Enhancing Access to Finance for Technology Entrepreneurs in Southern Africa
infoDev, a global trust fund program in the World Bank Group, supports growth-oriented entrepreneurs through creative and path-breaking venture enablers. It assists entrepreneurs to secure appropriate early-stage financing; convening entrepreneurs, investors, policymakers, mentors and other stakeholders for dialogue and action. We also produce cutting-edge knowledge products, closely linked to our work on the ground.

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For more information visit www.infodev.org or send an email to infodev@worldbank.org.
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<th>Description</th>
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<tbody>
<tr>
<td>BDS</td>
<td>business development services</td>
</tr>
<tr>
<td>CA</td>
<td>comparative advantage(s)</td>
</tr>
<tr>
<td>CEEC</td>
<td>Citizen’s Economic Empowerment Commission</td>
</tr>
<tr>
<td>CPI</td>
<td>Investment Promotion Centre</td>
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<tr>
<td>CT</td>
<td>climate technology</td>
</tr>
<tr>
<td>EDP</td>
<td>entrepreneurship development path</td>
</tr>
<tr>
<td>FNI</td>
<td>National Innovation Fund (Mozambique)</td>
</tr>
<tr>
<td>GAPI</td>
<td>Mozambique National Development Bank</td>
</tr>
<tr>
<td>GP</td>
<td>guiding principle(s)</td>
</tr>
<tr>
<td>IA</td>
<td>innovative agribusiness</td>
</tr>
<tr>
<td>ICT</td>
<td>information and communication technology</td>
</tr>
<tr>
<td>IPEME</td>
<td>Institute to Promote SMEs</td>
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<tr>
<td>MDB</td>
<td>Multilateral Development Bank</td>
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<tr>
<td>MSMEs</td>
<td>micro, small and medium enterprises</td>
</tr>
<tr>
<td>NTBC</td>
<td>National Technology Business Centre (Zambia)</td>
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<tr>
<td>PACME-SEME</td>
<td>GAPI Grant Program</td>
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<tr>
<td>SAIS</td>
<td>Southern Africa Innovation Support Programme</td>
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<tr>
<td>SNV</td>
<td>Netherlands Development Organization</td>
</tr>
<tr>
<td>STIFIMO</td>
<td>Science, Technology and Innovation between Finland and Mozambique Program</td>
</tr>
<tr>
<td>TA</td>
<td>technical assistance</td>
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<tr>
<td>TBDF</td>
<td>Technology Business Development Fund</td>
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<tr>
<td>TE</td>
<td>technology entrepreneur</td>
</tr>
<tr>
<td>VC/PE</td>
<td>venture capital/private equity</td>
</tr>
<tr>
<td>YDF</td>
<td>Youth Development Fund</td>
</tr>
<tr>
<td>ZDA</td>
<td>Zambia Development Agency</td>
</tr>
<tr>
<td>ZICTA</td>
<td>Zambia ICT Authority</td>
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</tbody>
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Table 1: Stages of the Entrepreneurial Development Path .............................. 6
infoDev has a vision and mandate to address obstacles to entrepreneurship globally, including access to finance. It has undertaken some pilot and more advanced work attempting to match angel investors with entrepreneurs, but it seeks to understand specifically the financing gaps that exist in Southern Africa.

This report examines the financing gaps for early stage and growth that high-growth technology entrepreneurs are facing in the information and communication technology (ICT), climate technology, and innovative agribusiness sectors in Zambia and Mozambique, with a more regional review of Namibia and Botswana as possible. It will analyze the unmet needs of these entrepreneurs—perceived demand and latent demand—as well as the existing sources of supply of private capital for seed and early-stage investment, and define the adequacy to meet these needs. The report also explores the challenges that angel investors have experienced in the past when attempting to finance early- and growth-stage start-ups in the region and, if and where appropriate, make recommendations relating to infoDev’s possible interventions.

This report
1. Explores the most pressing unmet needs of entrepreneurs, including capital requirements;
2. Analyzes sufficiency of current sources of [early-stage] capital;
3. Presents challenges potential angel investors would experience in the countries of study; and
4. Presents options for infoDev to intervene.

Such interventions should foster a higher access to early-stage capital for technology entrepreneurs in target countries; specifically, interventions should foster more angel investment in technology start-ups and new companies operating in ICTs, innovative agribusiness or climate technology.

The fieldwork for this assignment was undertaken in Mozambique and Zambia. At the outset of the assignment, it was agreed that regional stakeholders interviewed during field missions to Mozambique and Zambia would be queried on the status and quality of early-stage financing for technology entrepreneurs in Namibia and Botswana as well.

Figure 1 presents the geographic scope of this study (dark blue) as well as countries of interest for infoDev (light blue).

Along with ongoing desk review of relevant literature, the consultant’s team undertook direct interviews with stakeholders active in the so-called “ecosystem” of technology entrepreneurship in Mozambique and Zambia. During field consultations in Mozambique and Zambia, insights were sought from regional stakeholders. However, insights were limited, as national representatives do not have a detailed understanding of the early-stage access to capital beyond the country in which they work. Thus, inferences beyond macroeconomic analysis were not possible in Namibia or Botswana.

**FIGURE 1: Geographic Scope of Study**
In addition to consultations with the entrepreneurs and early-stage capital providers, interviews were also undertaken with those institutions that play a catalytic role between these groups. Such catalysts include business service providers, private mentors, incubators, and other such stakeholders. In addition, interviews were undertaken with policy makers and regulatory authorities relevant to the technology subsectors of focus. Figure 2 depicts this system in more detail.

More than 25 stakeholders were interviewed in Mozambique and 31 in Zambia, encompassing all stakeholder groups. Interviews were limited to the capital cities, Maputo and Lusaka, respectively. Appendix A provides a list of interviewers. Appendix E presents a bibliography of sources consulted.

By framing the findings from fieldwork within the analytical framework outlined in chapter 2, the consultant’s team was able to identify gaps in the entrepreneurial ecosystems in Mozambique and Zambia, which are presented in detail in chapters 3 and 4. Using the proprietary Root Causes® process, the team was able to identify the underlying root causes inhibiting entrepreneurship in both countries. Translating these root causes into guiding principles makes up the foundation of the process to appraise and select best options for intervention, which is presented in chapter 5. Options that adhere to these guiding principles and leverage infoDev’s comparative advantages are then presented in chapter 6, followed by a brief discussion of next steps to finalize this report in chapter 7.

The consultant’s team would like to acknowledge the support of infoDev and, especially, the invaluable contribution made by the many interviewees that gave their time and insight during the fieldwork. In particular, the team would like to thank those interviewees that actively sought to put our team in contact with other stakeholders. Without the effort of these individuals and organizations, the team would not have benefited from the great depth of information gleaned through the fieldwork.

**FIGURE 2: Stakeholder Groups in the Entrepreneurship Ecosystem**
Entrepreneurship Landscape Analysis Framework

This chapter presents the analytical framework derived from desk research on entrepreneurship systems and adapted to the national contexts of Mozambique and Zambia. The entrepreneurship ecosystems in each country of study were examined through this framework. Entrepreneurship is a dynamic process, so the analytical framework seeks to track progress through the entrepreneurship development path (EDP) by tracking certain milestones a technology entrepreneur will have to reach prior to launching a fully operational business. Table 1 summarizes these milestones across the various stages of the EDP.

Moving through each stage in the development path requires dedication, effort, and a combination of technical and business savvy of the entrepreneur. Each stage features key obstacles that must be overcome by the entrepreneur. An entrepreneur must rely on his or her own capacity or engage support to address these key obstacles. Figure 3 captures the most impeding obstacles at each stage in the EDP while also defining the nature of external support that can be engaged to assist an entrepreneur in overcoming these obstacles.

<table>
<thead>
<tr>
<th>Stage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idea</td>
<td>A technically feasible idea for a product or service that has the potential to address a need or solve a problem has been established. No statement of value, monetization, or formal product/service design has been undertaken.</td>
</tr>
<tr>
<td>Concept</td>
<td>The idea is verified as technically feasible by undertaking necessary development of the product or service in order to precisely define its ability to address a need or solve a problem. A basic value-added pitch has been developed, but no deeper monetization approach has been undertaken.</td>
</tr>
<tr>
<td>Monetizable Concept</td>
<td>Some market testing has been undertaken, and potential clients have indicated their potential interest in the product or service, though no price modeling has been undertaken. The basic structure and operations of the business concept have been developed, but no formal business planning has been undertaken.</td>
</tr>
<tr>
<td>Formal Business Concept</td>
<td>Market testing has advanced, and a business has been formally established compliant with minimum registration standards. In addition, a formal business plan or business canvas is in place. Client contracts are being negotiated and revenue can be more precisely forecasted. Little or no formal corporate governance is in place and the capital base remains low to nonexistent.</td>
</tr>
<tr>
<td>Fundable Business</td>
<td>A formally established business with properly recorded sales record is operating with clear corporate governance, accounting, and other formal business practices in place. Early-stage capital is actively being sought to grow sales and/or expand core business prospects.</td>
</tr>
</tbody>
</table>
FIGURE 3: Entrepreneurship Development Path

Note: Hexagons indicate barriers, while rectangles indicate corresponding support required.
Catalytic agents focus on support activities to facilitate the growth of entrepreneurs. Financing sources also play a key role in accelerating the progression of an entrepreneur in the EDP. Similar to catalytic agents, financing sources tend to focus support at certain stages and with varying terms, depending on the stage wherein they provide capital. Mentors, both in the form of individuals, and in the form of diaspora networks, can play a dual role as catalytic agents and financing sources. Advice and support through ongoing mentorship can catalyze development of an entrepreneur, and in many cases this relationship culminates in an investment made by a mentor or diaspora network. When certain catalysts or financiers are absent, entrepreneurs face a higher degree of difficulty exiting a given stage in the EDP.

For the purposes of this report, it is necessary to map the current landscape in terms of the finance suppliers present in each of the countries of study, which will be presented graphically in the following country chapters. It should be noted that this is based on findings of actual access to finance, and does not include access to finance that is undemonstrated. Similarly, the depictions only summarize finance supply for technology companies, and therefore do not include provision of financial instruments exclusively for traditional sectors that predominate the wider landscape. The landscape for debt is particularly bleak, as most commercial banks in both Mozambique and Zambia issue financial products that are impossible to access at an early stage. This is primarily due to untailored due diligence, 100+ percent collateral requirements and astronomical interest rates. Along with the presentation of findings covering the stakeholders in each group, this country-specific map will serve to better depict the ecosystem itself, and will clearly denote both strengths in the current structure and gaps in early-stage financing, and support that may be hindering the growth of high-growth technology entrepreneurs.
Entrepreneurship oriented toward high growth in the formal economy is a nascent phenomenon in Mozambique, particularly in the technology subsectors targeted in this assignment. Only a handful of entrepreneurs were identified, and nearly all of them were in the very early stages of development. Furthermore, other stakeholders interviewed identified many factors that contribute to the lack of robust entrepreneurs, but they nearly all confirmed that such high-growth entrepreneurs in the tech sectors were few and far between. The key points listed below summarize the observations gained on the biggest barriers to angel investment in high-growth technology entrepreneurs in Mozambique:

1. **There are few business mentors and no active angel investors.** There are few successful entrepreneurs to guide and inspire new entrepreneurs. Stakeholders identified the lack of success stories of entrepreneurship in traditional sectors, much less in technology, as a primary inhibitor to interest from potential entrepreneurs. High net worth individuals and wealthy families also prefer to invest outside Mozambique due to perceptions of risk and lower return on local investments.

2. **The natural resources “curse” is inhibiting technology sector growth.** With the discovery of abundant natural resources, the focus of investment and the majority of economic activity have been oriented toward developing companies to supply the value chain of large enterprises to displace import substitutes. Stakeholders indicate that while there has been some success, these companies are generally not innovative. Furthermore, stakeholders indicated that there is a considerable challenge to source domestic inputs, as small local producers do not have sufficient negotiating power nor quality control standards to sell to large extraction companies.

3. **The more “socialist” political and colonial history has resulted in state dependency.** History has left Mozambicans with an attitude of depending on the state, which inhibits entrepreneurial attitudes except in basic survival terms. Entrepreneurs highlighted that it is not in their culture to communicate entrepreneurial success stories for various reasons. Most prevalently, they reported that there is a disincentive toward display of financial success as there is strong cultural and historical pressure to distribute this wealth among one’s extended family. Thus, enthusiasm is not built around success or potential success.

4. **A critical mass of medium-size businesses does not exist.** Mozambique has megaprojects and large companies, very few medium companies, and a large amount of small informal businesses (nearly 90 percent of the private sector). This results in small businesses being unable to join the value chain to eventually sell products and services to large companies, who largely rely on foreign suppliers. Stakeholders confirmed that part of the reason for this is that most entrepreneurs prefer staying small and informal to stay unnoticeable and not show public success so they don’t have to become the provider for family and friends. They would rather launch other small informal businesses than grow the initial one. The absence of medium companies to play a convening and distributing role exacerbates broken value chains between small producers and large client companies.
5. The risks associated with entrepreneurship and, to a lesser extent, angel investment are not assuaged by strong trust in counterpart stakeholders. Aversion to risk was reported at every level of the Mozambican ecosystem. Entrepreneurs do not trust wealthy individuals or catalytic agents and fear having their idea or business stolen. Wealthy individuals do not trust local entrepreneurs and domestic economic growth to provide returns.

6. There is a very limited pool of educated and skilled labor. Mozambique has one of the lowest education levels in Africa. Thus, the skills pool does not meet the needs of companies, as stakeholders reported that the government or work abroad attracts the most capable graduates. It was reported that this is exacerbated by employment for donor organizations, which further absorbs domestic talent away from the private sector. Educated Mozambicans seem to prefer job security in government or donor employment so they can become a provider for the extended families that are still important in size and needs. This also inhibits markets for most technology-oriented businesses, except those that target base of the pyramid markets.

7. The government lacks a united vision and clear strategy for the development of the key high-growth sectors. The government is struggling to create and follow a clear national strategy on the development of the technology sector and innovation. This is due to a prioritization of basic poverty alleviation through sectors such as agriculture, education, health, and infrastructure. There is a clear lack of operational coordination between all actors in supporting early-stage technology companies, leaving entrepreneurs hanging along the development path.

8. There is a general lack of financial and managerial skills. From the available statistics and the interviews conducted, most entrepreneurs that do access initial capital mismanage it due to a lack of financial literacy and management skills. Personal pressing financial problems were also indicated as a cause of low financial discipline in management terms. Due to this, examples of seed funding usually did not translate into business results. There are Business Development Services (BDS) solutions available, but these are either too expensive for entrepreneurs to afford, led by a nonexpert in a governmental agency, or are a short-term generic training insufficient to improve managerial skills. Stakeholders indicate that technical skills are sufficient.

9. Financial instruments tailored for early-stage financing for technology are not available. The allocation process of available early-stage financing for start-ups through grants and loans is insufficient. However, stakeholders indicate that the technology sector is perceived as particularly high risk and low return, hence few options are available to potential entrepreneurs for early-stage initial capital beyond grant programs. Microfinance is quickly accessible. However, stakeholders indicate that rates are unaffordable for a start-up. Grant programs exist, but they have had very limited success in providing resources to start-ups.
Finance Supply Landscape

The supply of early-stage capital for entrepreneurs, particularly in the technology subsectors, is highly constrained in Mozambique. Stakeholders indicate that the primary source of capital is the so-called “three Fs”—friends, family, and fools. Debt instruments are prohibitively expensive, even for established companies. Formal equity investment schemes are rare to nonexistent. Other than friends and family, figure 4 depicts the active finance supply landscape in Mozambique.

Public sector grant programs drive finance supply for technology entrepreneurs. The two primary mechanisms for grant support are PACME-SEME and the National Innovation Fund (FNI) overseen through STIFIMO, a joint Finnish-Mozambican ministerial program. According to stakeholders, the PACME-SEME program provides grants on average of USD 20,000 for innovative ideas and initial capital. The Mozambique National Development Bank (GAPI)—the national development finance institution—and the Ministry of Commerce co-manage this program. It has been active for two years and no more than 20 entrepreneurs were able to have access to the grants. FNI is conceptually established, but stakeholders indicate that no transactions have been undertaken yet. However, both programs are generally well publicized.

Debt, aside from microcredit, is not accessible by entrepreneurs. Donors have sought to build mechanisms to encourage higher levels of lending to small and medium enterprises (SMEs). However, even GAPI has faced serious difficulty providing debt instruments to SMEs and start-ups, indicating that most of these potential clients are operating informally and are therefore almost impossible to evaluate on risk terms. Microcredit is available, but interest rates are reported to start at 4 percent per month. Through microcredit, credit tenure beyond two months becomes untenable for entrepreneurs. Last year, IFC provided a USD 30 million credit line to Banco Comercial e de Investimentos (BCI Bank) for early-stage support to SMEs. Stakeholders report that the application

FIGURE 4: Finance Supply Landscape in Mozambique

<table>
<thead>
<tr>
<th>Idea/Concept</th>
<th>Monetizable Concept</th>
<th>Formal Business Concept</th>
<th>Fundable Business</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Procredito Micro USD &lt; 20,000, IR &gt; 4% monthly</td>
<td>Afrifuture USD 5,000-75,000, agriculture focus</td>
<td>Procredito Micro USD &lt; 20,000, IR &gt; 4% monthly</td>
</tr>
<tr>
<td>Debt</td>
<td>Procredito Micro USD &lt; 20,000, IR &gt; 4% monthly</td>
<td>Procredito Micro USD &lt; 20,000, IR &gt; 4% monthly</td>
<td>Procredito Micro USD &lt; 20,000, IR &gt; 4% monthly</td>
</tr>
<tr>
<td>Equity</td>
<td>Procredito Micro USD &lt; 20,000, IR &gt; 4% monthly</td>
<td>GAPI USD &lt; 100,000</td>
<td>Annona (Dutch Dev Fund) USD 500,000, agriculture focus</td>
</tr>
</tbody>
</table>
process was too onerous for SMEs. Formal SMEs that can demonstrate audited financial success still face substantial obstacles accessing finance from commercial banks, which require substantial collateral to offset demonstrated wilfulness to default on outstanding loans within the business culture of Mozambique.

Formalized equity investment is basically non-existent. Aside from GAPI, the only formal investor is AgDevCo, a social impact investor and agribusiness project developer established as a not-for-profit distribution company in the United Kingdom. AgDevCo has faced numerous obstacles in facilitating growth in its investee companies, whether it has provided true equity investments or blended debt and equity to its investees. Stakeholders familiar with their investments indicated the absence of coherent technical assistance and the subsequent requirement for investors to play a day-to-day role within investee company management as major obstacles to the growth of equity investment in the country.

Unmet Needs and Support Gaps

Entrepreneurs in Mozambique face particular difficulty overcoming key challenges in their path to establishing profitable businesses. In addition, the pool of growth-oriented entrepreneurs is quite small in Mozambique, and technical skills among that pool are limited. Chief among the challenges facing this small group of entrepreneurs is weak mentorship, coupled with a lack of coordination between support programs. The absence of real co-working space, and the focus on business plan competitions, can have the effect of making entrepreneurship more of a game than a career, particularly in the absence of a clear “next step.” Stakeholders indicate that most entrants into entrepreneurship are from wealthy, well-connected families and will most likely revert to government or international employment after tinkering for a while. Furthermore, market research and other business services are either of low quality or are prohibitively expensive. Finally, the market in Mozambique features tight consumer spending and competition led by international corporations, particularly those entering from Portugal and Brazil. Figure 5 depicts, in blue, the key unmet needs and support gaps entrepreneurs face.

In terms of key catalytic agents, the primary unmet need is that of sustained mentorship. A handful of programs, the most prominent of which is the Southern Africa Innovation Support (SAIS) Programme, provide some early-stage mentorship. However, the business mentorship provided through this program seems limited to the preparation of business plans for competitions. This may have a deleterious effect, causing entrepreneurship to appear as a game rather than a way to make a living. In addition, collaboration space for entrepreneurial activities, as well as more formal co-working space, is rudimentary. Similarly, stakeholders indicate that diaspora networks are weak and disinterested in investing in Mozambique beyond tourism, extractive industries, and forestry.

In the absence of strong mentors, entrepreneurs are left unsure of how to move through the process of building a business around a solid business concept. The absence of clear links between business development programs, such as those provided by SAIS and follow-on support available through other donors, compound the lack of direction of developing entrepreneurs. Government and donor-funded catalytic agents are the most diverse and numerous in the ecosystem. They are, however, fragmented and uncoordinated in their approach to providing a coherent support chain as entrepreneurs develop. A detailed summary of catalytic agents in Mozambique is provided in Appendix B.
FIGURE 5: Unmet Needs and Support Gaps in Mozambique

- **Idea**
  - Insufficient Technical Skills
  - Misguided Expectations
  - Lacking Basic Resources
  - Undefined Value Statement
  - Networking & Technical Mentorship
  - Collab. Space
  - Commercial Mentorship

- **Concept**
  - Incoherent Business Planning
  - Lacking Technology Access
  - Lacking Team & Support
  - Insufficient Motivation
  - Management Training
  - Co-working Space
  - Mentorship & Success Stories

- **Monetizable Concept**
  - Insufficient Financial Resources
  - Unverified Market
  - Unregistered Business
  - No IP Protection
  - Informal Mgmt. Structure
  - No Proof of Revenue
  - Initial Capital
  - Legal Support
  - Adv. Mgmt. Training
  - Sales Contracts

- **Formal Business Concept**
  - No Capital Base
  - No Corp. Governance
  - Insufficient Human Resources
  - Insufficient Financial Reports
  - Follow-on Investment
  - Corporate Structuring
  - HR Support
  - Accounting

- **Launch**
  - Fundable Business
**Key Opportunities**

Gaps in the provision of early-stage capital, as well as in the provision of development, present opportunities to grow the ecosystem supporting technology entrepreneurship in Mozambique. These key opportunities, confirmed by stakeholders during the fieldwork phase of the assignment, provide insight into options for infoDev’s intervention in Mozambique.

The first and foremost opportunity is fostering mentorship, whether through professional arrangements like BDS or through volunteerism and business associations. Mentorship plays a fundamental role in promoting the spirit and merits of entrepreneurship, and it serves as a unique source of motivation for young entrepreneurs. In the relationship of developing entrepreneurs and business support providers, aligning interests around commercial success could yield tangible improvement in the quality and scope of mentorship provided. Existing screening mechanisms, such as business plan competitions hosted by SAIS, should be built up as a stepping-stone into more serious mentorship.

A second opportunity would be creating strong links among catalysts supporting entrepreneurs across different stages. The disjointed support provided through separate donor activities currently does little to shepherd entrepreneurs from one stage to another. Weak links also diminish trust within the ecosystem, as information is asymmetric. While something is to be said for entrepreneurs finding “their own way,” incentives can be fine-tuned once a coherent pathway is established. Without coordinating existing initiatives and building up a road map for entrepreneurs, they will likely flounder in the challenging domestic business environment.

Other opportunities include subsidizing market research and investing physical incubation space. Both of these are relatively expensive undertakings and would have to be carefully pursued to ensure long-term sustainability. However, expanding market access to non-lusophone markets in neighboring countries would create vastly larger potential markets for technology entrepreneurs. Similarly, providing a physical incubation space would allow SAIS and partner programs to move within physical proximity of one another, thereby collecting all available resources and motivation under a single roof.
Zambia Landscape

Zambia demonstrates a more vibrant orientation toward high-growth entrepreneurship, particularly in the technology subsectors prioritized in this assignment. Close “tech community” ties with Kenya and South Africa appear to help influence young entrepreneurs to pursue technology through their own ventures. In general, the team observed more “buzz” around technology as a business venture. The technology community is vibrant, and it is composed of business associations, community organizations, tech hubs, and thematic networks that are all engaged in promoting technology, creating awareness on entrepreneurship, and networking activities with successful entrepreneurs, businesses, and industry experts. These activities mark the beginnings of community building. The entities also facilitate technical and business capacity through trainings and “hackathons,” and they have the potential to band together and lobby for policy changes. The following observations merit notation:

1. **Weak entrepreneurial culture in general has resulted in few entrepreneurs.** Traditionally, educated or uneducated youth are encouraged to seek employment. The absence of an entrepreneurial culture is particularly evident in innovators who are unable to turn a brilliant idea into a viable business due to a lack of robust business skills. In the tech sector, for instance, youth entrepreneurs design technically sound products and services, but they may fail to conduct market research and ensure demand exists. Moreover, some innovators may not follow through with a project if the pre-incubation process seems cumbersome. There is also a mistrust of “partners” and “investors” and a lack of understanding (and fear) of equity.

2. **Perceptions of high risk and absence of quick financial returns in the technology sector persist.** The technology sector is a nascent industry in Zambia and is eclipsed by traditional sectors like mining and agriculture. These sectors have yielded positive returns and continue to attract foreign and local investment. Although the technology sector is gaining traction, entrepreneurs in this sector will have to build a track record of success to attract investors, moderate perceptions of high risk, and incentivize investors to consider medium- to long-term financial returns. Here, the government will also have to play a role in inspiring confidence and in creating a business and regulatory environment conducive for investment in the tech sector.

3. **The absence of angel investors in the financing market may be a temporary phenomenon.** There are no domestic angel investors who are actively investing in Zambian technology. However high net worth individuals, including bankers and returning diaspora, are showing interest in tech start-ups. Some of these individuals are mentoring and coaching young innovators from the initial stages of idea development through finalizing of business plans. There are also those who participate in mock pitching sessions and provide feedback. All these individuals believe that their mentees have the potential to be successful entrepreneurs and intend to invest in the near future. They also have a wide social and professional network of potential angel investors, which can be tapped into once entrepreneurs present fundable ideas.

4. **No formal BDS market exists and catalytic agents are curiously absent beyond mentors.** A formal BDS market is a sign of a well-functioning tech ecosystem. This market is
absent in Zambia’s tech sector, which is instead populated by government and donor-funded entities that provide components of business support. Some argue that these grant-financed entities have prevented the emergence of a real BDS market by providing free but fragmented support services. Others suggest that grant-financed BDS will create demand for such services in the long term and stimulate the rise of formal BDS providers. For-profit BDS companies for technology start-ups are just starting to develop. Evidence from the field suggests that while innovators are increasingly realizing the importance of BDS, they are currently unlikely to pay premium price due to financial constraints and low valuation of these services. This may change in the long term such that entrepreneurs demand these services, thereby facilitating the entry of formal BDS providers.

5. **Entrepreneurs demonstrate a wide range of initial capital needs.** Current understanding of seed financing needs is imprecise, particularly across the different technology subsectors. Evidence on the ground suggests seed financing for the tech sector is two-tiered. It is lowest for the ICT sector, with a range of USD 2,000–5,000. In this subsector, the cost of pre-incubation and incubation is relatively low, although the process still involves rigorous proof of concepts, market research, building prototypes, and testing. Seed financing for the climate and agribusiness subsectors, on the other hand, is larger in scale, at around USD 20,000–500,000, as it involves the use of capital inputs such as machinery and land. Proofing a business idea in these subsectors may also take longer.

6. **The perceived importance of seed financing for tech start-ups is hindering committed entrepreneurship.** Many innovators expect to receive seed financing from angel investors or through grant instruments, so they wait. Successful entrepreneurs, however, react in the following manner: (a) they make personal sacrifices and bootstrap in order to finance a tested and fundable idea; (b) they conduct “consulting” activities by seeking clients and providing them with tailored business solutions; and/or (c) they participate in hackathons, competitions, and similar activities in order to win financial awards. As a result, they are able to raise seed capital while simultaneously building a track record that will attract future investors.

7. **The lack of growth financing for a small number of tech SMEs inhibits growth potential of start-ups.** There is a genuine lack of growth financing for start-ups that are looking to grow into small or medium businesses, although it should be noted that these are very few in number. Debt financing for formal SMEs in the tech sector—particularly in ICT—does not exist, imposes stringent conditionality, or is punitively priced. Banks show little interest in adapting financing instruments for SME needs despite ongoing efforts by the Bank of Zambia and the Zambia Development Agency (ZDA) on issues of collateral and interest rates. Venture capital (VC) presence is negligible in this sector and gravitates toward larger entities, particularly in the mining sector.

8. **The policy environment does not adequately promote entrepreneurship and investment in the tech sector.** The cost of doing business—registration and licensing, opening...
bank accounts, obtaining and enforcing intellectual property protection, paying taxes and accessing information—is high for entrepreneurs. Outdated policies in rapidly changing subsectors such as mobile technology and the absence of guidelines in relatively nascent areas, including biofuels and e-commerce, stunts progress in the tech sector and inhibits the growth of technology entrepreneurship. While the government seems to recognize the employment potential through entrepreneurship, its initiatives are under-capacitated and are not actively supporting technology entrepreneurs.

Finance Supply Landscape
As with Mozambique, the three Fs dominate the finance supply landscape in Zambia. However, there are currently a limited number of other donor and government programs that provide grants and short-term loans to entrepreneurs at affordable rates. Commercial financing, either in debt or in equity, is notably absent until entrepreneurs are able to form fundable businesses. Figure 6 depicts the active supply landscape in Zambia aside from the three Fs.

At the grant level, two established government grant programs exist. First, the Technology Business Development Fund (TBDF), hosted by the National Technology Business Centre (NTBC) within the Ministry of Science and Technology, provides grants and concessional loans to entrepreneurs demonstrating technology transfer or innovation in business planning. The TBDF is still a pilot program, and as such has limited resources. Last year, it provided three grants for business preparation activities, bringing its overall grant count up to six. However, it should be noted that only one of these awardees could be included in the technology subsectors as an innovative agribusiness venture. Supervision and support following grant award is limited due to the NTBC’s limited staff capacity and other programs. The Citizen’s Economic Empowerment Commission (CEEC) exists, but it has recently been re-focused due to accusations of corruption. Hence, at least in the Lusaka province, it is solely focused on poultry and fisheries start-ups. Generally, it is observed that the CEEC focuses on supporting transition from survival to growth entrepreneurship in traditional sectors. It is unlikely that technology entrepreneurs will be able to access CEEC resources soon. Independent foundation-funded grantors, such as Innovations Against Poverty,
provide ongoing grant support to technology businesses oriented toward social business on a matching regime.

In terms of debt, entrepreneurs reported that microfinance was generally unavailable. This is mainly due to exorbitant interest rates and stringent collateral requirements. Another government program, the Youth Development Fund (YDF), provides reimbursable grants structured as notes with a 12-month tenure. No examples of successful acquisition of YDF concessional loans by technology entrepreneurs were observed. Furthermore, stakeholders indicated a general lack of focus for YDF activities, resulting in high competition and feelings of politically motivated selection. Commercial debt is not available to businesses that are not fundable. Even for established SMEs, collateral requirements are reported to be a minimum of 70 percent, though actual evidence indicates 100 percent collateral requirements. Interest rates are high.

Venture capital exists in Zambia on a very small scale and only for more traditional sectors. Kukula Capital is the first and only Zambia-focused VC firm in the country. However, its strategy orients it toward growth in the mining value chain and other traditional sectors. Other impact investors, such as Accion Frontiers, Sarona Capital, and Omidyar Network, have made early-stage investments in one technology company in Zambia. However, all indicated that they will not seek additional deals in the technology subsectors in Zambia. Furthermore, all indicated that they would probably not be willing to make other VC deals, even in traditional sectors. One of the interviewed fund managers indicated an openness to receiving solicitations, but did not indicate a strong appetite for further investment. This is due to the high cost of managing these investments, the limited exit possibilities, and competition with other markets, particularly South Africa.

Unmet Needs and Support Gaps

Many needs are left unmet and gaps persist in support in the entrepreneurial ecosystem. Mentorship is strong, but mentors indicated a persisting distrust from entrepreneurs; good advice appears to sometimes fall on deaf ears. Similarly, entrepreneurs are constantly innovating and lack the support necessary to focus them on a single business concept. Co-working space that is constructive for business development rather than tinkering and “hacking” is noticeably absent, and the tools necessary to promote innovation in agribusiness and climate technology are similarly absent. Fear of unenforceability of intellectual property protection causes entrepreneurs to expect investors to make blind investments or prevents them from soliciting for investment in the first place; many entrepreneurs indicated personal or third-degree experiences with idea theft. Figure 7 depicts, in blue, these unmet needs and support gaps.

Despite strong mentorship, technology entrepreneurs demonstrated a high degree of misguided expectations and were similarly unable to convey business ideas/concepts in viable value terms. Furthermore, they demonstrated a tendency to chase multiple concepts as a herd rather than focusing on the development of a single business concept. The absence of co-working space dedicated to business concept development, rather than development of technical skills and tinkering, likely contributes to this lack of single-focus discipline. Strong leadership within teams using collaboration space appears to be the leading source of discipline to focus on a single business model. However, fostering this leadership is not a priority within the free flow of existing collaboration spaces like BongoHive.

Management training and access to higher-level technology remain key obstacles. In terms of ICT developers, access to sufficient hardware and software platforms remains an outstanding need. Lack of access to modern tools is an impediment to innovation for agribusiness and climate technology entrepreneurs, though entrepreneurs in these sectors appear more able to overcome this obstacle by developing their own tools—designing inexpensive and low-tech machinery or labor-intensive approaches. It is obvious that they will not be able to scale up activities and grow their businesses without advanced capital goods.

On the other hand, the absence of management training and business skills development prevent technology entrepreneurs, who are generally engineers, from learning the “language of business.” This inhibits their ability to formulate realistic business plans and contributes to their inability to convince would-be angel investors of the value of investment. Multiple examples were identified wherein an entrepreneur was positioned to receive philanthropic or concessional
FIGURE 7: Unmet Needs and Support Gaps in Zambia

Idea

Entry

- Insufficient Technical Skills
- Misguided Expectations
- Lacking Basic Resources
- Undefined Value Statement

Networking & Technical Mentorship
Collab. Space
Commercial Mentorship

Concept

Pre-Incubation

- Incoherent Business Planning
- Lacking Technology Access
- Lacking Team & Support
- Insufficient Motivation

Management Training
Co-working Space
Mentorship & Success Stories

Monetizable Concept

Incubation

- Insufficient Financial Resources
- Unverified Market
- Unregistered Business
- No IP Protection
- Informal Mgmt. Structure
- No Proof of Revenue

Initial Capital
Legal Support
Adv. Mgmt. Training
Sales Contracts

Formal Business Concept

Launch

- No Capital Base
- No Corp. Governance
- Insufficient Human Resources
- Insufficient Financial Reports

Follow-on Investment
Corporate Structuring
HR Support
Accounting

Fundable Business
contributions for market research from mentors but was not able to access such capital because of his or her own disinterest and lack of motivation in undertaking market research. As such, this unmet need is more related to the lack of business skills development than the actual material absence of initial capital.

Long processing times for patents and unclear levels of enforcement against infringement were cited as inhibitors of business growth. Whether or not these are real issues, they have impacted the way entrepreneurs do business. Entrepreneurs generally displayed unwillingness to seek investor support because of fear of having their ideas stolen. A general lack of access to affordable legal support propels this guardedness, as entrepreneurs indicate that they feel vulnerable against many well-supported potential investors. One entrepreneur benefited from an intern sent from a U.S. law school, indicating that this made a profound difference in the young business’s ability to formalize its practices and protect itself. A detailed summary of catalytic agents in Zambia is provided in Appendix C.

Key Opportunities

While the aforementioned gaps exist, opportunities for intervention abound. Generally, it was observed that there is a high potential for angel investment in Zambian technology entrepreneurs that can be catalyzed by seizing key opportunities.

Perhaps the most catalyzing opportunity is building up (pre-)incubation support through the newly founded private BDS player. Ensuring coordination and perhaps also a degree of competition among these players as well as grant-funded catalytic agents would engender a professional cadre of support providers.

Furthermore, providing more working space with integrated BDS and/or supervision would alleviate the current “herding” mentality of the entrepreneurs and push them to focus on developing a business with market-tested products and services rather than tinkering with ideas.

Provided the community of technology entrepreneurs continues to grow, leveraging the interest and experience of the diaspora networks in the United Kingdom presents an excellent opportunity to secure additional capital and expertise for the growth of technology start-ups. For example, the U.K. diaspora association Amaka ya Bwingi has been working through the Zambia Development Agency (ZDA) to identify potential mentorship/investment opportunities in start-ups. However, the ZDA is not designed to manage investments on behalf of diaspora associations and lacks capacity to identify or conduct due diligence on viable opportunities. Bridging the gap between interested diaspora and domestic entrepreneurs is a great opportunity, but may require building up of in-country investment management capacity.

Within the country, enhancing the capacity of mentorship champions is another excellent opportunity. There are many passionate mentors that could be leveraged to have a greater impact in raising the profile of technology entrepreneurship in Zambia if directly supported. These mentors come from diverse backgrounds, and it was clear that while they may be aware of one another, there is currently no engagement nor concrete plans to work together in a strategic sense. While they each have different views on how to best support entrepreneurship in Zambia, formal collaboration among them would bring their unique experiences to bear in a highly impactful way. Furthermore, their combined social and professional networks could form the foundation of an angel investor network.
Option Appraisal Process

Gaps within the ecosystem of technology entrepreneurship in Mozambique and Zambia were clearly identified in the preceding chapters. Unique circumstances in each country contributed to the existence of these gaps. However, there are universal root causes that continually inhibit growth of the ecosystem and the progression of innovators into full-fledged entrepreneurs with successful businesses.

These root causes serve as the basis for formulating guiding principles. The purpose of these principles is to provide the foundation to which viable options should adhere. Root causes are stated in objective terms, while guiding principles are stated in normative terms. Guiding principles thereby verify the validity of options as they are considered and developed. Options that do not adhere to all the guiding principles are therefore not viable as best options.

Concurrently, an option that is best for the ecosystem may not suit the comparative advantages of infoDev. infoDev has a unique structure, approach, and strategy within international development and even among those institutions seeking to address the access to finance for enterprises in emerging economies. As such, key comparative advantages serve to determine which options infoDev is best suited to take on versus its sister initiatives and organizations.

Guiding principles form the logical criteria for developing best options that address the root causes of insufficient access to finance for technology entrepreneurs in Mozambique and Zambia. Comparative advantages form the practical criteria for selecting options that are best suited for undertaking by infoDev. At the level of guiding principles, best options ought to demonstrate that they foster complementarity among catalysts and supporters, alignment of all stakeholders’ interests, and progressively more advanced preparation, in commercial terms, of entrepreneurs.

In order to leverage infoDev’s comparative advantages, best options need to be innovative in approach, authoritative in terms of channeling impact on the ground to demonstration at the highest donor levels, and agile in terms of adaptability and scalability. The guiding principles and comparative advantages are discussed in more detail in the following sections. Figure 8 graphically depicts how the guiding principles and comparative advantages are used to formulate best options for infoDev’s intervention in each country.

FIGURE 8: Option Appraisal Process

![Diagram showing guiding principles and comparative advantages](image-url)
Summary of Root Causes

- **Growth-oriented entrepreneurship exists in both countries, but it represents a miniscule portion of entrepreneurial activity.** In both countries, entrepreneurship is a survival concept more than a wealth-generating concept. Over 90 percent of entrepreneurs in both countries are sole proprietorships in the informal economy. Furthermore, interviewees indicated that growth is perceived as a mortal risk by these kinds of entrepreneurs, as it represents tax burdens and social pressure to “share the wealth” with extended family. The constituency of entrepreneurs looking to establish high-growth technology companies numbers in the dozens, if not less, in each country of study.

- **Most growth-oriented entrepreneurs are stuck at the very early stages of development.** Out of approximately 150 high-growth entrepreneurs encountered in the fieldwork, less than 10 percent observed were beyond the idea and concept stage as defined in the EDP. As such, they struggle to demonstrate a track record and are therefore unappealing to return-oriented investors. Furthermore, the lack of ongoing management training and structured mentorship allows for entrepreneurs at the idea and concept stages to be continually distracted by new concepts and ideas, particularly those being developed by teammates, rather than developing a business around a single idea.

- **Catalysts acting independently of each other are disjointed and, as a whole, do not provide continuing support to entrepreneurs.** Some support needs are well addressed in each country. However, continuing support through the stages of the EDP, and even within individual stages, does not exist. Interviewees reported very limited coordination among catalysts. This was observed even between catalysts that were organized under the same umbrellas of government and donor programs. As a result of this discordant support, entrepreneurs must expend exorbitant resources to overcome some obstacles. This reduces motivation and, interviewers reported, leads some entrepreneurs to give up.

- **Most potential investors do not see technology as a high-return investment.** At present, angel investment in the countries of study is basically nonexistent in the technology subsectors examined through this assignment. While some newly established ICT companies have attracted early-stage capital from private sources, the project developers are seasoned entrepreneurs entering the countries of study from abroad with substantial previous experience and, in most cases, international financial support backing them. No cases of domestic technology entrepreneurs engaging domestic angel investors were observed and those involving international angels were limited. 1 Low trustworthiness of entrepreneurs, unfamiliarity with technology as a business, and trust in local angel investors were key barriers to angel investment.

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1 In the one case of angel investment in Zambia, an expatriate CEO joined a company. Through his existing social network, he was able to attract two angel investors, both from North America.
and better investment opportunities abroad were cited as the primary inhibitors to domestic angel investment.

- **Grants and other forms of “free” support have partially distorted the ecosystems.** The source and terms of external support received by an entrepreneur can also play a role in a potential investor’s appraisal of likely returns. Entrepreneurs who receive a high degree of support on concessional terms can be seen by potential investors as much less likely to succeed in establishing high-growth businesses. Those entrepreneurs who bootstrap from their own resources, whether financial or through their own “sweat equity,” are perceived by potential angels as much more likely to succeed. The nature of support mechanisms can therefore indicate, in the perspective of potential angel investors, the underlying potential of a budding entrepreneur to succeed.

### Guiding Principles

A culture of **growth-oriented entrepreneurship** must be fostered throughout the ecosystem in both Mozambique and Zambia. This is the overarching principle that guides the formulation of any options for intervention. However, defining how a culture of entrepreneurship looks and how it can be fostered in general terms are best left to academic forums. For the purposes of this report, three key guiding principles must be adhered to by any viable option.

- **Complementary structures and links among catalytic agents must be cultivated.** A variety of programs, players, and facilities are already in place in each country to promote the advancement of entrepreneurs. While effectiveness may be marginal at the overall ecosystem level, any option for intervention should leverage existing mechanisms and support rather than displacing or overlapping existing support. Furthermore, best options present clear modalities for compounding the effectiveness of existing structures by building strong links.

- **Financial interests of all stakeholders must be aligned on commercial terms.** Every effort should be made to build common financial interests between stakeholders. This encompasses sharing of success as much as bearing risk of failure. Without clearly articulated alignment of interests, stakeholders from all sides are more likely to distrust their counterparts for good reason. Hence, building up the ecosystem through the application of market principles across all relationships will build a stronger ecosystem that is, in fact, preparing business on market norms.

- **Entrepreneurs must demonstrate their capacity in terms relative to the capital they seek.** Investors should not be unduly expected to provide early-stage capital without sufficient assurance that such an investment has some potential to provide returns. This is not to say that risk aversion on the part of the investor should be fostered. Entrepreneurs should be prepared to the point where demonstration of success is tangible before significant angel investment is sought. Similarly, soundly prepared entrepreneurs will have more experience and negotiating leverage to apply when selecting investors.

Through adherence to these three guiding principles, a culture of growth-oriented technology entrepreneurship can be fostered in Mozambique and Zambia. Options that adhere to all three principles will have the secondary impact of **building trust** within the ecosystem. Stakeholders indicated that mistrust is a major factor inhibiting investment within the ecosystem. Furthermore, trust is a major part of building a coherent entrepreneurial culture.

### Comparative Advantages of infoDev

Best options leverage the comparative advantages of **infoDev**. Options that leverage infoDev’s comparative advantages will have the highest potential for success in terms of achieving desired impacts. In addition, such options will provide lessons learned that can be readily adapted to future interventions undertaken by infoDev in the target countries, as well as globally.
• **Innovation is a core focus for infoDev.** infoDev benefits from wide recognition in the development community as a highly innovative and agile program. From its establishment, it has sought to support development in emerging economies through interventions that are considered “outside the box” by the wider development establishment. This should be leveraged in the exploration of best options, as it predisposes infoDev to taking on more creative approaches. The risk of failure may be higher for untested options, but infoDev’s structure makes it particularly capable of undertaking experimental interventions that could have massive payback in impact terms.

• **infoDev is authoritative in channeling a direct link to scalable, on-the-ground impact for donors.** infoDev is recognized, despite its relatively small size, as an active entity in promoting technology transfer and entrepreneurship for economic development. Where infoDev particularly excels is in the demonstration of its findings and communication within the donor community. As such, the options that infoDev is best suited to execute do not rely on direct, hands-on management of infoDev experts below the program level. This enables infoDev to devise communications materials on wider programmatic levels while delivering project-level interventions through international experts.

• **infoDev can use quick innovations to adapt and scale long-term interventions.** infoDev has substantial experience supporting short- and long-term programs. As such, it has the unique ability to implement both terms of projects for the same eventual objective. infoDev can therefore leverage knowledge gained through shorter-term interventions to adjust and revise approaches for long-term interventions. Its small organizational structure makes it particularly nimble at applying lessons learned from various interventions for the overall enhancement of development outcomes. Hence, best options can be piloted and then rolled out/scaled up.
This chapter lays out options well suited for infoDev’s support. Arising from the opportunities identified in the country chapters, each option is presented with logical and practical validation via the appraisal process outlined in chapter 5. Some options apply to both countries, while others apply only to Zambia. This largely arises from the generally more mature ecosystem in Zambia, particularly in terms of the level of mentorship observed. The options presented herein are intended to be modular. Options may be undertaken independently.

FIGURE 9: Options Matrix

<table>
<thead>
<tr>
<th>Short Term</th>
<th>Medium Term</th>
<th>Long Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supply of Finance</td>
<td>#5 Angel Investment Guarantee Facility</td>
<td>#6 Diaspora Investment Platform</td>
</tr>
<tr>
<td>Catalytic Agents</td>
<td>#2 Royalties Model</td>
<td></td>
</tr>
<tr>
<td>Demand for Finance</td>
<td>#1 Technology Entrepreneurship Coordination Mechanism</td>
<td>#3 Entrepreneurship Boarding School</td>
</tr>
<tr>
<td></td>
<td>#4 Startup Weekend Series</td>
<td></td>
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</tbody>
</table>


or they may be implemented through a national program that organizes them under a single national umbrella. Figure 9 graphically depicts the intended intervention time scale and ecosystem focus of each option. The options are then presented in a tabular format that provides more detail under a variety of relevant headings, including justification against the option appraisal process.

### Option 1. Technology Entrepreneurship Coordination Mechanism

| Description | An in-country/in-region team facilitating communication between stakeholders including entrepreneurs, industry players, catalytic agents, and government agencies with a particular focus on creating information flow within the ecosystem. Furthermore, it would plan events, run awareness campaigns, and generally seek to raise the profile of technology, innovation, and entrepreneurship in order to grow the ecosystem in each country. One major output would be a compendium or database of all players from all stakeholder groups in the target countries, as well as ongoing analysis of the needs and opportunities associated with certain players or groups of players. This could then be referred back to infoDev or to other donors, and may even turn into a donor and government knowledge platform if successful. This platform will be used to share viable local business opportunities with potential investors. It also serves as a centralized source of information on the legal, business, and regulatory environment for investors and entrepreneurs, including procedures and costing for registering a business, obtaining a patent, and more. |
| Applicability | ☒ Mozambique  
| Structure | Third-party expert firm would be hired to manage coordinated communications campaign:  
- Ongoing database of stakeholders from all groups  
- Industry events and coordination with existing associations  
- Advocacy to policy environment; formulation of publications endorsed by community |
| Resource Requirements | Remuneration for experts; office space in-country |
| Monitoring Requirements | Annual infoDev staff reviews tied to contract renewal, including feedback on performance from local stakeholders; integration into lessons learned |
| Adherence: GPs | Complementarity | + Builds on existing associations and communication functions, which do not exist on a community scale  
- Could displace/be redundant with some communications efforts, particularly those of existing networks (Asikana Network in Zambia) unless undertaken in collaboration with existing work achieved by these entities |
|---|---|---|
| | Alignment | + Builds community around sharing of perspectives, which could increase overall trust in the ecosystem  
+ Is an activity that would be very challenging to commercialize/monetize if its focus remains on the entire ecosystem  
+ Lays the foundation for an ecosystem-wide network and then sub-networks for entrepreneurs/investors/catalysts/mentors/etc. |
| | Preparation | + Helps entrepreneurs better understand potential investors through continuous exposure; inverse also applies  
- Could displace/be redundant with existing communications efforts |
| Adherence: CAs | Innovative | + Difficulty of measuring impact of communications campaigns in general makes them rare interventions, but infoDev has done this sort of activity successfully before  
+ Database of stakeholders does not exist; could become significant knowledge product with high value added for curious investors, catalysts, entrepreneurs looking for help, and so on  
- May not appeal to some donors who have other priorities |
| | Authoritative | + Would provide unprecedented depth of understanding of the ecosystems in each country  
+ Is a model with great scale-up potential in other countries  
+ Could feed in to other donor activities related to entrepreneurship development, and be used as a channel to monitor impacts/set baselines of other initiatives  
- Proving impact could be difficult with a weak in-country team |
| | Agile | + Could be scaled up or down quite easily; specific subsectors/subnational regions could be prioritized for higher focus without jeopardizing ongoing activities  
+ Would enable infoDev to gain direct feedback from the community it seeks to support on an ongoing basis  
- Could displace/be redundant with some communications efforts |
### Option 2: Royalties Model

#### Description
Through sustained advocacy, this option would build a common commitment among existing BDS providers to adopt a new business model that bases a substantial portion of their revenue stream on royalties gained by marginal increases in profits for the entrepreneurs/SMEs they advise (royalty of X percent based on difference between sales after BDS and sales before BDS for a certain period). This is in contrast to technical support fees (or equity), which has been the customary remuneration of BDS providers. Direct advocacy would be undertaken to BDS providers on the basis that reduced up-front costs to entrepreneurs would allow them to be perceived as more competitive, thereby stimulating demand for BDS. Policy advocacy may be necessary to ensure legal environment is conducive for collection of royalties. Some donor-focused advocacy may be undertaken in order to exert pressure through existing and ongoing grant support to BDS providers in-country.

#### Applicability
- ✔ Mozambique
- ✗ Zambia

#### Structure
Individual champions in each country would be supported through provision of salary and budget to lobby for change and to undertake pilot activities using the abovementioned model in the BDS market in both countries:
- To adjust current models in Mozambique
- To establish royalty-based BDS services as the premier model in Zambia

#### Resource Requirements
Remuneration for champions/lobbyists

#### Monitoring Requirements
Semi-annual or more frequent consultations with lobbyists in each country; establishment of success criteria for pilots

#### Complementarity
+ Complements innovative approaches taken by some BDS providers that have been undercut by fixed-salary BDS schemes
- Risks being perceived as a campaign to end the “gravy train” for supply-driven BDS providers, thereby necessitating a lot of energy and time to be invested in changing this mindset

#### Alignment
+ Royalty models are the best way to ensure alignment between catalytic agents and entrepreneurs on financial terms
+ Would demonstrate market orientation of other stakeholder groups to potential angel investors
+ Ensures top-quality BDS persists, and low-quality BDS exits the market

#### Preparation
+ Promotes practice of market norms and risk sharing in BDS/entrepreneur relationship, which would enhance entrepreneur’s capacity to negotiate with angel investors
+ Keeps the present cost of BDS down for entrepreneurs
- May cause a contraction in BDS providers in the near to medium term, thereby necessitating the establishment of strong incentive structures up front

(continued)
### Option 2. Royalties Model

<table>
<thead>
<tr>
<th>Adherence: CAs</th>
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<tbody>
<tr>
<td><strong>Innovative</strong></td>
<td>+ Would be the first of its kind in terms of a lobbying effort promoted by a development organization for change in business practices of private companies</td>
</tr>
<tr>
<td></td>
<td>- May run counter to current practices of many donors and both governments; may render some grant programs obsolete if successful</td>
</tr>
<tr>
<td></td>
<td>- Success relies on whether the right kind of incentive structure is in place (for both entrepreneurs and BDS providers)</td>
</tr>
<tr>
<td><strong>Authoritative</strong></td>
<td>+ Model has potential to lay the foundation for a sustainable, long-term impact in terms of stimulating the BDS market and providing entrepreneurs with much needed, consistent, long-term technical assistance and capacity building</td>
</tr>
<tr>
<td></td>
<td>+ Would take global name of infoDev straight into the ecosystem to advocate for more market-oriented practices to support the growth of entrepreneurship</td>
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<tr>
<td></td>
<td>- Proving impact could be difficult as a causal link between advocacy and increased provision of BDS</td>
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<tr>
<td></td>
<td>- May cause infoDev to lose political capital if intervention damages reputation of donors/governments</td>
</tr>
<tr>
<td><strong>Agile</strong></td>
<td>+ Could be rapidly scaled up and successful in a short period if lobbying was comprehensive</td>
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<tr>
<td></td>
<td>- Long-term impact on ecosystem could cause a transformation in the way donors support entrepreneurship and SME development</td>
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### Option 3. Entrepreneurship Boarding School

<table>
<thead>
<tr>
<th>Practicalities</th>
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<tbody>
<tr>
<td><strong>Description</strong></td>
<td>An end-to-end incubation facility where entrepreneurs spend a predetermined period residing and working at the facility. Intensive courses would be structured to ensure entrepreneurs’ commitment to professional growth. No up-front costs would be charged to the entrepreneurs attending, but postgraduation profit sharing/royalties could help to motivate facility staff. Failure to perform would result in expulsion from the program. Candidates for entry would be selected by referral from mentors/champions, through business plan competitions and the like. Participants would be provided with physical and financial inputs to ensure advancement through the EDP. “Graduation” from the program entails a fundable business and investor contacts.</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
<td>✗ Mozambique</td>
</tr>
<tr>
<td></td>
<td>✗ Zambia</td>
</tr>
<tr>
<td><strong>Structure</strong></td>
<td>A physical entrepreneurship institute would be established to provide residential incubation and ongoing “boot camp” for entrepreneurs from:</td>
</tr>
<tr>
<td></td>
<td>• Winners of business plan competitions</td>
</tr>
<tr>
<td></td>
<td>• Referrals from hubs and labs [such as BongoHive]</td>
</tr>
<tr>
<td></td>
<td>• Referrals from verified external mentors</td>
</tr>
<tr>
<td><strong>Resource Requirements</strong></td>
<td>Physical space, facility staffing, overhead cost subsidies</td>
</tr>
<tr>
<td><strong>Monitoring Requirements</strong></td>
<td>Annual or more frequent site visits; report cards and semiannual participant progress reports</td>
</tr>
</tbody>
</table>

(continued)
### Option 3. Entrepreneurship Boarding School (continued)

| Adherence: GPs | Complementarity | + Ensures full complementarity with hubs, labs, associations, and open competitions  
+ Ensures that the best candidates from each source are shepherded through [pre-] incubation  
- May displace/cause competition with other incubation programs, where they are active |
| --- | --- | --- |
| Alignment | + Promotes cooperation and alignment of early-stage catalytic agents and may provide reward schemes for their referral of high-quality participants  
- Does not inherently promote alignment of interests, but rather imposes alignment on entrepreneurs and forces them out of the program if they do not comply |
| Preparation | + Ensures full preparation of business concepts by robust teaching staff and curriculum upon successful graduates  
+ Ongoing pitching sessions to potential investors could be included as part of the program to further enhance preparation  
- Still may not ensure that entrepreneurs have that “special something”; takes a pedagogical approach to preparation |
| Innovative | + Residential approach would intensify the program and would also free up all focus of the entrepreneurs [no need to worry about basic needs]  
+ Pace of program could be quite fast if the curriculum is intensive; risk of expulsion serves to align interest of entrepreneurs  
- Physical incubation facilities have been tried by infoDev in Mozambique already, though they have not taken this exact approach |
| Authoritative | + infoDev would effectively be building a whole cadre of local business leaders if successful |
| Agile | + Could be marketed to top international business schools and other programs to build ongoing partnerships; forges new partnerships  
- Would be a long-term commitment with very high OpEx and CapEx; affords little flexibility over time |

### Option 4. Start-up Weekend Series

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<thead>
<tr>
<th>Description</th>
<th>World-class business start-up/boot camp events arranged in such a manner that entrepreneurs entering the program have to demonstrate achievement of predefined milestones between each portion of the class. Rigorous evaluation of the entrepreneur’s work toward the milestones by “boot camp cadre” would determine an entrepreneur’s continued participation. The series would culminate in a pitching session to pre-identified mentors, who would have agreed in principle to provide ongoing support to most of the program graduates.</th>
</tr>
</thead>
</table>
| Applicability | ☐ Mozambique  
☒ Zambia |
| Structure | A teaching team would be selected from world-class start-up coaching companies (e.g., UP Global) that have already developed curricula, materials, and networks to execute such training. Training would be structured to provide time for achievement of intermediary milestones by entrepreneurs. In-country mentors would be engaged to provide ongoing monitoring based on a predefined [and simple] monitoring template. |
| Resource Requirements | Remuneration for training company; in-country facilitation of meeting between international trainers and in-country mentors |
| Monitoring Requirements | Participation in some/all training events, ongoing semiannual or more frequent monitoring of graduates |

(continued)
<table>
<thead>
<tr>
<th>Adherence: GPs</th>
<th>Complementarity</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Builds on the work of hubs by providing the “next step” for advanced participants</td>
<td>+ Provides intensive training, but ongoing support postgraduation from mentors and other BDS providers will still be necessary [and undertaken by entrepreneurs]</td>
<td>- May displace/cause competition with other incubation programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alignment</td>
<td>+ Milestone demonstration approach ensures that entrepreneurs enrolled in program are applying what they learn and not simply benefiting from free classes</td>
<td>+ Pace of program could be quite high if the curriculum is intensive; risk of expulsion serves to align interest of entrepreneurs</td>
<td>- No-charge structure may diminish perception of value by some entrepreneurs, but this may be mitigated by having a closed application/selection process rather than simply opening enrollment to anyone interested</td>
<td></td>
</tr>
<tr>
<td>Preparation</td>
<td>+ Greatly accelerates the preparation of entrepreneurs</td>
<td>+ Builds on existing mentorship and builds confidence of mentors in entrepreneurs without forcing mentors to do it all themselves</td>
<td>+ Other investor interest may be piqued by raising the profile of the event [“best of young Zambian entrepreneurs,” and so on] and may convey a better standard of preparation to potential investors</td>
<td></td>
</tr>
<tr>
<td>Innovative</td>
<td>+ Stop-and-check structure requiring performance of enrollees is a new approach to BDS/acceleration</td>
<td>+ Pace of program could be quite high if the curriculum is intensive; risk of expulsion serves to align interest of entrepreneurs</td>
<td>- Has been done in varying forms already</td>
<td></td>
</tr>
<tr>
<td>Authoritative</td>
<td>+ infoDev would effectively be building a whole cadre of local business leaders if successful</td>
<td>+ Cases of successful business establishment could be quickly documented and demonstrated at the donor/WB level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agile</td>
<td>+ Adaptation of program would be relatively easy, and deployment to other country contexts would only be dependent upon identification of committed mentors; costs are scalable as well</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(continued)
### Option 5. Angel Investment Guarantee Facility

<table>
<thead>
<tr>
<th>Description</th>
<th>In order to catalyze investment, preregistered potential angel investors would be able to secure 25–75 percent downside protection (depending on overall “preparation” of investee) for a predetermined period on their investment through a guarantee facility. The guarantee would only be paid in the event of total failure and closure of the investee business. In the event of a successful business, the guarantee would expire after a reasonable period (18–36 months) and be recycled into the fund. Outstanding guarantees would never exceed the cash value of the facility. A third-party facility manager would operate the fund and be charged with all fiduciary and due diligence responsibility.</th>
</tr>
</thead>
</table>
| Applicability | ✗ Mozambique (but only for climate technology and innovative agribusiness)  
✗ Zambia |
| Structure | Initial grant capital would be structured as an in-country facility (preferably in local currency) and a blended international-local team would be hired to oversee fund activities. Interested investors would preregister and then bring their proposed investments, including terms to the facility for a guarantee. Facility management would not be remunerated on losses of the facility, but rather on success of guaranteed businesses and number of guarantees made per period. |
| Resource Requirements | Initial grant capital to fund facility and remuneration for facility management |
| Monitoring Requirements | Semiannual portfolio review and at least annual site visits/investor consultations |
| Complementarity | + Complements demonstrated interest of mentors/potential angels in Zambia by giving them some downside protection on future investments  
+ May engender more interest from other potential investors who are unaware of technology as a viable investment opportunity  
+ Provides intensive training, but ongoing support postgraduation from mentors and other BDS providers will still be necessary (and undertaken by entrepreneurs)  
- May detract from investor interest as it could be seen to imply that angel investments are too high risk to be done without guarantees |
| Alignment | + Seeks to entice investors to the table  
+ Has the added advantage of serving as an informal arbitration table to ensure that usurious investments are not guaranteed  
+ Provides quick support to potential investors, and encourages them to demonstrate such quick access to their social/professional networks (thereby building momentum for angel investing)  
- If the facility is not phased out over time, it may create a long-standing distortion in investor perspectives on the viability of technology investments |
| Preparation | + Promotes preparation of potential investors to actually make investments  
+ May help to leverage more sources of early-stage capital to entrepreneurs  
- Does little to promote preparation of entrepreneurs directly |

(continued)
### Option 5. Angel Investment Guarantee Facility

<table>
<thead>
<tr>
<th>Adherence: CAs</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Innovative</strong></td>
</tr>
<tr>
<td>+ Applies very high leverage guarantee structures to try to entice more investor behavior</td>
</tr>
<tr>
<td>- May appear like a “fund” to some stakeholders, thereby inciting internal criticism at the World Bank</td>
</tr>
<tr>
<td><strong>Authoritative</strong></td>
</tr>
<tr>
<td>+ If successful, this could catalyze a high level of investment with very low real costs (except if losses were high) and would generally raise the profile of angel investment as a viable investment activity</td>
</tr>
<tr>
<td>+ Cases of successful business establishment could be quickly documented and demonstrated at the donor/World Bank level</td>
</tr>
<tr>
<td><strong>Agile</strong></td>
</tr>
<tr>
<td>+ Facility structure requires revision of documentation to expand geographic and/or sectoral scope, provided similar linguistic/legal environments</td>
</tr>
<tr>
<td>+ Could be scaled to Mozambique by wholesale adaptation of model, if angel investment potential were more tangibly observed</td>
</tr>
</tbody>
</table>

### Option 6. Diaspora Investment Platform

<table>
<thead>
<tr>
<th>Practicalities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
</tr>
<tr>
<td>Establishment of a detailed IT system and web portal to build a knowledge base for diaspora investments, with the ultimate goal of mobilizing crowd-sourced equity and/or debt instruments to be managed by an affiliated in-country manager. The platform would feature investee profiles (akin to Kiva and IndieGoGo) accompanied with sound investment analysis provided by in-country manager. Would seek to build partnership with existing authorities, such as the Investment Promotion Centre in Mozambique and the ZDA in Zambia, in order to facilitate referral of interested investors. Would result in a comprehensive database of entrepreneurs with investment potential analysis for some profiles.</td>
</tr>
<tr>
<td><strong>Applicability</strong></td>
</tr>
<tr>
<td>☐ Mozambique</td>
</tr>
<tr>
<td>☒ Zambia</td>
</tr>
<tr>
<td><strong>Structure</strong></td>
</tr>
<tr>
<td>Initial development would be focused on building a tested IT platform; later structure would require the hiring of an in-country investment manager to identify and vet investment opportunities</td>
</tr>
<tr>
<td><strong>Resource Requirements</strong></td>
</tr>
<tr>
<td>Initial capital to build and maintain an IT system would be substantial; ongoing salary support to in-country investment manager may be phased as it moves over to a subscription fee and “finder’s fee” model based on volume of investments</td>
</tr>
<tr>
<td><strong>Monitoring Requirements</strong></td>
</tr>
<tr>
<td>Annual in-country supervisions and ongoing review of IT platform functionality</td>
</tr>
</tbody>
</table>

(continued)
<table>
<thead>
<tr>
<th><strong>Option 6. Diaspora Investment Platform</strong></th>
</tr>
</thead>
</table>
| **Complementarity** | + Complements and encourages existing diaspora interest  
+ Complements limited capacity of in-country investment promotion agencies to provide tangible opportunities  
+ May attract additional angel investors not part of the diaspora |
| **Alignment** | + Seeks to entice diaspora investors to the table  
+ Facilitates identification of opportunities that match the preferences of potential investors  
+ May allow diaspora investors to diversify through multiple investments and through different instruments  
+ Third-party investment manager, if properly incentivized, could ensure a palatable common ground between investors and investees (that is, builds trust) |
| **Preparation** | + Promotes preparation and access of diaspora investors, who may be more risk seeking  
+ Creating potential investee profiles may contribute to the preparation of entrepreneurs and could be used separately to pitch to domestic angels as well  
- Does little to promote preparation of entrepreneurs directly |
| **Innovative** | + Seeks to access crowd-funding approach to provide early-stage capital to technology entrepreneurs  
+ The IT system would be persistent capital—it could be adapted and applied to any context  
- May cause infoDev to start feeling like a software company, as much resources would have to be committed to building a great platform |
| **Authoritative** | + The instant access nature of the platform, as well as the inherent ease of monitoring quantity and type of investments, would be a huge asset to demonstrating impact to donors  
+ Cases of successful business establishment could be quickly documented and demonstrated through a public portal |
| **Agile** | + If successful, the IT system could be easily adapted for other markets  
+ Could eventually be sold as a commercial software suite to existing diaspora investment companies |
Next Steps

Putting the research gained through this assignment to work is the ultimate goal of this study. Hence, the next steps in the assignment are oriented toward building interventions that can be undertaken by infoDev to promote entrepreneurship in Mozambique and Zambia. While these options may not result in overnight transformation of the entrepreneurial ecosystem, particularly in terms of the provision of early-stage capital to start-ups, best options can be formulated to address existing gaps and leverage identified opportunities.

However, before best options can be prepared, the following next steps are necessary:

1. infoDev should review and critique the contents of this draft report in tandem with the interim report. Comments will be received and addressed by the consultant’s team, and any outstanding research gaps can be addressed through direct consultation with interviewees and further desk research.

2. The consultant’s team will then revise the final report, integrating comments and critiques received and presenting detailed best options for intervention. Best options will be presented against guiding principles and comparative advantages, and will be detailed in terms of resource requirements, structure, implementation timeline, monitoring requirements and risk mitigation measures. All options will also be presented in terms of their likely impact in maturing the ecosystem in each country. The final report will be submitted by November 11, 2013, and will be of publication quality.

3. A supplementary management report will be delivered that outlines confidential notes and guidance on key in-country partners.
Startups
- Afroes
- Appchemy
- Communications Alive
- Cornerstone
- EMS
- Phoenix ind
- Procure Perfect
- Sower Tech
- SpotIt

Welcome to the m2work Hackathon 15th-16th September 2012

Happy 1st Birthday to m2bsa!!!
Appendix A: Interviewees Matrix

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Contact Name</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mozambique</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USAID</td>
<td>Michael Jordan</td>
<td>Senior Adviser, Office of Agribusiness, Trade &amp; Business</td>
</tr>
<tr>
<td>World Bank</td>
<td>Isabel Neto</td>
<td>Senior ICT Policy Specialist Southern &amp; Eastern Region</td>
</tr>
<tr>
<td>Ologa</td>
<td>Mulweli Rebelo</td>
<td>CEO</td>
</tr>
<tr>
<td>IFC</td>
<td>Mario Gomes</td>
<td>Operations Officer IFC Sustainable Business Advisory/Africa - SME Management Solutions/Africa</td>
</tr>
<tr>
<td>Finnatia Consulting</td>
<td>Andre Nogueira</td>
<td>CEO</td>
</tr>
<tr>
<td>GAPI</td>
<td>Antonio Souto</td>
<td>CEO/Administrator</td>
</tr>
<tr>
<td>Idealab</td>
<td>Sarah Fakir</td>
<td>Co-Founder and Managing Partner</td>
</tr>
<tr>
<td>Building Markets</td>
<td>Stanley Chikakuda</td>
<td>Consultant Access to Finance</td>
</tr>
<tr>
<td>AgDevCo</td>
<td>Rui Santana</td>
<td>CEO</td>
</tr>
<tr>
<td>TechnoServe</td>
<td>Jane Crob</td>
<td>Office Manager</td>
</tr>
<tr>
<td>ICC</td>
<td>Henriqueta Hunguana</td>
<td>Founder and Managing Partner</td>
</tr>
<tr>
<td>Freelance Consultant</td>
<td>Tracy Wyman</td>
<td>Consultant</td>
</tr>
<tr>
<td>IPEME</td>
<td>Adriano Chamusso</td>
<td>Deputy Director General</td>
</tr>
<tr>
<td>BPartners</td>
<td>Rui Brandao</td>
<td>Founder and Managing Partner</td>
</tr>
<tr>
<td>Finland Embassy</td>
<td>Sirpa Sinervà</td>
<td>Counselor [Education and Innovation]</td>
</tr>
<tr>
<td>National Research Fund [FNII]</td>
<td>Michael Hughes</td>
<td>Consultant Program Coordinator</td>
</tr>
<tr>
<td>PSI</td>
<td>Benoit Renard</td>
<td>Marketing Director</td>
</tr>
<tr>
<td><strong>Zambia</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3C Development Management and</td>
<td>Christian Chileshe</td>
<td>Principal Consultant in Entrepreneurship Development</td>
</tr>
<tr>
<td>Entrepreneurship Experts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accion Frontiers</td>
<td>Michael Murai</td>
<td>Senior Investment Officer</td>
</tr>
<tr>
<td>Amaka Ya Bwingi</td>
<td>John Lukomona</td>
<td>Chairman</td>
</tr>
<tr>
<td>Asikana Network</td>
<td>Chisenga Muyoya</td>
<td>Founder</td>
</tr>
<tr>
<td>Bank of Zambia/Financial Sector</td>
<td>Musapenda Phiri</td>
<td>Project Coordinator</td>
</tr>
<tr>
<td>Development Plan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BongoHive</td>
<td>Lukonga Lindunda</td>
<td>Co-Founder</td>
</tr>
<tr>
<td>Company Name</td>
<td>Contact Name</td>
<td>Title</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>-----------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>Demo Africa</td>
<td>Hana Kefela</td>
<td>Project Manager</td>
</tr>
<tr>
<td>Dot Com Zambia</td>
<td>Mawano Kambeu</td>
<td>Founder</td>
</tr>
<tr>
<td>Fist Drive</td>
<td>Daryl Lukas and Francis Lombe</td>
<td>Partners</td>
</tr>
<tr>
<td>Innovations Against Poverty</td>
<td>Andrew Kambobe</td>
<td>Manager</td>
</tr>
<tr>
<td>Java Foods Ltd Zambia</td>
<td>Monica Musonda</td>
<td>Founder and CEO</td>
</tr>
<tr>
<td>John Ziba</td>
<td>John Ziba</td>
<td>CEO</td>
</tr>
<tr>
<td>Kilbracken Capital</td>
<td>Chipampe Mark Chibwe</td>
<td>Principal Zambia</td>
</tr>
<tr>
<td>Knox Organic Agro-research for Sustainable Development</td>
<td>Knox Mutale</td>
<td>Founder</td>
</tr>
<tr>
<td>Kukula Capital</td>
<td>Tue Andersen</td>
<td>Managing Director</td>
</tr>
<tr>
<td>Matt Chanoff</td>
<td>Matt Chanoff</td>
<td>Investor</td>
</tr>
<tr>
<td>Motivational Center for Africa’s Transformation (MoCAT)</td>
<td>Gilbert Banda</td>
<td>Managing Consultant</td>
</tr>
<tr>
<td>National Technology Business Centre</td>
<td>Yvonne Mtumbi Mulambwa</td>
<td>Innovation Promotion Specialist</td>
</tr>
<tr>
<td>NetOne</td>
<td>Bejoy Nettikadan</td>
<td>Founder</td>
</tr>
<tr>
<td>Renewable Energy and Natural Soaps</td>
<td>Mutoba Ngoba</td>
<td>Founder</td>
</tr>
<tr>
<td>Sarona Fund</td>
<td>Serge LeVert-Chiasson</td>
<td>Senior Partner</td>
</tr>
<tr>
<td>SNV</td>
<td>Thomas Were</td>
<td>Senior Economic Development Adviser</td>
</tr>
<tr>
<td>Southern Africa Innovation Support Programme (Finland)</td>
<td>William S. Mbuta</td>
<td>Country Coordinator Zambia</td>
</tr>
<tr>
<td>Start-up Junction</td>
<td>Matthew Grolinek</td>
<td>Founder</td>
</tr>
<tr>
<td>Tucuza</td>
<td>Irene Banda Mutilima</td>
<td>Founder</td>
</tr>
<tr>
<td>UNZA Techub</td>
<td>Chifungu Samazaka</td>
<td>Founder</td>
</tr>
<tr>
<td>Yandapps</td>
<td>Kelvin Aongola</td>
<td>Founder</td>
</tr>
<tr>
<td>Zambia Development Agency</td>
<td>Chola Abel Mwitwa</td>
<td>Manager – Planning and Policy</td>
</tr>
<tr>
<td>ZamRize</td>
<td>Antony Haankwenda</td>
<td>Manager</td>
</tr>
<tr>
<td>Zaneyo</td>
<td>Rodney Katongo</td>
<td>Executive Director</td>
</tr>
<tr>
<td>ZICTA</td>
<td>Kango Mbewe</td>
<td>Economist</td>
</tr>
<tr>
<td>Zoona</td>
<td>Mike Quinn</td>
<td>CEO</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Angelhub</td>
<td>Wesley Lynch</td>
<td></td>
</tr>
<tr>
<td>Homestings</td>
<td>Eric Guichard</td>
<td>CEO</td>
</tr>
</tbody>
</table>
Appendix B: Mozambique Support Landscape

The government of Mozambique has several programs and/or activities aimed at supporting SMEs in the tech landscape. Most of the programs are public/donor-driven and offer links programs, incubators, hubs and labs, training and technical assistance. The privately driven ones are mainly business service centers, consulting and associations, and are targeting relatively more mature entrepreneurs. These services include financial literacy, business skills such as marketing and advertising, and management skills. The main categories of catalysts in Mozambique are (a) government and donor-funded technical assistance, (b) private business developer services, and (c) private business associations that directly provide support. Currently there is no formal pipeline for incubating an idea all the way to a fundable business.

Government and Donor Funding

This group of catalytic agents are the most diverse and numerous in the ecosystem. To date, the main focus has primarily been to respond to demand created by megaprojects through business link and value chain programs. IFC’s Mozambique SME linkages program (Mozlink I and II), which followed on Mozal’s Investment Promotion Centre (SMEELP) program (2001–2002), has been in operation since 2003 and is considered the country’s flagship linkages program. IFC also provides an online tool kit for an entrepreneur. IFC also provides more specific training via its Business Edge program, which provides training of trainers for 59 courses developed by IFC and adapted for local context. They also provide 16 hours of technical assistance to SMEs that qualified for the Mozal program.

The government has also created two agencies to stimulate entrepreneurship: IPEME (Institute to Promote SMEs) and CPI (Investment Promotion Centre). IPEME provides training and technical assistance, with centers in Maputo, Chimoio, Tete, and Pemba, and a fifth center soon to be operational. IPEME also launched and manages an incubator in Machava that is partially funded by the European Commission. Finally, IPEME also organizes fairs and communication campaigns particularly to raise awareness about a government fund created to provide low interest loans to MSMEs. CPI promotes innovation, expansion of domestic investment, development of infrastructure, and facilitation of the development of SME through inclusive joint ventures. CPI also explores private and public partnerships with national participation.

In the technology sector, there are several ongoing initiatives, such as mobile application contests and initiatives to create incubators. The most active program is the SAIS Programme funded by the Finnish Ministry of Foreign Affairs (MFA), currently in Botswana, Namibia, Zambia, and Mozambique. Locally, SAIS is hosted by the Mozambique Information and Communication Technology Institute (MICTI), a public agency promoting innovation in ICTs. So far, SAIS has organized a mobile application contest with USAID. They have also founded a partnership with the Korean Electronic Technology Institute (KETI) to create a training program on mobile application development with a contest where the winner will earn a grant. The partnership also provides ongoing training on development of management skills to students and graduates in the technology-related university program.

There was an attempt in 2011 that is still pending with the Ministry of Science and Technology (MCT), World Bank, and Finnish Embassy to create an ICT incubator in Maputo. The project is on hold since then due to numerous reasons, including stringent procurement requirements and conditions from the World Bank. For example, stakeholders indicate that the government had to provide a large
space at no cost to the incubator for at least a 10-year period. In the meantime, the MCT has created a “Tech City” 65 kilometers away from Maputo, financed by the Indian government, with a USD 80 million building. An ICT incubator will be part of this project, but implementation is on hold due to the appointment of a new minister last year.

There is a real motivation to promote technology among all actors in the ecosystem, and the catalytic agents could play a vital coordination role to bring the demand and supply together to create a solid development path. However, stakeholders indicate that the main barriers preventing this are the government bureaucracy and nonexistence of coordination and integration between actors due to different objectives and strategies that result in disjointed, less impactful initiatives.

**Private Business Service Developer**

Many formal and informal suppliers of business development services exist, even in rural areas. However, these entities are not currently meeting the needs of the MSMEs. Stakeholders representing this group indicate there is a real need for longer-term capacity building and technical assistance on financial literacy, booking, legal advice, auditing marketing, and sales support. Ideally, this training would be provided by an experienced person who would provide mentoring or guiding that does not exist today at the price that entrepreneurs would be willing to pay. However, stakeholders indicate that entrepreneurs see little value added in BDS services. Furthermore, stakeholders indicate that the provision of BDS to entrepreneurs is almost entirely donor driven. They link these two issues, indicating that heavy donor subsidization of BDS and capacity building deflates the perceived value of BDS by entrepreneurs and similarly propagates expectations for cheap or free BDS, if it is sought at all.

Other stakeholders indicate that BDS and consultancy firms do provide critical services but are too expensive for an early-stage entrepreneur. The megaprojects and international institutions in such a small economy have distorted the market, and BDS is not an exception. Most services are priced at international standard prices, leaving local entrepreneurs without affordable options for BDS services.

**Private Business Associations**

A few functioning business associations (for example, Associação de Comércio e Industria, or ACIS) offer the potential for sustainable facilitation mechanisms to complement support from public institutions. ACIS, in particular, is setting up an online procurement platform, organizing fairs and conferences on specific topics, and creating an extensive database of companies existing in Mozambique. These associations are actively collaborating with government and donor programs to link the existing businesses of Mozambique to high-growth potential entrepreneurs.
Appendix C: Zambia Support Landscape

Under catalytic agents, the predominant groups are tech communities, tech hubs, business associations, and government and donor-funded technical assistance programs. There are also individual mentors and diaspora networks that provide some type of support. Catalytic agents in Zambia provide fragmented business support services in the absence of pre-incubators, incubators, BDS providers, and shared workspaces. The assumption is that they are creating demand for BDS services so that entrepreneurs themselves will learn to value these services enough to pay for them. The major shortcoming in this category of actors is the absence of a comprehensive stage-by-stage capacity-building approach that would support innovators through the entrepreneurial development path.

The tech landscape is populated with “catalytic agents” that provide business support services in the absence of pre-incubators, incubators, shared space and BDS providers. These services include financial literacy, business skills such as marketing and advertising, and management skills. The main categories of catalysts are (a) community-led capacity building, (b) government and donor-funded technical assistance, (c) individual mentors, and (d) diaspora networks that directly provide support. Currently there is no formal pipeline for incubating an idea all the way to a fundable business, and many respondents suggest with better structured business support entrepreneurs will be able to develop fundable plans.

Community-Led
The burgeoning tech community in Zambia is comprised of business associations, community organizations, tech hubs, labs, and thematic networks such as Asikana Network, ZANEYO and Global Shapers Network. They are all engaged in community building and networking activities with successful entrepreneurs, businesses, and industry experts. These entities also facilitate technical and business capacity through trainings, collaborative projects, and hackathons. They also have the potential to serve as matching instruments between clients and entrepreneurs and also lobby for policy changes.

Government and Donor Funding
This group of catalytic agents are the most diverse and numerous in the ecosystem. It includes individuals, for-profit businesses, and nonprofits who are all engaged to directly supply capacity building and technical assistance. Financing for such activities is usually channeled through programs and funds and disbursement is tied to pre-conditions and reporting requirements. Critics argue that some initiatives have displaced (or prevented) the existence of a BDS market by offering free services and have thus devalued the quality of the service/product. Examples of such initiatives include Innovations Against Poverty and the Southern Africa Innovation Support Programme.
Individual Mentors

Mentors serve as catalytic agents and perform some of the tasks of pre-incubators and incubators, including guiding the entrepreneur on various issues, including proofs of concept and business plans. This is expected to improve the viability of the mentee’s business idea and access to seed financing. Some individual mentors encountered include Christian Chileshe of 3C, Irene Banda Matalima of Tucuza, and John Ziba who owns several businesses in Zambia.

Diaspora Networks

Zambians living abroad, particularly those in the United Kingdom, are actively seeking investment opportunities in Zambia. One network based in London, Amaka Ya Bwingi, is working in collaboration with the ZDA to organize meetings and conferences among diaspora professionals and locals. Using a vehicle of capacity building, the network facilitates exchange of information, know-how, and technical skills with a view to investing in the future.
Angel investor – Refers to any individual who invests his or her money in an entrepreneurial company (unlike institutional venture capitalists, who invest other people’s money). The angel may provide capital to one or more start-up companies and takes a personal stake in the success of the venture. Such investments are characterized by high levels of risk and a potentially large return on investment. For the purposes of this assignment, any arrangement of angel investors, whether individuals, networks, or formalized syndicates, are represented by the term angel investor[s] to more define their role in the ecosystem rather than the precise nature of how they are organized.

Impact investor – Refers to investment with the ex ante intention of generating a positive development impact (either a social or environmental return), along with a financial return. A social return or positive environmental impact is targeted and then the outcomes are measured and monitored throughout the lifetime of the investment. There are typically two types of impact investors: financial first investors and impact first investors. The primary objective of a financial first investor is to maximize financial returns while achieving a minimum social and/or environmental impact. These investors seek to achieve competitive returns consistent with other investment options. In some instances, the hurdle rate for investors may be defined by existing regulation and requirements for specific types of investments. For impact first investors, the primary objective is to achieve a positive development impact through social and/or environmental returns while yielding some level of financial returns. These investors are generally in a position to accept higher risks to reach the targeted development impact with a willingness to accept financial returns that are lower than market. Types of investments may include infrastructure projects that benefit the “base of the pyramid,” climate-friendly projects, and projects where there is significant and sustainable job creation, such as microfinance, and so on.

High growth – The qualitative notion of high growth is applied in the context of selection of entrepreneurs to be further examined in this study. As such, the priority is on new ventures or new business functions of existing MSMEs that show a high potential for rapid growth. A secondary aspect, though difficult to prove, is that this growth is both profitable and sustainable. Two key criteria are to be considered. First, the new venture should be clearly defined with an articulated business plan rather than a vaguely defined business concept. Second, the growth potential should be articulated in terms of market saturation prior to the entrance of the entrepreneur and whether the venture addresses a verifiable market gap or niche. Entities that do not qualify under these terms, while potentially viable in other sectors such as retail, are deemed to not be considered in the assignment. Some previous economic studies have proposed that only enterprises at the expansion stage are undergoing “high growth.” However, following the objectives of this assignment, it is critical that examination not be limited to established companies at growth stage (that is, no longer in research and development or product design/prototyping); in other words, high growth is defined as both demonstrated and potential high growth. It is duly noted, however, that potential high growth is theoretical and therefore cannot be ascribed definite criteria.

Innovator/potential entrepreneur – An individual or team of potential entrepreneurs who has

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2 From the infoDev ESIF Concept Note, forthcoming.

3 From Multilateral Investment Fund and Compete Caribbean, Supply and Demand Side Assessment of Impact Investing within the Caribbean, 2011.

identified a solution to be explored, but who has not yet formalized the idea into a commercially viable business concept.

**Technology entrepreneur (TE)** – For the purposes of this study, a technology entrepreneur is defined as an entrepreneur and existing MSME that is seeking unsecured financing in order to establish or grow a line of business that can be considered to fall under one or more of the following categories: information and communication technology (ICT), climate technology (CT), or innovative agribusiness (IA). These subsectors are further defined below; however, it should be noted that enterprises engaged in both the provision of services and/or products are to be included in the study.

**ICT entrepreneurs** – For the purposes of this study, TEs engaged in the ICT sector category hold, as a primary business function, the provision of information and/or communication technology as either a product or a service, including software as a service. Provision of ICT as a product can either be undertaken as an importer/distributor or as a manufacturing function, but does not include retail distribution of already-present technology, such as GSM telephones. The provision of ICT as a service can either be related to the provision of connectivity/subscriptions or the service and support related to upkeep of ICT equipment. Furthermore, the category also includes enterprises that develop, distribute, service, or sell new software and/or provide software as a service. In general, the study should focus on innovative approaches to provision of ICT as either products or services, as innovation and first-mover types of businesses are more likely to qualify as “high growth.”

**Climate technology (CT) entrepreneurs** – Climate technology is defined as those business ventures whose core functions are to exploit natural resources as a key input to provision of products or services to clients. The preference is for the exploitation to be of renewable resources. However, products or services that enhance the efficiency of exploitation of non-renewable resources may also be included should these types of businesses be prevalent in either focus country. Again, this category includes the manufacturing, distribution, and installation of products as well as any services, including, for example, energy auditing.

**Innovative agribusiness (IA) entrepreneurs** – These entrepreneurs are notionally a subcategory of the CT group, as they provide products and services whose core function relies in the enhanced provision of cultivated plant and animal products (which are inherently renewable). This is particularly true wherein a core business function is related to the production and/or distribution of energy from a primary or secondary output of agricultural processing. For the purposes of this study, the scope of IA entrepreneurship is limited to the upstream side before final processing and packaging; hence, innovative approaches to distribution of end user products are not considered, as these business functions are more within the retail distribution subsector.


Microfinance in Mozambique, Achievements, Prospects & Challenges.


RisCura (Pty) Ltd. 2013. “Introduction to Private Equity: Straight advice from an independent perspective.” Private Communication.


