services to Startup Jamaica within its first year of implementation and implement all activities under Part 3 of the Project. (Schedule 2, Section I. B.3 (b)).			

Conditions					
	Name			Type	
	Selected Training Institution			Disbursement Condition	
Description of Condition					
No withdrawal shall be made under Category (3) in respect of any Selected Training Institution unless and until the Borrower has obtained a written undertaking from said Selected Training Institution referred to in Section I.B.2 (a) (ii) of Schedule 2 to the Loan Agreement, in a manner satisfactory to the Bank. (Schedule 2, Section IV. B. 1 (a)).					
Team Composition					
Bank Staff					
Name	Title	Specialization	Unit		
Richard Charles Boly	Consultant	Consultant	ITSQS		
Kerry Natelege Crawford	Financial Management Specialist	E T Consultant	LCSFM		
Michael J. Darr	Consultant	Consultant	LCSEN		
Laisa Daza Obando	Junior Professional Associate	Junior Professional Associate	LCC3C		
Toni Kristian Eliasz	Projects Officer	Projects Officer	GTCID		
Jessica E. Gallegos	Junior Professional Associate	Junior Professional Associate	LCSSO		
M. Mozammal Hoque	Sr Financial Management Specialist	Sr Financial Management Specialist	LCSFM		
Nicola Magri	Consultant	Consultant	LCSSO		
Fabio Pittaluga	Senior Social Development Specialist	Team Leader	LCSSO		
Nightingale Rukuba-Ngaiza	Senior Counsel	Senior Counsel	LEGLE		
Erika Eliana Salamanca Duenas	Program Assistant	Program Assistant	LCSSO		
Aaron Szyf	Consultant	Consultant	LCSSO		
Yingwei Wu	Senior Procurement Specialist	Senior Procurement Specialist	LCSPPT		
Locations					
Country	First Administrative Division	Location	Planned	Actual	Comments
Jamaica	Kingston	Kingston	X		Project will target entire island.

I. STRATEGIC CONTEXT

A. Country Context

1. **Jamaica, the largest English speaking country in the Caribbean with a population of 2.7 million (2011), is an upper middle income country with a long history of low growth and high public debt.** In the recent past, economic shocks, amplified by structural weaknesses in the economy have negatively impacted the country's efforts to reduce poverty and inequality. For the past 30 years real per capita Gross Domestic Product (GDP) increased at an average of just one percent per annum, making Jamaica one of the slowest growing economies in the world. The country made significant progress in poverty reduction during the early part of the past decade. Between 1997 and 2007 the poverty rate fell from 19.9 to 9.9 percent, and overall inequality remains relatively low compared to the rest of the region.¹ Recent years, however, have witnessed the erosion of these earlier gains in poverty reduction and rising inequality with poverty sharply increasing to from 9.9 percent in 2007 to 17.5 percent in 2010.² This in turn resulted in a rise in unemployment and informality, that has particularly affected women and youth (ages 15-30) with 38 percent of young women and 25 percent of young men being unemployed in 2010³.

2. **Economic difficulties in Jamaica disproportionately affect the bottom 40 percent of the population, where food consumption accounts for over 50 percent of expenditures.** The consumption level of the bottom 40 percent of Jamaica's population, which had improved from 16.7 percent to 17.8 percent between 2001 and 2007, fell slightly to 17.3 percent in 2010. Jamaica was hit hard by the global economic crisis, as tourism and bauxite revenues plummeted, foreign direct investments and remittances declined and the economy contracted by 1.2 percent on average per year between 2009 and 2011. As in many other small open economies, economic recovery has been subdued. Moreover, Jamaica faces extreme difficulties in improving its debt situation.

3. **In the current economic environment, Jamaica faces several important challenges to reversing the recent surge in poverty levels and ultimately eliminating extreme poverty and boosting shared prosperity.** Committed to restoring growth and building an inclusive prosperous Jamaica, the Government prepared and garnered local and international support for a comprehensive program of fiscal adjustment and structural reforms. In May 2013, the Government embarked on an ambitious reform program which obtained the support of the International Monetary Fund (IMF) through an Extended Fund Facility for Special Drawing Rights of 615.4 million (about US\$932.3 million) for the period of April 2013 to March 2017.⁴ The Program, which supports debt restructuring, fiscal consolidation, and financial sector reforms, has remained on track, with the third review successfully completed in March 2014.

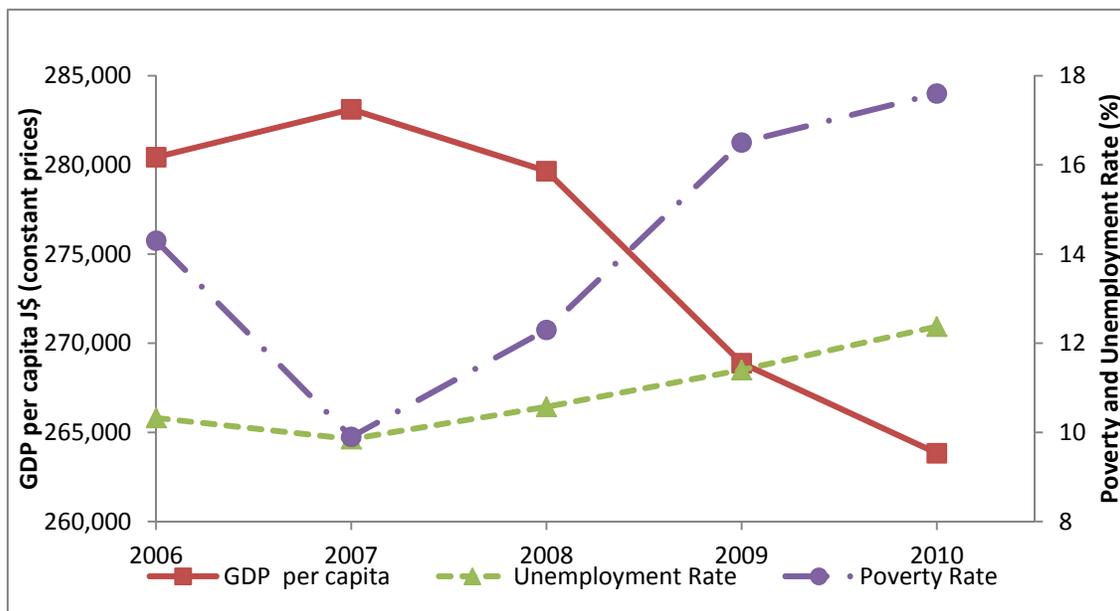
¹ Levels of inequality were among the lowest in the region at 0.38. Note that the Government of Jamaica is currently revising its poverty calculation methodology, with support from the Bank. The numbers presented in this document may change in the future if a revised methodology is adopted as is currently planned.

² The World Bank Jamaica Country Partnership Strategy for Jamaica FY2014-2017.

³ The World Bank Development Data Portal, 2012.

⁴ World Bank, Jamaica CPS FY14-FY17.

Figure 1: High Unemployment, the Economic Slowdown and Increased Poverty



Source: Planning Institute of Jamaica (PIOJ) 2012 and Statistical Institute of Jamaica (STATIN) 2012

4. **The animation industry, the online labour market and the boom of the “app economy” can generate significant employment opportunities for Jamaican youth.** Over the past three years, the World Bank has been engaged in Jamaica through initiatives such as Digital Jam and KingstOOn⁵, catalyzing a number of players and creating a momentum for the development of the digital and animation industries. Concrete results from these initiatives have already started to emerge, including a number of important contracts signed by Jamaican animation studios. The expansion of production pipelines requires significant numbers of professional people to be employed immediately in such studios, providing new job opportunities for youth. Similarly, Digital Jam 2.0 and 3.0 has seen the emergence of new tech startups in the app economy (MeAGo, Pothole Positioning System, Trivial) and the hiring of many of the winners by local companies.

B. Sectoral and Institutional Context

5. **Notwithstanding the recent global crisis, the “app economy”, the “virtual labour market”, and the animation industry have been growing and continue to grow substantially.** According to leading international animation companies, there is a demand gap of about 30,000 animators in the outsourcing of animation production – of which about 5,000 could possibly be sourced in the Caribbean. Jamaica has a comparative advantage in both the digital and creative industries vis-à-vis other global competitors. It is close to major markets, it can operate in the same time-zone, English is the working language, and cultural norms and tastes are close to those of consumers in the large markets of the Western hemisphere. Finally, the large

⁵ Digital Jam and KingstOOn are initiatives to seek youth employment opportunities in new sectors such as animation and the global virtual economy. They have been implemented between 2012 and 2014 in Jamaica with the participation of more than 5000 people in workshops, conferences, competitions, and hackathons.

youth population presents a great potential, especially given the high levels of creativity they have demonstrated in multiple fields.

6. **The virtual economy offers new opportunities for unemployed and underemployed youth in Jamaica.** Jamaica's unemployment is driven by slow economic growth and skills that are mismatched with the fast changing labour market. In fact, a large percentage of unemployed youth have high school and college degrees. The online market presents a unique opportunity for Jamaicans and a "safety net" from local economic instability. Via the virtual economy youth can access employment opportunities globally, a solution that is attractive for small island states where the size of the local market hinders growth and job creation. Online employment provides opportunities for both high and low skilled youth. Such opportunities have been growing in the form of "crowdsourcing" (online collaboration to find solutions for large projects launched by companies, often involving tasks that are broken into component parts), "microwork" (a crowdsourcing platform where users, often in emerging markets, do very simple small tasks for which computers lack aptitude for low amounts of money), and "e-lancing" (professional services offered via online portals for clients around the world). The number of Jamaicans currently participating in global online work is significantly below its potential. Addressing barriers to entry (particularly access to methods of payment) and exposing Jamaican youth to the various global platforms for online work will bring in additional foreign exchange and desperately needed jobs. By taking advantage of new opportunities in the virtual economy, and leveraging its strengths, Jamaican youth can bypass limitations of national labour market and access the global market place.

7. **Opportunities in the animation industry.** At an annual growth rate of roughly 9%, the global animation industry is valued currently at roughly US\$220 billion. As animation skills are transportable, any individual with animation skills can service clients remotely. Leading companies in the industry (Disney, Nickelodeon, Sony Imageworks, Film Roman, and Bento Box) focus on the Pre-Production (script, character development and storyboarding) and Post-Production (music, final editing) phases of the pipeline, while the Production phase (animation) is outsourced to countries like India, the Philippines and Korea. The growing middle class in these countries demands more and more locally developed Intellectual Property (IP) content and products. The local animation industry has consequently shifted its attention to the development of local content to the detriment of production outsourcing for large overseas clients. This provides an opportunity for countries like Jamaica - with its language, cultural affinity and close proximity to western markets - to fill this gap and assume an important role in the outsourcing of animation.

8. **Jamaica's animation industry is attracting attention from global players.** Jamaican companies have received an increasing number of expressions of interest for contracts from international companies. With the appropriate training (for many tasks, just 3 months will suffice) and infrastructure (physical space, hardware or software), a large number of youth with creative talent are easily employable. Given the low entry barriers into the profession, (roughly 80% of animation work today is based on 2D platforms which do not require formal degrees), a significant number of youth who may not have had the benefit of access to post-secondary school education and exposure to this industry can now pursue animation as a viable career option. Graduates with stronger backgrounds will have the opportunity to participate in the

growing field of 3D animation and special effects, requiring more sophisticated training and offering more lucrative salaries.

9. **Animation is labour intensive and provides a good fit with youth aspirations.** A typical series involving 26 episodes, each with 22 minutes production, requires about 100 staff over a six month period in as many as 40 different skills areas. Data from the Overseas Examinations Commission reveals that between 2008 and 2012 over 2,500 students in Jamaica have received grades in the Visual Arts that would qualify them as entry level potential trainees for animation studios. Extending the age range to include persons up to age 30, the number swells to close to 8,000 people. Industry leaders have expressed regret that only a handful of these thousands of qualified potential employees receive the appropriate training, and have stressed that if appropriate resources were spent on training, a high number of these potential young animators could be employed immediately. Paradoxically, given the demand, in the short term, some studios may have to resort to hire animators outside of Jamaica to fulfill contractual obligations with their global clients.

10. **In June 2013 the KingstOOn initiative brought to the fore the potential of the animation industry in Jamaica.** Such potential has been recognized by a multiplicity of partners in the national and international private sector, the financial sector, and the media world. Important initiatives have followed the realization of KingstOOn and are delivering concrete results on the ground in terms of new contracts, training opportunities, collaboration with international players, and new jobs for youth.

11. **The startup ecosystem in Jamaica is in its early stages of development and it is dominated by tech entrepreneurs.** Companies such as Connectimass and Slashroots have been pioneering this field by organizing periodic events such as Kingston Beta, Caribbean Beta, and more recently Startup Weekends. With Digital Jam 2.0 in 2012, that community has become significantly bigger (at Digital Jam 2.0 alone 450 youth submitted concepts for the mobile app competition), and is increasingly incorporating non-“techies”. More recently, the Bank in collaboration with the Government of Jamaica, the Caribbean Development Bank and the Organization of Eastern Caribbean States (OECS) Secretariat launched Digital Jam 3.0. The initiative included an app development competition with 720 people from across the Caribbean enrolled. Sixty-eight teams competed in the final stages, and attracted the interest of investors and large ICT companies in the region. In particular, recent consultations with private sector companies and high net-worth individuals in Jamaica have demonstrated the willingness to establish a formal network of “angel investors” to provide capital to tech startups. A first roundtable discussion on this issue was held at Digital Jam 3.0 in March 2014, and it represented a major move for the development of a viable ecosystem in the tech entrepreneurship world.

12. **Opportunities to develop Science and Technology Innovation.** Structural shifts in the global economy have given rise to the need to harness both technological and non-technological innovation for economic growth. The critical role of Science, Technology and Innovation (STI) is further underscored in the light of the Millennium Development Goals which are considered attainable as a consequence of the leap frog effect which STI affords. Jamaica has a commendable history of providing scientific and technological research for use in both local and international industries. However, commercializing STI remains a challenge and even more so

developing a culture of STI entrepreneurship. Jamaica faces the challenge of creating more linkages between R&D+i actors and investors in order to leverage the commercial potential of innovations.

13. **In order to address the pressing unemployment rates Jamaica is experiencing, the proposed operation will be implementing a double-strategy** of: 1) improving skills for accessing opportunities in the virtual global economy to foster employability and entrepreneurship, and 2) supporting the growth of a viable ecosystem for youth-led startup enterprises with a focus on the digital and animation industries. Employment, in the context of this operation, will be thus defined as more than “jobs,” including various forms of online work (e.g. by task, part-time, etc.) as well as self-employment. New income opportunities for youth will translate also in poverty alleviation for their families, especially those coming from underserved areas (such as inner-cities environments) where employment options are very limited.

14. **This operation will also impact Jamaica’s economy in terms of growth, business development and competitiveness improvements.** Startups would inevitably require an increasing level of services including legal, accounting, software design, IT support, security, and construction/maintenance of physical space. A proposed downtown location for Startup Jamaica will complement the Government of Jamaica’s efforts of revitalizing this key section of Kingston, and will have spillover effects into the local economy (for example: visit to local restaurants, shopping, transportation, and the presence of people in the streets through the late hours, providing a stronger sense of security).

C. Higher Level Objectives to which the Project Contributes

15. **The Youth Employment in Digital and Animation Industries Project will build on the success of Digital Jam 2.0 and 3.0, which brought about a renewed entrepreneurial drive and saw the emergence of various new startups in the app economy, and KingstOOOn, which helped put the country’s animation industry on the global radar screen.** The proposed project and physical hub will offer young entrepreneurs the opportunity to learn critical business skills, connect with angel investors, and benefit from a supporting community. It will provide the animation industry with the trained animators they need to accept global contracts, while building their own intellectual property (IP). Moreover, the project will identify researchers with entrepreneurial aspirations and will support their efforts to take their innovations to market.

16. **The proposed project is directly in-line with the Bank’s dual goals of eliminating extreme poverty and boosting shared prosperity, and its focus on strengthening globally competitive industries and developing an enabling environment for growth.** The project’s ultimate goal of empowering and employing youth, and its particular focus on attracting inner city youth to training programs and employment opportunities in the animation industry, is in line with the Bank’s twin goals of eliminating extreme poverty and boosting shared prosperity. In addition, the project’s focus on developing a physical hub and an entrepreneurial ecosystem directly reflects the goal of creating an enabling environment for growth. Strengthening Jamaica’s animation industry, which has already attracted the interest of global companies, will

result in the development of a globally competitive industry with a huge potential to attract foreign exchange.

17. **The proposed operation is fully aligned with the Bank’s strategic engagement with Jamaica.** The overarching goal of Jamaica’s CPS for the period FY14-17 (report No. 85158-JM, discussed by the Board of Executive Directors on April 29, 2014) is to support the country in creating conditions for sustainable and inclusive growth. The proposed operation directly supports the second pillar of the CPS, “Enabling Environment for Private Sector Growth”, and is aligned with the stated objective of “Fostering Entrepreneurship, Skills, and Innovation” as well as its corresponding Outcome - namely “Enhanced technological adoption and upgrade in high potential sectors”. The CPS focuses on stimulating technology-enabled innovation through the creation of incubators, which enable the exchange of knowledge and help expand the supply of skilled labour. It identifies empowerment and employment of youth, the key target population, in the virtual global economy and in labour-intensive non-traditional sectors (e.g., animation industry). The proposed project reflects these goals.

18. **The project aims to achieve many of the specific indicators mentioned in the CPS, including the establishment of a mobile innovation incubator by end of 2015, and increasing the number of youth graduating from animation programs.** The proposed project will directly address the mobile innovation incubator goal with its plan to establish a physical hub, which will have a particular focus on incubating startups in the mobile app industry. The project aims to increase the number of youth graduating from animation programs by strengthening and expanding short-term animation training programs at selected training centers with presence around the island. The project is further developing curricula with international partners, which will lead to accredited programs, including a degree in animation.

19. **The project is in-line with the Government of Jamaica’s National Development Plan, “Vision 2030”.** The plan which consists of four main goals: (a) Jamaicans are empowered to achieve their fullest potential; (b) the Jamaican society is safe, cohesive and just; (c) Jamaica’s economy is prosperous; and (d) Jamaica has a healthy natural environment. The proposed operation directly supports the first, second and third goals. In addition, the Vision 2030 Jamaica sees the Information and Communication Technologies (ICTs) sector as playing a central role in the transformation of Jamaica over the next two decades from being “consumers” to “producers” of ICTs. This vision has been inscribed in the ICT Roadmap prepared by the Ministry of Science, Technology and Mining (see Annex 8).

20. **This operation is also closely linked to other World Bank-financed projects in Jamaica and the Caribbean.** In particular, the proposed Jamaica Foundations for Competitiveness and Growth project (P147665) (under preparation), the InfoDev/EPIC activities involving the Caribbean Mobile Innovation Project, and the recently approved Jamaica Integrated Community Development Project (P146965).

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

21. The Project Development Objective is to support youth employment in the digital and animation industries in Jamaica.

B. Project Beneficiaries

22. **It is estimated that the project will directly and indirectly benefit approximately 15,000 young people in Jamaica.** The main target group will be young people between the ages of 15-30 years (male and female) in both urban and rural areas. In particular, the activities related to the animation portion of this operation will work directly with Jamaican institutions working in low-income communities (including inner-city circles) to target some of the most disadvantaged youth on the island (including wherever possible people with disabilities). In addition, activities related to the online work opportunities will be carried out throughout the island using the Community Access Points computer labs established by the Ministry of Science, Technology, Energy and Mining (MSTEM) and the HEART Trust/NTA centers in Manchester, Montego Bay, Papine and the Garmex Academy.

C. PDO Level Results Indicators

23. The proposed operation will directly support measurable results in the organic growth of an entrepreneurship ecosystem for startup companies, and it will have the potential to generate different forms of employment opportunities for youth. Key expected results include⁶:

Result Indicator 1: Number of additional young people earning foreign exchange through global online work, using platforms that are partnering with the project.⁷

Result Indicator 2: Number of young people employed by the animation industry in the short-medium term⁸, including percentage of front-line 2D animators from inner city (“bottom 40%”) communities.⁹

Result Indicator 3: Amount of private capital mobilized (in seed and follow-on funding) for Jamaican startups.

Result Indicator 4: Number of Startup companies established through SUJ.

⁶ Please refer to Annex 1 for a detailed table of the results framework

⁷ The “baseline” number of youth currently earning foreign exchange is difficult to determine, but we estimate it is around 100, based on consultations with some of the platforms as well as with youth working on the online market.

⁸ The “baseline” number of youth is approximately 30.

⁹ Given the demographics of participants in KingstOOn, as well as discussions with the local animation industry, a 50% participation rate of inner-city youth in basic animation work seems reasonable. Local animation leaders have expressed confidence in the creative abilities of many inner city youth, and have and in fact expressed a specific interest of employing these youth (following intensive 3-month training) who they believe will be more dedicated to the rather repetitive nature of the work.

III. PROJECT DESCRIPTION

A. Project Components

24. **The proposed project will finance five components to be implemented over a period of 5 years (see Annex 2).**

25. **Component 1: Skills and Capacity to Enhance Employability and Entrepreneurship (US\$ 10 million).** This component will build capacity and skills of Jamaican youth to improve their employability in the growing animation industry and in the global online labour market, and provide critical skills to young tech entrepreneurs to bring ideas to market. In particular, the following activities will be financed: a) expanding the existing 2D Animation Training Program at selected vocational and tertiary educational institutions; b) establishing 2D and/or 3D Animation Training Programs at selected secondary, vocational and tertiary educational institutions; c) establishing an accredited university degree program for professional animators; d) developing a business acceleration program for animation studios whereby companies undergo an intensive selection process and surrender some of the equity in their companies in return for seed capital, training and mentorship ("Acceleration Program"); e) developing a training program to increase the quantity and quality of software programmers and product designers; f) organizing competitions to identify youth with the best talents in the digital and animation fields; g) providing need-based scholarships to enable youth from lower-income families, and vulnerable communities to participate in the training activities provided by the Project; and h) developing a policy framework and strategic plan for the animation industry.

26. **Component 2: Establishment of Startup Jamaica (US\$ 5.6 million).** This component makes provisions for the establishment of a physical hub to strengthen a viable tech entrepreneurship ecosystem. The physical structure and the connectivity aspects of Startup Jamaica will be provided by private sector companies that have offered these contributions free of charge. MOUs will be signed by MSTEM with the Jamaica National Building Society Foundation (JNBSF) and LIME respectively. In addition, this component will be implemented in partnership with Oasis500 - an accelerator based in Amman, Jordan – that will provide seed capital for startups accepted into the accelerator program. An MOU will be signed with Oasis500 to that effect. This component will finance: a) carrying out communication and outreach campaigns to target youth with business ideas to join the Acceleration Program; b) designing and providing in-depth technical and business training to selected youth, including hands-on service provider support and external speakers/faculty training; c) designing and implementing the Acceleration Program for tech startups (including bootcamps, pitching events, demo-days); and d) recruiting relevant technical staff to manage the Acceleration Program and other training initiatives.

27. **Component 3. Early Stage Investment for Tech Startups (US\$ 1.6 million).** This component will double the annual amount of private sector investment in early stage growth companies by: a) establishing and supporting the growth of a vibrant angel investor network; b) studying, promoting, and possibly leverage diaspora investors to establish a royalty-based equity

loan fund¹⁰; c) studying and supporting the establishment of pre-purchase and equity crowdfunding platforms; d) a public awareness campaign on early stage investments; and e) a targeted program to build trust networks among investors and early stage companies.

28. **Component 4. Support to Science, Technology and Innovation (US\$ 0.8 million).** Activities under Component 4 focus on supporting researchers with entrepreneurial aspirations who have developed R&D+i applications that have commercial potential. This support will be provided by identifying the potential entrepreneurs through calls for innovations and by incorporating the selected applicants into the incubation and acceleration services (Stages 2& 3) of Startup Jamaica.

29. **Component 5: Project Administration (US\$ 2.0 million).** This component will support program management through *inter alia*: a) financing the carrying out the financial management and procurement requirements under the project; b) financing the monitoring and evaluation of project activities; c) providing equipment and training for the Project Implementation Unit (PIU); d) hiring a dedicated management team that includes a project manager, and two technical specialists (animation and tech entrepreneurship); and e) financing operating costs.

B. Project Financing

30. **The lending instrument is Investment Project Financing in the amount of US\$20.0 million to the Government of Jamaica.** The Government of Jamaica selected a variable spread with a repayment term of 29.5 years and a grace period of 5.5 years, linked to commitment, with level repayment, all conversion options (currency, interest rate and caps/collars), and Front-end Fee and Caps/Collar premium capitalized. In selecting financial terms, the Government of Jamaica considered the external debt dynamics, including the debt servicing profile, maturity structure and interest rate structure. It was equally ensured that the terms selected were consistent with the objective of the debt management .

Project Cost and Financing Table

Project Components	Project cost (million US\$)	IBRD Financing	% Financing
1. Skills and Capacity	10.0	10.0	100%
2. Startup Jamaica	5.6	5.6	100%
3. Early stage investment for startups	1.6	1.6	100%
4. STI	0.8	0.8	100%
5. Project administration	2.0	2.0	100%
Total Costs	20.00		
Total Project Costs	20.00		
Front-End Fees	0.25		
Total Financing Required	20.00		

¹⁰ The establishment of a fund will be contingent upon the findings of feasibility studies and outreach activities with diaspora and local potential investors.

Additionally, a number of private sector companies will provide important in-kind contributions that will include:

- Building for Startup Jamaica free of cost;
- Internet connectivity for Startup Jamaica for the duration of the project;
- Investments in startup companies participating in the Accelerator Program.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

31. **The implementing agency for this project will be the Ministry of Science, Technology, Energy and Mining (MSTEM).** MSTEM has a good track record in implementing the on-going World Bank financed Energy Security Efficiency Enhancement Project (P112780) and has the institutional capacity to adequately address fiduciary issues to meet the Government of Jamaica and the Bank's requirements. Additional staff will be hired for the purposes of this operation to ensure effective management of an increased portfolio and taking into consideration lessons learned. Additional staff will include: a) a dedicated project manager; b) technical persons with strong skills in the technology and animation industries, and; c) a procurement specialist. These additional professionals will be hired at the beginning of the project.

32. **MSTEM has been proactive in working with the Bank to implement innovative solutions for employment generation in Jamaica.** The ministry was a key player in the successful implementation of national and regional events such as Digital Jam 2.0, Digital Jam 3.0, and KingstOOn. Through its engagement in those activities, MSTEM demonstrated its commitment to the goals of the proposed operation and conducted outreach to the more marginal communities.

33. **In addition to MSTEM, Development Bank of Jamaica (DBJ) and selected training institutions will be associated in the implementation of the proposed operation:** The operation will also be implemented in partnership with private sector entities, including the JNBSF, LIME, and Oasis500. These private companies will provide in-kind contributions to the project as well as capital to finance startups. A detailed description of each entity and their respective role in the project is contained in Annex 3.

34. **This project will be implemented in collaboration with private sector stakeholders.** The floor space for Startup Jamaica (Component 2) will be provided by the Jamaican National Building Society Foundation free of charge. Connectivity at Startup Jamaica will be provided by LIME free of charge for the life of the project. Management services will be provided by the Development Bank of Jamaica for the first year of implementation. These and other smaller contributions from other stakeholders (e.g. furniture) will allow the project to begin implementation immediately after Board approval (estimated implementation beginning in August 2014). Procurement of goods, works, and services for the first year will be limited to some goods (hardware and software licenses), simple and small value rehabilitation works

(painting etc.) and consulting services under US\$ 200,000. These arrangements will facilitate a speedy transition from design to actual implementation of the project and disbursement.

B. Results Monitoring and Evaluation

35. **Overall responsibility for monitoring and evaluation of the Project will lie with MSTEM, which will prepare all reports and provide information about the progress and project execution to the Bank, including qualitative and quantitative information on the execution of selected interventions, procurement and contractual decisions, accounting and financial recording, progress of outcomes, outputs and monitoring of indicators, as well as other operational and administrative matters.** MSTEM's Monitoring and Evaluation Unit will be assisted in the overall process by other institutions involved in the execution of the Project; Startup Jamaica Management, DBJ, selected training institutions, and specialized consultants, as required. The Project Operations Manual will provide specific details regarding monitoring and evaluation responsibilities, including data collection requirements, timing and use of the information. The Results Framework is presented in Annex 1 and details on the monitoring and evaluation arrangements are provided in Annex 3.

C. Sustainability

36. **This project stems from a multi-year engagement with the Government of Jamaica consolidated via the KingstOOn and Digital Jam initiatives.** Such initiatives have generated interest in Jamaica, in particular because of the involvement of many stakeholders in the public sector, the private sector, academia, and the media. At multiple times in the last few years the Ministry of Finance and Planning (in addition to the MSTEM, MIIC, MYC, DBJ and JAMPRO) has shown support for these initiatives by actively participating in multiple events, and has endorsed this project as an important milestone for Jamaica's economic growth, job creation and poverty reduction, demonstrating its ownership of the project and associated initiatives.

37. **Development of a tech entrepreneurship and animation ecosystem:** A key aspect to ensure sustainability of this operation will be to set in motion the various components of an entrepreneurial ecosystem (see Annex 7 for definition). This will enable a high Return on Investment (ROI) for the training elements of this project. In order to develop an enabling environment, the operation will put in place Startup Jamaica, the establishment of an Angel Investment Network and a crowdfunding platform linked to the two industries supported by this operation, as well as the institutionalization of training program for aspiring animators at various Jamaican educational institutions. These activities will encourage the organic growth of an ecosystem.

38. **Positioning Jamaica as a regional hub:** Startup Jamaica will put in place enabling mechanisms to allow Jamaica to attract regional and international talent. In particular, the partnership with Oasis500 will provide an opportunity to attract to Jamaica some of the highest talents from other Caribbean islands as well as beyond the region, and enter world-class networks of mentors and support services to raise the overall quality of tech entrepreneurship on the island and in the region

39. **Institutionalization of animation training programs.** The operation will build on existing programs to teach animation skills and bring those to the necessary international standards and quality. Close collaboration with global animation companies and educational institutions (as already started at KingstOOn) will ensure that training programs are effective in preparing students to the real challenges of animation production, in particular by collaborating closely with existing studios and animation projects.

40. **Engaging key partners.** The following stakeholders will be engaged through the life of the project to ensure sustainability of the operation.

(a) Private Sector companies: the private sector - both as investors and as employers - will be key to the sustainability of this operation. Startup Jamaica will be managed by a professional team recruited in the market, and selected private sector stakeholders will serve on its steering committee. The Private Sector will also continue to sponsor yearly events and activities.

(b) Diaspora Community & High Net Worth Individuals: the operation will aim to engage High Net Worth individuals in Jamaica and in the diaspora for the establishment of an Angel Investor Network, a crowdfunding platform, and if possible a royalty-based loan fund.

(c) International accelerators: the design of this operation has benefited from substantial contributions from world class accelerators including Startup Chile, SkyDeck Berkeley, Oasis500 Amman, 500Startups and Mind the Bridge in the Silicon Valley, iStrategyLabs in Washington, DC, VentureHive Miami. Collaborative arrangements will be continued throughout the life of the project to facilitate access for Jamaican startup companies to such world-class programs, and to source mentors and trainers for activities to be carried out at Startup Jamaica. These partnerships will significantly raise the profile of Startup Jamaica and contribute to its establishment as a legitimate global center.

(d) International animation companies and universities: key partnerships established during KingstOOn with companies such as ToonBoom, BentoBox, Mattel, as well as with US and Canadian universities such as Sheridan College, Columbus College of Arts and Design, Capilano College and Seneca College will be continued to ensure the highest quality of training programs for professional animators. Again, international partnerships will play a critical role in certifying programs and raising the international visibility of Jamaica in this field.

41. **Sustainability of Startup Jamaica after project completion.** The MOU with JNBSF is for the provision of floor space for Startup Jamaica free of charge. The Government of Jamaica has already identified a dedicated physical space to house Startup Jamaica beyond the life of this project. This alternate space is already the property of the Government, no land acquisition and/or resettlement will be needed, and is currently being refurbished by the HEART Trust/NTA.

KEY RISKS AND MITIGATION MEASURES

D. Risk Ratings Summary Table

Risk Category	Rating
- Stakeholder Risk	Moderate
Implementing Agency Risk	
- Capacity	Moderate
- Governance	Low
Project Risk	
- Design	Moderate
- Social and Environmental	Low
- Program and Donor	Low
- Delivery Monitoring and Sustainability	Substantial
Overall Implementation Risk	Moderate

E. Overall Risk Rating Explanation

42. **The overall risk rating is assessed to be moderate.** Even though the project is introducing new topics and modalities, there is strong stakeholder support and a PIU that has been effective in implementing other World Bank operations.

43. **The main implementation risk in capacity gaps in project implementation, results from the novelty of the thematic areas and the innovative approach introduced by this project.** Thus, difficulties might arise from a lack of experience - both in the agency managing Startup Jamaica and the PIU - in managing projects and activities of this specific nature. Furthermore, considering that Jamaican private sector stakeholders have been operating in the digital and animation sectors in a fragmented way, the project might incur in limited synergies.

44. **Strong partnerships will be established to help manage the risks.** This will be achieved by partnering Startup Jamaica's managing institution and the PIU with experienced personnel that can share relevant lessons learned and best practices. In addition, the risk of fragmentation will also be mitigated by maintaining a continuous dialogue among stakeholders, and in particular by ensuring the private sector is engaged with the managing entity of Startup Jamaica.

V. APPRAISAL SUMMARY

A. Economic and Financial Analysis

45. **Jamaica suffers from high youth unemployment at all socioeconomic levels, and the country would benefit tremendously from a competitive animation industry and a developed startup ecosystem.** This would provide access to outsourced jobs, an influx of foreign exchange, and a growing community of successful entrepreneurs who will raise capital (much of it foreign capital) to build their businesses on the island. This annex examines how these different benefits can positively impact Jamaica’s economy. Section 1 provides a summary of direct and indirect benefits of the project to Jamaican society. Section 2 offers a detailed cost-benefit analysis for two key components, on which the bulk of the loan funds will be spent: (1) training for key skills needed in animation and business acceleration activities for the industry, and (2) a physical hub/incubator that aims to create 100 startups in 5 years.

46. **Rationale for public investment:** The project provides a unique opportunity to address high youth unemployment at all socioeconomic levels by providing training for desperately-needed skills in animation, and by enabling potential entrepreneurs to raise capital and build their businesses on the island. The economic analysis demonstrates that the project’s main components have impressive NPVs, even when calculated under conservative assumptions, as well as significant social and economic benefits that are not captured within the calculated NPV. Since this would not be achievable without significant public investment at the outset under a well-managed program, there is a strong rationale for the use of public funds for the project.

47. **The World Bank’s added value** stems from its ability to bring together the myriad of partners necessary to achieve success – from animation software producers, to angel investor, to global incubator managers – and to help with the difficult task of “rebranding” the country as a center of animation and mobile app technology. Currently it is difficult to convince serious international players to consider Jamaica as a place in which to outsource work and to invest capital. The World Bank’s backing of this project, its belief in the future of Jamaica, and its commitment to providing ongoing support has already helped introduce Jamaica to a number of global players, including global accelerators interested in investing seed money in Jamaican startups. The World Bank’s ongoing involvement will ensure that “Brand Jamaica” becomes associated with excellence in animation and youth entrepreneurship.

B. Technical

48. **The proposed project relies on approaches, methodologies, and technical designs based on successful international experience in both the tech entrepreneurship and animation fields.** The structure of the proposed operation is the result of in-depth discussions held over the last 3 years with a broad range of stakeholders involved in these fields. Specific workshops for the design of each of the components have been held in Jamaica with national and international operators (including animation studios, universities, tech accelerators and incubators, angel investor managers, online job platforms and crowdfunding companies).

C. Financial Management

49. **MSTEM has been implementing the Energy Security Efficiency Enhancement Project since 2012 and its financial performance has been satisfactory.** The same Project Implementation Unit (PIU) would be responsible for the financial management of the proposed

Project, for which it has adequate financial management capacity to meet the requirements of OP/BP 10.00. The PIU in MSTEM uses a computerized accounting system (AccPac). The Finance Unit in the PIU is headed by a qualified accountant. The accounts of the project will be audited by qualified internal auditors, who will use a risk-based internal audit system. The annual audit of the project accounts would be conducted by the Auditor General of Jamaica and the audit report of the project would be submitted within six months from the end of each fiscal year of MSTEM. (The fiscal year for the Government of Jamaica is from April 1 to March 31.).The detailed financial management arrangements are reflected in Annex 3.

D. Procurement

50. **Procurement would be carried out in accordance with the World Bank “Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits and Grants, January 2011”, and “Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers January 2011” in addition to the provisions stipulated in the Legal Agreement.** For each contract to be financed by the Loan, the different procurement methods or consultant selection methods, the need for pre-qualification, estimated costs, prior review requirements, and time frame has been agreed between the Borrower and the Bank in the Procurement Plan. The Procurement Plan will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity. . The project procurement will be managed by an experienced project unit (PIU) in MSTEM An assessment of the MSTEM has shown that it has the institutional capacity to adequately address procurement issues to meet the requirements of the World Bank and the Government of Jamaica and with experience on the procurement procedures and SBDs to be used for each procurement method, as well as model contracts to be applied under this project. The detailed procurement arrangements are reflected in Annex 3.

E. Social (including Safeguards)

51. **The project will have a broad and positive social impact, in particular on youth.** The operation will generate opportunities for employment across the board among Jamaican youth, both via online platforms, in the animation industry, as well as in terms of entrepreneurship development. For the animation and online work portions of the operation, entry barriers tend to be low and thus allow participation of youth from lower income brackets and from disadvantaged communities. Animation also allows people with disabilities to access the labour market (e.g. autistic youth). This operation will also have a specific gender dimension, providing opportunities proportionately for youth of both genders. This is especially important as it relates to young males – who account for lower attendance of educational institutions and participation in the labour market than female counterparts. This will reduce vulnerability to crime and violence exposure, which tends to disproportionately affect young males.

52. **Similarly, the startup ecosystem will provide significant benefits for young people.** Startup Jamaica will provide a significant number of opportunities to young people from Jamaica to get in touch with peers from other Caribbean nations as well as international young entrepreneurs. A strong partnership with key institutions such as the Ministry of Youth and

Culture, the NCYD, NYS, the YUTE program, the SDC Commission and others will allow the project to reach a broad spectrum of youth, including those from more disadvantaged and underserved communities. As technology is lowering entry barriers in the world of work and entrepreneurship, this project will provide a spectrum of opportunities via online work and self-employment that many Jamaican youth are simply not aware of. In that respect, the use of technology can have a fundamental impact on the empowerment of youth beyond the specific objectives of this project.

53. **No involuntary resettlement will be generated through this operation.** All physical infrastructure for the project will be either made available free to the Government of Jamaica or is already the property of the Government of Jamaica. No additional structural works will be needed, nor acquisition or requisition of land or property. As such, no social safeguards are triggered.

F. Environment (including Safeguards)

Some minor refurbishment works may still be needed, however. The physical structure and the connectivity aspects of Startup Jamaica will be provided from private sector companies that have offered such contributions free of charge for the life of the project. Accordingly, the activities funded by the project will have no foreseeable environmental impacts. As such, the project's Environmental Assessment Category is C and there are no Environmental Safeguards policies or Social Safeguards triggered.

Annex 1: Results Framework and Monitoring

Country: Jamaica

Project Name: JM Youth Employment in Digital and Animation Industries (P148013)

Results Framework

Project Development Objectives

PDO Statement

The Project Development Objective is to support youth employment in the digital and animation industries in Jamaica.

These results are at | Project Level

Project Development Objective Indicators

Indicator Name	Baseline	Cumulative Target Values					End Target
		YR1	YR2	YR3	YR4	YR5	
1. Number of youth earning foreign exchange through global online work (Number)	100.00	170.00	300.00	450.00	700.00	1000.00	1000.00
2a. Number of youth who participate in one of the animation training	30.00	225.00	500.00	710.00	960.00	1400.00	1400.00

programs (component 1) and <i>become employed</i> by the animation industry (Number)							
2b. Percentage of youth securing new 2D ‘frontline’ animation jobs who come from inner city communities	0.00	50.00	50.00	50.00	50.00	50.00	50.00
3. Private Capital Mobilized (Amount(USD)) - (Core)	0.00	400,000	800,000	1,600,000	4,500,000	7,000,000	7,000,000
4. Startup companies established through SUJ (Number)	0	5	20	50	90	150	150

Intermediate Results Indicators

Indicator Name	Baseline	Cumulative Target Values					End Target
		YR1	YR2	YR3	YR4	YR5	
1.1 Number of youth	0	200	500	900	1400	2000	2000.00

participating in one-day training sessions through the program focused on opportunities for global online work							
2.1 Number of international full series animation projects outsourced to Jamaica per year	0.00	5.00	12.00	16.00	20.00	30.00	30.00
2.2 Total number of students trained in intensive 2D animation program	0	200	700	1200	1700	2200	2200
2.3 Total number of students trained in intensive 3D animation program	0	0	0	40	140	270	270

2.4 Total number of students participating in animation certificate program	0	50	100	150	200	250	250
3.1 Number of startups graduating from Startup Jamaica accelerator that successfully raise follow-on capital	0	1	4	10	20	33	33
3.2 Percentage of startups graduating stage 3 of Component 2 the project that successfully raise follow-on capital	0.00	33.33	33.33	33.33	33.33	33.33	33.33
3.3. Percentage of startup companies graduating from Startup Jamaica accelerator program receiving	0	0	15	25	35	50	50

follow-on capital from Jamaican or Caribbean angel investors/angel networks							
3.4 Number of investors taking equity into companies graduating from SUJ accelerator program	0	3	5	7	9	11	11
4.1 Number of new mobile app startup companies accepted into SUJ accelerator and receiving seed funding (stage 3 of component 2)	0.00	5.00	15.00	35.00	65.00	100.00	100.00
4.2 Percentage of startups accepted into SUJ originating from Jamaica/Carib	0	50	50	50	50	50	50

bean							
4.3 Total number of people participating in activities/boot camps related to Startup Jamaica	0	600	1200	1800	2400	3000	3000

Indicator Description

Project Development Objective Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
1. Number of youth earning foreign exchange through global online work	Reflects the number of youth/young adults (defined broadly) who are successful in earning and collecting revenue from work done via global online platforms such as oDesk, Crowd Flower, and Mobile Works.	Quarterly	Startup Jamaica & records from global online platforms partnering with the project Follow up interview for training	MSTEM (PIU M&E)
2a. Number of youth who participate in one of the animation training programs (component 1) and <i>become employed</i> by the animation industry	Reflects the number of youth/young adults (defined broadly) who participate in the specialized animation training (whether short-term intensive training in basic ‘frontline’ animation or the degree programs) and who have succeeded in securing employment with one of the local Jamaican animation companies. Does not include self-employed animators or those employed by international companies.	Quarterly	Startup Jamaica Management Records Exit Survey Follow up interview for training participants	MSTEM (PIU M&E)
2b. Percentage of youth securing new 2D ‘frontline’ animation jobs who come from inner city communities	Reflects the percentage of youth who secure new ‘frontline’ animation jobs in the local animation industry -- as a result of graduating from the intensive 2D animation training program – who come from inner city communities.	Quarterly	Records from: Training programs affiliated with the project, Startup Jamaica Exit Survey Follow up interview for training participants	MSTEM (PIU M&E)
3. Private Capital Mobilized	The core indicator track the amount of direct financing (in the form of equity and/or debt) mobilized by private entities,	Annual	Follow up interviews for training participants	MSTEM (PIU M&E)

	using private funding, to finance investments within an IBRD/IDA operation or investments (PE, GE, RE, SF, and GU) directly linked to that operation.		Startup Jamaica Management Records Yearly report provided by Startup Jamaica Management	Startup Jamaica Management
4. Startup companies established through SUJ	Reflects the total number of startup companies established as a result of the project. This includes startups that graduated from the accelerator program (Stage 3 of Component 2) as well as startups that participated in the earlier two stages of the program and were able to get established and raise some seed funding without attendance in the accelerator program.	Annual	Startup Jamaica Management Records Yearly report provided by Startup Jamaica Management	MSTEM (PIU M&E) Startup Jamaica Management

Intermediate Results Indicators

Indicator Name	Description (indicator definition etc.)	Frequency	Data Source / Methodology	Responsibility for Data Collection
1.1 Number of youth participating in one-day training sessions through the program focused on opportunities for global online work	Reflects the total number of youth who participate in training programs that are focused on opportunities for global online work.	Quarterly	Startup Jamaica & records from global online platforms partnering with the project	MSTEM (PIU M&E)
2.1 Number of international full series animation projects outsourced to Jamaica per year	Reflects the total number of multi-episode animation projects that are outsourced by global companies to Jamaica each year.	Annual	Animation Studios Records Qualitative Interviews	MSTEM (PIU M&E)
2.2 Total number of	Reflects the total number of students	Quarterly	Startup Jamaica	MSTEM

students trained in intensive 2D animation program	participating in the intensive 3-month 2D animation training/mentorship program focused on basic 'frontline' animation work.		Management Records Exit Survey Follow up interview for training participants	(PIU M&E)
2.3 Total number of students trained in intensive 3D animation program	Reflects the total number of students participating in the intensive 6-month 3D animation training/mentorship program focusing on basic 3D animation work.	Bi-annual	Startup Jamaica Management Records Exit Survey Follow up interview for training participants	MSTEM (PIU M&E)
2.4 Total number of students participating in animation certificate program	Reflects the total number of students participating in the various animation certificate programs offered at established universities and training centers in Jamaica.	Bi-annual	Startup Jamaica Management Records Exit Survey Follow up interview for training participants	MSTEM (PIU M&E)
3.1 Number of startups graduating from Startup Jamaica accelerator that successfully raise follow-on capital	Reflects the number of those companies who have received seed funding and support as part of the stage 3, and who manage to raise additional funding of at least \$150,000 from interested investors.	Annual	Startup Jamaica Management Records Follow up interview for training participants	MSTEM (PIU M&E) Startup Jamaica Management
3.2 Percentage of startups graduating stage 3 of Component 2 the project that successfully raise follow-on capital	Reflects the percentage of those companies who have received seed funding and support as part of the stage 3, and who manage to raise additional funding of at least \$150,000 from interested investors.	Annual	Startup Jamaica Management Records Follow up interview for training participants	MSTEM (PIU M&E) Startup Jamaica Management
3.3. Percentage of startup companies graduating from	Reflects the percentage of companies who receive at least 25% of their follow-on	Annual	Startup Jamaica Management Records	Startup Jamaica Management

Startup Jamaica accelerator program receiving follow-on capital from Jamaican or Caribbean angel investors/angel networks	funding from Jamaican or Caribbean angel investors/angel networks established through the project.			
3.4 Number of investors taking equity into companies graduating from SUJ accelerator program	Reflects the number of different entities or private investors that take an equity position in companies graduating from SUJ accelerator program	Annual	Startup Jamaica Management Records	Startup Jamaica Management
4.1 Number of new mobile app startup companies accepted into SUJ accelerator and receiving seed funding (stage 3 of component 2)	Reflects the number of new mobile app companies who reach stage 3 of component 2 and who are given seed funding of approximately \$30,000 (part of it 'in-kind') by an international investor.	Annual	Startup Jamaica Management Records Exit Survey Follow up interview for training participants Yearly report provided by Startup Jamaica Management	MSTEM (PIU M&E) Startup Jamaica Management
4.2 Percentage of startups accepted into SUJ originating from Jamaica/Caribbean	Reflects the percentage of startups accepted into the accelerator program whose developers/owners originate from Jamaica or the Caribbean.	Bi-annual	Startup Jamaica Management Records	MSTEM (PIU M&E) Startup Jamaica Management
4.3 Total number of people participating in activities/boot camps related to Startup Jamaica	Reflects the total number of youth participating in any of the three stages of Component 2 including the monthly 1-2 day meetups and bootcamps.	Quarterly	Startup Jamaica Management Records	MSTEM (PIU M&E) Startup Jamaica Management

Annex 2: Detailed Project Description

JAMAICA: Youth Employment in Digital and Animation Industries

1. **Component 1. Skills and Capacity to Enhance Employability, Innovation and Entrepreneurship (US\$ 10 million).** This component will include the following activities:

2. *Workforce training for animation professionals.* This component envisions strengthening of existing programs at selected training institutions as well as support to the establishment of a training program delivered by the HEART Trust/NTA. Activities under this component will include:

(a) Developing 3-months 2D intensive training programs to fulfill immediate and medium term demand for animators by studios in Jamaica. The training will be hands-on and geared towards preparing students to enter directly into the outsourcing production pipeline. In order to allow youth from vulnerable communities to participate in the training program, no formal academic pre-requisite will be required. However, a screening mechanism to determine technical requirements will be put in place to determine eligibility. The program will aim at training about 2,000-2,500 animators in 2D animation (for which demand is higher) over the course of the 5 years of project implementation. Professional animators sourced from abroad will work closely with 40-50 students for 2 months on industry-wide relevant 2D training. Individual companies will then hire students to work for an additional 1 month (or longer) on actual projects, together with animator mentors if they so wish. Selected local animators will act as trainers or mentors from Year 2 of the Project onwards. 15 animators will train and mentor 100-150 new students per quarter. This operation will finance the expansion of existing labs for 2D animation (hardware and software), the design, delivery and evaluation of the 2D animation training program. It will also finance in-depth training for 2D animation trainers/faculty at world-class international training centers and/or animation power houses.

(b) Developing 6-months intensive program for 3D animation. The program will train a total of 250-300 students starting in Year 3 of the operation. Professional animators and trainers will need to be sourced from abroad. Animators will work closely with 15-20 students for 3 months on industry-wide relevant 3D training and then animation studios will hire students to work for a minimum of 3 months on actual projects. Animation studios consulted during the design phase of the project have confirmed that they will be in a position to cover part of the costs of bringing external trainers to Jamaica (e.g. by covering salaries and living expenses). As currently there are no 3D animation programs offered in the country, the allocation of approximately 50 fully equipped workstations for 3D animation will be made on a competitive basis during year 3 of the project, giving thus sufficient time for existing training institutes to prepare plans for an effective training program, including identifying appropriate faculty/trainers, designing effective curricula in collaboration with Jamaican studios and international players. This operation will finance hardware and software for 3D animation, as well as the design, delivery and evaluation of the 3D animation training

program. It will also finance in-depth training for 3D animation trainers/faculty at world-class international training centers and/or animation power houses.

3. ***Development of university level diploma for professional animators.*** Based on the recent experience developed at UWI-CARIMAC this operation will assist in the development of an accredited program in animation to be co-hosted by Jamaican universities and in collaboration with leading international animation companies and colleges. This would be the first such program in Jamaica and in the Caribbean. This operation will support its establishment by financing consulting services from national and international experts to develop the core curriculum, training of faculty and instructors in Jamaica as well as abroad, and the procurement of fully equipped workstations for an expansion of existing lab facilities. In addition, the operation will finance consulting services to ensure quality control mechanisms for the delivery of the course, as well as for the establishment of internationally recognized standards and certification processes to ensure world-class quality of the program.

4. ***Business acceleration for existing and new Jamaican animation companies.*** Existing animation studios in Jamaica are small and assistance on expanding their business will be critical in reaching the goal of creating additional employment opportunities for youth. Thus, this operation will finance a program of “business acceleration” to be delivered at the physical hub (component 2) with a specific focus on the vertical of animation. The training will be geared towards executives of existing animation studios as well as individuals interested in opening new animation studios. The operation will finance consulting services for the design, establishment, and delivery of such a training program. In addition, the operation will finance the participation of Jamaican delegations at key festivals and roadshows (Ottawa, Kidscreen in NYC, MIPCOM in Cannes) to showcase Jamaican animation products (both outsourced work and own IP), position the “brand Jamaica” in the animation sector and network with companies that might be interested in sourcing production work to Jamaica.

5. ***Training programs for accessing online work opportunities via online job platforms.*** This will consist of specialized workshops to provide an experiential learning opportunity for young people to use online platforms to generate an income. A pilot program has been recently conducted in collaboration with two Silicon Valley companies (Crowdfunder and MobileWorks) in Jamaica. Pilots have provided significant lessons learned in terms of modalities to reach target audience, minimum requirements to ensure successful participation of youth, and effective ways to ensure online payments to participants. Collaborative arrangements with the National Youth Service, the Jamaica Social Investment Fund, the National Center for Youth Development, and the Social Development Commission will be put in place to ensure targeting of youth across the country (ensuring equal access to male and female) and including at-risk youth and people with disabilities¹¹. This operation will finance training of trainers programs bringing to Jamaica representatives of some of the key online work companies to build capacity of a cluster of Jamaican people who can then deliver the training program across the island. The operation will also finance

¹¹ To that effect, the project will ensure collaboration with the Jamaica Association for Persons with Disabilities and the Ministry of Labor.

the design of a methodology and operational manual for trainers, as well as expenses related to the renting of computer labs and operational expenses (travel) for trainers to deliver the program in all Parishes of the island. A program will be put in place in collaboration with international companies participating in this initiative to monitor the number of Jamaican people employed on online platforms over the course of the project implementation. The Community Access Points (CAP) established by the Government of Jamaica will be utilized as preferential locations for the actual delivery of the training program, thus ensuring a capillary reach throughout the island.

6. *Training and capacity building for tech startup companies with a focus on helping them to move “from ideas to products to markets”.* Key areas of training will include aspects of branding, investment readiness, accessing global markets, accessing funds (angels, crowdfunding, royalty-based loans), revenue generation, innovative marketing solutions (including social media-based solutions), etc. All training activities will be conducted and delivered in the physical hub described in Component 2 of this operation. Training will include classroom-based instruction in combination with mentorship programs involving the business community in Jamaica, the diaspora, and virtual mentorship programs in collaboration with key international accelerator programs (e.g. Startup Chile, SkyDeck of Berkeley, 500Startups, and Oasis500). This operation will finance: a) the design of suitable training programs for Jamaican and Caribbean startups; b) a stakeholder mapping exercise and a demand-driven survey of current startups in the tech entrepreneurship space as a basis for the design of relevant training programs; c) consulting services for the design of a mentorship program; d) an assessment of mentorship opportunities in the Jamaican and Caribbean diaspora; e) cost of bringing to Jamaica key international speakers for specific training sessions as part of the overall startup program. Given the very fast-paced changing nature of this particular sub-sector of the economy, it will be important to review on a yearly basis the overall structure, effectiveness and results of the training program, leaving room for modifications and adjustments to respond to possible new market opportunities and/or critical changes (see for example the demise of Blackberry devices in a very short amount of time).

7. *Coding and product design training.* Discussions with international players in the tech world have pointed to the need to have a significant increase in the quantity and quality of software programmers. Similarly, universities rarely provide students with a solid understanding of product design. Both coding and product design, however, are critical factors in the development of a stable and continuous pipeline of products and services that can go to market down the line. This operation will finance coding and product design training programs to be delivered initially to a selected number of high schools and universities as well as via the HEART Trust/NTA, with the possibility of expanding to a larger number of similar institutions during the lifetime of the project. Curriculums will be developed on the basis of successful experiences such as codenow.org in the US and product design educational institutions. This operation will finance: a) consulting services to design a coding and product design program tailored for high school and university students (two-tiered approach); b) pilot testing and revision of training coding program; c) salaries for trainers and faculty involved in the deployment of the program across the island; d) M&E of coding training program for each year of implementation; d) training of trainers

workshops for high school and university teachers/faculty involved in ICT training; e) (if needed) rental of facilities for delivery of coding and product design training activities.

8. ***Organization of yearly events such as Digital Jam and KingstOOn.*** These initiatives are important to identify talented youth in the digital and animation sectors that can be further trained for jobs and/or build startup companies. Participation will be free and open to all, with a particular effort to reach out to lower income communities via collaboration with partners operating there (e.g. NYS, NYCD, JSIF, SDC, YUTE). Over the last few years these events have demonstrated to have a significant impact in terms of showcasing young talents that had not been able to find a way to demonstrate their value via other channels, as well as in terms of bridging the intangible (but with a big opportunity cost) gap between the Jamaican business community and the young tech community of entrepreneurs and animators. This operation will finance the organization of such events, one time per year. Expenses covered will include renting facilities, operational cost of running competitions, communication and outreach campaigns to involve as many young people as possible, training and mentorship programs to be offered to participants in the competitions, and overall management and organizational costs for the initiative.

9. ***Need-based scholarship fund for facilitating the participation of “bottom 40%” of youth population trainings programs.*** This scholarship will be administered in partnership with either academic or training institutions as appropriate, and thus rely on existing structures for identifying and awarding need based financial aid. The scholarship will be administered on the basis of a “conditional cash transfer” approach associated with students’ enrollment in the animation training programs. Details for selection of students and eligibility criteria will be elaborated in the Operational Manual.

10. ***Design of a policy framework for the development of the animation industry in Jamaica.*** The development of the animation industry in Jamaica is at its early stages, despite the significant achievements of the past few years in terms of new contracts outsourced to the country by international companies. Various stakeholders (animation studios, universities, government agencies) have been engaging in the sector since 2011. The Development Bank of Jamaica is currently carrying out a first background study on the state of the animation industry and its potential in the short and longer term. In parallel JAMPRO has produced a proposal for an industry-wide animation policy. As indicated above, the University of the West Indies-CARIMAC has launched the first animation training course in 2013. Despite these important efforts, significant challenges continue to remain and affect the full potential development of the industry in Jamaica. Among these, the most important issues include aspects related to intellectual property rights, regulatory frameworks for the industry, certification and standards for training programs, incentive schemes for new animation studios. This component wants to build on the important efforts made by national stakeholders in addressing pragmatically the opportunities offered by a growing animation industry, and help the Government of Jamaica to develop a comprehensive framework for the development of the industry. To that effect, this operation will finance: a) background studies and analytical papers; b) consultations with key stakeholders in Jamaica and abroad; c) consulting services for development of policy papers and/or industry development framework for the animation industry.

11. Component 2. Establishment of Startup Jamaica (US\$ 5.6 million).

12. *This establishment of a physical hub will play a critical catalyzing role in the strengthening of a viable tech entrepreneurship ecosystem in Jamaica and the Caribbean.*

Creation of new companies and expansion of existing ones will be crucial for job creation and employment generation among youth. Consultations with leaders of a number of similar experiences worldwide have confirmed the critical role played by a physical hub in the development of a thriving tech entrepreneurship ecosystem. It has been shown that collaboration and creativity are more frequent and more successful when tenants are physically located under the same roof. Moreover, the possibility to interact in an open co-working space is seen by startup entrepreneurs as a critical ingredient to develop collaborative networks that outlive their experience in incubators/accelerators, reduce significantly some of the costs of production for prototypes by leveraging on the differential skills-sets available in such spaces, gain insights on global markets, and access networks for business development and funding. The physical building will be provided by the JNBSF free of charge for 5 years under an MOU agreement. Startup Jamaica will be operated by a private sector operator reporting to an Advisory Board composed of government, accelerators and investor fund representatives.

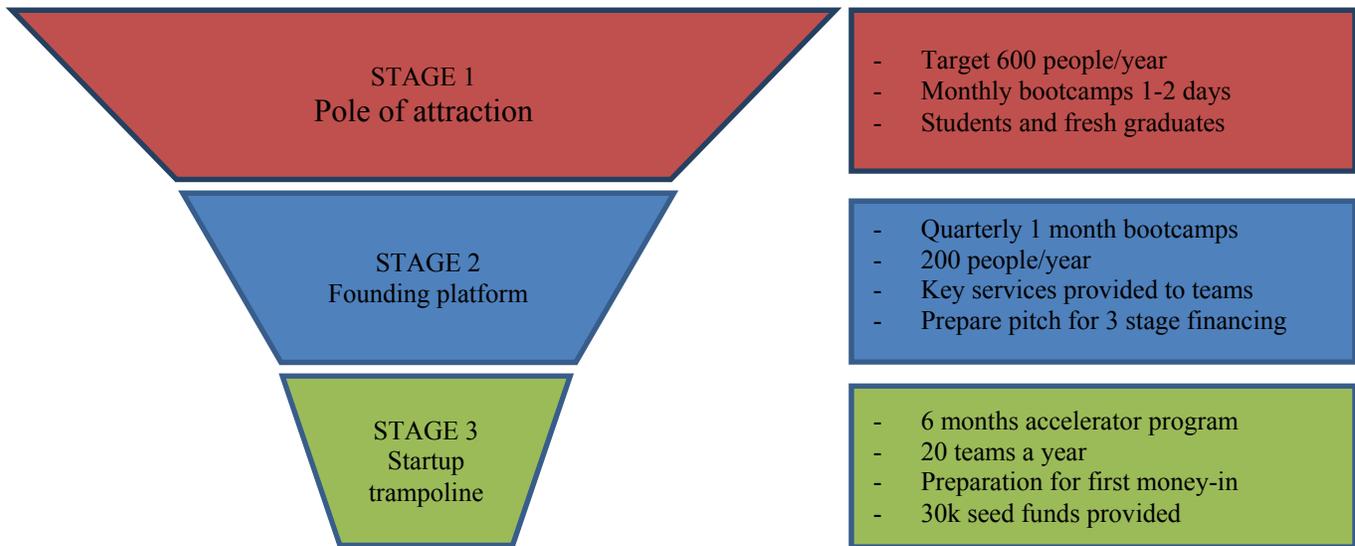
13. While Startup Jamaica will be physically established in Jamaica, participation will be open to other Caribbean and global companies. Experience worldwide, in fact, has shown that a critical factor in the success of such initiatives is the global dimension brought in by international entrepreneurs and by the creation of networks. This will also provide an opportunity for Jamaica to be recognized as a regional leader in the industry, and attract talent from other countries in the region. The physical hub will play two specific functions:

- (a) Acceleration program for tech startups
- (b) Provision of co-working space for early stages companies and event space

14. Overall, Startup Jamaica will function as an accelerator with its own pipeline development. Its scope is to attract a significant number of youth that can be inspired to become entrepreneurs, and generate – in a three-stage process – a pipeline of startups to be ready to go to market. Given the characteristics below, Startup Jamaica will constitute the core of a tech entrepreneurship ecosystem around which other players, actors, and processes will rotate.

15. The three stages can be conceptualized as illustrated in the diagram below:

- STAGE 1: Pole of attraction for students and fresh graduates interested in tech entrepreneurship;
- STAGE 2: Founding platform for teams
- STAGE 3: Trampoline for startups.



16. **STAGE 1 of this process will be targeting students in high schools and at universities, as well as fresh graduates or unemployed youth.** Core target for STAGE 1 are individuals who have a business idea but don't have sufficient information/knowledge to start planning. Events will consist of "orientations" for young people interested in establishing a tech startup writ large. Instruments utilized to attract youth will include meetups (1 day events) and bootcamps (1-2 days events). One such event will be held each month, targeting 50 people per event, for a total of approximately 600 people per year. These 600 people will be the broad pool of youth from which startups will emerge in Stages 2 and 3. Meetups and bootcamps will be a viable way for individuals to interact with peers and start planning teams that can be considered for support during STAGE 2. Specific items that this operation will finance for stage 1 activities include: a) communication and outreach campaigns to involve high school and university students; b) operational costs for running bootcamps.

17. **At STAGE 2 individuals will have formed teams developing prototypes.** It is expected that about 200 people from STAGE 1 will make it to STAGE 2. Additional teams that may already exist and are operating at early stages can be considered to enter the process at this stage. Teams will participate in a month-long in-depth technical and business training ("extended bootcamp program"). Teams will be provided with key services (technical, legal, accounting, IP, and business support) equivalent to ca. \$ 5000 per team. No cash will be provided. Teams will need to meet a number of milestones to avail themselves of the services provided. At this stage teams will work on prototype development, financial aspects, marketing aspects, testing product distribution and all other fundamentals to have a viable business model. At the end of the month-long training teams will prepare a pitch that will be used as a metric to transition to STAGE 3. Specific items that this operation will finance for stage 2 activities include: a) recruitment of service providers to support participating teams with in-kind advice on aspects described above; b) salaries and travel costs (wherever necessary) for external speakers/faculty needed to deliver the "extended bootcamp" training program; c) operational costs relative to running pitching sessions.

Course curriculum design and training material development will be covered by expenditures under Component 1.

18. STAGE 3 consists of a 6-month long acceleration program which will include a mentorship program with national and international business leaders. The structure of the acceleration and mentorship program as well as the key metrics to determine eligibility for the program will be developed jointly with representatives of leading global accelerators, including Oasis500 and 500Startups. Scope of the acceleration program is to support a selected number of promising teams in further developing their products and services so that they can either: a) apply for global accelerator programs to access global markets; or b) pitch to potential investors for follow-on financing. Teams entering STAGE 3 will be provided a 30k seed fund on a reimbursable basis (following the example of Startup Chile). Funds will be made available on a competitive basis via a partnership with Oasis500 which will establish a subsidiary seed fund in Jamaica. Additional financing resources may be made available via angel investors and/or other accelerator programs that have shown interest in Startup Jamaica. The 6-months program will be delivered 2 times per year, targeting initially 10 teams per cycle, for a total of 20 teams per year. Teams will need to leave the accelerator at the end of their 6-months tenure and will not be eligible to enter it again. At the end of the 6-months program, teams will prepare to showcase their products at “demo-days” to pitch to investors or for road-shows at tech events globally. Specific items that this operation will finance for stage 2 activities include: a) consulting services to design the 6-months acceleration program; b) staff and travel costs for external speakers to deliver sub-components of the acceleration program; c) operational costs for running the various events (demo-days, pitching, investor forums, etc.), d) recruitment and training of trainers for Jamaican individuals who will be delivering and/or assisting in the delivery of the acceleration program.

19. The 3-stage pipeline-to-accelerator program will be managed by a professional manager hired competitively in the international market. The manager will be supported by a team of professionals also hired on a competitive basis. An Advisory Board composed of national stakeholders (including Government and private sector leaders) and international accelerator managers will be established.

20. Part of Startup Jamaica will be reserved as a co-working space. This will facilitate interactions between the entrepreneurs participating in the accelerator, as well as between those and other early stages companies that may decide to use the space on a temporary or more permanent basis. The overall philosophy underpinning the use of the space is to have “everything on wheels” so that the space can be rearranged constantly to meet the different needs of the various groups of users. Having the possibility of reconfiguring the set-up of the space allows for a more effective use of the facility to accommodate a variety of activities (desks for startups, roundtables, business events, presentations, meetups, etc.). Users will be paying a fee to utilize the space and by the same token the space can be rented out for events generating a revenue stream that would contribute to the financial sustainability of the Startup Jamaica. Expenses related to the management of the co-working space will be included in the overall management of expenses.

21. In addition to the stage-specific activities already indicated above, this operation will finance: a) management for Startup Jamaica; b) technical staff for implementation of all activities needed; c) communication costs for overall Startup Jamaica Management; d) travel costs for Startup Jamaica manager (and wherever needed team members) to generate business opportunities nationally and internationally and/or to receive specialized training for tech accelerator managers; e) operational costs for running Startup Jamaica; f) goods (computers, printers, phones, etc.) needed for the functioning of the physical hub.

22. Component 3. Early Stage Investments for Tech Startups (US\$ 1.6 million)

23. This component aims at increasing the volume of Jamaican private sector investments in youth startup companies. Market-based early-stage capital is scarce in Jamaica and government grant programs can have perverse effects as recipients do not receive the same level of scrutiny provided by potential investors. This component will be driven by two guiding factors: 1) avoid crowding-out and perverse incentives in government programs and 2) harnessing the full potential of the private sector by establishing and promoting innovative and appropriate dissemination and implementation of a variety of early stage financing models such as angel investing, crowdfunding and royalty-based loans.

24. The Development Bank of Jamaica (DBJ) made considerable investment in establishing a venture capital market in Jamaica. DBJ research and global experiences show that thriving venture capital markets only exist in tandem with high quality deal flow generated by early stage investors such as angels or equity-based accelerators. In the United States, for every company invested in by venture capital there are 18 invested by angels. However, traditional equity based angel and venture investments are dependent on successful companies' exits (e.g. shares listed on an exchange) or repurchasing by the investor at a significant multiple of the amount invested. The nature of angel investing and venture capital is to seek only truly exceptional (i.e., very rare) situations where such exits from equity shares appear to be assured.

25. Jamaica can benefit from a deeper understanding and broader dissemination of royalty-based loans, which unlike a traditional loan, aligns interests between the investor/lender and the high growth company, without the need for an exceptional exit indicated above¹². A model royalty-based shareholder loan with equity participations is a medium- to long-term loan that provides a low base interest rate (typically several points below "prime"), and the right to a small percentage of gross sales during the life of the loan (typically 0.5% to 5% of sales). The loan includes an equity investment at book value with a predetermined buy back over the life of the loan at a low multiple (e.g. 3X).

¹² The most successful and experienced royalty-based SME investor in developing markets is Business Partners Limited in South Africa (BPL). BPL's, "risk royalty investment", one of four royalty-based products BPL offers on a non-collateralized basis to SMEs. BPL invests exclusively in SMEs, providing cash flow-based growth financing. BPL makes some 400 to 600 SME investments per year, 70% - 80% of which are royalty-based investments, both with and without accompanying equity participations. With royalty-based investment as its lead source of income, BPL has consistently provided a return on investors' equity in the range of 4.5% to 11.5% during the past decade since it began harvesting its first such investments. BPL's ROE is a remarkable performance for a development bank anywhere, but particularly for one that (1) targets only small businesses, (2) invests at an average of less than US\$ 1 million, and (3) pays taxes and receives no significant subsidies of its operations.

26. **With connectivity and secure payment systems Jamaica can also benefit from the growth of crowdfunding globally.** Crowdfunding falls into three broad categories: donations (e.g. globalgiving.org); pre-purchase agreements that provide the new venture working capital to move from prototype to mass production (e.g. Kickstarter and Indiegogo) and equity investments (e.g. Seedr in the UK). The Jamaica National Building Society Foundation has successfully launched a donation crowdfunding donation platform called *I Support Jamaica*. There is considerable interest in Jamaica in exploring the launch of pre-purchase and equity crowdfunding platforms as well. These are seen as easy methods to engage the large Jamaican diaspora in growing scalable business for youth employment and enterprise creation.

27. This component will include the following activities:

(a) Establishing a Jamaican Angel Investor Network. Subcomponent activities will include:

- (i) Identifying qualified investors in Jamaica as prospective angel investors with characteristics to include, but not limited to: over one million dollars in liquid assets, business knowledge and experience which could be helpful in evaluating prospective early stage investments, willingness to co-invest with other angels, and good standing and reputation in the business community. This will require working with proxies (investment advisors, business associations, etc.).
- (ii) Socializing and shaping an angel investor community among Jamaican and diaspora high net worth individuals to demystify angel investing and explain the benefits and pitfalls of angel investing. Educating prospective angel investors will require bringing in experienced angel investors from outside of Jamaica to explain different modalities of investment and angel network organization. While a Jamaican private sector angel network should be wholly self-sustaining without public funds, initial organization of events and familiarization trips may need to be organized and partially funded with public resources.
- (iii) Facilitating discussions between the emergent Jamaican angel investor network and policy makers to define and remediate simple administrative and regulatory constraints on angel investing in Jamaica. Subsequently, policy recommendations should be drafted by a qualified team of experts, knowledgeable of the Jamaican regulatory environment and the angel investing model.

(b) Promote alternatives to pure equity funding for private sector investment in early stage ventures. Subcomponent activities will include:

- (i) Feasibility study for royalty-based shareholder loans in Jamaica. This model has been successfully applied in a variety of middle income countries and is currently being explored by Trinidad and Tobago.

- (ii) Workshops with qualified investors to compare the traditional new venture funding (based on realized capital gains from equity) with royalty funding (cashflow-based financing with less than 100% collateral coverage).
- (iii) Policy dialogue between emergent Jamaican royalty funding investors and policy makers to define and remediate simple administrative and regulatory constraints on royalty-based investing in Jamaica. Subsequently, policy recommendations should be drafted by a qualified team of experts, knowledgeable of the Jamaican regulatory environment and the royalty-based shareholder loan model.

(c) Develop crowdfunding platforms. Subcomponents activities will include:

- (i) Undertake a feasibility study for a pre-purchase crowdfunding platform. Important questions are quantity and quality of possible crowdfunded products and services sourced in Jamaica as well as the likely successful completion rate of offerings to ensure ongoing community support. Dissemination of findings and ensuing policy dialogue will be supported by this operation.
- (ii) Explore the feasibility of a Jamaican equity crowdfunding platform. To date, only the UK and Italy have existing regulatory frameworks for equity crowdfunding, with the United States soon to follow. Important questions are quantity and quality of possible crowdfunded companies sourced in Jamaica as well as the difficulty in obtaining regulatory changes to make the platform legal.

(d) Establish a royalty-based loan fund for investments by local and diaspora individuals. While a royalty-based shareholder loan market may be slow to develop, the fund would provide a medium- to long-term loan at an exceptionally low interest rate with the additional right to share a small portion of the investee's gross sales (a "royalty" on sales), generally 0.5% to 5%. The investment would be self-liquidating through amortization of the loan's principal. The investor's "upside" would be received through the royalty paid throughout the life of the loan. The investor's risk relates primarily to the investee business's ability to increase sales throughout the life of the loan. The Government of Jamaica would make the investment more attractive by absorbing the cost of fund management fee.

(e) Public awareness campaign on "business financing beyond debt." Commercial banks are built on debt financing. Banks secure debt with physical assets. While this may work fine for established businesses seeking organic growth, it does not work for startups, which have few tangible assets. Increasing public sophistication on how new businesses can be funded, will take pressure off of established banks and the government to create non-market based approaches (e.g. grants or subsidized loans). This campaign will borrow valuable lessons from the highly successful Jamaican HIV-AIDS awareness campaign that combined star power public advertisements with

community influencers to change public awareness and behavior. The campaign adopt material from similar campaigns elsewhere such as by the U.S. Investment Company Institute Educational Foundation.

(f) Social Capital Stabilization and Growth¹³. The development and financing of a vibrant digital creative entrepreneurial ecosystem requires trust among investors and entrepreneurs. This subcomponent will identify and suggest simple remediation for trust deficiencies.

28. Component 4. Support to Science, Technology and Innovation (US\$ 0.8 million).

29. Startup Jamaica (component 2) can contribute to improve competitiveness and job creation in other sectors of the Jamaican economy. In fact, there are various sectors where innovation can have commercial applications resulting in higher competitiveness of Jamaican business and job creation. There is ample evidence that innovation, and the transformation of innovation into new or better products and services is one of the driving forces of economic growth in the long term. However, Jamaica only invests 0.3% of its GDP in Research, Development and Innovation (R&D+i).

30. There is very limited data available about Jamaican innovation inputs (e.g. expenditure on R&D+i, number of PhD students and graduates, etc.) and outputs (e.g. patents, publications in journals, etc.). Recent data shows that even though Jamaica scores better than Caribbean countries such as Suriname or Belize when the “number of patents per 100,000 individuals” is considered, it has not been able to improve its R&D outputs performance between 1995 and 2009. The high rate of outmigration for highly skilled Jamaicans could affect negatively the overall R&D+i competitiveness of Jamaica. A 2007 study shows that 85% of Jamaicans who migrated abroad hold tertiary degrees, and Docquier and Bhargava (2007) argue that the Jamaican brain drain for individuals above 22 years of age is 75%.

31. Innovation surveys with Latin American firms show that the main obstacles to innovation are: i) constraints in securing financing for innovation (high costs of innovation and risks), ii) firms’ inability to wait for long periods of time (perceived or real) before investments can be recovered or a positive return realized (rates of return), iii) in the case of small states, the small size of the market, and iv) the shortage of qualified personnel.

32. This component identifies and supports researchers working on products with potential commercial applications, through Stage 2 (incubation) and Stage 3 (acceleration) of the program. The activities of the component will be implemented into four steps.

(a) *Step 1*) A yearly call for innovations reaching out to relevant stakeholders (academia, R&D institutions, others), inviting researchers to submit innovations that have potential commercial viability. Calls can also be sector-specific if deemed more appropriate (for

¹³ This would be a contract with a group like <http://sea-changepartners.com/> Probably best to have back loaded, after first 18 months.

example agribusiness and food technology, or renewable energy and energy efficiency – as indicated by consultations with key academic institutions). Applicants will have to provide evidence of the commercial potential of their innovations making the case for accessing further support through Startup Jamaica.

- (b) *Step 2*) An *ad hoc* panel of experts will assess the quality of the R&D+i behind each proposal and the potential commercial viability and select up to 5 teams per call. Selected teams will be granted access to the incubation and support services provided by Startup Jamaica (stage 2).
- (c) *Step 3*) The selected teams will start the incubation activities and will have access to dedicated training and support. The teams will receive mentorship and guidance to develop the business aspects of their products (from registering a company, to develop business plans, etc.). Because of the specific nature of the selected innovations, some resources of this component will be made available to engage sector-specific experts. At the end of this phase, the teams will be required to prepare for the acceleration phase.
- (d) *Step 4*) Selected teams who have successfully completed the incubation phase through Startup Jamaica will be invited to the acceleration program (stage 3) where they will be given the opportunity to access other accelerators programs and pitch in front of potential investors.

33. The resources of this component will be used to cover: outreach activities of the calls, selection processes and consulting services (screening of the applications and the support to and training of the selected applicants). All activities undertaken under this component will be aligned and support the draft Science, Technology, and Innovation Policy of MSTEM.

34. Component 5. Project Administration (US\$ 2.0 million). This component will finance costs associated with program management, including the recruitment of a dedicated project manager and a team of professionals to support the implementation of the project (two technical specialists), project-related audits, monitoring and evaluation activities (including mid- and end-of-project evaluations), equipment and training to strengthen the Project Implementation Unit, as well as individual consultants (when needed) and operating costs. Core staff will be recruited on a time-bound basis. This component will also finance a communication strategy for the Government of Jamaica to target youth, the private sector community and to sensitize the general population on the role of Startup Jamaica and the opportunities that can become available in the digital and creative industries. This will include close coordination with the Ministry of Youth and Culture (MYC) to ensure youth networks are optimized to transmit relevant information throughout the island.

Annex 3: Implementation Arrangements

JAMAICA: Youth Employment in Digital and Animation Industries

Project Stakeholders

1. **The Ministry of Finance and Planning (MOFP):** has overall responsibility for developing the Government's fiscal and economic policy framework, collecting and allocating public revenues and playing an important role in the socio-economic development of the country.
2. **The Planning Institute of Jamaica (PIOJ):** leads processes of policy formulation on economic and social issues and external co-operation management to achieve sustainable development. As part of its broader responsibilities the PIOJ is responsible for initiating and coordinating plans and program for economic, financial, social, cultural and physical development of Jamaica.
3. **The Ministry of Science Technology Energy and Mining (MSTEM):** aims to improve the well-being of all Jamaicans through the leveraging of Science, Technology, Energy and Mining. It aims to do so by creating an enabling environment for Jamaicans to capitalize on sustainable and secure energy, responsible minerals investments, and a vibrant science, technology, and innovation sector. MSTEM, has been designated the executing agency for the Youth Employment in Digital and Animation Industries project. MSTEM has a good track record in implementing an on-going World Bank financed project and broadly has the institutional capacity to adequately address fiduciary issues under project procurement to meet the requirements of the World Bank and the Government of Jamaica.
4. In addition to the MSTEM, there are multiple stakeholders associated with the proposed operation that will contribute to project coordination and implementation. These include:
5. **Development Bank of Jamaica (DBJ):** The Development Bank of Jamaica Limited is a corporation that is wholly owned by the Government of Jamaica and is mandated to foster economic growth and development of strategic sectors of the Jamaican economy. The DBJ's aim is to facilitate the growth and development of all viable enterprises in the productive sectors of the Jamaican economy. These sectors include agriculture and agri-processing, manufacturing, information technology, mining and quarrying, energy, services and tourism.
6. **University of the West Indies (UWI):** Today, UWI is the largest and longest standing higher education provider in the English-speaking Caribbean. UWI offers undergraduate and postgraduate certificate, diploma and degree options in Engineering, Humanities & Education, Law, Medical Sciences, Pure & Applied Sciences, Science and Agriculture, and Social Sciences. As an icon of Caribbean integration and culture, UWI remains committed to enhancing every aspect of Caribbean development and improving the well-being of the people of the Caribbean.
7. **Caribbean Institute of Media and Communication (CARIMAC):** The Caribbean Institute of Media and Communication (CARIMAC) started in 1974 out of research by the United Nations Economic, Scientific and Cultural Organization (UNESCO) and a subsequent

partnership between the University of the West Indies and the Friedrich Ebert Stiftung Foundation (FES). The Institute was created to give regional communicators a Caribbean orientation with professional grounding while ensuring that Caribbean media and communication performed while assisting the region's development. CARIMAC is part of the University of West Indies.

8. **Ministry of Industry Investment and Commerce (MIIC):** Aims to contribute to Jamaica's readiness for the investments, business expansion and operation. To achieve this, it performs an overall oversight role of the portfolio, sets priorities and allocates financial and other resources accordingly. Furthermore, it provides the policy framework and strategic direction for the operations of Divisions, Agencies and Departments, it monitors performance, and it pilots the promulgation and amendment of legislation and regulations which guide the work of the Ministry, its Agencies and Departments.

9. **The Ministry of Youth & Culture (MYC):** The central government body primarily responsible for the development and welfare of Jamaica's youth. All the initiatives of the ministry serve to protect and enhance the lives of young people and assist them in becoming contributing members of society. The Ministry is also mandated to protect and preserve Jamaica's culture and cultural artifacts for future generations.

10. **The Ministry of Foreign Affairs and Foreign Trade:** Responsible for the implementation of Jamaica's foreign policy, the management of Jamaica's international relations and the promotion of its interests overseas. The Ministry is committed to promoting friendship and cooperation between Jamaica and other countries around the world, through political and diplomatic channels; providing effective representation of the Government of Jamaica overseas through resident diplomatic missions and consular posts and creating opportunities for foreign trade, investment and tourism. The Ministry is also focused on protecting the interests of Jamaican nationals overseas, returning residents and visitors to Jamaica.

11. **Creative Production and Training Center (CPTC):** CPTC is a full-service production company established to use its facilities to promote Jamaica's cultural and educational strengths through production of suitable programming as well as training. Through its experience garnered over the 24 years of its existence, CPTC has the requisite facilities both in terms of people and equipment together with the creative flair to execute services. CPTC is an experienced producer with an enviable track record of accomplishment in the delivery of client satisfaction as per contract.

12. **Edna Manley College of Visual and Performing Arts.** The College operates six schools offering essential professional preparation to full-time and part-time students in the Arts from the Caribbean, North America and Europe: Schools of Visual Arts, Drama, Dance, Music, Arts Management and Humanities, and Continuing Education Allied Programs. While the college currently does not have a pure animation program, faculty members specializing in animation are part of the staff and students often use animation as a medium to complete their assignments.

13. **Human Employment and Resource Training Agency (HEART Trust/NTA):** The Trust is mandated to finance, develop and monitor employment-training programs, assist in placing graduates seeking jobs and promote employment projects. The organization also has the

responsibility to deliver Technical and Vocational Education Training to individuals to provide and sustain a competent workforce. The organization is the facilitating and coordinating body for workforce development in Jamaica and provides access to training, as well as assessment services and certification of competence for working age Jamaicans.

14. **JAMPRO:** An Agency of the Government of Jamaica's Ministry of Industry, Investment and Commerce that promotes business opportunities in export and investment to the local and international private sector. In facilitating the implementation of investment and export projects, the organization is a key policy advocate and advisor to the Government in matters pertaining to the improvement of Jamaica's business environment and the development of new industries.

15. **Private Sector Organization of Jamaica (PSOJ):** National organization of private sector associations, companies and individuals working together to promote a competitive and productive private sector. The organization seeks to influence national policy issues of a political, social, or economic nature. The Executive Committee, under guidance from the Council, leads this process by promoting discussions with the country's government, political directorate and the opposition. The Organization is also in close and constant contact with the major multi-lateral and bi-lateral agencies.

16. **Landline, Internet, Mobile and Entertainment (LIME):** The Caribbean's largest telecommunications company in the region delivering its services across 14 Caribbean countries.

17. **Jamaica National Building Society (JNBSF):** The Jamaica National Building Society (JNBSF) is the product of a series of mergers pioneered by the Westmoreland Building Society. Today, Jamaica National is ranked among Jamaica's largest financial institutions offering a blend of financial services and mortgage plans to customers living in Jamaica, the United States of America, the United Kingdom, Canada and The Cayman Islands.

18. **Oasis500:** Oasis500 is a leading early stage and seed *investment* company, the first of its kind in Jordan and the MENA region. Its program at Oasis500 includes *entrepreneurship* training, mentorship guidance, business incubation and additional follow-up *investment* and funding if required, turning new business ideas into *startups* and helping existing entrepreneurs grow their companies with our angel investor and mentor networks. Oasis500 nurtures creative ideas in Information Technology (IT), Mobile and Digital Media, transforming them into *startup* companies.

Project Institutional and Implementation Arrangements

19. The project will be administered by the existing PIU of MSTEM. Capacity of the existing PIU, however, will be strengthened through this project by hiring: a dedicated project manager, a procurement specialist and a contract administration clerk. All procurement transactions will be carried out by the PIU in MSTEM, including the administration of the scholarship and research grants respectively under Component 1 and Component 4.

20. Startup Jamaica (Component 2) will be managed by a professional recruited internationally on a competitive basis. The profile of Startup Jamaica manager will need to combine experience in managing accelerators/incubators for startups with experience in managing seed-fund

investment operations. The manager will be supported by a small team of national specialists recruited on a competitive basis. Draft TORs for these positions are included in the Operational Manual. Startup Jamaica manager will be responsible to run all activities related to Component 2 as well as activities under Component 1.4, 1.6, and 1.8 of this project.

21. Startup Jamaica will operate with an Advisory Board comprised of key public sector and private sector stakeholders. The Advisory Board will be chaired by MSTEM, and will include a selection of representatives from JAMPRO, DBJ, PIOJ, as well as a selection of representatives from JNBSF, LIME, Oasis500 and 500 Startups.

22. A separate Steering Committee advising on the implementation of the overall Youth Employment in Digital and Animation Industries project will be established. The Steering Committee will be composed of representatives from Jamaican public institutions, including MSTEM, MIIC, PIOJ, MYC, JAMPRO, HEART Trust/NTA, DBJ and MOFP. The Steering Committee will be chaired by MSTEM.

23. HEART Trust/NTA, selected universities and other training institutions will be responsible for the implementation of the animation training, coding and product design training portions of this project (i.e. Component 1.2, 1.3, and 1.7). They will also be responsible for managing the need-based scholarship fund under Component 1.9.

24. The Development Bank of Jamaica will be responsible for implementing all activities under Component 3, while the implementation of Component 4 will fall directly under the responsibility of MSTEM.

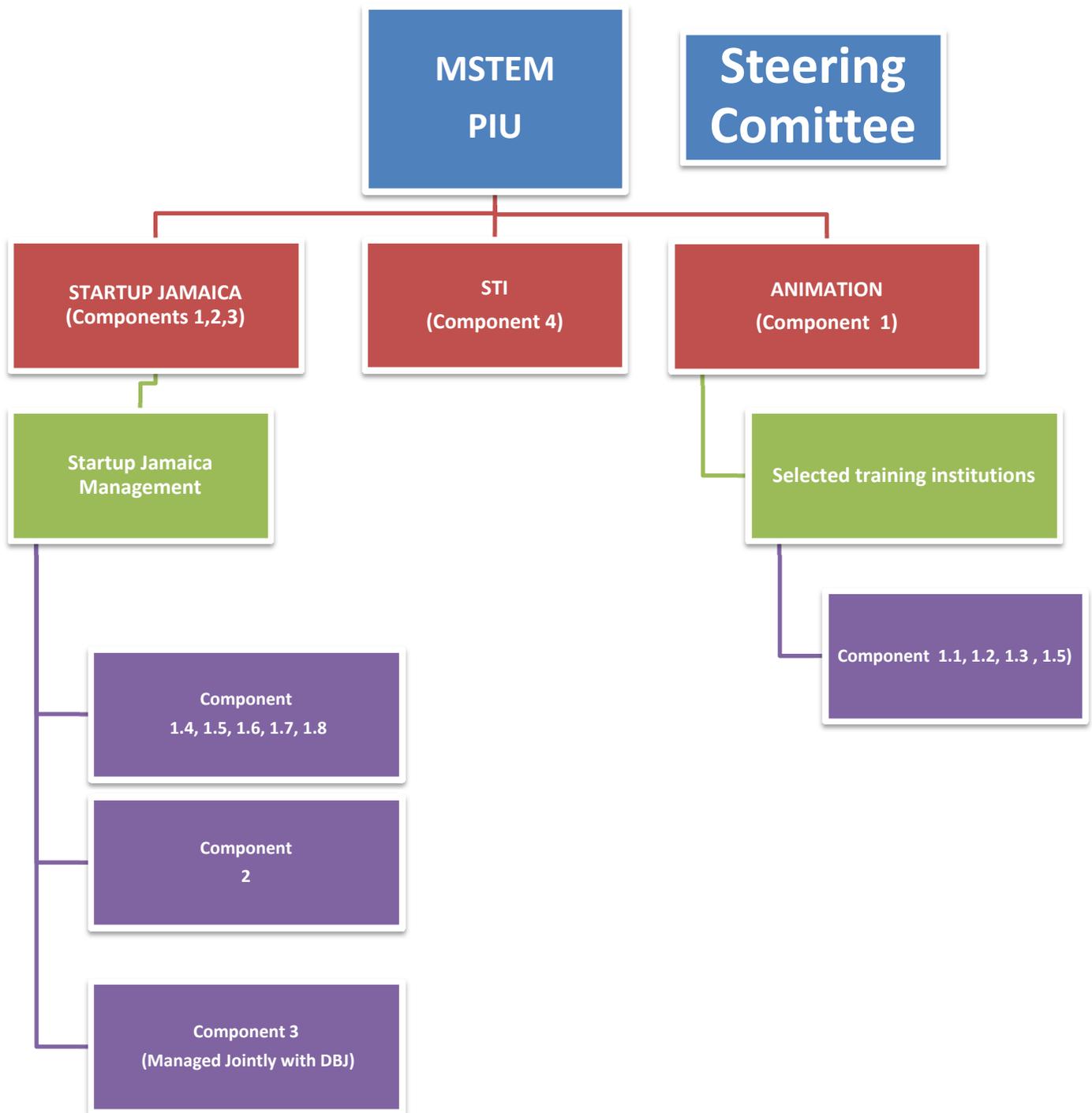
25. All institutions involved in the implementation of this project will report directly to the PIU established in MSTEM.

Project administration mechanisms

Table 1: Responsibilities for Implementation

Item	MSTEM	Hub Manager	Ministry of Youth and Culture	Oasis 500	JNBS	OTHERS
Animation Training	<ul style="list-style-type: none"> - Procurement of hardware and software. - Hiring trainers and trainers of trainers. 		<ul style="list-style-type: none"> - Outreach activities with youths - Coordination with NCYD and NYS for targeting mechanisms 			UWI-CARIMAC HEART TRUST CPTC <ul style="list-style-type: none"> - Manage training programs - Maintain hardware and software - Support the outreach activities to engage potential participants/students
Startup Jamaica Hub	<ul style="list-style-type: none"> - Procurement of equipment - Procurement consulting services (hub manager on turn-key basis). - Procurement of non-consulting services. - Monitor overall performance of hub. 	<ul style="list-style-type: none"> - Manage overall hub activities; - Design and run activities and training programs. - Sub-contract consultants for specific activities as needed. - Design and run mentorship program. - Manage fund for startups - Contract support services for participating startups at Stage 2 of the acceleration program; - Design and run demo-days, investors forums, pitching competitions, etc. - Organize yearly 	<ul style="list-style-type: none"> - Outreach activities with youths - Coordination with NCYD and NYS for targeting mechanisms 	<ul style="list-style-type: none"> - Provide funding for selected startups at Stage 3 of acceleration program. - Sit on the advisory committee for hub. 	<ul style="list-style-type: none"> - Provide building for hub for 5 years. 	LIME <ul style="list-style-type: none"> - Provide connectivity to the Hub.

Item	MSTEM	Hub Manager	Ministry of Youth and Culture	Oasis 500	JNBS	OTHERS
		events including competitions.				
Access to capital	- Procurement of consulting services for angel investor, crowdfunding and royalty-based loans programs.	- Design and manage all activities for establishment of angel, crowdfunding and royalty-based loans; - Design and run workshops, outreach activities to appropriate networks; - Manage relations with international partners.	- Outreach activities to ensure dissemination of information.		- Assist with establishment of crowdfunding platform on the basis of JNBS experiences.	DBJ - Facilitate discussions with Jamaican investors interested in angel, crowdfunding and royalty-based loans - Coordination with broader VC and equity market strategy
Component 4 (Science and Technology)	- Procurement of consulting and non-consulting services	- Run call for proposals on a yearly basis				
Component 5 (Project Management)	Overall management of project, including all fiduciary arrangements and M&E.	- Coordinate with PIU for project implementation				



Agreements

26. **Government of Jamaica and Jamaica National Building Society:** An MOU will be signed which will specify the commitment from part of JNBSF to provide the physical building where Startup Jamaica will be housed for the duration of the project. The MOU will specify respective responsibilities for the maintenance of the building and other related services (i.e. security, cleaning, etc.).

27. **Government of Jamaica and LIME:** Both parties will sign an MOU to define the modality by which LIME will provide connectivity services for Startup Jamaica free of charge for the duration of the project.

28. **Government of Jamaica and Oasis500:** Both parties will sign an MOU defining the modalities by which Oasis500 will provide seed capital for companies entering Stage 3 of Startup Jamaica, as well as the conditions for managing and monitoring the implementation of the mentoring program for participating companies.

Financial Management, Disbursements and Procurement

Financial Management

29. **The Ministry of Science, Technology, Energy and Mining (MSTEM) has been implementing the Energy Security Efficiency Enhancement Project since 2012;** its financial performance has been satisfactory. The same Project Implementation Unit (PIU) would be responsible for the financial management of the Project, for which it has adequate financial management capacity to meet the requirements of OP/BP 10.00. The overall financial management risk for the project is assessed as moderate. The detailed financial management arrangements are reflected below.

30. **Budgeting.** The PIU prepares the project budget, which is integrated with the national budget of the Government of Jamaica. The implementation of the budget will be monitored by the PIU, MSTEM, and the Ministry of Finance and Planning (MOFP). The project's accounting year would follow the Government of Jamaica's fiscal year and project annual budgeting would be based on the cost tables, which would be updated according to the latest information during project implementation. The annual budgets would be prepared by the PIU in collaboration with MSTEM, and submitted to the MOFP for final approval. The approved annual budget would be included in the Government of Jamaica budget estimates, entered into the accounting system, and used for periodic comparison with actual results as part of the interim reporting. The approved budget would be shared with the World Bank and would be entered in the GFMIS as well as QuickBooks to monitor progress of budget implementation.

31. **Staffing.** The PIU currently has two financial management (FM) staff working on existing projects, one of whom is a qualified accountant. They are supervised by the PIU coordinator. The FM capacity of the PMU is adequate. Both the staff would require further training. As such, it would be useful if both FM staff are nominated by the PIU to attend the next World Bank fiduciary training.

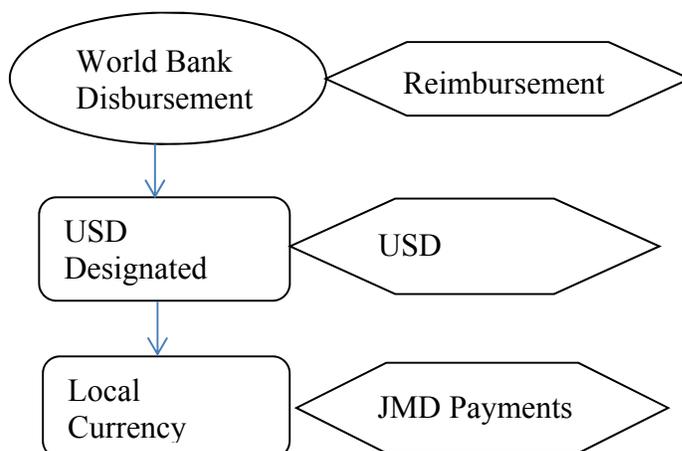
32. Accounting policies and procedures. The PIU is using a computerized accounting system (AccPac) to maintain existing project accounts. Project transactions would be recorded as incurred, and all primary supporting documentation would be maintained to facilitate ex post reviews and external annual audits. Such documents should be maintained for a minimum period of three years. The detailed accounting policies and procedures are set forth in the Project Operations Manual.

33. Internal controls and safeguarding of assets. The Project Operations Manual reflects the structure of the PIU, administrative arrangements, internal control procedures—including procedures for authorization of expenditures, maintenance of records, safeguarding of assets (including cash), segregation of duties to avoid conflict of interest, regular reconciliation of bank account statements, bank accounts signing mandate (to include at least two signatories)—and regular reporting to ensure close monitoring of project activities and the flow of funds to support project activities. Project-specific information, such as the chart of accounts, the formats of the reports, etc., would be added as part of the Annexes to the manual. The Project Operation Manual would be a live document and would be updated from time to time. The PIU would maintain all supporting records of the project. Annual physical inspection would be undertaken by the implementing agencies and PIU staff, with the participation of the internal auditors. A risk-based internal audit plan would be prepared by the project, which will be shared with the Bank. The internal audit would be conducted each semester and a copy of the report would be shared with the Bank.

34. Financial reporting. The PIU would be responsible for producing the interim financial reports (IFRs) on a quarterly basis to be submitted to the Bank. These reports would provide required monitoring information and would be used for disbursement purposes. The IFRs would include a short narrative outlining the major project achievements for the quarter, the project's sources and uses of funds, bank reconciliation statements, and necessary procurement tables. These reports would be submitted to the Bank no later than 45 days after the end of each reporting period. The annual financial statements would include the project's sources and uses of funds, a detailed analysis of project expenditures, a schedule of withdrawal applications presented during the year, a reconciliation of the designated account, the notes to the financial information, and a management representation letter. These reports would be prepared by the PIU and made available to both the internal and external auditors.

35. Disbursement and flow of funds. The project funds would be channeled through a designated account denominated in US dollars, which would be opened by MOFP in the Central Bank of Jamaica. Advances to the designated account would be made based on the forecast of the project's eligible expenditures for a period of at least six months, based on interim financial reports. Supporting documentation for expenditures made from the designated account would also be based on the IFRs. The Project would operate a local currency account, to finance project expenditures in local currency, where funds from the US dollar-designated account would be periodically transferred. (See Figure 3 below, which reflects the flow of the funds. Direct payment, if any, by the Bank is not reflected in the diagram.) These accounts would be operated in accordance with the procedures and guidelines set forth in the Bank's Disbursement Guidelines. The reimbursement method of disbursement would also be available. The supporting documentation for this method would also be the interim financial reports and the supporting documentation for the expenditures with a clear explanation how the expenditures were financed.

The minimum application size for reimbursement should be US\$100,000. The project's disbursement arrangements would be established in a disbursement letter, which would include reimbursements, direct payment, special commitment, and advances.



36. Annual audit of project financial statements. The project financial statements would be audited annually. The Auditor General of Jamaica will be responsible for auditing the country's public accounts, including projects funded by international organizations. The Auditor General's Office has performed adequately in the past in terms of the quality of the audit reports provided and the timely delivery of annual audited financial statements for Bank-financed projects. Annual project financial statements would be audited by the Auditor General in accordance with auditing standards issued by the International Organization of Supreme Audit Institutions and/or International Standards on Auditing issued by the International Federation of Accountants. The PIU would prepare the auditors' terms of reference, which would be reviewed by the Bank before the engagement of the auditor. The annual audit reports would include an opinion on the project financial statements, including designated account reconciliation, review of the internal controls, project's compliance with the terms of the financing agreement(s), and a management letter. The project's annual audit report would need to be submitted to the Bank for review no later than six months following the end of the fiscal year. In accordance with the Bank's disclosure of information, the audited financial statement would be made publicly available.

37. Project implementation support by the Bank. As part of project implementation, the Bank would conduct risk-based financial management reviews, at appropriate intervals. These would pay particular attention to (a) project accounting and internal control systems; (b) budgeting and financial planning arrangements; (c) review of the interim financial reports; (d) review of audit reports, including financial statements and remedial actions recommended in the auditor's management letter; (e) disbursement management and financial flows, including counterpart funds, as applicable; and (f) any incidences of corrupt practices involving project resources.

Action Plan

SL #	Action	Responsibility	Target date
1	Preparation of a Project Operations Manual, which will outline the details of financial management.	PIU	Before presentation to Board
2	Terms of reference for external audit of the project	PIU	Within three months from the first disbursement of project funds
3	Prepare a risk-based audit plan	MSTEM	Within three months of project effectiveness

Procurement Arrangements

1. Procurement of Works: (No major works under the project is foreseen). Works procured under this project, if any, could include upgrading of the facility (painting, new lighting, overall improvements). Procurement would be carried out using the World Bank's standard bidding documents (SBDs) following national competitive bidding (NCB), and shopping for small value contracts as agreed with the World Bank.

2. *Procurement of Goods*: Goods procured under this project would include: computers and tablets for animation labs, workstations, office furniture and equipment, and supplies). Goods contracts will be grouped, to the extent possible, into bidding packages of more than US\$150,000 equivalent, using the Bank's Standard Bidding Documents (SBD) and following ICB procedures. Limited International Bidding (LIB), National Competitive Bidding (NCB) and the Shopping used for small value contracts shall be followed as agreed in the PP. The proprietary software licenses for animation lab will be contracted following Direct Contracting procedures.

3. *Procurement of non-consulting services*: will consist of public outreach campaign and marketing, organization of yearly events (e.g. Digital Jam), maintenance, cleaning, security of the physical hub facility and utilities and logistics for training which will be contracted following shopping or NCB procedures.

4. *Selection of Consultants*: Consulting services would be required under this project for preparation of training curriculum, content development with leading partners and management of Startup Jamaica maintenance etc. Individual consultants would be selected following the procedures set forth in Section V of the Guidelines, whereas consulting firms would be selected following Quality and Cost Based Selection (QCBS), Least-Cost Selection (LCS), Selection Based on Consultant's Qualifications (CQS) etc. Short lists of consultants for services estimated to cost less than \$200,000 equivalent per contract may be composed entirely of national consultants in accordance with the provisions of paragraph 2.7 of the Consultant Guidelines.

5. *Operating Costs* mean the following reasonable incremental operational costs (which would not have been incurred absent the Project) related to Project implementation, management and supervision and incurred by the Borrower: (i) costs for utilities, maintenance and consumable office supplies, printing services, and communication services; and (ii) transportation costs, travel and per diem cost for project staff which will carry out supervisory activities under the Project.

6. *Stipend and scholarship* payments to gain experience by interning with high growth companies under Component 4. The stipend and scholarship are not subject to procurement.

Procurement Assessment

7. *The Procurement Risk Assessment and Management* of the capacity of the Implementing Agency was carried out in March/April 2014 for the Project by the Bank's procurement accredited staff in line with the Procurement Risk Assessment and Management System (PRAMs) Module by the World Bank. The questionnaire for PRAM was filled in by the officials in MSTEM on the assessment of the Procurement. The following are the summarized findings:

- All procurement is done in keeping with the Government of Jamaica (GoJ) Handbook of Public Sector Procurement Procedures, which refers to additional specific provisions as agreed with external funding agencies. The World Bank's procurement guidelines are included in the Appendices of the JSIF Operational Manual.
- The project procurement will be managed by an experienced project unit (PIU) in MSTEM implementing an on-going World Bank financed project which has the institutional capacity to adequately address issues to meet the requirements of the World Bank and the Government of Jamaica.
- The PIU composed of the project manager, finance and procurement officers and contract administrative clerk has established a good procurement system, including the SBDs, standard RFP and contract templates.

Action Plan in Strengthening the Capacity to Implement Procurement Actions:

- a. The existing PIU in MSTEM for the projects financed by the World Bank will be strengthened with additional support on procurement and contract management.
- b. The project team and procurement officers shall attend training for procurement in the regional workshop in 2014.
- c. The procurement plan for the implementation of the project during the first 18 months, is agreed at preparation of the project as shown in Table A.

d. Tender/selection documents for the first year's procurement under ICB and QCBS in the procurement plan should be prepared by PIU and submitted to the Bank for review by the effectiveness of the project.

8. *Procurement Plan*: The procurement plan for implementation of the proposed Project for the first 18 months to be agreed between the Borrower and the Project Team on April 2, 2014 is shown in Table A below. The plan shall be made available at web address <http://www.worldbank.org/procure> within 30 days of the signature of the Financing Agreement. It would be updated annually and the updated procurement plan shall be disclosed at this site after clearance by the Bank. The recommended thresholds for the use of the procurement methods specified in the Loan Agreement are identified in Table B as the basis for the agreed procurement plan.

9. *A General Procurement Notice (GPN)* would be published in the UN "Development Business" on -line around the period of Loan Negotiation. For ICB goods and works contracts and large-value consultants contracts (more than US\$200,000), Specific Procurement Notice would be advertised in the Development Business on -line and national press.

10. *Frequency of Procurement Supervision*. Supervision of procurement would be carried out through prior review supplemented by supervision missions with post review at least once a year.

Table B: Thresholds for Procurement Methods and Prior Review

Expenditure Category	Contract Value (Thresholds) US\$ thousands	Procurement Method	Contracts Subject to Prior Review
1. Works	>1500	ICB	All
	<1500	NCB	First contract
	<150	Shopping	None
2. Goods and Non Consulting Services	>100	ICB	All
	<100	NCB	First contract
	<50	Shopping	None
	Regardless of value	LIB, Direct Contracting	All
3. Consulting Services			
3.1 Firms	≥200	QCBS,QBS,FBS, LCS	All
	<200	QCBS,QBS,FBS,LCS, and CQS	First contract
	Regardless of value	Single Source	All
3.2 Individuals	Regardless of value	Comparison of 3 CVs in accordance with Chapter V of the Guidelines	None

Expenditure Category	Contract Value (Thresholds) US\$ thousands	Procurement Method	Contracts Subject to Prior Review
	Regardless of value	Sole Source	All

Note: ICB = International Competitive Bidding LIB = Limited International Bidding NCB = National Competitive Bidding

QCBS = Quality- and Cost-Based Selection - QBS = Quality-Based Selection

FBS = Fixed Budget Selection - LCS = Least-Cost Selection

CQS = Selection Based on Consultants' Qualifications

Environmental and Social (including safeguards)

Social aspects

7. The project will have a broad and positive social impact, in particular on youth. The operation will generate opportunities for employment across the board among Jamaican youth, both via online platforms, in the animation industry, as well as in terms of entrepreneurship development. The part of this project that supports the development of the animation industry, in particular, will have a positive impact on inclusion on different fronts. In fact, given the low entry barriers into the profession, young people from lower income brackets and from disadvantage communities will be able to utilize the services provided via this project to pursue a professional career that is not available today in their contexts. The strong collaboration between Jamaican training institutions delivering animation programs and the animation studios allows for a direct transition from training into production pipelines in ways that is seldom seen elsewhere. As demonstrated by the recent course at UWI on animation, many of the participants were males and a few students were bearers of disabilities (autistic). This represents an additional set of inclusive dimensions associated with this project. In particular, the gender aspect is an important one given the Jamaican context, where gender disparities in terms of attendance of educational institutions and participation in the labour market are reversed, with less males successfully studying and/or working than female counterparts. This is also important from the standpoint of reducing vulnerability to crime and violence exposure, which has been documented extensively on its young-male to young-male dynamics both as victims and as perpetrators. The operation provides the opportunity to reach disengaged youth who are neither working nor studying, and helping them employ their time in productive activities, thus reducing their risk of being exposed to and participating in criminal activities during their free time.

8. Similarly, the startup ecosystem will provide significant benefits for young people. Startup Jamaica will provide a significant number of opportunities to young people from Jamaica to get in touch with peers from other Caribbean nations as well as international youth entrepreneurs. Many of the activities managed by Startup Jamaica will include a strong communication and outreach component to involve youth from across the island. A strong partnership with key institutions such as the Ministry of Youth and Culture, the NCYD, NYS, the YUTE program, the SDC Commission and others will allow to reach a broad spectrum of

youth, including those from more disadvantaged and underserved communities. As technology is lowering entry barriers in the world of work and entrepreneurship, this project will provide a spectrum of opportunities via online work and self-employment that many Jamaican youth are simply not aware of. In that respect, the use of technology can have a fundamental impact on empowerment of youth beyond the specific objectives of this project.

9. **No involuntary resettlement will be generated through this operation.** All physical infrastructures for the project will be either made available for free to the Government of Jamaica or is already the property of the Government of Jamaica. No additional structural works will be needed, nor acquisition or requisition of land or property.

10. As such, the project's Environmental Assessment Category is C and there are no Environmental Safeguards policies or Social Safeguards triggered.

11. **Overall responsibility for monitoring and evaluation of the Project will lie with MSTEM, which will consolidate all reports and provide information about the progress and project execution to the Bank, including qualitative and quantitative information on the execution of selected interventions, procurement and contractual decisions, accounting and financial recording, progress of outcomes, outputs and monitoring of indicators, as well as other operational and administrative matters.** MSTEM's Monitoring and Evaluation Unit will be assisted in the overall process by other institutions involved in the execution of the Project; Startup Jamaica Management, MSTEM and specialized consultants, as required. The Project Operations Manual will provide specific details regarding monitoring and evaluation responsibilities, including data collection requirements, timing and use of the information. The Results Framework is presented in Annex 1

Role of Partners

12. The operation will be designed and implemented in close collaboration with internal and external stakeholders. Internal stakeholders include the FPD team preparing the Growth and Competitiveness project, the urban development team preparing the Integrated Community Development Project and the InfoDEV/EPIC team.

13. Externally, a large number of national and international private sector partners have expressed interest in continuing collaboration with the World Bank in the development of the digital and creative industries in Jamaica. These include FLOW and Columbus Solutions, LIME, Jamaica National Building Society, Microsoft, 500Startups, ToonBoom, Mattel, Disney, RIM Blackberry, Freelancer, GSW Reelrock, TV Jamaica, the RJR Group, among others. In addition, interest in collaborating has been expressed by other incubators and accelerators such as the Ruta-N program, the Startup Chile program, the Appinventor program at MIT and the SEED program in Stanford.

14. Additionally, the team will seek to establish partnerships with other development partners that have expressed an interest in collaborating with the World Bank on these initiatives. These include the Government of Canada, USAID, the Caribbean Development Bank and the Caribbean Export Development Agency (CEDA).

15. To ensure sustainability, the proposed operation will be based on a strong set of linkages and partnerships with the private sector, both nationally and internationally. Private sector participation will be ensured through:

- (a) Establishing partnerships with national and international private sector companies for the provision of specialized and world-class training to Jamaican youth;
- (b) Establishing partnerships with international incubators and accelerators and/or networks;
- (c) Establishing a “private sector sounding board;”
- (d) Establishing direct linkages with diaspora organizations in the US, Canada and the UK;
- (e) Establishing linkages with key initiatives that have been or are in the process of being developed in Jamaica in the creative and digital industries.

Annex 4: Operational Risk Assessment Framework (ORAF)

Jamaica: JM Youth Employment in Digital and Animation Industries (P148013)

Project Stakeholder Risks					
Stakeholder Risk	Rating	Moderate			
<p>Risk Description:</p> <p>1. Many stakeholders need to be engaged for the successful outcomes; there is lack of proper incentives in place to ensure the effective participation of the diverse stakeholders; and a diversity of respective agendas.</p> <p>2. The outcomes sought by this operation cut across institutional mandates (youth, technology, industry and investment). Different ministries claim that the project falls ideally under their mandate, possibly leading to weak inter-government coordination.</p>	<p>Risk Management:</p> <p>1. There has been a thorough consultative process during the design phase of the project. The consultative process involved national, regional and international stakeholders from the private sector, incubators and accelerators, animation studios, outsourcing companies, entrepreneurial associations, the academia, the tech community and others. Moreover, an advisory committee with representatives and experts from the stakeholder private companies and institutions will be put in place to continue to provide advice throughout the life of the project.</p> <p>2. The selection of the implementing agency in the Government of Jamaica was made jointly with PIOJ. MSTEM was selected as the implementing agency given i) their proven FM and procurement capacity, ii) previous experience implementing World Bank financed operations and iii) their leadership in the Startup Jamaica initiative. However, it was also agreed that cooperation with the different stakeholders would be necessary for the successful implementation of this operation. The project put in place several consultative mechanisms during project design and for Startup Jamaica Management and implementation of Startup Jamaica activities so as to ensure cooperation between stakeholders.</p>				
	<p>Resp: Both</p>	<p>Status: In Progress</p>	<p>Stage: Preparation and Implementation</p>	<p>Recurrent: <input checked="" type="checkbox"/></p>	<p>Due Date: N/A</p>

Implementing Agency (IA) Risks (including Fiduciary Risks)						
Capacity	Rating	Moderate				
Risk Description: MSTEM is short of personnel to implement procurement activities for a new project, thus requiring appropriate institutional strengthening.	Risk Management: The PIU for the project will include two technical specialists on tech entrepreneurship and animation. This will strengthen the capacity of the PIU in managing the project in these new areas of engagement for the Ministry.					
	Resp: Govt	Status: Not yet due	Stage: Implementation	Recurrent: <input type="checkbox"/>	Due Date: August 2015	Frequency: ONCE
Governance	Rating	Low				
Risk Description: No significant governance risk.	Risk Management:					
	Resp:	Status:	Stage:	Recurrent: <input type="checkbox"/>	Due Date:	Frequency:
Project Risks						
Design	Rating	Moderate				
Risk Description: Nascent “ecosystem” in animation and digital industries; limited participation and contribution of relevant stakeholders to the design of the project; limited diaspora engagement.	Risk Management: The risks presented will be mitigated by conducting an economic analysis that provides a thorough assessment of the challenges and opportunities of these two sectors in Jamaica. In particular, the assessment will be based on a proactive engagement of relevant national, regional, and international stakeholders. Macro risks (e.g. the lack of adequate legislation for IP protection or inadequate bankruptcy law) will be mitigated by working closely with the relevant national institutions (e.g. JIPO). The team will also work closely with the team preparing the Growth and Competitiveness project to ensure policy concerns that are relevant to this operation are incorporated and covered by that operation.					
	The risk of limited participation of relevant stakeholders will be mitigated by putting in place relevant partnerships. Partnerships with academic institutions will ensure a strong educated workforce supply; and the creation of an advisory committee for Startup					

	<p>Jamaica that will include representatives from relevant industries and institutions will ensure that Startup Jamaica activities are state-of-the-art and are addressed to the appropriate audiences. Furthermore, a strong partnership with the Ministry of Youth (in Jamaica) and with the OECS (in the Caribbean) will allow the operation to count with an established network to reach youth across the islands. This will be especially valuable for ensuring that project activities reach at risk youth.</p> <p>With regards to the diaspora engagement, the team has consulted with the Jamaican MFAFT, in particular with the Diaspora Unit. The risk of limited participation of the diaspora will be mitigated by leveraging existing and future diaspora engagement initiatives of the governments which are part of the national diaspora engagement strategy. Additionally, some Diaspora community members will also be engaged through the Angel Investor network that the operation will help put into place.</p>					
	Resp:	Status:	Stage:	Recurrent:	Due Date:	Frequency:
	Both	In Progress	Preparation and Implementation	<input checked="" type="checkbox"/>	July 2019	Yearly
Social and Environmental	Rating	Low				
Risk Description: There are no foreseeable social or environmental risks.	Risk Management:					
	Resp:	Status:	Stage:	Recurrent:	Due Date:	Frequency:
	Both	N/A	N/A	<input type="checkbox"/>	N/A	N/A
Program and Donor	Rating	Low				
Risk Description: Overlap and/or weak coordination among entities supporting training and entrepreneurship in the areas of ICT, animation, software or creative industries in Jamaica and/or in the Caribbean.	Risk Management:					
	<p>Given previous engagement through activities such as KingstOOon and Digital Jam, key entities in the field have been identified, engaged and consulted; resulting in successful synergies.</p> <p>The risk of lack of coordination and overlap will be mitigated through the continuous dialogue and cooperation. As well as the mitigation mechanisms established under the Design Risk.</p>					
	Resp:	Status:	Stage:	Recurrent:	Due Date:	Frequency:

	Both	In Progress	Preparation and Implementation	<input checked="" type="checkbox"/>	July 2019	Yearly
Delivery Monitoring and Sustainability	Rating	Substantial				
<p>Risk Description:</p> <p>Inadequate capacity of the implementing agency to execute a project that is new in its nature and that focuses on two nascent industries; limited inflows of resources that can undermine the sustainability of the project and in particular of the innovation hub.</p>	<p>Risk Management:</p> <p>MSTEM has a track record on successfully conducting M&E for Bank operations. However, the existing risk will be mitigated by ensuring there is additional personnel in the PIU's M&E unit who can be in charge of activities specific to this project. Additionally, the risk will be further mitigated by putting in place a partnership between the implementing agency and a leading international partner with experience in the management of the activities envisioned for this project.</p> <p>With regards to the sustainability, the specific measures put into place to mitigate the risk of sustainability include: i) Project design is conducive to the development of an organic Entrepreneurship Ecosystem, ii) Positioning Jamaica as a regional hub that attracts talent from across the region, iii) Engaging key partners in the private and public sector iv) the establishment of an intensive investment promotion plan that aims at ensuring the outsourcing of contracts to Jamaica and v) mobilization of further resources (e.g. through the Angel investor network)</p> <p>Moreover, some of the facilities of the physical hub will be rented to incubators, accelerators and plug-and-play companies to reduce the management costs of Startup Jamaica, and the building has been offered by a private sector operator, ensuring costs are minimal to the government.</p>					
	Resp:	Status:	Stage:	Recurrent:	Due Date:	Frequency:
	Both	In Progress	Preparation and implementation	<input checked="" type="checkbox"/>	July 2019	Yearly
Overall Risk						
Overall Implementation Risk:	Rating	Moderate				
<p>Risk Description:</p> <p>The overall risk rating is assessed to be moderate given that the project is introducing new topics and modalities, but it counts with strong stakeholder support and an effective PIU that has been successful in implementing other World Bank operations.</p>						

Annex 5: Implementation Support Plan

JAMAICA: Youth Employment in Digital and Animation Industries

Strategy and Approach for Implementation Support

1. The Strategy for Implementation Support was developed based on the nature of the proposed Project and its risk profile. This Strategy aims to support the Government of Jamaica in achieving the Project Development Objectives. Furthermore, the Implementation Support Strategy focuses on risk management measures identified in the ORAF and standard Bank implementation support (including technical, institutional, environmental and social safeguards) and fiduciary aspects (financial management and procurement).

Implementation Support Plan

2. For the execution of the Implementation Support Plan, the Bank team will provide timely, efficient, and effective support to the implementing partner. The Task team and key specialists will also conduct semiannual implementation support missions and field visits to follow up on the Project implementation. Detailed inputs from the Bank team are outlined below.

- a. **Strategic.** Formal implementation support missions will meet with the PIOJ to: (i) review project activities; (ii) reconfirm strategic alignment of the Project's multi-sector aspects; and (iii) ensure the necessary coordination across respective stakeholders.
- b. **Technical.** Priority will be placed on the implementation of both Component 1 (by ensuring timely recruitment of animation trainers and procurement of hardware and software for the expansion of the labs) as well as Component 2 (establishment of Startup Jamaica in partnership with private sector operators). Regular field visits will serve to verify compliance with the Project Operations Manual and encourage required adjustments to project activities, as needed, given results on the ground. The Bank team may be supplemented with additional technical support as needed, by short-term external technical experts. The Bank team will review technical inputs including terms of reference and bidding documents to ensure adequate technical specifications. In addition, support on procurement aspects will ensure proper preparation of requests for proposals, bidding documents, and eventual evaluation of bids and proposals.
- c. **Safeguards.** There are no foreseen salient Social or Environmental Safeguards mechanisms that will need to be put in place for this operation. Social and Environmental specialists will continue to provide support throughout project implementation in case their services or advice are required throughout project implementation.
- d. **Fiduciary.** The Bank evaluated the capacity and found sufficient capabilities on FM aspects. During implementation, continued guidance and specific and timely targeted training will be provided on procurement aspects during the remaining

period prior to project effectiveness to ensure readiness for contracting of civil works once the project is declared effective. Continued support will be provided through technical support and field visits by the Bank team during project implementation. Site visits for the Project's financial and procurement management arrangements would be conducted as needed in response to client needs.

- e. **Client relations.** The Task Team Leader (TTL) will: (i) coordinate Bank support to ensure consistent project implementation, as specified in the Legal Agreement and Project Operations Manual; and (ii) meet regularly with the Government of Jamaica's senior representatives and relevant private sector entities supporting the project to gauge project progress (including the mid-term review) in achieving the PDO and address implementation roadblocks, as they may arise.
3. The main focus in terms of support to implementation during the first twelve months and thereafter is described below.

Table 1. Estimate Implementation Support

<i>Time</i>	<i>Focus</i>	<i>Skills Needed</i>	<i>Resource Estimate (Staff weeks)</i>
<i>First twelve months</i>	<i>Procurement training, procurement review of bidding documents</i>	<i>Procurement specialist</i>	2
	<i>Technical review of TORs and bidding documents</i>	<i>Technical specialist</i>	2
	<i>FM training and implementation support</i>	<i>FM specialist</i>	2
	<i>Tech startup financing specialist</i>	<i>Consultant</i>	6
	<i>Animation training specialist</i>	<i>Consultant</i>	6
	<i>Project management and project implementation support coordination</i>	<i>TTL</i>	12
<i>After month 13</i>	<i>Procurement training, procurement review of bidding documents</i>	<i>Procurement specialist</i>	4
	<i>Technical review of TORs and bidding documents</i>	<i>Technical specialist</i>	4
	<i>FM training and implementation support</i>	<i>FM specialist</i>	3
	<i>Tech startup financing specialist</i>	<i>Consultant</i>	6
	<i>Animation training specialist</i>	<i>Consultant</i>	6
	<i>Project management and project implementation support coordination</i>	<i>TTL</i>	12

Annex 6: Economic Analysis

1. Jamaica suffers from high youth unemployment at all socioeconomic levels, and the country would benefit tremendously from a competitive animation industry and a developed startup ecosystem. This would provide access to outsourced jobs, an influx of foreign exchange, and a growing community of successful entrepreneurs who will raise capital (much of it foreign capital) to build their businesses on the island. This annex examines how these different benefits can positively impact Jamaica's economy. Section 1 provides a summary of direct and indirect benefits of the project to Jamaican society. Section 2 offers a detailed cost-benefit analysis for two key components, on which the bulk of the loan funds will be spent: (1) training for key skills needed in animation and business acceleration activities for the industry, and (2) a physical hub/incubator that aims to create 100 startups in 5 years.

2. **Rationale for public investment: Jamaica suffers from high youth unemployment at all socioeconomic levels, and the country would benefit tremendously from a competitive animation industry and a developed startup ecosystem.** This would provide access to outsourced jobs, an influx of foreign exchange, and a growing community of successful entrepreneurs who will raise capital (much of it foreign capital) to build their businesses on the island. This annex demonstrates how the project can positively impact Jamaica's economy. In particular, it shows that the project's main components) have impressive NPVs, even when calculated under conservative assumptions, as well as significant social and economic benefits that are not captured within the calculated NPV. Since this would not be achievable without significant public investment at the outset under a well-managed program, there is a strong rationale for the use of public funds for the project.

3. **The World Bank's added value** stems from its ability to bring together the myriad of partners necessary to achieve success – from animation software producers, to angel investor, to global incubator company leaders – and to help with the difficult task of “rebranding” the country as a center of animation and entrepreneurial excellence. Currently it is difficult to convince serious international players to consider Jamaica as a place in which to outsource work and to invest capital. The World Bank's backing of this project, its belief in the future of Jamaica, and its commitment to provide ongoing support has already helped introduce Jamaica to a number of global players, including global accelerators interested in investing seed money in Jamaican startups. The World Bank's ongoing involvement will ensure that “Brand Jamaica” becomes associated with excellence in animation and in mobile app entrepreneurship.

Section 1

4. The main expected benefit of the project is the creation of jobs and opportunities for youth by strengthening two growing niche economic sectors in Jamaica: the digital and animation industries.

5. **Direct economic benefits for the operation are highlighted below.**

(a) **Foreign exchange earnings and job opportunities resulting directly from targeted training initiatives for sought-after labour-intensive tasks.** The animation industry has some of the most promising short-term economic returns on

investment in the context of this project. Animation companies in Jamaica report having received a high number of inquiries over the past few years for outsourced work. Proposed projects range from a 15-month 52-episode Saturday morning cartoon in Europe to a 6-month 26 episode TV series in Canada. Industry leaders in the country are confident that due to the high demand for outsourced animation, and given Jamaica's increasingly renowned reputation in this area, there is a high prospect for future labour demand in this industry. This could present tremendous benefits to Jamaica's economy. If each of the 4 local animation companies accepts just two concurrent 6-month contracts (4 contracts over a year) earning an average of \$42,000 per episode (26 episodes per series), this could represent an influx of \$15-20 million of foreign currency per year and 500-1000 new jobs. Beyond the project's focus on animation, Component 1 will also channel resources to provide opportunities for training and exchanges in other areas that are relevant to the digital economy such as app development and online work. Since Jamaica is less competitive than most other developing countries due to the high wage expectations, the project will spend relatively small amounts of resources training for crowdsourcing/microwork jobs. Freelance jobs, on the other hand, provide opportunities to earn higher wages and thus, are a better investment in the context of this operation. Currently, there are only about 100 Jamaicans working on online platforms such as oDesk. Training in computer programming and coding, as well as exposure to the platform, has the potential of significantly increasing this number. A 30 hour/week job earning \$10/hour (a competitive wage relative to the US and still a significant income for Jamaica) can bring in \$15,000 of foreign exchange per person each year, and \$6 million if 400 additional e-lancers succeed in building the necessary capacity and skills to work on the platform.

(b) Capital raised by new startups that have succeeded in raising private funding as a result of the ecosystem set up through the project, and jobs of those directly working with these startups. Data from a number of incubators around the world, has informed the cost-benefit analysis in Section 2. For example, Oasis500 has calculated that 65% of companies receiving seed financing through the incubator program have managed to raise additional private capital; Skydeck Berkeley likewise calculates a 65% rate of success in raising follow-on capital, and Mind the Bridge calculates 80%. Startups also create new jobs, though these are generally modest in the first 5 years (often just 5 people employed per startup during the early stages). In year 6-10, successful startups can be expected to significantly increase the number of people they employ, at annual growth rates of about 70%.

(c) Social benefits due to jobs created specifically for Jamaica's youth, and the project's focus on incorporating inner city "bottom 40 percent" youth in training programs. The project is addressing industries that are particularly relevant to the youth population. Activities implemented under this operation have the potential to provide thousands of jobs to youth around the country. The project has been designed with the goal of attracting a significant percentage of youth from inner city communities and lower income brackets. Industry leaders in the field of animation have unequivocally expressed their desire to hire many of their animators from inner city communities (particularly for the more simple 2D animation jobs).

The project has incorporated a scholarship component to support the inclusion of youth from lower income levels in training and capacity building activities. It is expected that 50% of 2D front-line animators that are trained as a result of this operation will come from marginalized communities.

(d) **Impacting Jamaica’s approach to innovation, risk taking, and acceptance of failure.** One of the main roadblocks for Jamaica in the area of innovation, is a widespread fear of failure, thus, the project has been designed in a way that addresses this issue and encourages a risk-taking and entrepreneurial culture. The project’s focus on harnessing creativity through collaboration (even between “competing” programs and industries), its approach of encouraging moderate risk taking and demystifying failure, and its ability to connect potential entrepreneurs with mentors who can provide honest and objective feedback, can be expected to have a strong impact on Jamaica’s approach to innovation. It will encourage Jamaican youth that hard work can lead to impressive results, and that failure, which is common in the world of startups, is often just one step on the eventual path of success.

(e) **Brand Jamaica.** Jamaica enjoys an existing brand that is appreciated and sought-after worldwide. However, thus far this brand has mostly been highlighted in music and sports. This project will aim to continue promoting the Jamaican Brand, and give it visibility in the animation and digital industries. The success in highlighting the “brand” of the country in the realm of the digital economy can bring significant job creation and foreign exchange. The brand is part of the overall “ecosystem impact” (a term commonly used by some other incubators), that can position Jamaica as a key player in the digital and creative industries, with results far beyond the 5-year scope of the economic analysis undertaken for this project. The project will aim to support the strengthening of “Brand Jamaica” through Components 1 and 2, which include an active generation of business awareness campaigns and internationally-publicized events. It will provide a renewed sense of pride to Jamaicans, not just as creative local artists, but as globally successful creative innovators.

6. Indirect economic benefits for the operation are highlighted below.

(a) **Indirect jobs.** In addition to people directly employed by startups and through the animation industry, it can be assumed, based on an average of a range presented by other incubators, that about 2.5 indirect jobs would be created once a company is formally established. These jobs are a result of the range of services including legal, accounting, IT, transportation, security, that companies would naturally require. Many of these services can be provided by university graduates who currently face a mismatch between their advanced skills and available job opportunities.

(b) **Economic and social spillovers.** Products and services that will be created through this project can have the impact of improving the efficiency and socio economic well-being of Jamaicans. For example, an app that simplifies the tracking of public transport on the island will bring greater efficiency to all who benefit, who would be able to get to their destinations sooner. Apps that aim to report and reduce crime have obvious positive social and financial spillovers into the economy, and

apps that streamline banking and allow a greater number of people to access capital also have social and economic positive returns. These spillovers cannot be easily measured since entrepreneurs would be free to focus on any sector, but given the drive of many young developers today to improve the environment around them, such positive spillovers are almost guaranteed. In fact, many of the apps showcased at Digital Jam 3.0 shared the goal of bringing stronger efficiency to various sectors of Jamaican and Caribbean society. Another important social spillover that will result from this operation is the inclusion of at-risk youth in productive and income-generating activities during their free time. This is especially relevant in a context like Jamaica where many at-risk youth become involved in criminal activities due to lack of opportunities and too much free time. Thus, an increase in the number of youth (particularly disadvantaged youth) employed or involved in creative activities spurred by the project can be expected to also have a positive effect on crime reduction.

Section 2 – Cost Benefit Analysis

7. **Training in animation.** The project is allocating approximately \$4.5 million for training, scholarships, and business acceleration of the animation industry. The bulk of this spending will focus on providing training for 2000-2500 front-line 2D animators and additional 250-300 3D animators over 5 years, with the goal of immediate employability and access to foreign exchange. An accredited program at selected training institutions will also be put into place, with the goal of producing graduates that can take on leadership and management positions in the industry, bring in new contracts, and create additional successful startups in animation. A segment of funds allocated to “business acceleration” will help ensure that Jamaica’s animation “brand” is marketed internationally, and will help attract the global industry to consider Jamaica as a destination of choice for animation.

Students to be trained						
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
2D animation (3-month training)	200	500	500	500	500	2,200
3D animation (6-month training)			40	100	130	270
2-year degree program	50	50	50	50	50	250

8. **Employability of graduates.** Discussions with industry leaders have confirmed that if all else remains equal, of the vast majority of animators trained will be able to find employment. This assumes the “branding” of the industry internationally achieves its objective and global contracts role in as they have over the past few years.

9. The following table reflects our projections for employment within the industry. It is expected that some animators who are employed in the early years will start their own companies or work in related industries, opening up space in later years for new grads of the training programs.¹⁴

¹⁴ The projections assume that 60 animators work on each global 6-month 2D project (50 animators for a domestic project) and 100 animators work on each 6-month 3D project (see below for projections on # of projects). The same animators are assumed to be working for an entire year (2 projects per animator per year).

Animation jobs						
	Today	Year 1	Year 2	Year 3	Year 4	Year 5
Animators for global markets	25	150	360	520	680	1,100
Animators for local market	5	75	125	175	250	350
Jamaican animator trainers			15	15	30	30
Total	30	225	500	710	960	1480

10. Impact of intensive animation training. The availability of front-line animators, trained according to industry standards and needs, and certified by ToonBoom, will allow local animation companies to accept outsourced projects, and guarantee a steady flow of foreign exchange. A fairly conservative model projects the amount of foreign exchange entering the country, for a progression of contracts leading to 20 2D animation and 10 3D animation projects in Year 5. Between the existing 4 companies, and potential others (particularly as graduates from the 2-year program will be eager to form their own companies), this number seems to err on the low end. It assumes that each 6 month 2D project will bring in \$42,000 per episode for 26 episodes, totaling just over \$1 million per series. (This too is a very conservative estimate since many 2D projects will bring in at least \$65,000 per episode, and only the simplest cutout animation projects will bring in \$42,000). The analysis also includes only foreign exchange in the calculation of NPV, and excludes benefits from domestic revenue earned for local animation content.

Animation FOREX calculations					
	Year 1	Year 2	Year 3	Year 4	Year 5
Average revenue per episode 2D project	42,000	42,000	42,000	42,000	42,000
Number of episodes in typical full-length project	26	26	26	26	26
Total revenue per series (6 month project)	1,092,000	1,092,000	1,092,000	1,092,000	1,092,000
Average revenue per episode 3D project			100,000	100,000	100,000
Total revenue per series (6 month project)	-	-	2,600,000	2,600,000	2,600,000
Projected number of full-length 2D series due to project	5	12	14	16	20
Projected number of full-length 3D series due to project			2	4	10
Total FOREX	5,460,000	13,104,000	20,488,000	27,872,000	47,840,000
Number of animators employed	150	360	520	680	1,100

Local content animation for domestic economy					
	Year 1	Year 2	Year 3	Year 4	Year 5
Average revenue per episode 2D project	25,000	25,000	25,000	25,000	25,000
Number of episodes in typical full-length project	26	26	26	26	26
Total revenue per series (6 month project)	650,000	650,000	650,000	650,000	650,000
Number of full-length series due to project	3	5	7	10	14
Total revenue	1,950,000	3,250,000	4,550,000	6,500,000	9,100,000
Number of animators employed	75	125	175	250	350
Total animators employed	225	485	695	930	1,450

11. Costs of animation program. The model takes into account the full \$4.5 million allocated for training, scholarships and business acceleration of the animation industry. In addition, it includes half of the costs of the PIU as well as the costs of running yearly events such as KingstOOOn, which are seen as critical elements in ensuring the success and “branding” of the animation industry. Total projected costs including these added expenses are estimated at \$6.5

million.¹⁵ These costs are seen as conservative in the context of this model since they include spending on activities that will shape a creative local animation industry with its own IP, and will bring benefits far beyond the foreign exchange from outsourced projects that is modeled here.

12. Net Present Value (NPV) of animation component. Despite these conservative assumptions, and using a discount rate of 12%¹⁶, the NPV for the animation component of the project is a staggering \$69 million and the Internal Economic Rate of Return (IERR) is 280%. In other words, an investment of just a few million dollars focused on training as well as on showcasing Jamaica’s animation industry globally, can be expected to pave the way for the country to absorb tens of millions of dollars in foreign exchange. Given the interest expressed recently by global companies, and the demands of the industry, there is good reason to believe that with the right talent, these numbers are achievable.

Cost benefit NPV (based on foreign exchange)						
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Costs	(2,500,000)	(1,000,000)	(2,000,000)	(500,000)	(500,000)	
Benefits		5,460,000	13,104,000	20,488,000	27,872,000	47,840,000
Benefits minus costs	(2,500,000)	4,460,000	11,104,000	19,988,000	27,372,000	47,840,000
NPV	\$69,102,349					
IERR	280%					
Discount rate	12%					

13. Startup Jamaica. Component 2 involves an accelerator program with the goal of: 1) attracting 600 individuals with 1-2 day workshops and bootcamps in Stage 1; 2) selecting 200 individuals from the first group who will be given \$5000 value of key service and a month-long training as they form teams and prepare a pitch in Stage 2; and 3) choosing 100 teams over five years who will be invited to join a 6-month acceleration program and given \$30,000 of seed money (part of it in-kind) in Stage 3.

14. “Benefits” of accelerator program. All of the individuals participating in this program will benefit tremendously, and even those not selected in Stage 3, would have gained invaluable skills that will help them to further innovate or to be better suited for employment in the IT arena. For the sake of simplification, and calculating a robust, though conservative NPV, the analysis focuses in particular on the 100 startups that are expected to go through the entire 6-month accelerator program over 5 years.

15. “Benefits” and NPV can be calculated either by looking at potential capital raised by startups or by projected revenue. Discussions with existing accelerators, including Start-up Chile, Skydeck Berkeley, and Oasis500, have all favored the use of capital raised for a short-term assessment of the success of the program.

16. In following the example of other incubators, the model assumes that the number of companies that succeed in securing seed investment as part of Stage 3 of the program grows gradually over the years (from 5 companies in Year 1 to 35 in Year 5, totaling 100).

¹⁵ Costs are allocated over 4 years (starting in Year 0). There is a boost in costs in Year 2 to reflect the additional spending of creating the 3D animation program around this time, and bringing in appropriate trainers from abroad.

¹⁶ Discount rate is based on average government bond rates issued by the Bank of Jamaica, and a 4-6% risk spread.

Projected seed capital to be raised by startups entering 6-month accelerator program						
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Mobile app startups receiving seed investment	5	10	20	30	35	100
Seed investment per company (cash and in-kind)	30,000	30,000	30,000	30,000	30,000	
Total seed investment	150,000	300,000	600,000	900,000	1,050,000	3,000,000

17. As in other incubators, a significant proportion of startups chosen at this level, and individually selected to receive seed funding by a globally recognized accelerator (such as Oasis500 or 500 startups), can be expected to succeed in raising additional financing. Based on consultations with other incubator programs, we estimate that at least one-third of companies (33 companies over five years) will succeed in raising follow-on capital.¹⁷ The model assumes that follow-on capital will average \$150,000 in Year 1. In Year 4, 60% of companies that succeeded in raising follow-on capital (20 companies) are projected to raise an additional \$1 million; and 15% of companies (5 companies), seen as higher growth companies, are projected to raise an additional \$5 million.¹⁸ The table below presents these projections over an 8-year period in order to cover companies established in Year 5 and receiving funding in their 4th year (Year 8). Although it is an 8-year timespan, it is only reflective of the 100 companies expected to be provided seed funding in Years 1-5.

Follow-on investment raised by companies									
Year of seed funding	Investment raised per year ->	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
1		249,975			2,249,775				
2			499,950			4,499,550			
3				999,900			8,999,100		
4					1,499,850			13,498,650	
5						1,749,825			15,748,425
	Total follow-on investment	249,975	499,950	999,900	3,749,625	6,249,375	8,999,100	13,498,650	15,748,425
	Total including seed investment	399,975	799,950	1,599,900	4,649,625	7,299,375	8,999,100	13,498,650	15,748,425

Percent of companies raising follow-on capital	33%	
	% of capital-raising comps	Amount in \$US
Investments raised per year		
Average investment in year 1	100%	150,000
Average investment in year 3-5	60%	1,000,000
Average investment in year 3-5	15%	5,000,000
Average investment in year 3-5	25%	-

18. **Costs of accelerator program.** The model includes (1) the estimated costs of \$5.6 million allocated directly for the physical hub; (2) costs of training for early stage companies (\$2.4 million); (3) costs associated with the project’s component of “access to funding and investment attraction” (\$1.6 million); (4) half of the costs of the PIU (\$1.1 million); and (5) half of the costs designated for the organization of yearly events (\$1.1 million) (the other half relates to animation component). These investments help ensure that a vibrant investor

¹⁷ Oasis 500 estimates that approximately 30-40% of the companies that have received seed funding through their program will succeed in raising follow-on capital (for years 1-2 of the program, 27 out of 63 companies have raised follow-on capital). Skydeck Berkeley calculates that more than 60% of the companies that have entered their program have attracted follow-on investments of up to \$2 million, within just 1-2 years:

<https://newscenter.berkeley.edu/2014/03/19/tech-transfer-initiatives/>. Mind the Bridge calculates that 80% of its graduates receive follow-on funding (averaging \$150,000).

¹⁸ These assumptions are based to a large extent on numbers shared by Oasis 500, but have been adapted to the more conservative analysis being performed for the Jamaica project. For example, only 75% of the companies (rather than 100% as in Oasis 500’s model) that are raising follow-on funding in Year 1 are assumed in this model to raise further funding in Year 4, and only 15% rather than 20% are projected as high growth companies. To simplify, this model also does not assume a “middle chunk” of financing in years 2-3 (an assumption used by Oasis 500), resulting again in more conservative estimates.

community is established in Jamaica, which will enable the follow-on investment that is projected in the model. They have been estimated very conservatively, and in reality it is expected that the out-of-pocket costs will be significantly lower. The costs outlined here add up to \$11.8 million, and are estimated more simply as \$12 million in the model; \$4 million in Year 0 and \$2 million per year thereafter.

19. NPV of accelerator program. Using a discount rate of 12%, an NPV of \$16.2 million and IERR of 39% are calculated.

Cost benefit NPV (based on investment raised)									
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
Costs invested in project	(4,000,000)	(2,000,000)	(2,000,000)	(2,000,000)	(2,000,000)				
Benefits in terms of capital raised by startups		399,975	799,950	1,599,900	4,649,625	7,299,375	8,999,100	13,498,650	15,748,425
Benefits minus costs	(4,000,000)	(1,600,025)	(1,200,050)	(400,100)	2,649,625	7,299,375	8,999,100	13,498,650	15,748,425
NPV									\$16,181,549
IERR									39%
Discount rate									12%