



INFODEV'S CLIMATE TECHNOLOGY PROGRAM

## REPORT FOR JULY 2017 STEERING COMMITTEE MEETING:

**FY17 Progress Report  
and FY18 Work Plan**





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# Executive Summary

## Executive Summary

In the five years since its inception, the Climate Technology Program (CTP) has played a crucial role in bringing attention and interest to climate technology in frontier markets. In that time the multi-donor trust fund leveraged over US\$20 million in additional funds from other sources including the World Bank's Development Facility Grants, local host governments, GIZ, and IFC trust funds. On the ground, climate innovation centers (CICs) and innovative financing pilots were mobilized to mentor, support, and fund numerous entrepreneurs across seven countries in three continents.

Fiscal year 2017 (FY17) was a time of growth across CTP program offerings and partnerships, and the team retooled its broader program strategy to streamline operations and create more value. In FY17, CTP completed a mid-term review for the period ending in June 2016. The mid-term review endorses the new direction in which CTP has taken the program in FY17, and provides valuable guidance for FY18.

FY17 showcased the program's positive effects on both urban and rural resilience. The Ethiopia CIC selected off-grid home solar systems as one of its focus sectors, in a country where only 27% of the population has access to electricity. The upcoming Nigeria CIC chose the same sector as a priority. Case studies of clean cookstoves and indoor mushroom production in Ethiopia revealed strong benefits to jobs and gender in their value chains, as well as benefits to customers. Climate-smart agribusiness took a more prominent place in CTP, with the two first investments of CTP's new seed fund in Kenya targeting agribusiness, and the latest cohort of Launchpad teams focusing heavily on agribusiness sectors.

### Main Accomplishments in FY17

The approved FY17 Workplan presented five strategic priorities for the past year, including: (i) increase impact by expanding linkages, connections and partnerships; (ii) enhance CIC operational delivery; (iii) broaden access to innovative financing options; (iv) advance design of the next generation of CICs; and (v) scale up the reach and depth of insight.

The team delivered on each of these initiatives and our progress is detailed below.

- i. **Increase impact by expanding linkages, connections and partnerships:** CTP expanded partnerships with intermediaries across all countries of operation to share both technical expertise and knowledge, and also to secure funding for activities. As part of the new CTP strategy and restructuring, the Climate Business Innovation Network (CBIN) was successfully launched at COP22 in Marrakech, Morocco in November 2016. CBIN is an expansion of CTP's existing Climate Innovation Center Network (CIC Network) and is open to CIC Network members, as well as other global and local actors working to grow climate technology entrepreneurship.
- ii. **Enhance CIC operational delivery:** Modified business models were developed and rolled out in Ethiopia, Vietnam and the Caribbean CICs. Across the CICs, numerous new staff members in key roles were recruited including a dynamic new CEO in Ghana. To better serve its pipeline of entrepreneurs, the Ethiopia Climate Innovation Center (ECIC) was restructured over the past year and is on its way to pioneering a new sector-focused CIC business model. Additionally many CICs are working to develop and implement plans to graduate entrepreneurs.

- iii. **Broaden access to innovative financing options:** Strides were made in opening up new financing programs. In South Africa, CTP supported the piloting of two innovative green financing business models that have the promise to address key gaps across Africa.
- iv. **Advance design of the next generation of CICs:** CTP's Launchpad business line mobilized 12 teams from across the World Bank Group and laid the ground for seven new CICs. Notable was the significant progress made with the soon-to-come Nigeria CIC, likely to launch in December 2017. The first Launchpad cohort includes Nigeria, Malawi, Tanzania, and Egypt, and the second cohort includes Brazil, Bangladesh, Mauritania, and Sri Lanka.
- v. **Scale up the reach and depth of knowledge and insight:** In FY17, the knowledge and insight teams focused on producing a significant number of analytics, capturing lessons from our work, including seven new In Briefs. building on the success of the IFC-sponsored Morocco Entrepreneurship Ecosystem Diagnostic; CTP also launched a similar ecosystem mapping study for Vietnam and the Caribbean, which will be completed in FY18. Greater attention was also on capturing data emerging from the clients served. CTP's monitoring and evaluation team developed a new reporting system for CIC data with input from CIC local teams. The team also oversaw the midterm review of the CTP trust fund from inception until June 2016.

## Changes to CTP in FY17

To catalyze the sustainable growth of climate technology markets, CTP saw a need to broaden its focus to climate entrepreneurship ecosystems. The approach evolved from supporting single institutions to one where CTP supports and partners with more institutions in each country, thereby achieving economies of scale, economies of network and economies of specialization. In Ghana, for example, the seed fund and CIC are now two separate institutions.

The program aims to better leverage the efforts and resources of a broad range of actors involved in clean technology entrepreneurship globally. To that end, the CIC Network was broadened into the Climate Business Innovation Network which includes a broader range of institutions. By partnering with CTP, local and global institutions will be able to discover and forge productive collaborations.

CTP decided to discontinue Finance Lab in its current form and fold all global access to finance activities under the umbrella of Market Connect, which will be divided into two business lines: the Business Model Diffusion Facility and the Early Stage Finance Collaborative. Each of these business lines aim to strengthen the finance ecosystem in a different way. The Business Model Diffusion Facility will help local sustainable green businesses adapt and internalize green business models that have been validated in other countries while the Early-Stage Finance Collaborative brings together funders and early stage finance organizations to build and scale solutions to unlock capital for early-stage, high-growth potential firms.

## Priorities for FY18

In FY18, CTP will focus on 1) a continuous and systematic enhancement of value for money and 2) on implementing the recommendations made in the program's recently completed mid-term review. Both of these will involve strengthening CTP's and the CICs' sustainability strategies. CTP will continue to build on the progress made in FY17 and implement the new business model.

By the end of FY18, all of the CICs will have had multiple cohorts of entrepreneurs and continued to strengthen their operational capacity, and the climate venture facilities (CVFs) will have made several investments. The Ghana Climate Venture Facility will launch in Q1 FY18 and is poised for success, building off the team's experiences with the Kenya Climate Venture Facility. FY18 will also see the launch of at least one next generation CIC from Launchpad (Nigeria).

The Climate Business Innovation Network (CBIN) is prepared to grow as it continues to broaden its membership to organizations beyond the CICs that were designed with CTP's support. CBIN will also be an important channel for feedback and learning from CTP's global and local partners, as well as, our client entrepreneurs. Market Connect will roll out its business model diffusion and access to finance network activities to additional countries.

And finally, FY18 will be a year where knowledge and learning plays a more significant role, with the systematic tracking of firm and CIC performance, as well as with the mining and sharing of deeper lessons learned.





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# Overview

How would an entrepreneur with a vision for off-grid solar lighting in rural Ethiopia get the funds she needs to grow her business? How could investors, NGOs, or development agencies discover new opportunities on the frontier? Taken together, what will it take to build climate technology sectors in emerging and developing markets?

In 2016, global clean-tech investment amounted to US\$241.6 billion, representing a five-fold increase across the renewables sector since 2004. There was also a record installation of renewable power capacity, which was in part due to the sharp decline in capital costs for solar PV, onshore and offshore wind. Interestingly, 55% of all the generating capacity added in 2016 was renewable (the highest proportion in any year to date). This amounted to 138.5 GW in total worldwide. For the first time, more solar gigawatts were added (75GW) than any other technology and 2016 also saw record-setting acquisitions in the clean power sector—totaling US\$110.3 billion, an increase of 17% over 2015.

Yet much of this investment has been directed at companies using conventional business models in an effort to fit clean technologies into existing systems. The focus has often been on the innovative technology itself, and not on the technology operating as a part of a system. We know that this approach rarely works; start-ups almost universally struggle when competing head-on with established firms in mature markets. To catalyze a lasting shift away from fossil fuels to clean technologies, it will take a systematic approach.

It was with this in mind that the World Bank's Climate Technology Program (CTP) took stock of its activities and sharpened its focus on building the ecosystem needed to enable entrepreneurs to succeed. **2017 saw significant growth across CTP program offerings and partnerships, with a special focus on retooling the program strategy to streamline operations and ultimately create more value.**

CTP falls under the World Bank Group's Innovation & Entrepreneurship unit within the Trade & Competitiveness (T&C) Global Practice and directly supports the T&C agenda of advancing innovation, entrepreneurship and green competitiveness in developing countries. T&C now has climate change-related targets for its portfolio of activities, which CTP is in a key position to help T&C achieve.

At the same time, the World Bank Group (WBG) as a whole has placed an increasing emphasis on private sector-driven climate innovation and market creation within its broader strategy. This strategic relevance has created greater opportunities for CTP to capitalize on the WBG's assets more effectively.

Guided by the 2016-2020 Climate Change Action Plan (CCAP), the WBG is committed to spurring action on climate change that prioritizes leveraging external private capital, which is essential to deliver the sustainable development and climate agendas. This covers a range of activities including: the mobilization for, and co-financing of, IFC and WB operations; providing MIGA guarantees; developing new de-risking tools; and working together across WBG to support upstream reforms that create markets and de-risk sectors to help countries create new sustainable markets.

Within the WBG, CTP also plays a unique role in crowding-in WBG/IFC resources and building a knowledge base, staff capacity, and viable instruments to advance the climate innovation and market creation agendas in emerging markets. Specifically, CTP has fostered the WBG climate agendas via three channels:

- **Mainstream green competitiveness activities and leverage WBG assets through the Launchpad program and the WBG's Climate Change Group.** The seven Launchpad teams selected to advance to the business plan stage continued to involve members from multiple WBG Global Practices (GPs) and the IFC in order to maximize

connections to other WBG activities. Experts from **13 of 14 GPs** in the World Bank participated in the program, leveraging invaluable expertise in private sector development, finance, agriculture, climate change, energy, urban/rural resilience, environment and natural resources, transport and ICT, etc. The seven new CICs will be fully integrated into WBG work programs to leverage WBG financing sources and to capitalize on the support of country management teams when securing local government endorsement. In addition, CTP team members were part of the official WBG delegation to the COP22 in Marrakech where they represented the Bank and participated in numerous panels and discussions.

- **Strengthen technical and implementation collaboration with related WBG entities through CICs and CBIN.** As CTP's focus has shifted toward building climate entrepreneurship ecosystems rather than single institutions, several CICs piloted collaborative activities with existing and pipeline WBG and IFC activities to optimize local impact. For example, in Ethiopia, the restructured ECIC has teamed up with the IFC's Lighting Africa program and the Energy and Extractives Global Practice and leveraged their sector-specific expertise and network. In Morocco and Egypt, CTP also launched two CIC development activities by channeling financial and technical support from IFC. **CTP has been playing an increasingly critical role in WBG market creation and innovation agendas by integrating knowledge, expertise and resources around climate entrepreneurship ecosystem building activities.**
- **Develop a knowledge base for climate innovation and entrepreneurship ecosystems in CTP intervention countries.** The market problems CTP strives to tackle often sit at the intersection of climate change, market creation, and innovation—which requires mobilization of knowledge and insights across multiple sectors and from a range of partners. As the program deepens its evidence base through on-the-ground activities, the CTP team and its CBIN members have become a knowledge source for WBG to access frameworks, tools and evidence to assess the climate entrepreneurship ecosystem and sector opportunities in frontier markets.

## CTP's Role in the Global Climate Technology Entrepreneurship Ecosystem

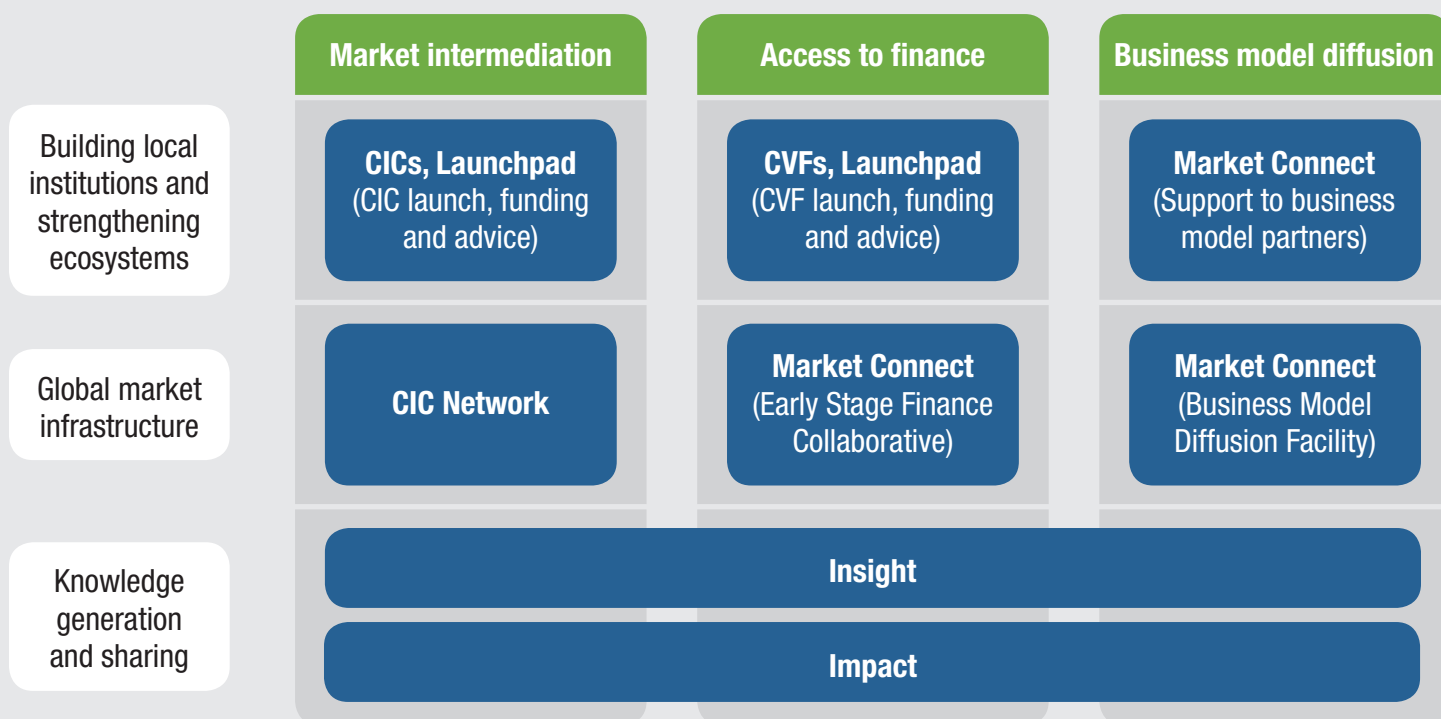
CTP has stabilized into a program that aims to catalyze climate technology sectors by enhancing 1) market intermediaries, 2) access to finance, and 3) business model diffusion in low- and middle-income countries. **Market intermediaries** are organizations whose mission is to foster climate technology entrepreneurship. These could be CICs, incubators, accelerators, cluster associations, SME agencies and green development agencies. **Access to finance** can be facilitated by individuals and institutions, either local or global. **Business model diffusion** includes the identification, adoption, and adaptation of a successful business model from one country into another. These three functions are fulfilled via three levers:

- **CTP helps local stakeholders build institutions that will promote climate technology entrepreneurship in the long run,** and helps them strengthen their entrepreneurial ecosystem. The rationale for building local institutions is that their impact on climate technology innovation will long outlive the duration of support from CTP. Institutions take on a life of their own and become central players in climate technology ecosystems. Building institutions in this context does not necessarily mean forming new legal entities. Building institutions could imply institutionalizing a climate technology support mandate within an existing organization. For example, the public sectors in Morocco, South Africa, and Vietnam have institutionalized Climate Innovation Centers within existing organizations. Building institutions can involve different forms of support as well, including grant funding, technical advice, facilitating knowledge exchange, and enabling partnerships.



- **CTP also builds the global market infrastructure that channels critical resources to entrepreneurs via local institutions.** In high-income entrepreneurship hubs such as Silicon Valley (US) or Cambridge (UK), entrepreneurs can find human, social, technological, and financial capital locally. However, climate technology markets have not reached the critical mass to make this happen in CTP countries. With limited economies of scale, it is not viable for local institutions such as Climate Innovation Centers to offer a vast spectrum of specialized resources to their clients. These services might include financing, market and technical knowledge, and networking. Outside of CTP countries there are many organizations that can provide these resources. CTP is working to create a global market infrastructure where local CTP partners can receive the global resources they need to support local entrepreneurs. *This global market infrastructure will appear to be plug-and-play for global organizations looking to reach a large number of CTP country entrepreneurs.* For example, Innovation Norway, Norway's national innovation agency, is looking to help Norwegian firms partner with firms in CTP countries. Instead of relying on sequential one-on-one connections with each individual CTP country, Innovation Norway can approach CTP's business model diffusion hub to orchestrate connections with relevant local partners and relevant local sectors.
- **Finally, CTP builds a global knowledge base centered around how to support climate technology entrepreneurship in developing countries.** There is a fairly stable set of policy instruments to support climate tech entrepreneurship in high-income countries that revolves around: funding R&D; funding technology commercialization in universities; procurement policies; and venture capital funding. These tools are complemented by well-developed entrepreneurial ecosystems that can support a venture's growth from early stage to scale. These supportive entrepreneurial ecosystems are, at best, burgeoning in low and middle income countries. CTP is globally unique in its role of fostering climate technology entrepreneurship ecosystems. The program therefore needs to continu-

**Figure 1: CTP's Mission and Areas of Work**



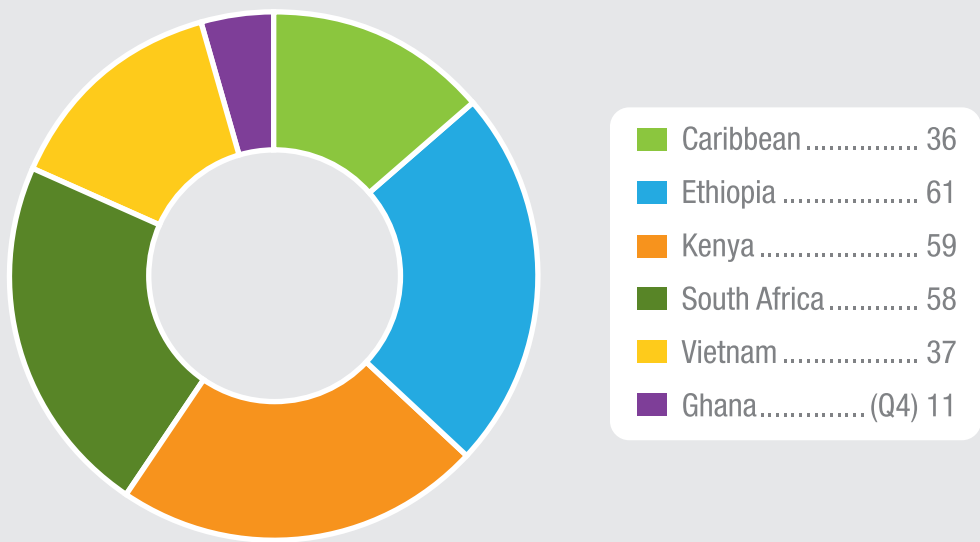
ously harvest knowledge to monitor how it can improve its performance. The program has a role to play in sharing those lessons with governments, international finance institutions, and non-profits who are interested in ecosystem building.

## CTP on the Ground

CTP currently works across seven countries in three continents and will launch Climate Innovation Centers (CICs) in another seven countries in the coming years. Across the existing CICs, the portfolio of companies supported by CTP has grown to 262. At the time of writing, aggregate data reported was through Q3 FY17.<sup>1</sup> CTP will collect Q4 data and report final FY17 statistics at the end of July 2017.

In FY17 the program continued the data collection and monitoring work around the companies it serves that began in FY16. Indicators such as: company sector, size, stage of development, financing position, and business model are tracked and analyzed to better understand at a program level the entrepreneurs CTP supports. As depicted in Figure 2 below, the bulk of firms supported are located in Ethiopia, Kenya, and South Africa, which reflects the fact that these CICs have been in

Figure 2: CIC-Incubated Businesses



operation longest.<sup>2</sup>

### Poverty and Resilience

CTP-supported businesses cover a range of climate technologies such as: solar power systems, energy efficiency software,

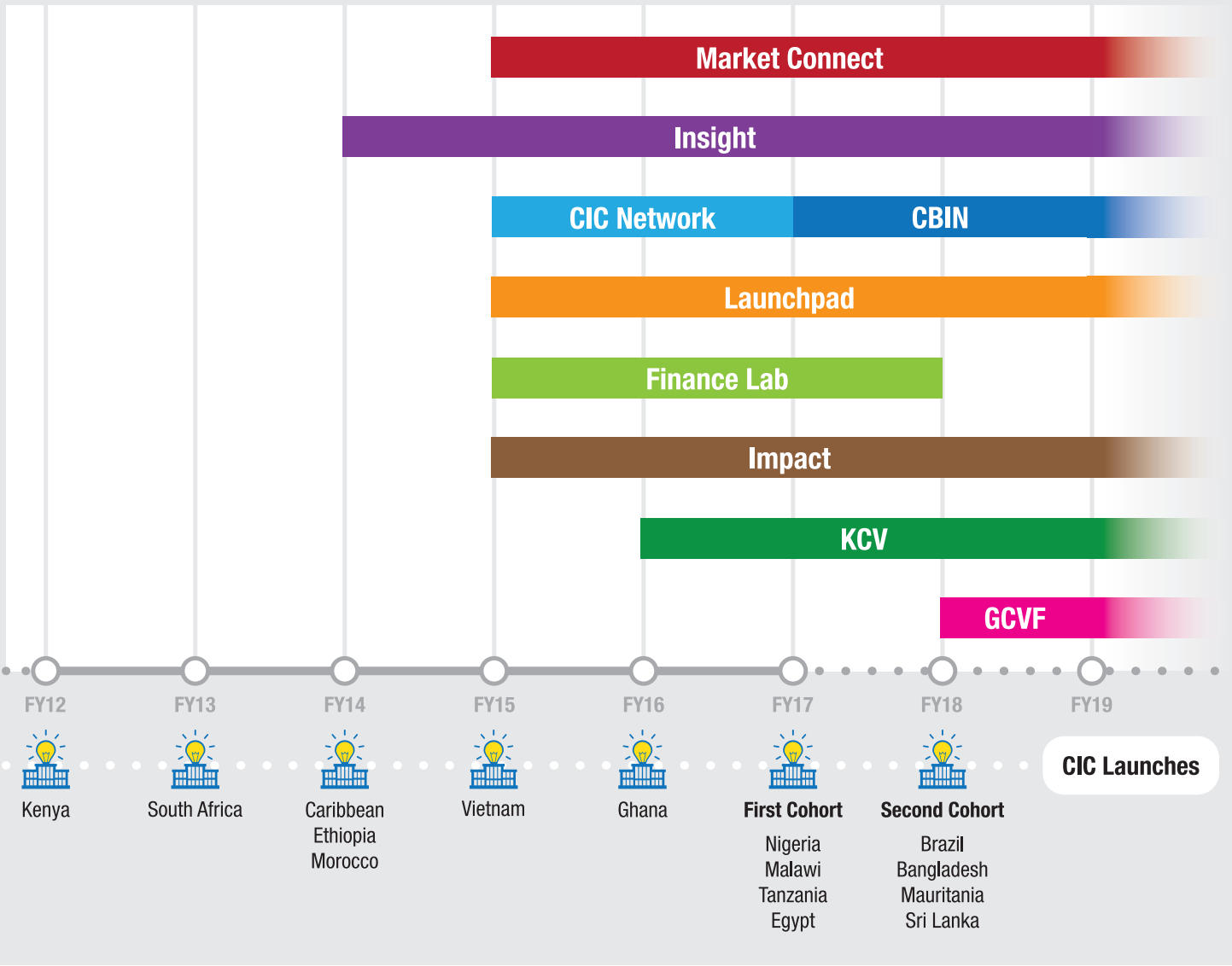
1 Ghana CIC cohort entered in Q4.  
2 At the time of reporting Morocco was in transition between two incubation managers and was not able to provide data.



hydroponic farming systems, clean cookstoves, biogas systems and many more. As these firms grow, they create more jobs in their local communities which contributes to the eradication of poverty and builds local resilience.

CTP’s ecosystem approach has a further effect—in that our efforts to support and build local capacity and institutions will help incubate entrepreneurs and scale firms long into the future.

Figure 3: CTP Timeline



## CTP’s Progress and Evolution in FY17

CTP underwent several changes in FY17. These changes were tied to a realization that to be more effective, the program needed to:

- **Help strengthen entire entrepreneurship ecosystems** and not just focus on single institutions, and this implied supporting more institutions in each country.
- **Achieve economies of scale and network economies** by supporting market intermediaries that were not necessarily designed and launched by CTP, and this implied partnering with institutions that do not necessarily have the “CIC” label and may be located outside CIC countries
- **Better leverage the efforts and resources of other actors** involved in clean technology entrepreneurship globally, and implies creating a plug-and-play in-house infrastructure to partner with such actors and actively seek them out.

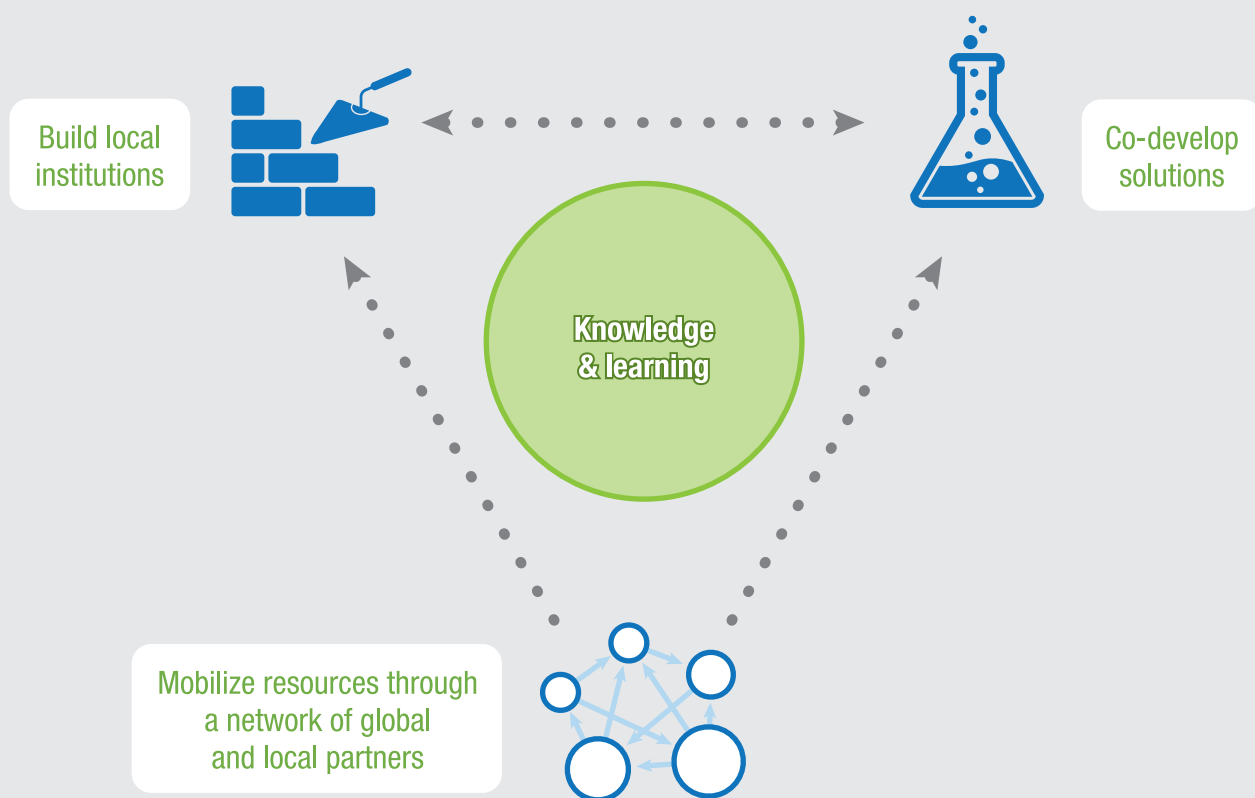
In addition several structural changes were made to better align the program with these opportunities and leverage CTP's unique value proposition. To that end, the Climate Business Innovation Network (CBIN) was launched.

## The Climate Business Innovation Network

CTP launched CBIN at COP22 in Marrakech, Morocco. CBIN consists of local and global institutions that partner with CTP to support the growth of climate technology businesses.

The mission of CBIN is to help CTP more effectively achieve its goals of building local institutions for clean tech innovation

**Figure 4: The Role of the Network in CTP Activities**



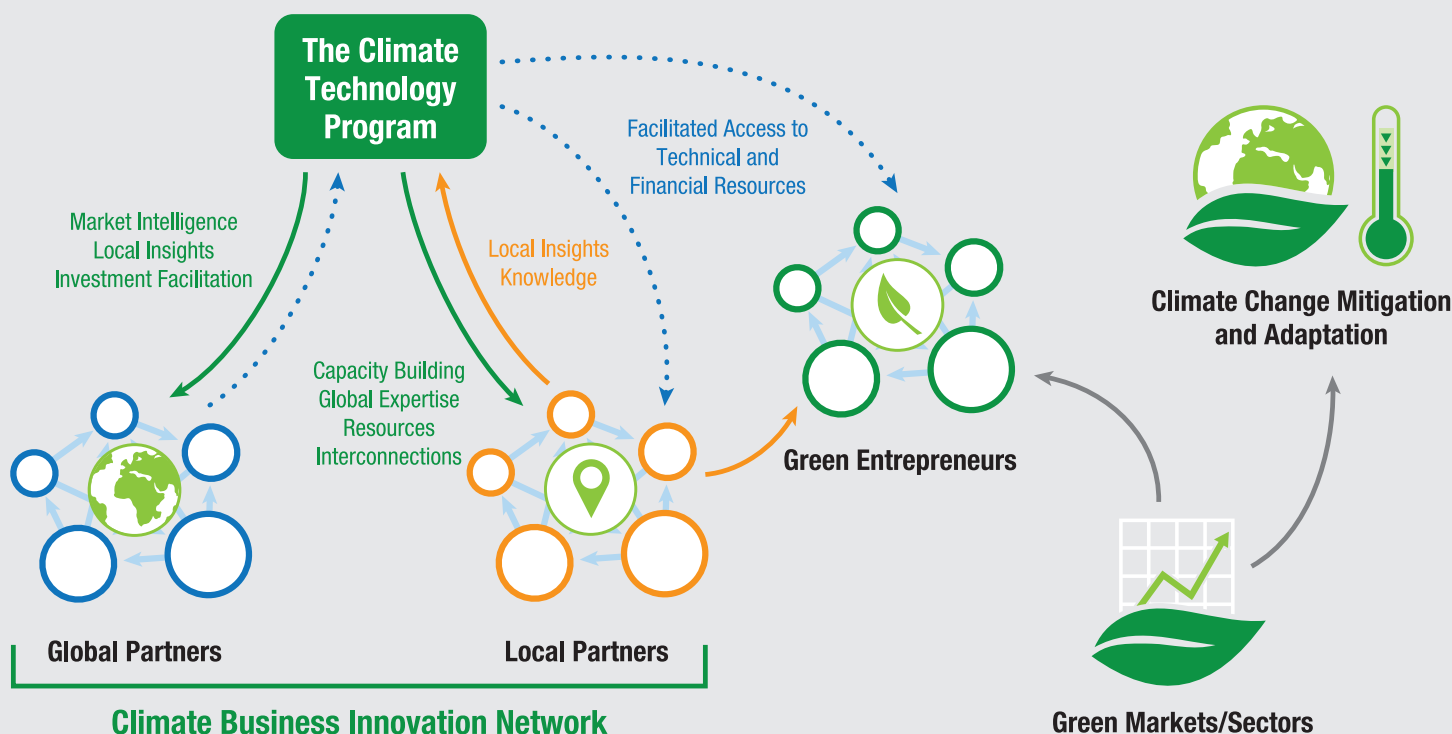
and to co-develop new solutions for supporting climate technology businesses (Figure 4). CTP achieves this by integrating its partners in its knowledge, learning and operational activities.

The frontier problems that CTP is working to overcome oftentimes entail complex cleantech ecosystem challenges, which go beyond CTP's expertise, reach, and resources. This necessitates a partnership approach to sustainably and cost-effectively achieve our goals. Partnering translates into a larger impact for CTP, a more diverse portfolio of solutions, a quicker response to new challenges, and ultimately offering greater value for money to donors.

CTP partners can work at the local level or at the global level (Figure 5). Local partners provide CTP with local market insights, knowledge, and connections. More importantly, they are the principal channel through which CTP supports green SGBs. By supporting local partners, CTP aims to create sustainable institutions that will continue to catalyze green sectors in their economies beyond the period of World Bank technical assistance and financial support. Global partners help CTP provide the financial and technical resources that will address some critical challenges in a local cleantech ecosystem. These resources are usually channeled through one or more CTP local partners. Through selected knowledge global partners, CTP also aims to enhance its visibility and thought leadership in the global climate innovation space, and continues to increase its convening power.

CTP partnerships are created in the context of CTP's pre-programmed activities, which are a mix of grants, technical as-

**Figure 5: The Role of the Climate Business Innovation Network within CTP**



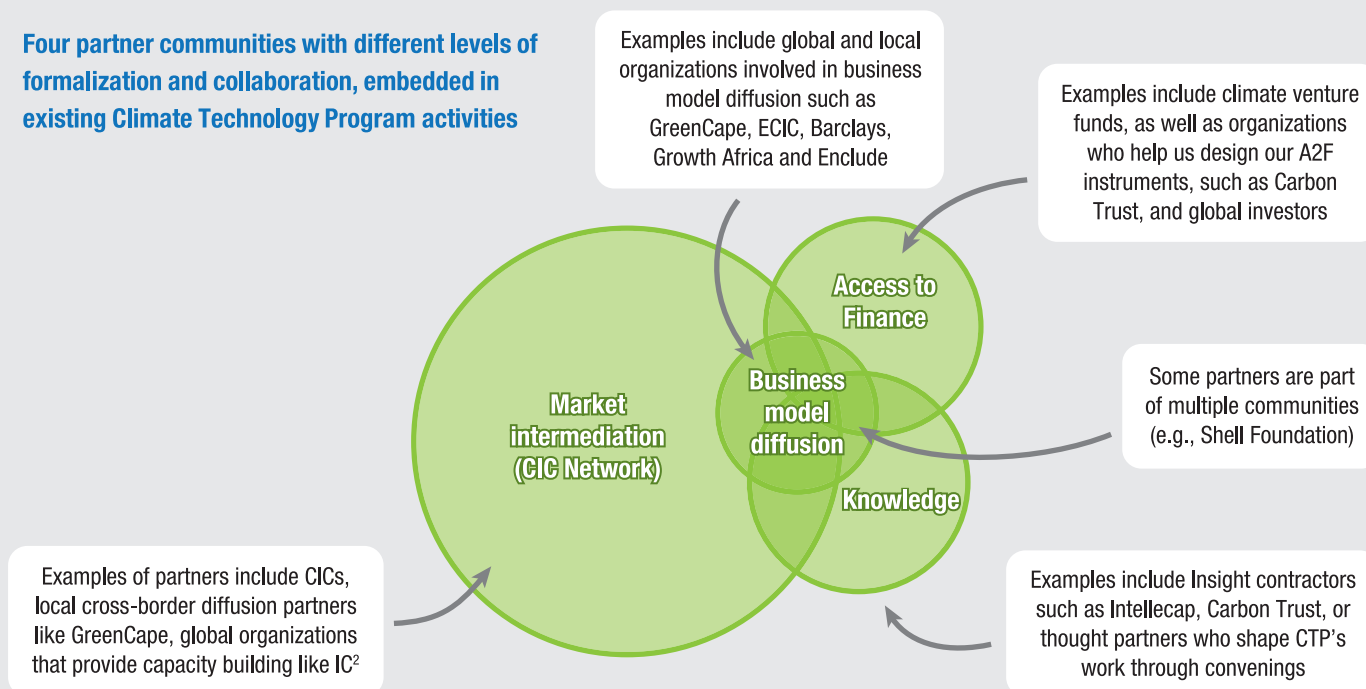
sistance and in the future will also include loans. While some partners receive funding to implement CTP activities, others collaborate through their own means, contribute their resources to CTP activities, or collaborate with other Network partners through CTP activities.

The Network leverages partners to achieve the following:

- **Build local institutions**
  - // Partnerships with local institutions to deliver support to climate tech businesses (e.g., CICs, local Market Connect partners)
  - // Partnerships with global institutions to provide knowledge and resources to local institutions (e.g., IC<sup>2</sup> with the CIC Network, M&E system)
- **Deliver global solutions to local institutions**
  - // Partnerships with local institutions that co-design and co-deliver these global solutions (e.g., local Market Connect partners, CIC network partners)
  - // Partnerships with global institutions that co-design and co-deliver these global solutions (e.g., global Market Connect partner to source business models, Insight partners on the knowledge agenda)
  - // Crowd-in global financing to climate technology startups
    - ▶ Partnerships with local institutions to deliver financing (e.g., CVFs, Market Connect and Finance Lab partners)

**Figure 6: CBIN Structure**

Four partner communities with different levels of formalization and collaboration, embedded in existing Climate Technology Program activities



- Partnerships with global institutions to help local institutions get prepared for and crowd in their financing (e.g., GIIN, Shell Foundation)

CBIN is composed of four partner communities with different levels of formalization and collaboration, embedded in existing Climate Technology Program activities (as shown in Figure 6 on the previous page).

Partners will join the Climate Business Innovation Network because they can benefit from being integrated in CTP activities. Local partners currently span 12 countries. It is anticipated that this number will grow as Launchpad teams develop opera-

**Table 1: Value Proposition of the Climate Business Innovation Network for Partners**

| For global support organizations   | For global frontier investors  | For local intermediaries  | For donors   |
|--|--|---|--|
| <ul style="list-style-type: none"> <li>• Practical lessons on green SGB supporting models in developing countries.</li> <li>• Channels for co-experimentation and research.</li> <li>• World Bank branding and convening power.</li> </ul> | <ul style="list-style-type: none"> <li>• Practical knowledge on innovative instruments for early stage financing in emerging markets.</li> <li>• An array of impact investment opportunities.</li> <li>• Channels to co-test new financing structures and products.</li> </ul> | <ul style="list-style-type: none"> <li>• Global expertise and resources.</li> <li>• Branding and linkages to a global ecosystem.</li> </ul> | <ul style="list-style-type: none"> <li>• Frontier development agenda.</li> <li>• New ideas, support models, and knowledge.</li> <li>• Demonstrated results on the ground.</li> </ul> |

**Table 2: CTP's Existing Local Partners**

| Relationships        | Partners   |
|----------------------|--|
| <b>Collaborators</b> | Morocco CIC, South Africa CIC, Kenya CIC, Embrapa (Brazil), RainFin (South Africa), Jeune Chambre de Commerce (Mauritania), Banque Nationale de Mauritanie (Mauritania), Union Nationale du Patronat Mauritanien (Mauritania), SME Development Institute (Malawi), National Agency for Technology Entrepreneurship and Commercialization Development (Vietnam), Moroccan Agency for Sustainable Energy (Morocco), CARIRI (Trinidad and Tobago), SRC (Jamaica), Egyptian National Cleaner Production Center (Egypt), Cleantech Arabia (Egypt), Nigeria Office of the Vice President (Nigeria) |
| <b>Implementers</b>  | Kenya Climate Ventures, Growth Africa (Kenya), Ghana CIC, Vietnam CIC, Ethiopia CIC, Caribbean CIC, GreenCape (South Africa), Bertha Center for Social Entrepreneurship (South Africa), World Wildlife Fund (South Africa)   |



**Table 3: CTP's Existing Global Partners**

| Relationships        | Partners  |
|----------------------|---|
| <b>Collaborators</b> | 1776, Convergence, Climate KIC, Shell Foundation, Aspen Network of Development Entrepreneurs, Miller Center for Entrepreneurship, Dutch Good Growth Fund, New Energy Nexus, Asian Development Bank, Global Impact Investing Network (GIIN), Barclays, Innovation Norway |
| <b>Implementers</b>  | Carbon Trust, Intellectap, Los Angeles Cleantech Incubator, IC <sup>2</sup> Institute - the University of Texas at Austin, Enclude  |
| <b>Sponsors</b>      | DFID, DANIDA, DFAT Australia, Italian Development Cooperation, Korea Green Growth Institute, Norwegian Ministry of Foreign Affairs, Kingdom of the Netherlands  |

tions in more countries. At the global level, most partners are donors while a small number of technical global partners offer a mix of developed and developing country experience.

## Structural Changes to CTP

Three structural changes were made to CTP to reflect the new strategy:

- 1. The CIC Network was modified to accommodate more members and evolved into CBIN:** The CIC Network was originally established to provide technical assistance and allow the exchange of knowledge between the CICs that had been designed and launched with CTP support. Shifting to a more open model with more members has required some changes in the types of activities that are being hosted by the CIC Network. These changes have involved shifting from a one-on-one support model to a one-on-many support model. For example, the CIC Network has operationalized this through its webinar series and by increasing the frequency of Network meetings.
- 2. Finance Lab will be discontinued:** As discussed previously, in FY17, CTP's

### Box 1. Hand in Hand

A particularly fruitful partnership was developed with the UK-based Shell Foundation in FY17. With them, CTP coordinated efforts to restructure the ECIC and launch a new center in Nigeria. Part of this collaboration included three joint missions to Ethiopia. Similarly, CTP and Shell Foundation are looking for opportunities to co-design and co-fund additional activities in FY18 such as off-grid solar. In Nigeria, promising discussions are already underway around future areas for collaboration. Shell Foundation is also contributing technical inputs to a broader CTP study on clean tech investors.

Another productive partnership forged in FY17 was with Intellectap, based in India. CTP teamed up with Intellectap to introduce a green theme to the Sankalp Africa Summit and used it as a venue for knowledge capture, knowledge dissemination, partnership development, and for the CIC Annual Meeting. Intellectap was also engaged as a contractor to conduct field work on green business models for one of our new Insight publications.

Finally, the European Space Agency and PUM are both examples of pipeline partners. The European Space Agency is currently working to create a team to support CIC beneficiaries who want to develop climate change solutions that utilize earth observation data. PUM, an organization of senior expert volunteers from the Netherlands, has approached CTP in order to provide support to CICs and their beneficiaries. ■

value proposition was solidified along three pillars, namely, building institutions & ecosystems, global market infrastructure and knowledge. Finance Lab was originally envisioned as a business line to design and pilot access to finance experiments that would illuminate the types of financial instruments that are needed and effective. While Finance Lab did contribute to CTP's knowledge pillar, it is foreseen that CTP access to finance activities will have a higher chance of being scaled up and sustainable if they are co-developed and co-funded by partners. As a result, all access to finance activities will be folded under Market Connect.

### 3. **Market Connect was divided into a Business Model Diffusion Facility and an Early Stage Finance Collaborative:**

**Market Connect** is a global, centrally-managed business line that was designed to create bridges between small and growing businesses (SGBs) in developing countries and the global assets that they require to succeed. Market Connect supports local SGBs via local intermediary institutions that are part of CBIN. To allow global and local organizations to interact with Market Connect more systematically and efficiently, it was divided into two themes that are developing their own standardized operational models:

/// **The Business Model Diffusion Facility** aims to help local SGBs access, adapt, and internalize green business models that have been validated in other countries.

/// **The Early-Stage Finance Collaborative** brings together a group of lead funders and early-stage finance organizations to pool resources and know-how to build and scale solutions that unlock risk capital for early-stage high-growth firms. The Early-Stage Finance Collaborative is discussed in the report's Access to Finance section.

## Box 2. Funding Sources

**Host governments** - In certain countries, the host governments of CICs provide funding to ensure the center is properly developed, launched and operated.

**World Bank Group** - The team has tapped the Bank Group's own funding to support several projects. For example, the Launchpad accelerator mobilized 12 teams from across the WBG in FY17 who are developing the next cohort of CICs.

**Other Trust Funds (TFs)** - CTP has secured funding from other World Bank Group trust funds. For example, Morocco CIC receives technical assistance from an IFC trust fund supported by the Italian Ministry for the Environment, Land and Sea.

**Financing for CTP-supported companies** - Businesses supported by the CTP have been able to raise money from various public and private sources. ///

## Leveraging Resources

Since its inception in 2012, CTP has relied on the financial support of development partners to fund significant portions of its operations. Current CTP donors include the governments of the United Kingdom, Denmark, Australia, Norway, and the Netherlands. It is through the sustained contributions of all its donors that CTP is able to continue its work.

Over FY17 the program has been able to augment the contributions from the five major donors with support from a number

of other sources as shown in Box 2 above.

## CTP's Approach to Value for Money in FY17

CTP is a small program relative to the magnitude of investments needed to tackle climate change in developing countries. To maximize its impact, CTP needs to ensure that it brings good value for money spent. Value for money means that it will seek to maximize its impact on poor people's lives and on climate change given the resources CTP has available. In practical terms, value for money means that CTP must strive to design, procure, manage and assess its interventions to maximize impact. CTP strived to increase value for money in five ways in FY17:

- **Design thinking:** At the start of FY17, value for money was already instilled in two CTP business lines, namely Launchpad and Market Connect. Both of these business lines were operating with a design thinking approach wherein teams were provided with guidance and methodologies from design coaches (see Box 3 below). In FY17, the CIC Network was reassessed and redesigned using a design thinking approach.
- **CBIN:** In FY17 CBIN launched with a view of enhancing value for money. CBIN's expectation is that CBIN will create economies of scale and network externalities with local partners. CBIN will also allow CTP to tap into the efforts and resources of global partners to keep its costs low.
- **CIC business model redesigns:** In FY17, value for money was sought by modifying the business model of several CICs in Ethiopia, Vietnam and the Caribbean, with an aim of targeting resources on entrepreneurs with higher growth potential and offering services with greater impact.
- **Cost efficiency:** CTP has been able to reach its planned outputs in the face of a diminished operational budget, caused by exchange rate fluctuations.
- **Measurement and planning:** Finally, in FY17 CTP created and tested a Value for Money measurement and planning framework following DFID's program cycle approach, with five business lines and one CIC team. Synthesized results for three CTP business lines are shown in Table 4.

### Box 3: Key Principles of Design Thinking

- Developing activities that are problem-centric, in order to strengthen the relevance and hence impact of a solution: e.g., not starting with a pre-defined, or quickly defined approach for a Launchpad CIC, but rather spending more time understanding the problem in order to design a relevant activity.
- Developing human-centered and context specific approaches to minimize delivery cost and risk: e.g., co-creating program activities with key local Market Connect delivery partners to ensure maximum buy-in and alignment with institutional and personal motivations.
- Developing alternative approaches to an activity to minimize costs and impact: e.g., developing multiple business models for a Launchpad CIC.
- Validating concepts quickly to reduce implementation risks: e.g., putting unfinalized concepts to the test with SGBs who would benefit from Market Connect or testing a single critical component of the Market Connect approach before piloting the concept. ▀

At the core of CTP's value for money approach is creating safe spaces for failure, so that failures are quickly addressed as part of the learning process.

**Table 4: Synthesized Results of the FY17 Value for Money Measurement Exercise**

| Business Line Stage | Business Lines  |   |   |
|---------------------|---|---|---|
|                     | Market Connect  | CIC Network   | Launchpad   |
| <b>Design</b>       | <ul style="list-style-type: none"> <li>The team assessed actions against credible alternatives through preliminary research and design process, where alternative solutions were 'live-tested' to gain traction, and if they did not, dropped or consolidated to alternate solutions;</li> <li>An explicit and trackable logframe (embedded in the CTP one)</li> <li>Ecosystem outcome, and in particular sustainability of design, was included at the outset as an objective to achieve—this is being achieved through fundraising and ongoing discussions to embed services designed into existing structures</li> </ul> | <ul style="list-style-type: none"> <li>An assessment of existing clean technology and/or entrepreneurship supporting networks around the world was conducted to determine the Network's unique value proposition</li> <li>Consultation with the CICs and new members identified <i>connectivity, knowledge creation and curation, and capacity building</i> as the key service areas of the Network</li> <li>Based on the member feedback, the Network has determined three goals:               <ol style="list-style-type: none"> <li>expanding the network beyond the CICs to increase the quantity and quality of knowledge shared,</li> <li>working toward greater economies of scale, and</li> <li>focusing on meeting true member demand.</li> </ol> </li> <li>Mentorship scoping study was conducted to facilitate the design of a robust mentorship program for entrepreneurs supported by CICs</li> </ul> | <ul style="list-style-type: none"> <li>Launchpad is no longer at the design stage.</li> </ul> |

**Table 4: Synthesized Results of the FY17 Value for Money Measurement Exercise**

(Continued)

| Business Line Stage               | Business Lines  |  |  |
|-----------------------------------|---|--|--|
|                                   | Market Connect  | CIC Network  | Launchpad  |
| <b>Procurement / mobilization</b> | <ul style="list-style-type: none"> <li>Alignment with mission driven organizations, that have 'skin in the game' meant that the costs were shared – contract agreement was explicitly inclusive of an adaptive approach which was used from the outset. An ecosystem mapping exercise prior to bid opening familiarized the team with different ecosystem intermediary organizations</li> <li>Competitive selection (on basis of cost and technical design) was used to further best select partners while also minimizing costs</li> <li>Quarterly workshops and regular coaching ensured team made steady progress</li> </ul> | <ul style="list-style-type: none"> <li>The expanded Climate Business Innovation Network (CBIN) brings on board more than 30 organizations from 12 countries and was launched at COP22.</li> <li>To increase the quantity and quality of knowledge shared, the Network started recruiting and admitting external partners to the network, such as Cleantech Arabia (Egypt), GreenCape (South Africa), and Sangam Ventures (India)</li> <li>To maximize members' opportunities for learning, the Network promotes webinars held by other World Bank units and external organizers</li> <li>For mentorship program pilots, three delivery partners were vetted and detailed prototypes were prepared for testing</li> </ul> | <ul style="list-style-type: none"> <li>Teams are asked to contribute their own resources to Launchpad budgets.</li> <li>Teams are only selected to work in countries where they have existing activities in order to leverage their local knowledge, local relationships and cross-subsidize their travel.</li> <li>Teams are only selected to work in countries where World Bank country management teams are willing to support their activities</li> <li>Teams are driven to perform by the high visibility that is afforded to Launchpad within the World Bank and among their senior management.</li> <li>The Business Plan Stage milestone ensures that only the top 50% of the teams that have demonstrated the most progress are selected.</li> <li>Quarterly workshops and regular coaching ensure that Business Plan Stage teams keep steady progress</li> </ul> |
| <b>Delivery</b>                   | <ul style="list-style-type: none"> <li>Market Connect activities are adaptive and redesigned on a quarterly basis to reflect the team progress, context and needs.</li> <li>Progress was tracked through short reports produced on a quarterly basis that cover learnings, and progress towards achieving outcomes and impact</li> <li>Contract was designed in a gated and milestones based format to closely monitor delivery and progress</li> </ul>   | <ul style="list-style-type: none"> <li>An annual meeting was organized for over 40 participants in February 2017, blending capacity building training, networking, and field visits into a week long agenda.</li> <li>The Network introduced a LinkedIn group in May 2017 to replace the previous C4D platform to provide improved access to external members and facilitate networking and knowledge sharing</li> </ul>   | <ul style="list-style-type: none"> <li>The Launchpad curriculum is adaptive and is redesigned on a quarterly basis to reflect the team progress, context and needs.</li> <li>New specialists are invited to coach teams when needs become apparent (e.g., market creation expertise, access to finance expertise)</li> </ul>   |



**Table 4: Synthesized Results of the FY17 Value for Money Measurement Exercise**

(Continued)

| Business Line Stage                                     | Business Lines   |   |  |
|---|--|---|--|
|   | Market Connect   | CIC Network   | Launchpad  |
| Learning, evolving and adapting (across entire program) | <ul style="list-style-type: none"> <li>Costs were reduced over time, through the gated and adaptive nature of the contract. Cost sharing with partners is now explicit.</li> <li>Prototype activities that failed were analyzed, and these learnings integrated in program design going forward</li> <li>A learning system facilitated by a design professional, has captured learnings both on the content and on process to adapt it over time</li> <li>Lessons learned from CTP's existing activities are shared with teams through showcasing, internal events and blog</li> </ul> | <ul style="list-style-type: none"> <li>Learning from feedback from the members, the Network is moving away from producing manuals and guidelines to producing easily digestible content that is useful to a larger audience.</li> <li>A Knowledge Needs Survey was conducted to verify the learning needs of CIC staff members</li> </ul> | <ul style="list-style-type: none"> <li>Knowledge is exchanged across teams at workshops, through an intranet document sharing and through internal blogs</li> <li>Business Plan stage budgets were reduced from US\$220,000 to US\$170,000</li> <li>Cohort 1 Business Plans capture the team's journey and lessons</li> <li>Country clean tech ecosystem snapshots are created from</li> <li>A learning system captures the performance of the support services delivered to Launchpad teams in order to make adjustments in the program</li> <li>Lessons learned from CTP's existing activities are shared with teams through showcasing and case studies</li> <li>Launchpad teams pitch their ideas on a quarterly basis and receive feedback from Launchpad management, other teams and external specialists</li> <li>Launchpad coaches help teams use methodologies to identify and validate their hypotheses during the CIC design process, and iterate where needed</li> <li>Launchpad teams consider multiple options and pivot multiple times in their problem solving and design process</li> </ul> |

## Challenges Faced in FY17

In FY17 CTP addressed several challenges that affected its implementation timeline and its potential impact:

- **Delays:**

- // The Ghana Climate Venture Facility (GCVF), an early stage investment facility planned for Ghana, faced delays, necessitating moving the launch of the facility into FY18. Due to capacity limitations at Ashesi University which hosts the GCIC, a new implementing partner, Investisseurs et Partenaires (I&P), was competitively selected and will establish and co-fund the GCVF.
- // Staff turnover in the Morocco, Caribbean, South Africa and Ghana CICs led to periods of adjustments and in some cases limited activity. While the Caribbean, South Africa and Ghana CICs now have stabilized their management teams, the Morocco CIC team is still in a transition period.

- **Impact:**

- // In Ethiopia and the Caribbean, it was found that many of the types of clients of the CIC might struggle to demonstrate a transformative impact. It was also unclear whether the CIC business models were able to cater to transformative businesses. As a result, the business models of both CICs were modified in FY17.
- // CICs and the CTP program as a whole are still working on their long term sustainability. Both are investments in soft infrastructure for the global climate innovation ecosystem and their returns on investment require many years of activity.

## CTP Priorities for FY18

As the program reaches steady state in FY18, the team's focus will be on continuously improving value for money and on implementing recommendations from the mid-term review. These steps will continue to build on the foundation that was laid in FY17 with CTP's new business model.

In terms of programming, all of the CICs will have had multiple cohorts of entrepreneurs by the end of FY18 and the CVFs will have made several investments. FY18 will also see the launch of two new CICs from Launchpad. The network of CICs will grow as it continues to broaden its membership to organizations beyond the CICs that were designed with CTP's support. Market Connect will broaden its business model diffusion and access to finance network activities to more countries. CTP will also benefit from the support of more global partners contributing to its activities. And finally, FY18 will be a year in which knowledge plays a more important role, through the tracking of firm and CIC performance as well as through the dissemination of lessons learned.

## Continuous Enhancement of Value for Money

**FY18 will prioritize increasing value for money.** A unified approach will be used to continuously enhance value for money across CTP. Value for money will be increased in activities at every stage of the program cycle:

- ***Design stage: The design thinking methodology applied by Launchpad and Market Connect will be rolled out to any new CTP design activity.*** For each new activity, this will require collecting more evidence, developing a testable theory of change with a validation plan, and prototyping with users before piloting.

- *Procurement/mobilization stage:* Delivery partners who receive funding will continue to be selected using competitive selection principles, but **provisions will be modified across activities to ensure that partner incentives are added to selection principles**, as was the case for Market Connect. Moreover stage gate principles will be added, so that the progression of a partnership will be determined by reaching a set milestone, as was done internally with Launchpad. **Even when they do not receive any funding from the program, the performance of local and global partners will be tested through a stage gate approach.** In some cases, short, low-cost pilot runs will be undertaken in parallel with multiple delivery partners to evaluate their performance, before scaling a pilot.
- *Delivery stage:* The program's monitoring and performance diagnostics function will be enhanced for the CICs and CVFs that are being launched and delivered by the World Bank. The "minimum viable product" approach will be deployed across more CTP activities, following a test run with the CBIN Network. In order to achieve network effects and economies of scale, **CTP will increase the number of active CBIN members.** More CBIN members will translate into more opportunities for partnerships and knowledge exchange among members, and will particularly attract members who contribute expertise, investments, business models and other resources to CBIN. CTP will also seek to improve the quality of CBIN members and of their portfolio of companies. **Finally, CTP will seek out new sources of international funding to ensure a return on the investments of its global market infrastructure and will support CIC testing of sustainable business models.**
- *Closure stage:* **CTP activities for which the additional impact does not justify the costs will be discontinued in FY18**, following the precedent with Finance Lab. CTP will measure the value added of its activities through the active participation of partners and through feedback from partners. Activities that cannot demonstrate sufficient traction will be modified or discontinued.
- *Learning, evolving and adapting:* Learning will become more central to each CTP activity. Climate technology entrepreneurial ecosystem diagnostics will be launched for more CTP countries and themes to **deepen the evidence base for the program's design and role in climate change and poverty reduction**, as well as, to ensure the fit of existing activities impact on poverty and resilience. CTP activities showing limited value will be re-assessed and restructured, following the example of the Ethiopia CIC. **There will be an increase in the generation and diffusion of knowledge** so that CBIN members and the broader global climate technology innovation community can benefit. Lessons learned, including negative lessons, will be generated and disseminated.

## Addressing Recommendations from the Mid-Term Review

The mid-term review, conducted in FY17, covered CTP's implementation up to Q4 FY16. It focused on understanding and assessing activities conducted from CTP **project inception to June 2016**. As a result, the majority of documentation reviewed fell within this time period and the primary focus of the interviews was on activities conducted in June 2016 and earlier.

Given that 2016 was considered a turnaround year for the program, and as CTP continued to make progress against 2017 work plan targets throughout the course of this review, and evaluators were provided additional documentation. The context of this ongoing evolution was considered in development of findings and recommendations. Table 5 on the next page provides a summary of the recommendations from the draft mid-term review and steps taken to address them in FY17, as well as steps that will be taken in FY18.

**Table 5: Recommendations from the mid-term review, actions taken to address them in FY17 and actions to be taken in FY18**

| Strategy   |   |  |
|--|---|--|
| 1. Increasing the quality, sustainability, and efficiency of program components  |   |  |
| <p><b>Recommendation:</b> Focus on quality, sustainability, and efficiency as CTP 1.0 comes to a close and in preparation for CTP 2.0. This should include activities to articulate prioritized targets in the results framework, emphasize the assessment of and action on the quality of development outcomes, support the improvement of the quality of the entrepreneur pipeline, and test additional financial models for CICs.</p> | <p><b>FY17 Actions:</b></p> <ul style="list-style-type: none"> <li>Methodologies for achieving and measuring value for money were deployed across several CTP business lines, including Launchpad, Market Connect the CIC Network and the ECIC.</li> <li>CBIN was launched to achieve efficiency through more impactful and broader partnerships.</li> </ul>  | <p><b>FY18 Actions:</b></p> <ul style="list-style-type: none"> <li>Deploy a unified approach to improve and measure value for money across all CTP components.</li> <li>Support CIC capacity to manage selection of and relationships with entrepreneurs.</li> <li>Revise the results framework.</li> <li>Support current and future CIC capacity to test ways to improve their financial sustainability.</li> </ul> |
| 2. Enhancing precision of the Theory of Change (ToC)   |   |  |
| <p><b>Recommendation:</b> Update the CTP ToC to become more precise and reflective of current global climate targets and Sustainable Development Goals.</p>  | <p><b>FY17 Actions:</b></p> <ul style="list-style-type: none"> <li>Initiate the development of a theory of change.</li> </ul>   | <p><b>FY18 Actions:</b></p> <ul style="list-style-type: none"> <li>Develop a theory of change.</li> </ul>  |
| 3. Amplifying connections to the World Bank and IFC's principal activities in designing or modifying program components  |   |  |
| <p><b>Recommendation:</b> Enhance linkages with the World Bank Group's Climate Change Group and Energy and Extractives Global Practice, as well as design bridge products that link CTP results to IFC products.</p>   | <p><b>FY17 Actions:</b></p> <ul style="list-style-type: none"> <li>All Launchpad teams continued to involve members from multiple World Bank Group Global Practices and the IFC in order to maximize connections to other WBG activities.</li> <li>Designed collaborative approach around ECIC with the IFC and Energy and Extractives Global Practice in Ethiopia.</li> <li>Launched two CIC development activities in Morocco and Egypt in collaboration with IFC.</li> <li>Collaborated with World Bank's Climate Change Group on the design of new CICs through Launchpad and in global events (COP22 and Innovate4Climate).</li> </ul> | <p><b>FY18 Actions:</b></p> <ul style="list-style-type: none"> <li>Continue technical and implementation collaboration with related WBG entities.</li> </ul>   |

**Table 5: Recommendations from the mid-term review, actions taken to address them in FY17 and actions to be taken in FY18** *(Continued)*

| Strategy  |   |   |
|---|---|---|
| 4. Increasing the relevance of CTP 2.0 in the context of the Paris Agreement and the WBG 2016-2020 Climate Change Action Plan   |   |   |
| <p><b>Recommendation:</b> Expand on-the-ground programming beyond capital cities (as appropriate) and consider establishing a partnership to launch a global acceleration program to help 'graduate' promising CTP-supported entrepreneurs.</p>   | <p><b>FY17 Actions:</b></p> <ul style="list-style-type: none"> <li>• Prioritized ECIC and CCIC support to growth-oriented entrepreneurs within their portfolios.</li> <li>• Conducted ECIC impact research.</li> </ul>  | <p><b>FY18 Actions:</b></p> <ul style="list-style-type: none"> <li>• Collect quantitative and qualitative data on CIC impact.</li> <li>• Continue supporting CIC capacity to select growth-oriented enterprises.</li> <li>• Examine the need for and competitive advantage of CTP to offer programming beyond capital cities in select CTP countries.</li> <li>• Examine the need of and competitive advantage for CTP to launching a global acceleration program.</li> </ul>   |
| Operations  |   |   |
| 5. Building stronger inter- and intra-program as well as ecosystem connections  |   |   |
| <p><b>Recommendation:</b> CTP should enhance the clarity of its vision by (internally and externally) communicating a cohesive story of how the various components (e.g. Launchpad, Network, Market Connect, etc.) fit together to achieve the ToC, how the CTP aligns with infoDev's broader purpose (including its interactions / synergies with other trust funded programs and with priority cross-cutting themes), as well as how it fits into the global clean technology sector ecosystem efforts. For example, additional resources should be sought and invested to significantly advance the women's entrepreneurship and gender equality agenda.</p> | <p><b>FY17 Actions:</b></p> <ul style="list-style-type: none"> <li>• Conducted a market positioning analysis of CTP.</li> <li>• Redefined CTP's business model.</li> <li>• Made structural adjustments to reflect CTP's new business model.</li> <li>• Redesigned CTP's communication material.</li> <li>• Engaged CBIN partners to market test CTP.</li> <li>• The infoDev agribusiness team was embedded in one Launchpad team and provide technical support to others.</li> <li>• Submitted proposals for joint activities with other infoDev programs.</li> <li>• Initiated new plans and partnerships on women's entrepreneurship with the VCIC, CCIC and GCIC.</li> </ul> | <p><b>FY18 Actions:</b></p> <ul style="list-style-type: none"> <li>• Continue engaging CBIN partners to further leverage CTP resources and market test CTP.</li> <li>• Develop a theory of change.</li> <li>• Increase sharing opportunities for CICs through the Network.</li> <li>• Increase women entrepreneurship agenda through the Network and CIC project supervision.</li> <li>• Submit proposals for joint activities with other infoDev programs.</li> <li>• Assess CCIC accelerator firms for access to finance support under infoDev's EPIC program.</li> </ul> |



**Table 5: Recommendations from the mid-term review, actions taken to address them in FY17 and actions to be taken in FY18** *(Continued)*

| 6. Enhancing focus on evidence-informed ecosystem level intended results and ultimate outcomes   |   |   |
|--|---|---|
| <p><b>Recommendation:</b> Conduct and update an ecosystem diagnostic in countries with active CTP programming.</p>   | <p><b>FY17 Actions:</b></p> <ul style="list-style-type: none"> <li>Country ecosystem diagnostics were conducted for all Launchpad countries.</li> <li>Country ecosystems diagnostics were conducted in Morocco and Ethiopia, and as a continuation of ongoing programming efforts in South Africa. Diagnostics were also initiated in Vietnam.</li> </ul> | <p><b>FY18 Actions:</b></p> <ul style="list-style-type: none"> <li>Conduct ecosystem diagnostics in Vietnam and the Caribbean.</li> <li>Develop CTP country ecosystem snapshots.</li> </ul>   |
| Knowledge Products   |   |   |
| 7. Including an action-learning approach to enhance CTP responsiveness to ecosystem changes  |   |   |
| <p><b>Recommendation:</b> Enhance collection and responsiveness to entrepreneur satisfaction data by conducting fast-cycle, qualitative studies of client experiences, perceptions and attitudes. Additionally, integrate entrepreneur satisfaction rates as an indicator in the results framework. Finally, enhance investment in the creation and dissemination of knowledge products for the development community.</p> | <p><b>FY17 Actions:</b></p> <ul style="list-style-type: none"> <li>Increased investment in knowledge generation and dissemination.</li> </ul>   | <p><b>FY18 Actions:</b></p> <ul style="list-style-type: none"> <li>Conduct fast cycle studies of client experiences, perceptions and attitudes.</li> <li>Include entrepreneur feedback in results framework.</li> <li>Increase number of Insight knowledge products and dissemination.</li> </ul> |



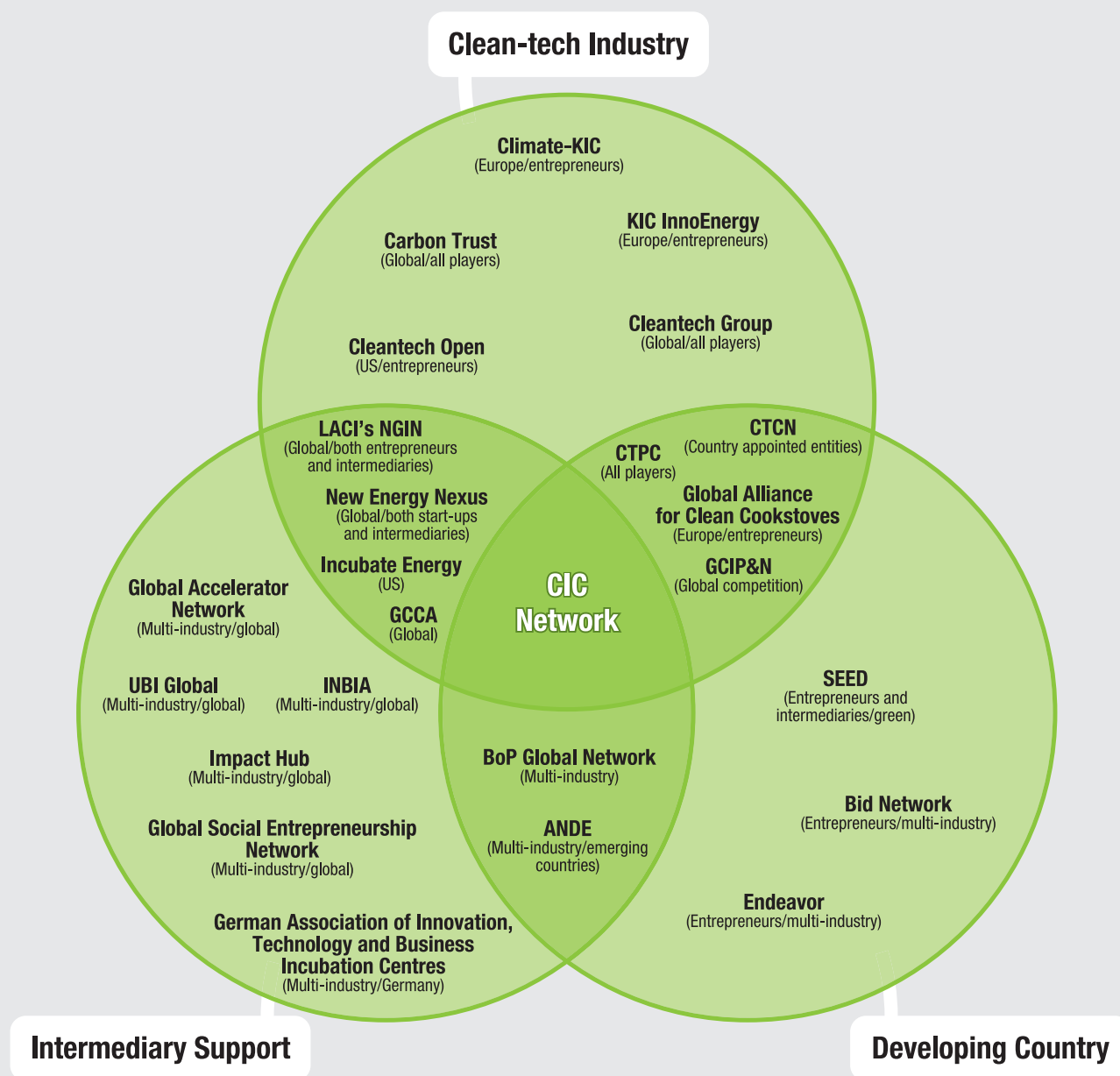
# Market Intermediaries

The chapters in this section cover the progress made in two of CTP's core work areas—**developing the global market infrastructure for climate technology and institution/ecosystem building**. Open to a broader set of institutions, the CIC Network is dedicated to developing the global market infrastructure and strengthening the capacity of the climate innovation centers. Launchpad and global Climate Innovation Centers are central to CTP's institution and ecosystem building efforts.

## CIC Network

Launched fully in FY16, the Climate Innovation Center Network forms a core part of the Climate Business Innovation Network (CBIN). The Network supports intermediaries backing green startups and growing businesses in developing countries. It is focused on improving the operational effectiveness of its members by enabling connectivity and knowledge sharing between members, creating and curating knowledge products, and building member capacity. **The CIC Network is currently the only network exclusively serving clean technology business supporting intermediaries in developing countries** (see Figure 7 below).

**Figure 7: Mapping of Start-Up Support Networks Across the Clean Technology Industry, Intermediaries, and Developing Countries**



CTP realized that many **CICs face common operational challenges, but lack local role models to learn from**. CTP also realized that **there are market intermediaries that support climate technology innovation beyond the CICs that can benefit from the Network**. These were key drivers behind the expansion of the Network in February 2017 to include additional intermediaries, including those that are more mature and have solved common operational issues facing CICs.

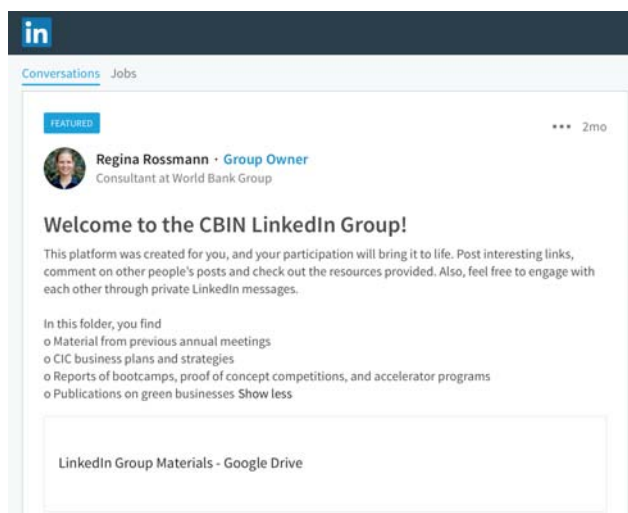
The outcome of this expansion is a greater value for money, realized by using fewer resources on highly-tailored one-on-one engagements and dedicating more resources towards connecting the CICs to scalable and replicable solutions.

## **The CIC Network's Infrastructure**

In FY17, the Network developed and launched an updated strategy focused on expanding its reach and improving its service offering. An extensive strategic review was conducted in consultation with the CICs and included an assessment of existing clean technology and/or entrepreneurship supporting networks around the world. The updated strategy aims to improve the members' operational effectiveness and collectively achieve the shared mission to support the growth of clean technology businesses in developing countries.

In February 2017 during the Annual Meeting in Nairobi, Kenya, the Network presented its new strategy and potential service offerings. Members endorsed the new strategy and requested the Network to support them through activities grouped around **connectivity, knowledge creation and curation, and capacity building**. Based on member feedback, the Network isolated three key goals: 1) *expanding the network beyond the CICs to increase the quantity and quality of knowledge shared*, 2) *working toward greater economies of scale*, and 3) *focusing on meeting true member demand*. Since then, the Network has made progress toward building out service offerings that meet member demand and are scalable in the future:

7. **Connectivity:** The network introduced a LinkedIn group in May 2017 to replace the previous C4D platform, which was not frequently used. The new platform was selected as members already frequent the site and it provides improved user and platform management experience. Additionally, the Network developed a community management plan and dedicated staff time toward fostering active discussion among network members and curating relevant content.
8. **Knowledge creation and curation:** As a result of feedback from our members, the Network is moving away from producing lengthy manuals and procedural guidelines. Rather, the focus will be on producing and curating publicly available content that is easily digestible and useful to a larger audience.
9. **Capacity building:** The Network provided individually tailored and in-person capacity building to date. To deliver training to a greater number of members more cost-effectively, the Network initiated an engagement-based learning approach utilizing webinar series combined with light-touch facilitation. In response to members' request for support in designing and implementing robust mentorship programs for their entrepreneurs, the Network conducted a scoping study and designed several prototypes to be tested in close collaboration with the members in FY18.





## Key Accomplishments

The Network delivered all activities planned for FY17, with the exception of organizing a competition at COP22. Other organizations were already planning to implement competitions at COP22 and the team decided to avoid redundancy and deploy the resources elsewhere.

### Connectivity

- The team organized a six-day Annual Meeting in February 2017 in Nairobi, Kenya, in collaboration with Intellectcap/Sankalp. In attendance were 28 CIC staff and 15 representatives of new members and partners. The Network gathered feedback on new strategy and received strong endorsement by CIC staff and potential new members.
- In May 2017 the Network launched a LinkedIn Group site. Currently it has 56 members and generated over 30 conversations in the first two months.
- Many new green business supporting intermediaries were welcomed to the Network including: Sangam Ventures in India, Centre de Technologie et d'innovation pour le Développement in Djibouti, Lab+1 in Peru, and Energy and Climate Change Center (E3C) in Senegal.

### Knowledge creation and curation

- Prepared a curriculum overview of cleantech incubation based on other programs. Based on this, Ghana CIC has now developed their own curriculum plan.
- Produced knowledge guidelines and operational good practices: (1) mainstreaming gender in clean technology business incubation program, (2) incubator space design, (3) guidelines on how to start a climate business incubation program, (4) review of climate business accelerator programs, (5) overview of CIC business models and lessons learned, and (6) fundraising and income generation strategies for clean technology business incubators.
- Shared knowledge products via LinkedIn Group: internally produced guidelines and good practices; reports and best practices from CICs; foundational reading on how to support climate technology businesses in developing countries;<sup>3</sup> and latest news and blog articles on climate business innovation

### Capacity building

- Provided in-person and individually-tailored capacity building support to Ghana, Kenya, South Africa, and Vietnam CICs in partnership with IC<sup>2</sup> Institute. IC<sup>2</sup> provided strategic and on-demand advice around incubation management, guiding the CICs through the launch of proof-of-concept competition and acceleration cohorts, development of training programs, and establishing exit and graduation strategies.
- Inaugurated a webinar series to stimulate and moderate discussions through the LinkedIn platform and develop a 'curriculum' of webinars and e-courses based on needs and interest expressed by the members.
- Completed a scoping study for mentoring programs and designed prototypes for three CICs partnering with Micro-Mentor, Mowgli Mentoring, and MIT Venture Mentoring Services.

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<sup>3</sup> These include reports and blogs on challenges for firms in frontier and based on pyramid markets, why clean technology businesses are different, business incubation and acceleration in developing countries, clean technology market opportunity in developing countries, and early stage investing in frontier markets.

Held in Nairobi, Kenya on February 20-25, 2017, the CIC Network Annual Meeting brought together 28 staff from seven CICs, 15 representatives of eight existing and new partners, six World Bank staff and two trainers from the IC<sup>2</sup> Institute. The meeting provided business incubation management training to the CICs, and facilitated opportunities for shared learning and collaboration across CICs and external partners.

Members participated in training sessions on financial sustainability, ecosystem development, global business model diffusion, and pitching to investors, delivered by IC<sup>2</sup>, Sankalp, and World Bank staff. Members eagerly shared the challenges and solutions they developed in a number of areas, including pipeline development for incubation development, mentoring, partnerships, market intelligence, and investment readiness.

The Network members attended the Sankalp Africa Summit 2017 along with 900+ attendees. With 40 sessions and workshops featuring 60 speakers, the Network members learned and networked with investors, entrepreneurs, other incubation and accelerator programs, and development practitioners, discussing how sustainable entrepreneurship can catalyze inclusive development.

KCIC welcomed the visiting members of the Network and shared its experience to date on its launch, service offerings, establishing itself as an independent legal entity, and fundraising, etc. KCIC also organized field visits for the members to meet and learn about hydroponics, biomass briquettes, and agri-processing companies (Global Supply Solutions Limited, Mineral and Allied, Kings Biofuel Ltd., and Azuri Ltd.).



*CIC Network members take part in the Sankalp Africa Summit 2017. © Jin Lee/World Bank.*

## Key Lessons Learned

- CICs face common operational challenges, but lack models to learn from. This was a major impetus in the decision to expand the Network to additional intermediaries, including organizations that are more mature and have solved key operational issues CICs face. This will allow the CICs to learn from the success of one another alongside external intermediaries going forward.
- Serving a greater number of members necessitates a re-orientation of the Network's services toward scale. Providing high-quality support to more members translates into fewer resources spent on highly-tailored, 1:1 engagement and more resources deployed towards connecting the CICs to scalable and replicable solutions.
- In the past, the Network provided customized training to CICs through third party trainers (IC<sup>2</sup>, LACI) or internal resources. Such customized training has been quite useful for the early stage CICs (currently, Vietnam and Ghana are benefiting). However, it is not feasible extend this offering to a larger membership base. Going forward, engagement-based and peer-to-peer-driven learning will be more cost effective. Inviting more mature intermediaries to the Network will be essential to the success of this approach.
- CICs and Network members gain much from and have expressed desire for more in-person gatherings. In order to make this feasible, the team is working with partner organizations that would contribute expertise and financial support.



- In order to attract additional members to the Network, it must provide true value add and adopt a demand-driven approach in determining its services. Intensifying the dialogue with its members has allowed the Network to vastly improve the quality of its offerings and generate greater excitement and momentum among the participants (for examples, see Table 6 below).

**Table 6: The CIC Network's Hypothesis Testing Approach to Program Design**

|      | Hypotheses  | How we tested it   | Observed Outcome   | How we improved   |
|------|---|--|--|---|
| FY17 | CICs need detailed written guidelines on how to run incubators.   | Produced several detailed documents and shared them with CICs.   | Little uptake as CIC staff are too busy in the day-to-day of running their centers.                                | Pivoted toward delivery and curation of pithy online content.   |
|      | CICs need customized 1:1 coaching by incubation experts.  | Provided CICs with coaching through IC <sup>2</sup> .  | Early stage CICs did benefit, but the benefit, and value for money, for more developed CICs was not as pronounced. | Adapted capacity building approach toward engagement-based, peer-to-peer-driven learning.   |
|      | Build an online community and CICs will organically begin to share knowledge and engage in discussion.  | Built a platform on C4D.   | Little to no activity on the platform.   | Realizing that a platform has to a) be user friendly and attractive and b) actively managed, the Network shifted to a LinkedIn Group and has dedicated staff time to curating content and facilitating discussions. |
|      |   |  |  |   |
|      | Hypotheses  | How we will test it  |  | How we will improve   |
| FY18 | Even though CICs have indicated an interest in e-courses, they have not chosen to enroll in those already freely available. The hypothesis is that we need to bring them to their attention, engage them beyond the training, and build a more accessible “peer to peer” learning approach. | Offer access to e-courses by sharing a curated list of relevant programs and monitoring uptake and effectiveness.<br><br>Observe engagement, including participation in online courses and discussion in LinkedIn group.<br><br>Engage individual members and evaluate e-course experience.                  |  | After a period of 2 months testing, the team will survey experiences of both e-courses and webinar approaches and make adjustments to model.  |
|      | Webinars combined with expert office hours are a cost-effective method of exposing CICs to content and delivering insights.   | Offer monthly webinars of topics that have been requested by CICs at annual meeting, using topic experts and network members. Structure and incentivize interactions through LinkedIn to discuss topics, ask questions, and have time for follow-up Q and A with speakers and network members after webinar. |  |   |
|      |   | (1) CIC entrepreneurs will benefit from structured access to mentors.<br><br>(2) CIC will retain the know-how if the CIC staff are integrated in the design and execution of mentoring program.  | Testing four prototypes based on different approaches to designing and delivering mentoring program.               |   |

## FY18 Work Plan

In FY18 the CIC Network will focus on expanding its membership while continually improving and scaling its service offering delivery cost effectively. This will entail several parallel activities, including delivering proven formats as well as testing new formats through prototypes and pilots in the service of making the Network valuable and attractive to current and future members.

Given the success of the annual in-person meetings in the past, the Network will enable its members to participate in two semi-annual events. In order to do so economically and to provide the greatest value to participants, the team will work with partner organizations to co-organize and finance the events. The first could occur in Asia in early Q2 where the Network is in advanced discussions with several partners, including MFIs, NGOs, and US-based incubator networks. These events not only represent great value to the CICs and Network members, but they are also opportunities to identify new potential members.

The Network is going to continue to improve its service offering and delivery through rapid prototyping and responding to Network member demand. In FY18 this effort will focus on the capacity building aspect of the Network with the development of a robust mentorship program and an engagement-based online learning series. In Q1 and Q2, the Network will launch up to three mentorship pilots co-created with three CICs to learn about the most replicable and scalable ways of enabling Network members to run strong mentorship programs. This will involve working with several partners with strong track records, but different approaches to mentorship and carefully documenting the lessons learned.

The team will build on the experiences with engagement-based online learning collected to provide CICs and Network members a monthly opportunity of learning from and interacting with experts through webinars and virtual office hours. During this time the Network will test different delivery methods and establish the CICs' and Network members' demand for a variety of content. This approach will easily scale to include additional new members who will be able to access previous sessions via recordings.

The Network will also continue to build the online community. By seeding discussions, producing and curating relevant content, and fostering a culture of open exchange of ideas, the team will help Network members learn from each other and facilitate the creation of a community knowledge base.

The team will employ a three-pronged approach to expanding the Network membership. The first is close collaboration with the Launchpad teams. The Network will advise them on best practices and available resources throughout their design and set-up phase and onboard any newly created CICs. The second is inbound and based on creating a high quality service offering and then relying on word of mouth, media exposure, and events to create strong interest in the Network. Interested intermediaries will contact the Network secretariat, as they have in the past, and the team will make a determination on whether they will be value-added members or not based on sector focus, geography, commitment, and maturity. The third is outbound and involves the Network actively researching and reaching out to high-quality intermediaries that have deep experience and knowledge. The team will pitch the Network to these organizations, while highlighting its expectations regarding knowledge sharing and active participation. Through these three approaches the Network will attract between five and ten new active members who will participate in the community and events as well as the capacity building activities.

## Key Milestones FY18

| Milestones   | Expected FY18 timeline         |
|--|--------------------------------|
| <b>Connectivity</b><br>Organize two meetings (semi-annual)<br>Facilitate active online community   | Q2-Q4<br>Continuous            |
| <b>Knowledge</b><br>Deliver original content produced in FY17 through webinars and community engagement<br>Curate additional external content for the Network  | Continuous<br>Continuous       |
| <b>Capacity Building</b><br>Finalize design and launch mentorship pilots. Take lessons learned and potentially roll out to additional members.<br>Develop and curate webinars, seeking inputs for topics and source experts, presenters.<br>Internal report on pilot and training approach | Continuous<br>Continuous<br>Q3 |
| <b>Membership expansion</b><br>Vet inbound requests, conduct targeted outreach and onboard new members including Launchpad CICs  | Continuous                     |

Modeled as a corporate accelerator, the chief aim of Launchpad is to develop the next generation of CICs. Launchpad achieves this by crowd sourcing ideas on climate technology innovation from across the World Bank Group and then providing the material and non-monetary support to teams with strong ideas that are poised to make an impact in developing countries. Top teams participate in the Launchpad program for two years where they test ideas that can be scaled up and seed future CICs. The outcome of Launchpad is the design, funding and launch of CICs in an additional 7 countries.

Launchpad's value proposition for public and private sector actors who want to build local sustainable institutions that catalyze climate technology markets, is to assemble dedicated World Bank Group teams to help them design, create buy-in, fund and implement CICs. Launchpad teams bring lessons learned from other CICs, leverage the breadth of the World Bank Group's knowledge, and are subject to internal performance management systems.

Launchpad's vision is a global network of sustainable climate innovation centers that cultivate thriving ecosystems of green technology sectors.

### Overview of Progress

FY17 saw twelve Launchpad teams mobilized from across the World Bank Group to expand the network of climate innovation centers to various new countries. All four teams from the first cohort presented CIC business plans and advanced to the CIC Pre-Launch Stage, and four out of eight teams from the second cohort advanced to the Business Plan Stage. Teams were selected on the basis of stakeholder buy-in, demonstration of market demand, and potential impact of their CICs.

Launchpad's second cohort diversified Launchpad portfolio of CICs under preparation. It gave CTP much more of an inroad into climate change adaptation, with CIC focus sectors in agribusiness, agriculture and fishing. It also introduced more geographical diversity, and while half of Launchpad countries are still in Sub-Saharan Africa, there are now inroads into South Asia and Latin America. With cohort 2 countries, there are now three countries with significant populations: Nigeria, Bangladesh and Brazil where CICs might focus on a specific region within those nations.

In FY17, Launchpad leveraged several lessons from CTP's existing network of CICs.

1. A clear lesson highlighted from the Ethiopia CIC restructuring process is the need to work with a limited number of sectors or even product markets in countries where vertical interventions are required to address market gaps. For example, Egypt, Nigeria, and Malawi will tackle market creation challenges at the product markets level. None of them intend to limit themselves to single product markets but all will take a sequential approach to deploying additional product markets in the CICs, once initial product market strategies have been tested and validated. Concretely, this means that these CICs, instead of working across businesses that are working in parallel in different sectors, may work with businesses that are working in similar value chains in a collaborative way (see Box 4 on Egypt on the next page).
2. A second lesson from the first generation of CICs that will be reflected in Launchpad CICs is to achieve more of a balance between efforts to scale up existing businesses and efforts to start up new businesses. The first generation of CICs launched their operations with a focus on pre-commercial startups. They have been moving steadily towards helping businesses scale up. This means the portfolio of the CICs may become smaller, but more focused on businesses that are closer to reaching viability which can lead to an accelerated impact. A

## Box 4: Growing Egypt's Emerging Climate Tech Sector

Climate technology presents a significant market opportunity in Egypt. Diesel-powered pumps across the country consume an estimated 3.9 million tons of the fossil fuel each year, releasing over 10 million tons of carbon dioxide. Replacing diesel-powered systems installed in just the coastal off-grid hotels and resorts along the Red Sea and Mediterranean would require 2,097MW. This is a significant opportunity for solar displacement. However, large scale solar has not yet taken off in Egypt. Similarly, Egypt generates around 21 million tons of municipal solid waste and 23 million tons of agricultural waste annually, yet the waste recycling and management market in Egypt remains untapped.

**Why hasn't climate tech scaled in Egypt?** was team Egypt's big question. The team, including Farid Tadros, Amy Abdel-Razek, and Dalya Ashour (and formerly Hazem El Wassimy) were determined to find an answer and craft a solution with their Launchpad project.

In Egypt, there is already a steady pipeline of support to startups across sectors. Existing players, such as the American University of Cairo's Venture Lab target the ideation stage, while Injaz focuses on incubation and acceleration, and Endeavor Egypt is centered on growth and scale. But of the multiple players at each stage, there are few that focus on the climate tech market.

The team's strategy for exploration was to learn from entrepreneurs and ecosystem players. Together with design coach Mira Azarm, the team set up to learn from workshops to gain feedback and develop a solution. With this high emphasis on dialogue and feedback, entrepreneurs and stakeholders grew more inspired. They realized that they too can shape the outcomes of this initiative.

The workshops marked the beginning of a collaboration amongst ecosystem players. The Launchpad team attended incubator events and sessions to observe and learn about issues entrepreneurs were having. They also facilitated business model coaching for entrepreneurs, and visited labs and startups.

What they found was a mix of issues. First, the existing cleantech support pipeline was focused on output and had a target that was too broad. Programs gave entrepreneurs shallow support, such as a few training sessions, and then they exited. Another issue was that many of the programs focused on clean technologies were too broad in scope. For example, recycling requires different expertise and support than solar pumps. The Launchpad team determined that to be successful the program would need to be focused on desired outcomes and on a limited number of sectors to provide targeted mentors and services. Based on local feedback, a four month program with a certificate at the end would be insufficient. Entrepreneurs need more tailored and sustained mentoring services. The team also found that climate tech entrepreneurs largely operated in silos due to a nascent market.

To bridge the service gaps identified in existing programs break down silos and build the local climate tech ecosystem; team Egypt's solution is a platform that brings entrepreneurs and multi-disciplinary partners together under a small umbrella of sectors with big opportunities. To that end, the initial focus will likely center around solar pumps and agricultural waste energy.

Among others, the team has identified Cleantech Arabia, American University in Cairo, and A2K4D as potential partners. ■

number of the CICs, including Bangladesh (see Box 5 on next page) and Brazil, are exploring scale ups, notably in agribusiness where the time to market is much longer than in other climate technology sectors.

3. A third lesson from the CICs is the importance of placing emphasis on multi-stakeholder ownership of the CIC and alignment of all the stakeholders around a common vision. A few CICs initially revealed themselves to be disconnected from some of the major local entrepreneurship organizations who might have been able to collaborate with them. Others found that their consortia did not share a vision for the CIC that would enable them to synchronize their efforts around a common vision. As a result, Launchpad teams are spending more time on achieving multi-stakeholder buy-in. This is a long process because stakeholder relationships and strategies consolidate over time.
4. A fourth lesson from existing CICs and from other CBIN members is that in cases where commercial revenues are part of the financial sustainability strategy they need to be integrated at the core of the CIC's business model. In other words, commercial revenue needs to be in the DNA of the institution from its very launch. This is the approach being adopted by the Bangladesh team (see Box 5 on Bangladesh on the next page).



## Box 5: Focusing on Commercial Viability with Launchpad Bangladesh

In April 2016, a joint World Bank and IFC team comprised of staff from agribusiness, venture capital, along with innovation and entrepreneurship came together to tackle the challenge posed by Launchpad. *How shall we catalyze climate technology sectors through startups and growing businesses in developing countries?* For Bangladesh, the challenge is very clear: as the backbone of the country's socio-economic development, agriculture is the most critically affected sector that requires accelerated climate smart products and services. Given their grounded and agile nature, agribusiness startups and SMEs are best suited to innovate and invest in climate smart agriculture (CSA) technology solutions.

Building on the in-depth expertise in agribusiness and risk capital, the team decided early on in the process that the pipeline CIC needs to root in two principles: 1) The build-out of CIC needs to find a financially and technically viable pathway that bridges the critical financing gap for CSA SMEs and adds value to investors; 2) The CIC will optimize its impact by leveraging the resources, network, and knowledge of World Bank/IFC projects and partners.

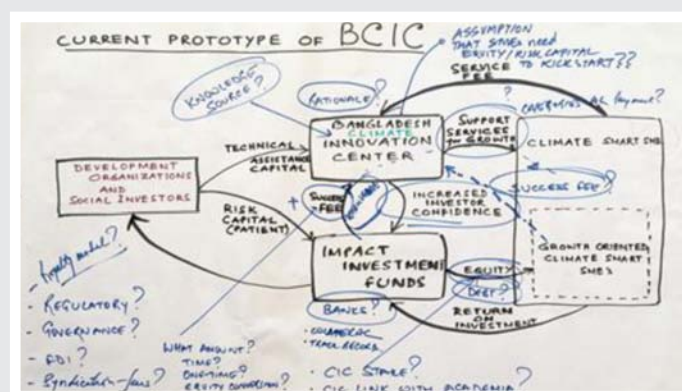
and workshops with agribusiness SMEs, dealers and traders, venture funds and angel investors, commercial and concessional financing banks, accelerators and incubators, governments and foundations, market facilitation firms, NGOs, research and development institutions, other donors, and World Bank/IFC teams. From these engagements, the team has sharpened its understanding about the needs and opportunities of CSA SMEs, financiers, and other ecosystem players. Several iterations of the potential Bangladesh CIC business model were created, while deeper engagement with potential clients was built.

In January, a stakeholder CIC-prototype workshop was held to garner feedback. The team brought together over 30 stakeholders ranging from large agribusiness corporations and market facilitators, to financial institutions and government representatives. We received rich feedback on this “paper prototype” for the future climate innovation center and it further highlighted the value of a co-creation approach.



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Guided by these two principles, the team followed through a 12-month co-creation process by conducting extensive interviews, roundtables,



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Moving into FY18, the Bangladesh CIC is still in the prototyping and validation stage, but the team has already received interest from impact investors, angel investors, and IFC-supported VC funds operating in the country. This positive reception bodes well for developing a financially sustainable center in the long-run. ▀

Over the course of several design workshops Launchpad teams were presented with lessons from existing CICs and were able to interact with current CIC team members. Launchpad teams also worked through a case study of the Ethiopia CIC to understand how to mitigate risks and maximize the impact of their CICs.

In FY17, Launchpad continued to mobilize the breadth of expertise and global reach of the World Bank Group. Launchpad team participants spanned World Bank and IFC units tied to trade and competitiveness, agriculture, urban development, climate change, environment, energy, and health. All Launchpad teams integrated their Launchpad work in existing World



**Table 7: The Next Generation of CICs**

| Launchpad cohort                         | Country    | Sector                                      | World Bank Group units involved                      | Business plan completed | Funding secured for preparation work | Prospective funding identified for the CIC                       | Government buy-in       | Implementing partners identified | Challenges in launching the CIC  |
|--|------------|---|--|-------------------------|--------------------------------------|--|-------------------------|----------------------------------|--|
| <b>Cohort 1: CIC Pre-Launch Stage</b>    | Nigeria    | Energy access                               | Trade & Competitiveness, Energy, IFC                 | Yes                     | no                                   | Government<br>Shell Corporation<br>World Bank investment lending | Strong (Vice President) | Yes                              | Solving the foreign exchange availability problem                                |
|  | Malawi     | Energy access                               | Trade & Competitiveness, Energy                      | Yes                     | no                                   | IFC  | Strong                  | Yes                              | Very weak private sector capabilities and foreign currency availability problems |
|  | Tanzania   | Adaptation and transport                    | Social, Urban & Resilience                           | Yes                     | Yes (\$600k Korean TF)               | In progress  | Moderate                | In progress                      | Government buy-in  |
|  | Egypt      | Energy access                               | Trade & Competitiveness                              | Yes                     | Yes (\$200k Italian TF)              | IFC  | Strong                  | Yes                              | None   |
| <b>Cohort 2: CIC Business Plan Stage</b> | Brazil     | Climate-smart agriculture for small farmers | Agriculture, Trade & Competitiveness                 | In progress             | No                                   | World Bank investment state-level lending                        | Strong                  | Yes                              | State credit rating decrease will result in delays in World Bank lending         |
|  | Bangladesh | Climate-smart agribusiness                  | Trade & Competitiveness, Agriculture, IFC            | In progress             | No                                   | In progress  | Moderate                | In progress                      | Business model for investment readiness  |
|  | Mauritania | Fishing, energy efficiency                  | Trade & Competitiveness, Environment, Climate Change | In progress             | No                                   | In progress  | Moderate                | Yes                              | Weak private sector capabilities   |
|  | Sri Lanka  | Climate-smart agriculture                   | Trade & Competitiveness                              | progress                | No                                   | In progress  | Moderate                | In progress                      | Capacity of potential implementing partners                                      |

Bank work streams so as to leverage existing contextual knowledge and stakeholder relationships. Several Launchpad teams were able to bring in new partners. The Egypt and Tanzania teams obtained funding from the Italian and Korean governments respectively, the Nigeria team obtained commitments from the Nigerian government and from a World Bank investment lending operation to finance the CIC.

## Key Accomplishments

- As of FY17, Launchpad mobilized a total of 54 teams from across the World Bank Group. Through Launchpad's rigorous stage-gate process, eight teams are now left working on new CICs.
- Country teams from the first cohort of Launchpad produced four CIC Business Plans for Nigeria, Egypt, Malawi and Tanzania. All of these teams were selected to advance to the CIC Pre-Launch Stage.
- Country teams from the second cohort of Launchpad produced eight Country Exploration Reports and four teams were selected to advance to the CIC Business Plan Stage (Bangladesh, Brazil, Mauritania and Sri Lanka).
- Of the current eight Launchpad teams, four have team members residing in the target CIC countries, and two have team members residing in neighboring countries.
- The Launchpad Nigeria team secured high-level commitment for a new CIC from Nigeria's Vice President and from a World Bank investment loan team. CTP is excited to report that it now has a timeline for launch.

## Box 6: Breaking Ground in Nigeria

### A challenging energy landscape

Nigeria faces significant challenges in both energy access and power reliability. At present, there is a national electrification rate of 57.6%, of which only 39.3% of rural areas are electrified and **95 million people lack access to modern forms of energy**. For those with power, blackouts are frequent.

Achieving universal access to electricity by 2030 under Sustainable Development Goal 7, Nigeria will need to connect between 500,000 and 800,000 households per year to the grid, on top of installing an annual 5 GW of capacity to keep up with normal population growth. This exceeds the current installed grid-connected capacity, and it comprises one-sixth of the total goal of generating 30 GW by 2030.

Complicating the energy landscape even further is the fact that a significant portion of the population in Nigeria is dispersed over vast geographical areas with low population density. This means that grid-connected electricity in the short to medium-term is not an affordable solution.

Given this local context, Nigeria represents a significant opportunity for the adoption and scale of off-grid solar systems. This approach is even more attractive given the recent dramatic reduction in economic and environmental costs for solar PV systems.

### Building A Climate Innovation Center in Nigeria

To bring off-grid solar to life in Nigeria, as well as incubate other climate technologies, a climate innovation center will be launched. The Nigeria Climate Innovation Center (NCIC) aims to accelerate access to energy in Nigeria through private sector market-driven means targeting the off-grid solar sector, with a focus on innovation and early stage enterprises. As an independent, locally owned and privately run organization, the NCIC will do so by offering a tailored suite of enterprise development, market acceleration and access to finance services to address locally relevant market barriers in the off-grid solar sector.

### Early traction

Across FY17 the NCIC made a great deal of headway and is prepared to launch in FY18. The following are key highlights:

— (Continued on next page) —

## Box 6: Breaking Ground in Nigeria (Continued)

**High government buy in:** The NCIC secured buy in from the Office of the Vice President (OVP) in Nigeria and the Rural Electrification Agency (REA). The Government of Nigeria has committed and approved a contribution of USD 800,000. In addition, the OVP has assigned two solar and enterprise and innovation specialists to give full support to the launch of NCIC. The NCIC will join a network of seven other national innovation hubs, as part of the Federal Government's drive to boost job creation, youth employment and enterprise development.



Photo: Visit of the WB team with Government of Nigeria representatives to the Kenya CIC. © World Bank.

**Government visit to the Kenya CIC** From June 13<sup>th</sup> to June 14<sup>th</sup> a World Bank mission, accompanied by key representatives from the OVP and Ministry of Finance in Nigeria, travelled to Kenya to learn from the KCIC team and receive technical assistance and implementation support for NCIC. The outcomes of the mission include:

- Agreement on NCIC governance and legal structure
- Enhancement of the Government of Nigeria's understanding of the potential to accelerate access to energy, create jobs and address climate change in Nigeria with the NCIC
- Enhanced understanding of barriers to solar investment in Nigeria. After the south-south learning trip, the team was able to understand regulatory and policy areas where the government, the NCIC and relevant stakeholders should concentrate on to attract businesses willing to expand into Nigeria. Chief

amongst these are policies to support mobile money transactions and forex stability, as well as, general improvements in the solar eco-system to ease doing business.

**Strong support from WB Country Management Unit.** The WB CMU in Nigeria has expressed strong support for the NCIC and has encouraged the team to keep working towards its set up by the end 2017.

**Donor attention and interest for additional funding.** The Shell Foundation has already expressed strong interest in partnering with the World Bank to implement the market acceleration program in the NCIC, as it is the case for the ECIC. USAID has also expressed interest in linking its country solar off-grid strategy to the NCIC. Other potential donors with whom the team is currently in discussion with include: All On, Adfd, and Acciona Microenergia.

**Strengthened team.** The Launchpad team has been joined by a local senior expert specialized in off-grid solar systems, as well as, a senior advisor.

**Likely integration of NCIC into World Bank lending.** The Energy Global Practice within the WBG is working on an IDA credit for the Nigerian Rural Electrification with estimated funds of USD 350million. The NCIC, due to its importance for the development of a strong pipeline of solar off-grid MSMEs in the country, is part of this upcoming WB project. In this respect, the Nigerian government has already committed funds to the NCIC, subject to appraisal and negotiation with the estimated timeline for approval March 2018.

**Identification of NCIC location.** The Enterprise Development Center (EDC) at Lagos Business School (LBS) has requested to host the NCIC. This is an ideal location because EDC has a reputation for being a hub of national and international activity. EDC has already partnered with: IFC, Goldman Sachs, Diamond Bank or the African-American Institute and others. The EDC office building is energy efficient and it is powered partially by a 20 KW solar system. They have a large open plan space on the top floor with conference rooms, training rooms, a cafeteria, and lots of outdoor spaces. They have also agreed to put the NCIC logo on the front of the building.

The NCIC is expected to be officially launched in December 2017. ▀

## Key Lessons Learned

- Local champions for the CICs can be found in a number of places, and across a range of government agencies in different countries. For example, The Office of the Vice President was most receptive in Nigeria; in Malawi it was the Department of Energy and the Small and Medium Enterprise Institute; and in Sri Lanka it was the Ministry of Trade and Industry.
- Access to foreign exchange can be a significant barrier to climate technology businesses in several countries. For example, while renewable energy businesses rely on foreign currency to import products or components that cannot be manufactured locally, foreign exchange is not widely available in Nigeria, while in Malawi, unpredictable macroeconomic conditions discourage local businesses from seeking debt in foreign currency.
- In some countries, an existing critical mass of SMEs, a large market and government priorities provide a rationale for CICs that operate in a limited number of sectors. For example, in Nigeria, the CIC will have a focus on off-grid energy. Whereas in Mauritania no single sector provides a critical mass for a CIC and the approach will be multi-sectoral.
- In some countries, a burgeoning ecosystem of intermediaries in the entrepreneurship and climate technology space can be used to deliver the services of a CIC. This is the case of Mauritania, Brazil and Egypt. In others countries, such as Malawi and Sri Lanka, the CIC will need to build its capacity from the ground up.

## FY18 Work Plan

In FY18, the first cohort of Launchpad teams is expected to launch three CICs. The four Launchpad teams from the second cohort will finalize business plans for CICs in Mauritania, Brazil, Bangladesh and Sri Lanka by August 2018 and also raise funds. Each business plan will include the background and context of the program, an analysis of needs, an analysis of opportunities, alternative CIC concepts, an operational plan, financial projects, and a results framework. We expect at least three out of the four CIC business plans to be selected for the Pre-Launch Stage on the basis of a strong demand-driven business plan and funding commitments. These teams will then receive further budget and technical support from CTP to prepare the launch of CICs in their respective countries over the course of 12 months. The 12-month launch timeline accounts for donor budget cycles and government approval processes.

## Key Milestones FY18

| Milestones   | Expected FY18 timeline |
|--|------------------------|
| <b>Cohort 1:</b>   |                        |
| Launch of 2 CICs   | Q4                     |
| <b>Cohort 2:</b>   |                        |
| Develop at least four CIC business plans                 | Q1                     |
| Select at least three country teams for pre-launch stage | Q2                     |

## CIC Development Stage: Full Operations

### Overview of Progress

Operational since 2014, FY17 was pivotal for the Caribbean CIC (CCIC). This year, the center fully launched its revised business model—switching from grants to proof of concept (PoC) firms.

Under the revised business model CCIC offers the following services:

- (i) Ideas-generation workshops (IGS) which are designed to expose entrepreneurs to climate-related problems in need of market-based solutions.
- (ii) Boot camps focused on equipping entrepreneurs with skills necessary to develop and improve their concept and create a clear road map for execution.
- (iii) Accelerator programs involving intensive mentoring, networking, and customization services.

First launched in FY16, IGS workshops and bootcamps were held in just two countries (Jamaica and Trinidad and Tobago). Building on that momentum, the number of countries holding IGS workshops and bootcamps expanded to five in FY17: Antigua, Barbuda, Barbados, Belize, and Dominica which reached over 300 entrepreneurs. The in-country bootcamps provided an opportunity to engage much more proactively with the hubs, with some hubs demonstrating strong interest and capability to deliver, while others demonstrated a strong interest, but less capability or fewer resources to deliver.

The overall impact of the IGS and bootcamps has been markedly positive. Participants have been pleased and their skills have progressed noticeably over the course of the program. The IGS and bootcamps have greatly increased the number of entrepreneurs trained and, in this respect, the results exceed the original targets. However as participants were typically early stage entrepreneurs, the immediate impact on the uptake of clean technology has been limited.

The CCIC Accelerator Program launched in August 2016 and provided support to the first cohort of three entrepreneurs operating in the areas of hydroponics (Kingco), energy efficiency (PreeLabs), and solar panels (Eco-Caribe). CCIC provided support to the companies through coaching and mentoring sessions, provision of market services, and a review of targets established for each group. While originally 10 entrepreneurs were planned for the first cohort—only three entered the program due to suitability and limited time for the program's marketing. In part this was a reflection of the rather nascent clean tech sector. However, it can also be attributed to staff turnover and the restructuring of a key partner organization, Start-Up Jamaica, which hampered program development.

Overall, while there were some obstacles with program delivery, the three enterprises that did participate were strongly appreciative of the guidance they received.

One of the key issues in the first accelerator cohort, was that the bulk of the entrepreneurs entered at an early stage making the program's target for investment ready firms more challenging. For the second cohort, launched in April 2017, the CCIC expanded its range of entrepreneurs it is supporting across three tiers: ideation (9 enterprises), validation (2), and revenue-generating (2), with grants of up to US\$1,500; US\$3,000; and US\$12,000 respectively for each stage. The first category covers many of the winners from the in-country bootcamps, as committed, but also covers other potential entrepreneurs



## Box 7: Preelabs Helps Jamaicans Turn Off the Lights

High energy prices in Jamaica and the Caribbean have made consumers highly energy-conscious. **Preelabs**, an energy conservation start-up, aims to help them track and manage their energy use. Preelabs was just a concept when founder and CEO Yekini Wallen-Bryan entered the Caribbean Climate Innovation Center's GreenTech Start-up Bootcamp in February 2016. His Plug 'n' Pree device, which allows users to control and monitor their electrical appliances from anywhere in the world from their smartphone or computer, dominated the bootcamp with Wallen-Bryan's winning pitch and a talented team.

"Following the bootcamp, the core implementation of the technology has evolved considerably. From how we gather data and turn appliances off to how we communicate with the internet, all areas have had significant improvements with the goal of minimizing the cost of production and maximizing functionality for our customers. We have eliminated the use of a hub and are now fully utilizing wi-fi technology," said Wallen-Bryan.

As the bootcamp winner, Wallen-Bryan entered CCIC's Launchit GreenTech Accelerator program in August 2016. That led to the founding of his company Preelabs Ltd. with funding provided by the CCIC.

The device has since gone through a name change and is now dubbed the PowerPree. "I would describe PowerPree as a device which provides homeowners and the ability to make significant savings on their energy usage by allowing them to see how much energy is being consumed in both kilowatt-hours and dollars while providing them with the opportunity to turn the device on or off anywhere in the world," said Wallen-Bryan.

In the accelerator program, Preelabs received business development training, mentorship, and coaching from technical and non-technical mentors, in addition to being exposed to CCIC's network of green-tech donors and investors. The grant provided by the CCIC was used to conduct market research to identify the challenges faced by the company's target market of homeowners and businesses trying to manage

their energy usage. The research allowed them to tailor their concept to add a reporting feature, enhancing their competitiveness among similar products on the global market. This feature allows the user to acquire timely reports on how much energy is being used in kilowatt-hours and dollars.



*Preelabs Team: From left to right, team members Trevaun Miller, Ashlé Henriques, Phillip Logan, and Yekini Wallen-Bryan. © World Bank.*

By the end of the accelerator program, they had developed a working prototype and generated interest from key stakeholders and potential clients. The accelerator program will continue to provide Preelabs advice and assistance toward commercialization.

"It has not been easy given that this sort of thing is not precisely the norm in Jamaica. However, we have been meeting some helpful people who have been more than willing to advise us on the steps needed to take to get PowerPree launched in the best way possible," said Wallen-Bryan.

Though still in the beta-testing phase, the device is expected to be launched this year. ■

the CCIC has sourced. The latter two categories will receive more tailored support that aims to get them investor ready. EPIC<sup>4</sup>'s access to finance team will diagnose these mature entrepreneurs for investment readiness, and CCIC will work with these firms on their path to growth.

4 EPIC is an infoDev program that aims to deliver value-added services to strengthen the Caribbean entrepreneurship ecosystem by enhancing the capacity of business enablers as well as increasing the number of growth-oriented entrepreneurs through the Caribbean Mobile Innovation Project (CMIP) and the Caribbean Climate Innovation Center (CCIC), both implemented through recipient-executed grants.



While a key element of CCIC's model is to have the hubs roll out the program, a challenge has emerged from this structure as well. CTP has found that sustaining the engagement and strengthening the capacity of the hubs is crucial for long-term success, so CCIC has developed partnerships to produce knowledge resources specifically to strengthen the hubs. The partners include:

- The Caribbean Development Bank's Caribbean Tech Entrepreneurship Program (CTEP) for the Virtual Accelerator Program.
- The Cherie Blair Foundation and their Women Mentorship Program.

The first, CTEP, has already been approved and procurement processes are underway. As part of the CCIC's mandate to rollout accelerator services to the hubs, the CCIC will lead the execution of the CTEP which is a hybrid virtual incubator and accelerator program that will be available to all OECS countries. In FY18 CCIC will be developing online content and webinars that can then be shared by the hubs; who will then mobilize, monitor, coach, and identify mentors for tech entrepreneurs in their respective countries. A library of the webinar materials developed will be accessible for the hubs to share with their entrepreneurs.

To improve the CCIC offerings, CCIC will have access to building space rent free for at least three years to be used for incubation space. This will provide the CCIC with an additional income stream, and boost the CCICs service offerings and brand awareness. The retrofitting of the space will start soon, and is expected to be operational by the close of FY17. The close proximity of the CCIC to nearby universities will make the space appealing and accessible for new start-ups.

CTP is also helping to build the CCIC's capacity in various ways. The first is through networking with other CICs. CCIC took part in the annual CIC Network meeting held in Kenya, where they were able to meet and discuss experiences with other CICs in the network. CCIC was also selected to pilot a mentorship management capacity building and advisory service. Through its CIC Network, CTP will support the CCIC by providing exposure to global climate tech incubation best practices, resource materials, and international climate tech network contacts.

## **Key Accomplishments**

- Over 300 entrepreneurs supported through IGS/bootcamps, in five OECS countries.
- Launch of the accelerator program with the delivery of cohort 1 and launch of cohort 2. Cohort 2 has three tiers of support and more enterprises enrolled: ideation (9 enterprises), validation (2 enterprises), and revenue generating (2 enterprises).
- Secured free incubation space.
- Developed partnership agreements with CTEP and Cherie Blair Foundation.
- Development and roll-out of training materials for the virtual accelerator program.

## Key Lessons Learned

- CCIC needs to focus on attracting firms with greater maturity to the accelerator program.
- CCIC needs to match coaching services to the maturity of the firms.
- Develop criteria and benchmarks for processing the exit of firms from the accelerator. Those that are not committed to progressing must be dropped to ensure prudent use of resources.
- A key value proposition of the program was the coaching and mentorship provided, therefore more efforts need to be made to extend mentorship contacts both locally and globally, which can be partially achieved by tapping into the CIC Network and other WBG contacts.
- CCIC needs to expand its role in the ecosystem to help produce more network transactions.

## FY18 Work Plan

In FY18 the CCIC will continue implementing its business model, with a particular focus on the accelerator cohorts. Those at the ideation stage will go through a standardized light touch accelerator program and grant (US\$1,500). Those at the validation stage will receive additional grant money (up to US\$3,000), mentoring and coaching. And those at the revenue stage will be given additional grant money up to US\$12,000, plus mentoring and coaching. Going forward, the CCIC will admit new enterprises in the latter two levels on a rolling basis, with the expectation that these firms are likely to be more investor ready. For those entrepreneurs who have strong potential, these teams will be diagnosed by the infoDev EPIC access to finance team to provide a development path to make them investor ready. A key piece of the FY18 workplan will be to build out the role of the CCIC as an active ecosystem enabler, and this will entail organizing events, firesides chats, webinars for the greater clean technology community. To keep the hubs engaged and improve CCIC visibility, the implementation of IGS/bootcamps will continue. However, as the delivery of these activities will depend on partnerships developed to help fund them. Funding has already been lined up for three bootcamps for the second half of this year, with an additional four bootcamps under discussion.

To attract external funding for the CCIC, the center's value added needs to be strengthened to demonstrate the unique ecosystem role we can play. To build our reputation as an effective marketplace connector between entrepreneurs and a firm or government agency seeking solutions, the CCIC is considering developing a portal. Similarly, the CCIC is considering building a network for entrepreneurs to actively engage with their team and one another through fireside chats, webinars, and other events.

## Strategic Priorities for FY18

As highlighted, CCIC is currently building its brand and presence in the Caribbean eco-system. Partnership with other eco-system players that are running complementary programs, will facilitate economies of scale, greater brand recognition and value for money. Discussions will continue to be held with these stakeholders with the objective of having formal agreements. Additional partnerships will be explored with other ecosystem players.

The Government of Canada confirmed the approval of a no-cost one-year extension requested by the EPIC. The primary reason for seeking trust fund extension was to allow additional time for recipient-executed activities carried out through grants to achieve their respective outcome and disbursement targets. The program development objectives, outcomes and components will remain the same as well as all of the existing conditions as set forth in the Trust Fund Administration Agreement.

- Sustainability is a top priority—as the trust fund will end in November 2018. To achieve this, the CCIC will be focused on developing its own revenue streams, building and expanding partnerships with other ecosystem players, and fund raising for staff and operations costs.
- Strengthening the value proposition and reputation of the CCIC. This will be done by hosting events, seminars, building up the network of contacts, and hosting fireside chats with entrepreneurs.
- CCIC on becoming an advocate for the clean technology sector. It will pursue this by building a network of entrepreneurs.
- Facilitate solutions to environmental problems. Similar to the IGS, CCIC will work with local environmental agencies and private companies to identify environmental problems in need for a clean tech solution.
- Develop a few firms to the point where they are investor ready. Working with the A2F EPIC team and the CIC Network of contacts this will be done on a rolling basis within the Accelerator Program. CTP can add value by connecting global contacts to these firms and by strengthening CCIC's capacity to diagnose the firms.

## Key Milestones FY18

| Milestones   | Expected FY18 timeline |
|--|------------------------|
| CCIC becomes a legal entity  | Q1                     |
| Entrepreneurs ready for investment pitch with angel investors                          | Q2                     |
| Portal for identifying environmental challenges in need of an entrepreneurial solution | Q2                     |
| 7 bootcamps  | Q1-Q4                  |
| Sustainability plan underway, with at least one corporate sponsorship agreement        | Q3                     |

## CIC Development Stage: Full Operations and Restructuring

First launched in 2014, the ECIC is situated in the University of Addis Ababa. It aims to be the leading incubator in Ethiopia for sustainable, innovative and resilient businesses that support climate change adaptation and mitigation. The local context for the ECIC is challenging—with a marketplace dominated by government-centralized planning, thin entrepreneurial support services, and restrictive regulations for financing. A further challenge comes from the influx of refugees arriving from nearby conflicted states such as Somalia, Sudan, and Djibouti.

The ECIC represents a solution for Ethiopian policy makers who are concerned about low levels of entrepreneurial activity and enterprise formation. ECIC strives to ultimately commercialize the climate technologies it incubates. To achieve this, the center has focused on tackling critical market failures such as limited access to finance and entrepreneurial capacity building. The center has made US\$1 million in grants available for 31 firms to provide funds to nascent climate technology firms.

### Overview of Progress

Efforts to restructure the ECIC were initiated in the fall of 2016 and the team spent the first six months of 2017 rolling out the redesign. In the coming year, ECIC will narrow its focus to three areas including: sustainable energy (particularly off-grid solar), climate smart agriculture, and forestry.

There was a strong focus on building productive partnerships in FY17. The team is currently in conversations with the Shell Foundation to develop a combined market acceleration program that will address ecosystem issues, such as foreign exchange availability, a lack of consumer awareness, and limited financing options—all of which hinder the growth of the off-grid solar market.

ECIC has also teamed up with the IFC's Lighting Ethiopia group to explore opportunities to spur the local assembly of products. This effort is not a formal commitment yet, but a proposal is being drafted. Additionally, ECIC entered into a contract with Lighting Africa to deliver training to retailers and solar distributors (e.g., Amhara, Bienshangul gumuz, SNNPR region).

As part of the restructuring, the team has been working closely with the WBG to design a new strategy for ECIC. To that end, the WBG commissioned a study headed by the Los Angeles Climate Incubator (LACI) and, in light of its recommendations, ECIC agreed to roll out additional support services to the entrepreneurs in strategic sectors with the highest potential.

ECIC and WBG agreed to prioritize the investment of resources to increase impact on clients, which resulted in simplifying the existing portfolio of ECIC entrepreneurs. The full package of technical assistance, which builds specifically on LACI's recommendations for targeted services, will be offered to the 20-25% of entrepreneurs in the pipeline with highest market potential. The rest will receive supervision and less-intensive assistance.

Across the fiscal year, the WBG supported ECIC legal independence, operational sustainability, and capacity building. The center will transition from a program financed by the World Bank (as project within the University of Addis Ababa and think tank, Horn of Africa); to become a charitable foundation or an endowment. The president of the University has already approved the formation of ECIC as a legal entity. This shift will happen over the next three months.

To increase operational effectiveness and capacity, ECIC and WBG agreed to introduce a new approach to work on product markets and business models for specific sectors. The new strategy will incorporate mechanisms for learning and allowing for flexibility and adaptation; building on positive and negative experiences of other global climate innovation centers.

## Key Accomplishments

Since its launch in March 2014, ECIC has largely delivered on important milestones. They include the following:

- Recruited 15 core staff. To date, ECIC has served 72 clean-tech enterprises receiving a combination of proof of concept (PoC) grants and entrepreneurial services. After three successful rounds of PoC competitions, approximately US\$560,000 of the US\$1 million allocated for PoC grants has been disbursed to 30 enterprises.
- In an effort to work towards its own sustainability, ECIC is in the process of becoming a legal entity. This is expected to be completed by October 2017, or earlier.
- Built a pipeline of 61 active clients; with US\$ 1 million pledged (31 clients), and a total of 208 direct jobs created under ECIC clients.
- A total of 8 ECIC clients obtained funding after admission to the ECIC program.
- Boosted support to women entrepreneurs via a special women's interest group to identify, analyze, and provide solutions to female entrepreneurs. ECIC's mandate in gender inclusion includes pioneering women in business ownership. 28% of the PoC beneficiaries are female.



© TARSAM Green Plant Enterprise/World Bank.

## Restructuring

The World Bank Ethiopia team, including Jaime Frias, Welela Ketema, Donn Tice and Maria Arango, have been working since fall 2016 on a more focused vision for the ECIC. While the center achieved most of its original results framework targets, the decision to restructure came out of a sense that some of the companies in the pipeline were not growing as effectively and the business model needed to evolve. This was partly due to the strict business plan handed to the local team, which left them with little room for ownership and adjustments.

ECIC's client pool was also quite broad, with 61 companies spread across the climate technology sector. This meant that firms often received generic support which didn't do enough to help them navigate and, ultimately, thrive in the nascent climate entrepreneurship ecosystem. Donors' technical expertise went untapped due to transactional relations with the consortium, which was perceived as a missed opportunity. Furthermore, the consortium's role was questioned as the ECIC gained momentum and became more autonomous.

When the original MOU between the consortium members expired the WBG team supported the ECIC CEO to develop a new strategy. In this process, the team determined the types of activities needed to build ECIC capacity and identified where there were gaps. These gaps will inform future efforts to procure talent and mobilize international expertise when necessary.



## Box 8: Gogle Gets the Smoke Out in Ethiopia

In 2009, two Ethiopian engineers, Teramaj Terefe and Addisu Sime, founded **Gogle**. The company developed a “smokeless” cookstove that burns a charcoal briquette or efficiently burns wood. They faced a rocky first few years and had low production capacity. “One of the NGOs could come to you and order something like 1,000 or 5,000” cookstoves said Terefe—orders the company struggled to fill.

“You drive all over this country, and the majority of people are still using three-stone fires,” he said, referring to the campfire-like method of using three large stones to prop up cooking ware over a wood fire. The method—often practiced indoors—produces a lot of smoke, harming health and affecting air quality.

In 2014, Gogle won a grant from the Ethiopia Climate Innovation Center (ECIC) to expand its production capacity. Since then, the company has supplied several NGOs (including Horn of Africa, Oxfam, and WorldVision, among others), as well as wholesalers and the Oromia Coffee Union of Cooperatives. Their revenue in 2016 stood at US\$100,000—meaning they’ve sold just over 5,000 cookstoves at around US\$20 per unit.



*Gogle's founders show off their cookstoves at their workshop in Addis Ababa. © Semhar Tesfatsion/World Bank.*

Along the way, Gogle has grown its staff to 28 people.

Even as the demand for cookstoves grows from NGOs, cooperatives, and urban customers, the real demand must eventually come from rural end-users, whether farmers or refugees, for the impact to really scale.



*Gogle briquettes drying in the sun. © Rosa Lin/World Bank.*

While urban customers—the bulk of Gogle’s current customers—have access to a wide variety of clean cookstoves, from electricity to ethanol to gas, the vast majority of Ethiopia’s population lives in rural areas with three-stone fires as the preferred cooking method. Convincing these people—approximately 80 million strong—will be the ticket to both Gogle’s success and real climate impact.

There are signs that the tide may turn. Villagers talked of how mothers and daughters have a rift over the cookstoves—the mothers are used to collecting firewood, while the daughters can’t be bothered. The younger generation is keen to leave behind the traditions of their past and adopt a more urban lifestyle. Clearly, while three-stone stoves still have a hold on rural cooks, the health, cleanliness, and time-saving aspects of the new cookstoves are convincing more people to buy in.

In any case, the market is there and the demand is growing: Gogle’s main barrier to growth now is financing, to purchase raw material and modernize their workshop. They are running at only 25% of capacity due to raw material and manufacturing space constraints. Their cookstove machines have the capacity to produce 500 units per day, but are only producing 120 units per day. Likewise, their briquette machine can process 1,200 kg of charcoal dust per hour into briquettes, but are only running for an hour each day. They’ve applied for more ECIC funding to address the issue.

The government recently granted Gogle a thousand acres of land to grow its business, based on their success so far. But as Teramaj explained, Gogle is focused on polishing its existing workshop and solidifying its financial backing before building a second workshop. ■



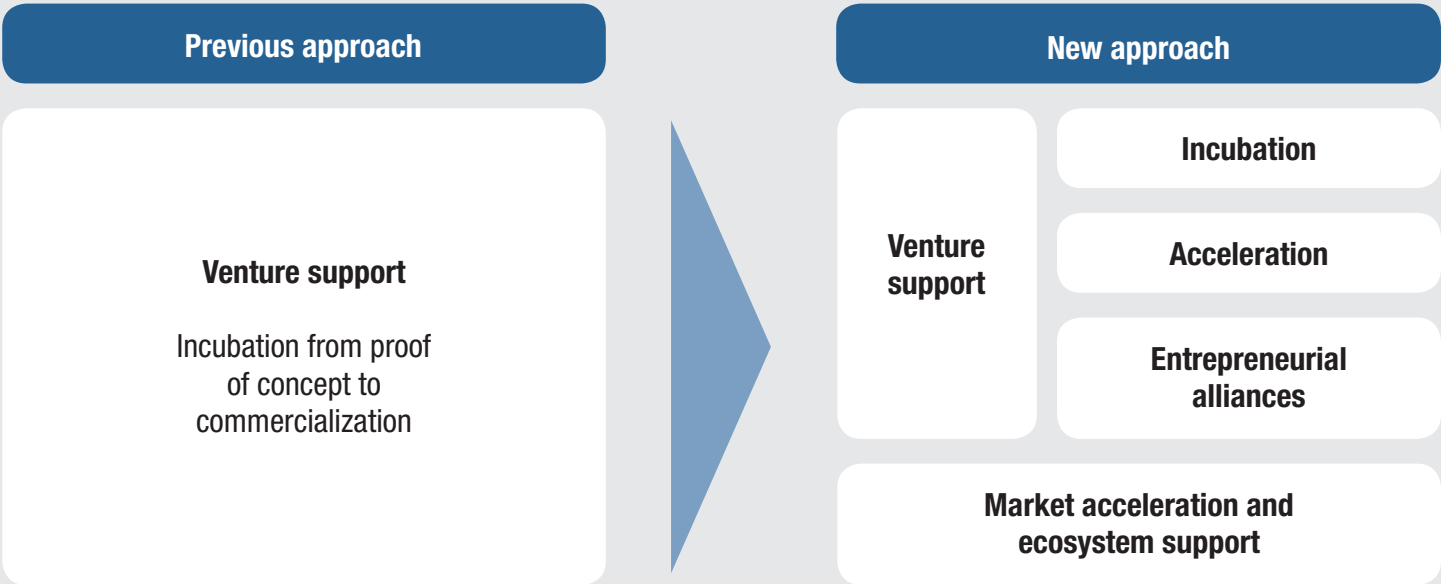
With the consortium dismantled, the lead consortium partner the Horn of Africa Regional Environment Center and Network (HOAREC) of Addis Ababa University, was left to support the ECIC team. HOAREC agreed to invite the original consortium members to participate in procurement if their skillset proves relevant to the needs of ECIC.

Since January 2017, the team worked hard to roll out the Ethiopia CIC redesign. The team visited ECIC’s off-grid solar and climate smart agriculture firms and met with the Shell Foundation to discuss partnering to accelerate the off-grid solar sector. They also continued coordination with the joint IFC-World Bank Lighting Africa team and the WBG energy team in integrating their off-grid solar work and met with donors DFID and the Norwegian Ministry of Foreign Affairs.

**A New Strategy**

The team and ECIC management agreed to extend the scope of support to include technical assistance in new product markets and business models in the new strategy. This new work stream will rely on identification of opportunities, develop innovative capabilities, and intervene along the supply chain. Off-grid solar has been selected as an initial pilot, together with climate smart agriculture, and forestry. The strategic resource allocation for uncommitted funds will yield 67% for off grid solar and 33% for agribusiness and forestry. Results from analytical work may affect the proportion of funding in each of these sector. Policy research, dialogue and advocacy should be aligned with the sector priorities, particularly under the new work stream.

**Figure 8: General Overview of Proposed Changes**



Given that the ECIC has limited resources to support entrepreneurs, the managing team wants to optimize allocation of these funds. The effort to evaluate the existing group of ECIC entrepreneurs was driven by the need to identify the firms with highest potential, and to determine a tailored support program to be delivered to these entrepreneurs based on their identified needs. The ECIC will prioritize resources to increase impact, including greater customization in support to entrepreneurs.

**Figure 9: Proposed Specific Changes to the Existing Approach**

|                       | Change   | Rationale   | Implication   |
|-----------------------|--|---|---|
| Support ventures      | Expand the scope to include acceleration and growth of high potential ECIC clients.                  | Increase impact and return on investment.   | <ul style="list-style-type: none"> <li>Develop tailored programs of technical assistance and advisory.</li> <li>Build additional financial support to scale growth and sustain acceleration.</li> </ul>   |
|                       | Focus on thematic solutions based on market opportunities and potential impact.                      | Targeted support to the ecosystem surrounding entrepreneurs will increase effectiveness.                    | <ul style="list-style-type: none"> <li>Build sector expertise and capabilities in the ECIC.</li> <li>Prequalify leads for opportunities in each sector.</li> </ul>  |
|                       | Leverage entrepreneurial alliances to transfer knowledge to local entrepreneurs.                     | Structured knowledge provision will enable entrepreneurs to absorb know-how and address climate challenges. | <ul style="list-style-type: none"> <li>Build ECIC competencies to induce alliance, match-make sourcing of technology with entrepreneurs.</li> <li>Provision technical and financial support to development of the alliance and carry out implementation.</li> <li>Tailored TA to the needs of the cohort of entrepreneurs.</li> <li>Build Capacity of ECIC to facilitate technology extension.</li> </ul> |
| Ecosystem development | Expand the scope of work to focus on the operating environment of entrepreneurs in specific sectors. | Removing binding constraints to entrepreneurs is a necessary condition for success.                         | <ul style="list-style-type: none"> <li>Build capacity within ECIC to engage with sector stakeholders.</li> <li>Invest in analytics to identify constraints and opportunities to address at the level of the ecosystem.</li> <li>Provision for advisory services to address the constraints and opportunities.</li> <li>Conduct policy analytics to advance solutions.</li> </ul>                          |

In February, ECIC management and the mission team conducted a pipeline evaluation to identify entrepreneurs which would receive further support. This pipeline evaluation came out of an agreement in October 2016 between management, the mission team and donors to increase impact and enhance value for money. From a pipeline of 61 entrepreneurs, 15 candidates were shortlisted for further support at the end of the evaluation.

Going forward, ECIC services will be tiered. Incubation level firms will receive the least amount of support, while acceleration and scaling level firms will receive more. The team has identified nine firms to be scaled and is working with them to become more attractive to investors.

For investment support, the following areas were identified: investment facilitation and de-risking grants, market testing and feedback, design and development of business model and offerings, quality improvement & standards, and channel development. For pre-commercial support, the areas of focus include: designing and developing an offering, business model design, market testing and feedback techniques, financial modeling and analytics, and product certification.

It's too soon to see the full impact of these steps—but team Ethiopia is taking a more iterative, design-based approach this time around.

## **Key Lessons Learned**

The team leading implementation encountered challenges such as:

- Slow implementation for sub-grantees due to lack of access to workshop space, inability to enhance quality and certify their products;
- Scarce resources for quality advisory services, such as mentors for ECIC sub-grantees;
- Limited access to finance due to high collateral requirements, and a limited business track record;
- An overreliance on entrepreneurs to discover opportunities misses the opportunity to identify market gaps.

The ECIC has also encountered opportunities:

- Enhanced engagement in policy and stakeholder collaboration can facilitate growth of entrepreneurial solutions. Intervening at the ecosystem level can unleash benefits from transferring knowledge from service providers, while intervening in a specific sector or solution can enable a critical mass of entrepreneurs.
- The government of Ethiopia has increasingly recognized that leveraging private solutions to address development goals is vital for success. ECIC and WBG agreed to introduce a new approach to work on product markets and business models for specific sectors. The ECIC and WBG have prioritized the investment of resources to increase impact, including an evaluation of the pipeline of entrepreneurs.

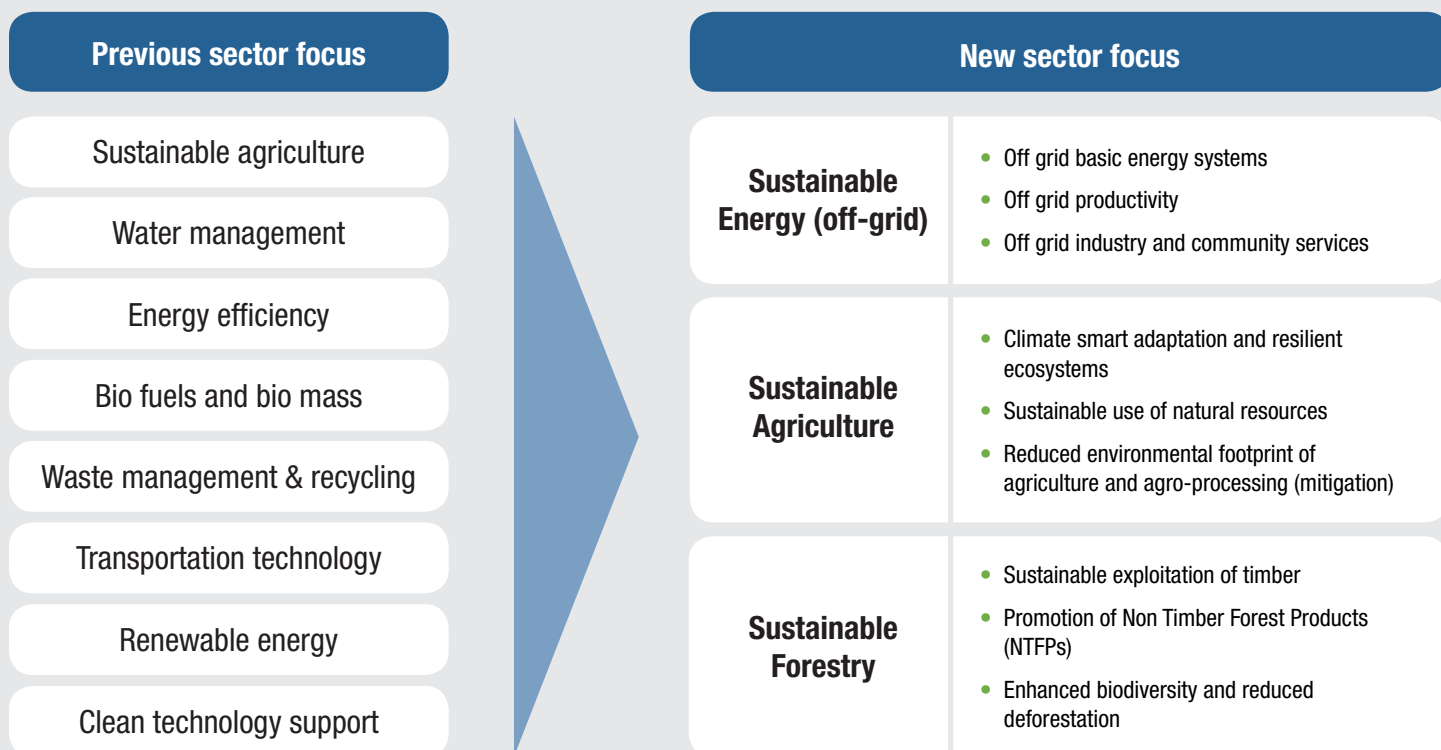
## **FY18 Work Plan**

**In the coming year, the ECIC intends to deepen its support to entrepreneurs by narrowing its focus to three areas: sustainable energy (particularly off-grid solar), climate smart agriculture, and forestry.** The center will also tighten its selection process, in order for its clients to gain the richest support possible and have the best chance of success. Specifically ECIC will:

- Design a new support program with the assistance of the WBG.
- Mobilize additional funding.
- Design a new support program with the assistance of the WBG to implement ECIC's new strategy broadening the scope of support from incubation (PoC) to acceleration and investment readiness.
- Finalize the operational plan and manuals, given the short timeframe available for implementation (April 2019).
- Finance implementation via trust funds, implemented by the Bank and the recipient (through the local ECIC), subject to a maximum local allocation of resources of US\$5 million.

- Accelerate roughly 15% of firms in the pipeline (9-12 firms) who are deemed ready for scaled up operations.
- Introduce an alliance to transfer knowledge and build local capabilities for climate solutions.
- Work to accelerate markets and ecosystem development.

**Figure 10: General Overview of Proposed Sector Focus Changes**



Initial assessments in sustainable agriculture and forestry also indicate direction for potential engagement entrepreneurial support opportunities for future ECIC activities. The mission team coordinated with WBG program officers engaged in agriculture and forestry practices to assess potential synergies and opportunities.

Some of the most prominent leads for future ECIC engagement include: promoting the substitution of diesel with renewable energy; the use of energy efficient products to reduce deforestation; introducing innovative financing schemes for agricultural technology (i.e., PAYGO for solar pumps); incentivizing farmers to switch from flood irrigation to drip irrigation; promoting the efficient use of input application; and the widespread use of climate smart inputs; enabling farmers to substitute traditional plowing and threshing through innovative business models and entrepreneurial services; and reducing vulnerability to climate change effects by promoting nutritious food availability under short production cycle.

Preliminary assessments in the off grid solar sector suggest of a significant opportunity for ECIC to engage in ecosystem development, in partnership with WBG (Energy GP and IFC) and DFID. The team coordinated with Lighting Africa and the WBG energy team, as well as, DFID to integrate potential ECIC interventions into the off-grid solar energy. Key areas where interest to intervene through the program included stimulating local supply and assembly, facilitating access to venture financing, supporting innovative financing and marketing models through PAYG.

## Key Milestones FY18

| Milestones  | Expected FY18 timeline |
|---|------------------------|
| Launch new venture acceleration program for tier 1 shortlist of entrepreneurs         | Q1                     |
| Conduct ecosystem diagnostics for climate smart agriculture solutions                 | Q2                     |
| Finalize policy note and conduct knowledge sharing event in the off-grid solar sector | Q2                     |
| Deliver the new tailored support program for tier 1 client companies                  | Q2, Q3, and Q4         |
| Develop partnership with impact investors   | Q3, Q4                 |
| Recruit a new ECIC venture acceleration staff and sector leaders                      | Q1                     |
| Launch entrepreneurial alliance program   | Q2                     |



### CIC Development Stage: Early Operations

The Ghana CIC (GCIC) is an Accra based innovation center that supports entrepreneurs and SMEs involved in developing profitable and locally appropriate solutions to climate change. Launched in 2016, the GCIC is the newest addition to the network of climate innovation centers. Ultimately, the GCIC seeks to increase overall growth of Ghana's climate tech sector through building and engaging with the ecosystem of climate technology entrepreneurship in Ghana.

The center is complemented by the Ghana Climate Venture Facility (GCVF) which is an innovative financing facility that will invest in local early stage climate technology businesses to help them grow and become profitable. **The GCIC and GCVF fill a unique need in Ghana's entrepreneurial ecosystem as the only innovation center and early stage financing facility that specifically target the climate technology sector, all in a country that will be heavily impacted by the effects of climate change.**

### Overview of Progress

The project's implementation experienced considerable delays in 2016 as a result of an unforeseen departure of the original GCIC Executive Director and challenges in recruiting a replacement. This lack of leadership held up most other aspects of implementation in 2016, notably the GCIC's core work with companies.

A set of actions was agreed in December 2016 between the World Bank and the GCIC consortium to improve project implementation. These actions covered the following areas: (i) Executive Director and Core Staff Recruitment, (ii) Work Program Planning, (iii) Launch of Programs, (iv) Advisory Board Setup, (v) World Bank Group Supervision Strengthening, (vi) Technical Support, and (vii) Project Reporting. The mission team was pleased to confirm that these actions have all been advanced as agreed and implementation issues have been fully addressed by the project partners.

Since that December meeting, a dynamic Executive Director was recruited, core staffing is in place, and programs are underway. The mission team will continue to closely monitor implementation progress to ensure this progress and efficient implementation is maintained throughout the project implementation period.

The core team, led by an Executive Director (Ruka Sanusi), Finance Manager (Kofi Obeng), Procurement Specialist (Frank Wood) and Marketing and Communications Director (Abdul Nasser Alidu) is in place and is currently interviewing candidates for Entrepreneurship Manager. They hope to finalize negotiations by the beginning of FY18. Subsequent FY18 hires will include three Business Advisors and an Executive Assistant. The team continues to be supported by consortium partners *SNV*, *Ernst & Young Ghana* and the *United Nations University - Institute of National Resources* including consortium staff tasked to support the management of the GCIC.

The GCIC team completed outreach, recruitment and selection of a first cohort of entrepreneurs as of April 2017. The launch of the full range of support programs for these entrepreneurs began in May 2017.

From a pool of over 80 largely organically acquired inbound applications, applicant expressions of interest underwent an initial screening to shortlist 40 companies and individual entrepreneurs. These companies were invited for a second stage, which involved a more in-depth appraisal of their businesses. At the end of the process, GCIC welcomed 11 entrepreneurs in Q4 to its first cohort.

Completed in December 2016, the GCIC headquarters saw core staff move in in early 2017. A plan was selected by the GCIC consortium for the building's interior design and identification of the technical equipment that will be required to complete the facilities is ongoing.

The GCIC Executive Director was proactive in lining up public engagement opportunities with the entrepreneurship ecosystem in Ghana, as well as high profile speaking engagements such as, the British Council Enterprise Summit held in March 2017 and the Clean Energy West Africa Summit (organized by PV-Tech) in April 2017.

The GCIC is also in the process of establishing an external Advisory Board. In addition to representatives from government and development partners that finance the GCIC, this Advisory Board will also include up to four individuals who can provide strategic guidance for the GCIC (e.g., business leaders, investors, heads of academic or research institutes). The Advisory Board will be convened in July 2017, following the induction of the GCIC's first cohort. Government has requested strong collaboration between the GCIC and the government's climate change and private sector development programs.

## Box 9: Das Biogas Helps Transform Kitchen Waste to Energy in Ghana

**Das Biogas**, a start-up led by a young, spirited, and creative team of entrepreneurs, is providing a waste-to-wealth solution for sorting and treating biodegradable household kitchen waste in Ghana with their portable biogas plant.



*The first portable biogas plant prototype.*  
© World Bank.

In a nation where waste of every kind is eagerly disposed of, legitimately or illegitimately, Das Biogas is designing an innovative mechanism to responsibly get rid of organic kitchen waste right from your kitchen sink—and generate cooking gas in the process. Organic kitchen waste would ordinarily end up in landfill sites, emitting greenhouse gases and posing a significant health risk. In addition to cooking gas, the liquid fertilizer residue generated

by the system can also be used on garden areas or even farmland.

Enoch Boadu, the founder of Das Biogas, is a 35-year-old mechanical engineer with a tremendous passion and interest in contributing to sustainable development through innovations in waste management in Ghana.

Boadu's venture is one of 11 companies in the first cohort of entrepreneurs admitted into the Ghana Climate Innovation Centre (GCIC)

in May 2017. Enoch and his team have been experimenting with different versions of the portable biogas plant. With technological and product development support from GCIC, they look forward to improving the design for a seamless integration into Ghanaian kitchens.



*Gas produced from the biogas plant and ready for use.* © World Bank.

The use of the portable biogas plant encourages waste segregation in Ghana and potentially reduces the financial and social costs of waste disposal. The biogas

produced potentially replaces the use of liquefied petroleum gas and wood for cooking, reducing deforestation.

Through the support provided at the GCIC, Boadu is gaining valuable insights in the areas of technology and product development, entrepreneurship, and venture acceleration, as well as market access interventions to sustainably scale his business. He says he looks forward to perfecting the portable biogas plant and making it a visible feature of every kitchen in Ghana. ■

It was agreed that the GCIC will continue regular engagements to ensure such collaboration, in addition to the continued participation of MESTI on the GCIC Advisory Board. Donors have also expressed the desire to see more regular updates from the GCIC consortium. As a result, the consortium now provides monthly updates on the GCIC via email, in line with consortium steering committee meetings.

Designed to be working in concert with the GCIC is the Ghana Climate Venture Facility (GCVF). The GCVF is designed to fill a financing gap for early stage clean technology firms in Ghana. GCVF targets but is not limited to—high potential investable start-ups and firms emerging from the GCIC.

Investisseurs and Partenaires (I&P), one of the most experienced fund managers active in early stage (sub US\$1 million) investing in Africa was recruited in FY17 to establish and co-fund the GCVF. The GCVF is to be managed independently by a local investment management team and will seek to match the Bank and I&P financing with funds from additional private or public impact-minded investors. Greater details around this effort can be found in the Access to Finance section of this report.

The World Bank contributed the following to the GCIC effort in FY17:

- Provision of international expertise from the University of Texas Clean Technology Incubator to build the capacity of the GCIC.
- Organization of the CIC Network event during the Sankalp entrepreneurship conference in Nairobi in March 2017 to build the GCIC's capabilities and network.
- Design of the GCVF including an innovative mechanism to blend donor and private financing in an early stage, climate specific financing facility.
- Identification and competitive selection of a fund management consortium to establish and manage the GCVF including assessment of overall investing capabilities, institutional capacity, fundraising capabilities, pipeline of potential deals and.
- Attraction of potential US\$2.5 million funding for the GCVF management, investment and TA pools.
- Co-marketing of key GCIC communications including entrepreneur recruitment and staff recruiting announcements and promotion of the GCIC internationally (e.g., at May 2017 IFC Headquarters event).
- Engagement to secure endorsement of Ghana's new government for the GCIC and the GCVF as key elements of Ghana's private sector and climate strategies.
- Mobilized the interest of new partners to enter Ghana's climate technology ecosystem including Factor(E) Ventures, the Shell Foundation, and Intellectap.

## **Key Accomplishments**

- Recruitment of the first cohort of 11 climate technology entrepreneurs from an applicant pool of 80+.
- Establishment of a full team of staff at the GCIC, lead by a dynamic new Executive Director.
- Completion of the GCIC building and incubation space buildout at Ashesi University.

- Launch of the GCIC incubation programs in May 2017.
- Design of the GCVF and identification of I&P to establish and manage the facility in partnership with a local fund management team.

## **Key Lessons Learned**

- The GCVF's innovative design incorporates lessons from Kenya and elsewhere on how to attract a blend of public and private financing to a challenging investment space.
- New GCIC Executive Director reflects the fact that the success of a CIC depends largely on its leader.
- The GCIC's pre-incubation to incubation strategy reflects the reality of an immature entrepreneurial ecosystem for climate technology in Ghana.

## **FY18 Work Plan**

FY18 will be a year for the GCIC to build on its successful establishment and launch of programs in the second half of FY17. The GCIC will graduate its first cohort of entrepreneurs from the structured and intensive 3-month pre-incubation program into a longer-term (initially 9-month commitment) incubation program of customized support for the companies. Portfolio managers for each company will coordinate: technology and business advisory services; milestone-based proof-of-concept grant financing; export and market penetration support; and further customized services.

A Ghana-wide road show and marketing effort is planned for September 2017 to raise awareness of the GCIC and attract a strong and diverse set of applicants from across Ghana's regions, climate sectors, and entrepreneurial profiles. A second cohort of entrepreneurs is expected to be initiated into the GCIC in November 2017.

The GCIC will launch several innovative new offerings in FY18, including customized events and trainings for the women-led businesses in its portfolio and a "well-being" program designed to develop the GCIC entrepreneurs into well-rounded business leaders. The GCIC will also launch a formal mentoring program, in partnership with Mowgli Mentoring. Finally, the GCIC will launch its programs and events to engage the government of Ghana on policy issues, to begin the process of aligning the government's sector level regulations with the needs of the GCIC clients and the wider set of climate technology businesses, critical to the development of climate sectors.

An additional goal of the GCIC in FY18 is to strengthen its linkages within Ghana's entrepreneurial ecosystem and develop strong, strategic partnerships—both locally and internationally. The GCIC Advisory Board, consisting of leaders from Ghana's private sector, academic, government, and donor partners, will be engaged to further develop these partnerships and raise the GCIC's profile.

FY18 will also mark the formal establishment and launch of the GCVF. The GCVF will be established and funded in partnership with I&P, one of the most experienced fund managers active in early stage (sub US\$1 million) investing in Africa. The GCVF, with I&P's capacity building support, will be established as a Ghana based investment company with a Ghanaian fund management team, necessary to source and manage early stage deals. The GCVF will combine the US\$3.4 million World Bank grant and an additional US\$1.5 million of co-funding from I&P into a blended finance structure that can be leveraged with additional public and private capital. A full fundraising effort will be undertaken by the GCVF team in Q2 FY18 targeting an additional US\$4-6 million as a "first close" funding for the facility. Greater details around this effort can be found in the Access to Finance section of this report.

CTP's contributions in FY18 will include:

- Continued provision of global expertise and capacity building on climate technology incubation through the University of Texas Clean Technology Incubator and additional partners.
- Coordinating and funding the work of Mowgli Mentoring that will establish a formal mentoring program at the GCIC.
- Providing coaching and mentoring to the GCVF team on climate investing, pipeline development and due diligence of climate companies.
- Ensuring good practice for the structuring of the GCVF's blended finance facility, including transferring the Bank's experience and lessons from the Kenya CVF structuring.
- Joint fundraising alongside the GCVF and I&P teams to raise additional capital for the GCVF.
- Continued M&E capacity building to the GCIC and GCVF teams and provision of M&E analytical tools and reports allowing the GCIC and GCVF teams to adjust and improve their programs.
- Engagement with the government of Ghana to ensure continued strong support for the GCIC and facilitate climate related partners and funding that may flow through the government.
- Create pragmatic programs with international partners, including Factor(E) Ventures, the Shell Foundation, and PUM/MakingAfricaWork, around such Ghana climate ecosystem opportunities as business model transfer, innovative financing (e.g., local currency working capital facilities), and matchmaking of foreign-domestic business partners.

## Key Milestones FY18

| Milestones   | Expected FY18 timeline |
|--|------------------------|
| Graduate GCIC cohort 1 companies from 3-month pre-incubation program into the full 9-month incubation program  | Q1                     |
| Establish the GCVF including finalizing legal documents, signing and making initial disbursements from the US\$3.4 million World Bank grant, formalizing the US\$1.5 million funding from I&P, and recruiting the full set of staff and coaches for the local fund management team         | Q1                     |
| Develop a fully vetted pipeline of seed stage companies and execute the full fundraising strategy for the GCVF, targeting US\$4-6 million additional funding   | Q2                     |
| Recruit a strong and diverse set of client companies for GCIC cohort 2, including increasing representation from women-led businesses and businesses outside of Greater Accra  | Q2                     |
| Deliver an increasingly wide and sophisticated set of GCIC services including launching a mentoring program, publishing market intelligence, and delivering proof-of-concept grants  | Q2                     |
| Create effective working level linkages between the GCIC and the GCVF, as well as between the Ghana and other CICs and CVFs (e.g., Kenya CIC and CVF)  | Q2                     |
| Raise the GCIC profile and reputation within Ghana's entrepreneurship ecosystem, including developing strong partnerships with local incubators, technology centers, corporate partners, and investors. Selectively engage foreign partners. Leverage a strong and engaged Advisory Board. | Q1 – Q4                |
| Make 1-3 seed capital investments from the GCVF  | Q4                     |



### CIC Development Stage: Full Operations

The Kenya Climate Innovation Center (KCIC) mentors and supports entrepreneurs and small enterprises to develop innovative and profitable solutions to climate change. As CTP's oldest CIC, the Kenya team often actively shares lessons and expertise with other centers in earlier stages of development.

#### Overview of Progress

KCIC's initial recipient executed grant was fully disbursed and expensed at the end of November 2016. KCIC has since moved to its second phase of financial support with a grant from DANIDA that will fund operations for the next five years, to 2021.

FY17 presented a natural opportunity to conduct **an independent evaluation of the program**. The evaluation validated KCIC's strong performance in meeting program objectives, and also offered salient recommendations including:

1. To make the client admission process more robust and more rigorous—specifically to streamline processes and perform due diligence earlier in order to identify serious contenders. For example, in the past four years, the center has received 739 applications, of which only 136 hit the mark.
2. A more holistic access to finance strategy is needed as proof of concept (PoC) grants only scratch the surface. Additional support is needed for this while KCIC should consider offering higher amounts, and taking a more rigorous assessment of sub-grantees. Funds disbursement should be tied to milestones.
3. Deepen work in policy and advocacy, including work with county governments.
4. Increase KCIC visibility to attract more partners and funds for further sustainability and policy influence.

CTP aimed to act on these recommendations and to focus on the areas in KCIC's Strategy 2.0, while delivering World Bank-executed technical assistance supported by DANIDA and DFID which focuses on:

- Training KCIC staff on various aspects of incubation management, including due diligence, admission, acceleration services, with the support from the University of Texas IC<sup>2</sup> incubator.
- Supporting a few Kenyan enterprises with cross-border Business Model Diffusion in order to encourage uptake of internationally successful models in climate tech, and testing this offering for potential take-up by KCIC.
- Increase KCIC visibility through preparation of short films for various audiences including potential partners, entrepreneurs, and the public at large.
- Support with monitoring and evaluation.
- Supporting KCIC to link to other partners and programs.

## Box 10: Tackling Post-Harvest Losses Through Technology—!InspiraFarms™

A lack of cold storage facilities is a common cause of post-harvest losses and a major challenge for farmers operating in remote areas or in places without grid access. Delivering fresh agricultural products without cold storage strains product management, reduces product shelf life, and ultimately lowers a farmer's potential income. **According to the Food and Agriculture Organization (FAO), about 30-50%**

of food harvested in sub-Saharan Africa is wasted due to lack of storage facilities. Reliable measures to curb these losses are important, not only to help farmer's earn more money, but more broadly to help improve global food security.

To tackle this problem, Projects Ventures, an agricultural technology company, developed a cold storage platform that can be run off grid, typically with solar power. First established in Guatemala in 2012, the company set up offices in Kenya in 2014 to serve East Africa. In Kenya, the cold storage and dairy chilling platform, !InspiraFarms, saves farmers an average of 3.5 hours per day (the time conventionally dedicated to milk delivery) and can boost productivity by 40% in the first year.

The broader impact of the technology has been a significant reduction of waste in dairy and horticultural processing, with a 20% increase over the raw product price and time saved for smallholder farmers.

To help reach more customers, the company is now deploying its own interest free loan service where customers provide a small down payment, then pay the remainder at six month intervals aligned with rainy seasons and harvest cycles. This payment plan generated an average net increase of revenues to farmers of over US\$15,000 over the repayment period. This translates into a significant opportunity to tackle poverty by increasing farmers' incomes and generating full time employment. ■



*!InspiraFarms' cold storage and dairy chilling platform. © World Bank.*

of food harvested in sub-Saharan Africa is wasted due to lack of storage facilities. Reliable measures to curb these losses are impor-

### Key Accomplishments

- Received a strong independent program evaluation and unqualified audit reports.
- Closed the initial grant to KCIC will full disbursement and expenditure of the grant amount.
- Reached over 136 clients with various support services, against a target of 80, created 1,602 jobs against a target of 900, supported the establishment of 80 businesses that came in as ideas against a target of 36, and leveraged more than US\$11,000,000 from other sources of funding. Of this, US\$3,623,833 was equity, US\$2,319,000 was debt, and US\$5,151,743 was in grants.
- Over 160,000 people now able to cope with effects of climate change, over 144,000 tons of CO<sub>2</sub> mitigated and over 125,000 people accessing low carbon sources.
- KCIC acquired legal entity status, and raised additional funding from DANIDA to operate to 2021.
- New strategy launched and operationalization is underway.

## Key Lessons Learned

- Direct targeting as a market approach helps to improve the number and quality of entrepreneur applications. This is further improved by partnering and collaborating with other players, including government at all levels.
- Once an enterprise becomes a client, they should enter a 'pre-incubation' period to assess the level of commitment. This proactive approach will help to avoid uncommitted clients, as well as, increase operational efficiency and value for money.
- KCIC should have a clear exit strategy for entrepreneur clients.
- Mentorship should be integrated as a core part of the services offered to clients.

## FY18 Work Plan

With the objective of moving KCIC towards self-sufficiency as a center of excellence in the climate tech sector, CTP focused in FY17 on supporting KCIC with its strategy objectives such as a strong and sustained commitment to improving organizational capacity, client management processes, building pipeline, as well as, building the enabling ecosystem with activities like policy advocacy.

For FY18, CTP will continue supporting the KCIC 2.0 strategy with activities mutually agreed with the KCIC management with a focus on: (a) KCIC staff capacity development and KCIC networking (b) supporting new business lines at KCIC, including virtual business incubation, mentorship and early stage financing and (c) building sustainability and visibility for KCIC. CTP will also continue with the activities that strengthening the broader clean tech ecosystem in Kenya including the ongoing Business Model Diffusion activities that commenced in FY16.



*Ramana Gandham WB Program lead, Edward Mungai KCIC CEO, Prof. Judi Wakhungu Cabinet Secretary, Ministry of Environment, Natural Resources and Regional Development Authorities, Tony Gardner, Deputy Head DFID Kenya and Anne Angwenyi Danida Team Leader NRM & Climate Change during the Launch of KCIC 2.0. © World Bank.*

## Key Milestones FY18

| Milestones  | Expected FY18 timeline |
|---|------------------------|
| KCIC staff capacity development                   | Q4                     |
| Support of KCIC's new business lines              | Q4                     |
| Support with KCIC's visibility and sustainability | Q4                     |

### CIC Development Stage: Launch Phase

As the only support organization exclusively centered on clean-tech incubation in Morocco, the Morocco Climate Innovation Center (MCIC)/Cluster Solaire aims to grow the country's green sectors by serving early- and later-stage enterprises, with a strong focus on solar companies. Founded in 2014, the center currently receives funding from the Moroccan Ministry of Industry, MASEN (the Moroccan Solar Energy Agency), and GIZ (Germany's international development organization).

### Overview of Progress

At the start of FY17, International Finance Corporation (IFC) technical assistance funding was used to strengthen MCIC's capacity, streamline and strengthen the business model, and conduct the joint Climate Entrepreneurship Ecosystem diagnostic. Newly tailored monitoring and evaluation (M&E) tools to track the ecosystem were also developed. In addition, MCIC's business process and internal governance review were finalized and approved.

Building partnerships to further support the business services of MCIC/Cluster Solaire were a top focus in FY17. To that end, discussions with *Climate-KIC*, an EU climate change innovation program, were convened with the assistance of the CTP team. The CTP team also assisted in linking the center to other potential partners, such as the *ASME Foundation*, and mobilized additional resources to scale up complementary parallel activities with the US State Department, GIZ and the European Union.

Challenges remain around securing more adequate grant funding to provide to firms, as well as, overcoming human resource and governance constraints. To that end, MASEN is in the process of hiring a new Incubator Manager and aims to bring them on board in Q1 FY18.

The delivery of the Climate Entrepreneurship Ecosystem Diagnostic in April 2017 created substantial value. In addition to providing valuable insights for the MCIC/Cluster Solaire team, the study has piqued donor interest and increased partner traction. CTP is eager to replicate this success and has already begun a similar ecosystem diagnostic in its climate innovation center in Vietnam.

The IFC Advisory Project was carried out in two steps:

1. Conduct a climate entrepreneurship ecosystem diagnostic to gain a deepened understanding of the needs of Moroccan green entrepreneurs; map the current climate entrepreneurship ecosystem including existing organizations supporting these entrepreneurs; and understand the barriers to scale faced by these entrepreneurs in order to best design activities to support them.
2. Review the functioning of the climate innovation center to pivot and strengthen existing support to better respond to entrepreneur needs. The MCIC/Cluster Solaire continues to be hampered by human resource gaps, which the team is working on resolving together with MASEN.

## Box 11: eLum Illuminates Energy Savings for Moroccan Businesses

On a windy rooftop in Casablanca, Morocco, Karim El Alami smiles as he looks out at the city. Just last year, he and Cyril Colin co-founded **eLum**, a company that offers a software-as-a-service product, dubbed the Energy OS (Operating System). It employs artificial intelligence (AI) to help industrial and commercial customers manage on-grid and off-grid energy costs.

Their innovative solution targets companies looking to gain insight and save costs on their electricity bills and fuel consumption. In particular, eLum is piloting an energy storage system coupled with a photovoltaic



production unit that runs on their Energy OS. This service represents a new opportunity for industries that have traditionally relied

on national energy costs to move off-grid, as well as an opportunity to make significant reductions in their energy costs. eLum has two strong competitive advantages: a powerful AI algorithm that forecasts the consumption of the plant, coupled with weather forecasts and the ability of the software to be plugged in any kind of photovoltaic technology or brand.

The firm's value lies in its ability to increase the value and profitability of both on-grid and off-grid energy projects, making it more attractive for industries to invest in renewable energy production and storage.

It helps its customers save at least 20% of their energy costs and reduce their carbon emissions by 30%.

With a staff of 22, eLum has offices in Paris, France and Casablanca, Morocco. It has grown fast in its first year with the help of incubation services from the Moroccan Climate Innovation Center (MCIC). Initial funding for the company has come from a variety of sources; 100,000 Moroccan dirhams (MAD), or about US\$10,000, were self-funded, while an additional 150,000 MAD in grants came from AMICA, Banque Populaire, and the MCIC.

The market for energy management software has been growing by 30% year over year, so a product that optimizes the yield for independent energy producers is well-positioned. There is a large need for effective energy management systems across the African continent, especially in telecom towers and the mining industry—representing significant opportunities for the company to grow.

For now, eLum's first target customer is the automobile industry in Tangiers. The company aims to help the industry optimize production, storage, and consumption of renewable energy.

Beyond cutting costs for businesses, eLum has the potential to create a positive environmental impact by reducing losses linked to the transportation of electricity (estimated to be between 3% and 7%), as well as reducing carbon emissions and decreasing the dependence on fossil fuels. ■

## Climate Entrepreneurship Ecosystem Diagnostic

The WBG, in partnership with the Morocco Climate Innovation Center (MCIC) undertook the first Climate Entrepreneurship Ecosystem Diagnostic in 2016-2017. A thorough review of green entrepreneur needs, barriers that exist to support them, and the mapping of existing support organizations in Morocco was performed.

Based on the Babson Ecosystem Model and a robust methodology:

- An online survey was sent out in July-August to both experts (academia, banks, Venture Capitalists, Support organizations, etc.) and green entrepreneurs. The response rate was strong (354 responses) giving a robust sample, and provides extremely valuable insights into many aspects of green entrepreneurship in Morocco, from funding, to technology sectors, to stage of entrepreneurs, and where the key support gaps are, to best target project implementation interventions.
- In-depth in-person interviews were conducted from August to September with 44 experts and entrepreneurs in the ecosystem that came to complement and reinforce survey results.



- Preliminary results and analysis were presented by the team at COP22 in Marrakech, and have received initial positive feedback.
- Further to informing project implementation, the final diagnostic report has been published online as of April 2017, as a public good, and is being planned for launch event together with other interested donors or partners (EU, GIZ, British Council, etc.).

Figure 11 on the next page depicts a key output from the study.

## Key Accomplishments

- Conclusion and delivery of the Climate Entrepreneurship Ecosystem Diagnostic
- In partnership with the MCIC and MASEN, the team launched the Climate Business Innovation Network at COP22 held in Marrakech. This network, with a growing number of linkages to international impact investors and knowledge partners (such as the *Shell Foundation*), will help crowdsource fresh global sources of finance and expertise.

## FY18 Work Plan

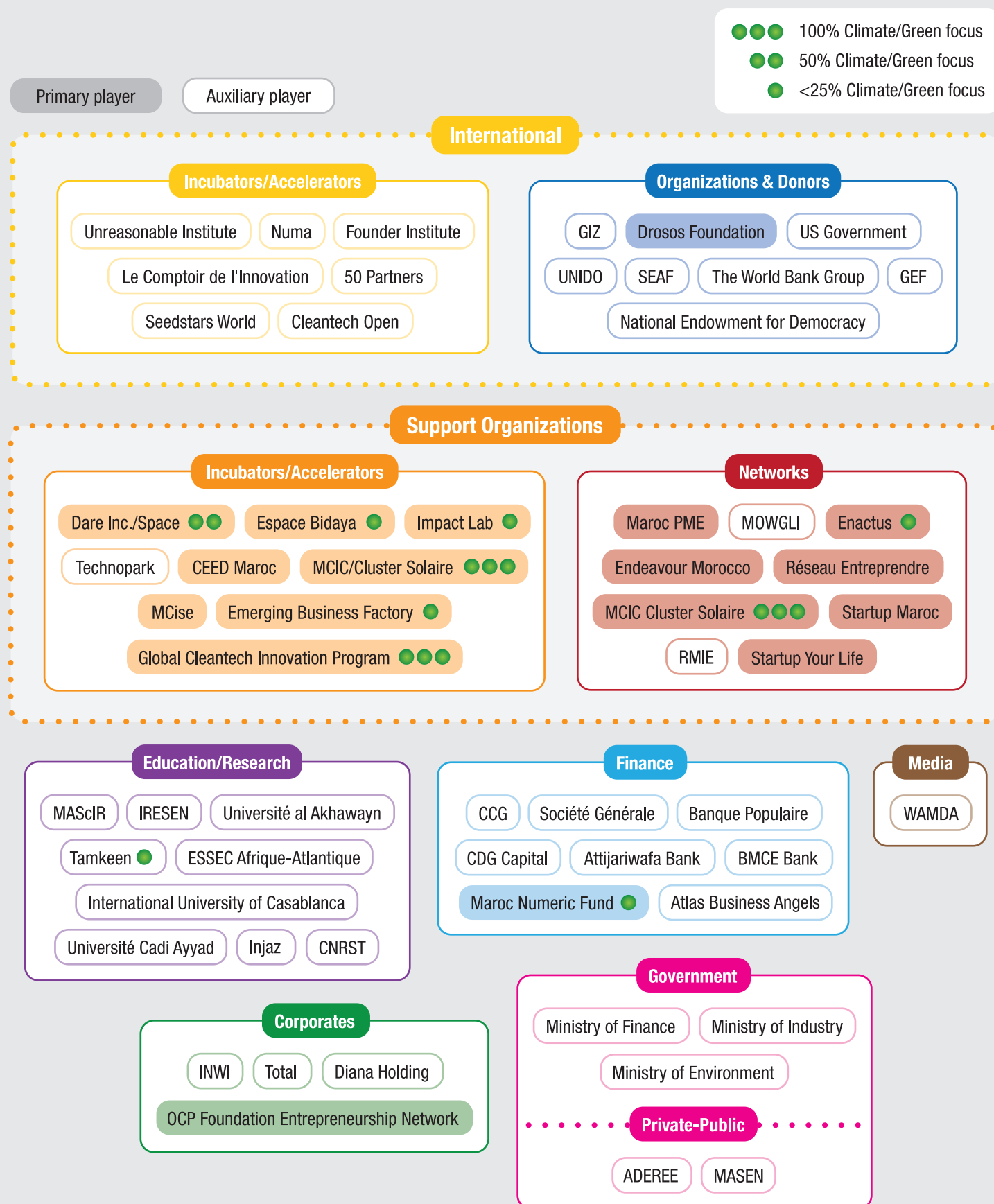
MCIC will be focused on strengthening the climate tech ecosystem, forging and developing partnerships, and further building its pipeline of entrepreneurs. A top priority for Q1 is to recruit and onboard a new Incubator Manager.

Using the climate entrepreneurship diagnostic along with input from stakeholders and donors as a guide, the team will implement IFC advisory services across FY18. Specifically there will be a focus to strengthen the cluster, through a partnership with *Climate KIC*. It will also focus on expanding access to finance efforts, and further building the green pipeline of firms.

## Key Milestones FY18

| Milestones  | Expected FY18 timeline |
|---|------------------------|
| Start of ecosystem strengthening activities                   | Q1                     |
| Hire new incubator manager                                    | Q1                     |
| Partnership with ASME Foundation                              | Q2                     |
| Dissemination of Climate entrepreneurship diagnostic          | Q1                     |
| Scale up of pipeline support to green ventures                | Q2/Q3                  |
| Start of advisory support to early stage funders on Cleantech | Q2/Q3                  |

**Figure 11: Mapping startups and their enablers by entrepreneurial stage**



## South Africa CIC

### CIC Development Stage: Scale-up Phase

Operational since 2013, the South Africa Climate Innovation Center (SACIC) is an incubator of the Gauteng provincial government under the Innovation Hub located in Pretoria. It aims to build a competitive green sector and create green jobs in the province.

SACIC has never received direct financing from CTP, but has received support services and staff training through the CIC network over FY16 and FY17. Like the other CICs, South Africa's CIC continually strives to strengthen its positioning, business model and services. FY17 was an important year for hiring new staff—the center brought onboard a new CEO as well as a new senior manager, and it is currently recruiting a new portfolio manager.

Top challenges include high staff turnover and securing long-term operations funding; at the end of 2017 the Development Bank of South Africa (DBSA) funds the center has received thus far will expire.

### Overview of Progress

Across FY17 SACIC was focused on transitioning from the pre-incubation only model to a full-fledged incubation model for services. During the transition SACIC expanded its management team with the creation of a General Manager position. To reflect the needs of their new model, SACIC developed standard operating procedures and implemented a new portfolio management system. Portfolio managers are now assigned to firms clustered around specific sectors to ensure more tailored support, increased operational efficiency, and a greater value for the entrepreneurs.

SACIC has been working on vetting its companies to exit those firms that either no longer need their services or have been underperforming. This effort simultaneously improves the quality of the entrepreneurial pipeline and helps SACIC portfolio managers who have historically been stretched thin due to the small team size. Four non-performing entrepreneurs have already exited.

Moving into FY18, the SACIC budget has been halved, which will create a significant strain on the team. To that end they have been aggressively fundraising for the next year and will continue to do so. Next year's efforts will be centered around the implementation and refinement of the new standard operating procedures under the new incubation model, and continuing to vet and exit underperformers.

### Key Accomplishments

The center adopted a revised action plan that includes a strategic realignment of the business model. SACIC also filled key staff positions, such as the CEO, to help deploy its action plan.

### FY18 Work Plan

- Management will focus on building the capacity of their staff, especially in technical issues related to climate innovation.
- SACIC will pursue an aggressive fundraising strategy.

- Conduct a review of their mentors to ensure a higher level of professionalism, commitment and drive.
- Recruit and vet new firms for the pipeline, continue activities to exit under-performing firms

## Key Milestones FY18

| Milestones   | Expected FY18 timeline |
|--|------------------------|
| Hire new Portfolio Manager   | Q1                     |
| Update and implement a more rigorous portfolio manager TOR and scope of work | Q4                     |
| Recruit new businesses   | Q1 and Q3              |
| Capacity Building for SACIC Staff  | Q1-Q4                  |
| Revisiting mentors' list and profiles  | Q1                     |
| Securing new funding for SACIC   | Q1-Q2                  |
| Training SACIC companies   | Q1-Q4                  |

## CIC Development Stage: Full Operations

Officially launched in December 2015, the The Vietnam Climate Innovation Center (VCIC) is focused on developing impactful business models and market access mechanisms that can be scaled up or replicated. **As the first clean-tech innovation center in Vietnam**, VCIC is positioned to be a leading advocate for local policy solutions as well as enhancing connections with other World Bank Group projects.

To better understand the contributions that VCIC can make in the broader Vietnamese ecosystem, CTP launched a diagnostic study in FY17. Planned for completion in Q3 FY18, the Climate Entrepreneurship Ecosystem Diagnostic (CEED) seeks to identify and map the institutional players active in the areas of climate, innovation, and entrepreneurship in Vietnam. The analysis will ultimately point to ways in which VCIC can play a larger role within this booming ecosystem. A similar study was conducted and delivered in Morocco earlier this year, and the team will benefit from this experience.

### Overview of Progress

VCIC made significant progress in FY17 towards being fully operational and delivering its services to client entrepreneurs. The Center is currently supporting its first cohort of 17 entrepreneurs selected through the first Proof of Concept (PoC1) competition. Cohort 1 is made up of firms focused on energy efficiency, sustainable agriculture, renewable energy, water management, and information technology applied to green sectors. Five of the 17 companies (29%) are women-led or women-founded. We have found that the most in-demand services are assistance with commercialization, intellectual property, business development, investment readiness, management and sales, financial management, networking, marketing, and results monitoring.

In the first half of FY17, VCIC focused on completing the recruitment of key personnel, including the CEO and Project Coordinator, who officially joined in early November 2016. With the Center now fully staffed, VCIC is well positioned to undertake its mandate. The Center's operating procedures and processes (including the Project Operating Manual) were finalized as was our monitoring and evaluation (M&E) system. The Center has begun to systematically collect data, which will help better deploy our services going forward.

Strengthening our capacity was a top priority for FY17. A workshop was convened in December 2016 with the World Bank and IC<sup>2</sup> from the University of Texas, a leading US clean-tech incubator. The strategy shaping session revolved around: i) defining the role of VCIC in its ecosystem; ii) defining the center's incubation model; iii) reviewing and finalizing the VCIC services for companies; and iv) overall sustainability of the Center. A key outcome from this exercise was the launch of our CEED study.

VCIC's incubation model was also redefined. While it previously focused on incubation and commercialization, a key outcome of the business strategy workshop was the decision to shift to a more sequenced approach. VCIC will now focus on pre-incubation and incubation, which will ultimately better serve a diverse set of entrepreneurs. The pre-incubation approach will help VCIC to attract a larger set of companies and explore the best ways to support them. Gradually the VCIC will move a subset of these companies to receive grant funding, which will be based on performance metrics from pre-incubation. The pre-incubation process could last anywhere from one week to three months—with longer periods of pre-incubation resulting in higher quality firms and a stronger entrepreneur pipeline.



## Box 12: MITECOM's Mighty Microbes Make Short Work of Agricultural Waste

Vietnam's vast agricultural sector produces 70 million tons per year of crop residues. Often they are abandoned by farmers, causing water pollution, air pollution, greenhouse gas emissions as result of intentional and accidental burning, and road safety problems. While composting of crop residues is a possible solution, farmers rarely have the patience.

**Micro Technology and Environment JSC (MITECOM)**, with the assistance of Vietnam Climate Innovation Center (VCIC), has conducted research and developed several cultures of effective microorganisms that quickly break down various crop residues into organic composts (fertilizers) that can replace chemical fertilizers. The increased speed of composting using effective microorganisms is expected to benefit the farmers thorough lowering the cost of fertilizers, in addition to reducing the climate impact of chemical fertilizer production.

While the environmental and commercial benefits of the crop residue-specific microbes developed by MITECOM, are clear, it is a challenge to wean farmers from the chemical fertilizers they have been using for decades.

With VCIC support, MITECOM has conducted demonstrations for farmer groups that handle large amounts of paddy straw, rice husks, maize husks, cassava stems, bagasse, and peanut shells and leaves to increase their confidence in the reliability of the new method and its cost effectiveness compared to chemical fertilizers.



*Le Dinh Duan (in blue shirt), CEO of MITECOM, shows farmers how to use EMIC. © World Bank.*

MITECOM has expanded its production facilities and started developing new markets, and over 10,000 units of EMIC products have resulted in the reduction of 15,600 tons of carbon dioxide emissions. The company has created 25 new jobs, including 12 women.

In addition, VCIC has helped MITECOM raise US\$170,000 in grants to expand its reach to farmers across the country by installing the fermentation and EMIC multiplication equipment in various locations. ▀

The pre-incubation process also aims to build a curriculum of services on top of the usual PoC grants and would help build VCIC's brand as the leading clean-tech business advisory organization in Vietnam. This model is thought to play an important role for the Center's long-term viability, as an expanded suite of services could help pave the way for additional revenue streams.

VCIC also continues to benefit from its participation in the CIC Network Annual Meeting. Three VCIC staff travelled to Nairobi, Kenya in February 2017 for a week of training and networking sessions along with other CICs and CIC Network partners. There, they learned about incubation practices, financial management, and ecosystem development while sharing their experiences with other countries. Valuable peer-to-peer interactions were made with the MCIC and CCIC. Moving forward, VCIC will be participating in monthly webinars on select topics of interest, such as results measurement and donor reporting, exit strategy and enterprise graduation, and more.

In the second half of FY17, the Center's focus shifted to implementing the new operating model and preparing for the second PoC competition (PoC2), which was launched in May 2017. PoC2 was highly successful and attracted over 328 applications. The VCIC team promoted the competition through online and offline channels and held three workshops in Hanoi, Da Nang, and Ho Chi Minh City to spread the word and answer questions from prospective applicants.

Sixty-three finalists were selected to participate in a week long pre-incubation training held in Hanoi in mid-June 2017. The training focused on business planning, financing, and pitching, all of which have been identified as areas of demand by the first cohort of companies. By mid-August 2017 their full proposals will be evaluated and the finalists notified.

Two VCIC entrepreneurs traveled to Manila to attend the Asia Clean Energy Forum in June 2017. There they discussed the risks and challenges clean-tech firms face with policymakers, investors, other entrepreneurs, industry, and other stakeholders.

## Key Achievements

- VCIC currently supports 29 businesses with grants and services. Five of the current 29 companies are women-led. In addition, 15 of the 64 shortlisted companies for the second cohort are women-led.
- Five of our companies registered their prototypes for intellectual property protection.
- The 18 enterprises raised early-stage financing of US\$494,310; with six companies beginning to raise growth-stage financing of US\$266,075.
- VCIC also helped four enterprises (Mitecom, Bio Phuong Nam, Lam An, and VES Solar Box) secure follow-on funding from government schemes. Mitecom has successfully raised US\$157,000 in additional funding from a commercialization scheme within MOST. The others are also expected to secure follow-on funding from other government program, in smaller amounts.
- The number of units of improved products/services sold in this year was 141,156 (product units) reaching 101,256 customers (households). Furthermore, 133,454 tons of CO<sub>2</sub> emission have been avoided. **These have exceeded the set targets by the project for its entire duration.**
- Although only 9 months since implementation, the enterprises we support have created 750 new direct jobs, with 43.9% jobs created for women, and thousands of indirect jobs for local households.
- A call for new applications was launched in May 2017 and the center received over 328 applications. 64 candidates were shortlisted and received intensive training by local and international experts.

## Key Lessons Learned

- The Center must be flexible and open to adjust the model based on lessons learned. This learning-based approach led to a shift in the business model towards pre-incubation services, which ultimately allows VCIC to support a larger number of entrepreneurs in their growth process. It has also helped build a core suite of services aside from the PoC grants.
- Forging strategic partnerships that will help advance VCIC operations and positioning in the Vietnamese ecosystem must be prioritized. To help achieve this goal, the ecosystem diagnostic (CEED) was launched and will be finalized in FY18.
- Having the right staff in place and continuously looking for opportunities to build their capacity is critical to our long-term success.

- Taking the opportunity to learn from the experiences of more advanced CICs and other intermediaries through CBIN is a powerful tool to help the Center tackle current challenges and avoid common pitfalls.

## **FY18 Work Plan**

In FY18, VCIC's priority will be to fully operationalize our offering to entrepreneurs selected through the first two PoC rounds (PoC1 and PoC2). The team will be chiefly focused on:

- Continuously supporting enterprises in the pre-incubation stage by strengthening their proposals and refining their business models. Among the services being provided will be trainings on how to market their services, market intelligence, understand their customers, and how to connect with investors. At the end of this process, select enterprises will move to the incubation process and receive grant funding.
- Companies being incubated under PoC1 will continue to receive services from VCIC, complete the activities under the individual grants and graduate from the program. For them, VCIC support will be mostly focused on connecting them to local and international markets (such as the international techmart), helping to register their products for intellectual property, and facilitating opportunities for technology transfer with other markets. For this, the partnership forged with the Japanese corporation, Marubeni, will play a key role. VCIC will also continue to support companies in their efforts to secure follow-on funding whether from government programs (such as MOST's Commercialization Program), other grant programs, or investors. Thanks to VCIC support, four companies have already managed to secure follow-on funding, and they consider this a very valuable service being offered by the Center.
- Leveraging the policy angle, the Center will continue to engage in policy advocacy around select topics related to clean-tech regulations, with a particular interest on issues related to female entrepreneurs. The Center is planning to play an active role in the design of public-private dialogue (PPD) events and participating in drafting relevant Ministerial Circulars/Decrees for supporting clean-tech startups.
- Taking advantage of the APEC being held in Da Nang in November, the Center will actively participate and co-sponsor leading events, such as the SME Forum in September, which will help raise awareness of the Center's activities, promote entrepreneurs, and forge strategic relationships.
- Responding to the donor's request for more gender-specific programming, the Center will appoint a Gender Focal Point within its team. This person will be in charge of mainstreaming gender activities among our services and see that there is greater inclusion of female entrepreneurs among the Center's clients. As agreed with the donor, VCIC will develop a gender "work plan" detailing gender-specific activities and outreach. Through the CIC Network, the World Bank team will also explore offering dedicated training (e.g., webinars) on gender inclusion aimed at further strengthening the capacity of VCIC in this area.
- Completing and launching an e-portal; which will have functionality to connect entrepreneurs with international companies, offer online trainings and serve as a repository of data on the companies supported by VCIC. The e-portal will play an important role for our sustainability, as some of the online offerings are intended to be offered for a fee.

- Developing a sustainable financial model, which will ensure sustainability after the end of the grant. The fee-based services offered through the e-portal are only one of the revenue generating options being explored, but VCIC will also be looking at securing additional follow-on funding from donors and government programs. The World Bank will support the Center in this effort and is currently in conversation with the Government of Australia for follow-on funding.
- The World Bank team will continue to support and strengthen the capacity of VCIC staff by providing exposure to international best practices on clean-tech incubation, engaging them in relevant training and events, and providing them with global experts to work alongside the team.
- Lastly, the World Bank team will finalize and deliver the Climate Entrepreneurship Ecosystem Diagnostic (CEED).

## Key Milestones FY18

| Milestones   | Expected FY18 timeline |
|--|------------------------|
| Development of a gender action plan  | Q1                     |
| Provision of pre-incubation services to PoC2 companies                                 | Q1                     |
| PoC2 companies selected for funding  | Q2                     |
| Graduation of PoC1 companies   | Q2                     |
| Policy advocacy interventions (drafting decrees) and participating in policy dialogues | Q3                     |
| Ecosystem Diagnostic (CEED) Finalized  | Q3                     |
| Extension of the World Bank grant to VCIC  | Q3                     |
| Provision of services to entrepreneurs   | Q1-Q4                  |





# Access to Finance

CTP's access to finance activities are broken down into four programs including; Kenya Climate Ventures; the Ghana Climate Venture Facility; Finance Lab; and the Early Stage Finance Collaborative (Market Connect).



## Kenya Climate Ventures

Kenya Climate Ventures (KCV) is a pioneering, early-stage investment company investing in Kenyan clean technology ventures with commercial and high-growth potential. Based in Nairobi, KCV was established by KCIC in FY16 as an independently managed and governed investment company with a US\$4.9 million grant from CTP.

KCV provides patient risk capital coupled with management and technical assistance to its investee companies. In addition to its own investments, KCV also aims to leverage co-investment and follow-on capital for its investee companies. Over the next three to four years, KCV plans to raise additional funding to enable expansion and portfolio growth. With its focus on start-up and early-stage investing in the clean-tech sector, KCV represents an important new pioneer for the country's impact investing, private equity, and venture capital ecosystem.

The goal for FY17 was to commence early-operations of KCV, with a principle focus on identifying/assessing investment opportunities and making a first set of investments. In addition, KCV aimed to further develop its institutional capability, refine its investment model based on learnings, and build networks with other investors and stakeholders also operating in the climate technology space in Kenya.

### Overview of Progress

KCV is still a young investment company with a small team. The Chief Investment Officer (CIO) Paul Ohaga took over the leadership and management of KCV in Q1. Mr. Ohaga received support and guidance from an active and experienced KCV Investment Committee and Board on investing and institutional matters as the facility considered its first investment and developed institutional capability.

CTP played an active role in KCV's early development. In collaboration with this new team, and leveraging the expertise and advice of colleagues from the IFC, CTP helped to define and design the KCV business model and investment thesis. It also brought in expert coaches who have worked closely with the CIO in formalizing the investment process in practice. **CTP connected KCV with local and international partners, leading to two strategic relationships and one co-investment.**

KCV evaluated over 80 investment opportunities in FY17, which were a mix of start-up and early-stage investment companies with a healthy balance between climate mitigation and climate adaption businesses. Of the 80 investment opportunities, 13 were taken to the investment committee for initial review. Advance due-diligence was conducted on eight companies and four companies were submitted to the investment committee for final approval. By end of FY17, KCV had approved its first three investments and closed two investments.

KCV's first two investments were both early-stage businesses in the climate-smart agriculture sector.

- **Hydroponics Africa (HPA)** - US\$350,000 convertible loan - Develops and markets hydroponic farming systems to small-holders farmers in Kenya and other East African countries. Its products allow farmers to grow crops using up to 80% less water and 30% less space than conventional farming methods and also reduce the need for pesticides and fertilizer, while increasing yields by up to 30%. One of KCIC's main clients, HPA has developed a few product lines for its target market segments, and received positive sales traction. KCV is the first investor in HPA and the investment will enable HPA build its management and operational capacity and further develop and roll-out its business model in Kenya and other countries in the region.


- **Kilifi Moringa (KM)** - US\$500,000 convertible loan - Procures Moringa leaves and seeds from a network of small-holders farmers in Eastern Kenya who grow the climate/drought resilient Moringa crop. KM aggregates and processes the Moringa leaves/seeds for into oil and other value-added products, which are then exported as product inputs for international cosmetics companies. KCV is the first institutional investor in KM and its investment will allow KM to expand its manufacturing capacity as well as develop new products for the regional and international market.

In closing these deals, KCV worked closely alongside players with similar focus either by investment stage or sector. It is co-investing with the DEG Upscaling program in Kilifi Moringa and working alongside Climate Focus, as they offer capacity support to Hydroponics Africa.

## Key Accomplishments

- Assessed over 80 opportunities through a multi-stage review process, making its first three investments and building a strong investment pipeline for FY18.
- Tested and validated robust investment processes in evaluating investments.
- Recruited the remaining investment team.
- Built a strong network of co-investors and stakeholders with whom to partner. CTP introduced KCV to the Shell Foundation and Factor[E] resulting in increased pipeline, including five referrals at least of which will likely lead to an investment, and close working relationships going forward (see Box 13)
- Brought in top experts as coaches to the team resulting in increased pace and quality of investment process and operations, specifically with team recruitment and business plan formulation.

### Box 13. KCV partnership with Factor[e]

CTP—in line with its renewed focus on building local institutions in collaboration with global partners—catalyzed a partnership between KCV and Factor[e] Ventures, by bringing the CIO to Shell Investor Day, organized by Shell Foundation, a CTP partner. Factor[e] is a clean technology seed fund and incubator with offices in the US, India, and Kenya that focuses heavily on technology validation and hands-on technological assistance to its investees, areas in which KCV does not have strong expertise. Factor[e] and Shell Foundation were already able to refer five potential deals to KCV, one of which is expected to close in Q1 FY18. Going forward, KCV will benefit from Factor[e]’s pipeline and strong engineering team in Nairobi, while Factor[e] will be able to tap into KCV’s local investment capability and deal flow. 

## Key Lessons Learned

- KCIC has proven to be an important pipeline for KCV, validating an important hypothesis of the project design. Almost half of the 80 deals that the investment team reviewed were referrals from KCIC and five of eight companies presented to the investment committee were from that crop.
- Across FY17 the investment approach has undergone continuous calibration to take into account feedback from the market. KCV learned:
  1. **Target sector:** Most of the opportunities identified were within the energy and agribusiness sectors with very few commercial opportunities seen in the water sector.
  2. **Investment size:** Most businesses in the target stage were looking for investments in the range of US\$300,000 to US\$800,000.
  3. **Grants:** The climate technology sector is still strongly dominated by grant funding. This is useful for the sector to grow and KCV will ultimately need to work alongside grant actors as co-investors to increase chances of success.
  4. **Investment instrument:** Although some more experienced entrepreneurs are comfortable with equity funding, many are unfamiliar or uncomfortable with the idea of giving up equity. This means that more creative instruments, such as combinations of preference shares and convertible loan investments may need to be used more frequently.
- Set-up was slower than anticipated due to KCIC's limited investment experience. Future venture facilities should prioritize investment expertise in the principal implementing partner.
- Building a strong team quickly is key. The slow pace of hiring the investment team led to bandwidth bottlenecks with the CIO.
- KCV itself is a startup. Its investment team, IC and board are going through a learning process, and they are getting closer and closer to their investment sweet spot in terms of business stage, risk, sector and climate fit. In the next few months, KCV plans to close the three approved deals and more aggressively source its next set of deals. At the same time, KCV will refine its positioning as it continues to create market awareness.

## FY18 Work Plan

In the coming financial year, KCV aims to further build out its portfolio, advance its institutional development, build additional partnerships and engage the ecosystem, and ultimately working toward its long-term growth sustainability.

**Portfolio development:** Building off the foundations in FY16 and deal-flow generated, KCV will continue to develop its portfolio by making three-to-four additional investments in early-stage firms. KCV will also develop a technical assistance capability for its investee companies that will draw on external experts to deliver support in areas such as HR, business strategy and planning, financial management, management information systems, distribution models, and fundraising.

**Ecosystem engagement:** Deal flow is a critical success factor for KCV and to increase its access to investment opportunities the management team will spend more time engaging the ecosystem in FY18. This will involve networking with other local and international investors and active participation at relevant conferences for early stage and/or clean technology investing. Relatedly, KCV will continue to seek co-investors for its deals. This is in part a risk-mitigation and cost-sharing mechanism. However, mobilizing additional private capital is also part of CTP's overall mission.

**Long-term sustainability:** Committing a large portion of its available funds to investments in FY18, KCV will develop and implement a fundraising strategy. As a first step, the management team will develop an information memorandum that describes the investment thesis and track record of the fund. In parallel, the team will collect a running list of potential investors (limited partners) for the fund. The team will then present the opportunity to investors as part of a road show.

## Key Milestones FY18

| Milestones   | Expected FY18 timeline |
|--|------------------------|
| Make 3-4 new investments                                   | Q1 - Q4                |
| Support portfolio companies in key capacity building areas | Q1- Q4                 |
| Develop long-term business plan                            | Q2                     |
| Engage potential investors into KCV                        | Q3-Q4                  |

## Ghana Climate Venture Facility

The Ghana Climate Venture Facility (GCVF) is part of CTP's program in Ghana. Working alongside the Ghana Climate Innovation Center (GCIC), it aims to address the financing gap for Ghanaian early stage clean technology firms with high growth potential. GCVF will provide patient risk capital coupled with hands-on management assistance to its investee firms to enable them to develop their business models and get on a path to scale. Anchored by a World Bank grant, GCVF seeks to leverage the Bank's contribution by crowding-in private investors.

GCVF will be managed independently by a local investment management team and seeks to match the Bank financing with funds from additional private or public investors. Its innovative design, unique among World Bank operations, blends CTP's climate technology expertise with the know-how of an accomplished international early-stage investor to build a strong local institution.

### Overview of Progress

In FY17, CTP's Access to Finance component finalized the innovative design of GCVF and completed a competitive selection process for a fund management consortium to manage the Facility. Detailed proposals for the structure and management of the GCVF were solicited in late 2016 from fund managers identified to have strategic alignment and appropriate capabilities to manage the GCVF. These were followed by a series of phone calls, after which the top two candidates were selected for field due diligence meetings through a World Bank mission. CTP identified and selected Investisseurs et Partenaires (I&P), a French early-stage fund management company along with a Ghana-based fund management team, as the principal partners for establishing and managing the GCVF.

I&P is an SME/impact investing group dedicated to Sub-Saharan Africa that currently manages €75 million and has supported more than 60 small and medium enterprises in 15 African countries, including Ghana. As the partner in GCVF they bring their early-stage investing expertise and also contribute US\$1.5 million to the Facility.

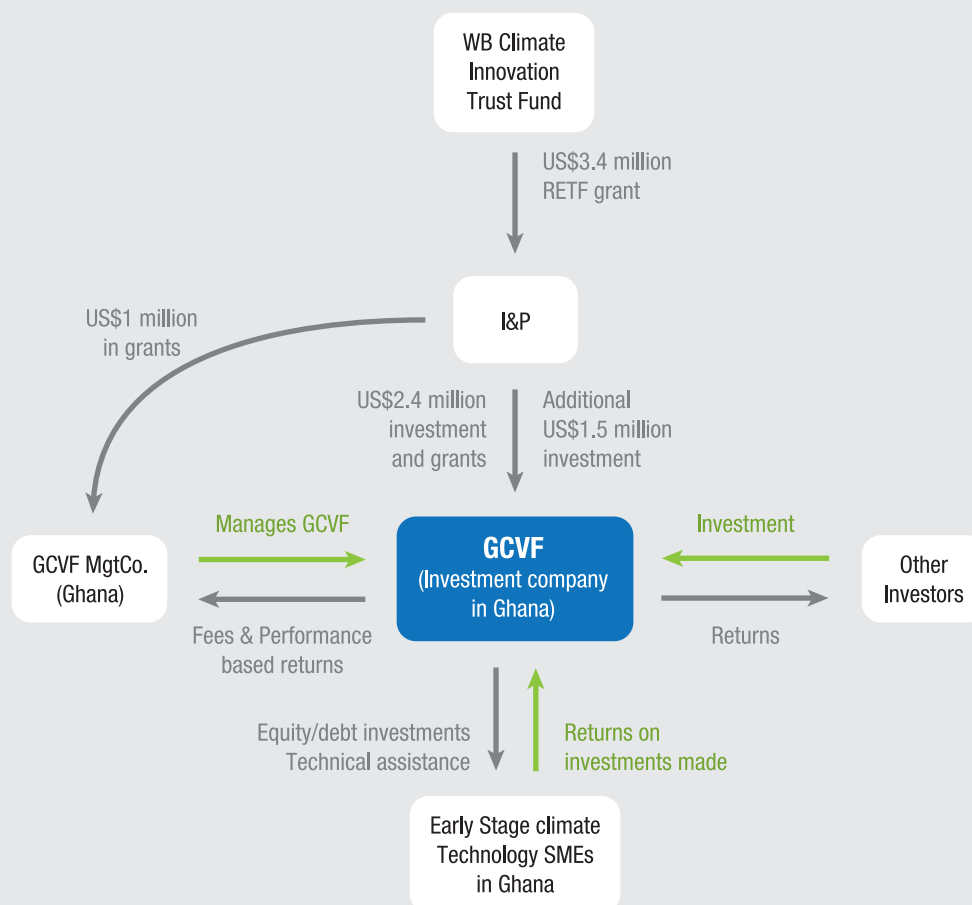
GCVF will be established as an "evergreen" investment company (i.e., without a pre-defined and time period to make, manage and exit investments) as this structure is more appropriate for the kind of investments that GCVF will make. GCVF will be registered in Ghana and continue to operate beyond the duration of the World Bank grant (which ends in FY20). GCVF will aim to leverage World Bank grant funding to raise additional capital from private investors and grow the fund size to US\$10-15 million over the next 3 years.

GCVF will be managed by a local fund management company that will be set-up by I&P, and which will be led by a Ghanaian investment team, with I&P providing capacity building support and investment oversight (leveraging its experience from investing in early-stage SMEs in Africa). A portion of the World Bank grant will be used for the capacity building and early operating costs of the GCVF management company, while the balance will be utilized for investment and technical assistance to the early-stage companies in which GCVF invests.



The terms of the grant agreement between the World Bank and I&P have been finalized. As part of the agreement, I&P will contribute a minimum of US\$1.5million of its own funds to the GCVF (in addition to the World Bank grant).

**Figure 12: The GCVF Structure**



## Key Accomplishments

- Design of the GCVF including an innovative mechanism to blend donor and private financing in an early-stage, climate-specific financing facility. The final design draws heavily on the lessons learned from design and early implementation of the Kenya Climate Venture Facility (see lessons learned).
- Identification and competitive selection of a fund management consortium to establish and manage the GCVF including an assessment of overall investing capabilities, institutional capacity, fundraising capabilities, and pipeline of potential deals. The consortium brings a local investment team together with the experience and expertise of a seasoned Africa focused early-stage investment management company.

- Tangible progress for leveraging US\$3.4 million World Bank grant funding with additional funding resources for GCVF, with commitment of US\$1.5 million funding and identification of an additional funding pipeline of over US\$3 million.
- Learning from the experience of KCV in Kenya, CTP developed an innovative design for the Ghana Climate Venture Facility that is optimized for building a strong local institution. The structure of the GCVF brings together the clean technology expertise of the CTP with the early-stage investment experience of I&P. They in turn will support a local investment team with networks and experiences working with start-ups and early-stage companies in Ghana. in setting up and managing the investment company. A conscious decision was made to identify an existing local investment team to run the fund, rather than building one from scratch, in order to minimize the set-up time and cost.
- In finding the international partner, the team was thoughtful in trying to leverage its investment by looking for an organization with an existing interest in the sector and region that would be willing to put its own 'skin in the game'. As a result, the fund will blend public capital from the World Bank (US\$3.4 million) and private capital from I&P (US\$1.5 million) at inception.
- The majority of the funding will be placed in the GCVF investment vehicle, an “evergreen” investment company limited by shares in Ghana. GCVF in turn will make long-term equity, mezzanine, and debt investments in SMEs, utilizing the World Bank funds and funds to be raised from other non-World Bank funding sources. Because GCVF will be an evergreen investment company, the funding for GCVF will be expected to remain in GCVF in a revolving fund structure (principals + returns will be expected to be recycled).

## Key Lessons Learned

The A2F team was able to draw important lessons from experience with Kenya Climate Ventures that significantly strengthened the design of GCVF:

- **Investing requires deep technical skill and expertise:**
  - Working with I&P, an experienced fund manager with a track record in West Africa that takes ownership in building local capacity, will reduce the time required to set-up and operationalize GCVF's investing activities. Ashesi University, a core implementing partner of GCIC, realized that they did not have the experience and knowledge required to set up a fund themselves and they were supportive of bringing in a third party fund manager to develop and manage the GCVF.
  - Recruiting the local investment team as part of the fund manager selection process, rather than building from scratch will further accelerate the time to full operation.
- **Alignment of interests matters:** I&P shares CTP's focus on building local early-stage investment funds in African countries. It is therefore not just an implementer, but strategically aligned with CTP's A2F focus, and willing to commit its own capital to develop GCVF.
- **Importance of visibility and brand building:** The GCVF team will invest early on in building a brand and becoming a visible part of the ecosystem by participating in local events, contests, and conferences, and by utilizing GCIC's network in the market to link up with intermediaries and generate deal flow.

- **Building operational linkages between GCIC and GCVF (in both directions):** The relationship is modeled on the successful cooperation between KCIC and KCV, even though from a governance standpoint GCIC and GCVF are entirely separate entities
- **Starting early on to build pipeline to ensure that investment activity does not get delayed.**

## FY18 Work Plan

FY18 will see the launch and early-operations of the GCVF:

- The GCVF Management Company will be established in early FY18. The managing partner for the Management Company has already been recruited and received initial training and capacity building. Other key team members will be recruited by Q2 FY18.
- GCVF's investment vehicle will also be established by Q2 FY18 as an “evergreen” investment company registered in Ghana.
- GCVF's investment team will proactively commence pipeline building activities in Q1 FY18 as well as engage key stakeholders and partners in the Ghanaian entrepreneurial eco-system (including the GCIC). Pipeline building will be an ongoing activity throughout FY18. By end of FY18, GCVF will aim to have made its first investments in early-stage climate-focused SMEs in Ghana.
- Over the course of FY18, GCVF management will also engage with potential investors and aim to raise a first pool of private capital into GCVF, beyond the World Bank grant.

## Key Milestones FY18

| Milestones   | Expected FY18 timeline |
|--|------------------------|
| Finalize agreements with the local fund manager and establish investment company         | Q2                     |
| Recruit additional team members to the investment team                                   | Q1 – Q2                |
| Build capacity of the fund manager and investment company                                | Ongoing                |
| Invest in local brand and visibility and begin to build pipeline of potential investment | Ongoing                |
| Begin making investments   | Q3 & Q4                |
| Raise additional capital into GCVF from private investors                                | Q3 & Q4                |

Established in FY16, Finance Lab focuses on testing novel financing mechanisms and models that address the financing challenge faced by clean-technology entrepreneurs. A key design feature of Finance Lab has been to identify and work with financial sector innovators (ideally those that are active locally in countries of focus) who are developing the next generation of solutions to increase access to finance for entrepreneurs. The objective of Finance Lab pilots has been to generate concrete lessons and key insights that can be applied by public, private, or development institution stakeholders to conduct further testing or to scale-up validated pilots.

### Overview of Progress

In FY17, Finance Lab conducted two pilots in South Africa: (i) enabling fund-manages to invest in green SGBs through an outcomes-based Green Outcomes Fund and (ii) enabling credit for green SGBs using an online lending platform.

#### 1. Green Outcomes Fund (GOF)

The GOF is a pilot to incentivize local investment funds in South Africa to invest in early-stage green SGBs in South Africa through an outcomes-based funding mechanism.

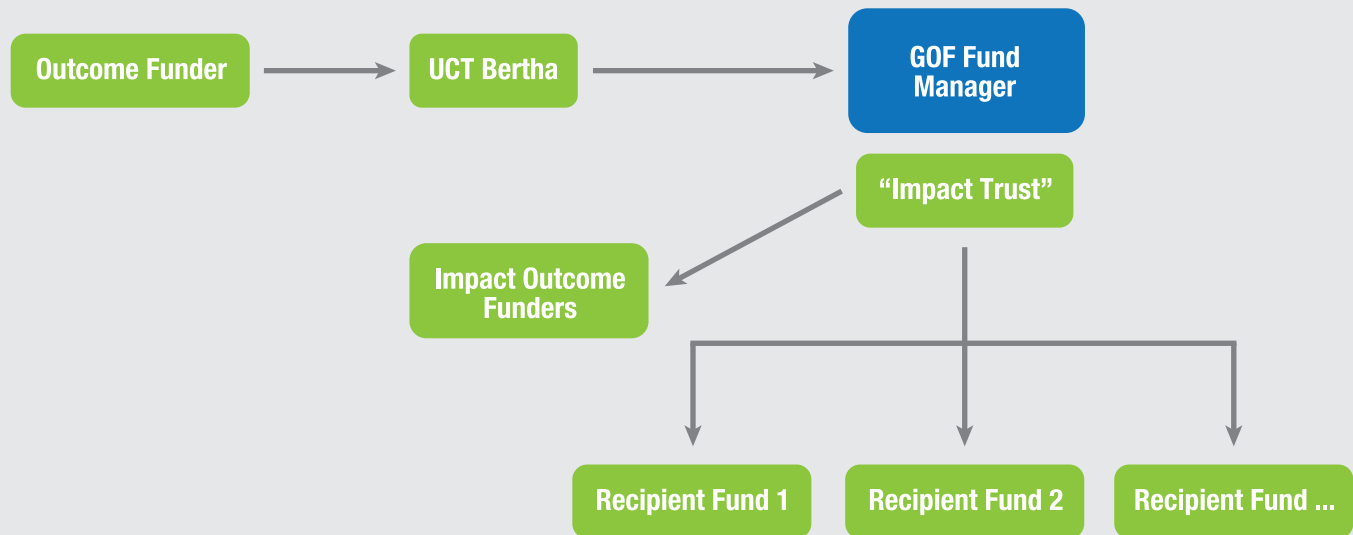
Despite the pressing need for increased green investment and the opportunity of the green economy in South Africa, investment funds have not been active in this space as they often perceive these as riskier, (on a risk/return basis) requiring additional business development support, (and concessional funding) to complement their commercial investments in SGBs. By using concessional funding through an outcome-based funding mechanism the GOF aims to test whether fund managers can be incentivized to use a portion of their funds to invest in green SGBs with a goal to achieve pre-agreed “green” outcomes in addition to the fund’s commercial return objectives.

During FY17, the GOF was designed with input from local SGBs and fund managers. The fund managers indicated an interest in allocating more investment to green SGBs, but stated that these investments would need additional resources to source and prepare. In addition, there is little consistency across the local fund management industry with respect to what green SGBs are, as well as on common non-financial (impact) reporting metrics. The lack of a shared view on green SGBs in South Africa undermines its development as a common investment theme, and thus ability to attract significant volumes of capital. Further discussions revealed that fund managers were willing to commit to an outcomes-based cost-share with an outcome-based funder, particularly if they were engaged in the design and development of realistic payment triggers and expectation.

In light of the input, the GOF initially has been designed as a not-for-profit fund that will provide pure or reimbursable grants to local Recipient Funds (RFs) in exchange for performance, namely the achievement of pre-agreed green outcomes. The GOF will provide relatively modest amounts, primarily to help cover RFs’ additional costs associated with originating and investing in green SGBs. GOF funding will be matched by RFs, in the form of investment and business development. The leverage ratio of match funding will be tailored to each RF. A portfolio of potential RFs have been engaged and five have expressed interest in leveraging the GOF to build a green SGB portfolio. The interested funds range from a new impact investing fund for post-revenue high-impact social enterprises, to a green SGB fund managed by an international SME focused risk-financier with over 30 years experience in Africa.

The GOF pilot will test if and how RFs can be incentivized to increase investment in green SGBs and improve impact measurement and reporting. It will also generate insights for the broader development finance community. A further iteration of this approach could result in an outcomes-based auction model, where a bidding process can, over time, reduce the costs of generating impact. Once delivery of a set of pre-agreed impacts by RFs has been tested, the GOF developers can determine the most popular impact outcomes proposed by RFs, and compare these to funder interests. This could result in changing of the incentive structure to encourage RFs to focus their efforts on more difficult impact sectors, or in response to specific funder interests.

**Figure 13: The Structure of the Green Outcomes Fund**



## Key accomplishments in designing/developing the GOF in FY17

- The framework for the legal structure of GOF was developed by the team, which includes institutional agreements, the financial structure, board member criteria, and the GOF design plan
- In preparation for the next phase of implementation, the initial fundraising strategy and pitch deck were developed.
- The initial green metrics for which payments will be triggered were developed and tested with an initial group of stakeholders including five outcomes funders and several local businesses and investors. These metrics will serve as the basis for negotiations with both funders and recipient funds, and will be shared more widely across CTP programs as well as in South Africa's green economy interventions.
- The pilot team engaged WWF South Africa based on the shared strategic goal to develop the impact investing ecosystem for green sectors in Africa. This led to an initial informal engagement and more recently a formalized partnership through a signed MOU with WWF South Africa, Green Cape, Bertha and the World Bank focused on the design and implementation of the GOF.



- Six letters of intent were provided by potential recipient funds interested to participate in first stage of GOF implementation. Each of these funds has contributed significant time and feedback to the design of the concept and now structure of the Fund.
- WWF South Africa has committed to act as Fund Manager during the first phase of GOF implementation.

## 2. Platform-based Financing

The second pilot of Finance Lab was around platform-based financing. This pilot aimed to facilitate access to affordable and timely credit for green South African SGBs, using new funding mechanisms that have not yet been offered to SGBs in green sectors in a targeted manner.

African banks and lenders tend to be risk averse, and shy away from providing credit to SGBs, particularly young businesses. In addition to lenders' risk appetite, reasons for poor credit access for SGBs typically include: inadequate collateral; lack of credit history; lack of acceptable business plans; poor market research; the absence of a viable business idea; and lack of market access. **This pilot, a platform for aggregating screened credit to green SGBs, backed by an anchor funder addresses both demand and supply side constraints, and is scalable to many other emerging markets and sectors.**

CTP worked with a selection of local credit platforms in South Africa that were already facilitating access to credit, and whose businesses could be modified to more specifically include the green economy. Currently, these local platforms do not have the resources to develop and implement specific green offerings, yet indicated interests in developing such products. CTP and its local partners provided the relevant technical expertise and networks to the local credit platforms both in terms of pipeline and impact funders. Pilot activities enabled greater testing of different approaches to platform-based financing in South Africa in order to build the business case for local credit platforms to develop products more appropriately geared towards the specific needs of green SGBs.

### Key Lessons

Early learnings have emerged from the Finance Lab design process. In this phase, the Bertha Centre contributed as a local honest broker, who could test design options with local fund managers. GreenCape contributed an existing network of green SGBs and technical expertise. The World Bank and WWF contributed technical expertise and design support for blended finance models.

The following specific aspects have emerged as important in the design of this product and the green metrics:

- The developers (Bertha Centre, GreenCape, World Bank) must be perceived as credible in the local industry, but cannot be seen to compete with local fund managers to ensure a relatively open sharing of information.
- There should be early contact to outcomes-based funders, and a sense of the impacts they would view as important (e.g., climate impacts). It may be challenging to balance different funder impact interests, e.g., between green and socio-economic outcomes. Hence, in this phase, it was decided that all outcomes have equal value, but this may change in the future. In this first pilot phase the GOF will likely be used in support of any of the green outcomes listed, but this may eventually evolve into different prices for different outcomes based on their prioritization. The “price” of each outcome will then be determined by interests of funders in a particular outcome, and the ease with which RFs can deliver that impact. Initially, outcome pricing will be based on a transparent negotiation between the GOF and selected RFs.

- Cross- sector technical expertise is helpful to developing pragmatic, yet verifiable, metrics and is necessary to effectively communicate these.
- Local service providers are needed to provide additional technical expertise (e.g., legal advice).
- There is a need to balance verification and reporting requirements (and costs) with potential rewards (i.e., access to outcomes-based funding)—and with additionality. The GOF is providing an additional source of funding to RFs, which is intended to generate more green SGB investments than under business as usual. However, this funding is a relatively modest payment intended to alleviate a portion of the additional costs associated originating and preparing this type of deal. As such, requiring very resource-intensive monitoring metrics may not match with the financial benefit provided by the GOF and reporting requirements must be carefully calibrated to identify the appropriate incentive balance for the model to be effective.

Green outcomes must be timely and verifiable, (i.e., be independently auditable, at relatively low cost and difficulty), and the time to impact must be aligned with GOF's timing.

Implementation of the legal structure has taken more time than originally hoped due to internal decision making processes and regulations across the World Bank, University of Cape Town, and WWF.

## **FY18 Work Plan**

As mentioned in the opening section, one of the main learnings from Finance Lab was that pilots are better designed and implemented if they are co-created and co-funded with partners who bring complementary know-how to CTP. This is best illustrated by the design and early implementation of the Green Outcomes Fund (GOF), which was led/developed by CTP and local partners in South Africa.

As such, Finance Lab will be discontinued as an individual program component of the CTP. However, the implementation of active pilots—and potential new pilots—will be continued under the Early-stage Finance Collaborative within the CTP Market Connect Pillar.

## **The Market Connect Early Stage Finance Collaborative**

### **Overview of Market Connect**

Market Connect is a global, centrally managed business line which aims to create bridges between Small and Growing Businesses (SGBs) in developing countries and the global assets that they require to succeed. Market Connect supports local SGBs via local intermediary institutions that are part of the Climate Business Innovation Network.

Market Connect is divided into two themes:

- **The Early-Stage Finance Collaborative** (discussed in this section) brings together a group of lead funders and early-stage finance organizations to pool resources and know-how to build and scale solutions that unlock risk capital for early-stage high-growth firms.
- **The Business Model Diffusion Facility** (discussed later) Aims to help local SGBs access, adapt and internalize green business models that have been validated in other countries.

## Launch Stage

The Early-Stage Finance Collaborative (ESFC) is a new strategic initiative within CTP's Market Connect Pillar. The initiative brings together “field building” funders and early-stage finance organizations to pool **resources** and **know-how** to build and scale solutions that **unlock risk capital for early-stage, high-growth firms** in developing countries.

Through activities engaging investors in FY16 and FY17, there was a realization that while there was activity and interest among stakeholders working on the issue of early-stage finance, these efforts often were fragmented and did not leverage the collective resources, networks, and know-how to develop and build financing mechanisms that crowded-in capital into this space. CTP and the infoDev Program were well placed to address this challenge.

### Overview of Progress

**Investor Database** – The investor database stems from research from the Access to Finance team on the Early-Stage Clean Technology Financing Paper. Bringing together analytics gleaned with desk and primary research, information on over 80 investors has been collected in a database to map out the investing landscape of specific areas. Research is conducted with practitioners and senior consultants to engage with cutting edge insights from experiences in conducting deals and challenges associated with deal flow, structure of investments, and pre and post investment technical assistance.

**Initial Roundtables/Workshops with Stakeholders** – Initial roundtables were held in San Francisco and London that brought together early-stage investors and field-building organizations and funders that had a keen interest in supporting access to finance for emerging enterprises. The workshops were used to bring forward technical issues in early-stage finance and how these could be addressed, as well as raise interest in collaborating to build solutions that unlock more capital to early-stage enterprises. The response from the over 25 organizations at the two roundtables in developing such a Collaborative was positive.

**Soft launch of Collaborative** – A soft launch of the Collaborative was organized in Amsterdam by CTP in conjunction with the Dutch Good Growth Fund and Omidyar Network in June 2017. Other participants included: USAID Entrepreneurship Program, Shell Foundation, MacArthur Foundation, Aspen Network for Development Entrepreneurs (ANDE), Global Impact Investing Network (GIIN), Enclude, Intellect Group, Open Capital Advisors, Bertha Center (South Africa), and the Global Development Incubator. The event focused on the overall functioning of the Collaborative and identified initial solution areas to develop further.

### FY18 Work Plan

#### Collaborative Development

The Collaborative will continue to grow by bringing in new partners and developing the operating model for how it will function. CTP will co-create and develop 1-2 new initiatives on early-stage climate finance solution areas in conjunction with other partners in the Collaborative.

**Operating Model of Collaborative** – An initial blueprint of how the Collaborative might function was shared at the June 2017 meeting with the initial partners in the room. Based on the the feedback provided, a more fleshed out operating model/structure will be developed by CTP in conjunction with Omidyar Network. This model will be initially tested through a first set of initiatives to see whether it is enabling partner organizations with shared interests and complementary know-how/resources to co-create and develop new solutions and mechanisms for early-stage finance.

**Expanding the Partner Pool** – Ongoing efforts will be made over the course of the year to bring in new partners with a strong focus on early-stage finance (in climate and related sectors). Significant efforts will be made on bringing partners from countries where CTP is more active.

**Co-creating and Launching New Initiatives** – The ESFC partners including CTP will concept-test new initiatives that either address specific early-stage finance challenges or develop a broader mechanism to support key enabler/providers of early-stage finance. Through these joint exercises, ESFC will launch 1-2 collaborative initiatives amongst a subset of its partners that contribute to CTP's overall and access to finance objectives.

### **Green Outcomes Fund (South Africa Pilot)**

While the ESFC will be developed in FY18, in parallel, the Green Outcomes Fund (GOF) will be further developed in South Africa, the GOF consortium, including CTP, World Wide Fund for Nature, Bertha Centre and Green Cape—will seek a small initial amount (US\$ 1-2 million) to pilot the GOF. This will be used to test the GOF approach with potential outcomes-based funders. Priority outcomes based funders for the pilot include donors and foundations (e.g., grant making foundations with a mission to catalyze impact investing). Securing this initial amount will test the appetite of outside funders in this approach. During FY18 GOF activities will focus on setting up the governance and legal structure of the GOF trust.

### **Key Milestones FY18**

| <b>Milestones</b>   | <b>Expected FY18 timeline</b> |
|---|-------------------------------|
| Develop collaboration framework with core ESFC partners       | Q1                            |
| Bring new partners into the ESFC                              | Ongoing                       |
| Develop and define thematic clusters within ESFC              | Q2                            |
| Concept-test 2-3 collaboration initiatives with ESFC partners | Q2                            |
| Design and launch 1-2 new initiative with ESFC partners       | Q3-Q4                         |
| Green Outcomes Fund - Secure pilot funding for the GOF        | Q3                            |
| Green Outcomes Fund - Set-up GOF governance/legal structure   | Q3-Q4                         |





# The Market Connect Business Model Diffusion Facility



# Overview of the Market Connect Business Model Diffusion Facility

Market Connect is divided into two themes:

- **The Early-Stage Finance Collaborative** (discussed above) brings together a group of lead funders and early-stage finance organizations to pool resources and know-how to build and scale solutions that unlock risk capital for early-stage high-growth firms.
- **The Business Model Diffusion Facility** (discussed in this section) Aims to help local SGBs access, adapt and internalize green business models that have been validated in other countries.

Market Connect provides global market infrastructure to institutions looking to facilitate the diffusion of high-potential business models from one country to another. Market Connect address the promise that many green business models that have scaled in some markets (e.g., pay-as-you-go solar in Bangladesh and Kenya) shows for other untapped markets (e.g., Ethiopia, Nigeria). These business models are new and evolving, and require organic business-to-business partnerships to scale out of their home markets. In developing countries, green SGBs are oftentimes under-resourced or inexperienced in identifying and testing business models or in making the links to global assets that they require.

Market Connect is unlike other programs that accelerate the cross-border diffusion of green business models because it i) builds the capacity of institutions to engage in business model diffusion; ii) achieves network economies by working with multiple countries on outbound and inbound business models; and iii) focuses on high-potential SGBs.

The vision for the Business Model Diffusion Facility is that:

- Global market infrastructure is developed to efficiently diffuse business models across borders
- Local institutions internalize the capacity to diffuse global business models among local SGBs
- Institutions from low, middle and high income countries utilize its market infrastructure to the benefit of developing countries
- Investments or deals are made around the diffusion of global business models

The Business Model Diffusion Facility consists of country nodes and a global hub. Country nodes in CTP beneficiary countries consist of CBIN members, such as CICs, or other climate technology development organizations. Country nodes in non-CTP countries consist of trade agencies, business associations, foundations and public programs in high-income countries. The global hub consists of the CTP team and its global partners who facilitate partnerships across the different country nodes.

The Business Model Diffusion Facility is developed using a design thinking approach whereby:

- The operational model of the Facility is co-created with the stakeholder institutions who are the users of the Facility
- Many options are developed, prototyped, and validated before a pilot is launched
- Local country partners are selected competitively so as to ensure that their buy-in of the Business Model Diffusion Facility will motivate its long term sustainability
- The Business Model Diffusion Facility is designed so as to crowd-in the efforts of global partners with compatible objectives and existing resources

## Overview of Progress

The Business Model Diffusion Facility was launched in FY16 with a first pilot node in South Africa. In FY17 country nodes were launched in Kenya and Ethiopia. The Netherlands-based organization Enclude agreed to partner with CTP to form a global hub. The feasibility of launching a node in Morocco was also assessed.

### South Africa

In FY17 Market Connect helped GreenCape pilot its Cross Border Matchmaking Facility (XBG), which enables the uptake of scaled and proven green business models in new markets through a business-to-business matchmaking approach. In South Africa, the country node is GreenCape, a special purpose vehicle that works with businesses, investors, and the public sector to support the development of the green economy.

Although the demand for suppliers and downstream service providers has been created, SGBs have experienced a structural inability to access the market, as contracts have been awarded to large, established entities. In addition to this, SGBs find it more difficult to integrate into a conservative economy that is technically complex and capital intensive. This forms a small and fragmented community where new business models are difficult to apply or test. Currently, trade offices and consultants that try to enable cross-border matchmaking or research for firms seeking experienced international partners are often viewed as ineffective or irrelevant for green SGBs. This limits their potential influence on the green economy. Similarly, inbound international companies into the South African market struggle to find partners that they can rely on or that meet their requirements.

In response to these challenges the XBG has been testing a business-to-business green matchmaking facility, with a suite of services to inbound firms in South Africa to facilitate uptake of new green business models and support the scaling of these new green business models in South Africa. It has done this through the following activities:

- **Providing business model diagnostics and needs analysis:** A full company needs analysis is required to understand a firm's model and match potential, while needs should be clearly articulated and addressed in order to manage expectations and ensure success. This service will form the basis of all interactions with firms (and should allow for crowding in of experts and team members from GreenCape during a matchmaking process). The diagnostics and analysis will be undertaken by GreenCape Green Sector Experts and will inform further services of the unit or recommend where external assistance can be sought. The facility provides a strong filtering mechanism designed to exclude companies only looking to export or inappropriate products/services/models.
- **Developing local green SGB list curation for engagement with inbound firm aggregators (such as trade missions):** There are numerous inbound trade missions organized by embassy trade offices, investment promotion agencies, portfolio representatives and business association/cluster initiatives. A number of these are looking for introductions and matches to local green SGBs, but struggle with the last mile of gathering the appropriate contacts or quality recommendations in the green economy. Using GreenCape's Green Sector Experts and other ecosystem relationships, curated contact lists and recommended firms are developed by the matchmaking facility and provided to inbound aggregators or firms.
- **Facilitating one-on-one matches between international businesses and local SGBs:** Identifying a positive/potential match is only the beginning of a matchmaking process. Delivering a standardized process for introductions and initiating the first few interactions by an honest, trusted agent is often critical to get entrepreneurs to a point where they feel comfortable in a match's potential (or lack thereof). Offering this personalized service removes cer-

tain barriers of uncertainty and coordination and can accelerate firms to a go/no-go decision point. The agent can also identify support needs. This service is being tested by the pilot team with the support of GreenCape's Green Sector Experts, cluster representatives, and trade office coordinators.

## Kenya

In Kenya, Market Connect has started a pilot that will help clean-tech Kenyan SMEs benefit from the validated products, services and operating models of non-Kenyan firms that are seeking to expand their businesses into the Kenyan market, and are also looking for local business partners with on-the-ground capabilities and market reach. The program aims to develop the methodology for identifying and selecting international diffusors and Kenyan adapters, for facilitating formal business partnerships, and for helping the parties to implement the business models in Kenya. **The team is using design thinking principles to develop, test and implement this through the adoption of three business models in clean-tech sectors in Kenya.**

The team concluded a competitive selection and will work with Enclude Solutions at the global level, and Growth Africa at the local level, as the implementing partners. Learnings from the pilot will be shared with other eco-system players as well, including the KCIC. **The aim is**

**for one of the three matches to involve GreenCape, the implementing partner in South Africa, who are keen to use this opportunity to develop a business line for outbound business model diffusion from South Africa to elsewhere in Africa.**

In addition, Market Connect is testing another pilot in Kenya where CTP has partnered with Barclays. They have offered to deploy, at their own cost, several employees and associated resources world-wide via their corporate accelerator program to co-develop solutions to bridge “market infrastructure” gaps that are stalling the growth of Kenyan SMEs in the clean-tech sector.

## Ethiopia

In FY17, Market Connect started a component to work on supporting the diffusion of business models that were successful abroad and novel to Ethiopia. CTP launched a pilot for the off-grid energy sector, in partnership with the Shell Foundation. The main objective of this initiative is to accelerate the growth of the off-grid energy market by supporting local and global players in the development of new business models to effectively serve end-users, delivering affordable and high-quality off-grid energy solutions.



*Raymond Siebrits of GreenCape presents to the clean-tech business delegation from Finland. © GreenCape.*

These initial steps taken focused on creating a clear diagnostic of the market in Ethiopia, its players, offerings, and growth potential, to identify market gaps to be filled and opportunities for new business models. To that end, the team interviewed over 40 stakeholders, including government, development partners, local firms, and global players currently active in Ethiopia or interested in entering the market. In particular, the team interacted with top global manufacturers of standalone solar products to understand their business models, the operating ecosystem required to make these business models viable, and their appetite to enter the Ethiopian market.

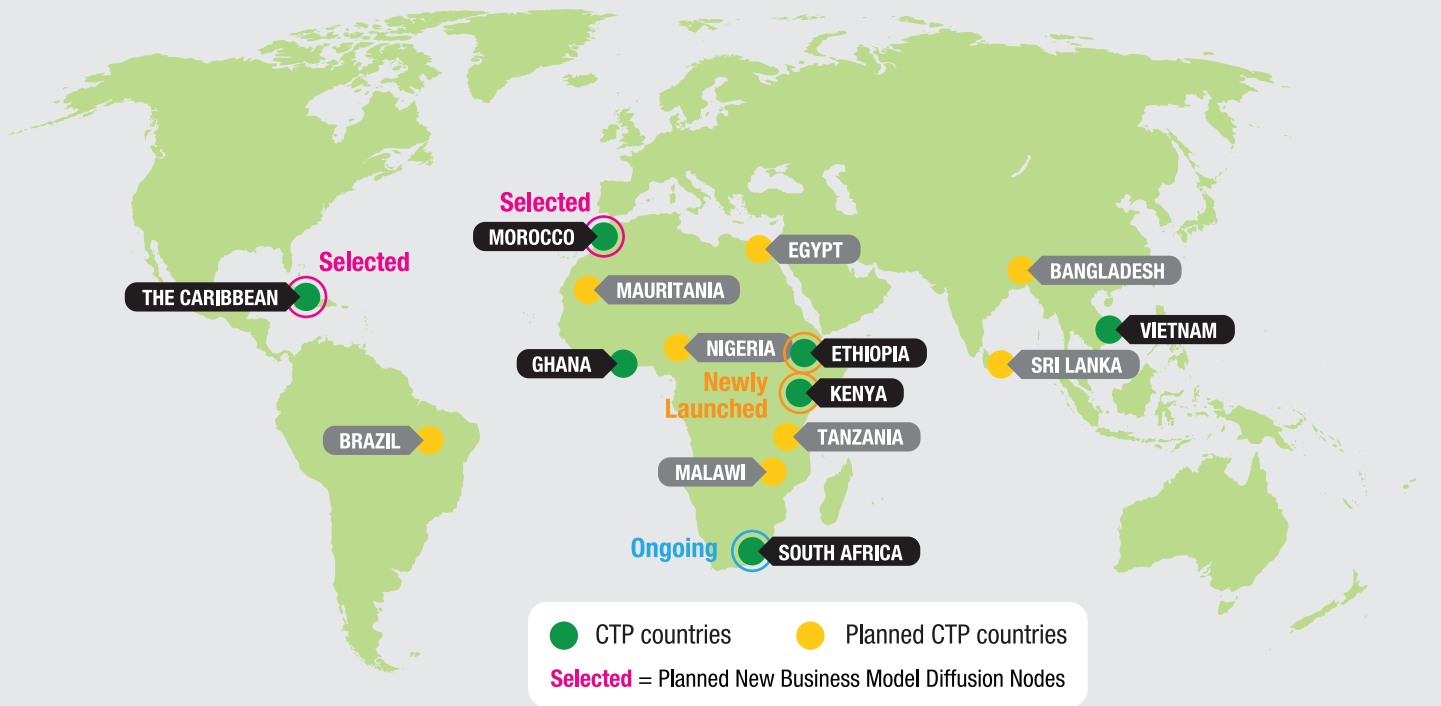
Based on the outcomes of this diagnostic, the team has been working with local private sector players, global companies, and government agencies to identify specific barriers to private sector engagement in the sector. The team has focused on co-creating a methodology and workplan with the Shell Foundation, and has actively collaborated to test as well as validate prioritization of initiatives and solutions to explore with local partners.

The focus of future work will be around engaging international players and local SGBs to partner around enabling business models to fill gaps in the market (e.g., developing tech-enabled pay-as-you-go solutions and offering higher power ranges for productive uses).

Global Hub

The team has already had discussions with partners like Innovation Norway, Korean Technology Finance Corporation, UK Department of International Trade, DEMO Africa (Sweden), and the German Investment and Development Corporation (DEG) to identify diffuser companies for consideration. On the Barclays collaboration, the team has had discussions with UK-based Barclays bank and UK-based TIL Ventures on the “stage gate” and “funnel” approach to the initiative, the division of labor, and the in-kind contributions from the Barclays team of their talent.

Figure 14: Status of the Business Model Diffusion Facility’s Network



# Key Accomplishments

## South Africa

- Three service lines were designed and implemented:
  - /// **Market insights and green economy promotion** (delivered to 16 partners including four business aggregators)
  - /// **List curation for inbound trade missions** (delivered to one aggregator and five firms)
  - /// **Business model diagnostics and needs analysis** (delivered to ten inbound firms)
- Thus far, the facility has received interest from over 60 firms, aggregators, and entrepreneurs, has signed formal letters of intent to cooperate with five firms and two aggregators of firms. It has also identified and facilitated one full firm-to-firm partnership and signed agreement between an Italian PV company and a local Energy Services Company, that will undertake full manufacturing, distribution and after sales support as part of a new co-branded partnership in South Africa.
- 38 foreign partnerships have been pursued (see Box 14) and eight new partnerships have been formalized with bodies from outside of South Africa including trade missions, business aggregators, services providers and entrepreneurs, with additional partnerships (including with the Commonwealth environmental investment platform) under discussion.
- The team began to explore the possibility of outbound support services for South African green firms interested in expanding to new markets, including Kenya. Two local South African firms are currently engaged.

### Box 14. Foreign partnerships pursued by GreenCape under the XBG pilot

|   |  |
|---|--|
| Philips   | Intellectap                                    |
| Business Sweden   | British Chamber of Business in Southern Africa |
| Ingenu  | Netherlands Chamber                            |
| Finpro Southern Africa (Heta)   | Business France                                |
| Flanders Investment & Trade   | Wind & Solar Implement Solution                |
| Traidenis (Cewas)   | Swiss Business Hub                             |
| Bavarian State Ministry for Economic Affairs and Media, Energy and Technology | Cape Capacity (Laura Lykkegaard)               |
| German Federal Ministry for Economic Cooperation and Development              | Finmasters (Claudio)                           |
| EcoPar AB   | Wind and Solar Implement                       |
| Cortus  | Western Co                                     |
| Waterpreneurs   | Techno Consulting                              |
| Bantamsklip   | TIRES SpA                                      |
| BORDA   | PowerPay                                       |
| European External Action Service  | Donn Tice                                      |
| International Cleantech Network (ICN)   | Eskil Olsson International                     |
| Embassy of Denmark  | Climate Innovation Centre South Africa         |
| Azuri Technologies  | US International Trade Administration          |
| Innovation Norway   | ECWind   |
| Swiss-Iranian Chamber & REF Consulting  | Beijing Enterprises Water Group                |



- The team made presentations marketing the XBG at Sankalp, the World Bank, and several Scandinavian trade events.

## Global

- Development of two three-day workshops with Enclude, Growth Africa, and GreenCape to co-create the processes used by the Business Model Diffusion Facility. Co-creation ensures that the design of the global hub responds to local needs and global opportunities.
- Partnerships were explored with eight global organizations and initiated with four of those organizations. Notably Barclays, Innovation Norway, the Korean Technology Finance Corporation, and Shell Foundation. These organizations are willing to join and contribute to the Business Model Diffusion Facility.

## Key Lessons Learned

- Evidence from South Africa shows interest from foreign and local businesses, as well as from the South African government in the match-making service (see sample metrics and feedback in Box 15 on the following page).
- A well refined on-boarding process is key to getting firms and aggregator interest and trust in the facility.
- Other Climate Innovation Center partners see great value and have expressed interest in this type of intervention.
- In some country contexts, such as in Ethiopia, Business Model Diffusion is not an add-on activity for the CIC but must be a central part of its strategy for scaling of climate tech sectors.
- Low-barrier, yet formal ‘expressions of interest’ or ‘letters of intent’ are excellent tools to get buy-in and build trust.
- Offering a formal set of services and being a front-end for new stakeholder interest remains of great value to an organization such as GreenCape when it comes to being a “reception” and “clearing-house”.
- Every match is unique: a set of Standard Operating Procedures is important but should not limit activities.
- Having a set of early-stage prioritization or screening questions/filters to be answered by a service analyst is critical step to weed out potential interesting leads from more traditional trade or business development diffusers.
- Getting to the “deal” stage of a match takes longer than anticipated, and the facility has less control over this stage in the business model diffusion value chain.
- It is beneficial for all country node and global hub partners to share a common vision of the process used to design the Business Model Diffusion Facility at the start of the process.
- Working in partnership with a multinational requires upfront groundwork on understanding each party's motivations and value addition to the collaboration, in particular when working with the business arm as distinct from a CSR division or foundation.

## Box 15. Sample Feedback and Performance Metrics from the South Africa XBG Pilot

*Survey Responses from Business Sweden*

**Has this service assisted your mission to create matches with a South African company? Please explain.**

Yes, the presentation helped EcoPar understand the potential for their solutions in the Western Cape based on existing projects underway

**How useful was the list of curated companies sent before the mission (score out of 10)? – 7**

**How effective was GreenCape's planning, communications, and preparation for the information session and mission (score out of 10)? – 10**

**How useful did you find the information session towards your mission's objectives (score out of 5) – 5**

**How did you find the location, venue setup, and facilities at the information session (score out of 5) – 5**


**What would you have preferred more of:**

Presentations by sector experts; Time to network with GreenCape; General market intelligence.

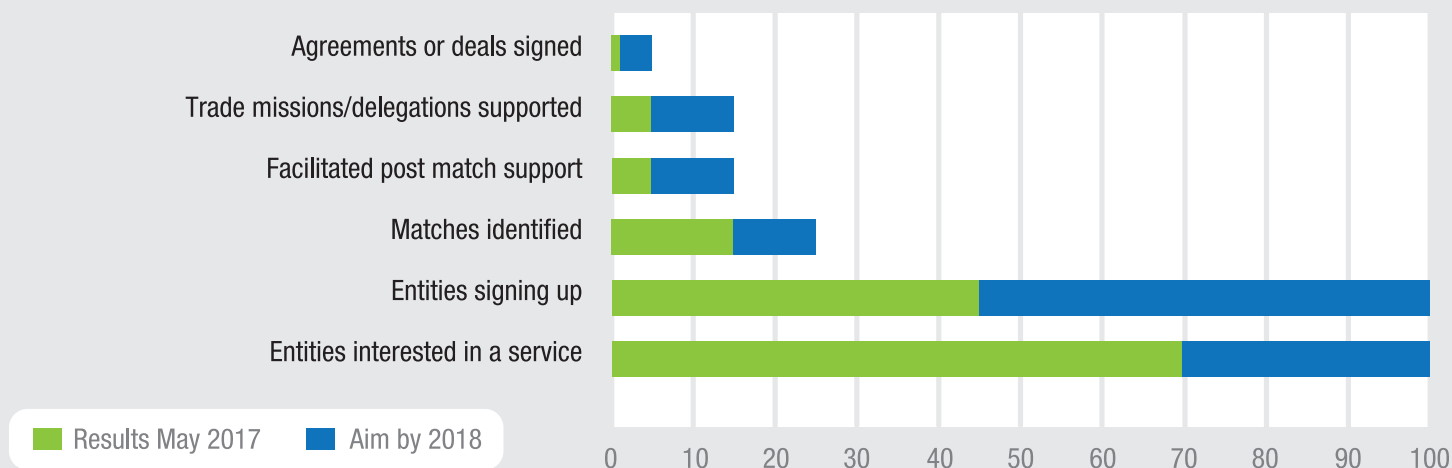
**Will you be interested in using GreenCape and XBIG's services in the future, and in what way?**

Yes, GreenCape could continue to provide match-making services to BuS and EcoPar as Cortus decides to establish a local biomass gasification plant. We also see opportunity for many other companies.

**Please provide any further comments, feedback, suggestions or guidance so that we can improve our service.**

The services provided are very good and GreenCape took the initiative to take the meeting with PetroSA. 

### Figure 15. XBG Performance Metrics



## FY18 Work Plan

In FY18, Market Connect will continue testing, validating and building the Business Model Diffusion Facility. It will add more country nodes, including Morocco. It will also forge partnerships with more organizations that are not located in CTP countries, as sources of new green business models. In FY18, Market Connect will also launch a new approach through a pilot with large multinational Barclays. Specific country work plans are included below.

## South Africa Work Plan

GreenCape will continue scaling up the pilot and impact of cross-border activities in FY18. This entails refining inbound services to lead to additional matches and agreements; establishing partnerships to expand the pipeline of firms and aggregators; and testing outbound services (South African SGBs looking to expand into new markets). More specifically, the FY18 work plan includes:

- Further client and services development to refine three existing “inbound” services, shifting emphasis focus to firm-level service delivery to scale up number of firm matches and agreements.
- Finalize a formal brand development process, which will benefit other cross-border initiatives.
- Validate components of the longer term business plan elaborated, including collaboration with the South African Department of Trade and Industry for national scale-up of the initiative.
- Develop and live-test “outbound” services for South African firms keen to explore new markets, notably through the Business Model Diffusion Facility’s global hub in Kenya and Morocco.

## Kenya Work Plan

The work of the Business Model Diffusion Facility global hub and Growth Africa will be fast-paced and will involve identifying pools of interested diffusors and adopters, funneling the selection, and focusing on implementing three business partnerships by the end of FY18.

The outputs will focus on summarizing the learning on how to implement cross-border business model diffusion, sharing this with Kenyan entities interested in becoming facilitators of business model diffusion in the future. The design thinking approach requires that the team continually adapt and iterate its approach. For instance, it is currently testing out different entry points for identifying pipeline companies including viable partners, and viable clean-tech market opportunities uncovered in Kenya (i.e., energy efficient cold storage or distribution for food processing, processing in the textile sector, energy efficient variable speed motors).

The immediate next steps for the Barclays partnership will be to assemble our intelligence on the Kenyan eco-system and hold additional consultations with SMEs there. First CTP will identify the challenge that the Barclays corporate teams will work on, in collaboration with teams representing Kenyan clean-tech SMEs. The challenge will represent a key gap facing a large pool of clean-tech Kenyan SMEs, and the solution will be one that can be used by a number of companies.

This approach has been used by Barclays in other markets to tackle large challenges that no one firm had the resources to address. Once the challenge topic is agreed, there will be an eight month acceleration process that will operate as a “stage gate” where only viable teams and solutions will proceed to each progressive stage, until a viable solution is developed by the end of the pilot. This initiative will test how CTP can tap into the global expertise and resources of a large multinational to benefit clean-tech businesses in developing countries.

## Ethiopia Work Plan

In FY18, the Business Model Diffusion component in Ethiopia will continue testing and refining the design of the pilot, as well as, the activities around facilitating partnerships between international and local players to develop new business models. To do so, the team work plan for FY18 will focus on:

- Off-grid energy market acceleration program with the Shell Foundation and consultations with key stakeholders. Initial efforts will focus on validating short-term priorities and co-creating detailed work plan to test, validate, and refine interventions.
- The team will leverage expertise and resources from international players while building local capacity to carry on the efforts.
- Improving the operating environment to attract and diffuse new innovative business models to Ethiopia. To advance this effort, the team will analyze successful experiences around key business models for last-mile distribution, pay-as-you-go, and productive uses of off-grid energy solutions. The team will work with government agencies to provide support to enable greater private sector participation in delivering off-grid energy solutions.
- Building ECIC capacity to support entrepreneurial alliances to transfer knowledge and build local capabilities to enable provision of climate solutions. This effort will include matchmaking of international firms (sources of technology and business models) with local entrepreneurs. To support the formation of these alliances, ECIC will provide technical support to the development and implementation of alliances, including cross-border diffusion of technology and business models.

### Key Milestones FY18

| Milestones   | Expected FY18 timeline |
|--|------------------------|
| Launch of the Morocco country node   | Q1                     |
| Launch of another country node   | Q2                     |
| Launch of the Barclays pilot in Kenya  | Q1                     |
| One Barclays business model tested in Kenya  | Q3                     |
| Validating short-term priorities for off-grid energy market acceleration program in Ethiopia | Q1-Q4                  |
| Lessons learned report   | Q4                     |
| Twenty business model diffusors identified for Kenya   | Q4                     |
| Thirty-five business model matches made in South Africa                                      | Q4                     |



# CTP Knowledge Generation and Sharing

The chapters that follow cover the progress made in CTP's third core work area—**building a global knowledge base for how to support climate technology entrepreneurship in developing countries**. CTP's knowledge activities are broken down into three programs including; insight, impact, and communications.



Insight acts as the knowledge arm of CTP to create and disseminate knowledge products that address the latest and most pressing issues regarding climate innovation in developing countries. With increasing attention, activity, and investment in this sector, drawing lessons from the latest analyses and concrete projects is more important and can be more impactful than ever. CTP works with numerous public and private organizations in this area to complement and fill in gaps within the knowledge landscape. It brings a unique value addition by gleaning lessons from its own pioneering and concrete activities in developing countries including the seven Climate Innovation Centers and related climate venture investment facilities; along with the efforts of more than 200 companies it supports around the world, and its pilot activities such as Market Connect and Finance Lab.

### Overview of Progress

Insight has substantially expanded the scope of its work and resulting deliverables for FY17. The projects it has undertaken in a range of developing countries provide a wealth of experience to draw lessons to be packaged and disseminated. Insight work is organized into three areas:

- **Research Reports:** Through consultation with partners and experiences on the ground, CTP Insight identifies specific areas where a lack of knowledge and analysis is hampering effective climate innovation in developing countries. It then creates research reports that involve deep dives into the selected topics. The reports feature original research that examine the subject at a granular level and draw conclusions from the data gathered. The reports also draw upon lessons learned from CTP projects and the knowledge of our network of subject-matter experts with the goal of generating thought leadership that delivers new insights and paradigms.
- **In Brief Series:** The CTP In Brief series was launched last year to provide a regular and efficient way to tap experiences directly from CTP projects and generate lessons to share. These pieces are concise (6 pages) and presented in an easily digestible format. They draw lessons directly from CTP experiences and are efficiently presented so the lessons and information can be rapidly shared with all stakeholders. While not covering each topic in depth, they provide a useful overview and often act as beginning of more in-depth analysis and conversations.
- **Knowledge Sharing Events and Dissemination Channels:** Insight actively shares its knowledge through a combination of live events and online dissemination. Participation in the global community of thought leaders in this space leverages both the impacts of our knowledge and allows the team to keep up to date on all latest developments and ideas. Presentation of Insight knowledge via targeted events, knowledge platforms, and online platforms enhances the reach and impact of the knowledge generated. This activity is closely linked to the communications work of CTP.

CTP's knowledge work is enhanced by robust linkages with the Innovation & Entrepreneurship practice where it is housed along with our connections to other units in the World Bank. CTP takes advantage of its position to develop links with internal partners, including the Climate Change Group, IFC, as well as sector-specific practices in the World Bank such as Energy and Water.

## Key Accomplishments

### Produced and disseminated seven In Briefs

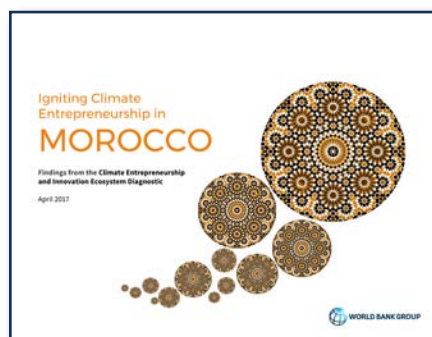
The CTP increased its In Brief production. Six reports were released in FY17, up from three in the previous year. They include:

1. Adapting Global Entrepreneurship Acceleration Models to Clean Technology in Developing Countries: The Ghana CIC
2. Bringing Climate Opportunities to Entrepreneurs: The Caribbean Climate Innovation Center
3. Creating a Hub, Creating a Buzz: How to Attract the Best and the Brightest
4. Kenya Climate Ventures: Designing an Innovative, Blended Financing Model for Early Stage Clean Technology Companies
5. Can Results-Based Financing Catalyze Early-Stage Equity Investments in South Africa's Green Small and Growing Businesses?
6. Measuring Progress on Climate Innovation: M&E systems in the context of Climate Innovation Centers (CICs)



### Innovations for Scaling Green Sectors

Released in FY17, the Innovation for Scaling Green Sectors report addresses the question of why few climate technology enterprises are reaching scale and only a limited number of widely replicable green business models have emerged. The report presents case studies of seven green sub-sectors and highlights the common challenges of green businesses. It further identifies opportunities to scale green businesses and sectors through market creation, financing, technology, regulatory, and business model innovations. Furthermore it recommends how donors, development agencies, and financing institutions can support and replicate these opportunities. The study draws from 68 primary and 23 secondary interviews of green businesses across the developing world, with particular focus on South Asia and Sub-Saharan Africa.



### Igniting Climate Entrepreneurship in Morocco

This report presents the analysis and conclusions emerging from a comprehensive diagnostic of the Moroccan ecosystem for climate entrepreneurs. Based on a survey of 334 public and private stakeholders and more than 40 semi-structured in-depth interviews, the report maps out all parties working in this space, the potential for growth and the major barriers being faced. It concludes with a set of recommendations that both policy makers and the private sector can take to realize the potential for climate innovation in Morocco.

## Knowledge Dissemination: Events and Online

CTP participated in numerous events where we were able to share our knowledge and interact with other public and private stakeholders. CTP staff presented the program's findings and research at more than a dozen different events, including COP22 in Marrakesh, Morocco (described below), Innovate4Climate in Barcelona, Spain, Climate Week in New York City, and at venues through its partnerships with organizations such as the Green Growth Knowledge Platform, the Shell Foundation and the Green Growth Working Group of the Donor Committee on Enterprise Development (DCED).

CTP has also ramped up its online presence to share its knowledge. Our website includes a special section devoted to the program's publications and similarly, CTP is leveraging its position within the Innovation & Entrepreneurship unit to use the Innovation Policy Platform (<https://www.innovationpolicyplatform.org/>) to reach a wider audience with a special section devoted to the CTP In Briefs.

### CTP at COP 22

The CTP was part of the official World Bank delegation to the COP22 in Marrakesh, Morocco and used the occasion to share and disseminate its knowledge at the premier annual climate event. The CTP partnered with MASEN, the Moroccan sustainable energy agency to increase visibility and reach of its knowledge, including a stand at the MASEN pavilion and being featured at several MASEN events. In addition to numerous bilateral meetings, CTP made the following presentations:

- Findings from the Morocco Climate Entrepreneurship and Innovation Ecosystem Diagnostic
- How to boost a green “greenfield” with Appropriate Financing
- CTP presentation and panel participation Energy Policy and Entrepreneurship event hosted by the US government
- CTP representation at Board meetings of WIPO Green and International Network on Climate Change Centres of Excellence and Think Tanks (INCCETT)

As discussed previously, the CTP also used COP22 as the venue to launch its Climate Business Innovation Network (CBIN). Following meetings on “Climate Change Centers of Excellence and Think Tanks” chaired by the Moroccan Minister of Foreign Affairs in Climate Week in New York City, the host Moroccan Government invited CTP T&C GP to organize an event at COP22 to launch the CBIN. The launch event was held 16 November in the Morocco Pavilion, chaired by James Close, World Bank Director of Climate Change. The event was well attended and the launch of the CBIN well received. Panelists included representatives of the Governments of Kenya, Vietnam, and Morocco—as well as private investors (BMCE bank of Morocco), innovation leaders (Carbon Trust of UK), UN agencies (Climate Technology Center and Network, CTCN), successful climate companies (Eternal Sun) and MASEN (Morocco Agency for Sustainable Energy).

### Lessons Learned

In response to external events and based on insight gleaned from the ongoing generation and dissemination of CTP knowledge products, the following lessons will shape Insight strategy and planned actions going forward.

- The increased focus and activity on climate innovation in developing countries seen with both public and private actors increases the value of CTP knowledge products as key input to shape these activities and related investments.
- Progress on climate innovation that has not met expectations in terms of penetration of new technologies, or sector growth is creating a need to reexamine some of the core analytical assumptions behind climate innovation.

- With an increase of knowledge products in the climate innovation space in general, CTP's Insight's unique value addition of drawing analysis and lessons from its own concrete activities distinguishes it and sets it apart.
- Linking knowledge generation to concrete action by the CTP and other stakeholders will not happen on its own and instead requires concerted efforts at targeted dissemination and follow-up.
- CTP knowledge dissemination strategies should effectively make use of rapidly evolving communication channels. While hard copies of full reports and smaller pieces should still be used, dissemination and a presence in online platforms are needed to maximize impact.
- There are many organizations with which CTP can usefully partner on knowledge to synergize complementary skills and abilities. While such partnerships require extensive networks and can be time-consuming, they can bring great value to increase quality and value of resulting products.
- Partnerships are valuable not only because they enhance the quality of our knowledge products, but also because they can be very effective in broadcasting our work and increasing the chance our ideas will influence future activities design and implementation.

## FY18 Work Plan

Insight will grow in importance as a major component of CTP's overall strategy in FY18 by providing analysis and thought leadership around effective climate innovation for developing countries. The resulting knowledge generated will have impact through its use in designing future climate innovation actions taken by both the CTP and other stakeholders.

The key focus areas for FY18 will follow and build upon previous analyses.

**Innovation Ecosystems:** One major finding of CTP activities is the importance of barriers at the ecosystem level, which impede the growth of green start-ups and entrepreneurs. While CICs (and other similar efforts) continue to provide firm-level support to companies in climate sectors, their growth is hampered by regulatory and market barriers. Insight will therefore place an increased emphasis on understanding these barriers for growing climate markets and the tools to address them. Building on the success with the Morocco Entrepreneurship Ecosystem Diagnostic in FY17, Insight will produce two country ecosystem diagnoses in FY18, along with at least 8 country ecosystem snapshots. New reports on lessons learned from CTP and on approaches to supporting climate technology entrepreneurs will also have innovation ecosystems as a central starting point.

**Focus on Finance:** Another key finding from the implementation of CTP projects and related analysis is the singular importance of providing appropriate finance for scaling companies in the climate tech space. The 'missing middle' between grant funding and commercial investments is especially difficult for climate tech companies to traverse due to the novelty of their products, dependence on government regulations and subsidies, and inherent challenges to scale due to the 'hardware' nature of their products. CTP's climate venture funds and piloting activities under Market Connect (and Finance Lab) provide concrete experiences from which to draw lessons to share with the climate innovation community hungry for new models in this space.

**Expanded Partnerships and Dissemination for Impact:** Insight will work to increase the impact that its knowledge products have through enhanced dissemination and partnerships. This will continue the program's participation in selected events and increase its presence in new and evolving online platforms. Doing so will both increase the distribution of its knowledge products and provide stronger links to inform design on new climate innovation activities.

**Figure 16: Arc of CTP Insight knowledge and learning**



## Key Milestones FY18

| Milestones  | Expected FY18 timeline |
|---|------------------------|
| Publish In Briefs quarterly   | Q1-Q4                  |
| Official Launch and Dissemination of Scaling Green Business report, including recommendations and individual case studies | Q1-Q2                  |
| Finalize and launch draft of Financing Climate Technology Businesses report   | Q3                     |
| Finalize CTP Lessons Learned report   | Q3                     |
| Finalize 2 country ecosystem diagnostics  | Q3                     |
| Finalize research report, Supporting Startups and Growing Businesses in Climate Sectors for Developing Countries          | Q4                     |
| Participation in at least two live events for knowledge dissemination   | Q1-Q4                  |



## Impact

Impact oversees monitoring and evaluation activities for all CTP components and supported CICs around the world. This includes working with CTP business lines and new CICs to: set targets and report results on a quarterly basis; define data collection processes and procedures; design, implement, and monitor the data collection platform; train internal and external staff on the results framework and data collection process; ensure the quality and rigor of data collected and results reported; plan and conduct impact evaluations; and provide data analysis and insights.

### Overview of Progress

In addition to its ongoing effort to monitor and report progress against targets across the entire Climate Technology Program, the bulk of the Impact team's effort this year focused on rolling out the data collection process developed last year across the CIC Network. The analytical report (Annex 1 in last SCM report) produced by the Impact team in FY16 underscored how valuable systematically gathered data is, not just for existing CICs but also for the centers that will join the network in the coming years.

The biggest shift in thinking across CICs this year was how to use the data collected for their own strategic learning and decision-making purposes—and getting past the idea that data collection was solely to fulfill and comply with reporting needs of stakeholders. To that end, the team worked with the CICs to ensure that the data collected was useful for local CIC leadership as well. Effective data collection can enable CIC leadership to correlate their entrepreneur selection process with the evolution, growth, and ability to raise additional investment of their client businesses—both during and post incubation.

The Impact team worked with each CIC to implement robust data collection practices as well as to support use of analytics to inform CIC management. Building on last year's comprehensive backfill data collection effort, in FY17 the team worked closely with both KCIC and ECIC to further refine the data collection process and adapt it to their specific operational realities.

The team introduced and trained the GCIC M&E team on the data collection process and usage of the different online forms at various touch points between GCIC, service providers, and supported businesses and entrepreneurs. Charts in Annex 1 provide some insights from the first round of applications for GCIC disaggregated by both accepted and rejected firms. This will be just the beginning of a comprehensive database for GCIC once they start providing services to businesses and monitor-firm level growth and developments on a consistent basis.

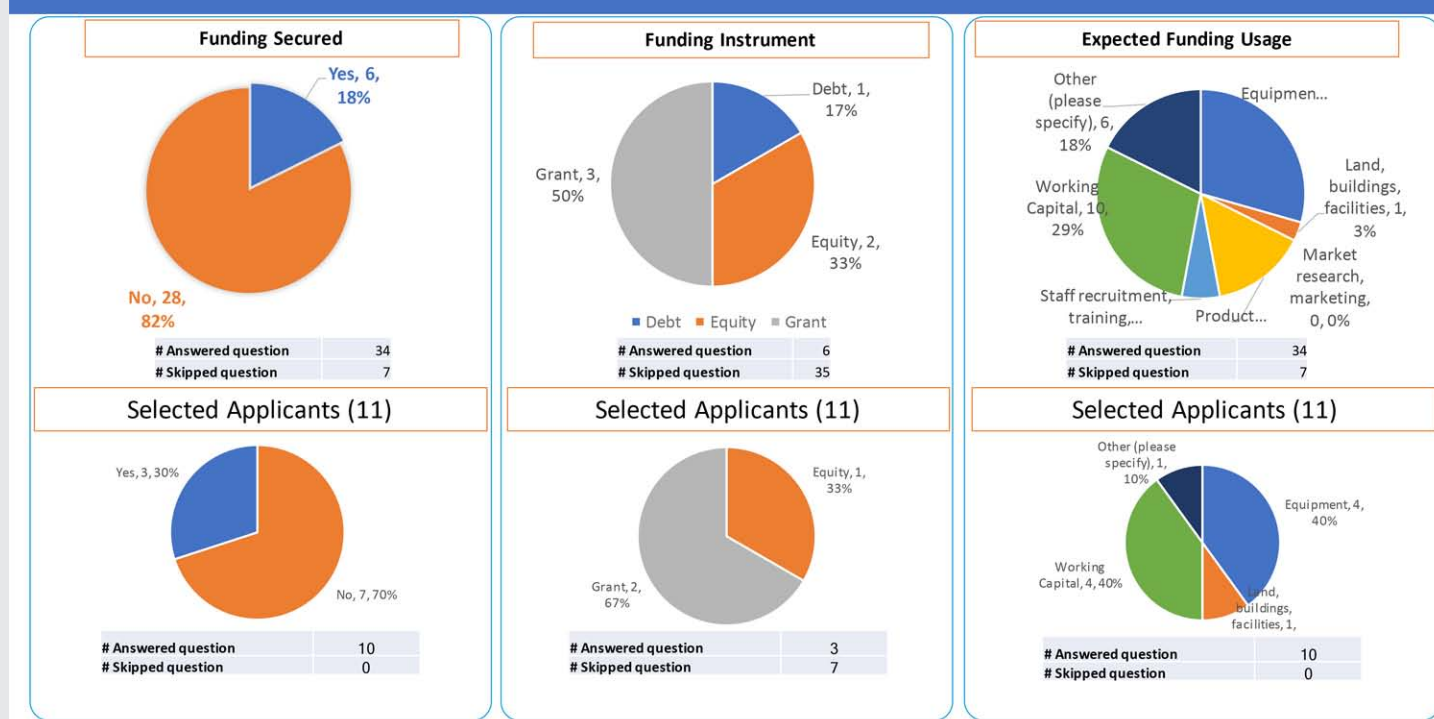
Data collection forms were also tailored for CCIC, although there was a slow start in using the forms due to capacity issues, as the local M&E officer has been involved in other operational tasks. CTP's Impact team will continue to work closely with CCIC until consistent and comprehensive data collection processes are in place.

For SACIC, the introduction of the process took a different angle as it is not a World Bank grantee and already has its own reporting lines to The Innovation Hub and the Gauteng province. Despite this different governance structure the SACIC team provided feedback for the data collection forms and ultimately a modified version was created for SACIC to use.

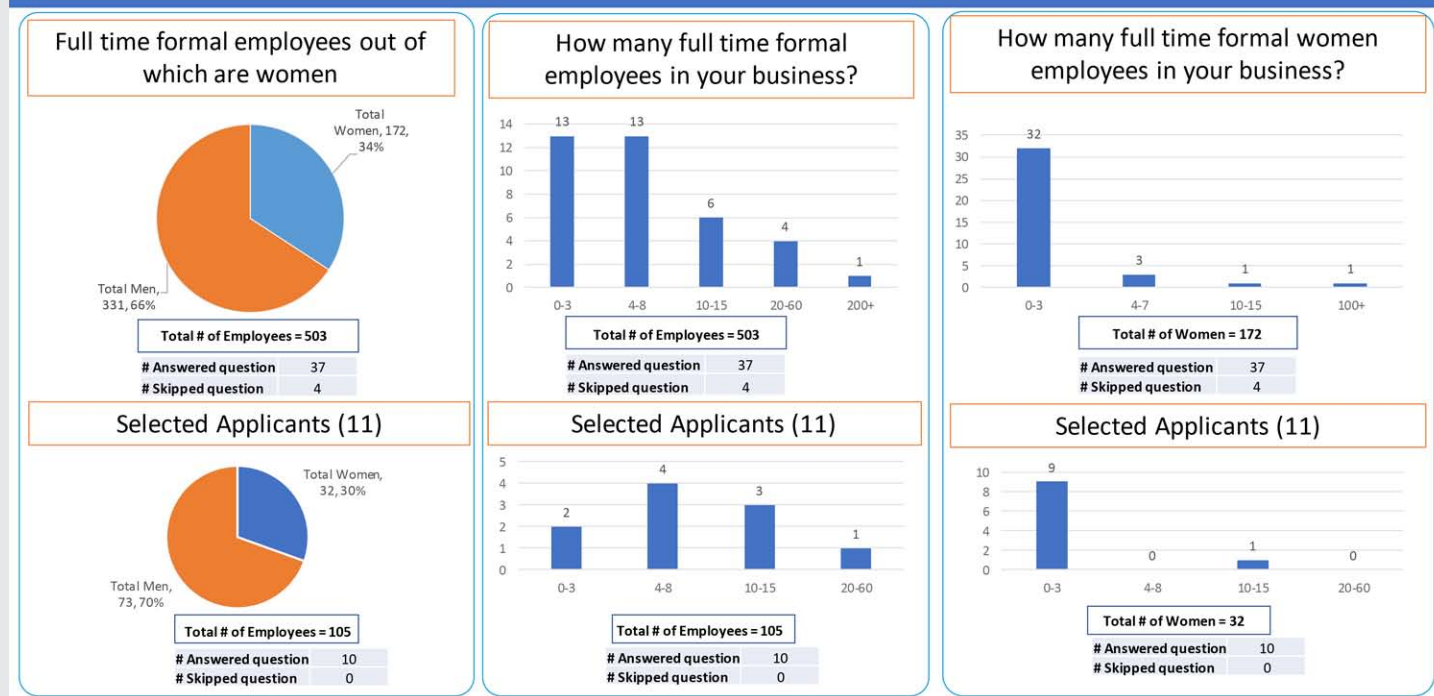
After a number of consultation sessions and creating modified versions of the online forms, the VCIC team decided that they will not use the data collection process proposed by CTP. This decision was made due to perceptions of excessive reporting burdens for their clients. Rather, they will continue to report on the standard indicators every quarter with accompanying narrative on the results achieved.

**Figure 17: Sample Data Capture and Tool View for CIC Management**

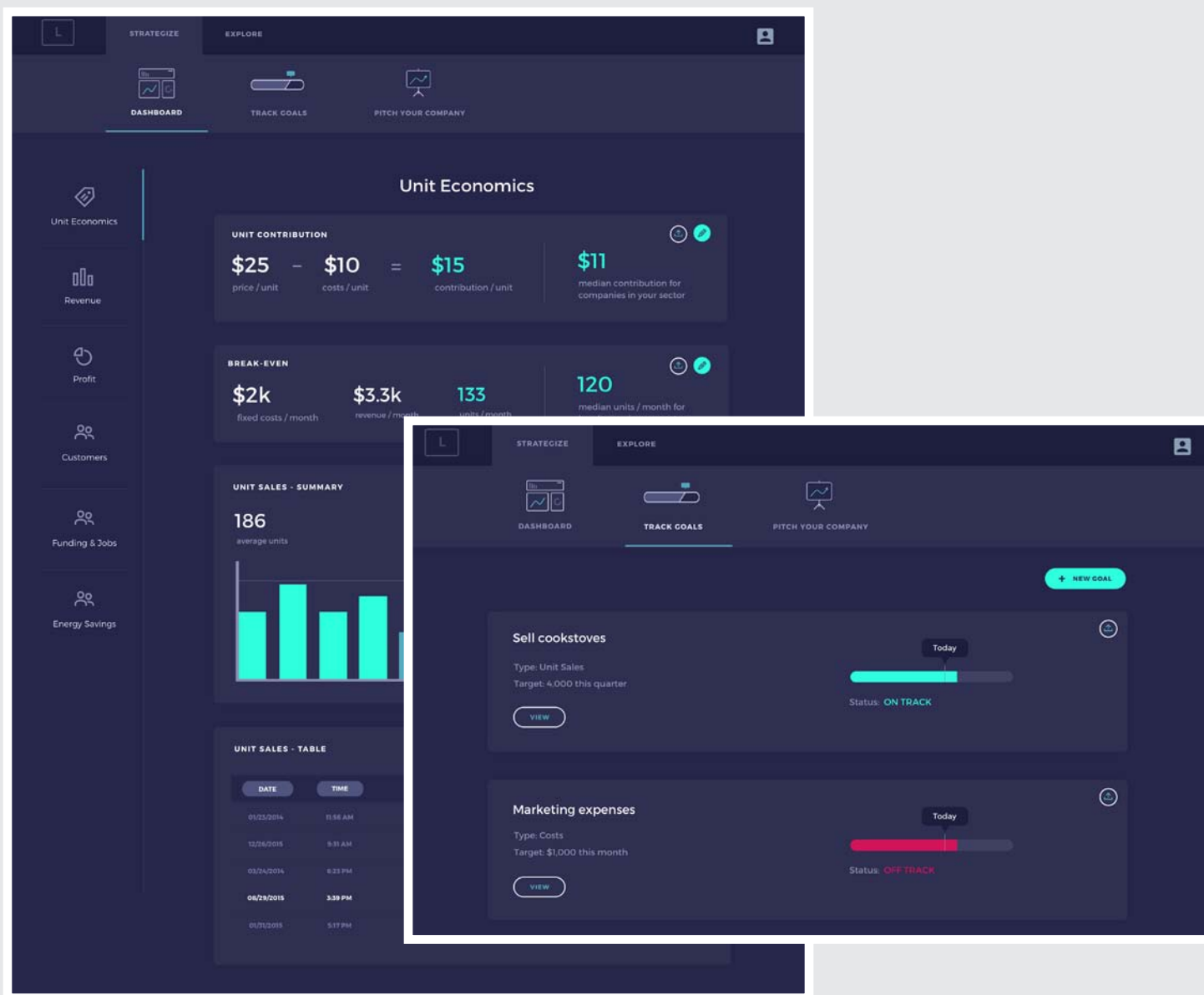
## 1.5 Funding Use



## 1.3 Employees Profile



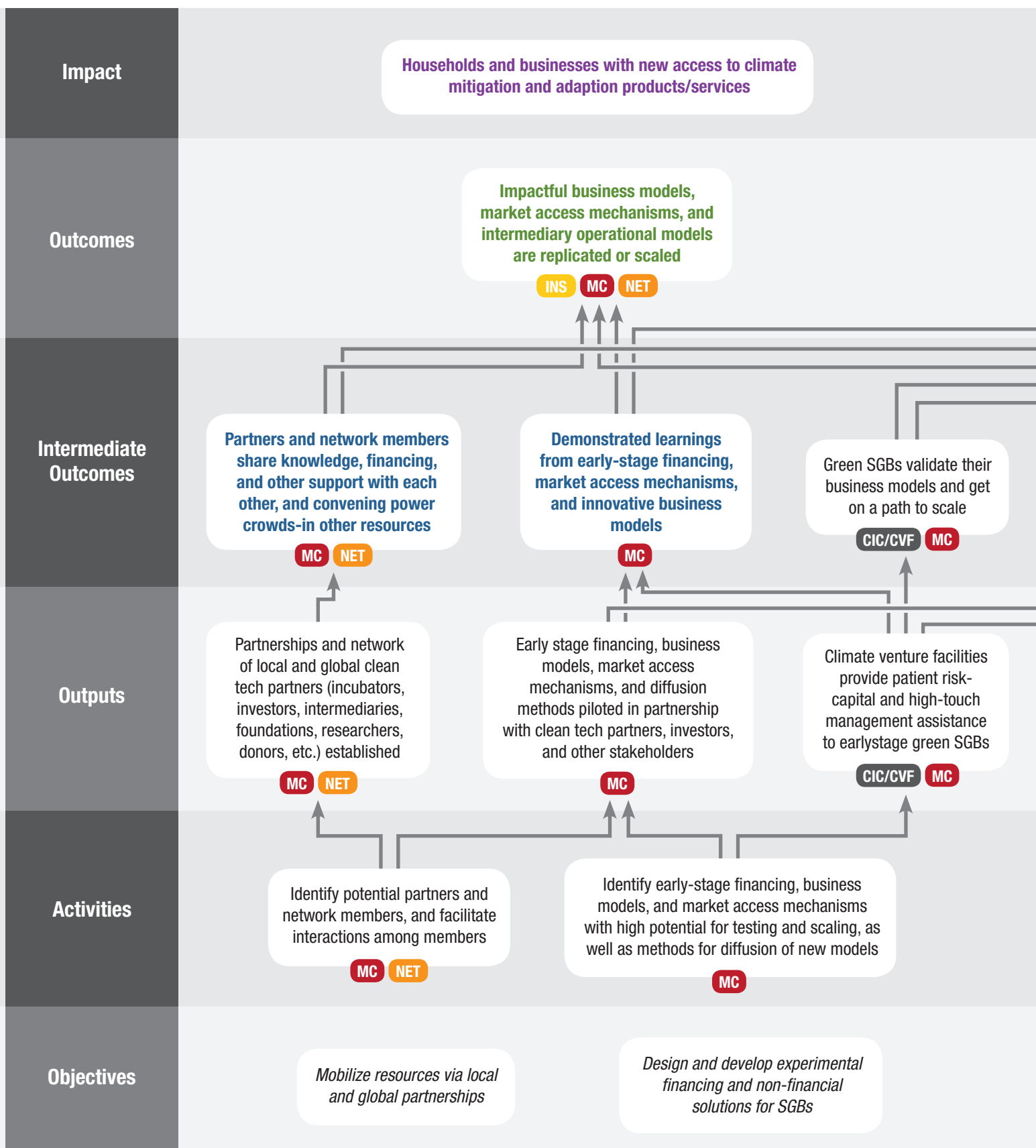
**Figure 18: Sample View for Client Businesses**



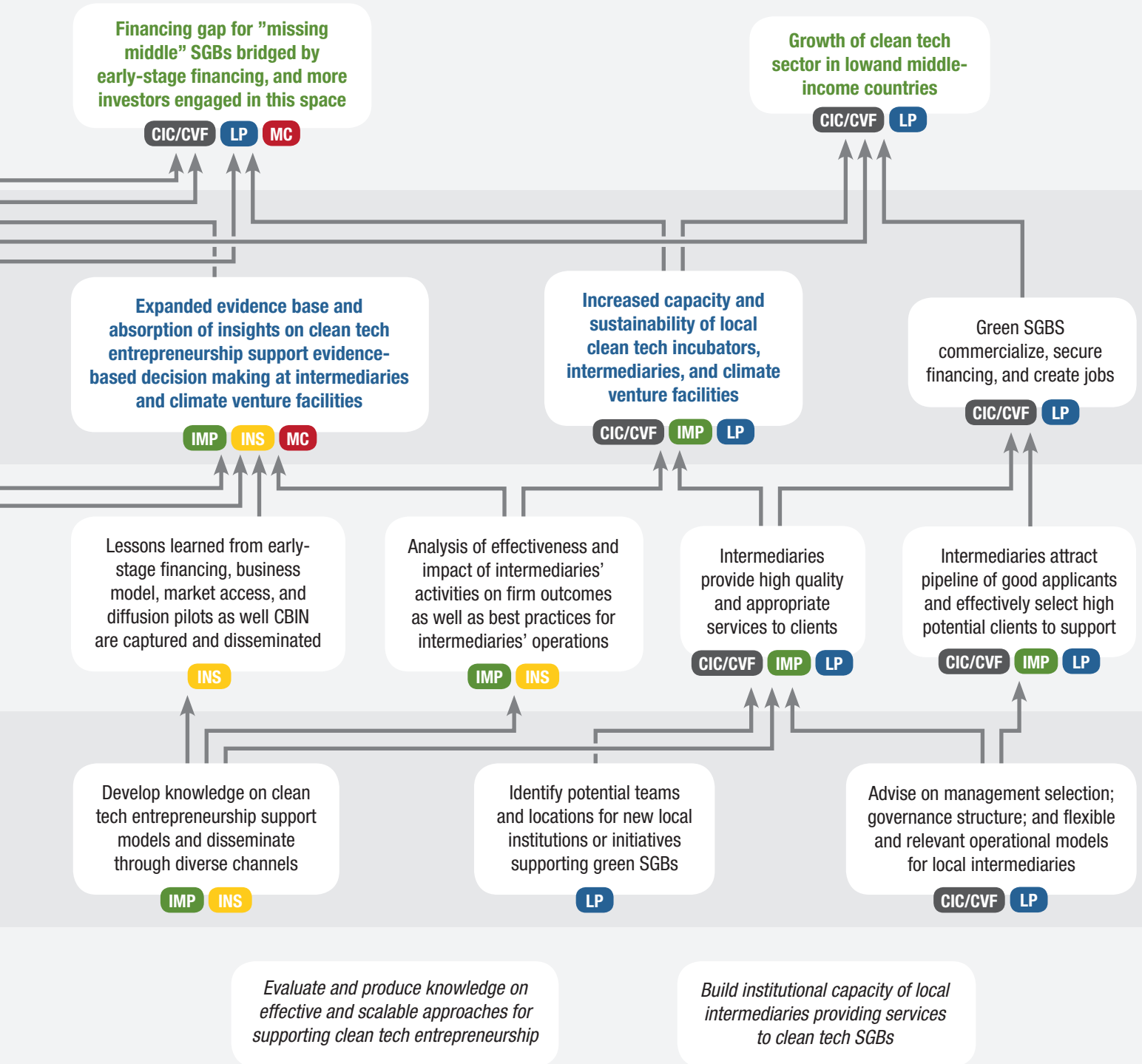
For MCIC, the team plans to work closely with the potential M&E hire on the data collection process and online system once s/he is onboard.

In parallel to the rollout of the data collection process, the Impact team worked on designing and delivering a prototype of an incentive driven web-based reporting tool for CICs and their supported businesses. The prototype, which was designed and developed in consultation with the KCIC and some of their clients, aims to provide visual operational insights for both the CIC and its clients as a result of continuous data collection. For the CIC, the reporting tool provides dashboards for management to better understand their existing incubated businesses and assess whether their selection criteria and services provided have managed to build a solid pipeline of investment-ready scalable businesses. Clients will likewise have access to dashboards and analytics of the data they provide to inform their own operations. As the usefulness of the dashboards

**Figure 19: CTP Theory of Change**



Improved climate resilience resulting from take-up of climate mitigation and adaptation products/services





requires close monitoring of supported businesses both during and post incubation, the reporting tool incorporates incentives to client businesses to continue reporting their operational and financial information even post incubation.

The snapshots in Figures 17 and 18 provide a glimpse of what kind of information the tool will provide CIC management, as well as what information will be available to supported client businesses. The next step in FY18 is to pilot the implementation of this prototype and link it to the data collection process and online forms that have already rolled out.

### High-level findings from the Mid-Term Review

- The program would need to be extended to fully utilize the remaining resources and to be able to assess the potential impact of the program on the sustainability and the growth of the enablers and their businesses.
- The program needs to better articulate the logic and the link behind the different components and how it sequentially leads to climate, reach and firm level targets.
- The links with other infoDev programs, World Bank Group activities and IFC could be improved.
- Knowledge dissemination and sharing both from programmatic and CIC activities could be further enhanced and improved
- Additional support both at the operational and technical level is needed for CIC and their implementing partners ensuring more quality tailored support resulting in businesses growth and scale.

Another key activity for the Impact team in FY17 was overseeing the midterm review of the CTP trust fund from inception until June 2016. Deloitte Consulting was hired through a competitive bid to conduct the midterm review, which is an internal World Bank Group requirement for trust funds. The goal of the assessment is to evaluate the program's efficiency and effectiveness based on the activities to date, and to provide solid recommendations for strategic direction for the remaining duration of the program. CTP's extensive review triangulated internal input (WBG project docu-

mentation and staff interviews), interviews with implementing partners, and interviews with country-specific ecosystem stakeholders (including, but not limited to, donors and supported entrepreneurs/businesses). Findings and recommendations from the mid-term review will guide CTP activities going forward.

The Impact team, in consultation with the CTP component leads, revised the CTP theory of change to reflect the new CTP 2.0 strategy. Under the new theory of change, Impact activities are focused primarily on **(1) knowledge creation and dissemination and (2) producing information and analytics to improve the effectiveness and sustainability of CTP-supported intermediaries**. For example, under the revised theory of change and results framework, Impact indicators move away from tracking activities such as staff members trained and results frameworks created to instead emphasize the use of analytics to inform decision making and develop and disseminate knowledge products around M&E for clean tech entrepreneurship and intermediaries. As such, the Impact team will play a key role in supporting and informing activities under all other CTP work areas.

### Key Accomplishments

- The data collection process was rolled out, with continuous work to refine and improve the process and to build CIC staff capacity across all existing centers.
- Impact delivered a prototype of the incentive-driven reporting tool in consultation with KCIC and their supported businesses.

- The midterm review was completed.
- A revised theory of change and results framework were drafted (see Figure 19 on previous spread).

## Key Lessons Learned

- The structure and operations of each CIC are unique, therefore a one-size-fits-all approach to data collection is not as effective. Starting from a standardized framework for data collection, the Impact team worked with each CIC to tailor the data collection forms and processes to best suit the needs of each CIC. This has been done with an eye to maintaining as much standardization and systematization as possible. Moreover, with time and ongoing use of the data collection platform, lessons learned from the experiences of designing and implementing the forms at one CIC are shared with the other CICs, reflecting an iterative process of learning and adaptation. This will be especially valuable as new CICs come on board in FY18 and FY19.
- No matter how much time and effort is exerted in selling the concept and co-developing data collection forms with CICs, the real test for how effective and successful the forms are is when they are used. To keep data collection efficient and productive for the CICs, CTP will monitor the back end of the form as well as incorporate users' feedback in future iterations.
- The governance structure between the CTP and implementing partners on the ground is such that M&E should always be present and a core part of the business plan of the new CIC. This should not stem only from a reporting perspective, but also from a detailed data collection mechanism that ensures both periodic monitoring and continuous timely learnings and findings that would ensure efficiency and sustainability of the delivery model.

## FY18 Work Plan

In FY18, the Impact team will continue rolling out the data collection platform and building the capacity of CIC M&E staff. For CICs that have been using the data collection process consistently, the Impact team will continue building their analytical capabilities and demonstrate how the data could affect their operational models. Primarily this will be done through the new incentive-driven tool and its capability to allow for customization while still providing consistent reporting to stakeholders. The Impact team will start testing the incentive-driven reporting tool which is still at the prototype stage. For CICs that are either at early stages of operation or that are not fully using the online data collection forms, the Impact team will provide preliminary insights on the data collected thus far. The goal of this is to incentivize the CICs to continue using the forms until a more comprehensive database is created on client firms' baseline data, services received, and periodic updates during and post incubation.

The Impact team will also work with the new CICs to define their theories of change, results frameworks, targets, and to build their capacity for data collection and reporting. Additionally, the team will guide the process of implementing the recommendations resulting from the mid-term review, as per WBG policies regulating Global Regional Programmatic Programs (GRPPs).

Finally, the Impact team will work with GCIC to explore opportunities for conducting an impact evaluation, beginning with creating an Impact Evaluation Plan outlining the possible approaches and methodologies while being mindful of the relatively small sample size within any one CIC.

## Key Milestones FY18

| Milestones   | Expected FY18 timeline |
|--|------------------------|
| Continue support to existing CICs on the refinement and utilization of the data collection mechanism | Q1-Q4 FY18             |
| Onboard and work with new CICs on M&E  | Q2-Q4 FY18             |
| Design and Implementation of the impact evaluation plan with GCIC                                    | Q2 FY18                |
| Implementation testing for the incentive driven reporting tool with KCIC                             | Q2-Q4 FY18             |

## Overview of Progress

In FY17, the communications strategy focused on promoting CTP's impact, building thought leadership, and positioning the program as the partner of choice for supporting clean technology entrepreneurs in developing economies.

Communications products and outreach campaigns highlighted the program's global reach, the span of its network of global and local partners (CBIN), as well as stories and results achieved in the seven countries with active climate innovation centers (CICs). A variety of communications tactics—online channels, publications and events—have been implemented to engage partner organizations, academics, and entrepreneurs, as well as media and other key influencers in the climate change, clean technology, and entrepreneurship communities.

Under this strategic approach, the program strengthened significantly its online presence, launched successfully new knowledge products, and took center stage at high-level events in the clean-technology space. Page views on the infoDev website increased by 20%, while on social media the number of Facebook followers grew by a staggering 378% over the past year alone. The campaign to promote the knowledge notes “In Brief” was seen over 70,000 times and generated almost 700 direct downloads, while the participation at international events, such as Sankalp Africa Summit 2017 and COP22 in Marrakech, helped position CTP as one the key player focusing on clean-tech entrepreneurship in developing countries.

### Highlight 1: Online Presence

Online media viewership on infoDev.org and related social media channels grew significantly. Targeted, small-budget online marketing campaigns have proven to be very effective in expanding the reach and leveraging selected success stories and publications to increase brand awareness. Engagement with our Facebook content, for example, has significantly increased in target countries Senegal, Ghana, Morocco, and Ethiopia.

The communications team has also conducted an in-depth analysis of user data to refine the type of content published and further increase audience engagement. Thanks to this analysis, infoDev puts out content that is more engaging today than a year ago: on average, in FY16 a infoDev tweet received 16.8 likes, retweets, replies, or clicks, whereas a tweet in FY17 received 19.1.

Here is a summary of the key performance indicators adopted for the web and social media presence:

#### Social Media

- /// The number of Facebook followers increased by 378% over the past year. 23,124 Facebook users like infoDev today.
- /// The number of Twitter followers increased by 19% over the past year, and a total of 16,516 Twitter users follow infoDev today.
- /// As of mid-June 2016, the total social media following is 39,640 users on Twitter and Facebook combined.

## Web

- /// The number of page views increased by 20% compared to year prior, and totaled at 345,468 over past 12 months.
- /// The peak monthly page views was 33,284 in March 2017.
- /// The number of unique visitors increased by 30% compared to year prior. 176,456 unique visitors used infoDev.org in the past 12 months.

## YouTube

- /// 143,800 views as of June 20, 2017.

## Highlight 2: Publication Campaigns

**In Brief series:** “In Brief” is a series of knowledge briefs highlighting important aspects of the CTP global and in-country operations and research. These notes provide lessons on the CIC model and network, analysis of climate technology innovation and deployment challenges, and practical insights aimed at development partners, policymakers, and other stakeholders supporting similar green entrepreneurship programs.

These insights and lesson learned are relevant to a broad range of stakeholders, including practitioners, foundations, government organizations, and business enablers. To maximize the reach among the target audiences and leverage the publications to position CTP as a thought leader in the clean-tech space, the team supported the distribution of the six In Briefs published to date with a diversified and multi-channel communications campaign. This included:

- /// **Web promotion:** The series was prominently featured on WBG’s knowledge catalogue and highlighted on the infoDev website through a dedicated publication page.
- /// **Email distribution:** Highlights were sent through an email campaign targeting key institutions in the clean-tech space, as well as the internal WBG Trade & Competitiveness Global Practice monthly newsletter and infoDev’s Newsflash — over 12,000 subscribers.
- /// **Social media promotion:** The report was disseminated through infoDev and WBG’s Twitter and Facebook channels. The Twitter and Facebook campaigns targeted specifically business enablers, practitioners, and influencers in the clean technology and entrepreneurship space. The results achieved are significant: Overall, the online campaign was seen an estimated 70,000 times and generated almost 700 direct downloads. Specifically, the Twitter campaign generated 467 likes, retweets, replies, and clicks on Twitter, and enjoyed over 40,566 impressions. On Facebook, the campaign received 9,192 likes, comments, shares, and clicks, and reached a total of 30,245 users.





### Highlight 3: Entrepreneur Profiles

Entrepreneur profiles and videos have consistently been a popular feature on World Bank Group's online channels and have been very well received among technical and academic audiences, as well as the media and the broader clean-tech community. By combining the storytelling value of entrepreneurs' stories with the socioeconomic potential of their innovative business models and technologies, the videos showcase the impact of CTP in an insightful and engaging way. Supported by targeted online campaigns and cross-promotion from across the Bank, the videos have received a total of 143,800 views on YouTube and social media at the time of writing.

One of the most successful video profiles from FY17 is the “elevator pitch” of Karim El Alami, a young entrepreneur from Morocco whose start-up, eLum, is winning awards and sparking excitement about solar energy across the country. The video, published in May 2017, has already 34,231 views on YouTube alone and the campaign has already been seen an estimated 785,665 times on Twitter and Facebook. After the video was published, El Alami was featured in a Financial Times article.

#### Twitter

12,000 Impressions

566 Media views, Likes, and Retweets

#### Facebook

728,665 People Reached

5,189 Reactions, Comments, and Shares

## Highlight 4: Performance Improvements

A number of new software and technical improvements have been implemented to achieve maximum results and efficiency across communications platforms. These include:

- **Redesigned website:** With a new, more modern-looking homepage, the team made it easier for users to find, share, and engage with publications, results stories, and updates on infoDev activities.
- **Improved Search Engine Optimization (SEO):** Through a more effective SEO strategy that takes advantage of a new set or well-researched keywords, the communications team is improving ranking and positioning of the website.
- **Improved tracking of web traffic from social media:** The communications team introduced CID tracking codes to track the traffic from the infoDev newsletter and social media channels to the website. This has helped the team leverage the growing social media presence to drive more traffic to the website.
- **Improved newsletter and email marketing:** The team switched to Mailchimp to manage the infoDev's newsletter. This has allowed the team to develop a more sophisticated and rich user experience while also collecting better data on recipient behavior. The newsletter has already reached over 12,000 subscribers.

## Strategic Approach

With increased attention at the World Bank Group and the larger development community to issues of climate change and the private sector, the communications strategy for FY18 aims to position CTP as a global thought leader, as well as highlighting the planned expansion of the network as more centers open.

The CTP is well-positioned to support the climate priorities of the World Bank Group and its partner organizations by championing low-carbon economic development with grassroots data, local insights, and entrepreneur stories.

With new Climate Innovation Centers scheduled to open this fiscal year, we have a great opportunity to showcase the growing reach of our network in new countries. COP 23 in Bonn, Innovate4Climate, and other international events will provide a cost-effective way to disseminate our knowledge products to an interested audience.

The content strategy will focus on documenting lessons learned and results achieved by the program at a global and a local level, as well as highlighting the transformative potential of business solutions being incubated through the network.

The strategy will also strengthen outreach at local and national levels in CIC countries by convening CIC communications staff and strengthening their capacity. This communications support is vital to building support for the climate incubation centers across government, business, consumer and other constituencies.

## Communications Tactics

**Entrepreneur profiles and storytelling:** Interviews and videos featuring climate entrepreneurs have consistently drawn readers and viewers to the infoDev website and social media channels. One recent video gained us 4,000 new Facebook likes and 500 new Twitter followers. CTP will publish quarterly entrepreneur profiles and videos, and continue to promote them on social media.

**Knowledge products:** In FY18 we will strengthen the dissemination of knowledge to get more impact from data, insights, and lessons gathered and analyzed through CTP activities. Toolkits and practical guides help establish CTP as a source of on-the-ground expertise. CTP will continue publish and promote the In Brief series of reader-friendly guides focused on a specific challenge faced by entrepreneurs and business incubator managers. Each In Brief will be accompanied by a blog post that will widen its reach. Sector studies and reports will be promoted through ad hoc multimedia content and a variety of channels, including online outreach and media relations. Carefully targeted, low-budget social media campaigns have proved to be an effective and cost-efficient tool and will remain key to engaging external audiences. Furthermore, to guarantee media coverage and visibility, the communications team will leverage innovative PR tools, such as Vocus PR, to engage reporters and journalists of top regional and international media outlets.

**Blogs and thought leadership:** We will continue to publish a steady stream of blog posts by program leaders in headquarters and around the world, and will explore new outlets for those blogs beyond the World Bank’s own channels, such as Medium, Project Syndicate, ANDE, and Devex.

## Donor Visibility

- All official communications materials (press releases, publications, brochures, posters, agendas, PPT presentations, and so forth) relating to CTP acknowledge the contribution by donor governments, in accordance with Bank corporate communications guidelines.
- All events organized by CTP and its implementing partner organizations (such as the CICs) also display the donor support.
- A donor visibility guideline, aligned with Bank corporate guidelines, has been implemented and will be reinforced with all colleagues and partners working on CTP activities.
- Marketing and knowledge products, as well as feature stories and videos will be shared with donors for their internal reporting and distribution.

## Website and online presence:

With the infoDev website redesign complete, we will work to expand content on the site about the CTP, its organizational structure and activities. We will prepare a “country page” for each country where CTP works, outlining our contributions to the local clean technology ecosystem.

**Social media marketing:** Social media presence will remain a priority for continued program investment aimed at growth of its Twitter and Facebook accounts, engagement with international media outlets and social media influencers, and to connect with and build on

other climate-related social media campaigns (for example, Connect4Climate and WB Climate). We will also support the growth of the new LinkedIn group for the CIC Network. Facebook Live has become a new and cost-effective way to establish our experts as thought leaders. We will highlight the program leader and incubator managers on Facebook Live chats, in collaboration with the larger World Bank communications team.

**Newsletter and email marketing:** CTP will also continue to develop and improve infoDev’s newsletter, which moved to a new sending platform in FY17 and now reaches more than 12,000 subscribers. We are experimenting with different versions of the newsletter targeting different audiences inside and outside the Bank Group.



# Program Results Framework



## Results Frameworks

**Table 8. Results framework for the CTP global components**

| Program            | Indicators   | FY17 - Targets | FY17 - Results | FY18 - Targets |
|--------------------|--|----------------|----------------|----------------|
| <b>Outcome</b>     |  |                |                |                |
| <b>Insight</b>     | Number of organizations, financial institutions, initiatives, programs leveraging tools/knowledge/models developed by the global programme   | 0              | 0              | 0              |
|                    | <i>of which WBG follow up intervention</i>   | 0              | 0              | 0              |
| <b>Launchpad</b>   | Number of Climate Innovation Centers established in developing countries   | 0              | 0              | 3              |
|                    | Public finance leveraged for CIC implementation  | \$0            | \$0            | \$25,500,000   |
|                    | Public finance leveraged for CIC business plan development   | \$230,000      | \$1,800,000    | \$0            |
| <b>Output</b>      |  |                |                |                |
| <b>Finance Lab</b> | Number of pilots conducted   | 1              | 3              | 1              |
|                    | Number of countries in which a Finance lab service has been deployed   | 1              | 2              | 1              |
|                    | Number of potential financiers engaged on innovative financing mechanisms  | 3              | 8              | 3              |
|                    | Number of lessons learned reports produced   | 3              | 2              | 4              |
|                    | Number of Finance Lab financial partners and % reporting satisfied or very satisfied with the Finance Lab partnership in terms of quality, timeliness, effectiveness and follow on support | 2<br>65%       | N/A<br>N/A     | 2<br>65%       |
| <b>Impact</b>      | Number of M&E frameworks developed   | 0              | 0              | 3              |
|                    | Number and % of CTP supported business enablers using and acknowledging that the monitoring system is a useful decision-making, learning and management tool                               | 0<br>0%        | 4<br>80%       | 3<br>80%       |
|                    | Number of CIC staff trained on results based monitoring  | 0              | 1              | 6              |
| <b>Insight</b>     | Number of knowledge sharing products developed for Cross-CTP   | 6              | 9              | 6              |
|                    | Number of strategic partnerships between CTP in collaboration with external bodies to produce and disseminate knowledge and research products  | 1              | 4              | 1              |
|                    | Number of learning and knowledge sharing events conducted for cross CTP  | 2              | 11             | 2              |
| <b>Launchpad</b>   | Number of countries investigated for CIC feasibility   | 6              | 8              | 0              |
|                    | Number of stakeholder-driven CIC business plans developed  | 10             | 4              | 0              |
|                    | Number and % of Launchpad stakeholders expressing feedback on the satisfaction with the level of preparedness/readiness to implement CIC   | 0<br>0%        | 0<br>0%        | 14<br>80%      |
|                    |  |                |                |                |



**Table 8. Results framework for the CTP global components** *(Continued)*

| Program               | Indicators   | FY17 - Targets | FY17 - Results | FY18 - Targets |
|-----------------------|--|----------------|----------------|----------------|
| <b>Output</b>         |  |                |                |                |
| <b>Market Connect</b> | Market Connect design criteria identified  | 0              | 0              | 0              |
|                       | Number of countries in which a Market Connect service has been deployed  | 2              | 3              | 2              |
|                       | Number of local partners identified  | 4              | 12             | 4              |
|                       | Number of pilot activities   | 4              | 13             | 4              |
|                       | Number and % of Market Connect stakeholders/beneficiaries expressing feedback on the satisfaction with CTP support received in terms of quality, timeliness, effectiveness and follow on support           | 1<br>80%       | 3<br>100%      | 1<br>80%       |
| <b>Network</b>        | Number of CIC network partnerships with regional and global incubation and climate tech partners   | 3              | 12             | 2              |
|                       | Number of training events for CIC to build their capacity on network standards   | 2              | 3              | 2              |
|                       | Number of CICs trained   | 0              | 7              | 3              |
|                       | Number of CICs meeting network standards: Effective governance structures/ Articulated business plan and model/ Adequate staff/ Partnerships with other service deliverers                                 | 7              | 0              | 3              |
|                       | Number of CICs and % reporting satisfied or very satisfied with CIC network support received in terms of capacity building and experience sharing quality, timeliness, effectiveness and follow on support | 5<br>71%       | 7<br>100%      | 3<br>84%       |

**Table 9. Aggregate results framework for CICs – 100% of targets/results included for 6 CICs. Results through Q3 FY17.**

| Performance Indicator  | FY17 - Targets | FY17 - Results* | FY18 - Targets |
|--|----------------|-----------------|----------------|
| <b>Impact</b>  |                |                 |                |
| Number of people with improved access to modern energy   | 167,635        | 344,989         | 184,170        |
| Number of people with improved access to clean water   | 8,725          | 90              | 8,738          |
| CO <sub>2</sub> emissions avoided (metric tons)  | 43,573         | 92,127          | 44,397         |
| <b>Outcome</b>   |                |                 |                |
| Private finance leveraged  | \$3,125,000    | \$2,022,868     | \$3,750,000    |
| Number of new direct jobs created  | 591            | 838             | 630            |
| Number of new direct jobs created for women  | 301            | 296             | 321            |
| Number of businesses supported   | 245            | 251             | 198            |
| Number of businesses receiving grants  | 78             | 58              | 43             |
| Number of businesses/entrepreneurs having access to technical facilities   | 55             | 17              | 57             |
| Number of businesses who raised early stage finance  | 25             | 21              | 25             |
| Number of businesses who raised growth stage finance   | 16             | 8               | 23             |
| Number of businesses supported that are women-led  | 61             | -**             | 50             |
| Number of low carbon/energy efficiency technologies supported (units installed)  | 42,713         | 7,807           | 44,209         |
| Number of new laws/legislations/amendments/codes/government policies/ministerial decrees drafted, or contributed to the drafting | 7              | 3               | 8              |
| <b>Output</b>  |                |                 |                |
| Number of knowledge sharing events   | 31             | 41              | 31             |
| Number of knowledge products developed   | 96             | 53              | 97             |

**\*Assumptions:**

- Aggregate CIC table reflects all targets and results (no reduction for attribution, all CICs included at 100%) for six CICs: Caribbean; Ethiopia; Ghana; Kenya; South Africa; and Vietnam.
- Assume 51% of jobs created are for women; and 25% of businesses served are women-led
- Impact indicators:
  - ▶ Assume 4.7 people per household. KCIC and ECIC use their own assumptions in setting these targets.
  - ▶ Impact results not available yet for most CICs (only KCIC and VCIC reporting on this currently). Low carbon technologies calculation varies by CIC, depending on expected breakdown of products supported.

\*\*CIC results available through Q3 FY17. Q4 results will be collected in July 2017 and the results framework updated accordingly.

**Table 10. Aggregate results framework for CIC (with attribution percentages of the CTP global program).** *Results through Q3 FY17.*

| Performance Indicator  | FY17 - Targets | FY17 - Results | FY18 - Targets |
|--|----------------|----------------|----------------|
| <b>Impact</b>  |                |                |                |
| Number of people with improved access to modern energy   | 14,049         | 50,480         | 23,953         |
| Number of people with improved access to clean water   | 641            | 5              | 2,574          |
| CO <sub>2</sub> emissions avoided (metric tons)  | 5,002          | 14,389         | 12,805         |
| <b>Outcome</b>   |                |                |                |
| Private finance leveraged  | \$318,382      | \$120,427      | \$215,683      |
| Number of new direct jobs created  | 54             | 108            | 90             |
| Number of new direct jobs created for women  | 27             | 56             | 47             |
| Number of businesses supported   | 10             | 30             | 17             |
| Number of businesses receiving grants  | 6              | 13             | 0              |
| Number of businesses/entrepreneurs having access to technical facilities   | 10             | 3              | 11             |
| Number of businesses who raised early stage finance  | 3              | 3              | 2              |
| Number of businesses who raised growth stage finance   | 2              | 0              | 14             |
| Number of businesses supported that are women-led  | 3              | -*             | 4              |
| Number of low carbon/energy efficiency technologies supported (units installed)  | 3,059          | 721            | 8,595          |
| Number of new laws/legislations/amendments/codes/government policies/ministerial decrees drafted, or contributed to the drafting | 1              | 0              | 1              |
| <b>Output</b>  |                |                |                |
| Number of knowledge sharing events   | 3              | 9              | 9              |
| Number of knowledge products developed   | 6              | 4              | 10             |

\*CIC results available through Q3 FY17. Q4 results will be collected in July 2017 and the results framework updated accordingly.

**Table 11. Number of businesses supported by CIC.** *Results through Q3 FY17.*

| CIC          | FY17 - Targets | FY17 - Results** | FY18 - Targets |
|--------------|----------------|------------------|----------------|
| Caribbean    | 70             | 36               | 30             |
| Ethiopia     | 25             | 61               | 25             |
| Ghana        | 20             | 0 <sup>†</sup>   | 25             |
| Kenya        | 20             | 59               | 20             |
| South Africa | 80             | 58               | 80             |
| Vietnam      | 30             | 37               | 18             |
| <b>Total</b> | <b>245</b>     | <b>251</b>       | <b>198</b>     |

\*\*Breakdown of businesses served by sector is not currently available for most CICs but will be requested with Q4 results reporting.

<sup>†</sup>Q4 results for Ghana = 11.





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# Financial Information

## Financial Information

### Progress Report: Financials from FY17

**Table F1. Donor contributions to the Climate Technology Program Trust Fund TF071681 as of end FY17**

In December 2016, the World Bank and DFID agreed to reduce the budget for CTP Global activities after having identified some cost efficiency measures. As a result, the CTP team revised the projected FY17 disbursement targets downwards. This revision in the disbursement targets however did not impact the deliverables and results for FY17.

The team is confident that will be able to meet its FY18 disbursement targets.

| Contributions by Programs | Expected Commitments  |               | Received as of FY17   |               |
|---------------------------|-----------------------|---------------|-----------------------|---------------|
|                           | ('000 donor currency) | (USD '000)    | ('000 donor currency) | (USD '000)    |
| <b>Kenya</b>              |                       |               |                       |               |
| DFID                      | 4,000 GBP             | 6,344         | 4,000 GBP             | 6,344         |
| Danida                    | 50,000 DKK            | 9,073         | 50,000 DKK            | 9,073         |
| <b>Ethiopia</b>           |                       |               |                       |               |
| DFID                      | 3,000 GBP             | 4,713         | 3,000 GBP             | 4,713         |
| Norway via DFID           | 4,200 GBP             | 6,307         | 4,200 GBP             | 6,307         |
| <b>Vietnam</b>            |                       |               |                       |               |
| DFAT                      | 3,150 AUD             | 2,911         | 3,150 AUD             | 2,911         |
| DFID via DFAT             | 2,699 AUD             | 2,462         | 2,699 AUD             | 2,462         |
| <b>Ghana</b>              |                       |               |                       |               |
| Danida                    | 66,700 DKK            | 11,066        | 66,700 DKK            | 11,066        |
| Netherlands               | 4,000 USD             | 4,000         | 2,699 USD             | 2,699         |
| <b>Global</b>             |                       |               |                       |               |
| DFID                      | 12,600 GBP            | 18,521        | 6,600 GBP             | 10,781        |
| <b>TOTAL</b>              |                       | <b>65,396</b> |                       | <b>56,355</b> |



**Table F2. FY17 CTP Trust Fund Budget and Disbursements (USD '000)**

| Climate Technology Program (CTP)                  |                                      | FY17 Budget   | FY17 Disbursements | Disbursement Rate |
|---|--------------------------------------|---------------|--------------------|-------------------|
| <b>CTP Trust Fund - Program Activities</b>        |                                      |               |                    |                   |
| <b>CICs</b>                                       | Kenya CIC                            | 300           | 310                | 103%              |
|   | Kenya CVF                            | 310           | 288                | 93%               |
|   | Grants to Kenya CIC                  | 0             | 0                  | N/A               |
|   | Grants to Kenya CVF                  | 1,000         | 698                | 70%               |
|   | Ethiopia CIC                         | 400           | 390                | 98%               |
|   | Grants to Ethiopia CIC               | 1,200         | 224                | 19%               |
|   | Vietnam CIC                          | 80            | 92                 | 115%              |
|   | Grants to Vietnam CIC                | 1,500         | 682                | 45%               |
|   | Ghana CIC                            | 280           | 267                | 95%               |
|   | Grants to Ghana CIC                  | 500           | 481                | 96%               |
|   | Morocco CIC                          | 0             | 0                  | N/A               |
|   | CIC Network                          | 1,200         | 886                | 74%               |
|   | <b>TOTAL CICs</b>                    | <b>6,770</b>  | <b>4,319</b>       | <b>64%</b>        |
| <b>Global</b>                                     | Launchpad                            | 3,000         | 1,840              | 61%               |
|   | Finance Lab                          | 280           | 207                | 74%               |
|   | Insight                              | 950           | 737                | 78%               |
|   | Market Connect                       | 850           | 799                | 94%               |
|   | Impact                               | 500           | 404                | 81%               |
|   | Global Program Design & Coordination | 100           | 103                | 103%              |
|   | <b>TOTAL Global</b>                  | <b>5,680</b>  | <b>4,088</b>       | <b>72%</b>        |
| <b>Others</b>                                     |                                      |               |                    |                   |
| <b>Communications and Knowledge Dissemination</b> |                                      | 300           | 291                | 97%               |
| <b>Program Management</b>                         |                                      | 500           | 526                | 105%              |
| <b>TOTAL</b>                                      |                                      | <b>13,250</b> | <b>9,224</b>       | <b>70%</b>        |



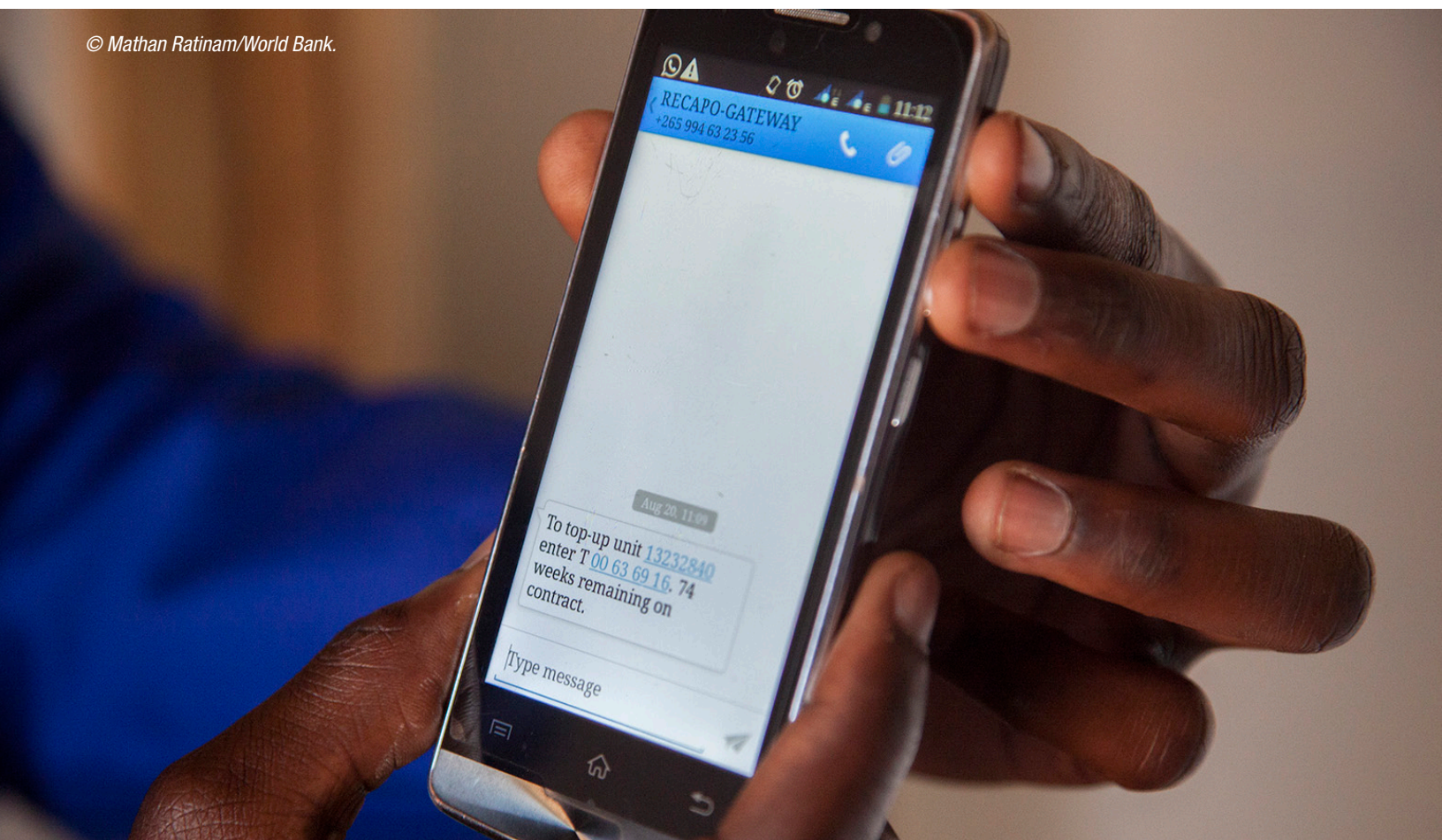
# Work Plan: Budget for FY18

## Work Plan: Budget for FY18

**Table B1. Climate Technology Program proposed FY18 budget envelope (USD '000)**

| Climate Technology Program (CTP) |  | Budget FY18   |
|----------------------------------|--|---------------|
| <b>Program Activities</b>        |  |               |
| <b>CICs</b>                      | Kenya CIC                                  | 515           |
|                                  | Kenya CVF                                  | 200           |
|                                  | Grants to Kenya CIC                        | 0             |
|                                  | Grants to Kenya CVF                        | 1,400         |
|                                  | Ethiopia CIC                               | 500           |
|                                  | Grants to Ethiopia CIC                     | 1,000         |
|                                  | Vietnam CIC                                | 20            |
|                                  | Grants to Vietnam CIC                      | 1,500         |
|                                  | Ghana CIC                                  | 175           |
|                                  | Grants to Ghana CIC                        | 2,000         |
|                                  | Grants to Ghana CVF                        | 500           |
|                                  | CIC Improvement / Network                  | 750           |
|                                  | <b>TOTAL CICs</b>                          | <b>8,540</b>  |
| <b>Global</b>                    | Launchpad                                  | 700           |
|                                  | Insight                                    | 600           |
|                                  | Market Connect                             | 950           |
|                                  | Impact                                     | 280           |
|                                  | Global Program Design & Coordination       | 0             |
|                                  | <b>TOTAL Global</b>                        | <b>2,530</b>  |
| <b>Others</b>                    |  |               |
| <b>Communications</b>            | Communications and Knowledge Dissemination | 350           |
| <b>Program Management</b>        | infoDev General Program Management         | 500           |
| <b>TOTAL</b>                     |  | <b>11,920</b> |



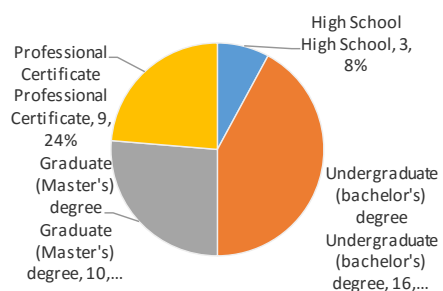


# Annex 1: Data Visualization for Ghana CIC

The following charts and graphs are a sample output from the data collection tool the Impact team developed in FY17. The data represented come from Ghana CIC and illustrate the richer, more tailored insights CTP will provide CIC's moving forward. In this way, both the local and global teams will glean deeper insights from the entrepreneur pipelines, enabling them to manage more effectively.

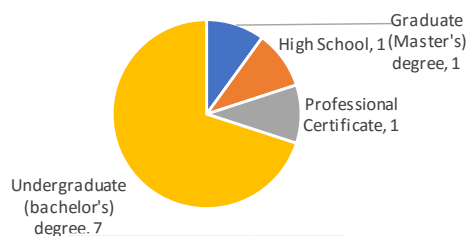
## 1.1 Entrepreneur Profile

What is the highest level of education did you have completed?



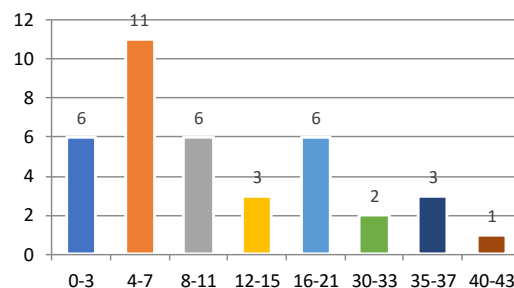
# Answered question 38  
# Skipped question 3

Selected Applicants (11)



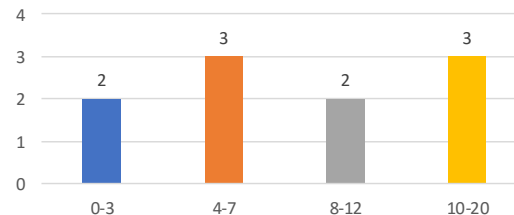
# Answered question 10  
# Skipped question 0

How many years of work experience did you have?



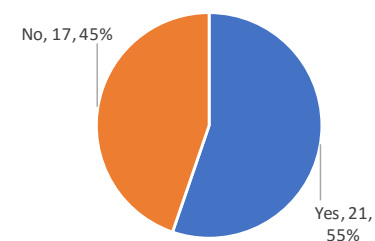
# Answered question 38  
# Skipped question 3

Selected Applicants (11)



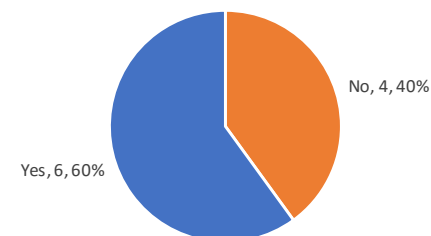
# Answered question 10  
# Skipped question 0

Have you owned any other business aside from this one?



# Answered question 38  
# Skipped question 3

Selected Applicants (11)

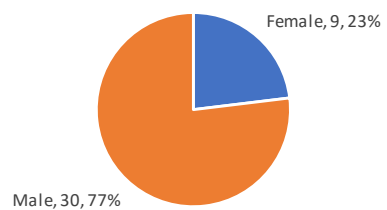


# Answered question 10  
# Skipped question 0



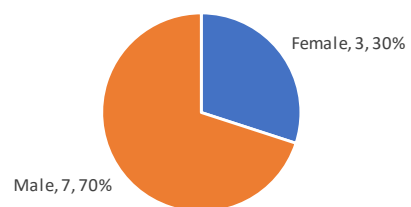
## 1.1.2 Entrepreneur Profile

**Gender of the Applicant**



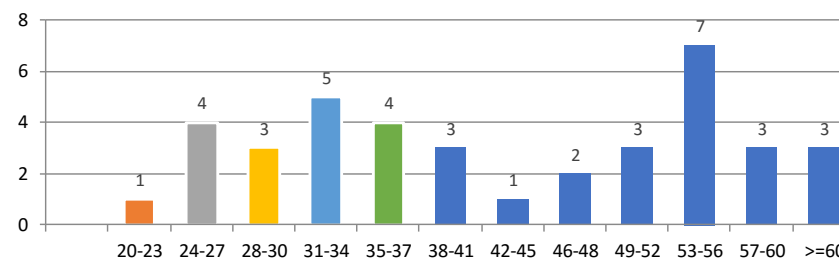
|                     |    |
|---------------------|----|
| # Answered question | 39 |
| # Skipped question  | 2  |

**Selected Applicants (11)**



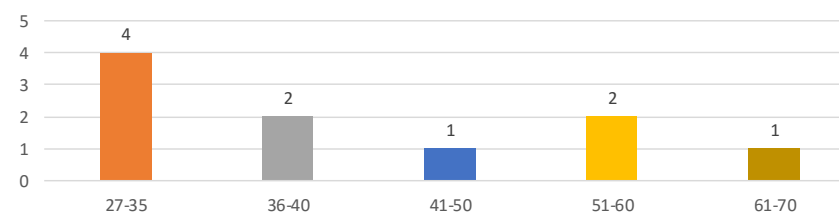
|                     |    |
|---------------------|----|
| # Answered question | 10 |
| # Skipped question  | 0  |

**Entrepreneur Age Range**



|                     |    |
|---------------------|----|
| # Answered question | 39 |
| # Skipped question  | 2  |

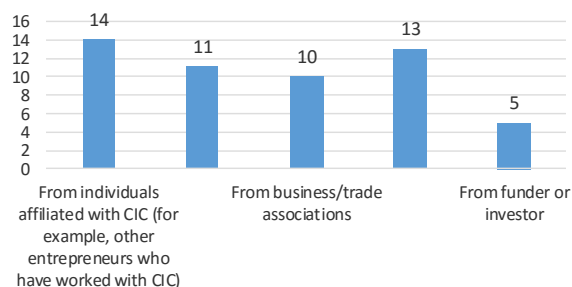
**Selected Applicants (11)**



|                     |    |
|---------------------|----|
| # Answered question | 10 |
| # Skipped question  | 0  |

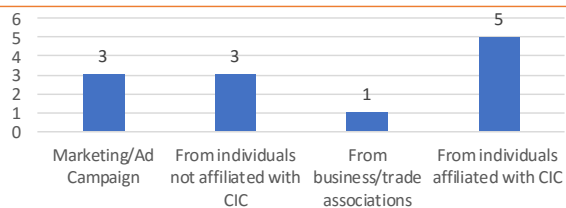
## 1.2 Business Profile

### How did you learn about our Program?



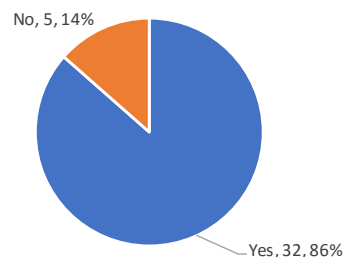
|                     |    |
|---------------------|----|
| # Answered question | 41 |
| # Skipped question  | 0  |

### Selected Applicants (11)



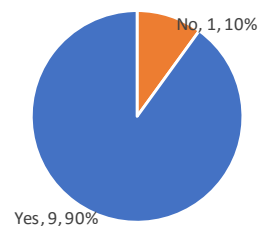
|                     |    |
|---------------------|----|
| # Answered question | 10 |
| # Skipped question  | 0  |

### Businesses registered Vs. Not registered



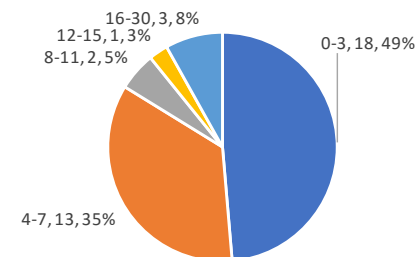
|                     |    |
|---------------------|----|
| # Answered question | 37 |
| # Skipped question  | 4  |

### Selected Applicants (11)



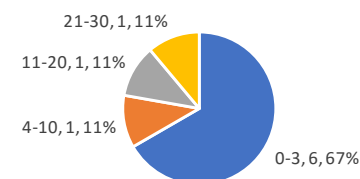
|                     |    |
|---------------------|----|
| # Answered question | 10 |
| # Skipped question  | 0  |

### Business Operations Age



|                     |    |
|---------------------|----|
| # Answered question | 37 |
| # Skipped question  | 4  |

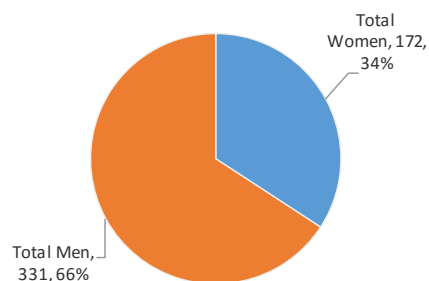
### Selected Applicants (11)



|                     |   |
|---------------------|---|
| # Answered question | 9 |
| # Skipped question  | 1 |

## 1.3 Employees Profile

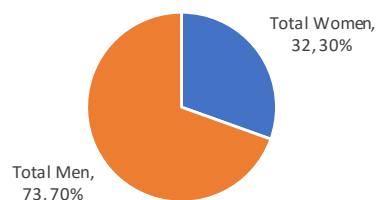
Full time formal employees out of which are women



Total # of Employees = 503

|                     |    |
|---------------------|----|
| # Answered question | 37 |
| # Skipped question  | 4  |

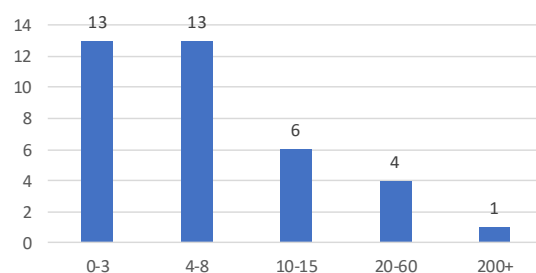
Selected Applicants (11)



Total # of Employees = 105

|                     |    |
|---------------------|----|
| # Answered question | 10 |
| # Skipped question  | 0  |

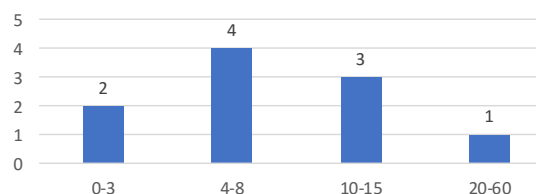
How many full time formal employees in your business?



Total # of Employees = 503

|                     |    |
|---------------------|----|
| # Answered question | 37 |
| # Skipped question  | 4  |

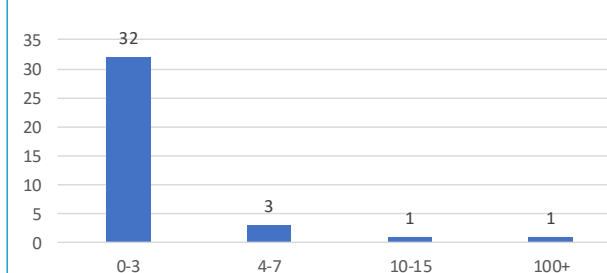
Selected Applicants (11)



Total # of Employees = 105

|                     |    |
|---------------------|----|
| # Answered question | 10 |
| # Skipped question  | 0  |

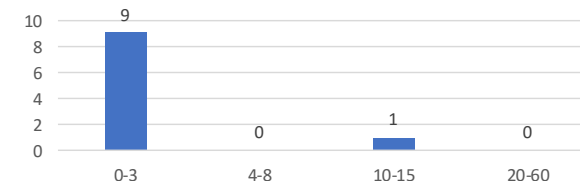
How many full time formal women employees in your business?



Total # of Women = 172

|                     |    |
|---------------------|----|
| # Answered question | 37 |
| # Skipped question  | 4  |

Selected Applicants (11)

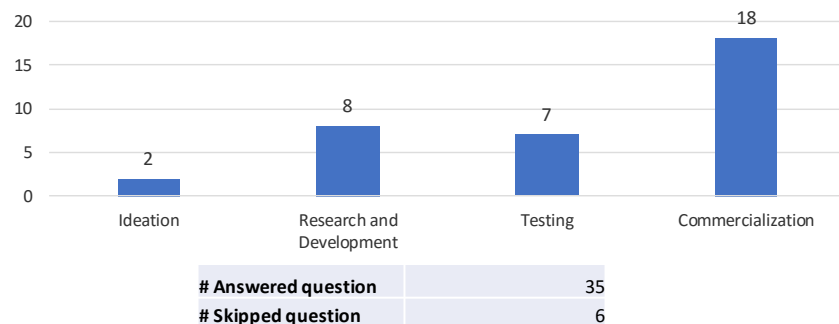


Total # of Women = 32

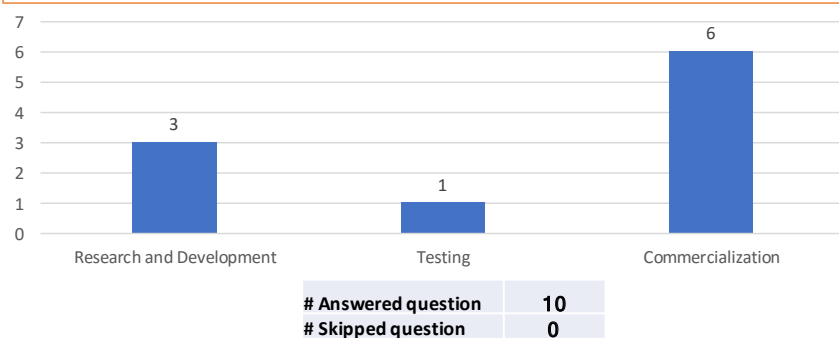
|                     |    |
|---------------------|----|
| # Answered question | 10 |
| # Skipped question  | 0  |

## 1.4.1 Product Profile

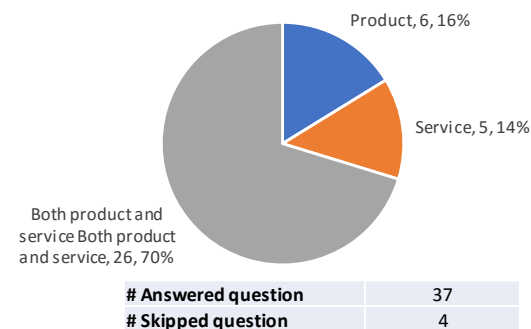
At what stage of development is your product or application , At Entry?



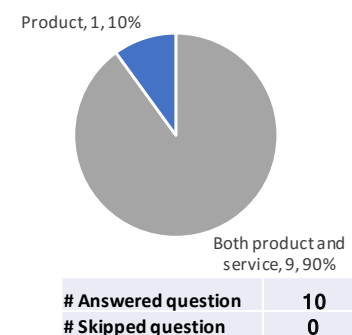
Selected Applicants (11)



Is your innovation a product, service, or both?

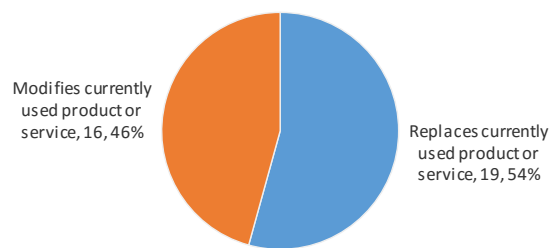


Selected Applicants (11)



## 1.4.1 Product Profile

Does your product/service replace or modify an existing product/service that customers have?



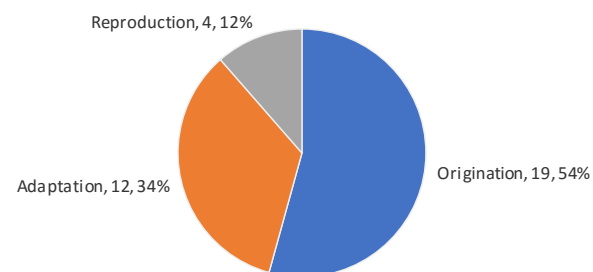
|                     |    |
|---------------------|----|
| # Answered question | 35 |
| # Skipped question  | 6  |

Selected Applicants (11)



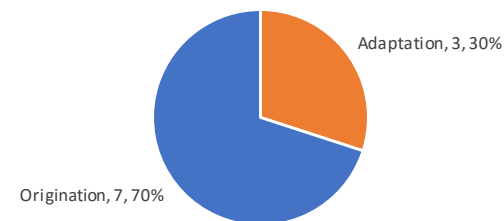
|                     |    |
|---------------------|----|
| # Answered question | 10 |
| # Skipped question  | 0  |

Which of the following best describes how you developed this product or service?



|                     |    |
|---------------------|----|
| # Answered question | 35 |
| # Skipped question  | 6  |

Selected Applicants (11)

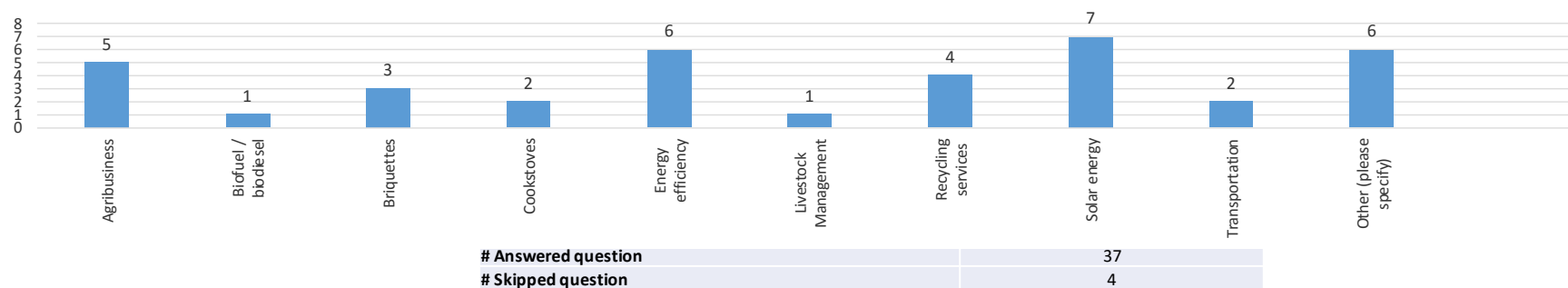


|                     |    |
|---------------------|----|
| # Answered question | 10 |
| # Skipped question  | 0  |

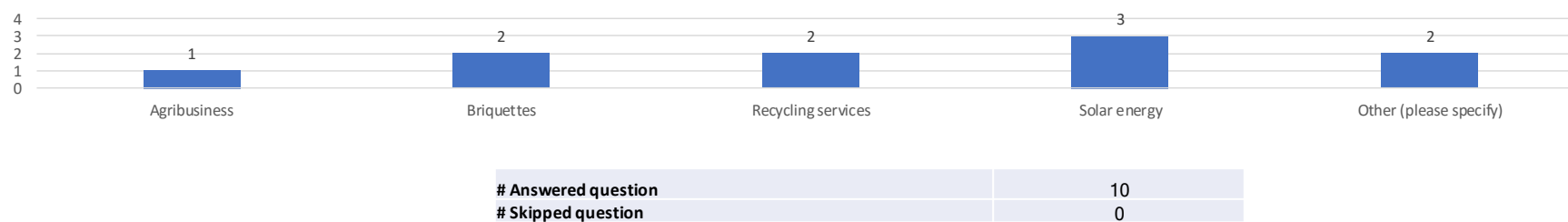


## 1.4.2 Product Profile

What is the specific product/service you are applying to the CIC?

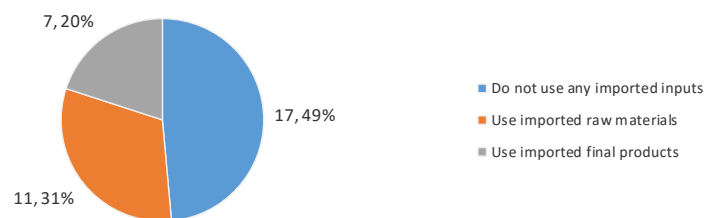


Selected Applicants (11)



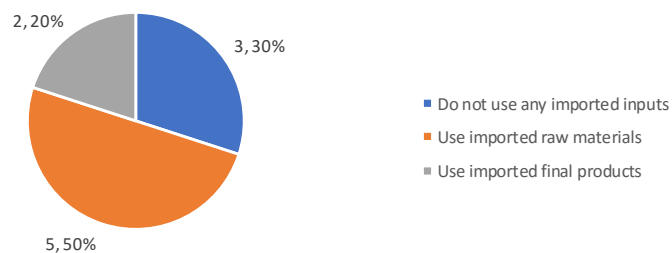
## 1.4.3 Product Profile

Which of the following best describes your business's imports?



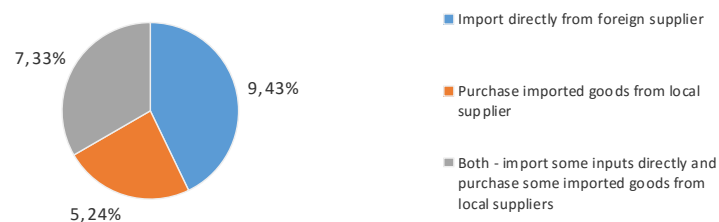
|                     |    |
|---------------------|----|
| # Answered question | 35 |
| # Skipped question  | 6  |

Selected Applicants (11)



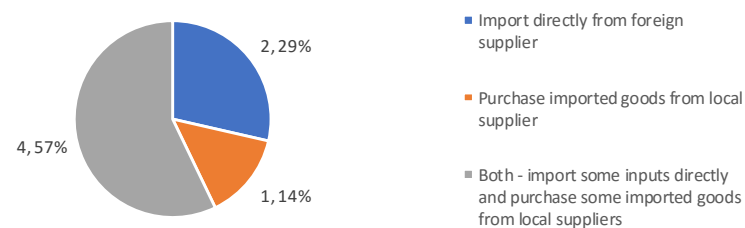
|                     |    |
|---------------------|----|
| # Answered question | 10 |
| # Skipped question  | 0  |

If you do use imported goods, do you import them directly or purchase them from a local intermediary?



|                     |    |
|---------------------|----|
| # Answered question | 21 |
| # Skipped question  | 20 |

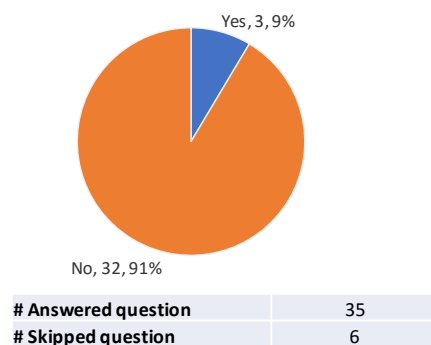
Selected Applicants (11)



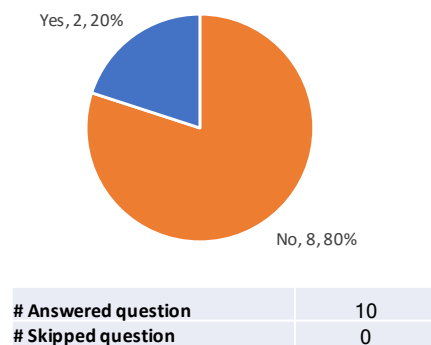
|                     |   |
|---------------------|---|
| # Answered question | 7 |
| # Skipped question  | 3 |

## 1.4.3 Product Profile

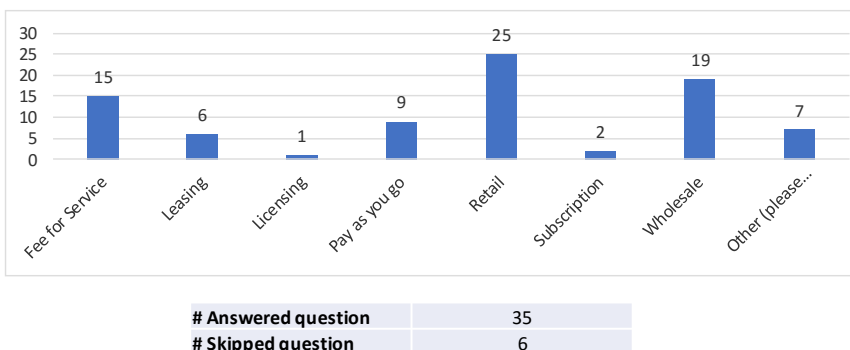
Does your business currently export this product/service?



Selected Applicants (11)



What is your sales approach for generating revenue? Select all that apply.

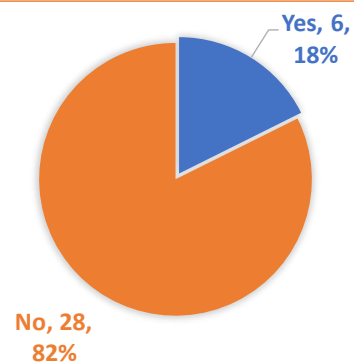


Selected Applicants (11)



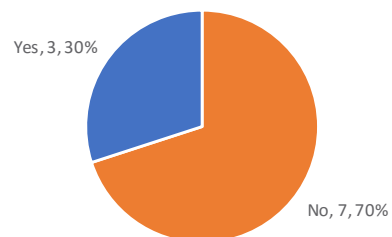
## 1.5 Funding Use

**Funding Secured**



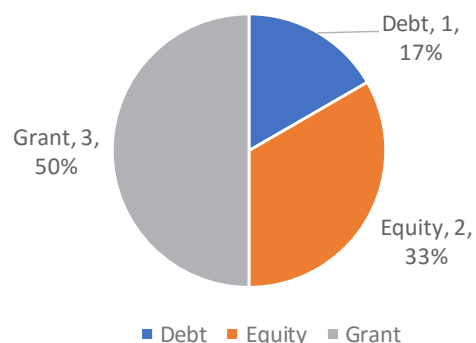
|                     |    |
|---------------------|----|
| # Answered question | 34 |
| # Skipped question  | 7  |

**Selected Applicants (11)**



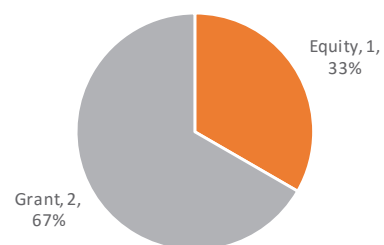
|                     |    |
|---------------------|----|
| # Answered question | 10 |
| # Skipped question  | 0  |

**Funding Instrument**



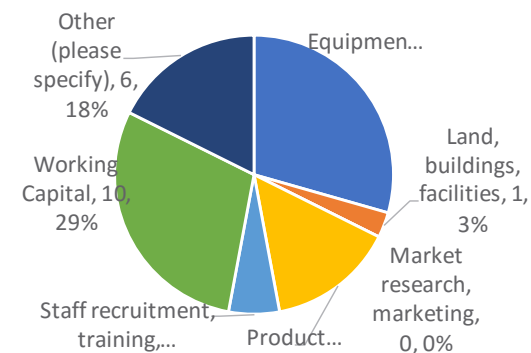
|                     |    |
|---------------------|----|
| # Answered question | 6  |
| # Skipped question  | 35 |

**Selected Applicants (11)**



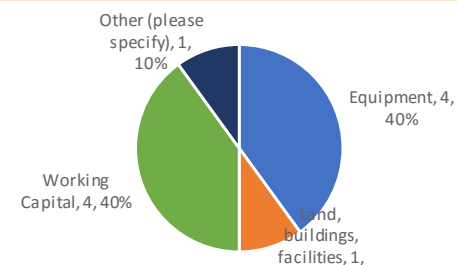
|                     |   |
|---------------------|---|
| # Answered question | 3 |
| # Skipped question  | 7 |

**Expected Funding Usage**



|                     |    |
|---------------------|----|
| # Answered question | 34 |
| # Skipped question  | 7  |

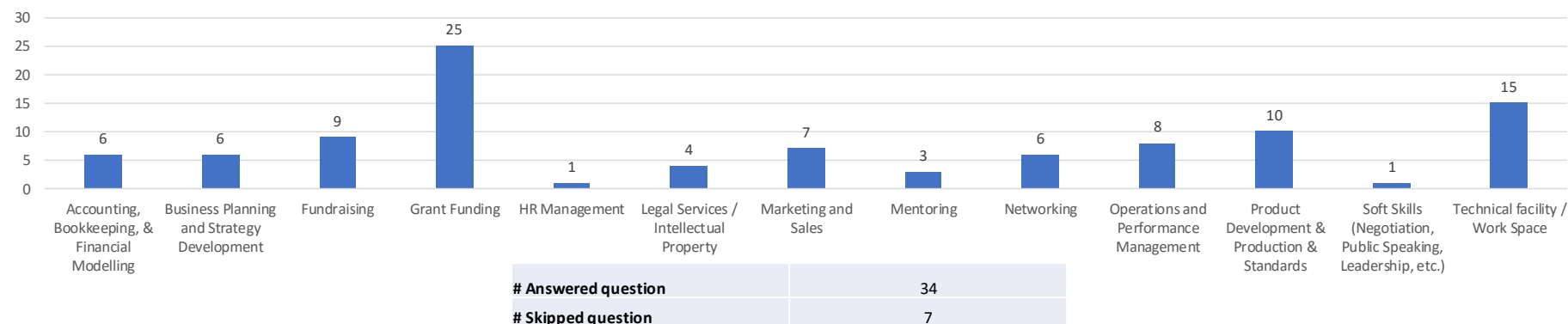
**Selected Applicants (11)**



|                     |    |
|---------------------|----|
| # Answered question | 10 |
| # Skipped question  | 0  |

## 1.6 Areas of Support Needed

Please select the three primary areas of support you would be interested in receiving if your application is accepted.



Selected Applicants (11)

