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Report No: PAD2369

INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED CREDIT

IN THE AMOUNT OF EUR 41.4 MILLION
(US$50 MILLION EQUIVALENT)

TO

THE REPUBLIC OF KENYA

FOR THE

KENYA INDUSTRY AND ENTREPRENEURSHIP PROJECT

MAY 23, 2018

Finance, Competitiveness and Innovation Global Practice
Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective April 30, 2018)

Currency Unit =	Euros (EUR)
US$1 =	EUR 0.828
EUR 1 =	KES 121.388

FISCAL YEAR
July 1 – June 30

ABBREVIATIONS AND ACRONYMS

AfDB	African Development Bank
BDS	Business Development Services
CBK	Central Bank of Kenya
CIIP	Competitive Industries and Innovation Program
CMP	Contract Management Plan
CPS	Country Partnership Strategy
DA	Designated Account
ERR	Economic Rate of Return
ESMF	Environmental and Social Management Framework
FM	Financial Management
GALI	Global Accelerator Learning Initiative
GDP	Gross Domestic Product
GIZ	German Agency for International Cooperation (*Deutsche Gesellschaft fur Internationale Zusammenarbeit*)
GPN	General Procurement Notice
GoK	Government of Kenya
IA	International Acceleration

IAD	Internal Audit Department
ICT	Information and Communication Technology
IFC	International Finance Corporation
IFR	Interim Financial Report
IFC RC and TA Fund	IFC Risk Capital and Technical Assistance Fund
IFMIS	Integrated Financial Management Information System
IMF	International Monetary Fund
IP	Intellectual Property
ISP	Implementation Support Plan
IT	Information Technology
ITU	International Telecommunication Union
IUFR	Interim Unaudited Financial Report
JICA	Japan International Cooperation Agency
JICA-HRDID	JICA Human Resource Development for Industrial Development Project
JICA-PPI	JICA Project for Productivity Improvement
KAM	Kenya Association of Manufacturers
KENAO	Kenya National Audit Office
KITP	Kenya Industrial Transformation Program
KNBS	Kenya National Bureau of Statistics
KYEOP	Kenya Youth Employment and Opportunities Project
M&E	Monitoring and Evaluation
MTP	Medium-term Plan
MoITC	Ministry of Industry, Trade, and Cooperatives
NPV	Net Present Value
OAG	Office of the Auditor General

PDO	Project Development Objective
PFM	Public Financial Management
PIU	Project Implementation Unit
PP	Procurement Plan
PPADA	Public Procurement and Asset Disposal Act, 2015
PPRA	Public Procurement Regulatory Authority
PPSD	Project Procurement Strategy for Development
PRAMS	Procurement Risk Assessment and Management System
SAI	Supreme Audit Institution
SMEs	Small and Medium Enterprises
SOE	Statement of Expenditure
STEP	Systematic Tracking of Exchanges in Procurement
TEI	Tertiary Education Institution
ToR	Terms of Reference
TVET	Technical and Vocational Education and Training
UNDB	United Nations Development Business
VC	Venture Capitalist

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BASIC INFORMATION

Country(ies)	Project Name	
Kenya	Kenya Industry and Entrepreneurship	
Project ID	Financing Instrument	Environmental Assessment Category
P161317	Investment Project Financing	B-Partial Assessment

Financing & Implementation Modalities

[ ] Multiphase Programmatic Approach (MPA)	[ ] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[ ] Fragile State(s)
[ ] Disbursement-linked Indicators (DLIs)	[ ] Small State(s)
[ ] Financial Intermediaries (FI)	[ ] Fragile within a non-fragile Country
[ ] Project-Based Guarantee	[ ] Conflict
[ ] Deferred Drawdown	[ ] Responding to Natural or Man-made Disaster
[ ] Alternate Procurement Arrangements (APA)	

Expected Approval Date	Expected Closing Date
19-Jun-2018	31-Dec-2024

Bank/IFC Collaboration

No

Proposed Development Objective(s)

Increase innovation and productivity in select private sector firms

Components

Component Name	Cost (US$, millions)
Strengthening the innovation and entrepreneurship ecosystem	26.25
SME linkages and upgrading	20.75

Outreach, M&E, and Project Implementation Support	3.00

Organizations

Borrower:	The Republic of Kenya
Implementing Agency:	Ministry of Industry, Trade and Cooperatives

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	50.00
Total Financing	50.00
of which IBRD/IDA	50.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Development Association (IDA)	50.00
IDA Credit	50.00

IDA Resources (in US$, Millions)

	Credit Amount	Grant Amount	Total Amount
National PBA	50.00	0.00	50.00
Total	**50.00**	**0.00**	**50.00**

Expected Disbursements (in US$, Millions)

WB Fiscal Year	2018	2019	2020	2021	2022	2023	2024
Annual	0.00	11.20	6.72	6.72	10.21	10.26	4.90
Cumulative	0.00	11.20	17.92	24.63	34.85	45.10	50.00

INSTITUTIONAL DATA

Practice Area (Lead)

Finance, Competitiveness and Innovation

Contributing Practice Areas

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

Gender Tag

Does the project plan to undertake any of the following?	
a. Analysis to identify Project-relevant gaps between males and females, especially in light of country gaps identified through SCD and CPF	Yes
b. Specific action(s) to address the gender gaps identified in (a) and/or to improve women or men's empowerment	Yes
c. Include Indicators in results framework to monitor outcomes from actions identified in (b)	Yes

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	Moderate
2. Macroeconomic	Low
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Substantial
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Substantial
7. Environment and Social	Low
8. Stakeholders	Moderate
9. Other	
10. Overall	Substantial

COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

Safeguard Policies Triggered by the Project	Yes	No
Environmental Assessment OP/BP 4.01	✓	
Performance Standards for Private Sector Activities OP/BP 4.03		✓
Natural Habitats OP/BP 4.04		✓
Forests OP/BP 4.36		✓
Pest Management OP 4.09		✓
Physical Cultural Resources OP/BP 4.11		✓
Indigenous Peoples OP/BP 4.10		✓
Involuntary Resettlement OP/BP 4.12		✓
Safety of Dams OP/BP 4.37		✓
Projects on International Waterways OP/BP 7.50		✓
Projects in Disputed Areas OP/BP 7.60		✓

Legal Covenants

Sections and Description

The Recipient shall furnish each fiscal year of the Recipient during the implementation of the Project (on December 31 of each year) for no-objection, an Annual Work Plan and Budget (“AWPB”), containing all Project activities and Eligible Expenditures proposed to be included in the Project in the Recipient’s following fiscal year.

Conditions

KENYA
KENYA INDUSTRY AND ENTREPRENEURSHIP

TABLE OF CONTENTS

I. STRATEGIC CONTEXT

A. Country Context

1. **Kenya is a lower middle-income country that has exhibited robust economic growth over recent years.** Economic activity in Kenya moderated in 2017 on account of multiple headwinds, but a nascent recovery is underway. Economic growth decelerated to a 5-year low of an estimated 4.9 percent in 2017 from 5.9 percent in 2016. Poor rains, slowdown in credit growth to the private sector, and election-induced uncertainty weighed down on economic activity in 2017. However, tail winds from the rebound in tourism, strong public investment, and resilient remittance inflows partially mitigated some of the headwinds the economy faced in 2017. Reflecting the easing of some of the transient headwinds including from improved rains and easing of political tensions following the conclusion of the Presidential elections, a nascent rebound in economic activity is beginning to take root in 2018.

2. **According to the 2016 Country Economic Memorandum, Kenya's long-term growth will depend on oil and natural resources, the urbanization process, and the extent of innovation of the economy.**[1] Kenya's economic growth has been constrained by low investment and firm-level productivity, particularly in labor-intensive sectors. Services, including financial intermediation and mobile communications, have grown remarkably, representing 72 percent of the Gross Domestic Product (GDP) increase between 2006 and 2013. However, major employment generating sectors such as agriculture and manufacturing, have been stagnating, with a retracting share in GDP between 2009 and 2013. This divergent growth underlines the two-track nature of the Kenyan economy, where the sectors with the highest growth create few, and mostly high-skilled jobs.

B. Sectoral and Institutional Context

3. **Kenya's Vision 2030 and its Second Medium-term (2013–2017) and Third Medium-term Plan (MTP3) (2018–2022), together with the Big Four Agenda, set ambitious development targets that will require significant growth in private sector employment, generation, and productivity.** The Big Four Agenda, in particular, focuses the government's efforts on manufacturing and job creation, food security, affordable housing, and universal healthcare. Vision 2030 aims to transform Kenya into a newly industrialized, globally competitive, middle-income country. The Ministry of Industry, Trade, and Cooperatives (MoITC) leads this agenda, and has developed the Kenya Industrial Transformation Program (KITP) to implement it. Amongst other areas, KITP highlights the importance of technology and innovation[2] to the development of industry, and recognizes the centrality of firm-level support to Kenya's industrialization. As a key part of KITP, the MoITC is supporting the innovation and enterprise sectors, which can help boost jobs and growth. In today's rapidly evolving and globalized economy, innovation and startups are key drivers of economic growth and creators of new types of jobs. Supporting this agenda requires strengthening incubators, accelerators, rapid technology (tech) skills trainings (bootcamps)[3], small and medium enterprises (SMEs) and startups.

[1] World Bank. 2016. "Kenya Economic Memorandum."
[2] Innovation is key whether it is coupled with technology or not, and it can be as simple as a novelty in a given context (for example, a modest managerial improvement in an informal firm in a remote village is an innovation).
[3] Technology bootcamp providers are rapid technical skills training providers or skill intermediaries that offer short-term, applied, intensive technology skills training paired with collaborative problem solving and other soft skills development.

4. **While Kenya is among the top innovation leaders in Africa, it still ranks 80th out of 127 countries in the Global Innovation Index 2017, with room for improvement in human capital, research, knowledge, and technology outputs.** Nairobi is recognized as one of Africa's tech hub cities (along with Lagos, Cape Town, and Accra) with the potential to foster and scale digital ecosystems; however, links between players in Kenya's innovation ecosystem are weak. This leads to capacity underutilization and a disconnect between industry and research organizations, hindering innovation for SMEs in particular. The Global Accelerator Learning Initiative (GALI) illustrates the value and impact of supporting acceleration programs for startups.[4] The number of incubators and accelerators in Kenya is large, with more than 38 currently in the market, most being oriented toward information and communication technology (ICT) and concentrated in Nairobi. Many remain in a nascent stage of development and are dependent on grants, which precludes them from pursuing financially viable business models. Their focus on appeasing grant makers, rather than on operational strategy, diminishes the quality and differentiation of their services. As a result, the relevance and impact of incubation and acceleration programs is mixed.

5. **Kenya has not developed enough talent with key skills to produce a solid pool of internationally competitive, technology-enabled businesses.** Recognizing this**,** the Presidential Digital Talent Program aims to create the next generation of globally competitive Information and Communications Technologies (ICT) leadership, and technology talent that will transform Kenya. In a 2016 World Bank study on rapid technology skills trainings (bootcamps), many companies in Kenya's ICT sector—including startups, SMEs, and large companies—reported challenges in finding recruits with the soft and technical skills they require. They noted that bootcamps, not formal tertiary education institutions (TEIs), are the suppliers of employment-ready technology talent. In filling the skills gap, bootcamps play an important role in generating and improving employment opportunities. However, the market of such providers is still nascent in Kenya, and similar to the abovementioned intermediaries, most of them do not have mature business models. Moreover, women are typically underrepresented in their programs. The nascent ecosystem provides an opportunity to avoid replicating the gender gap in the tech sector that is prevalent in other countries. Furthermore, there is a need to more closely link TEIs with industry to boost in-demand, competitive talent and catalyze systemic changes to the formal education system. There are limited local efforts to create such links and there is an opportunity to test practical applications of programs enabling TEI students to work with key industries in Kenya on innovative products and services.

6. **Limited connections to networks of international mentors, angel investors, and venture capitalists (VCs) make it difficult for local startups to grow and compete internationally.**[5] Exposure to experienced mentors and investors, and deeper networks of global resources, can increase the likelihood of startup survival and growth, including their possibility to obtain funding. Kenya has the second highest number of startups in Sub-Saharan Africa (second only to Nigeria), and is considered a hub for venture capital in Africa. However, given the high risks associated with early stage businesses, combined with the macroeconomic risks of operating in Africa, venture funds capital in Kenya is limited. In addition, female startup founders report a disproportionate lack of industry-specific mentoring, networks, and information, and they too stand to benefit from these broader links.

7. **There is currently limited contact between traditional industry and technology-enabled startups in Kenya, a missed opportunity for both sides.** Firms in major employment generating sectors

[4] GALI (Global Accelerator Learning Initiative). 2017. "Accelerating Startups in Emerging Markets: Insights from 43 Programs."
[5] Divakaran. 2017. "Survey of the Kenyan Private Equity and Venture Capital Landscape." World Bank Group, Washington, DC.

such as agriculture or manufacturing have not yet absorbed the benefits from Kenya's growing tech scene, and tech firms are not creating solutions that respond to their specific needs. Closer links with larger firms would help young firms better target their products and services and become viable more quickly. It would also help create a pipeline of investable businesses for investors, including the International Finance Corporation (IFC) and other funders/funds. Similarly, despite some programs to encourage collaboration between academia and industry, companies are not sufficiently leveraging young talent. This highlights the need to foster links between students in TEIs and industry players. Such links would serve to better prepare graduates for the job market and better acquaint them with the inner workings of the private sector, should they wish to start their own businesses.

8. **SMEs also have difficulties in improving their productivity due to poor managerial practices and information failures around how to upgrade.** Firm-level data in Kenya reveals most firms have low productivity due to a skills deficit both at the managerial and technical levels.[6] While Kenya fares better than other African countries in terms of management quality, it is far below the managerial capabilities in most middle-income and emerging markets. Analyses of various manufacturing subsectors show that Kenyan firms operate with inadequate technology and have difficulties connecting to global and regional value chains. These internal constraints will continue to hold back Kenyan SMEs from increasing their productivity and potentially accessing regional markets, even if the various business climate constraints in Kenya are improved. Recent World Bank reports show, there is a direct impact of improving managerial and organizational practices on innovation and productivity. They also show the benefits of interventions that incorporate both firm-level capabilities (supply) and access to markets (demand) in linking them and building viable markets.[7] With further technological change being driven by Industry 4.0[8], manufacturing is becoming more global, more automated, more highly skilled, more infused with technology, and more integrated with services. For Kenyan companies to adapt to this changing landscape of manufacturing and secure higher-level jobs, their own capabilities will need to continuously improve.

9. **For women entrepreneurs, particularly those who own SMEs, these issues are even more pronounced.** While Kenya has the highest number of women entrepreneurs in East Africa, with 48 percent of firms owned by women, land ownership by women stands at a paltry 7 percent compared to 30 percent for men. This lack of asset ownership locks women out of the credit that they need to grow their businesses. Moreover, insights from consultations with women entrepreneurs reveal challenges around access to information, networks, and a range of growth-oriented business skills.

10. **With these challenges and opportunities, the GoK recognizes the need for a targeted intervention, that would help achieve KITP's objectives.** MoITC has requested World Bank support to develop the Kenya Industry and Entrepreneurship Project (KIEP), a cutting-edge government initiative that will focus on these identified constraints and support innovation and productivity growth in the country,

[6] Cusolito, and Cirera. 2016. "A Firm-level Productivity Diagnostic for Kenya's Manufacturing and Services Sector." World Bank; Cirera, Fattal, and Maemir. 2016. "Taxing the Good? Distortions, Misallocation, and Productivity in Sub-Saharan Africa." World Bank.

[7] Hill, Metz, Hristova, and Lemes. 2017. "SME Capacity Building Programs: Do Market Linkages Drive Better Firm Upgrading?" World Bank Group, Washington, DC.

[8] The rise of new digital industrial technology, known as Industry 4.0, is a transformation that makes it possible to gather and analyze data across machines, enabling faster, more flexible, and more efficient processes to produce higher-quality goods at reduced costs. This manufacturing revolution will increase productivity, shift economics, foster industrial growth, and modify the profile of the workforce—ultimately changing the competitiveness of companies and regions.

reflecting the importance that the government places on supporting programs that respond to the evolving economic opportunities, and support innovation and productivity in enterprises to boost job creation and growth. Through support to select, high-potential SMEs and support institutions, the Project aims to create a demonstration effect to incentivize innovation and entrepreneurship at firm-level.

C. Higher Level Objectives to which the Project Contributes

11. **The Project is fully aligned with the World Bank Group's twin goals and the Kenya Country Partnership Strategy (CPS) FY2014–2020.**[9] The CPS highlights 'Competitiveness and sustainability as the backbone of long-term growth to eradicate poverty' and acknowledges that Kenya's long-term economic engine is the private sector. However, it also notes that Kenya's growth has been hampered by low investment and firm-level productivity, which constrains firms' ability to grow and generate employment. The World Bank has also found that "increasing the earnings from work, that is, having a more productive job, is a key factor for poverty alleviation."[10] The Project's objectives of increasing innovation and productivity in select private sector firms through a demonstration effect, anticipate a growth impact on the overall economy that will help boost shared prosperity. The Project will also contribute to poverty alleviation by catalyzing the creation of higher quality and more productive jobs, and by demonstrating models to increase inclusivity within Kenya's competitive labor force.

12. **This Project is also well aligned with the Kenya's industrialization agenda, and will be one of the instruments used to implement the new GoK program for private sector development.** In particular, the Project helps implement KITP, which promotes the private sector as the driver of growth in markets, wealth, and job creation, and the Presidential Digital Talent Program, which aims to promote the next generation of ICT leadership and digital talent to transform Kenya. It will also support the objectives laid out under the president's "Big Four Agenda". The Project's objectives and interventions are envisaged to have a cross-cutting effect on each of these sectors, in particular on manufacturing.

13. **By strengthening the innovation and entrepreneurship ecosystem and increasing firm-level innovation and productivity, this loan will help deliver Kenya's Vision 2030,** which recognizes the challenges of slow structural transformation and low productivity in sectors that employ the majority of Kenyans. This loan also aids the broader MTP3, which envisages the transformation of the Kenyan economy, partially through a higher contribution of manufacturing industry, and exporting sectors to GDP, and accords priority to enhancing enablers including Science, Technology, and Innovation as well as ICT. MTP3 strives to raise productivity in all sectors of the economy, including the manufacturing and agriculture sectors, which require modernization and higher levels of technology absorption.

14. **This Project complements ongoing World Bank Group activities in Kenya.** The IFC Advisory Services Kenya Competitiveness Enhancement Program will help lay the foundations for the firms this Project seeks to support through regulatory and policy reforms. If funding is secured, it would also develop a program to facilitate private equity and venture capital investments in the country, as well as strengthen angel investor networks for Kenyan startups. The activities in this Project will also complement the Kenya

[9] World Bank. 2014. "Country Partnership Strategy for the Republic of Kenya for the period FY2014–2018." 87024-KE and World Bank. 2017. "Performance and Learning Review of the Country Partnership Strategy for the Republic of Kenya for the period FY14-FY18." 113547-KE.
[10] World Bank. 2017. "Jobs and Development." Last updated in March 2017. http://www.worldbank.org/en/topic/jobsanddevelopment/overview.

Youth Employment and Opportunities Project (KYEOP, P151831), which is focusing on innovation for the base of the pyramid, by strengthening the entrepreneurship and innovation ecosystem that the KYEOP project beneficiaries can leverage. This Project will engage with other World Bank Group (WBG) and multilateral skills development programs that support academic and training institutions, including the Africa Higher Education Centers of Excellence Project (P151847), through the industry-academia platform. The Project will also explore synergies with potential IFC investments in technology bootcamp providers, where such providers could benefit from performance and expansion contracts under the Project, making them stronger candidates for future investment. Moreover, the Project's interventions support digital literacy and skills in growing sectors, including scaling up and mainstreaming rapid skills training programs for youth and women in digital sectors, and fostering links and investments in digital entrepreneurship.

II. PROJECT DEVELOPMENT OBJECTIVES

A. PDO

15. The Project Development Objective (PDO) is to increase innovation and productivity in select private sector firms.

B. Project Beneficiaries

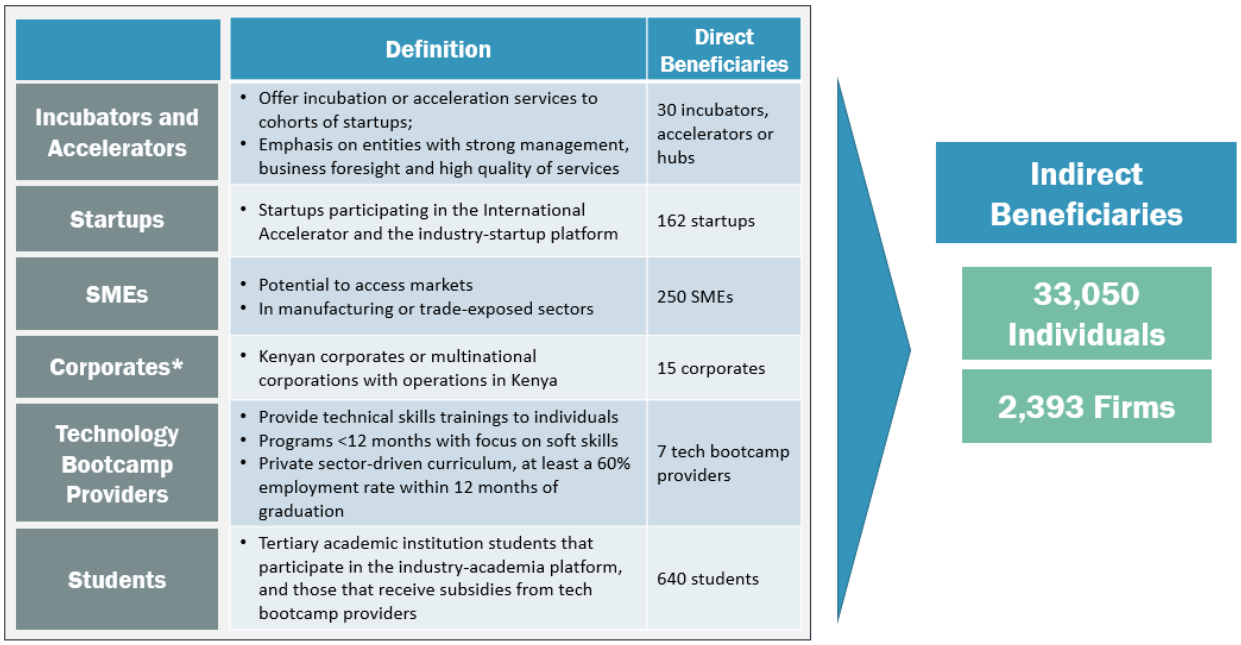
16. **In order to help the GoK meet its growth and industrialization agenda, the Project's direct beneficiaries are formal private sector firms in Kenya, including incubators, accelerators and technology bootcamp providers (referred to collectively as Intermediaries),** [11] **SMEs, corporates, and select TEI and technology bootcamp students.** The Project seeks to work with high-growth firms and firms with a high potential to succeed, including strong Intermediaries, to enhance the Project's success in terms of realizing its outcomes and ensuring significant catalytic and cascading effects. Beneficiaries will be selected according to criteria agreed between the Bank and the MoITC and in accordance to the Project Operation Manual.

17. **For the GoK, the Project is an instrument with a demonstration effect for broader impact on private sector development programs.** Experience from other projects shows that firms that succeed have a strong demonstration effect on other companies, and their improved performance has a cascading effect on lower layer suppliers. The Project is designed so that beneficiaries can become role models for firms that may not directly benefit from the Project's interventions. This will build the foundation for strengthening the GoK's approach to private sector development and the World Bank's Maximizing Finance for Development approach, which seeks to leverage private sector participation and financing in high-impact development projects through which Project interventions can be further scaled beyond the life of the Project. In this regard, the Project will aim to capture lessons learned from the onset of implementation and contribute to capacity building for a broader set of stakeholders in Kenya, and the region. Indirect beneficiaries of this Project include firms benefiting from the incubation/acceleration services, technology bootcamps, or linkage programs, as well as individuals, including those employed by a firm that benefits from these programs, and those preparing for or entering the job market. Figure 1 broadly describes the proposed selection criteria for each category of beneficiary. Beneficiary firms will

[11] As part of the Project's activities under Subcomponent 1a, public enterprises and institutions (incubators, accelerators, and technology bootcamp providers) will also be eligible to apply for program funding.

be selected through a competitive process during the Project's implementation, using transparent criteria specified in the Operations Manual (see annex 1 for a detailed project description).

Figure 1. Direct and indirect project beneficiaries



* Large corporates do not receive funds. They support interventions with SMEs, startups, and universities, and by doing so, benefit themselves. This makes them direct project beneficiaries.
Note: Direct beneficiaries are defined as local incubators, accelerators and technology bootcamps benefiting from the diagnostic (component 1a); the startups going through the IA process, the startups and corporates participating in the industry-startup linkages program, the students and corporates participating in the industry-academia platform (component 1b); the SMEs, BDS, and training providers (component 2). Indirect beneficiaries are defined as startups and startup staff benefiting from the local incubators and accelerators, students of bootcamp providers not receiving subsidies (component 1a); startups going through the local incubators supported by the IA, people trained through the IA, startup staff participating in the industry-startup linkages program (component 1b); and employees of the SMEs (component 2). A subset of the direct and indirect beneficiaries is reflected in the Results Framework in section VII.

C. PDO-Level Results Indicators

18. The PDO will be measured by the following indicators:

(a) Number of select firms with a developed innovation. According to Corporate Results Indicators, a 'developed' innovation will be measured as the number of businesses receiving advisory services and/or technical assistance through the Project that develop new/innovative business models resulting in the development of new products and/or processes or the enhancement of existing products and/or processes in their operations.

(b) Number of select firms with increased productivity, measuring the number of firms that experience an increase in productivity, whereby productivity is defined as revenue divided by number of full-time employees, as per World Bank guidelines on measurement of productivity.

(c) Firms benefiting from private sector initiatives, measuring the number of firms benefiting both directly and indirectly from the Project.

(d) Firms benefiting from private sector initiatives, of which women-owned, measuring a subset of the firms benefiting directly and indirectly from the Project that are owned by women.

III. PROJECT DESCRIPTION

A. Project Components

19. The proposed Project has three components, summarized in this section and detailed in annex 1.

Component 1: Strengthening the innovation and entrepreneurship ecosystem (US$26.25 million)

20. **This component aims to improve the survival and growth rates of technology-enabled startups in Kenya through a stronger innovation and entrepreneurship ecosystem and talent base.** It endeavors to promote active outreach to the ecosystem and improve the quality of services provided by ecosystem Intermediaries by engendering stronger competition among them, to attract the best startups and talent. The component has two subcomponents: (a) strengthening the ecosystem's support infrastructure and (b) connecting the ecosystem to international networks and local traditional industries.

Subcomponent 1a: Strengthening the ecosystem's support infrastructure (US$14.25 million)

21. **This subcomponent will build the Intermediaries' capacity in developing their individual business models toward operational sustainability, expansion, and increased quality of services provided.** It will finance competitively awarded performance contracts to Intermediaries. There will first be an active outreach to Intermediaries to solicit applications, followed by a competitively awarded diagnostic to help them assess their management and operations. Following the diagnostic, the Intermediaries will be invited to submit and pitch their action plans, identifying focus areas and targets based on the results of the diagnostic. A smaller cohort of Intermediaries will be selected to receive funding through a performance contract, that will last 18–24 months, with 2–3 cohorts during the life of the project. The disbursement of funds will be tied to an action plan and milestones and will cover a percentage of the estimated cost of the milestones. The Project will introduce financial incentives for bootcamp providers to increase the number of women among their cohorts. To reduce the risk of funding nonviable or nonperforming entities and ensure that reliance on donor funds is not perpetuated by the Project, selected Intermediaries will have to demonstrate their ability to contribute toward the achievement of their performance contracts.

Subcomponent 1b: Connecting to international networks and local traditional industries (US$12 million)

22. **This subcomponent will connect the Kenyan ecosystem to international networks.** It will support linkages and coordination within the Kenyan ecosystem and connect it to global expertise and investors. It will also seek to bridge the gap between local industry and technology-enabled startups and between local industry and TEI students, to strengthen the innovation absorption capacity of Kenyan firms in traditional sectors and familiarize both startups and students with local industry.

23. **This subcomponent will provide funds to develop an international acceleration (IA) process.** The program will: (a) pair established firms with technology-enabled startups; (b) conduct active outreach and connecting the Kenyan ecosystem to international networks of talent and support infrastructure (for example, mentors and early-stage investors); (c) attract international and regional talent to establish their startups in Kenya; and (d) increase the capacity within the accelerator landscape in Kenya. The subcomponent will also provide funds for linkages within the ecosystem.

24. **In addition, a local ecosystem Intermediary, such as a TEI, will host an industry-academia platform.** This will connect a network of different formal TEIs and their students to individual companies through specific product development sessions with company staff. This activity will support active outreach in the ecosystem, boost open innovation in Kenyan companies through access to relatively low-cost human capital, and help students develop practical, in-demand skills and experience during their formal education. It draws on good practices from models from around the world, such as Demola in Namibia, Design Factory in Finland, and *Celulas de Innovacion* in Mexico. It will also increase the competitiveness of students in the labor market and enhance their ability to set up their own businesses.

Component 2: SME linkages and upgrading (US$20.75 million)

25. **This component aims to strengthen the productivity and internal capabilities for innovation of Kenyan SMEs, so that they can better compete for local and international market opportunities.** It will support SMEs in improving their managerial and technical skills and their use and access to technology, and contribute towards the creation of local content. This component will finance diagnostics and performance-based contracts to select SMEs. Similar to the mechanism proposed under Subcomponent 1a, the performance contracts will be based on individual action plans, developed following a diagnostic, and will be complemented by coaching by business advisors throughout the process.

26. **The experience in other SME-upgrading programs suggests that program uptake is sometimes low because SMEs do not see the need to upgrade.** To address that potential weakness, the Project will rely on business and industry associations and larger lead firms as one of the ways to identify SME beneficiaries. Associations and lead firms will be asked to identify SMEs that demonstrate potential to access export markets and/or participate in local supply chains. The Operations Manual provides a detailed account of the different methods to identify the SMEs. By targeting an increase in the productivity of participating SMEs, the Project will support SMEs to be more competitive and enhance their growth prospects.

27. **Components 1 and 2 are complementary in nature as they offer support at the ecosystem- and firm-level, respectively, and they collectively provide a holistic intervention to strengthen the private sector.** Component 1 focuses on strengthening Intermediaries to improve the quality and output of the startup ecosystem and boost early stage businesses and technical talent. Component 2 focuses on the firm level, providing tailored support to scale up SMEs and larger companies in the Kenyan ecosystem. With stronger output from the startup ecosystem, and scaling up among SMEs and corporates, the two components will work together to deepen and widen the impact of Kenya's private sector in economic growth, through a demonstration effect. Communications will be an integral part of both components to help amplify the Project's demonstration effect and dissemination of early results.

Component 3: Outreach, M&E, and Project Implementation Support (US$3 million)

28. **The objective of this component is to provide resources for: (a) communications to facilitate diffusion and replication of promising innovations, (b) monitoring and evaluation (M&E) analyses to ensure the implementation and sustainability of the Project's activities, and (c) project implementation support, through the Project Implementation Unit (PIU).** This component will finance the design and implementation of an overall Project communications strategy, and dissemination tools to inform stakeholders on the Project's progress and facilitate replicability of early success stories. These will support the Project through a demonstration effect, and contribute to broader capacity building. The component will also fund an impact evaluation, including surveys, to evaluate the Project's impact. Finally, this component will finance support to the PIU for project implementation and monitoring activities, including conducting project audits and Government trainings, to strengthen capacity within the PIU and ensure retention in the unit. The PIU has already been created and sits within the MoITC.

B. Project Cost and Financing

Project Components	Project cost (USD)	IBRD or IDA Financing	% Financing
Component 1: Strengthening the innovation and entrepreneurship ecosystem	26,250,000	26,250,000	100
Component 1a: Strengthening the ecosystem's support infrastructure	14,250,000	14,250,000	100
Component 1b: Connecting the ecosystem to international networks and local traditional industries	12,000,000	12,000,000	100
Component 2: SME Linkages and Upgrading	20,750,000	20,750,000	100
Component 3: Outreach, M&E, and Project Implementation Support	3,000,000	3,000,000	100
Total Costs			
Total Project Costs	50,000,000	50,000,000	
Front End Fees			
Total Financing Required			

C. Lessons Learned and Reflected in the Project Design

29. **In designing the Project, the team drew on lessons from an extensive range of national and global projects.** The design of the incubator and accelerator support mechanism incorporates lessons from earlier incubator programs financed by the World Bank, as well as global best practices on Government-led incubator and accelerator support programs. Assessments of the mLabs in Africa, Asia, and Europe and Central Asia, which were financed by the World Bank's Digital Entrepreneurship Program

(DEP), emphasize the importance of the incubator or accelerator's core business model as well as the need to strengthen capacity and program management.[12] In addition, countries such as Israel, Singapore, and Finland have catalyzed successful startup ecosystems through government-led support of incubators and accelerators. Applicable lessons learned from governments that have been leaders in bringing startups/SMEs to the forefront of economic growth recognize the role of government policy and programs in this process and include: (a) promoting and supporting the best human capital and leadership within select Intermediaries; (b) requiring counterpart funding on the side of the Intermediary; (c) allowing the Intermediary to unlock follow-on funding through successful performance; and (d) covering operational costs and management training costs of select intermediaries to strengthen operations and overall value added to the sector.

30. **A recent World Bank study of entrepreneurship training and employment programs[13] in Kenya explored the impact, results, and good practices of programs run by the GoK**. The KYEOP found that: (a) practical training is more relevant when employers are engaged in defining the competencies and brought into the design of the job-specific training to ensure that the training matches employer needs; and (b) the teaching of life skills is popular with employers and youth, but the payoff is higher when these skills are combined with other skills training. The intervention on technology bootcamps includes both technical as well soft skills, and on-the-job training, complementing similar existing services supported by the GoK, donors, and the private sector, including Technical and Vocational Education and Training (TVET).

31. **This Project also seeks to address a few of the key bottlenecks constraining the growth of SMEs in Kenya.** A review of three donor-funded programs in Kenya that match the component's target firm size (small and medium); sector (manufacturing and services); and type of support (financing, technical assistance, or both) was conducted for project preparation.[14] Over the last two decades, Kenyan SMEs have received considerable funding from the Government and donors, but most of the individual programs have been small, diffused on impact, and not scalable. A large number of these programs have targeted pre-entrepreneurship or micro-businesses and not established SMEs. In contrast, the Project will support a program more focused on SMEs, providing brokered interaction between SMEs and Business Development Services (BDS) providers to lead to more productive interactions. This approach is consistent with global experience on SMEs upgrading initiatives and research on matching grant models.[15]

32. **The Project also addresses impediments faced by lead firms in engaging in SME upgrading activities.** The lead firm to SMEs links approach described under Component 2 is based on interviews with lead firms, research on SME performance gaps, and roundtables on private sector development initiatives. It is modeled after the successful Czech Supplier Development program designed by the World Bank and

[12] InfoDev. 2015. "Business Analytics Toolkit for Tech Hubs: Lessons Learned from infoDev's mLabs and mHubs"; InfoDev. 2014. "The Business Models of mLabs and mHubs: An Evaluation of infoDev's Mobile Innovation Support Pilots"; InfoDev. 2017. "Do mLabs Still Make a Difference?"

[13] World Bank. 2015. "The Impact of Private Internships and Training on Urban Youth in Kenya"; World Bank. 2014. "Effective Dimensions of Entrepreneurship Education and Training: Case Studies Kenya, Mozambique and Ghana" in "A Framework for Entrepreneurship Education and Training Programs."

[14] These programs include the completed IFC Risk Capital and Technical Assistance Fund (IFC RC and TA Fund), the completed JICA Project for Productivity Improvement (JICA-PPI), and the ongoing JICA Human Resource Development for Industrial Development Project (JICA-HRDID).

[15] World Bank Group. 2017. "How to Make Grants a Better Match for Private Sector Development. Review of World Bank Matching Grants Projects." Washington, DC: World Bank

similar schemes implemented in Ireland, the United Kingdom, Singapore, and Tunisia. Despite being potential beneficiaries, lead firms rarely invest in overt upgrading of potential suppliers, as they cannot be assured that the upgrading will be effective or because they do not have the internal capabilities to manage such schemes nor do they prioritize such activities. The program will engage lead firms throughout the process, from nominating SMEs to providing mentoring and upgrading advice that will lead to new contracts.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

33. **The MoITC has created a PIU which will be responsible for the implementation of the proposed Project.** The PIU will be responsible for the fiduciary aspects of the Project, the coordination of the technical, logistics, and implementation aspects of the Project, as well as the coordination of the relevant stakeholders and beneficiaries. Given that staff of the MoITC has had limited experience with the World Bank's procurement and financial management (FM) processes, the PIU will be strengthened through capacity building in the World Bank's procurement and FM procedures and requirements. The Project will be implemented in accordance with the Operations Manual, which has been adopted by the GoK. Detailed implementation arrangements are included in annex 2.

B. Results Monitoring and Evaluation

34. **The PIU will be responsible for monitoring project implementation and expected outcomes, including the Results Framework in section VII.** The Operations Manual includes a detailed description of how project activities will be monitored and evaluated, including assigned roles and responsibilities for data collection, analysis, reporting, evaluation, and use within certain time frames. Component 3 makes a funds provision to support the PIU in its M&E role. The firms hired to work on the different components will be required to regularly collect and provide the PIU with relevant sets of data. The PIU will establish standard formats and guidelines for data collection and reporting. Sources of data include primary data collected through project implementation, as well as relevant Government and third-party data collected for the purposes of other reports. The PIU will have the overall responsibility for data collection, monitoring, and analysis across the various components, as part of the Project's M&E efforts.

C. Sustainability

35. **The PIU has carried out numerous stakeholder consultations during the preparation of the Project to ensure relevance of the activities proposed and to ensure citizen engagement.** Stakeholders consulted included innovation and entrepreneurship intermediaries, public administration (at the national level as well as in select counties), TEIs, entrepreneurs, business associations, and private firms. Specific consultations focused on obtaining feedback from potential female beneficiaries, including female entrepreneurs and students, as well as women in technology. Consultations were conducted both on a bilateral basis as well as through targeted workshops with groups of stakeholders, with over 245 different representatives.

36. **The GoK's commitment and ownership of the Project is clear from the high level of involvement during the preparation stage, its leadership, and participation in the Project design.** The Project will help

implement KITP, and is one of the instruments to implement the GoK's vision to promote the development of the economy overall. The Government's commitment to realizing the growth of SMEs and the industrialization of the economy is also clear from the number of programs that have been introduced in the last few years, including the KITP. As part of its overall program on private sector development, the GoK may provide additional funding to cover activities that are complementary and additional to the Project, and help coordination and further capacity building within the Government.

37. **This Project is designed to connect and leverage various technology ecosystem stakeholders as well as industry players, such as large corporations, SMEs, business associations, and consulting service providers, to increase their sustainability beyond the Project's duration.** For Subcomponent 1b, for instance, if there are encouraging results from the industry-startup linkages program, it can be carried forward and shouldered by the corporate partners, in the form of an in-house corporate accelerator/startup-collaboration program. Similarly, the interventions to support the accelerators in Kenya, including the IA process and the support activities under Subcomponent 1a, are intended to be catalytic in nature, resulting in self-sustaining business models and cascading investment for ecosystem intermediaries. To facilitate replicability and scale up, the Project will implement a targeted communications strategy. Communications will be used to leverage the Project's demonstration effects for broader impact, as part of the GoK's private sector development programs.

38. **For Component 2, the Project will support 250 SMEs over its duration, with the aim to trigger innovation, new products, and access to large business contracts and export markets and serve as a basis for a demonstration effect.** The Project will utilize successful client SMEs to talk about their experience to potential and non-clients. The experience from similar programs in other countries shows that successes among top local suppliers have cascading effects on other companies in the market in terms of knowledge sharing and new market opportunities. The Project will promote the development of business development tools and use of these public goods among Kenyan firms. One will be a benchmarking tool that will generate comparative data on participant SMEs and allow SME performance to be compared to peers globally. A second tool will be a database of BDS providers with a feedback mechanism on BDS performance with the aim to promote BDS quality and their use by SMEs. The initiative will disseminate information on all these tools and SME improvements more broadly through a dedicated program website. These will help ensure longer-term sustainability of the Project's results and align them with the World Bank's new approach to leverage the private sector for growth and sustainable development while optimizing the use of scarce public resources.

D. Role of Partners

39. **The Project was designed to complement the efforts of ongoing World Bank lending operations, as well as the operations and interests of other development partners.** As an example, initially this Project intended to include ecosystem coordination as part of its design given that the research revealed coordination among key players is a crucial gap in the ecosystem. However, the German Agency for International Cooperation (*Deutsche* Gesellschaft *fur Internationale Zusammenarbeit*, GIZ) is endeavoring to support and spearhead ecosystem coordination in Kenya through a project currently in development. Furthermore, the African Development Bank (AfDB) plans to support nascent rural hubs and innovation centers to increase their capacity, which allows this Project to focus both on cities and counties with strong and emerging incubators and accelerators that have the capacity to support startups.

V. KEY RISKS

A. Risk Ratings Summary Tab

Risk Category	Rating
Political and Governance	Moderate
Macroeconomic	Low
Sector Strategies and Policies	Moderate
Technical Design of Project	Substantial
Institutional Capacity for Implementation and Sustainability	Substantial
Fiduciary	Substantial
Environmental and Social	Low
Stakeholders	Moderate
Overall	**Substantial**

B. Overall Risk Rating and Explanation of Key Risks

40. **The overall risk rating is considered Substantial given that this is an innovative project and the risks related to the technical design of the project and the institutional capacity for implementation and sustainability are Substantial.** In addition, the overall fiduciary risk is Substantial. Risks are outweighed by the potential for high impact and the multiplier effects caused by strengthening the innovation ecosystem and making it competitive in the international arena (including high-skill employment and entrepreneurship). In order to mitigate technical, institutional and fiduciary risks, a concrete risk mitigation plan has been developed and will be reviewed during every implementation support mission; additional details on this process are documented in the Operations Manual.

41. **The political and governance risks are Moderate.** The country's political environment has begun to stabilize following a prolonged election period and heightened political tensions. Its economic environment is still facing challenges. Fiscal constraints and weak credit growth resulting from the interest rate cap are negatively impacting the availability of financing for SMEs. Economic growth decelerated to an estimated 4.9 percent in 2017, and the above exogenous factors could therefore affect the attainment of the PDO. Corruption remains a challenge for the GoK and the private sector. However, reflecting the easing of some of the transient headwinds, including from improved rains and easing of political tensions following the conclusion of the Presidential elections, a nascent rebound in economic activity is beginning to take root in 2018. Fiscal consolidation has commenced, and efforts are underway to eliminate or significantly modify interest rate controls to ameliorate its impact on credit growth and access to finance. The GoK is also addressing key governance bottlenecks to service delivery. As a mitigating measure, technical specifications for selection of providers are being developed with the help of several trust funds during project preparation. Those specifications will be published for transparency throughout the project implementation process. In addition, different components have built-in mechanisms to mitigate collusion. For instance, in Component 2, to avoid collusion around funds allocation, a group of business advisors will always monitor and evaluate progress with each beneficiary firm in teams of three people, and potentially discuss progress plans in program-wide meetings to avoid collusion between the firm and an individual (according to the Operations Manual). Information on companies participating in the program, as well as improvements and applied BDS, will be made public via a dedicated website or social media account, to promote both transparency and awareness of SME productivity in the country.

42. **The risks regarding the technical design of the Project are Substantial.** The design of some project activities is experimental, and while based on best practice globally, there is limited experience in its application in emerging economies. This risk will be mitigated by leveraging lessons learned from relevant World Bank and development partner-funded projects and World Bank-executed pilots and by introducing stringent M&E requirements (including impact evaluations, where applicable). Lastly, the Project team, which includes multi-global practice regional staff, as well as global technical experts, has strived to reduce design complexity by applying existing working models, keeping the Project aligned on clear measurable outcomes, ensuring full stakeholder involvement, a strong marketing and communication strategy, and an emphasis on learning from experiences and sharing knowledge.

43. **The fiduciary risks of the Project are Substantial.** FM, Procurement, and safeguards assessments have been carried out and revealed certain weaknesses, including lack of experience in the implementation of World Bank-financed operations with little or no institutional memory, as well as governance issues, that may impact the implementation of the Project. Risk mitigation measures include training to strengthen capacity within the PIU such as a three-month, brand-name executive education management program for key PIU staff; short courses on general management training; specific training that relates to the Project's focus areas such as technology and innovation; and training and capacity-building opportunities related to project implementation (that is, procurement, disbursement, FM, and safeguards, among others). Additional fiduciary staff will be engaged to reinforce the PIU, according to the fiduciary assessments. Close ties with the private sector will also be reinforced with private sector engagement in the implementation of the Project, to ensure third-party checks and balances.

44. **Finally, the limited experience of the MoITC in implementing World Bank Group-financed projects renders institutional capacity for implementation and sustainability risk Substantial.** The project design has been kept simple to reflect implementation capacity. As described above, this risk will be further mitigated by strengthening the capacity for implementation of the ministry staff through trainings in specific technical areas, as well as providing support in terms of project management and M&E. The Terms of Reference for implementing firms is included in the Operations Manual. In addition, a Project Steering Committee (PSC) will support the successful implementation of the Project and mitigate the risks associated with institutional capacity. The PSC will serve as a sounding board on policy guidance for the Project and support coordination and alignment of the Project with other relevant GoK and private sector initiatives (see annex 2 for the detailed implementation arrangements).

VI. APPRAISAL SUMMARY

A. Economic and Financial (if applicable) Analysis

45. **Increasing innovation and productivity in select firms could have many direct and indirect developmental impacts in Kenya.** Based on an assessment of the various project components, some of the main direct economic benefits include: training and talent acquisition, strengthening and growth of the digital entrepreneurship ecosystem, and enhancing SMEs and supply chains. The Project is expected to have strong societal benefits, amplified through a demonstration effect and catalytic impact. Experience from other projects shows that firms that succeed have a strong demonstration effect on other companies, and their improved performance has a cascading effect on lower layer suppliers. Those societal benefits include potential multipliers in terms of investment, jobs, exports, skills and human

capital development.

46. **The economic and financial analysis of this Project has been calculated with the estimated difference in cash flows to beneficiaries within the SMEs and within the innovation and entrepreneurship ecosystem in Kenya (incubators, accelerators, bootcamp providers, startups and students).** All calculations are assuming a discount rate of 10.5 percent per year, including the net present value (NPV) and economic rate of return (ERR) for each activity.[16] The evaluations carried out are constructed through scenario-based analyses with sensitivity testing, and measure factors such as increased creation of startups, decrease of startup failure, difference in the operating margin generated by the startups, enhanced job creation, increase in salaries, and increased SME profit margins. The overall Project NPV is estimated at US$26 million in a neutral scenario, with an ERR of 36 percent. Demonstration effects would further boost the economic value of the Project. However, these have not been factored in, in a conservative scenario.

47. **The World Bank draws value to the Project during design and implementation from a wide range of operations in Kenya and other countries, while incorporating lessons learned from them.** As an example, in designing the Project, the team drew on lessons from an extensive range of national and global projects. This included the knowledge and experience of the World Bank in supporting startup ecosystems ranging from Kenya (Digital Entrepreneurship, P156466); Lebanon (Mobile Internet Ecosystem Project, P131202); Colombia (Creating a platform for co-creation of applications and local e-Government content in Colombia, P144199); Mexico (Information Technology Development Project, P106589); the Caribbean (Mobile Innovation Project, P132570); and Chile (Open Innovation to Improve Municipal Services in Concepcion, P147956). In addition, the Project has taken advantage of the knowledge and lessons learned from the Learning Platform for Open Innovation in Smart Cities (P151932) and the Open Innovation in Cities Knowledge Silo Breaker (P158681). The Project also leverages and complements the new skills training methodologies learned from the Technology Rapid Skills Training for Youth Employment (P156294), the Kenya Youth Employment and Opportunities Project (P151831), the Kenya Youth Empowerment Project (P111546), and the World Bank's experience administering performance-based contracts in the higher education sector in Chile (Tertiary Education Finance for Results Project III, P111661). See annex 5 for the detailed lessons learned.

Rationale for Public Sector Provision/Financing, If Applicable

48. **Recent analyses have demonstrated the impact that incubators and accelerators have on African markets in particular.** A 2017 InfoDev assessment found that Africa's m:Lab startups have achieved high survival rates of 84 percent and created a substantial number of jobs.[17]

49. **In the nascent Kenyan ecosystem, public financing is needed to address a gap in available financing for overheads and operational costs of incubator and accelerator operations.** The unavailability of more general funding has created a system wherein many incubators and accelerators can exist, but the development of teams, systems, internal capacity, and operational strategy has lagged

[16] Damodaran Online. 2017. "Equity Risk Premium." http://pages.stern.nyu.edu/~adamodar/.
[17] InfoDev. 2017. "Do mLabs Still Make a Difference: A second Assessment." http://www.infodev.org/infodev-files/do_mlabs_still_make_a_difference_-_a_second_assessment_-_executive_summary_-_digital_entrepreneurship_program_-_infodev_2017_0.pdf.

significantly. Public financing will therefore provide a specific solution to address this gap in the near term. This kind of support is consistent with international best practices, such as those from Australia, Finland, Israel, Mexico, and Singapore, where targeted public funding for activities such as under this Project, has resulted in significant gains in terms of firm competitiveness and innovation.

50. **While high-growth startups and innovative mature firms in Kenya are looking for more technological talent, the market of technology bootcamp providers geared toward supplying such talent is nascent.** To strengthen and accelerate innovative technology skills building in Kenya, Government financing is necessary to accelerate the development of select, specialized bootcamp providers to produce innovative, technical talent at both the entry and advanced levels to propel innovation and productivity in firms.

51. **For the industry-startup linkages program, Government financing is necessary to lower the risks to the level where the private sector is comfortable in innovating, as the cost of establishing and maintaining platforms that connect stakeholders is usually more expensive than what the parties can afford.** If large companies are expected to cover the costs, it would create a less-balanced program where smaller ICT companies would have a less equal role.

52. **For SME upgrading, there is strong evidence that management quality varies greatly and that SMEs face various information asymmetries in identifying their relative performance and addressing gaps.** Managers and owners of firms tend to overestimate their managerial competences,[18] they often have little experience in acquiring external business advice, and in many countries the supply of such services is of poor quality. In addition, lead firms often lack knowledge and incentives to invest in upgrading local suppliers. The Government can play a key role in closing the gap between lead firms and suppliers. There are a number of public goods to be gained through Component 2, including the SME benchmarking tool and its widespread use in-country, the database of BDS providers, upgraded skilled business advisors, and SME training curricula. In addition, Component 2 is designed to leverage extensive communications to extend the Project's impact beyond the direct SME beneficiaries through a demonstration effect, to other firms in the ecosystem. This will support a downstream impact through the private sector, and foster systemic changes to critical productivity challenges.

B. Technical

53. **The technical design of the Project builds on lessons learned and best practices of similar activities implemented in developing countries.** Moreover, it has been built on a series of studies and consultations that have been carried out. These include a study on global best practices on government-led support of incubators, accelerators, and related intermediaries. The analysis examined how these intermediaries have been supported by governments across the globe to stimulate growth and sustainability of early stage business ecosystems with a view toward designing a relevant funding mechanism for related intermediaries in Kenya. A technical assistance on rapid technical skills trainings, in particular coding bootcamps, was also conducted, entailing a qualitative assessment of the Moringa School coding bootcamp. This research tracked a cohort of students for six months following the bootcamp completion to assess the impact of the training on the graduates' employment prospects. In addition, an industry-startup pilot was conducted in Kenya to test an open innovation mechanism that

[18] Bloom and Van Reenen 2012.

attracts, selects, and supports high-growth potential startups to solve corporate challenges. The pilot included a leading Kenyan agro-processing and exporting firm, and the co-creation process has provided the team with invaluable lessons for scaling up the intervention. Lastly, the Project builds on business assessment data, lessons learned on matching grants for company upgrading, the SME Launchpad Program, and the team's research in the local BDS market from both the supply and demand side.

C. Financial Management

54. An FM assessment for this Project was carried out, the objective of which was to determine: (a) whether the MoITC has adequate FM arrangements to ensure that project funds will be used for the intended purposes in an efficient and economical way; (b) if the Project's financial reports would be prepared in an accurate, reliable, and timely manner; and (c) whether the entity's assets would be safeguarded. The assessment was carried out in accordance with the World Bank Directive 'Financial Management Manual for World Bank Investment Project Financing Operations', issued on February 4, 2015, and effective from March 1, 2010, and World Bank Guidance 'Financial Management in World Bank Investment Project Financing Operations', issued and effective from February 24, 2015. The assessment considered the fact that MoITC is currently co-implementing the Kenya Petroleum Technical Assistance Project (P145234) and the KYEOP, both of which are supported by the World Bank.

55. **Overall, the assessment indicates that there are adequate FM arrangements at the MoITC to manage project finances.** Experienced and qualified staff are in place, accounting and record-keeping arrangements are adequate, acceptable budgeting arrangements are in place, and the ministry's internal control systems are reliable. However, the staff lack hands-on experience on management of World Bank projects. In addition, the MoITC has no ongoing program for disbursement of funds to private sector beneficiaries as envisaged by the Project. This will be mitigated through the use of the firms hired to implement the different components acting as disbursement agents as the Ministry develops in-house capacity. The MoITC will be required to designate and maintain a full-time project accountant, and follow the comprehensive FM procedures manual as part of the Operations Manual. In conclusion, the FM risk rating is assessed as Substantial and the residual risk rating is Moderate.

D. Procurement

56. **Procurement under the proposed Project will be carried out in accordance with The World Bank's 'Procurement Regulations for IPF Borrowers', dated July 2016 and revised in November 2017, hereafter referred to as 'Procurement Regulations'; the 'Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants', dated July 1, 2016; and other provisions stipulated in the Financing Agreement.** To improve project implementation pace and to achieve the PDO, a Project Procurement Strategy for Development (PPSD) was developed. The PPSD includes the Procurement Plan (PP) which sets out the procurement profile of the project and selection methods to be followed by the recipient during project implementation in the procurement of goods, works, and non-consulting and consulting services financed by the project. The PPSD and PP will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

57. **The project will use the Systematic Tracking of Exchanges in Procurement (STEP),** a planning and tracking system, which will provide data on procurement activities, establish benchmarks, monitor delays,

and measure procurement performance.

58. **The profile of procurement for the Project comprises consultant contracts** for: (a) the administration of performance contracts for ecosystem intermediaries, (b) the development of the industry-startup linkages program, (c) the IA process to develop linkages to the international ecosystems, (d) the implementation of an industry-academia platform, (e) the implementation of the SMEs upgrading program, (f) M&E, (g) communications, (h) training and capacity building, (i) third-party procurement audits, and (j) technical assistance.

59. **A procurement capacity and risk assessment for the MoITC has been carried out by the World Bank using the Procurement Risk Assessment and Management System (PRAMS).** The assessment revealed systemic weaknesses that may affect procurement implementation under the Project, including lack of experience in the implementation of World Bank-financed operations and low staff capacity given that most procurement staff were recently deployed to the ministry, with little or no institutional memory. A full-time procurement specialist with the requisite knowledge and experience in World Bank-financed operations will therefore be engaged in the initial stages of project implementation to provide technical assistance and build the required procurement capacity. The World Bank will provide regular capacity building to Ministry staff in the management of investment projects.

60. **Other key issues and risks concerning procurement for implementation of the Project include systemic weaknesses** in the areas of: (a) procurement capacity, (b) accountability of procurement decisions, (c) procurement delays in bid/proposal evaluation and signing of contracts, (d) procurement record keeping and management, (e) procurement planning and monitoring, (f) procurement process administration, up to and including awarding of contracts, (g) contract management, and (h) procurement oversight.

61. **Based on the capacity assessment and the nature and complexity of the envisaged key consultant contracts, the procurement risk is rated High.** Risk mitigation measures will include: (a) training new and current staff in the World Bank's Procurement Regulations; (b) providing support to the PIU; (c) preparing Contract Management Plans (CMPs) for complex and high-value contracts, with clear staff roles and responsibilities; (d) effectively using STEP as a tracking and monitoring tool; and (e) improving procurement record keeping and management.

E. Environmental and Social Safeguards

62. **The Project is assigned an Environmental Category B partial assessment and triggers the safeguards policy on Environmental Assessment (OP/BP 4.01) given the implementation of activities in which project beneficiaries may purchase equipment and technology.** Since the specific locations/sites were not confirmed during the preparation stage of the Project, the upstream safeguard work will adopt the framework approach. The recipient has prepared, in a participatory and consultative manner, an Environmental and Social Management Framework (ESMF) to ensure that a process of identifying, assessing, and mitigating environmental and social impacts is integrated in the development of the specific subprojects. This instrument has been prepared in accordance with the World Bank's Operational Policy on Environmental Assessment and the Kenya National Environment Management Authority's requirements. The Recipient has ensured that adequate stakeholder consultations took place during the preparation of the draft ESMF, and documentation of the stakeholder consultation and participation

process is important during implementation. The framework report was submitted to the World Bank for review and clearance and disclosed in-country on March 5, 2018 and at the World Bank's InfoShop on March 8, 2018.

63. **The results of the Climate and Disaster Risk Screening show that the Project is not at risk from climate change and other natural hazards,** and in particular, the capacity building activities slightly reduce any potential impact. Droughts, extreme temperatures and flooding pose a moderate risk overall for Kenya, with strong winds and landslides posing low risk. However, the nature of the Project's activities, anchored in technical assistance, does not make them susceptible to these hazards.

64. **The MoITC has no prior experience in implementing World Bank financed projects and related safeguards policies and procedures.** A safeguards capacity assessment carried out on the MoITC to identify and manage environmental and social risks and impacts has revealed standards to be inadequate. The Ministry has designated a staff in the PIU to be in charge of safeguards, the Bank will conduct targeted safeguards capacity building for the MoITC to inbuilt capacity to manage safeguards issues in the project.

65. **No social impacts related to indigenous people or involuntary resettlement are anticipated under any of the activities proposed for implementation under the three components of the project.** This is because the activities will be implemented within the premises of existing firms. For this reason, the project has not triggered the Social Safeguard Policies, OP/BP 4.10 (Indigenous Peoples), and OP/BP 4.12 (Involuntary Resettlement). Nevertheless, the project will be monitored to ensure that it establishes adequate safeguards to address the following social issues:

- **Governance.** The project's task teams will be required to consider as best practice, establishing transparent and accessible selection criteria that will ensure that firms and ecosystem intermediaries owned by women, youth, and people with disabilities have equal chance for consideration for support under the project.

- **Labor influx**. Labor influx is not expected as part of the Project's activities. If any of the Project components should involve works that require labor (skilled and unskilled), priority would be given to the local people to avoid instances of labor influx that may have adverse sociocultural impacts on the local community. Also, contracts for such works should have inbuilt safeguards clauses and arrangements to protect local community members from adverse impacts such as child labor, sexual exploitation and abuse (SEA), teen pregnancies, interferences with local culture, and unnecessary disruption of the community's livelihood strategies such as increase in the prices of commodities and rental housing. Project beneficiaries would be encouraged to have inbuilt safeguards and penalty measures to take care of grievances and complaints related to SEA and teenage pregnancies, should these arise in the cause of project implementation and be attributed to project actions.

- **Citizen engagement.** Spearheaded by the MoITC, the Project will support engagement of stakeholders and beneficiaries during implementation as part of the overall Project communications strategy. This will be done through different mechanisms, including by publishing relevant project information, and through consultative processes, and feedback mechanisms to strengthen KIEP design, build ownership and contribute to sustainability and better project outcomes. Feedback mechanisms will be developed in the design of the communications strategy to ensure transparency and a continuous dialogue with stakeholders and beneficiaries. During implementation, particular attention will be given to

building the capacity of the startups, incubators and accelerators to be able to give feedback on project activities and report on actions taken whenever there is a need to do so. The specific elements of the framework for citizen engagement that will be adopted by the project include: (a) access to project information, including Grievance Redress Mechanism, the planned bootcamps and role of stakeholders; (b) information campaigns to raise awareness about the Project with specific activities targeting startups owned by youth, women and people with disabilities, and encouraging them to participate; (c) consultations with program stakeholders through agreed and accessible fora; (d) a feedback mechanism which the Project will design to process complaints, concerns, and questions from stakeholders at different levels; and, (e) as necessary, annual specific third-party monitoring of project activities to ensure continued transparency and feedback on Project activities. In addition, the Project will measure a citizen engagement indicator, in the form of beneficiary satisfaction with incubator and accelerator services.

F. World Bank Grievance Redress

66. Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service.
For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.

VII. RESULTS FRAMEWORK AND MONITORING

Results Framework

Project Development Objective(s)

Increase innovation and productivity in select private sector firms

PDO Indicators by Objectives / Outcomes	DLI	CRI	Unit of Measure	Baseline	Intermediate Targets						End Target
					1	2	3	4	5	6	
Increase innovation and productivity in select private sector firms											
Number of select firms with a developed innovation			Number	0.00	0.00	1.00	6.00	64.00	10.00	46.00	127.00
Number of select firms experiencing an increase in productivity			Number	0.00	0.00	0.00	25.00	0.00	0.00	25.00	50.00
Firms benefiting from private sector initiatives		Yes	Number	0.00	0.00	182.00	417.00	554.00	802.00	800.00	2,755.00
Of which are women-owned			Number	0.00	0.00	11.00	42.00	49.00	80.00	80.00	262.00

Intermediate Results Indicators by Components	DLI	CRI	Unit of Measure	Baseline	Intermediate Targets						End Target
					1	2	3	4	5	6	
Component 1: Strengthening the innovation and entrepreneurship ecosystem											
Beneficiary satisfaction with incubator and accelerator services (citizen engagement indicator)			Percentage	0.00	0.00	0.00	70.00	70.00	70.00	70.00	70.00

Percentage of technology bootcamp graduates that are women			Percentage	0.00	0.00	35.00	35.00	35.00	35.00	35.00	35.00
Component 2: SME linkages and upgrading											
Number of beneficiary SMEs with above average revenue growth			Number	0.00	0.00	0.00	3.00	7.00	10.00	5.00	25.00
Component 1, Component 2, and Component 3											
Number of individuals trained			Number	0.00	11.00	306.00	292.00	1,182.00	230.00	870.00	2,891.00
Of which female			Number	0.00	1.00	27.00	95.00	172.00	79.00	143.00	517.00

Monitoring & Evaluation Plan: PDO Indicators	
Indicator Name	Number of select firms with a developed innovation
Definition/Description	This indicator relates to a new or improved product, service, or operational innovation and is measured as per Corporate Results Indicators. A “developed” innovation will be measured as the number of businesses receiving advisory services and/or technical assistance through the Project which develop new/innovative business models resulting in the development of new products and/or processes, or the enhancement of existing products and/or processes in their operations.
Frequency	Annual
Data Source	A subset of the direct project beneficiaries is expected to achieve a developed innovation. These direct beneficiaries include the accelerators, incubators, and technology bootcamps supported by component 1a; the startups participating in the international acceleration program, the corporates that participate in the industry-startup linkages program, and the industry-academia platform supported by component 1b; and the SMEs supported by component 2.
Methodology for Data Collection	
Responsibility for Data Collection	The overall responsibility for data collection will lie with the PIU. The firms administering activities under component 1 and 2 will have direct responsibility for the collection of the required data.

Indicator Name	Number of select firms experiencing an increase in productivity
Definition/Description	This indicator measures the number of firms that experience an increase in productivity whereby productivity is defined as revenue divided by number of full-time employees.
Frequency	Every 6 months
Data Source	A subset of the direct project beneficiaries under component 2 is expected to experience an increase in innovation. Data will be collected from SMEs supported by component 2 each time milestones are verified by the firm administering component 2, procured by the PIU.
Methodology for Data Collection	
Responsibility for Data Collection	PIU will have the overall responsibility for the collection of this data, and the firm procured by the PIU to administer component 2 will be in charge of directly collecting the data from beneficiary SMEs.

Indicator Name	Firms benefiting from private sector initiatives
Definition/Description	
Frequency	Annual
Data Source	This indicator includes the number of firms benefiting both directly and indirectly from the Project. Direct beneficiaries are defined as local incubators, accelerators and technology bootcamps benefiting from the diagnostic (component 1a); the startups participating in the International Acceleration process, the startups and corporates participating in the industry-startup linkages program, the students and corporates participating in the industry-academia platform (component 1b); the SMEs, BDS, and training providers (component 2). Indirect beneficiaries are defined as startups and startup staff benefiting from the local incubators and accelerators, students of bootcamp providers not receiving subsidies (component 1a); startups going through the local incubators supported by the IA process, people trained through the IA process, startup staff participating in the industry-startup linkages program (component 1b); and employees of the SMEs (component 2). The source of data will be collected by the firms administering activities under component 1 and 2, procured by the PIU.
Methodology for Data Collection	
Responsibility for Data Collection	The PIU has overall responsibility for the collection of data. The data will be directly collected by the firms procured by the PIU to administer activities under component 1 and 2.

Indicator Name	Of which are women-owned
Definition/Description	The Project uses the IFC definition of women-owned enterprises, defined as a firm with a) 51% or more ownership/stake by a woman/women; or b) greater than or equal to 20% owned by a woman/women AND 1 or more woman/women as CEO/COO (President/Vice President) as well as 30% or more of the board of directors being women if a board exists.
Frequency	Annual
Data Source	A subset of the firms benefiting from private sector initiatives is expected to be women-owned.The PIU has overall responsibility for the collection of data. The data will be directly collected by the firms procured by the PIU to administer activities under component 1 and 2.
Methodology for Data Collection	
Responsibility for Data Collection	The PIU will have overall responsibility for the collection of the data. The data will be collected by management companies and implementing firms procured by the PIU under each activity in component 1 and 2.

Monitoring & Evaluation Plan: Intermediate Results Indicators	
Indicator Name	Beneficiary satisfaction with incubator and accelerator services (citizen engagement indicator)
Definition/Description	Satisfaction of firms participating in the programs run by the supported incubators and accelerators.
Frequency	Every 6 months
Data Source	Measured with a survey of clients of local accelerators, hubs and incubators at the beginning of the support, at the 12-month mark or and at the end of the support over 18-24 months, which is the length of the performance plans for said intermediaries under component 1a.
Methodology for Data Collection	
Responsibility for Data Collection	The overall responsibility for data collections lies with the PIU, however the data will directly be collected by the firm that the PIU procures to administer the performance plans.

Indicator Name	Percentage of technology bootcamp graduates that are women
Definition/Description	Percentage of beneficiary technology bootcamp graduates that are women.
Frequency	Three times a year
Data Source	Measured as women bootcamp graduates over total bootcamp graduates in technology bootcamp cohorts that benefit from the project under component 1a. Measured through data provided by beneficiary bootcamps at the completion of each cohort during the expansion/ performance plan under 1a.
Methodology for Data Collection	
Responsibility for Data Collection	The overall responsibility for data collection will lie with the PIU. The data will be directly connected by beneficiary bootcamps and transferred to the firm procured by the PIU to administer the expansion and performance plans under 1a so that they verify the provided data.

Indicator Name	Number of beneficiary SMEs with above average revenue growth
Definition/Description	Number of SMEs benefiting from component 2 which grow their revenues more than their own average revenue growth of the last two years prior to benefiting from the project.
Frequency	Every 6 months
Data Source	A subset of the Project direct beneficiaries under component 2 is expected to achieve above average revenue growth. Baseline will be collected at the diagnostic phase under component 2 by the firms administering this component, procured by the PIU. Further data will be collected by the administering firm upon each milestone during the intervention.
Methodology for Data Collection	
Responsibility for Data Collection	The overall responsibility for data collection lies with the PIU. The firm procured by the PIU to administer component 2 will be collecting the required data.

Indicator Name	Number of individuals trained
Definition/Description	Number of individuals trained through all project component activities.
Frequency	Annual
Data Source	A subset of the total Project beneficiaries is expected to undergo training. The data will be collected by the firms procured by the PIU to administer each activity under component 1 and 2, and by the PIU for component 3.
Methodology for Data Collection	
Responsibility for Data Collection	The overall responsibility for the collection of the data lies with the PIU. The data will be directly collected by the firms administering the activities under component 1 and 2, and directly by the PIU for component 3.

Indicator Name	Of which female
Definition/Description	Number of women trained by all project components activities.
Frequency	Annual
Data Source	A subset of the beneficiaries that will be trained will be women. The data will be collected by the firms procured by the PIU to administer each activity under component 1 and 2, and by the PIU for component 3.
Methodology for Data Collection	
Responsibility for Data Collection	The overall responsibility for data collection will lie with the PIU. The firms administering activities under component 1 and 2 and the PIU for component 3 will have direct responsibility for the collection of the required data.

ANNEX 1: DETAILED PROJECT DESCRIPTION

COUNTRY : Kenya
Kenya Industry and Entrepreneurship

1. **The Kenya Industry and Entrepreneurship Project will strengthen the existing startup ecosystem and leverage it to help address the pervasive challenges of low productivity and innovation at the firm level, particularly in lagging sectors with high potential for employment generation.** The Project consists of three components. Component 1 seeks to strengthen the innovation and entrepreneurship ecosystem in Kenya by building the capacity of startup and skills intermediaries to offer quality services. It also seeks to connect the Kenyan ecosystem to international networks of talent and support infrastructure, and foster links between startups and traditional industry to help the latter address productivity and competitiveness challenges through innovation. In addition, it aims to bridge the technical skills gaps by linking young talent and academia to the private sector. Component 2 strives to increase productivity and innovation at the firm level by supporting firms to improve their managerial and technical skills and their use and access to technology. Component 3 will provide resources for outreach, M&E, and the implementation and management of the Project.

Box 1.1. Frequently used terms
Incubator: A company that helps startups to develop and grow by providing services such as management training or office space. Also referred to as hubs and innovation centers.
Accelerator: Fixed-term, cohort-based programs that include seed investment, connections, mentorship, educational components, and culminate in a public pitch event or demo day to accelerate startup growth.
Technology Bootcamp Provider[19]: Rapid technical skills training providers or skill intermediaries that offer short-term, applied, intensive technology skills training paired with collaborative problem-solving and other soft skills development.
Ecosystem: The enabling environment under which entrepreneurship grows and thrives, including a variety of actors such as startups, support organizations, financiers, government, academia, etc.
Angel investor: An individual providing capital to a startup, usually in exchange for convertible debt or ownership equity.
Women-owned firms: A firm with (a) 51.0 percent ownership/stake by a woman/ women; or (b) 20.0 percent owned by a woman/women AND 1 woman as CEO/COO (President/Vice-President) as well as 30.0 percent of the board of directors being women where a board exists.

Component 1: Strengthening the innovation and entrepreneurship ecosystem (US$26.25 million)

2. **Under this component, the Project will finance two subcomponents targeting ecosystem intermediaries, entrepreneurs, and startups.** The objective is to bolster the support infrastructure of the innovation and entrepreneurship ecosystem and bridge the technical skills gaps.

Subcomponent 1a: Strengthening the ecosystem's support infrastructure (US$14.25 million)

[19] For the purposes of this document, incubators, accelerators and technology bootcamp providers are collectively referred to as Intermediaries.

3. **The objective of this subcomponent is to support the innovation and entrepreneurship ecosystem by strengthening its intermediaries.** This will be done through diagnostics and competitively awarded contracts for performance improvement and expansion under two separate tracks: incubators, accelerators, and hubs under one track and technology bootcamp providers under the other. This is intended to strengthen the overall ecosystem given that incubators, accelerators, and hubs provide startups with the means to establish themselves, grow, and develop their businesses. Working in tandem, bootcamp providers work closely with startups and innovative firms to provide them with the talent they need to grow.

4. **A key part of Kenya's innovation and entrepreneurship ecosystem is a growing network of incubators and accelerators focused on facilitating startup growth in the country, as well as the larger East Africa region.** However, incubators and accelerators vary in terms of the quality of their services, their business models, and their sector/stage focus. Because of these differences, their funding needs also vary. Foundations, nongovernmental organizations, and other grant providers have been supporting Kenya's incubators and accelerators by financing them. Based on a recent survey conducted by the World Bank, 87 percent of Kenya's intermediaries rely on grants for up to 80 percent of their funding; however, their performance and output has been fairly low. This dependency on grants comes at the expense of sustainability, with many of these incubators and accelerators forced to deviate from their core business model to appease donors.

5. **Some challenges of these incubators and accelerators are extrinsic to the ecosystem, such as the regulatory agenda, the ease of starting a business, and the size of the Kenyan market.** Others are directly related to or could be positively influenced by the ecosystem, such as a lack of viable pipeline for interested investors. The consensus among key stakeholders—funders, support providers, incubators, and accelerators—is that Kenya's ecosystem lacks consistency in terms of the strength of services provided, management capacity, and longer-term operational strategy.

6. **The ecosystem is also dependent on technology talent to fuel startups and innovation.** However, technology skills evolve rapidly and need to be constantly adapted to industry needs. Traditional education programs (schools and universities) are not coping with these changes at the speed needed by the entrepreneurial ecosystem and SMEs. The private sector alone is not able to correct this structural deficit in technical skills. For this reason, there are various ongoing investments to boost technical skills development in Kenya in the long term, including support to various formal academic and training institutions. These include the new centers of excellence and investments into boosting TVETs. However, these either do not focus on meeting the technical talent demand from high-growth startups and innovative SMEs/larger firms, or they provide broader research and development-focused activities rather than talent development.

7. **This activity will focus on a complementary segment of ecosystem intermediaries, the training providers that serve as demand aggregators and skills catalysts, focused on high-growth startups and innovative SMEs or more mature firms.** Through consultations with high-growth startups and innovative, mature companies in Kenya, rapid technology skills providers, such as technology bootcamps, were identified as a key source of technology talent that equip students with the soft skills required to effectively integrate and excel in such companies. The market for bootcamps is still small and nascent in Kenya, with varied business and operational models, and with many providers operating as startups,

constantly iterating their models. These providers often rely on high tuition fees that preclude low-income segments of the population from enrolling in their courses or collect fees from companies for specialized, bespoke trainings. Consultations with high-growth startups and innovative SMEs revealed that while many would be willing to provide funding for specialized, more advanced-level talent in terms of training and job placement, fewer would be willing to do so for entry-level talent. This limits bootcamps in terms of their recruitment, given the absence of applicable financing schemes for bootcamp trainees. In addition, as technology shifts, bootcamps need to continually adapt their services to meet market needs. These factors require new iterations of their business models. The activity will therefore provide catalytic support to select bootcamp providers to accelerate their operational development as well as increase the inclusivity of bootcamp participants, in particular women, who are currently underrepresented among graduates. While this intervention focuses on technology bootcamps, formal educational institutions can also benefit from the project through partnership with such bootcamps or via participation in the industry-academia platform under Subcomponent 1b.

8. **Consultations with women entrepreneurs and women in technology encouraged the project team to integrate soft skills training, mentorship, and efforts to build networks in the bootcamp-related activities.** Participants also emphasized the importance of comprehensive skills-building support for women-owned businesses. The project design therefore incorporates some of the key recommendations on how to level the playing field for women founders and technologists through these activities.

9. This subcomponent will therefore finance a consulting firm to (a) develop a diagnostic tool to assess ecosystem intermediaries; (b) conduct a call for expressions of interest for intermediaries to undergo the diagnostic and then preselect incubators, accelerators and bootcamp providers to take part;[20] (c) administer the diagnostic and invite those intermediaries to submit their performance or expansion plans for funding consideration; (d) through a business plan competition, select two cohorts of incubators, accelerators and bootcamp providers to receive funding; (e) after selection, administer and supervise the performance contracts or expansion plans for the cohorts under each track, including disbursements; and (f) analyze the rich data set from the diagnostics and the performance contract reports and facilitate sector coordination activities, including efforts to support women entrepreneurs, in close collaboration with the PIU. A cohort will take between 18–24 months for implementation. Performance contracts will be for 24 months for incubators and accelerators and 18 months for bootcamp providers. A third cohort may be considered depending on the availability of funds and lessons learned from the implementation of the first two cohorts. A first diagnostic tool will be developed and tested with funding secured from the Competitive Industries and Innovation (CIIP) Trust Fund, to facilitate implementation readiness.

10. **Given the experimental nature of some parts of this subcomponent, the consulting firm will be required to take stock of lessons learned from the implementation of the first cohorts and propose a new and improved design to the PIU for the implementation of the second cohorts.** Depending on the timing and availability of funds, a third cohort may be implemented for each track. The PIU will be involved in all stages of implementation, including vetting the selection of the participating intermediaries for the different stages of the program.[21] A pitch day will be held to supplement selection and ensure that the

[20] These numbers were determined based on the size of the current market of hubs, incubators, accelerators, and bootcamp providers in Kenya.
[21] Potential criteria for selection include management capacity, business analytics, and strength of pipeline. The selection

strongest intermediaries are selected. The diagnostic will examine each Intermediary's management capabilities, governance structure, business model, and financial status, among other categories, and its design will be tested before project implementation.

11. **The funding will be milestone based, disbursed typically in three to five tranches over a maximum two-year period, based on achievements of the agreed-upon targets.** Selection for the different stages of the program will be guided by a predetermined set of criteria based on global best practices adapted to the Kenyan context and reflected in the Operations Manual. For incubators and accelerators, emphasis will be heavily placed on human capital, including management development and improvement of service provision within the beneficiary organization. In addition, intermediaries will also be assessed on the extent to which they support women-owned businesses in their portfolios. Requirements for bootcamp providers are detailed in box 1.1. Funding for all tracks will be open to public and private intermediaries. To ensure that the intermediaries do not become dependent on Government funding, funding will not exceed 50 percent of the total cost of implementing the performance plan for the incubators and accelerators and up to 75 percent of the total cost of the expansion or self-improvement plan for the bootcamp providers. Funding will be up to US$800,000 per Intermediary for incubators and accelerators and up to US$250,000 for bootcamp providers. The proposed funding amount per entity is in line with grants they receive.

12. **To incentivize the increased participation of women in technology bootcamps, a tiered subsidy system linked to female participation will be implemented.** The aim is to catalyze the marketing outreach of relevant providers to ensure greater participation and retention of women, who on average currently only represent 25 percent of participants at enrollment and 20 percent upon graduation. Of all technology bootcamp providers, those with female participant rates between 35 and 49 percent are eligible for an additional 30 percent subsidy linked to tuition fees or cost of services, to make their program more affordable to students. The tuition is a separate and different cost to the one associated with the implementation of the expansion or self-improvement plan. This would be in addition to the funding arrangements outlined above. Bootcamps that attain female participation rates of 50 percent or more are eligible for a 70 percent subsidy, which will be capped. The subsidy will be applicable to the entire qualifying cohort. Providers will receive the subsidy based on participant data provided by the beneficiary bootcamps and verified by the management company, accounting for attrition. In addition to structured subsidies to increase the share of women, the Project will make a specific effort to attract women through showcasing female role models in technology during recruitment. The Project will also work with providers to integrate specific actions to improve the retention of women, including a focus on soft skills, specifically confidence-building, leveraging female role models and building networks. This activity will be complemented by a World Bank-administered trust fund on impact evaluation focused on assessing the impact of coding bootcamps on women participants in Kenya, including their retention in the training and employability following the completion of training. This impact evaluation will also inform project implementation and M&E.

criteria have been finalized and detailed in the Operations Manual.

Box 1.2. Characteristics and Requirements for Technology Bootcamp Providers to Receive Funding

Coding and other technology bootcamps are rapid technology skills providers that serve as skill intermediaries in the technology and entrepreneurship ecosystem. Research by the World Bank and the International Telecommunication Union (ITU) shows that there is an emerging need for workers with basic technical skills, paired with in-demand soft skills such as creative and collaborative problem solving and critical thinking.

Technology bootcamps are not restricted to advanced economies; they have become a global phenomenon present in emerging economies with active startup ecosystems, including Kenya. These technology bootcamps are no substitute for traditional university education; they complement it in a practical way, addressing the growing gap between traditional education and market-oriented industry skills needs. This activity therefore aims to strengthen bootcamp providers in Kenya that cater to both the ready-to-work model and more advanced training levels. These organizations should:

- Serve as demand-aggregators and skill catalyzers for high growth startups and innovative SMEs;
- Focus on building innovative technology and entrepreneurship skills;
- Have a curriculum that is regularly updated and driven by demand from the private sector (with demonstrated links to high-growth startups and innovative SMEs);
- Offer intensive, full-time or part-time trainings that are no more than 12 months in length;
- Provide immersive and project-based learning, paired with coaching;
- Include critical soft skills training, such as collaborative problem solving;
- Produce highly sought-after talent at entry or more advanced levels with at least a 60 percent employment rate within 12 months of graduation; and
- Ensure that the overall program outreach for applicants also targets women and low- and middle-income segments of the population.

Subcomponent 1b: Connecting to international networks and local traditional industries (US$12 million)

13. **Kenya's innovation and entrepreneurship ecosystem has limited in-depth connections to networks of international mentors, angels and VCs, and it suffers from limited internationally competitive support (for example, mentors and accelerators' trainers) for its startups, limiting its capacity to compete internationally.** Analysis of startup ecosystems by the World Bank[22] shows that (a) access to international networks can play a key role in advancing local ecosystem maturity and (b) limited quality in accelerators' training may result in large numbers of noncompetitive startups. In addition, there is currently little or no connection between traditional industries and the ecosystem beyond sponsorship of events and other promotional engagements. Research from other ecosystems such as Beirut, Cairo, Lebanon, Medellin, New York, and Santiago shows that local traditional industries have the potential of creating a larger amount of jobs and economic activity when they connect with the entrepreneurship

[22] World Bank. 2017. *Tech Startup Ecosystem in Beirut: Findings and Recommendations*. http://documents.worldbank.org/curated/en/702081504876957236/Tech-start-up-ecosystem-in-Beirut-findings-and-recommendations.

ecosystem and develop new products and services.[23]

14. **To address these gaps, this activity will provide funding to develop an IA program.** The subcomponent also aims to increase the innovation absorption capacity of Kenyan firms in traditional sectors and reduce the existing gap between established industry players, startups, TEIs, and other ecosystem stakeholders, and connect local startups with traditional industries. The subcomponent will also support ecosystem coordination efforts. In addition, a consulting firm will be engaged to design and establish a platform to connect students from TEIs to traditional industries to develop solutions to real industry problems through open innovation processes (see box 1.2). This will be done in partnership with a local ecosystem Intermediary, possibly a TEI, selected through a competitive process.

Box 1.3. Innovation ecosystems and open innovation

Innovation ecosystems. The concept of an 'innovation ecosystem' is used to describe the interaction between the main innovation actors that contribute to enhancing competitiveness and generating growth and employment. In the context of the knowledge economy, beyond researchers, university faculty, and industries, public administration, entrepreneurs, developers, and investors are also considered important actors of the innovation ecosystem. Innovation ecosystems grow continuously with the increase of skilled people capable of creating innovative products and solutions.

Open innovation. Henry Chesbrough defines Open Innovation as "a paradigm that assumes that firms can and should use internal and external ideas, as well as internal and external paths to market, as firms look to advance their technology."[24] This concept can also be translated to the way a government interacts with its citizens. For open innovation ecosystems, emphasis is placed on instruments such as Open Innovation Platforms, used to catalyze collaboration and spur innovation activities between public and private actors. To do so, community creation and community support activities to create awareness are crucial. These lead to new investments and new firms, as well as to the co-creation of new ideas, technologies, products, and services.

15. **The development of an IA process will signal startups globally the potential of the Kenyan ecosystem and its leadership in the region, increasing its brand and reputation to attract and produce talent.** This activity aims at(a) pairing established firms with technology-enabled startups; (b) conducting active outreach and connecting the Kenyan ecosystem to international networks of talent and support infrastructure (for example, mentors and early-stage investors); (c) attracting international and regional talent to establish their startups in Kenya, and (d) increasing the capacity within the accelerator landscape in Kenya. The program's progress will be regularly assessed to allow room for course correction, if needed, to achieve the desired impacts.

16. **The IA process will provide top quality support services, including access to networks of**

[23] Mulas, Minges, and Applebaum. 2015. "Boosting Tech Innovation Ecosystems in Cities." http://documents.worldbank.org/curated/en/623971467998460024/Boosting-tech-innovation-ecosystems-in-cities-a-framework-for-growth-and-sustainability-of-urban-tech-innovation-ecosystems.
[24] Chesbrough. 2003. "Open Innovation: The New Imperative for Creating and Profiting from Technology".

international mentors, with proven and recognized experience in successful startup ventures at the global stage, and to international leading investors (for example, angel investors, VCs, and so on). The program will provide support to startups in Kenya, attracting international talent to the local ecosystem. Graduates from this program should be ready for internationally competitive investments (for example, international VCs).

17. **As part of the broader support to the ecosystem, the IA process will develop and implement a program of support and community events in the ecosystem (for example, competitions, workshops, events) with its graduates, international mentors, and broader talent.** The program will partner with players in the ecosystem to ensure Kenyan ecosystem stakeholders are connected to international knowledge, resources, and talent. Specific activities designed to support women entrepreneurs will also be integrated, including the provision of incentives for the program to incorporate mentorship programs and networking activities for women founders. In addition, the program will be encouraged to develop a special call for women founders, if feasible, thereby enabling them to receive comprehensive and structured support in growing their businesses. The program will implement these activities in Nairobi as well as other counties based on demand and readiness.

18. **The IA program will also match established firms and technology-enabled startups, which will lead to (a) increased technology absorption and innovation capacity within traditional firms; (b) new products, processes, services and ventures; and (c) a better understanding of local business needs by the startups.** The matching will involve forming partnerships with local corporates to conduct a series of calls for startups to take part in open innovation processes that are ultimately expected to lead to thematic acceleration programs combined with internal corporate innovation programs. Similar mechanisms are operating in leading ecosystems in the United States and Europe (for example, London, New York, and Paris) as well as emerging economies such as China, Mexico, South Africa, and Thailand. The design of this program is based on a 2017 pilot in Kenya, funded by various trust funds at the World Bank, and implemented by Nest Africa Group; the pilot engaged a leading Kenyan agro-processing and exporting firm and attracted much interest, with over 200 startups applying to take part. Local corporates across priority industries in Kenya will be engaged by the PIU and the IA program, leveraging business associations, and they will be selected based on their interest and ability to dedicate resources toward the program.

19. **The second activity of this subcomponent will establish an industry-academia platform for corporate innovation.** Traditional education programs (TEIs, universities) tend not to adapt their curricula and teaching methods to effectively respond to or anticipate these changes. To help bridge this gap, an industry-academia platform will connect students from business, arts, and technical degrees in TEIs to individual companies through specific product development sessions with the company staff; this will help students develop practical and in-demand skills and experience during their formal education and provide companies with access to relatively low-cost human capital. The design of the platform will be prepared through CIIP funding, prior to Project effectiveness.

20. **The industry-academia platform will link young talent in academia to the private sector.** This activity will finance a consulting firm to (a) adapt international best practices of such platforms to the Kenyan reality, including developing a business model that becomes self-sustainable at the latest, by the end of the Project; (b) run a competition among entities interested in physically hosting the platform

(could be among the TEIs if that is the model chosen, and the PIU will vet the results of this competition against criteria predetermined in the Operations Manual); (c) establish a network of all interested TEIs and ensure that they fulfill certain minimum criteria established in the Operations Manual; and (d) support the running of the network, as needed, including support to condition an existing physical space provided by the host institution.

21. **The host institution will organize and match teams of students to real private sector challenges.** Once established, the platform will be expected to invite academia and industries from across the country to collaborate by having specific calls for proposals. The design of the platform will allow it to become self-sustainable, for instance, by becoming an ongoing academic program while at the same time collecting fees from industry players that want to submit problems for students' resolution.

22. **The development of the platform will draw on global experience, including from Colombia, Finland, Mexico, Namibia, and South Africa.** Some of these platforms enable multidisciplinary teams, with students from multiple academic institutions, TVET, and other backgrounds, or even include SMEs to work on finding solutions for problems provided by the private sector. To promote entrepreneurship, students could retain the intellectual property (IP) rights of the developed solution to obtain earnings from license fees or further develop the IP rights asset in a startup. This aims to boost the entrepreneurial talent supply for Kenyan firms, facilitate the creation or strengthening of innovative startups, and support the growth of existing firms by creating a platform that (a) introduces real market problems to be solved through open innovation processes, (b) creates channels that link young talent to traditional sector representatives that are willing to innovate, and (c) supports promising ideas to reduce the time for final solutions to reach the market.

Component 2: SME linkages and upgrading (US$20.75 million)

23. **Under Component 2, three major constraints were identified as deterrents to firm-level upgrading and SMEs' access to potential markets: lack of awareness regarding the importance and value of productivity upgrading at the firm level, weak upgrading and innovation capacity in existing firms, and limited access to markets.** The Project will engage a consulting firm to strengthen the productivity and internal capabilities for innovation of Kenyan SMEs through technical assistance. This will support SMEs in improving their managerial and technical skills and their use and access to technology. The consulting firm will, among others, design and implement an integrated diagnostic and upgrading service and disburse funding to SMEs upon reaching certain milestones. This approach builds on experience from previous private sector development projects, roundtables on private sector activities with Kenyan partners, a series of interviews with lead firms, and research on SMEs' needs.

24. **For the first stage (sourcing of SME beneficiaries), the PIU with support from the consulting firm selected to implement the program, will identify and invite lead firms (three to six per cohort), to become strategic partners and participate in the program**.[25] Lead firms will be one of the main sources

[25] The potential selection criteria for lead firms include those firms that (a) are willing to commit to the program, (b) demonstrate growth potential, (c) are domiciled in Kenya, and (d) have at least five Kenyan SME suppliers. Additionally, it will be desirable if part of the supply chain of lead firms went well beyond Nairobi. Potential selection criteria for SMEs include firms (a) whose management is committed to participating in the program; (b) who have been nominated by lead firms, business associations, and/or investment firms; (c) whose annual revenues fall between US$500,000 and US$10 million; (d) who

for identifying SMEs for the program. They will be selected considering their existing or potential local supply needs based on industry reviews, IFC references, and other project experience. Detailed criteria to select both lead firms and SMEs are specified in the Operations Manual and consider, for instance, firms in sectors with potential for local suppliers and exports, those with strategic alignment to Government priorities, and those that demonstrate a potential positive impact on the economy. Participating lead firms will need to provide information on what they buy from suppliers locally and internationally and define their purchasing requirements, standards, and specifications, as well as nominate existing and potential SMEs or suppliers that fit the program's selection criteria. There will be specific outreach efforts through the Gender Sector Boards of relevant Business Membership Organizations to encourage the participation of eligible women-owned or women-led businesses[26]. Additional SMEs will be added to the database via referrals from investors, banks, and business membership organizations, if the initial threshold number of firms for each cohort is not met. To raise awareness about the program and the importance of productivity among nominated SMEs, a series of outreach and focus group events will be organized with lead firms and business associations, including a high-level launch event. High-potential SMEs will then be invited to participate in the upgrading support scheme, with the expectation that 40 SMEs will participate in the pilot's first-year cohort and then 60–70 SMEs every year for a total of four cohorts (220 to 250 SMEs in total).[27]

25. **For the second stage (diagnostics and action plan preparation), a diagnostic will identify managerial, technical, production, and supply chain relationship gaps of participating SMEs.** The service will draw on the SME Launchpad business tools project and inputs of other international extension centers, institutes, and not-for-profit organizations, to identify an existing tool and adapt it to local context. The tool will diagnose how each SME performs in relation to its peers, using international and supply chain specific benchmarks. The consulting firm will deploy a cohort of experienced business advisors—approximately 1 for every 10 SMEs—that have experience with implementing business diagnostic, benchmarking tools, and company upgrading, to serve as the interface between the program and SMEs. The business advisors will administer the diagnostic, whose output will be an action plan that identifies key constraints and opportunities and prioritizes implementation actions to address these. The advisors will adjust their services to the value chain governance structure.[28]

26. **For the third stage (performance contract and implementation), a performance contract will be drafted and signed to formalize the milestones tied to disbursements.**[29] Each SME will be eligible for no

have export potential, and (e) who have been incorporated for longer than three years. The selection criteria are detailed in the Operations Manual.

[26] As a part of its analysis, the Project consulted with the Gender Sector Boards of the largest Business Membership Organizations to better understand the share of women-owned firms that might be eligible for participation in the program. This data, along with a small survey of women-owned firms, showed that of the relevant firms, approximately 3 percent are women-owned. The project has set a 10 percent target which will take immense effort to reach based on insights from available data.

[27] The target number of project beneficiaries is based on the following data regarding the population of firms with revenues between US$500,000 and US$10 million: Kenya National Bureau of Statistics (KNBS) 2010 Census of Industrial Production (873 firms), KNBS 2012 Integrated Survey of Services (1,233 firms), 2016 applicants to KPMG competition of 'Top 100 SMEs' (603 firms), membership base for KAM (565 firms), Invest in Africa 2017 database (700 firms), and Equity Bank 2017 clients (1,000 firms).

[28] Hill, Metz, Hristova, and Lemes. 2017. "SME Capacity Building Programs: Do Market Linkages Drive Better Firm Upgrading?" World Bank Group, Washington, DC.

[29] Details of the performance-based contracts are specified in the Operations Manual.

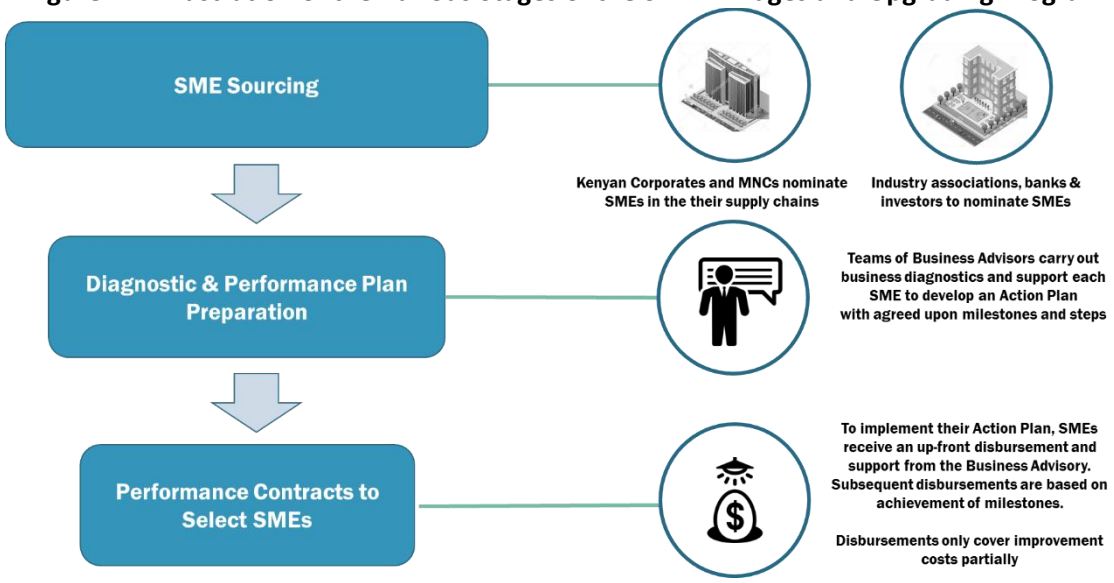
more than US$150,000 toward the performance contract. Disbursement will be based on the achievement of milestones. A dedicated business advisor will coach each SME throughout the process to ensure implementation progress. Lead firms will also provide general coaching and mentorship to the SMEs, particularly around supplier relationships. The action plans will be standardized, developed, and reviewed by a team of advisors to ensure transparency and consistency across cohorts. Progress will be assessed based on diagnostics by a team of advisors and discussed in review meetings managed by the consulting firm and in which lead companies could participate. Individual SMEs' improvement efforts, including the BDS used, will be made public, for instance, on a dedicated program website or social media account for additional transparency and awareness. The performance contract will be tied to the improvement plan, so potential disbursements to SMEs will be contingent on them demonstrating they have implemented milestones successfully and on their continued commitment to the improvement plan.

27. **Business advisors will provide guidance to SMEs to support the implementation of their action plans.** They will advise SMEs regarding the purchase and use of BDS and equipment, as needed by providing tips in scoping projects, assessing providers, and potentially providing simple templated contracts. Lead firms will also be asked to suggest providers, particularly with regard to training on quality and standards and specificities on their supply chain. Participating SMEs will be asked to provide feedback on BDS providers. Use of international experts will be encouraged, where needed, including through national donor programs such as the Dutch PUM and the Canadian Executive Service Organization. The information on BDS will be made publicly available to promote their quality and use.

28. **Baseline performance data on participating SMEs will be collected as part of the diagnostic service, and changes will be tracked by business advisors over the life of the engagement to measure progress or changes against the baseline.** After the end of the engagement, data will be collected through surveys.

29. **Information on participating firms, their action plans, and implementation progress will be compiled and presented on a project website and will be made public externally, that is, through SME Linkages and Upgrading, website, Facebook page, or database.** This will allow the Project to highlight successes and promote the demonstration effect of bigger supplier improvements to smaller companies.

Figure 1.1. Illustration of the Various Stages of the SME Linkages and Upgrading Program



Note: MNC = Multinational Corporation.

Component 3: Outreach, M&E, and Project Implementation Support (US$3 million)

30. **The objective of this component is to provide resources for (a) communications to facilitate diffusion and replication of promising innovations, (b) M&E analyses to ensure the implementation and sustainability of the Project's activities, and (c) project implementation through the PIU.** This component will finance the design and implementation of an overall Project communications strategy, and dissemination tools to inform stakeholders on the Project's progress and facilitate replicability of early success stories. These are intended to support the Project in its demonstration effect and contribute to broader capacity building. The component will also fund an impact evaluation, including surveys, to evaluate the Project's impact. Finally, this component will finance support to the PIU for project implementation; monitoring activities, including conducting project audits; and trainings to strengthen capacity within the PIU and ensure retention in the unit, which has already been created within the MoITC.

31. **This component will fund the coordination of the Project's communications strategy, covering all Project components and stakeholders.** It will strengthen stakeholder engagement and disseminate project learnings and results to support early knowledge-sharing and capacity building more broadly. The PIU will have a dedicated communications specialist that will work with the firm hired to do communications at the component level, to ensure that the overall Project communications strategy is developed and implemented. Communications will include online and social media strategies given the nature of the Project and the stakeholders, most of whom use online and social media to communicate and engage with their audiences. Facilitating diffusion of promising cases of innovation supported by the Project is really important to create a positive noise in the 'system'. Other communications tools will also be considered, such as a series of workshops and a publicity campaign to make the demonstration cases known to the public and help to turn them into new role models. One of the major lessons of SMEs and innovation operations is that it is key to celebrate success: new role models do not emerge automatically, they need to be made public.

32. **The component will fund a firm for the M&E of the Project.** The firm will work in conjunction with the PIU to design a M&E strategy to be implemented through the life of the Project. The firm would be specialized in M&E and will explore optimal M&E options, including a randomized control trial where project design and sample size allow. In addition, the Project received a grant from the Africa Gender Innovation Lab to design an impact evaluation that tests the impact of coding bootcamps on women's employment and wages. The firm may conduct its own surveys to monitor firm-level progress during and post support, and firms working on other Project components will provide additional base level data to feed these efforts. Other data may come from relevant Government sources. In addition, the project will make an effort to collect sex-disaggregated data with the goal of understanding the ways in which the activities are actively closing gaps between males and females.

33. **Finally, the component will finance training to strengthen the local competencies and capacity within the PIU and ensure retention.** The PIU has been created and sits in the State Department of Industry. It has been agreed that the PIU would consist of a mix of existing civil servants and external hires for the project. The Project will fund the salaries of additional consultants to reinforce the existing ministry team, for example, technical and fiduciary specialists. The selection for such consultants would be reviewed by the World Bank. In terms of staff retention, the project would provide training such as a brand-name executive education management program for key PIU staff (ideally before effectiveness to ensure implementation readiness) through retroactive financing; short courses on general management training; specific training that relates to the Project's focus areas such as technology and innovation; and training and capacity-building opportunities related to World Bank project implementation (that is, procurement, disbursement, FM, and safeguards, among others). Those who complete the brand-name executive program will be required to sign a contract stipulating that they will stay in the PIU for at least three years.

ANNEX 2: IMPLEMENTATION ARRANGEMENTS

COUNTRY : Kenya
Kenya Industry and Entrepreneurship

Project Institutional and Implementation Arrangements

1. **The MoITC has created a PIU that will be responsible for the implementation of the proposed Project.** The fiduciary aspects of the Project will be implemented by the PIU, which will coordinate the technical, logistics, and implementation aspects of the Project, as well as relevant stakeholders and beneficiaries. The PIU will include dedicated staff, including a Project coordinator, technical specialists for the implementation of the Project activities, and qualified procurement and FM staff. A detailed organizational chart of the current PIU is provided in figure 2.1. Given that staff of the MoITC have had limited experience with the World Bank's procurement procedures, the PIU will be strengthened through capacity building in the World Bank's procurement procedures and requirements and through a dedicated procurement specialist with experience in World Bank projects. Additional procurement staff may be needed based on the workload. Further, the PIU's capacities may need to be strengthened by adding FM expertise to accommodate the additional work to be undertaken and to maintain segregation of duties in key FM processes to keep a solid internal control environment. The Project will be implemented in accordance with the Operations Manual, acceptable to the World Bank, which has been adopted by the GoK.

2. A Project Steering Committee (PSC) will support the successful implementation of the Project and mitigate the risks associated with institutional capacity. The PSC will serve as a sounding board on policy guidance for the Project and support coordination and alignment of the Project with other relevant GoK and private sector initiatives. The PSC will be a ***Public-Private Advisory Committee*** with the following responsibilities:

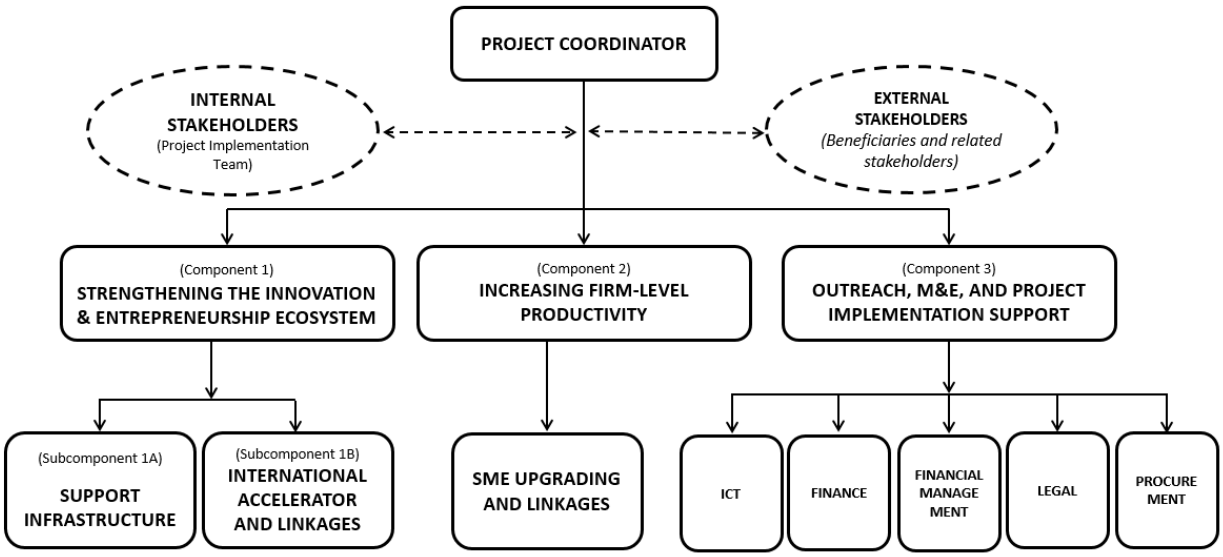
a. Provide policy guidance for the project;
b. Support Coordination and alignment of the Project with other relevant Government and private sector initiatives;
c. Review and advise on the overall progress of the project;
d. Review and advise on financial and operational audits and impact assessment reports for effective implementation of the Project; and
e. Provide support to any major problems affecting project implementation.

3. The Advisory Committee will be chaired by the Principal Secretary (PS) responsible for Industry matters. It will include the following seven members: National Treasury, Ministry of Education; Ministry of ICT; and four from the private sector: Kenya Private Sector Alliance (KEPSA); Kenya Association of Manufacturers (KAM); Kenya National Chamber of Commerce and Industry; and a representative of the MSME Sector. These nominees should be able to represent the private sector with respect to access to innovations, enterprise skills and linkages, and the business environment.

4. The KIEP PIU will serve as a Secretariat to the Advisory Committee, providing guidance as requested on project issues, and filtering policy issues that arise from the project for the Committee to guide. It will communicate policy guidance to the implementers and technical partners. It will also assist

in the coordination with other donor programs in areas addressed by the project and will generate and review regular progress reports. Project implementation shall proceed as per the plans reflected in the Operations Manual and key decisions regarding project implementation shall be made by the MoITC.

Figure 2.1. Organizational Chart of the Current PIU



Financial Management

5. **Kenya has made progress in setting up the Public Sector Accounting Standards Board, strengthening the Supreme Audit Institution (SAI) of the Office of the Auditor General (OAG), and aligning the ongoing public financial management (PFM) reforms with the new Constitution.** The mandate of the OAG has also expanded to include audit of all public funds at the national, county, and community levels, including those held by private entities. The country has also enacted the PFM law (Public Financial Management Act 2012), which is a significant step in the PFM reform process in the country. The Office of Controller of Budget, established under the new constitution, has been effective in providing the necessary budget execution oversight. The Government has also relaunched the implementation of an integrated financial management information system (IFMIS) and deployed the system for use in the counties. This is aimed at addressing past concerns/weaknesses in PFM.

6. **The FM assessment for this Project indicates that there are adequate FM arrangements at MoITC to manage the project finances.** Experienced and qualified staff are in place, accounting and record keeping arrangements are adequate, acceptable budgeting arrangements are in place, and the internal control systems are reliable. However, the project FM team lacks hands-on experience in the management of World Bank-financed projects. In addition, the MoITC has no ongoing program for disbursement of funds to private sector beneficiaries as envisaged by the Project. The disbursement would be done by the firms hired to implement the components acting as disbursement agents, as needed, as the ministry develops in-house capacity.

Project-specific Fiduciary Arrangements

7. **Budgeting.** The budgeting process for the Project will follow the existing country systems. The MoITC will incorporate the budget for Project activities in its annual budget to be approved by the National Treasury and the Parliament. The National Treasury will provide an IDA-specific project budget code in IFMIS through which the ministry will access World Bank funds. The ministry will develop an annual work plan of activities expected to be undertaken during the year based on the GoK's standard chart of accounts, and this will be included in the national budget estimates. Budgeting will follow a consultative process among the key implementers and other stakeholders where the work plans will be harmonized, approved, and compiled into the overall project budget under the ministry. To ensure efficiency in the implementation of Project activities, the ministry will budget for the amount of operating costs that will be incurred in the execution of the respective Project activities. Budget execution will be affected by the ministry using the Government system. In this regard, the budgeting arrangements are assessed to be adequate.

8. **Accounting arrangements.** The MoITC has been assessed to have adequate accounting capacity. Its Accounting Department is led by an experienced and qualified principal accountant with 36 years of experience. Next in line is the chief accountant with a senior accountant reporting to him. Below the senior accountant are 15 seasoned accountants, and all staff are qualified with CPA (K). A seasoned accountant will be designated to handle this Project. The assessment, however, revealed that the FM staff are not experienced in implementing World Bank-financed projects. Thus, there is a need to train the accounting staff on the World Bank FM and disbursement guidelines.

9. **The Ministry uses the Government's financial regulations to manage its work.** These include the Public Finance Management Act, Government Financial Regulations and Procedures, and the National Treasury Circular and Instructions. These regulations provide guidance in payment processing and financial reporting under the Project.

10. **The Project's FM arrangements will be aligned to existing GoK FM arrangements.** Payments for Project activities will be initiated at the PIU and processed through the ministry's accounting system which has adequate segregation of functions and controls. The Project will maintain manual cashbooks, complemented by customized Microsoft Excel spreadsheets. In this regard, the accounting arrangements are found to be adequate. The Project has developed a comprehensive FM Procedures Manual as part of the Operations Manual.

11. **Internal controls and internal audit.** The MoITC maintains elaborate internal control arrangements involving approval and authorization procedures, adequate segregation of functions, and internal check mechanisms in line with the GoK's financial regulations and procedures. The payment processing system for the Project will be mainstreamed within the accounting system of the ministry, which has been assessed as having adequate segregation of functions and authority levels.

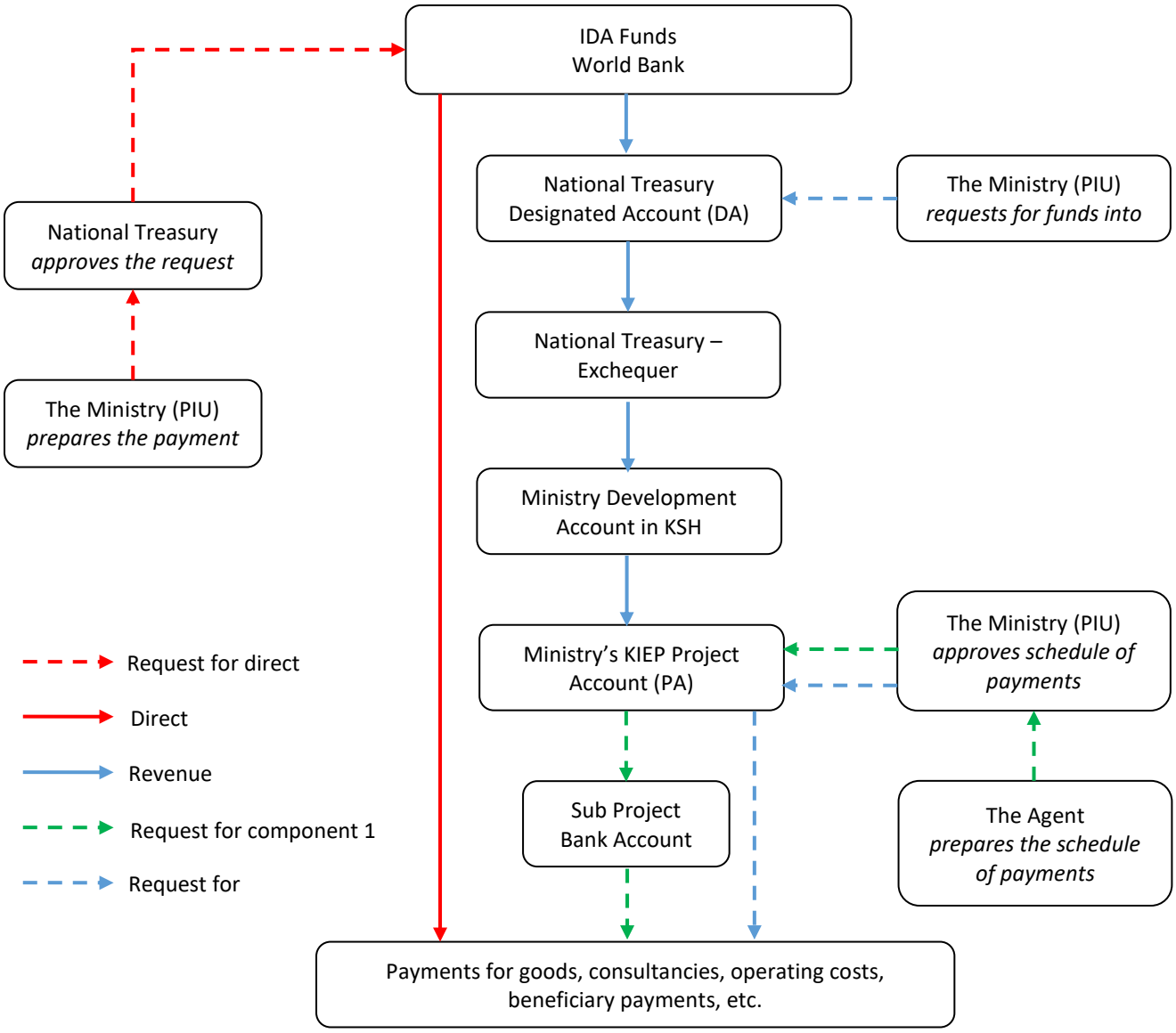
12. **The control environment is further strengthened by the existence of a strong seven-member internal audit function, with auditors seconded from the Internal Audit Department (IAD) in the National Treasury.** The unit is led by a chief internal auditor with staff at the rank of principal and senior internal auditor. All auditors are professionally qualified with many years of experience. The audit function

is responsible for providing assurance to management regarding the effectiveness of the internal control arrangements. The capacity of the internal audit unit was assessed to be adequate for project implementation. The internal audit unit reports administratively to the accounting officer and functionally to the Audit Committee, which is an oversight committee on budget execution and implementation of internal audit recommendations. The Audit Committee is in the process of being appointed. The ministry's IAD will conduct annual risk-based fiduciary reviews of the Project on the basis of ToR cleared by the World Bank. The assessment revealed that the internal auditors have not had any training on World Bank FM and disbursement guidelines. Therefore, there is a need to train them so they can be effective in carrying out the audit reviews.

Disbursements

13. **The National Treasury will open a Designated Account (DA) for the Project at the Central Bank of Kenya (CBK), where proceeds of the credit will be deposited.** The MoITC will, in turn, open and maintain a separate/segregated local currency project account (PA) for the Project. The PA will also be at the CBK. Funds from the DA will be deposited in the PA, from where payments for goods, consultancies, operating costs, and so on, will be made. For disbursements to beneficiaries, the ministry will use the firms hired to implement the components as disbursement agents to manage the funds, on behalf of the ministry. The agent will open a subproject bank account in a commercial bank acceptable to IDA to which the MoITC will transfer the beneficiary funds. Disbursement of funds to the beneficiaries will be done by the disbursement agent on the basis of a disbursement schedule approved by MoITC. The contract will clearly define the fiduciary responsibilities of the disbursement agent, including having the disbursement agent refund the ministry any ineligible expenditures arising from the agent's noncompliance of the terms of their contract. Core fiduciary functions will remain with the PIU, which will receive capacity building. The capacity of the PIU and the MoITC, and the use of disbursement agents will be revisited during implementation, and the disbursement function may be transferred to the MoITC. Disbursement to beneficiaries and/or sub-implementers which are state corporations in MoITC and/or business associations will require an MOU, acceptable to the World Bank. The MOU will be entered into between MoITC and all such beneficiaries/ sub-implementers before any disbursement is made. The MOU will define the financing and fiduciary arrangements. The MOU will be prior reviewed and cleared by the Bank before it is signed and implemented. The budget related to the additional beneficiaries/ sub-implementers will be included in the Annual Work Plan and Budget (AWPB), approved annually by the World Bank before any disbursement is made.

Figure 2.2. Flow of funds Diagram



14. **The Project will adopt the Statement of Expenditure (SOE) method of disbursement in which an initial advance according to the Disbursement and Financial Information Letter will be made to the DA up to the approved ceiling.** Subsequently, the Project will be required to submit withdrawal applications at least once every month for documentation of expenditures and replenishment of the DA. Other disbursement methods include direct payments, special commitment, and reimbursement.

Table 2.3. Disbursement categories under KIEP

Category	Amount of the Financing Allocated (expressed in EUR)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) Goods, works, non-consulting services, consulting services, Incentive Payments[30], Training and Operating Costs for the Project	41,400,000	100%
TOTAL AMOUNT	41,400,000	

15. Retroactive financing for Eligible Expenditures up to EUR 8 million may be provided for payments made prior to the date of the signing of the Financing Agreement but on or after May 1, 2018.

16. **Cash flow projection. In Kenya, a key identified FM risk is that of material in-country delays in the transfer of funds from the Ministry Development Account to the Project Account (PA), resulting in delayed project implementation.** To mitigate this risk, the MoITC will prepare annual cash forecasts and transfer to the Project Account (PA) an advance equivalent to six months' project activities. The PA will be replenished at least once every quarter to ensure it always has funds sufficient to cover six months' transactions.

17. **Financial reporting.** The quarterly interim unaudited financial reports (IUFRs) will need to be prepared and submitted to the World Bank no later than 45 days after the end of the quarter. The format and content was discussed and agreed with the Government and included as part of the final FM Procedures Manual. The IUFRs will include the Sources and Uses of Funds Statement, Uses of Funds by Project Activity/Component, DA Activity Statement, and Physical Progress (Output Monitoring) Report. To support the continued use of report-based disbursement, the ministry will be required to submit the following as part of the IUFR:

(a) Interim Financial Report (IFR)

(b) DA Activity Statement

(c) DA and the Project's bank account statements

(d) Bank reconciliations for both the DA and the Project's bank account

(e) Summary Statement of DA Expenditures for Contracts subject to Prior Review

(f) Summary Statement of DA Expenditures for Contracts not subject to Prior Review

18. **The annual financial statements should be prepared in accordance with International Public Sector Accounting Standards cash basis of accounting.** The IDA Credit Agreement will require the

[30] Incentive Payments refers to the funding to be provided to Beneficiaries in accordance with the Memoranda of Understanding or the Performance Contracts.

submission of audited financial statements to the World Bank within six months after the end of the financial year. These financial statements will comprise the following:

- A Statement of Sources and Uses of Funds/Cash Receipts and Payments, which recognizes all cash receipts, cash payments, and cash balances controlled by the entity, and separately identifies payments by third parties on behalf of the entity.

- A Statement of Affairs/Balance Sheet at the end of the financial year showing all the assets and liabilities of the project.

- The Accounting Policies Adopted and Explanatory Notes. The explanatory notes should be presented in a systematic manner with items on the Statement of Cash Receipts and Payments being cross-referenced to any related information in the notes. Examples of this information include a summary of fixed assets by category of assets and a summary of SOE withdrawal schedule listing individual withdrawal applications.

- A Management Assertion that World Bank funds have been expended in accordance with the intended purposes as specified in the relevant World Bank Legal Agreement.

19. Sample templates of these statements will be developed in accordance with the templates issued by the National Treasury.

20. **External audit arrangements.** The OAG, which is the SAI in Kenya and is responsible for the audit of all World Bank-funded projects, will be responsible for the audit of this Project. As a mitigation measure, Project funds will be ring-fenced from ministry-wide risks by ensuring segregated Project accounts, cashbooks, and financial statements operated, maintained, and prepared by the ministry. The ministry will be responsible for the submission of the Project's annual financial statements to the OAG for audit within three months after the end of the financial year. The Project accountants will have to ensure adequate accountability, including submission of all relevant information and explanations to the OAG as part of the audit process. The audit report and Management Letter will be submitted to the World Bank within six months after the end of the financial year. The ToR for the annual audit will be discussed and agreed upon with the implementing agencies.

21. The action plan described in table 2.4 indicates the actions to be taken to strengthen the Project's FM system and the due completion dates.

Table 2.4. Action Plan to Strengthen FM of the project

	Action	Entity Responsible	Due Date
1.	Opening of DAs and project bank accounts and communicating the details and signatories to IDA	NT/MoITC	After signing of Financing Agreement but before project effectiveness
2.	Train the accounts and internal audit staff on the World Bank FM, and disbursement guidelines	World Bank	Before project effectiveness

3.	Agreeing on the external audit ToRs	MoITC/World Bank/OAG	Before project effectiveness
4.	Agreeing on the format and content of the IFR	MoITC/World Bank	Before project effectiveness

Table 2.5. Risk Assessment and Mitigating Measures

Type of Risk	FM Risk Rating	Brief Explanation	Mitigation Measures Incorporated in Project Design	Condition of Effectiveness (Yes/No)?	Residual Risk Rating
Inherent Risk					
Country Level	S	This is based on the country PFM environment and considers the overall history of the country's governance environment and corruption concerns.	A more robust PFM Act, 2012, is now in place and ongoing PFM reforms include the rollout of IFMIS to the 47 counties and the introduction of Electronic Funds Transfer (EFT) payments via G-Pay. SAI Kenya National Audit Office (KENAO) has been strengthened while the Office of Controller of Budget has been established.	No	S
Entity Level	M	MoITC has adequate capacity and experience but has not directly implemented a World Bank-supported project before.	Use of firms as disbursement agents as the MoITC develops capacity; Implementation support missions to help address emerging issues in a hand-holding manner would be carried out	No	M
Project Level	S	Project design involves relatively simple funds flow arrangements.	Well-defined FM and funds flow arrangements in FM Manual	No	M
Overall Inherent Risk	**S**				**M**
Control Risk					
Budgeting	M	No major risks		No	M
Accounting	S	Entity accountants may not dedicate adequate time to Project activities.	MoITC to designate full-time project accountants with adequate experience	No	M

			Regular FM trainings to be conducted for Project staff		
Internal controls, including internal audit	S	Potential fiduciary risks arising from noncompliance with beneficiary grants guidelines and soft expenditure prone to accountability risks which could lead to ineligible expenditures and inefficiencies in project implementation	Project funds ring-fenced from ministry-wide risks; Development of detailed FM procedures as part of the OM; Regular monitoring, including IAD in-year fiduciary reviews to enhance accountability; World Bank FM supervision and KENAO audit to strengthen controls	No	M
Funds Flow	S	Significant in-delays in funds flow from DA to PA could delay project implementation; Delayed or piecemeal release of Project funds from ministry DA.	Project would open and maintain segregated project accounts where disbursements from the DA and payments would be made. Funds transferred on basis of 6 months' forecast and replenished at least once every quarter; Application for withdrawal of funds done at least once every month	No	M
Financial Reporting	M	Risk of late submission of IFR and annual audit reports	Regular FM trainings to be conducted for Project staff	No	L
Auditing	M	Delayed project audits	Timely preparation and submission of draft financial statements for audit	No	L
Overall Control Risk	**S**				**M**
Overall Project FM Risk			**Substantial**		

Note: H = High; S = Substantial; M = Moderate; L = Low.

Procurement

22. **Procurement under the proposed Project will be carried out in accordance with the World Bank's 'Procurement Regulations for IPF Borrowers', dated July 2016 and revised in November 2017, hereafter referred to as 'Procurement Regulations'; the 'Guidelines on Preventing and Combating Fraud**

and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants', dated July 1, 2016; and other provisions stipulated in the Financing Agreement. To improve project implementation pace and to achieve the PDO, a PPSD was developed. The PPSD includes a PP, which will set out the procurement profile of the project and selection methods to be followed by the recipient during project implementation in the procurement of goods, works, and non-consulting and consulting services financed by the project. The PPSD and PP will be updated at least annually or as required to reflect the actual project implementation needs and improvements in institutional capacity.

23. The project will use STEP, a planning and tracking system, which will provide data on procurement activities, establish benchmarks, monitor delays, and measure procurement performance.

24. The profile of procurement for the Project comprises consultant contracts for (a) the administration of performance contracts for ecosystem intermediaries, (b) the development of an International Acceleration (IA) process, (c) the implementation of an industry-academia platform, (d) the implementation of the SME upgrading program, (e) M&E, (f) communications, (g) training and capacity building, (h) third-party procurement audits, and (i) technical assistance.

25. **A procurement capacity and risk assessment for the MoITC has been carried out by the World Bank using the PRAMS.** The assessment revealed systemic weaknesses that may affect procurement implementation under the Project, including lack of experience in the implementation of World Bank-financed operations, and low staff capacity given that most procurement staff were recently deployed to the ministry, with little or no institutional memory. A full-time procurement specialist with the requisite knowledge and experience in World Bank-financed operations will therefore be engaged in the initial stages of project implementation to provide technical assistance and build the required procurement capacity. The World Bank will provide regular capacity building to Ministry staff in the management of investment projects.

26. The other key issues and risks concerning procurement for implementation of the Project include systemic weaknesses in the areas of (a) procurement capacity; (b) accountability of procurement decisions; (c) procurement delays in bid/proposal evaluation and signing of contracts; (d) procurement record keeping and management; (e) procurement planning and monitoring; (f) procurement process administration, up to and including awarding of contracts; (g) contract management; and (h) procurement oversight.

27. **Based on the capacity assessment and the nature and complexity of the envisaged key consultant contracts, the procurement risk is rated High.** Risk mitigation measures will include (a) training new and current staff in the World Bank's procurement regulations, (b) providing support to the PIU, (c) preparing CMPs for complex and high-value contracts with clear staff roles and responsibilities, (d) effectively using STEP as a tracking and monitoring tool, and (e) improving procurement record keeping and management.

28. **Use of national procurement procedures.** All contracts following the national market approach shall follow the procedures set out in the Public Procurement and Asset Disposal Act, 2015 (PPADA). The PPADA governs the purchase of works, goods, and services using public resources by the national and county government entities, local authorities, state corporations, education institutions, and other GoK

institutions. The PPADA sets out the rules and procedures of public procurement and provides a mechanism for enforcement of the law. Under the PPADA, the Public Procurement Regulatory Authority (PPRA) has been established in addition to the Public Procurement Directorate in the National Treasury. The PPRA has oversight and regulatory functions, including undertaking procurement reviews and audits. There is a Public Procurement Complaints Review and Appeals Board (Appeal Board) under the secretariat of the PPRA that deals with complaints received from bidders or consulting firms. The provisions of PPADA have been assessed and found to be consistent with the World Bank Procurement Regulations, Section V, Para 5.4, National Procurement Procedures.

29. **Procurement of goods and non-consulting services.** Goods and non-consulting services to be procured under this Project will include, among others, office and information technology (IT) equipment, IT software and information systems, conferencing facilities, and office furniture necessary for project implementation support and management.

30. **Market approach.** When approaching the international market, procurement will be done using the World Bank's Standard Procurement Documents. Procurements while approaching the national market will be done using the National Standard Bidding Documents with appropriate modifications and additional annexes to address the World Bank's Anticorruption Guidelines, universal eligibility, and the World Bank's right to inspection and audit.

31. **Operating costs.** These items will be procured using the recipient's national procurement and administrative procedures acceptable to the World Bank, including the hiring of project implementation support personnel. The recipient will also pay for costs associated with travel, accommodation, per diems, office consumables and maintenance, motor vehicle maintenance, implementation support personnel, and so on.

32. **Record keeping and management.** All records pertaining to the award of tenders, including bid notification, registers pertaining to sale and receipt of bids, bid opening minutes, bid evaluation reports and all correspondence pertaining to bid evaluation, communication sent to/with the World Bank in the process, bid securities, and approval of invitation/evaluation of bids would be retained by the respective agencies and uploaded in the STEP system.

33. **Disclosure of procurement-related information.** The following details shall also be published in the United Nations Development Business (UNDB) and World Bank's external websites: (a) General Procurement Notice (GPN) before making available the initial bidding opportunity, (b) an invitation for bids for procurement of goods and non-consulting services following open international market approaches, (c) Request for Expression of Interest for selection of consulting services following open international market approaches, and (d) contract award details of all procurement of goods and works and selection of consultants using open international market approaches.

34. **Disclosure of procurement-related information for international market approach.** The following details shall also be published in the UNDB and World Bank's external website: (a) GPN, (b) an invitation for bids for procurement of goods and non-consulting services following open international market approaches, (c) Request for Expression of Interest for selection of consulting services following open international market approaches, and (d) contract award details of all procurement of goods and

works and selection of consultants using open international market approaches.

35. **Fiduciary oversight by the World Bank.** The World Bank shall prior review contracts according to the prior review thresholds set in the PPSD/PP.

36. **All contracts not covered under prior review by the World Bank shall be subject to post review during implementation support missions and/or special post review missions, including missions by consultants or third-party institutions hired or appointed by the World Bank.** However, the World Bank may conduct, at any time, independent procurement reviews of all the contracts financed under the credit and/or grant if it determines the need for such a review based on the assessment of risk.

37. **Contract management.** High-risk and high-value procurements will be identified in the PPSD for increased contract management support and indicated in the PP. The ministry will develop key performance indicators for such identified contracts and the indicators will be monitored during actual execution of contracts. Th World Bank team will provide additional due diligence and independent review of the contract performance of such identified procurements. A fully staffed PIU of the ministry will be responsible for overall project/contract management.

38. **Frequency of procurement supervision.** Two half-yearly missions are envisaged for procurement support and supervision of the proposed project.

Environmental and Social (including safeguards)

39. **The Project is assigned an Environmental Category B partial assessment and triggers the safeguards policy on Environmental Assessment (OP/BP 4.01) given the implementation of activities in which project beneficiaries may purchase equipment and technology.** Since the specific locations/sites were not confirmed during the preparation stage of the Project, the upstream safeguard work will adopt the framework approach. The recipient has prepared, in a participatory and consultative manner, an ESMF to ensure that a process of identifying, assessing, and mitigating environmental and social impacts is integrated in the development of the specific subprojects. The ESMF prepared is in accordance with the World Bank's Operational Policy on Safeguards and the Kenya National Environment Management Authority's requirements. The framework report was submitted to the World Bank for review and clearance and disclosed in-country and at the World Bank's InfoShop.

Monitoring and Evaluation

40. **The PIU will be responsible for monitoring project implementation and progress on expected outcomes.** It will, therefore, establish standard formats and guidelines for data collection and reporting and will organize training sessions for project stakeholders on their use. In addition, data for a number of the proposed indicators will be collected on a regular basis by third parties or at the national level by other public institutions. In case of insufficient capacity for collecting data, the PIU will recruit or designate a person responsible for M&E, based on the capacity assessment immediately after effectiveness. This person will liaise with all the Project's stakeholders to regularly gather relevant information and data. Implementation support missions will be conducted at least twice a year. Missions will be based on the latest quarterly implementation and financial monitoring reports prepared by the Government.

Role of Partners (if applicable)

41. **The Project was designed to complement the efforts of ongoing World Bank lending operations as well as the operations and interests of other development partners.** With regard to Subcomponent 1a, development partners have professed a keen interest in (a) being more adeptly apprised of the relevant donor activities and (b) collaborating more effectively to design complementary interventions. The Project will therefore collaborate with development partners to participate in the pitch day process so that there is potential for co-funding select incubators and accelerators. Initially, this project intended to include ecosystem coordination as part of its design given that the research revealed coordination among key players is a crucial gap in the ecosystem. However, the GIZ is endeavoring to support and spearhead ecosystem coordination in Kenya through a project currently in development. Furthermore, the AfDB plans to support rural hubs and innovation centers to increase their capacity, which allows this Project to focus primarily on cities with incubators and accelerators that have the basic capacity to support startups.

42. **Moreover, Project activities pertaining to technical skills development under Subcomponent 1a will complement existing projects funded by development partners, including support for the improvement of TVET institutions by GIZ and the U.S. Agency for International Development, the planned expansion of basic digital training in rural areas by the AfDB, and practical training provided for disadvantaged youth in the formal and informal sectors through the KYEOP.** The Project also aims to complement and contribute toward the objectives of other Government initiatives such as Enterprise Kenya or the digital skills training through the ICT authority. In addition, the Project will also conduct outreach to the new centers of excellence created through the World Bank's Africa Centers of Excellence Project to engage them in the industry-academia platform.

43. **For Subcomponent 1a, the Project will contract a management company to support the implementation of the diagnostics and the performance contracts for ecosystem intermediaries.** For the industry-academia platform under Subcomponent 1b, the Project will contract a specialized consultancy to design and manage the platform.

44. **For Component 2, the Project will procure a private sector implementation firm or contractor to implement the SME linkages and upgrading program.** To successfully implement this component, the Project will develop and maintain strategic partnerships with lead firms, BDS providers, industry associations, donors, and financial institutions.

ANNEX 3: IMPLEMENTATION SUPPORT PLAN

COUNTRY : Kenya
Kenya Industry and Entrepreneurship

Strategy and Approach for Implementation Support

1. **The Implementation Support Plan (ISP) describes how the World Bank will support risk mitigation measures and provide the technical advice necessary to help the client achieve the PDO.** This ISP also identifies the minimum requirements to meet the World Bank's fiduciary obligations. The ISP considers the fact that the initiatives under Components 1 and 2 mark a significant shift in current procedures in MoITC and that the Project will operate in an inadequate capacity environment. As such, it recognizes that the Government will benefit from increased hands-on technical support and capacity building, learning by doing, and exchange programs, which will enable constructive dialogue to address emerging issues as both initiatives are rolled out.

2. **The strategy for implementation support has been developed based on the nature of the Project and its risk profile.** It aims to make implementation support to the client more flexible and efficient and focuses on implementation of the risk mitigation measures defined in the Operational Risk Assessment Framework.

- **Procurement.** Implementation support includes (a) providing procurement training to relevant staff in entities involved in implementation as necessary, (b) reviewing procurement documents and providing feedback on time, (c) providing detailed guidance on the World Bank's Procurement Regulations to the PIU, and (d) monitoring procurement progress and performance against the agreed PP.

- **FM.** Supervision will review the individual project's FM system, including, but not limited to, accounting, reporting, and internal controls. Supervision will also cover subprojects on a random sample basis.

Implementation Support Plan and Resource Requirements

3. **There will be strong coordination between the World Bank and the MoITC for the day-to-day administrative project management and implementation.** Formal implementation support missions and field visits will be carried out, at the very least, semiannually, jointly with the Government. Initially, these missions will focus on strengthening project management and fiduciary capacity in the MoITC and develop the operational guidelines. In later years, the missions will focus on reviewing progress toward achieving results and strengthening systems essential for ensuring sustainability. In addition to the joint implementation support missions, a midterm review will be carried out during implementation to assess if the project design assumptions are still valid. Missions and reviews will be complemented by specific reviews that will include FM and procurement areas. Ongoing dialogue, including through audio conferences and e-mail, will ensure continuous monitoring of progress implementation and identification of areas in need of support.

4. **The Project will require intensive procurement and FM implementation support during the first year considering the lack of previous experience with IDA-funded projects for the MoITC.** Support will

be provided from the World Bank office in Nairobi where the senior procurement and FM specialists are based. Training will be organized periodically by the World Bank's procurement and FM specialists to help the MoITC build financial and procurement capacity.

Table 3.1. Implementation Support Plan

Time	Focus	Skills Needed
First twelve months	Building procurement capacity and supervision	Procurement
	Building FM capacity	FM
	Review of detailed program Operations Manual for all interventions	Operations
	Review of M&E system	M&E, including various types of evaluation (impact, process, spot checks)
	Technical supervision and implementation support for Component 1 and 2	Technical, Operations
12-48 months	Impact evaluation	Impact evaluation
	Building procurement capacity and supervision	Procurement
	Technical supervision and implementation support for Component 1 and 2	Technical, Operations
Other	Awareness creation and communications	Communications

5. Given the substantial FM risk for this project, special focus would be placed on risk mitigation using the annual ISP described in table 3.2

Table 3.2. Annual ISP for FM

FM Activity	Frequency	FM Output
Desk reviews		
IFRs review	Quarterly	Interim Financial Statements review report
External audit report review	Annually	Audit review report
Internal audit reports, internal control systems reports' review	Semiannually	FM review report
Onsite visits		
Review of overall operation of the FM system including internal controls	Once every 12 months	FM review report
Monitoring of actions taken on issues highlighted in audit reports, auditors' management letters, internal audit, and other reports	At least semiannually	FM review report
Transaction reviews (if needed)	Annually or as needed	FM review report

Capacity-building support		
FM training sessions	By effectiveness and thereafter as needed	Project staff trained

6. The skills needed and the estimated amount of time required are listed in table 3.3.

Table 3.3: Skills Mix Required for each year of Project Implementation

Skills Needed	Number of Staff Weeks	Number of Trips
Task team leaders	16 weeks	Fields trips as required
Procurement specialist	3 weeks	Fields trips as required
FM specialist	3 weeks	Fields trips as required
Counsel	1 week	Fields trips as required
Safeguards specialist	1 week	Fields trips as required
M&E specialist	2 weeks	Fields trips as required
Entrepreneurship specialist	8 weeks	Fields trips as required
Open Innovation specialist	8 weeks	Fields trips as required
SME Linkages specialist	8 weeks	Fields trips as required
Skills specialist	2 weeks	Fields trips as required

ANNEX 4: ECONOMIC AND FINANCIAL ANALYSIS

COUNTRY: Kenya
Kenya Industry and Entrepreneurship

1. **Increasing innovation and productivity in select firms could have many direct and indirect developmental impacts in Kenya.** Based on an assessment of the various Project components, some of the main direct economic benefits include: training and talent acquisition, strengthening and growth of the digital entrepreneurship ecosystem, and enhancing SMEs and supply chains. The Project is expected to have strong societal benefits, amplified through a demonstration effect and catalytic impact. Experience from other projects shows that firms that succeed have a strong demonstration effect on other companies, and their improved performance has a cascading effect on lower layer suppliers. Those societal benefits include potential multipliers in terms of skills, human capital development, jobs, investment, and exports.

2. **The Project will put a large emphasis on the technical skills acquired by the beneficiaries of the various Project activities that can be spread to other industries, leading to increased innovation and higher productivity levels across various sectors**. Furthermore, the strengthening of the digital entrepreneurship ecosystem will lead to new job opportunities. Industry-specific spillovers will enhance business in various industries that benefit directly from the Project. Finally, the strengthening of the digital entrepreneurship ecosystem and SMEs could help improve the competitive advantage of Kenya, and further advance its position as a regional and international entrepreneurship hub.

3. **The overall Project yields an Economic Rate of Return (ERR) of 36 percent in a neutral scenario, and a Net Present Value (NPV) of US$26 million.** Demonstration effect would further boost the economic value of the Project, however, this has not been factored in, in a conservative scenario. The Project ERR and NPV have been calculated by adding up the cash flows of all the individual subcomponents presented in this section. Each subcomponents' cash flow has been calculated as the difference between annual revenues and the total project costs, with the understanding that revenues are the beneficiaries' value added and that costs are the total project cost categorized by component.

4. The Project has two components that are expected to directly affect beneficiaries: (a) Strengthening the innovation and entrepreneurship ecosystem; and (b) SME linkages and upgrading.

5. **The economic and financial analysis of this Project has been calculated with the estimated difference in cash flows to beneficiaries within the SMEs and innovation and entrepreneurial ecosystem in Kenya (incubators, accelerators, bootcamp providers, startups and students).** All calculations have been done assuming a discount rate of 10.5[31] percent per year. The evaluations carried out are constructed through scenario-based analysis with sensitivity testing.

[31] Damodaran Online. 2017. "Equity Risk Premium." https://ssrn.com/abstract=2947861.

Component 1. Strengthening the innovation and entrepreneurship ecosystem

6. This section relates to PDO indicator 1 ´Number of select firms with a developed innovation'.

Subcomponent 1a: Strengthening the ecosystem's support infrastructure

7. **Activities to 'strengthen the ecosystem´s support infrastructure' will have a positive impact on the creation of startups in Kenya by strengthening the services provided, enhancing management capacity, and supporting a long-term operational strategy.** Activities to be implemented under this subcomponent will also lead to a decrease of the startup failure rate and will result in enhanced job creation. This subcomponent includes supporting two categories of ecosystem intermediaries: incubators and accelerators, on one track, and technology bootcamp providers on the other.

8. As a result of the implementation of this subcomponent, local incubators and accelerators will provide enhanced, quality services and thus reduce the failure rate of the startups that benefit from their services.

9. **Incubators and accelerators are the direct beneficiaries of this component, and startups that go through their programs are regarded as indirect beneficiaries.** It is assumed, in a conservative scenario, that better-quality services provided by the incubators and accelerators will help 600 startups during the life cycle of the Project (see table 4.1) by strengthening their business models. This is in addition to the 162 startups that will be directly supported through the International accelerator[32]. This will result in increased performance and revenue, as well as a higher employment rate, among others. The assumptions used to run the model are summarized as follows:

- Ten local incubators and accelerators are expected to be supported. It has been assumed that the program starts in Year 3 with five local incubators and accelerators, with the remaining five being incorporated into the program in Year 5.

Table 4.1. Number of startups generated, per year (assumption)

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	TOTAL
Startups generated in the first 5 local incubators	—	—	100	100	100	100	400
Startups generated in the other 8 local incubators	—-	—	—	—	100	100	200
TOTAL	—	—	**100**	**100**	**200**	**200**	**600**

- Four categories (Star, Sustained, Subsistence, and Fail) are used for startups that go through the incubators and accelerators.

[32] A total of 40 incubators and accelerators are the direct beneficiaries of the diagnosis under Subcomponent 1a. Out of the 40, 13 will receive funds tied to an action plan and milestones. The 600 startups are their indirect beneficiaries. The economic analysis assesses the impact in those 600 startups, that will benefit from services provided by the 13 local Incubators and Accelerators receiving funds under component 1a.

- On the firm performance, the failure rate decreases from 80 percent in the first cohort (Year 3) to 60 percent in Year 6 due to the improvement of services delivered throughout project implementation.

- On the employment generated, the model assumes that jobs created within the startups would generate an estimated monthly salary of US$600,[33] which is significantly more than the average salary for unskilled workers in Kenya (US$250)[34]. The model makes the following assumptions regarding job creation[35] : (a) for star category startups, 2 founders plus 2 employees, (b) for sustained category startups, 1 founder and 1 employee; and (c) for subsistence category startups, 1 founder. The fail category does not assume job creation. It is also assumed that startups that go through the incubators and accelerators will have an increase in their operating expenses margin.

10. **The assumption for the support of bootcamp providers is that the improvement of ICT skills leads to higher employability of students and can subsequently lead to an increase in salaries.** The potential of the bootcamp model is to provide increasingly needed tech skills (with the focus on low-entry-tech skills). According to international experiences in Colombia, Lebanon, and Peru, high employment rates among bootcamp graduates and improved earnings are two of the most important results. Therefore, the impact considered in the economic analysis for the bootcamps is (a) the monetized value of jobs created with a substantial increase in salaries; and (b) the additional tax income generated. The intervention will strengthen bootcamp providers´ operational and business models through performance-based contracts. Moreover, 35 percent of the total number of students trained by the bootcamps would be female. Table 4.2 summarizes the assumptions used to run the business model:

Table 4.2. Support for Bootcamp providers Assumptions

Number of bootcamps supported	7
Number of students[36] trained by the bootcamps	1,900
Number of graduates employed	1,140
Employment rate (conservative scenario) (%)	60
Average monthly salary in Kenya[a]	US$250
Salary increase (%)	228
Average monthly salary for a web developer in Kenya	US$570
Annual average salary with the project	US$6,840
Estimated annual growth in wages (%)	2

[a] Kenya Economic Memorandum, ´From Economic Growth to Jobs and Shared Prosperity´, March 2016.

11. **It is also assumed that in a 10-year horizon, the students' salary will increase.** In addition, it is

[33] This value has been estimated based on technical missions.
[34] World Bank Group. 2016. "Kenya Country Economic Memorandum Report."
[35] See Table 4.5 of this section – Employment assumptions
[36] All students are considered indirect beneficiaries. A subset of those, that receive subsidies from tech bootcamp providers, are considered direct beneficiaries.

important to consider that these courses may lead to new job opportunities that can considerably affect the students' salaries.

Economic Analysis Results

12. Cash flows, NPV and ERR have been calculated for both activities explained above. The results, for a 10.5 percent discount rate, are as follows:

Table 4.3. Net Present Value (NPV) and Economic Rate of Return (ERR) calculations

To 2027	
Supporting incubators and accelerators	
NPV (based on value added; 10.5%)	US$ 8,073,055
ERR (based on value added)	26%
Supporting bootcamps	
NPV (based on value added; 10.5%)	US$5,240,973
ERR (based on value added)	88%

Subcomponent 1b: Connecting to international networks and local traditional industries

13. Under this subcomponent, a program will match established firms and technology-enabled startups, leading to new products, processes, and services, and as such local industry and startups will jointly develop products.[37] The economic analysis is only focused on the startups supported through the industry-startup linkages program and does not capture the impact of the products developed with the industry, in order to be conservative.

14. **The economic analysis introduces a conservative hypothesis considering results from other international initiatives similar in purpose.** The initial number of startups supported in the first year of operation (Year 2) is 15 for the optimistic scenario, 10 for the neutral scenario, and 6 for the pessimistic scenario. The number of startups supported through the industry-startup linkages program would be incremental until Year 6, when it is expected that 70 startups will be supported in total for the optimistic scenario, 55 for the neutral scenario, and 35 for the pessimistic scenario.

15. **New startups supported as part of the Project belong to four categories, depending on the amount of revenues generated in four years after startup inception.**[38] Table 4.4 describes the

[37] Under Subcomponent 1b, the economic and financial analysis of the operation of an industry-startup linkages program in Kenya has assumed some of the results from the Finnish case and the impact of public investment in business innovation activities, analyzed in the 2015 report, 'The Impact of Tekes and Innovation Activities'. The activities implemented under the Tekes initiative had a positive impact on society, environment, and general well-being. The report describes a job increase of 20 percent among SMEs funded by Tekes between 2010 and 2013.

[38] The Star category refers to high-performing startups, with high profitability rates with a developed innovation. The Sustained category refers to the profitable startups that have a lower profitability but are still above the break-even point. The

distribution of firms generated by the project, per firm:

Table 4.4. Distribution of firms supported by the project, per firm performance category

Firm Performance	Optimistic (%)	Neutral (%)	Pessimistic (%)
Star	2	0	0
Sustained	17	20	15
Subsistence	25	20	15
Fail	56	60	70

16. **The expected impacts of this activity are (a) employment generated in new firms, which will be incremental every year,[39] and (b) the operating results of new startups (costs over revenues).[40]** Employment and revenue generated assumptions are stated in tables 4.5 and 4.6.

Table 4.5. Employment Assumptions[a]

Categories	Employees	Founders	Total
Star	2	2	4
Sustained	1	1	2
Subsistence	—	1	1
Fail	—	—	—
Monthly salary for a startup worker in Kenya			US$600
Monthly salary for unskilled in Kenya			US$250

[a] Estimation based on data gathered during technical missions.
Source: Kenya Economic Memorandum, ´From Economic Growth to Jobs and Shared Prosperity´, March 2016.

Table 4.6. Revenue Assumptions[a]

Categories	Revenue Year 3	Revenue Year 4	Revenue Year 5	Revenue Year 6
Star	US$700,000	US$800,000	US$1,000,000	US$1,200,000
Sustained	US$50,000	US$100,000	US$150,000	US$200,000

Subsistence category includes the startups that on average cover the costs of creating a startup. Startups in the Fail category are those that do not reach the break-even point and thus are not profitable.
[39] The model assumes that employment varies every year depending on (a) firm performance and (b) scenario (optimistic, neutral, or pessimistic). For instance, employees in a Star startup (optimistic) increase from 4 in Year 2 to 35 in Year 10. Likewise, employees in a Sustained startup increase from 2 in Year 2 to 21 in Year 10 in an optimistic scenario.
[40] There should be an increase in productivity of firms from firm startup products and other indirect impacts to employment (such as impact in industry through accelerated startups in industry startup programs), which have not been included in the model.

Subsistence	US$5,000	US$15,000	US$25,000	US$35,000
Fail	—	—	—	—

[a] Estimation based on international experiences.

17. **The cash flows considered for the calculation of the ERR were based on the difference between the impact in startups (cost over revenues) and job creation and the difference between new salaries and salaries without the Project (cash inflow) and the Project's disbursements (cash outflow).** The economic assessment is based on a conservative 10-year scenario (until 2027). It has also been assumed that the proposed Project would start to have an impact in 2019. Moreover, the yearly net economic benefit was calculated and then discounted to calculate the net economic benefit in present value.

18. **Once the cash flows have been calculated, the NPV per scenario and path in year 0 can be determined.** The analysis distinguishes the results among a model with perpetuity and a model without perpetuity, where perpetuity is defined as the residual value for the next 10-year period. The results in U.S. dollars for a 10.5 percent discount rate are the following:

Table 4.7. Scenario 1: Economic Results Assuming Perpetuity

To 2027	NPV (US$)	ERR (%)
Optimistic scenario (based on value added; 10.5%)	10,455,871	67
Neutral scenario (based on value added; 10.5%)	4,443,416	35
Pessimistic scenario (based on value added; 10.5%)	339,791	13

Table 4.8. Scenario 2: Economic Results Without Perpetuity

To 2027	NPV (US$)	ERR (%)
Optimistic scenario (based on value added; 10.5%)	2,794,332	50
Neutral scenario (based on value added; 10.5%)	232,281	13
Pessimistic scenario (based on value added; 10.5%)	−1,502,464	−12

Industry-Academia Platform

19. **Based on other international experiences, some of the main direct economic benefits of the industry-academia platform include (a) training and talent acquisition and (b) strengthening and growth of the traditional industry.** The technical skills acquired by the beneficiaries can be spread to other industries, leading to increased innovation and contributing to the competitiveness of enterprises. Furthermore, the strengthening of both platforms will lead to new job opportunities in the area of technology, in addition to industry-specific spillovers that will enhance business in various industries that utilize ICT platforms and other digital technologies extensively.

20. The economic analysis for the industry-academia platform under Subcomponent 1b identified benefits for firms from private sector initiatives and has considered (a) improvement of skills that leads to higher employability of students and can subsequently lead to an increase in salaries and (b) higher levels of productivity among participating companies, measured as improvement in operating expenses margin (costs over revenues). The economic assessment for this activity is based on a conservative 10-year scenario (until 2027). It has also been assumed that the proposed Project will start to have a positive impact in 2019.

Table 4.9. Industry-Academia Platform Assumptions [a]

	Optimistic	Neutral	Pessimistic
Total participating companies	12	6	4
Number of participating students per year	24	12	8
Operating margin of companies without the Project (%)	80	80	80
New operating margin due to the Project (%)	65	70	75

[a] Data collected from Demola Guadalajara, Mexico.

Table 4.10. Additional Assumptions

Participating companies revenue	US$150,000
Students employment rate	60%
Annual average salary (skilled)	US$5,000
Annual average salary (unskilled)[a]	US$3,000

Note: Kenya Economic Memorandum, ´From Economic Growth to Jobs and Shared Prosperity´, March 2016.

Economic Analysis Results

21. **The analysis is based on the distinction among three types of scenarios: optimistic, neutral, and pessimistic in a 10-year horizon.** For these scenarios, the economic analysis considers as cash inflows: (a) value added due to jobs created per year and (b) value added due to operating results (costs over revenues). Once the cash flows have been calculated, the NPV per scenario can be determined. The results are the following:

Table 4.11. Net Present Value (NPV) and Economic Rate of Return (ERR) calculations

To 2027 (10-year Scenario)	NPV (US$)	ERR (%)
Optimistic scenario (based on value added; 10.5%)	2,529,159	114
Neutral Scenario (Based on Value added; 10.5%)	676,606	32
Pessimistic Scenario (Based on Value added; 10.5%)	−538,467	−9

Component 2. SME Linkages and Upgrading

22. *This section relates to PDO indicator 1 ´Number of select firms with a developed innovation´ and PDO indicator 2 ´Number of select firms with increased productivity´.*

23. **Under Component 2, the Project will support implementation of the SME Linkages and Upgrading program through business diagnostics and performance contracts.** The latter include disbursement-linked indicators where the indicators themselves may refer to the achievement of improvements through advisory services, training, BDS, and equipment. As a result, individual enterprises will be able to improve the efficiency of their businesses, and as such increase their profits. The impact on individual businesses of different sizes has been estimated as part of the economic analysis.

24. **The business diagnostic provided along with the performance-based contracts will support SME upgrading to improve the managerial and technical skills of SMEs and their use and access to technology.** As a result of this support, businesses will be able to increase their productivity, which is reflected as a decrease in the operating costs, as well as increase in sales, resulting in revenue additionality by the Project that translates into an increase in value added in a 10-year scenario.

25. **The economic analysis of this component quantifies the costs and benefits that are expected to accrue from investments, the NPV, and the ERR.** Once the cash flows have been calculated, the NPV can be determined. The results for a 10.5 percent discount rate are the following:

Table 4.12. Net Present Value (NPV) and Economic Rate of Return (ERR) calculations

To 2027 (10-year Scenario)	
Component NPV (based on value added; 10.5%)	US$11,487,253
Component ERR (based on value added)	47%

26. The economic analysis was conducted based on the following assumptions:

Table 4.13. SME Linkages and Upgrading assumptions

Participating Companies (SMEs)	
Total expected number of direct business beneficiaries	250
Percentage of in-cash/in-kind contributions by SMEs toward their performance contracts	30%
Annual average participating SME revenue	US$500,000
Percentage costs (without the Project)	80%
Average value added	US$100,000
Annual growth (without the Project)	2%

Annual growth increase due to the Project	4%

27. **The technical data on revenues, costs, and annual growth rates are taken from data gathered during the identification and pre-appraisal missions through discussions with Kenyan experts, validated by available data and the Kenya Country Economic Memorandum Report (March 2016).** In many cases, these numbers were adjusted to arrive at more conservative estimates.

28. **The main expected impacts of the Project are improvements in the value added for individual businesses (due to the growth in revenues) and/or the reduction of costs (decreases in the operating expenses margin).** The estimated operating expenses margin used as a baseline stands at 80 percent. However, due to the Project, the participating SMEs will have a performance level that will depend on the level of advancement made.

Table 4.14. Estimate of participating companies according to levels of advancement

Level of Performance	Number of SMEs	Estimated Increase of Operating Margin[a] (%)
Only initial disbursement	100	78
Second disbursement	50	75
Third disbursement	75	72
Fourth disbursement	25	68

[a] Operating Margin baseline: 80 percent.

29. **A series of reports on this topic suggest a positive impact of 'support services' on SME sales, workers' wages, and technology adoption rates[41].** This analysis assumes a conservative scenario, with a 4 percent growth in sales for the support provided to SMEs.

[41] Tan & Lopez-Acevedo (2005) look at the impact of SME programs in Mexico using panel firm data and find that 9-14 percent improvement in training and 9 percent improvement in technology absorption have been achieved. Various SME programs – Business Advisory Services, Technology Development, Credit, Supplier Development (1992 – 2000) in Chile presented similar results. Lopez-Acevedo & Tan (2010), "Impact Evaluation of SME Programs in Latin America and Caribbean" found 8 percent increase in wages and 9 percent increase in productivity as a result of these programs.

ANNEX 5: LESSONS LEARNED AND DEVELOPED IN PROJECT DESIGN

COUNTRY: Kenya
Kenya Industry and Entrepreneurship

1. **In designing the Project, the team drew on lessons from an extensive range of national and global projects.** This included the knowledge and experience of the World Bank in supporting startup ecosystems ranging from projects and initiatives in countries including Kenya (Digital Entrepreneurship, P156466); Lebanon (Mobile Internet Ecosystem Project, P131202); Colombia (Creating a platform for co-creation of applications and local e-Government content in Colombia, P144199); Mexico (Information Technology Development Project, P106589); the Caribbean (Mobile Innovation Project, P132570); and Chile (Open Innovation to Improve Municipal Services in Concepcion, P147956). In addition, the Project has taken advantage of the knowledge and lessons learned from the Learning Platform for Open Innovation in Smart Cities (P151932) and the Open Innovation in Cities Knowledge Silo Breaker (P158681). The Project will also leverage and complement the new skills training methodologies learned from the Technology Rapid Skills Training for Youth Employment (P156294), the Kenya Youth Employment and Opportunities Project (P151831), the Kenya Youth Empowerment Project (P111546), and the World Bank's experience administering performance-based contracts in the higher education sector in Chile (Tertiary Education Finance for Results Project III, P111661).

2. **The design of the incubator and accelerator support mechanism incorporates lessons on earlier incubator programs supported by the World Bank as well as global best practices on government-led incubator and accelerator support programs.** Assessments of the mLabs in Africa, Asia, and Europe and Central Asia, which were supported by the World Bank's DEP, emphasize the importance of the Intermediary's core business model as well as the need to strengthen capacity and program management.[42] In addition, countries such as Finland, Israel, and Singapore have catalyzed successful startup ecosystems through government-led support of incubators and accelerators. Applicable lessons learned from governments that have been leaders in bringing startups/SMEs to the forefront of economic growth include (a) promoting and supporting the best human capital and leadership within select intermediaries, (b) requiring counterpart funding on the side of the Intermediary, (c) allowing the Intermediary to unlock follow-on funding through successful performance, and (d) covering operational costs and management training costs of select intermediaries to strengthen operations and overall value added to the sector.

3. **Global best practices must be incorporated into the local context and maturity of the Kenyan ecosystem.** For example, while many leading governments design their programs to support seasoned startup leaders who have grown and exited companies to run incubators and accelerators, Kenya presents a much less mature ecosystem that should be nurtured accordingly. For example, on the issue of human capital, Kenya has had very few exits from startups, thus diminishing the pool of seasoned entrepreneurs from which to draw incubation management experiences, as per global best practices. Similarly, while incubators and accelerators in other markets rely largely on corporate sponsorship and partnerships to

[42] InfoDev. 2015. "Business Analytics Toolkit for Tech Hubs: Lessons Learned from infoDev's mLabs and mHubs"; InfoDev. 2014. "The Business Models of mLabs and mHubs: An Evaluation of InfoDev's Mobile Innovation Support Pilots"; InfoDev. 2014. "Do mLabs Still Make a Difference?"

propel early-stage business ecosystems, it has proved significantly more difficult to garner corporate sponsorship and partnerships from Kenya's leaders in the traditional industry space.

4. **There is also a gap in non-earmarked funding in the Kenyan incubator and accelerator ecosystem, which is nearly 100 percent grant reliant.** Donors often provide grant funding that is earmarked for programs or initiatives that are not core to an incubator or accelerator's long-term viability or core operations. Lack of operational funding represents significant value lost for both the Intermediary and its beneficiaries. This Project is designed to fill this gap of operational funding and allow incubators and accelerators to act on their self-determined operational priorities.

5. **A recent World Bank study of entrepreneurship education and training programs[43]revealed an abundance of information about the impact, results, and good practices from youth training and employment programs by the GoK.** The KYEOP found that (a) practical training is more relevant when employers are engaged in defining the competencies and are brought into the design of the job-specific training to ensure that the training matches employer needs and (b) the teaching of life skills is popular with employers and youth, but the payoff is higher when these skills are combined with other skills training. The project consulted widely with employers to develop the technology bootcamps' activity. This activity includes both technical as well as soft skills and on-the-job training, complementing similar existing services supported by the GoK, donors, and the private sector, including TVET. Based on these key considerations, the KYEOP design also adopted an open approach to sourcing the most appropriate training providers from the market rather than limiting training provision to public sector institutions. The KYEOP also introduced subsidies to catalyze demand-driven training for disadvantaged youth (eligible applicants self-identify as disadvantaged and the subsidies are applied to all accepted applicants).

6. The ITU and the World Bank found that compared to traditional vocational training programs, (a) the bootcamp methodology is highly effective in the quick upskilling of people of various backgrounds based on the demand for skills; (b) this methodology is able to provide critical soft skills; (c) private sector providers of these bootcamp trainings directly follow demand and avoid market oversaturation; (d) the selection process of these bootcamp providers is a key factor in determining employment outcomes; (e) bootcamps are hard to afford for those from low- or even middle-income backgrounds; and (f) based on a randomized controlled trial conducted in Colombia, bootcamps can lead to better jobs, in particular for low-income youth. The abovementioned lessons are reflected in the project design, which aims to (a) make technology bootcamps more accessible and affordable for women and low- and middle-income youth in Kenya and (b) build the capacity of bootcamp providers to develop their operational and business models to increase the talent required by high-growth startups, innovative SMEs, and other larger companies in Kenya.

7. **To better understand how to make technology bootcamps more inclusive, the World Bank conducted a global assessment of women-centered bootcamps and digital skills programs under the Umbrella Facility for Gender Equality (UFGE)-funded 'Coding Bootcamps for Female Digital Employment' activity.** Some of the lessons learned include (a) the importance of designing the right recruitment strategy (that is, avoiding language that is hyper-individualistic and masculine, building family and community support, and profiling other women in tech to leverage the role model effect); (b) fighting

[43] World Bank. 2015. *The Impact of Private Internships and Training on Urban Youth in Kenya*.

attrition with thoughtful program design that addresses care and transportation constraints and incorporates soft skills training designed to boost self-confidence; and (c) creating links to mentors, networks, and the job market through structured mentoring programs, vetted networking opportunities, and job placement initiatives.

8. **While assessing the introduction of an open innovation platform to connect startups with traditional industries in Kenya, the team based the platform on similar ones in Chile, Colombia, and Lebanon designed and/or implemented by the World Bank that introduce open innovation and connection between startups and municipal governments and the private sector.** For example, in Lebanon, the Mobile Internet Ecosystem Project developed a series of workshops and activities between technology startups and entrepreneurs as well as with legacy industries that have not widely integrated technology into their production processes. This project also created a startup-university platform with an emphasis on mobile internet applications and services.

9. **The Project further builds upon such engagements, and the rationale for introducing an industry-startup linkages program in Kenya is also supported by official statistics, which show that companies around the world have begun to enthusiastically embrace the concept of open innovation.** In a 2014 study by the University of California at Berkeley and Purdue University, which surveyed 125 large firms in the United States, 78 percent of them practiced open innovation, with over 30 percent indicating that they had been utilizing open innovation for over five years.[44] Open innovation also benefits startups seeking to gain access to a larger market, distribution channels, and partners. Accenture predicts that the proportion of large companies' revenues generated in collaboration with startups will grow from 9 percent to 20 percent in 5 years.[45]

10. **The Project design also benefited from a pilot in Kenya, funded by various World Bank trust funds, to test industry-startup matching models to co-create a working prototype, based on a challenge identified by one of the leading agro-processing and exporting firms.** This pilot was implemented by Nest Africa Group, and through it, a startup filtering mechanism and a process of joint product development was tested, which produced a working prototype under shared IP. Key lessons from the pilot included:

- The importance of various outreach mechanisms, including online campaigns and in-person outreach, to attract startups to the process;

- The importance of identifying several startups to proceed to co-creation to maximize the successful outcome in terms of product development;

- The time investment required for the identification of a key challenge or market opportunity with the larger corporate should be adequately factored in, as should the refinement of such a challenge into a more specific problem statement;

[44] Purdue University. 2014. *Research Indicates Open Innovation Gaining Momentum among Large U.S. and European Companies.* http://www.purdue.edu/newsroom/releases/2014/Q4/research-indicates-open-innovation-gaining-momentum-among-large-u.s.-and-european-companies.html.
[45] Accenture. 2015.. *Harnessing the Power of Entrepreneurs to Open Innovation*.

- The importance for clarifications on IP and exclusivity, with a particular focus on shared IP; and

- Adequate time is needed for joint product development, and a shared space and immersive interaction between the startup and relevant line managers at the corporate is important.

11. **This Project also seeks to address a few of the key bottlenecks constraining the growth of the private sector in Kenya, and particularly that of industry.** A review of three donor-funded programs in Kenya that match the component's target firm size (small and medium); sector (manufacturing and services); and type of support (financing, technical assistance, or both) was conducted.[46] It is clear that over the last two decades, Kenyan SMEs have received considerable funding from the Government and donors, but most of these programs have been small, diffuse on impact, and not scalable. For instance, projects funded by JICA have only been able to support 24 SMEs over five years due both to design and the choice of implementing partners. Furthermore, a large number of initiatives have traditionally targeted pre-entrepreneurship or micro-businesses and not established SMEs. Therefore, there is a need for more SME-focused programs that are scalable and that address both the supply-side failure in the quality and availability of BDS as well as the demand-side failure expressed by SMEs of a lack of self-awareness of their own business performance and of how to improve this. One potential way of doing so is by moving away from using one or two mandated Government or private sector BDS providers and providing a platform that will allow participating SMEs to access the existing market of BDS providers. The SMEs will benefit by having an independent and subsidized business adviser who will assist with providing an initial independent diagnostic and then help the SME manage the interaction with BDS providers. Given the information asymmetries faced by SMEs, providing brokered interaction between SMEs and BDS providers can lead to more productive interactions. This approach is consistent with global experience on SME upgrading initiatives and research on the matching grant models.[47]

12. **This approach also addresses impediments faced by lead firms in engaging in upgrading activities.** Despite being the potential beneficiaries, lead firms rarely invest in overt upgrading in potential suppliers (unless they supply a crucial component) as they cannot be assured that the upgrading would be effective, or they do not have the internal capabilities to manage such schemes, nor do they prioritize such activities. The lead firm to SME link approach has been successfully implemented in high- and middle-income countries such as the Czech Republic, Ireland, Tunisia, and the United Kingdom. For example, the Czech MNC-SME Supplier Development Program aimed at increasing local suppliers to 10 multinational firms in electronics and automotive sectors in 2000–2002. Forty-two nominated firms were selected to participate in the pilot SME Upgrading program; they took part in two rounds of diagnostics and received advisory services courtesy of a team of international business advisors following detailed action plans. A program evaluation in 2003 found evidence of process and product upgrading in 99 percent of participating firms, and 15 companies had gained new business, which they attributed to the program, worth over US$46 million from 2000 to 2003. In designing this component, the team conducted roundtable discussions with private sector associations and detailed interviews with more than a dozen potential lead firms in the automotive, construction, services, and agribusiness sectors.

[46] These programs include the completed IFC RC and TA Fund, the completed JICA-PPI, and the ongoing JICA Human Resource Development for Industrial Development Project (JICA-HRDID).
[47] World Bank Group. 2017. *How to Make Grants a Better Match for Private Sector Development. Review of World Bank Matching Grants Projects*. Washington, DC: World Bank.

13. **The PIU and the Project team carried out stakeholder consultations during the scoping and preparation of the Project to ensure relevance of the activities proposed and were able to validate these gaps with different ecosystem stakeholders.** Stakeholders consulted included innovation and entrepreneurship intermediaries, public administration (at the national level as well as in select counties), TEIs, entrepreneurs, business associations, and private firms. Specific consultations focused on obtaining feedback from potential female beneficiaries, including female entrepreneurs and students, as well as women in technology. Consultations were conducted both on a bilateral basis as well as through targeted workshops with groups of stakeholders, with over 245 different representatives.