



# **Financing the Next Wave of African Innovation**

**Addressing Critical Funding Gaps for  
East African Technology Entrepreneurs**

**CONFERENCE COPY**

**April 30, 2013**

## Acknowledgments

This study, "Financing the Next Wave of African Innovation: Addressing Critical Funding Gaps for East African Technology Entrepreneurs," was commissioned by *infoDev*, a global technology and innovation program at the World Bank. The study was carried out under the supervision of Oltac Unsal and Ravi Gupta of *infoDev*, and prepared by Economisti Associati.

The main text was written by Roberto Zavatta (Sections 1, 2 and 5) and Enrico Giannotti (Sections 3 and 4), while the annexes were prepared by Elettra Legovini. Prof. Fikremarkos Merso provided support for the analysis of legal aspects of the operations of investment funds in Ethiopia. Research assistance was provided by Giulia Stecchi and Elisabetta Rizzoli, while diagrams and maps were developed by Dario Ingiusto, of Mapping the World. Tommaso Grassi and Alberto Bolognini were responsible for quality assurance.

More than 100 people—including entrepreneurs, business incubator managers, investment fund staff, banks and other financial institutions, and development professionals—gave input for this study. The authors wish to express their gratitude for the valuable information and suggestions provided.

The study benefited from the comments provided by a group of experts who participated in the peer review process. The peer reviewers include: Ben White, Founder, Venture Capital for Africa; Britt Gwinner, Principal Operations Officer, IFC; Christian Motzfeldt, CEO, Danish Growth Fund; Eliza Erikson, Director, Investments, Omidyar Network; Mwangi Kimenyi, Director, Africa Growth Initiative, Brookings Institution; and Shanthi Divakaran, Program Officer, Non-Bank Financial Institutions, the World Bank.

### **Disclaimer**

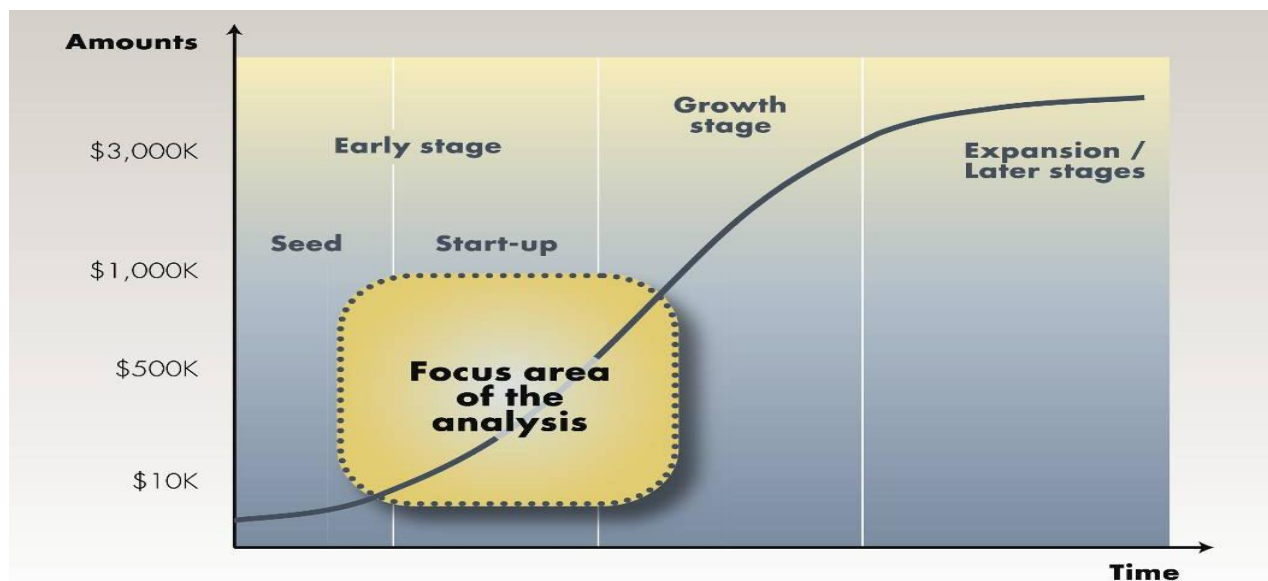
The findings, interpretations, and conclusions expressed herein are entirely those of the author(s) and do not necessarily reflect the view of *infoDev*, its donors, the International Bank for Reconstruction and Development/The World Bank and its affiliated organizations, the Board of Executive Directors of the World Bank or the governments they represent. The World Bank cannot guarantee the accuracy of the data included in this work. The boundaries, colours, denominations and other information shown on any map in this work do not imply any judgment on the part of the World Bank of the legal status of any territory or the endorsement or acceptance of such boundaries.

**NOTE: All dollar amounts are U.S. dollars unless otherwise indicated.**

## EXECUTIVE SUMMARY

Access to finance is generally regarded as a major impediment to the development of micro-, small- and medium-sized enterprises (MSMEs) in the East African region. The problem is perceived to be particularly severe in the case of innovative firms. The purpose of this study is to shed light on the magnitude and severity of the financing gap faced by innovative MSMEs and to formulate recommendations for operational measures that could alleviate the constraints identified. The study covers four countries: Ethiopia, Rwanda, Tanzania and Uganda. It focuses on innovative ventures active in three lines of business (sectors): (i) information and communication technologies (ICT), including IT-enabled services such as business process outsourcing; (ii) climate technology (off-grid power systems, biofuels, etc.); and (iii) innovative agribusiness activities (producers and distributors of agricultural input, agricultural processors, etc.)

### Focus of the Study

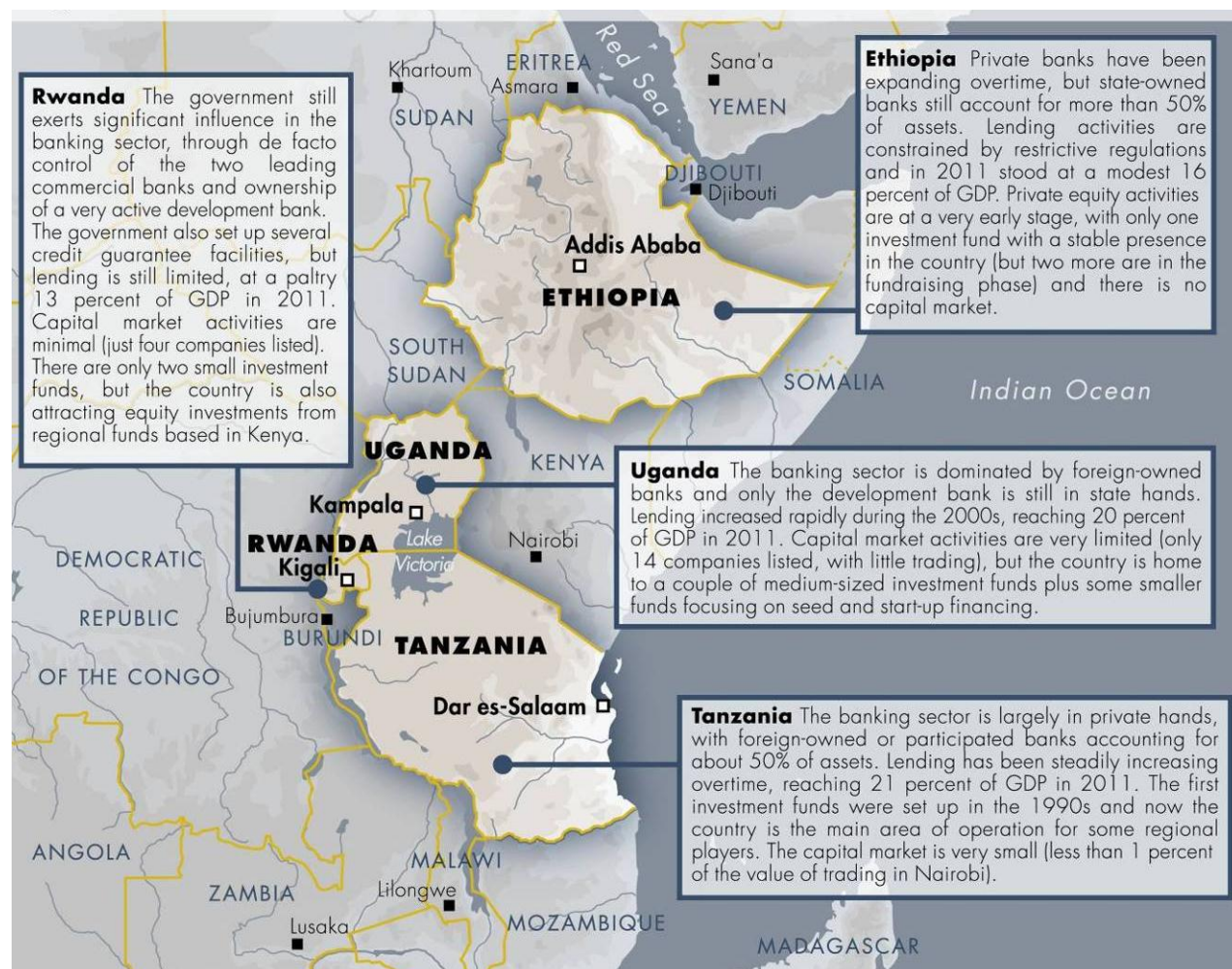


### Key Findings

**Sources of Financing for Innovative Firms.** There are 21 **investment funds** currently operating (or about to start operating) in at least one of the four countries. The size of these funds ranges from as little as \$1 million up to \$170 million. Investment funds provide risk capital (in the form of equity, loans and quasi-equity instruments) to firms operating in a variety of sectors. Activities in ICT, agribusiness and climate technologies attract a considerable share of investments. However, the focus is on investments in the growth stage, with a preference for deals worth \$500,000 or above. Only one third of the funds focus on smaller deals (i.e., below \$200,000) and even fewer actively consider early-stage ventures. **Commercial banks** display a growing interest in working with MSMEs. Lending levels are still limited (especially in Rwanda and Ethiopia), but definitely on the rise. Lending to MSMEs is increasingly supported by a series of credit guarantee schemes and by the availability of IFI/donor-funded credit lines. However, problems persist in the financing of newly established ventures, as very few banks will lend to businesses without any track record. Commercial sources of finance are complemented by a variety of **grant schemes**. A number of East African firms have benefited from grant funding, especially in climate technologies and agribusiness, where grants are sometimes quite substantial (from \$100,000 to \$1 million).

However, in many instances grant funding has been provided without much linkage with other sources of funding, thereby reducing its impact.

## Financial Sector Overview

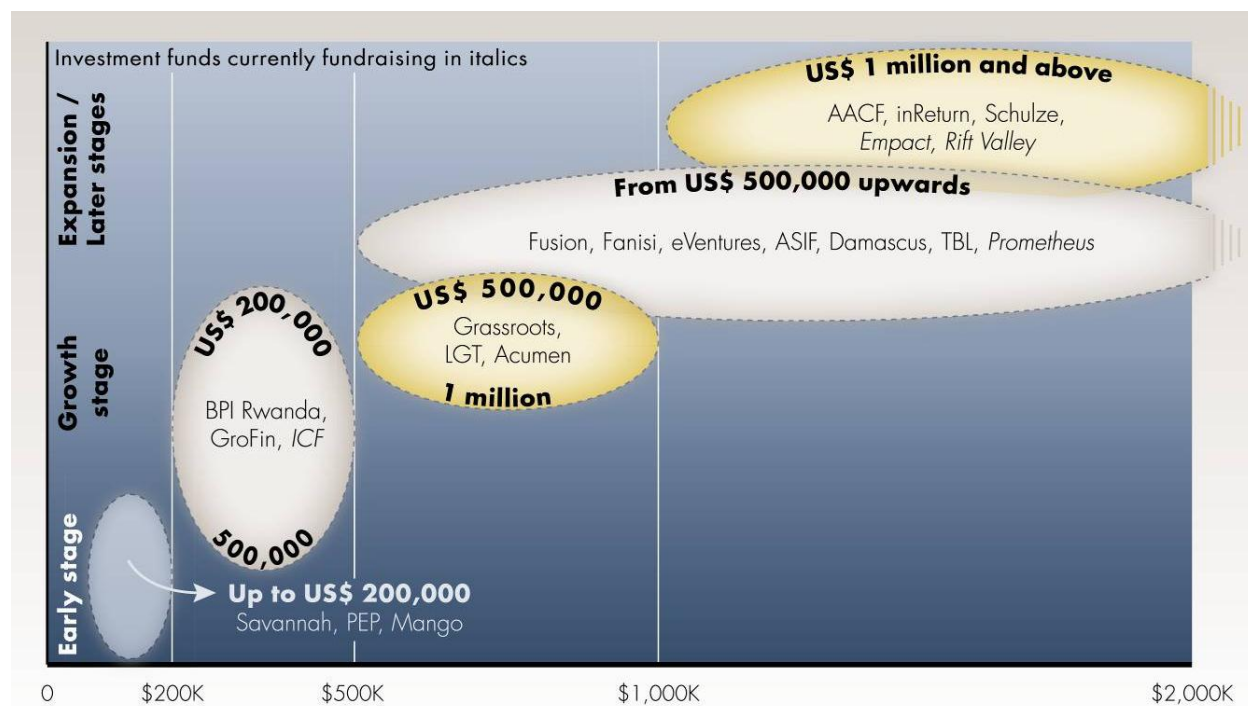


## Features of East African Investment Funds

Investment Fund	Year of Launch	Fund Size (US million)	Regional Presence and Status
<b>Acumen Fund</b>	2001	69	Global fund. Regional office in Kenya and also active in Uganda, Rwanda and Tanzania. Operational
<b>African Agricultural Capital Fund</b>	2011	25	Fund based in Uganda, but active across the whole East African region. Operational
<b>African Seed Investment Fund</b>	2009	12	Fund based in Uganda, but active across the whole East African region. Operational
<b>BPI Rwanda SME Fund</b>	2011	8	Fund focusing on Rwanda, managed by South Africa's Business Partners. Operational
<b>Damascus Capital Growth Fund</b>	2013	30	Fund focusing on Uganda. Currently fundraising, expected to be launched during 2013.
<b>Empact Growth Fund</b>	2013	50	Fund focusing on Ethiopia. Currently fundraising, with closing expected for fourth quarter 2013.
<b>eVentures Africa Fund</b>	2010	..	Pan African fund, with regional office in Kenya but also considering deals in other East African countries.

			Operational
<b>Fanisi Venture Capital Fund</b>	2010	50	East African regional fund, with office in Kenya but also active in Uganda, Rwanda and Tanzania. Operational
<b>Fusion African Access</b>	2011	150	East African regional fund, with office in Kenya but also active in Uganda, Rwanda and Tanzania. Operational
<b>Grassroots Business Fund</b>	2008	47	Global fund, with office in Kenya but also active in Tanzania. Operational
<b>GroFin Africa Fund</b>	2008	170	Pan African fund, managed by South Africa's GroFin. Offices in Rwanda, Uganda and Tanzania. Operational
<b>Innovation Catalyst Fund</b>	2013	5	Fund focusing on Ethiopia. Currently in the process of being set up, with launch expected during 2013
<b>InReturn East Africa Fund</b>	2009	25	East African regional fund, with offices in Kenya and Tanzania and also active in Uganda. Operational
<b>LGT Venture Philanthropy</b>	2007	..	Global fund, with office in Uganda and also active in Tanzania and Ethiopia. Operational
<b>Mango Fund</b>	2008	1	Impact fund, focusing on Uganda. Operational
<b>Persistent Energy Partners</b>	2012	5	Pan African fund, with office in Tanzania and active in Uganda. Operational
<b>Prometheus</b>	2014	65	Pan African fund, but with strong focus on Uganda, Tanzania, Rwanda and Kenya. Currently fundraising, with first closing expected in early 2013
<b>Rift Valley SME Fund 1</b>	2013	60	East African regional fund, with focus on Ethiopia and Uganda. Currently fundraising, with first closing expected in March 2013
<b>Savannah Fund</b>	2012	10	Pan African fund, but with strong focus on East Africa (Kenya and Tanzania). Already operational but still in the process of raising funds
<b>Schulze Global Ethiopia Growth and Transformation Fund</b>	2012	100	Fund focusing on Ethiopia, managed by Singapore-based Schulze Global. Already operational but still raising funds
<b>TBL Mirror Fund 2</b>	2013	50	East African regional fund, with office in Kenya. Currently fundraising, with first closing expected in September 2013

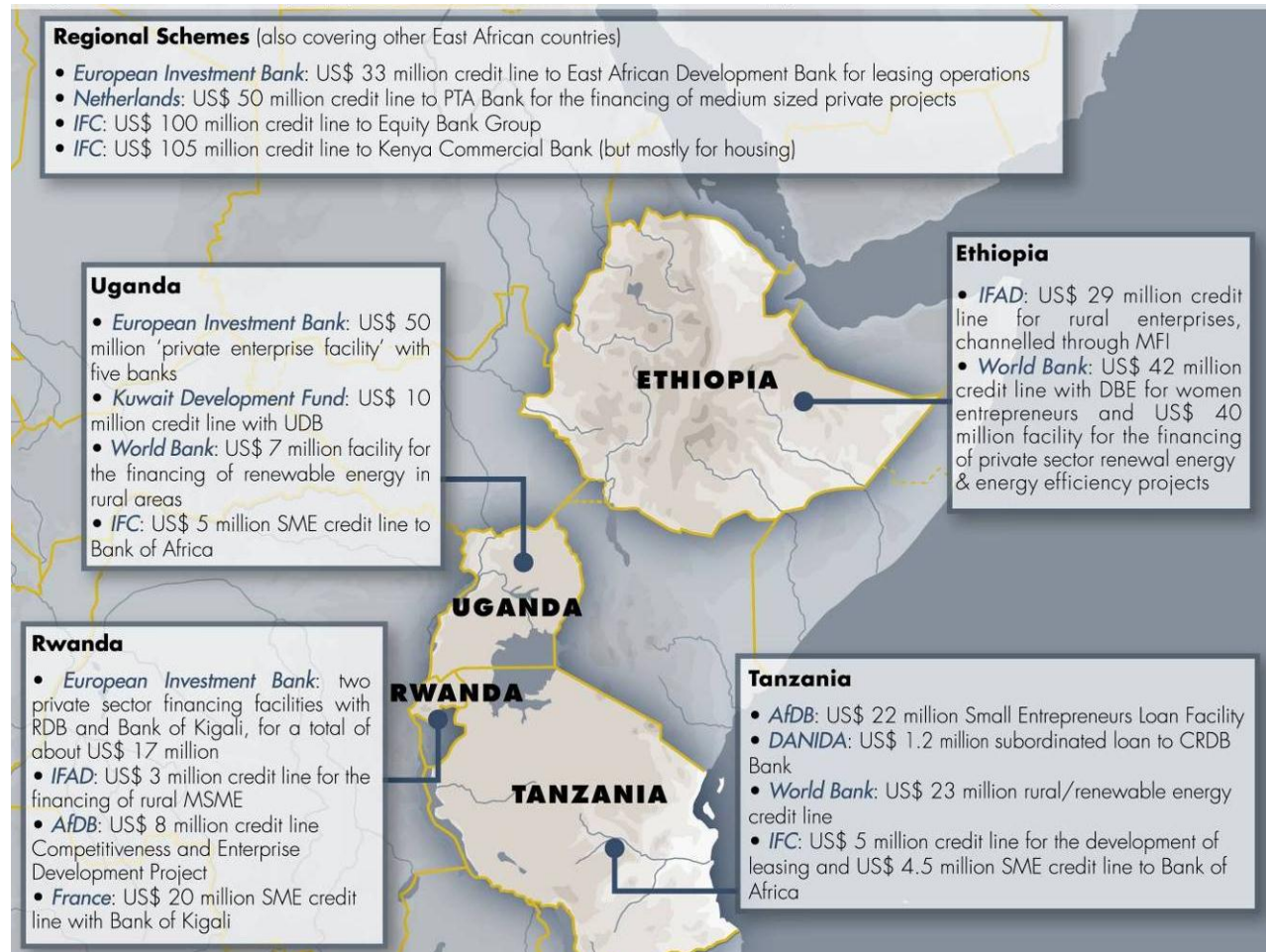
## Stage of Financing and Typical Deal Size



## Features of East African Banks

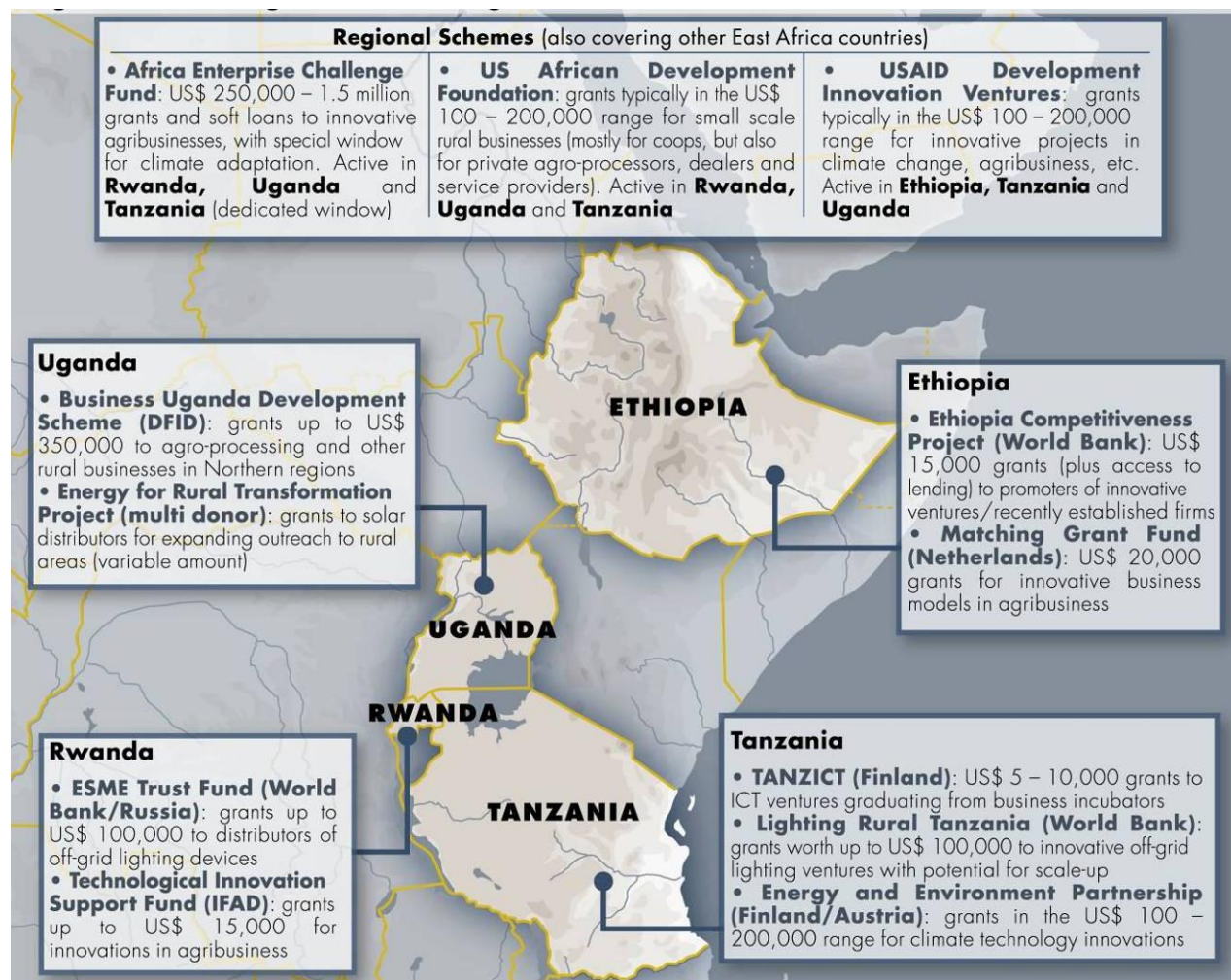
Bank (Country)	Total Assets (US million)	Loan Portfolio (US\$ million)	Nature and Ownership
<b>Commercial Bank of Ethiopia (Ethiopia)</b>	6,536	4,323	Commercial bank, fully state-owned
<b>Dashen Bank (Ethiopia)</b>	840	455	Commercial bank, owned by national private investors
<b>Zemen Bank (Ethiopia)</b>	89	37	Commercial bank, owned by national private investors
<b>Bank of Kigali (Rwanda)</b>	472	201	Commercial bank, majority owned by the state and social security fund
<b>Banque Rwandaise de Développement (Rwanda)</b>	142	108	Development bank, majority owned by the state and social security fund, with DFI participation
<b>FINA Bank (Rwanda)</b>	20	12	Commercial bank, controlled by foreign interests (Kenya)
<b>Access Bank (Tanzania)</b>	33	19	Microfinance bank, controlled by foreign interests (Germany), with IFI/DFI participation
<b>CRDB Bank (Tanzania)</b>	1,682	903	Commercial bank, owned by DFI, pension funds and private investors
<b>Tanzanian Investment Bank (Tanzania)</b>	193	115	Development bank, fully state-owned
<b>Centenary Bank (Uganda)</b>	378	209	Microfinance bank, owned by catholic organizations
<b>DFCU Bank (Uganda)</b>	381	197	Commercial bank, majority owned by DFI
<b>Uganda Development Bank (Uganda)</b>	51	..	Development bank, fully state-owned
<b>FINA Bank (Rwanda)</b>	20	12	Commercial bank, controlled by foreign interests (Kenya)
<b>Access Bank (Tanzania)</b>	33	19	Microfinance bank, controlled by foreign interests (Germany), with IFI/DFI participation
<b>CRDB Bank (Tanzania)</b>	1,682	903	Commercial bank, owned by DFI, pension funds and private investors
<b>Tanzanian Investment Bank (Tanzania)</b>	193	115	Development bank, fully state-owned
<b>Centenary Bank (Uganda)</b>	378	209	Microfinance bank, owned by catholic organizations
<b>DFCU Bank (Uganda)</b>	381	197	Commercial bank, majority owned by DFI
<b>Uganda Development Bank (Uganda)</b>	51	..	Development bank, fully state-owned

## Recently Approved IFI/Donor Initiatives in Support of MSME Lending

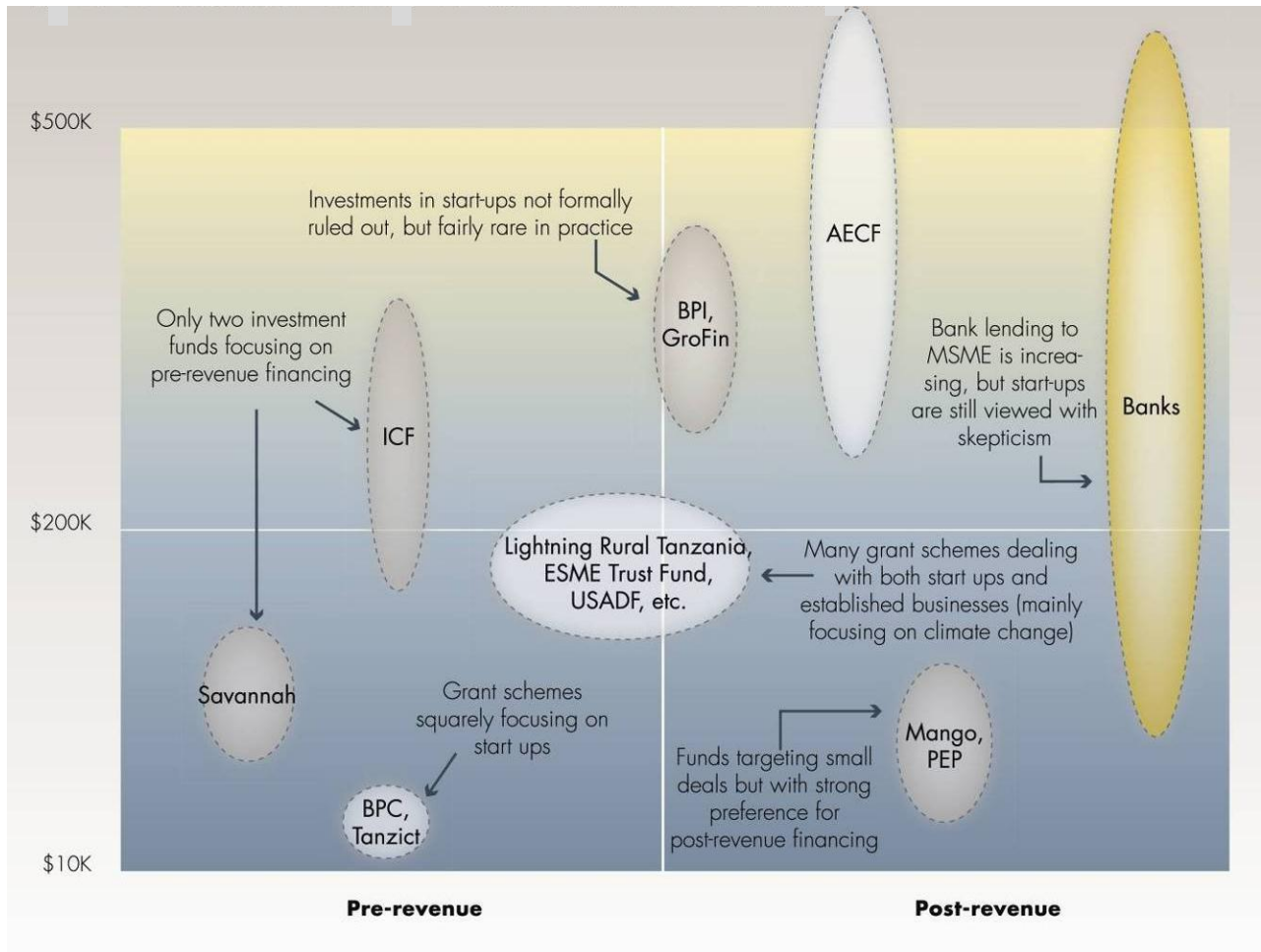




## Funding Available through Grant Schemes

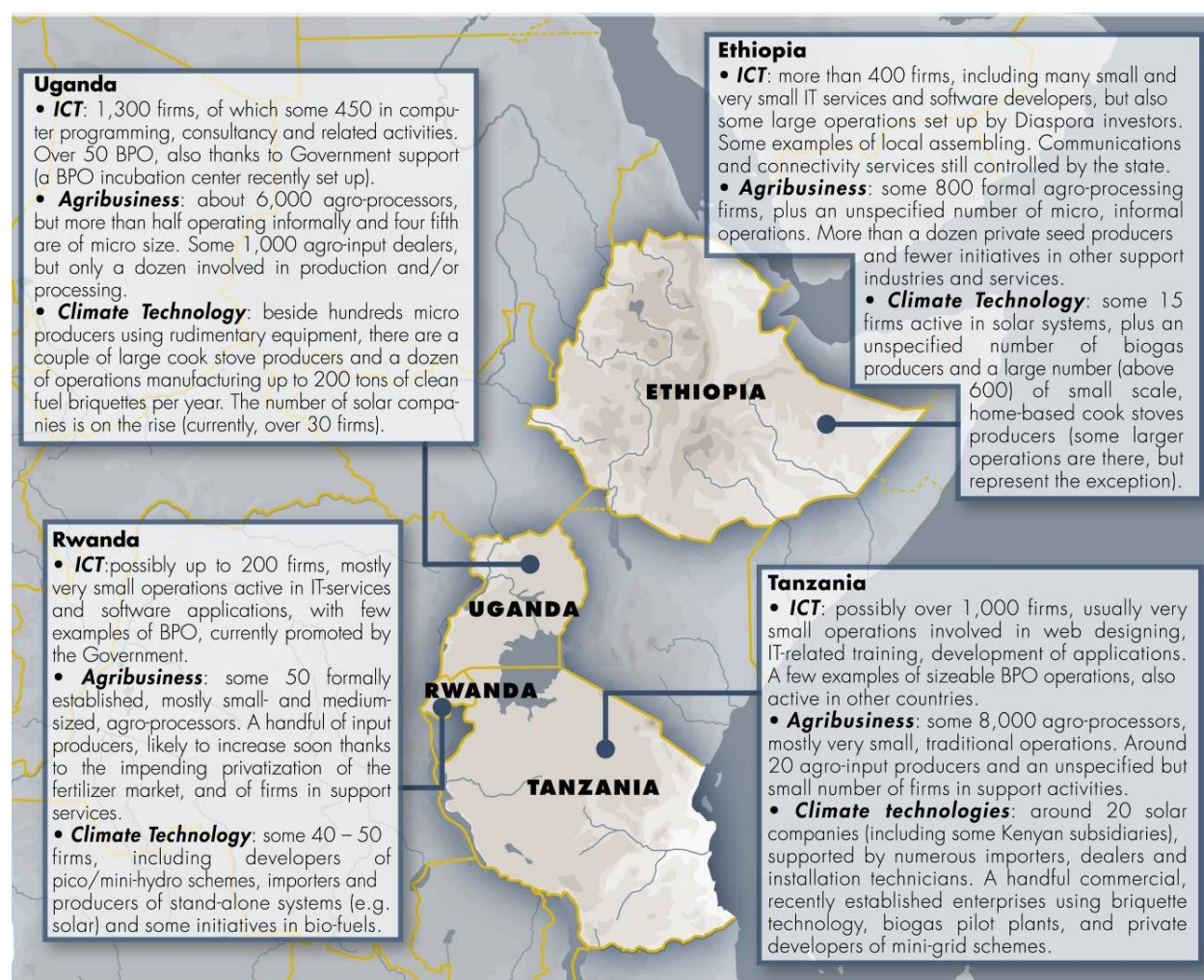


## Sources of Funding – Pre and Post Revenue Financing

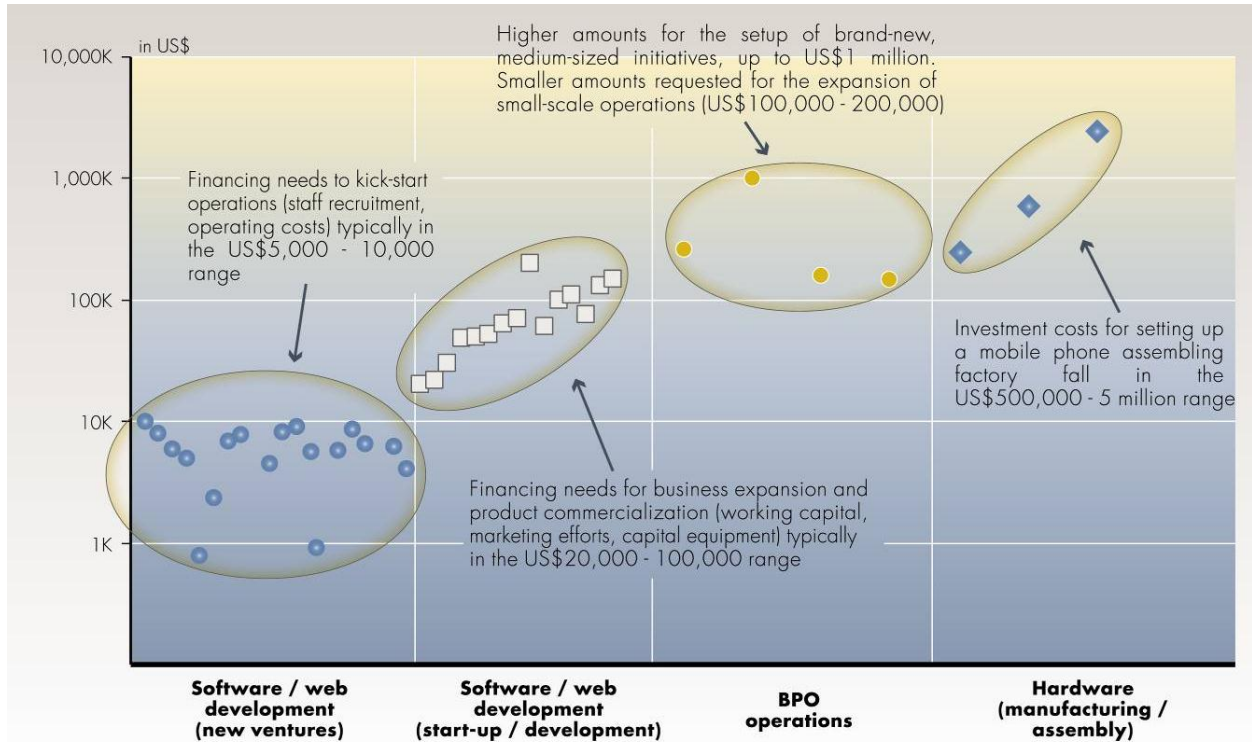


**Financing Needs Voiced by Innovative Ventures.** The **scale of financing needs** voiced by innovative firms varies considerably. The amounts sought by ICT ventures are comparatively low: At the seed stage, new software/web development ventures usually do not need more than \$10,000. Funding requirements obviously increase as ICT ventures move beyond the initial development stage, but nonetheless the amounts sought rarely exceed \$150,000. In agribusiness and climate technology, typical financing needs tend to be in the \$100,000-\$300,000 range, but more complex agricultural processing operations, biogas plants and pico/mini-hydro power plants require higher investments, from \$500,000 upwards. The **nature of financing needs** also varies. In the case of software/web development ventures and of certain support activities in agribusiness (e.g., certification bodies), funding is mostly required for intangible investments (product development, hiring of expertise, etc.) Funding for working capital is important for the distributors and installers of home energy devices (solar lamps and lanterns, solar home systems, etc.), while in agricultural processing, financing for the production of biofuels and mini-grid schemes is mostly for investment in fixed assets.

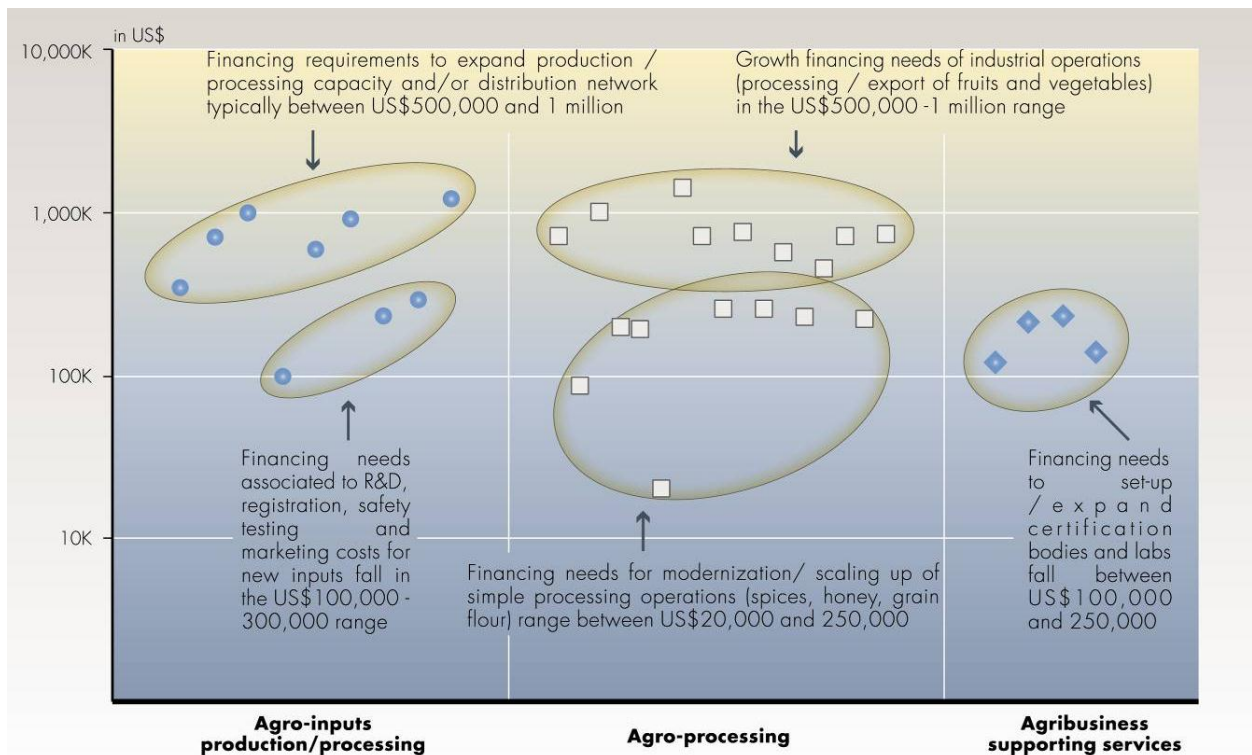
## Regional Overview of Target Sectors



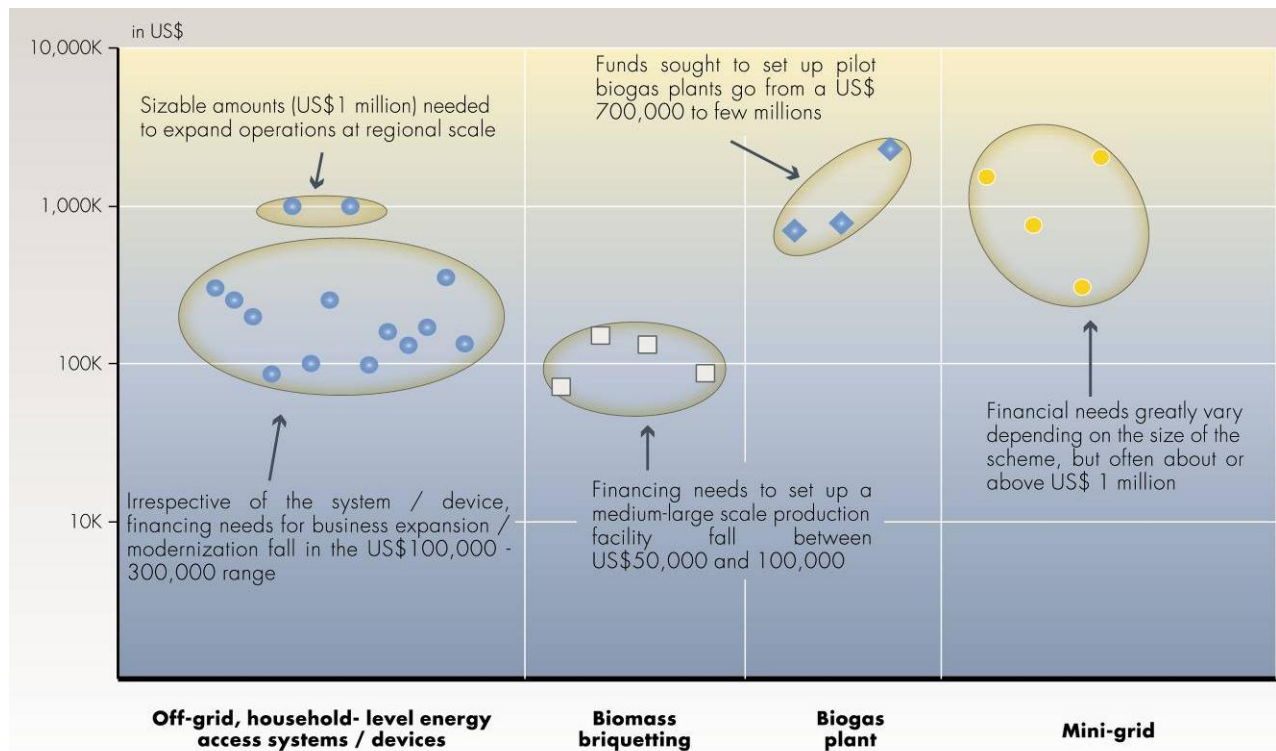
## Typical Financing Needs in ICT sector



## Typical Financing Needs in Innovative Agribusiness Sector

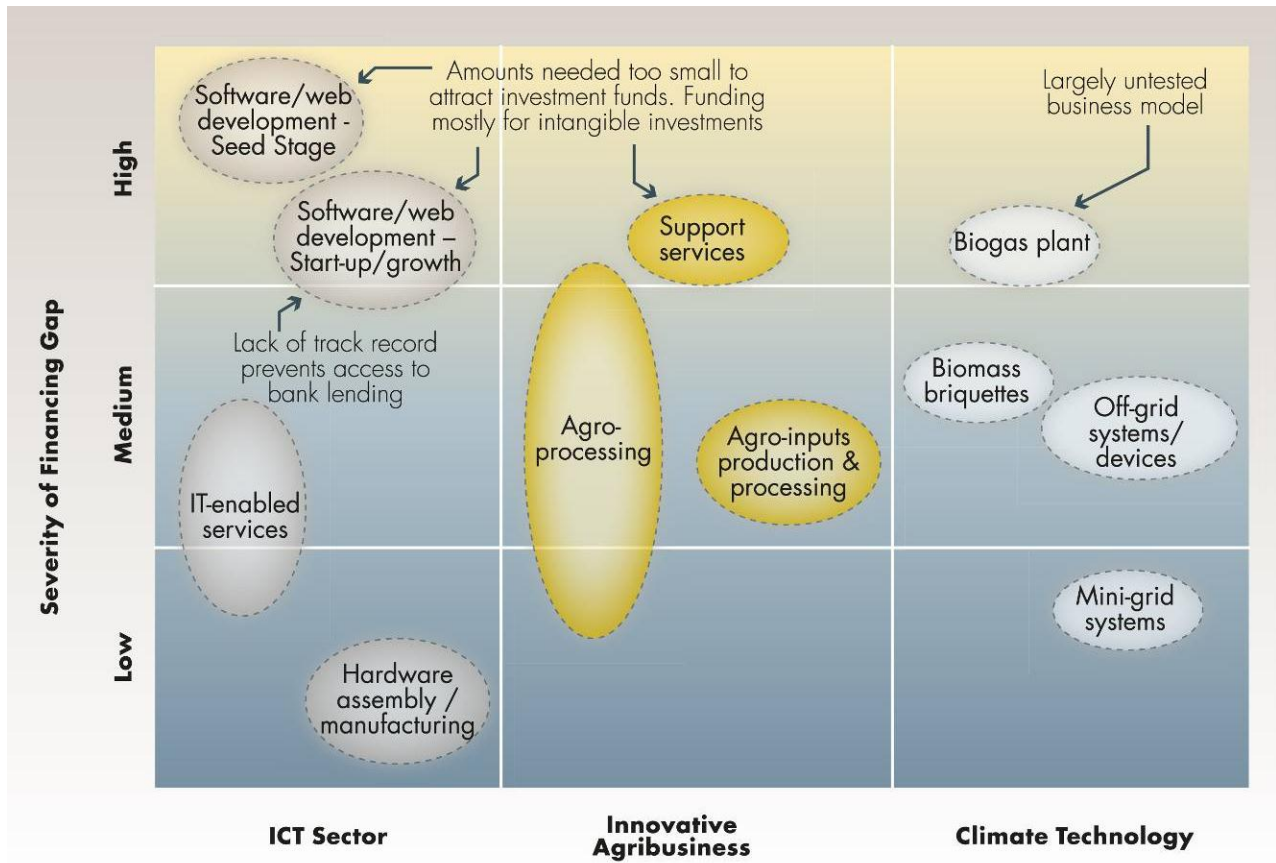


## Typical Financing Needs in Climate Technology Sector

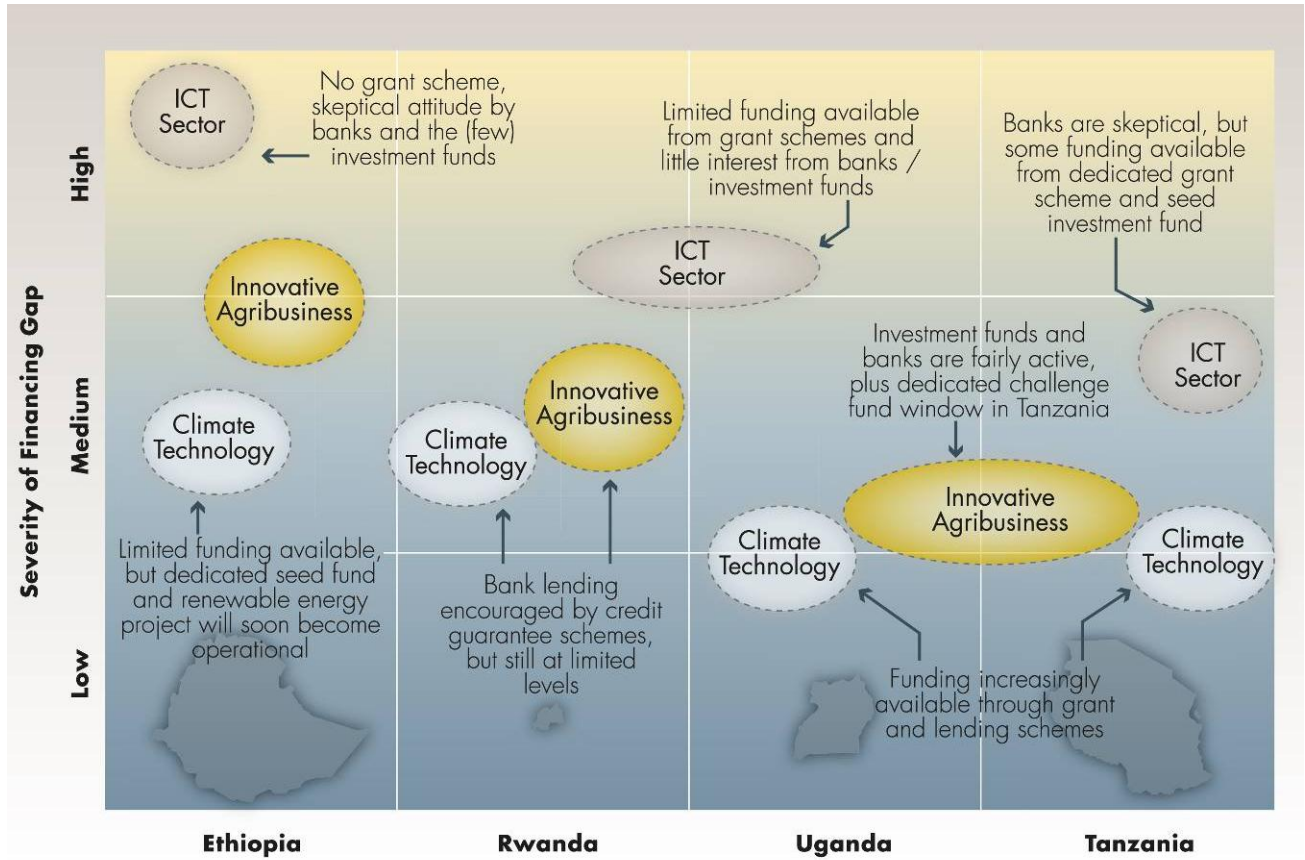


**Extent and Severity of the Financing Gap.** Evidence suggests the existence of a financing gap for transactions worth **up to \$500,000**, with more severe problems for ventures seeking **up to \$100,000**. Problems in accessing finance are much less severe for transactions exceeding the \$500,000 benchmark. Financing needs above this level are typically voiced by enterprises that have already been in operation for some time, and there are several sources of funding that can be tapped. Obviously a positive reply is not guaranteed, but the problems experienced are due more to the specific nature of the deals (some initiatives may not be worth financing) than to structural constraints. The financing gap is more severe in the **ICT sector**, as the amounts sought by innovative ICT firms are typically too small to constitute an attractive proposition for investment funds and most banks regard new ventures as too risky. The problem is less acute in the case of **agribusiness and climate technologies**, where the volume of potentially accessible resources is much greater (with several sizeable IFI/donor-funded credit lines and grant schemes) and offers are more aligned with needs. Still, access to funding is far from guaranteed, especially in some emerging lines of business (e.g., biogas plants).

## Financing Gap by Sector



# Financing Gap by Country



## Possible Measures to Alleviate the Financing Gap

The diversified nature of financing requirements voiced by innovative firms suggests the adoption of a differentiated approach. In the case of financing needs characterized by a strong intangible investment component, risk capital interventions are the most appropriate solution. Financing needs associated with working capital requirements and/or investments in fixed assets are in principle better served by debt financing instruments. In the case of very small financing requirements, i.e., up to about \$20,000, recourse to grant funding appears to be the most advisable solution, although some synergies with other financial instruments can be envisaged. Based on the above, four options for interventions are possible: two in the area of risk capital, one targeted at facilitating bank lending, and one squarely addressing the financing needs of ventures at the seed stage.

The first option for increasing the volume of risk capital would involve setting up a dedicated **early stage investment fund**. The fund would focus primarily on deals in the \$50,000–\$200,000 range, with the possibility of larger investments (up to \$500,000). The fund could be structured at the regional level, but would require a local presence in all the countries, either directly or indirectly. Given capital of about \$10 million to be invested over a period of five years, the fund could handle a total of some 50 investments, with an average size of about \$150,000 per investment. The inevitable complexity of making multiple small investments and the need to ensure a strong presence on the ground would entail significant administrative costs, estimated at some \$2 million.

As an alternative to a dedicated new fund, it may be possible to **cooperate with other investment funds** in order to re-orient their activities towards smaller investments. One possibility would be to invest in some funds that are at the fundraising stage, with a view to influencing the definition of their investment policy. A second possibility would be to set up a technical assistance facility that could cover the higher costs incurred by investment funds in the case of non-mainstream deals (i.e., deals below the usual thresholds). The scale of this option varies depending upon a variety of factors. In general, in order to have reasonable influence on the operations of an investment fund, an equity contribution of at least \$2 million should be considered, while a technical assistance facility assisting five investment funds would require about \$1.5 million.

Facilitation of bank lending could be achieved through the establishment of a **credit guarantee mechanism** aimed at encouraging banks to consider financial transactions beyond their usual comfort zone. This could involve the creation of dedicated “innovation windows” within existing credit guarantee schemes or the establishment of guarantee facilities hosted by business incubators and specifically targeted at supporting incubatees upon graduation. Credit guarantee schemes are typically highly cost effective, and even modest allocations could achieve a significant impact (e.g., a \$3 million facility could easily support lending worth up to \$18 million, assisting 90 firms to borrow an average of \$200,000 each).

Finally, the financing needs voiced by innovative ventures at the seed stage could be addressed through a **grant scheme** that would provide grants in the \$10,000 to \$20,000 range. Its management could be entrusted to business incubators and similar support structures. Unlike most existing grant schemes, which operate in isolation, the seed-grant scheme would involve collaboration with banks or other financial intermediaries, so that grant money could be used to leverage additional financing. Based on the experience of a recent World Bank initiative in



Ethiopia, grant facility of \$2 million (to be distributed among half a dozen incubators) could help raise an additional \$4 million, which would benefit some 130 new ventures.

### Features of Proposed Options

Options	Gap Addressed	Resources Needed	Leverage	MSME Assisted	Risks/Challenges
<b>#1 - New early stage fund</b>	US\$ 50 – 200K	US\$ 10 million	2 times	50	<ul style="list-style-type: none"> <li>High administrative costs (at least 20% of total budget, maybe more)</li> <li>Long process for establishment</li> <li>Difficult to involve institutional investors</li> </ul>
<b>#2A - Investing in existing funds</b>	US\$ 150 – 500K	US\$ 2 million	3 – 5 times	15 - 20	<ul style="list-style-type: none"> <li>Small pool of funds potentially interested in collaborating</li> <li>Long negotiations to influence investment policy &amp; operations</li> </ul>
<b>#2B - Influencing operations of existing funds</b>	US\$ 100 – 300K	US\$ 1.5 million	5 times	30	<ul style="list-style-type: none"> <li>Possible resistance from funds' general partners (principal – agent problem)</li> </ul>
<b>#3A - Cooperation with existing CGS</b>	US\$ 50 – 400K	US\$ 3 million	6 times	90	<ul style="list-style-type: none"> <li>Risk of limited utilization due to difficulties in 'objectively' defining innovative firms</li> </ul>
<b>#3B - Guarantee facilities with Incubators</b>	US\$ 100K<	US\$ 2 million	2 times	80	<ul style="list-style-type: none"> <li>Incubator capacity of managing the facility</li> <li>Possibly, long negotiations with banks to agree on terms (depends upon local conditions)</li> </ul>
<b>#4 - Grant scheme linked to bank lending</b>	US\$ 20K<	US\$ 2 million	2 times	130	<ul style="list-style-type: none"> <li>Possibly, long negotiations with banks to agree on terms (depends upon local conditions)</li> </ul>