

OUR INCUBATOR

**10
LESSONS
LEARNED**



Table of Contents.

<u>Introduction</u>	01
<u>What Do We Mean by Our Incubator</u>	02
<u>How Does Our Incubation Cycle Work?</u>	03
<u>Financial Market Development Benefits of Our Start-ups/Scale-ups</u>	04
<u>10 Lessons Learned</u>	06
<u>Conclusion</u>	19
<u>Feedback Contacts</u>	20
<u>Supporters of the Incubator and Project Companies</u>	21

Introduction

Our 'Lessons Learned' document is designed to share our experience in creating new financial sector start-ups within our in-house incubator.

Our incubation centre Frontier Finance Solutions establishes and supports innovative businesses focused on addressing the most pressing needs and risks within local financial markets in developing countries. Cardano Development projects/portfolio companies are supported by **KfW** on behalf of the **German Federal Ministry for Economic Cooperation and Development (BMZ)**, **UKAid**, **The Netherlands Ministry of Foreign Affairs**, **Shell Foundation**, **FSDA** and **PIDG TAF**.

This document aims to showcase our challenges, as we continue our mission to empower frontier economies. We are hoping to draw responses from our peers, and help others in similar situations, to collectively enhance our effectiveness.

What do We Mean by Our Incubator?

One of **Cardano Development's** (CD) primary tools for innovation is our incubation centre, Frontier Finance Solutions. Since 2017, CD's incubation hub manages the development of innovative business ideas that have financial market development and local currency finance (LCY) at the core of their mission.

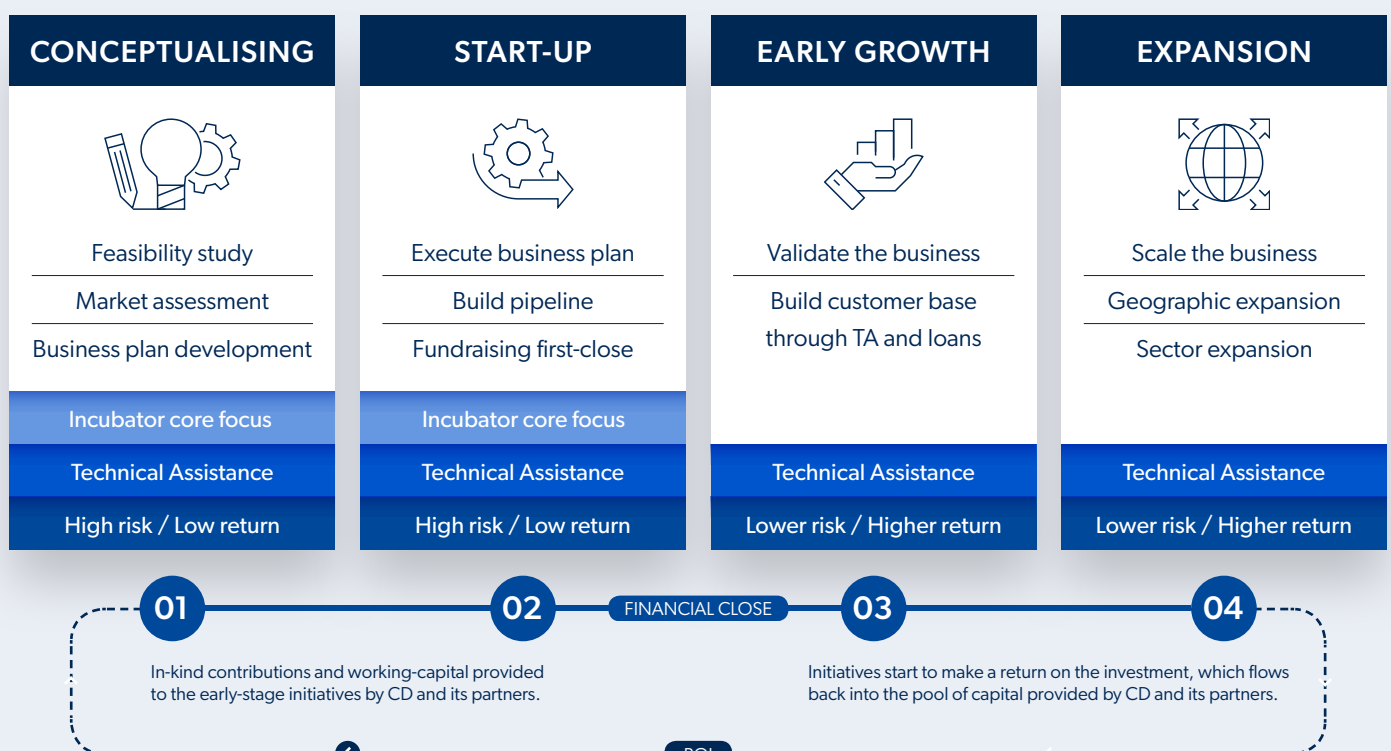
What makes our incubator 'one of a kind' is the selection of scalable innovations that we engage in, mobilising the network of financial actors who share our development mission. Together with multiple public and private investors, we support our start-ups from conceptualisation to expansion.

This has resulted in the co-creation of our start-ups and scale-ups with significant seed funding from investors. The innovative approach and deep trust established within our investor network continues to support our current and future start-ups, which are unique in addressing financial market development in emerging and frontier markets.

How Does Our Incubation Cycle Work?

Our business incubation cycle is explained in our ‘virtuous cycle of growth model’ (see chart 1). It displays the different stages of incubation that CD start-ups undertake. For example, Cardano Development assumes the highest risk during the first phase of conceptualisation of business concepts. Risk-capital is then acquired from donor agencies and impact investors in the start-up phase. Once business concepts have been validated, larger investors such as Development Finance Institutions (DFIs) join the cycle. When start-ups begin to make profits, dividends flow back to CD for further innovation and the development of future concepts.

Chart 1



Our Start-ups and Scale ups




Cardano Development has several start-ups currently at different stages of the incubation cycle. Each initiative contributes to financial market development in frontier and emerging markets. We also have several established businesses that were scaled through our unique incubation process. All of our companies and start-ups have strong connection to all the SDGs, with an overlapping link to SDG 17 Partnerships for the Goals. Our overall mission is to boost inclusive, sustainable and resilient economic growth.

All Cardano Development companies have an overlapping link to SDG 17.



START-UP

MARKET DEVELOPMENT BENEFITS

	<p>IMFACT A fintech initiative, using factoring to provide working capital for SMEs in frontier markets.</p>	<p>Easily accessible financing for SMEs, through factoring at lower interest rates than what is currently available in developing and frontier markets. Contributes to the UN SDGs, specifically SDG 1,3,9 and 17.</p>
	<p>ILX FUND An SDG targeted emerging market credit fund.</p>	<p>ILX Fund will act as an aggregator which will invest in a diversified portfolio of loan participations of leading multilateral and bilateral DFIs. ILX Fund aims to contribute to most SDGs with a focus on SDGs 2, 3, 4, 6, 7, and 9 at the strategic sector level and SDGs 5, 8, and 13 at the cross-sector level.</p>
	<p>WATER FINANCE FACILITY (WFF) Unlocking domestic capital markets to finance water and sanitation infrastructure.</p>	<p>WFF arranges financing for creditworthy utilities to improve water and sanitation services in developing and emerging countries. Contributes to the UN SDGs, specifically SDG 6 and 17.</p>
<p>CD Savings</p>	<p>NASASA CD Is a member owned financial institution for low-income group savers in South Africa.</p>	<p>NASASA CD aims to build and manage a cooperative bank for Stokvel savers that will provide savings products with decent interest rate returns through inflation-linked bonds. Contributes to the UN SDGs, specifically SDG 1, 5, 8 and 17.</p>

SCALE-UPS

MARKET DEVELOPMENT BENEFITS

	<p>FRONTCLEAR A financial markets development company.</p>	<p>Frontclear provides guarantees to enhance inter-banking collateralised trading in frontier economies. Contributes to the UN SDGs, specifically SDG 1, 8 and 17.</p>
	<p>BIX CAPITAL Scaling up finance for essential household products.</p>	<p>BIX Capital provides medium-term working capital debt to companies in the value chain to provide households in developing countries with essential products such as improved cookstoves. Contributes to the UN SDGs, specifically SDG 1, 3, 5, 13 and 17.</p>

DISCONTINUED INITIATIVES

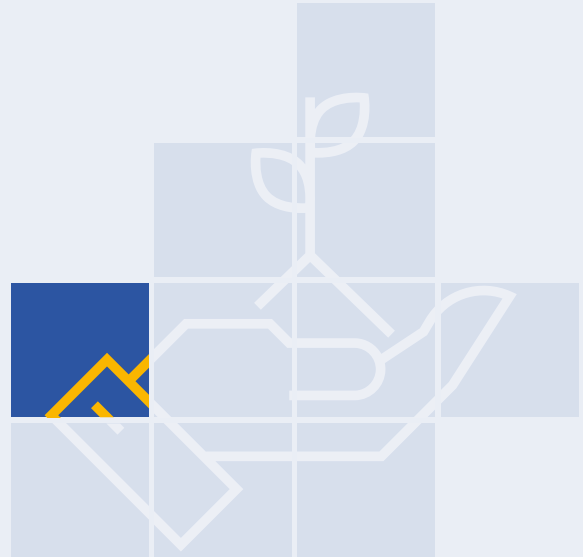
MARKET DEVELOPMENT BENEFITS

<p>MANTIS</p>	<p>MANTIS Marketing macro-economic data for frontier countries.</p>	<p>Mantis was aiming to service frontier investors with comprehensive macro-economic model prediction tools, as maintained by TCX' partner OG Research. It was discontinued due to a lack of demand during a trial period.</p>
<p>COIN RE</p>	<p>COIN RE Financing concept for small-holder farmers in Sub-Sahara Africa.</p>	<p>Coin Re was working with a regional offtaker of agriculture products to develop a comprehensive financing tool (including funding, commodity price risk mitigation and crop insurance). It was discontinued due to lack of funds to maintain the initiative.</p>
<p>FRONTIER FINANCE.NET</p>	<p>FRONTIERFINANCE.NET A social platform for development finance professionals.</p>	<p>FrontierFinance.net was aiming to provide development finance specialists with a closed (private) platform. It was discontinued due to lack of sufficient interest by the target audience; however, the funds were diverted into new communications projects and the audience migrated to CD platforms.</p>
<p>BOURSE AFRICA</p>	<p>BOURSE AFRICA A pan-African commodity and currency exchange.</p>	<p>Bourse Africa intended to establish a regional commodity and currency exchange in Botswana. CD terminated its participation following governance complexities leading to delays in development.</p>

10 LESSONS LEARNED

- 1 Fit for Market
- 2 Data for All
- 3 Risk and Rewards for Innovating
- 4 Systems Support
- 5 Think Global Act Local
- 6 Impact on Our Terms
- 7 Building Capacity
- 8 Political Cycles and Pre-empting the Next Trend
- 9 Dynamic Project Management
- 10** Work with Local Markets on Local Currency

Fit for Market

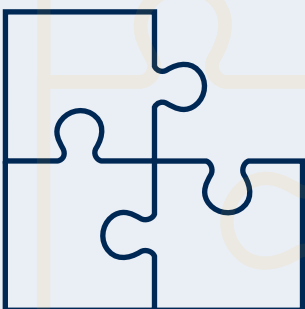


A key driver to our success is our ability to assess market readiness for a given innovation, in partnership with stakeholders and local investors. We are client-driven in our approach and carefully assess the demand and quality of the product potential.

In some cases, market stakeholders are willing but not ready to absorb new financial products. Sometimes it may be very elusive to accurately assess the demand for, and even more frequently, predict the acceptable price point, for a novel product. In the past, certain new ventures have suffered from overly optimistic expectations of real demand or willingness to pay. In other cases, we have aborted early initiatives to wait until a market can be more clearly defined.

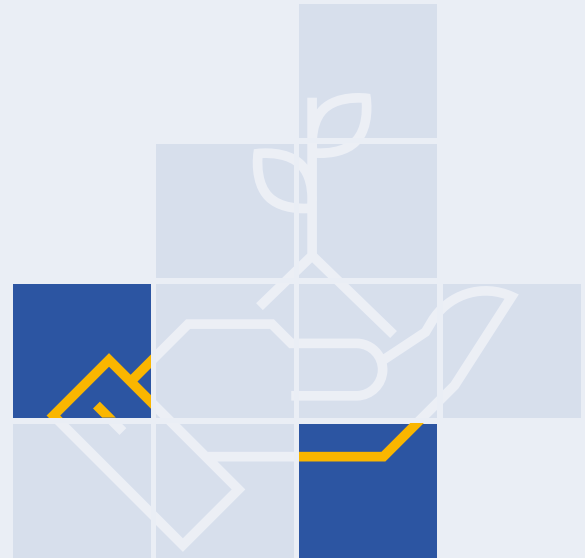
When managing innovation in illiquid markets, we try to optimize the search for existing data and engage with our network of partners to assess demand, however we have learned that this rarely leads to real and dependable certainty. After much analysis, the main go-no-go decisions still require a high degree of intuition. Our experience is that most money spent on detailed market overviews and consultancy reports may at best lead to confirmation of earlier expectations rather than materially reduce start-up risks.

In sponsoring the introduction of new products in a given market, we therefore mainly lean on our advanced internal knowledge and on feedback from our vast network of local and international operational partners whom we ask to critique our plans and point out possible fatal flaws. A very tangible lesson learned has been to speed up the time to market as much as possible to test the product where possible, as this provides by far the best intelligence. A key indicator for start-up success in a given plan is therefore the possibility to reduce project lead-time, to reduce risk and complexity in the development process. Pilot phases, where they can be built into the project design, are thus essential to show commercial and technical viability during the proof-of-concept phase. The result achieved in these smaller initial steps can also be tremendously helpful to inform the engagement with investors and an atmosphere of progression to prevent start-up fatigue in our teams.



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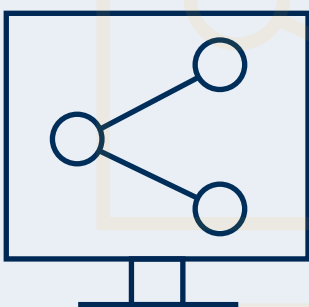
Data for All



In many frontier and emerging markets there is a lack of public market data to adequately conduct risk management, valuation, and pricing. As a result, the design of a risk appetite framework is often conducted in a vacuum, so that only investors with a high-risk appetite for the “known unknown” risks can support the first step in creating a new product.

Recognising the need for a better, quantified approach, CD has fine-tuned its ability to gather data and design financial risk-management tools to create solutions that work in in-transparent, illiquid environments. Our companies all function on such risk management models, feeding into expert judgement decision-making. The design of these models uses highly expert experience and detailed thinking, but often results in relatively simple outcomes that make sense in a data-poor and macro-economically unstable environments.

We are deeply convinced that proper financial market development can only occur with more data becoming available publicly. (Prospective) investors need to benchmark the opportunity in emerging and frontier economies against their alternatives and assess risks and rewards quantitatively. We therefore try to maximize disclosure of our data into the public space. For example, CD group company **TCX Fund** plays a significant role in the market development of local currency products in frontier economies by disclosing the data of the local currency (LCY) loans it hedges; it recently launched the world’s first **frontier currency index** for this purpose. CD Group companies GuarantCo and ILX Fund rely on the **GEMS database** to quantify its credit risk, capital adequacy and valuation models. Despite our efforts, most information in our markets is still too proprietary and undisclosed and as a result perceived investment risk remains unnecessarily high, with the consequence being a lack of interest from mainstream investors.



When we look to the future, our goal is to mobilise private capital in support of our start-ups and working capital for our established businesses. Therefore, we need the financial development sector to be more open about what investment track record development banks and donors are experiencing in their transactions. Greater access to data will bring perceived risks more in line with actual risks and make it easier for the private sector to be crowded into transactions.

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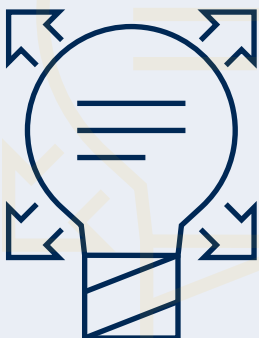
Risks and Rewards for Innovating

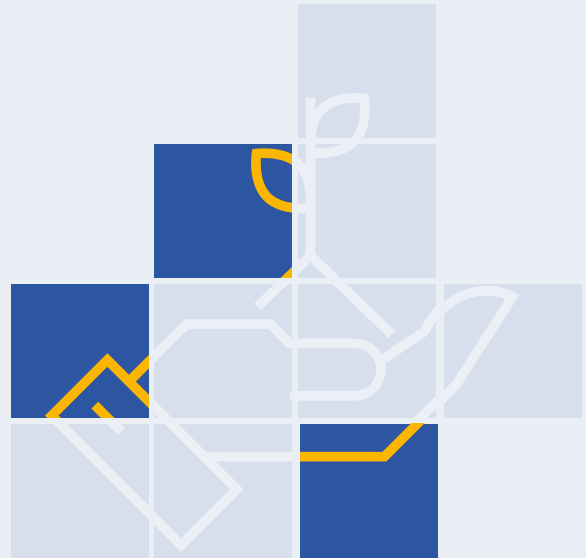


Innovations in frontier markets face a number of daunting risks. On top of the usual business risks associated with businesses in unstable economies, start-up risks also include uncertainty of demand and acceptability of price, associated uncertainty on the growth trajectory to expect and the time to break-even, as well as the more usual untested nature of the management. As a result, the first mover advantage that is usually associated with innovation can sometimes be overshadowed by the first-mover disadvantage of the pathfinder initiative.

The combination of high risk and uncertain rewards means that we most often have to depend on high-risk grant funding or (very) patient capital in the development phase. CD takes a unique approach when seeking seed capital and has developed symbiotic partnerships with several donors/investors that have a higher risk appetite than others.

These kind of investors can be difficult to find, especially during the conceptualisation phase where the business concepts are not yet fully developed. Our standard approach is to fund the early conceptualisation of any new idea from internal resources, seeking external funding from various partner institutions in later phases of development in accordance with their risk appetite. We also have developed the capability to participate in the initial cash capital round of new companies, alongside our sweat equity, as this co-investment strategy reinforces the 'skin in the game' that investors like to see from business developers. With this approach we have found investors are quicker to get on board in the investment process.



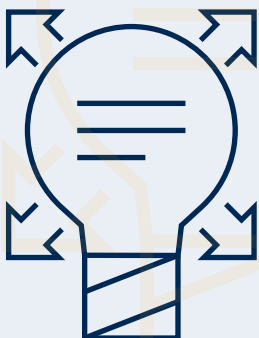


In the case of CD's start-ups, they have a 'slow burn' effect in the market. Therefore, when exploring new markets with investors, we have learnt there are four key considerations that our funding partners display when they support our start-ups:

- Understanding of the markets we operate in, to be able to judge the additionality of our efforts.
- High risk appetite and low expectation of "proof of concept" in the initial stages, engaging based on trust in our ability to achieve success.
- Patient capital with low return expectations in the initial stages, understanding and appreciating the first mover disadvantages.
- Strategic investments based on achieving impact related goals, including an urgent desire to see financial markets thrive.

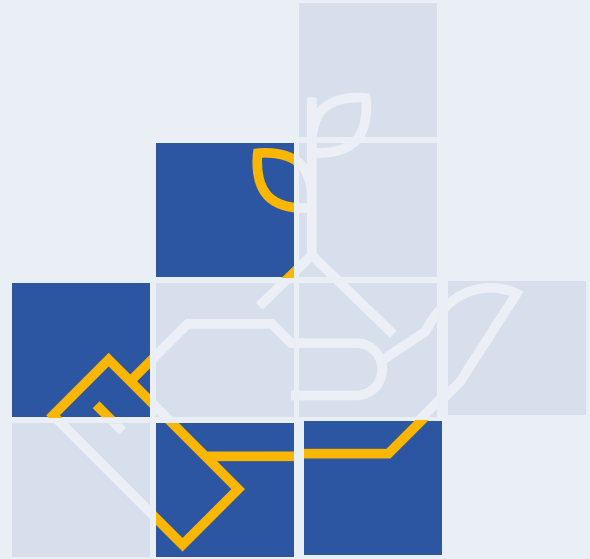
These considerations set the stage for our biggest success to date, the **TCX Fund**. Since its launch almost fifteen years ago, this company is still the only local currency finance (LCY) hedging solution in the marketplace. There has been a great impact return for investors that understand and appreciate risks and rewards.

However, these 'missing middle' investors who understand the environment we work in and are willing to take these start-up risks are scarce. Even working with DFIs, which have a limited risk-appetite, can be challenging when developing new business concepts. Looking back, we have found that finding investors that align with our four considerations and who have long-term vision are best suited to our style of investment.



4

Systems Support



In our experience, one of the significant risks start-ups face is the lack of attention given to efficient administrative, communications, financial, fundraising, and legal support systems, especially in the period immediately following first close. At this point all attention is focused on commercial start-up and achieving early business success. However, all non-commercial functions are equally important, also in this phase. Not only is the administrative functioning always a pre-requisite of success, but also the neglect in the early start means that the team may not be able to sustain growth later.

In our experience the best model is to allow the core team to pursue the most pressing commercial targets and provide support from a separate and dedicated support team, to not overwhelm and distract teams with administrative and transaction-based tasks. This avoids spreading management attention too thinly, with the risk of costly mistakes further down the line.

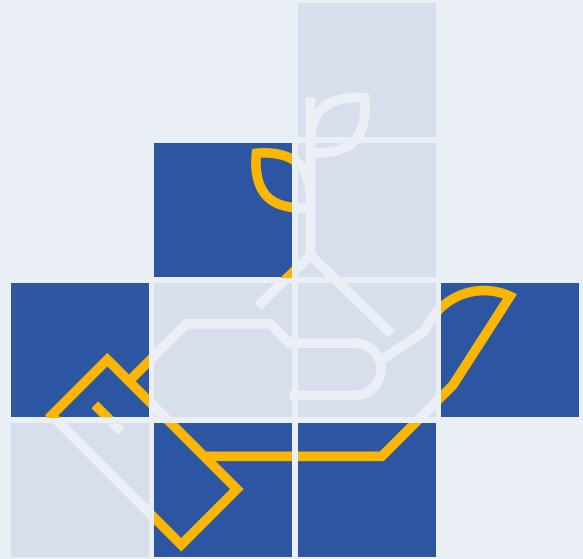
In particular, for replicability and scalability, a state-of-the-art back and mid office with 'real time' technology is crucial for start-ups from the day that transactions start. Through our closely associated company **DLM Finance**, CD provides comprehensive risk management and administration/reporting support to our start-ups. This unique tailored assistance seamlessly manages the entire investment cycle through DLM's Trade Manager Interface. It actions back and mid-office processes, such as deal management and valuation. When start-ups are in the proverbial 'grind', DLM Finance has been a major asset in simplifying processes specifically for financial services operating in emerging markets.



Another frequent distraction for teams immediately after capital first close is the need to seek further capital, either because certain funders have not concluded their processes or because the venture needs further funds for growth. This can be a substantial distraction to the team's senior executives and is also best managed with external dedicated support.

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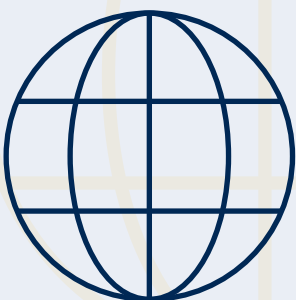
Think Global Act Local



CD has multiple strategic partnerships with **The GIIN**, **Convergence Blended Finance**, universities, DFIs and commercial financial institutions who are key for our learning, sharing and advocating for developing local currency markets. We operate through the lens of a shared network of DFIs, banks and other financial-sector organisations and they participate in our innovations through co-creation, seed capital or as start-up clients.

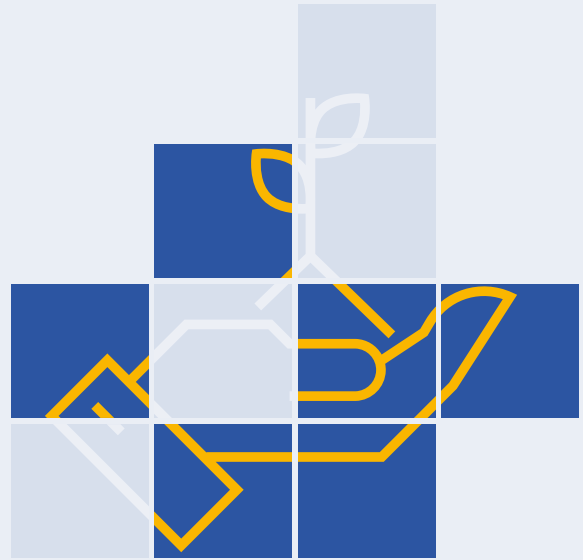
We believe that our multi-stakeholder financial eco system network, strongest in sub-Saharan Africa (SSA), has been fundamental for our success. Without our local network, CD would not be as well positioned to reach out to commercial stakeholders, regulators and ratings agencies.

We believe that access to networks is an important risk-management tool when facing obstacles in the start-up phase. CD has embedded local financial market representatives into its start-up supervisory boards who have addressed bottlenecks which are highly specific to the local environment. By operating in this manner, we build knowledge in the sector and create a live network of supportive local players who are willing to partake in the development of their market.



6

Impact on Our Terms



For CD, there are challenges in articulating the impact objectives of our start-ups in terms of outcomes for the real economy, due to the financial market focus and the systems change approach we take. The traditional impact frameworks used by our key funders, donor agencies and DFIs, desire to see impact formulated in e.g. jobs created or CO2 emissions avoided. In the case of financial market innovation however, such indicators fall short of our target and do not represent the value of a system change in financial markets. We prefer to work with our stakeholders to try to formulate alternative methods that works for us and the economies we serve.

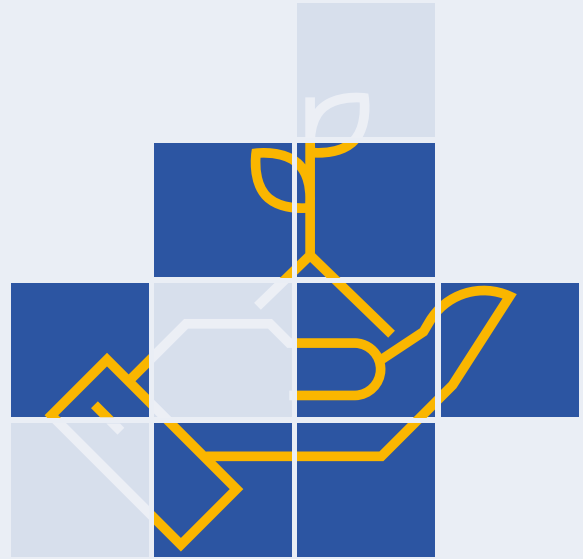
Currently we are testing our impact measurement through a more tailored impact matrix created to fit our mission and strategy. We formulate our impact through our **Theory of Change (ToC)**, where we have defined five pillars of CD's business characteristics including risk management, risk capital, systems support, networks and people and technical assistance. We explain the primary and secondary effects these characteristics have on financial markets. Our ultimate goal is to accelerate financial market development and to boost inclusive, sustainable, and resilient economic growth.

We also measure behavioural changes in financial markets. Our goal is to see people change their behaviour as a result of our innovation. For example, the microfinance industry materially adjusted its attitude to currency risk within 5 years of **TCX'** existence, with demonstrable causality based on frequent case studies and interviews. One of the issues in measuring behavioural change is that it comes slowly, and causality may be less easy to prove without the right indicators.

We are attempting to engage with like-minded institutions to form a collective advocacy group to reach consensus on proper indicators for our business. This effort falls within a larger debate about the need to come to a better global basis for quantifying impact, so that investors can properly account for impact targets alongside financial targets. We believe investors need timely, consistent and accurate data across portfolios, countries and time series to reveal true impact. What gets measured matters, and thus we feel the urgency to include financial market development in this debate.



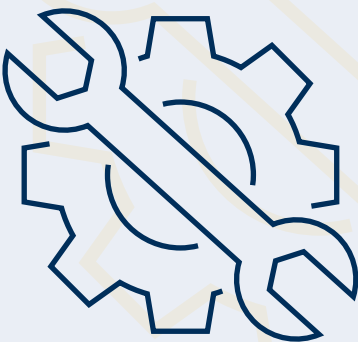
Building Capacity



To increase the effectiveness and success of our start-ups, CD has learned that building significant Technical Assistance (TA) funding into business concepts is important for early adoption, subsequent scale-up and replicability in the long-term.

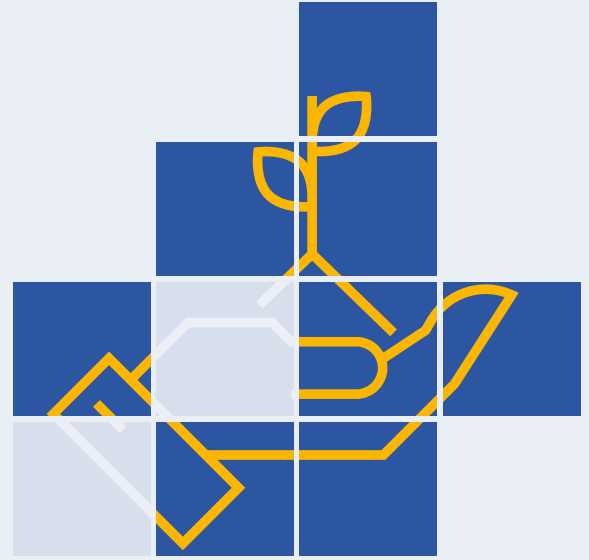
When bringing new solutions into the market, TA is important to help local participants adjust to a product that suddenly becomes available. This can include transactional training and assisting regulators and governments with training to develop or adapt to the products benefits. If TA is not built into business plans in emerging markets, the risk of slow adoption is higher and the venture may suffer from longer periods to sustainability, leading to strategic continuity risks.

CD company **Frontclear** is a prime example of this. It uses guarantees to allow better transaction engagement between local banks and the international financial system. Its TA is targeted to creating awareness with banks, regulators, and other financial players and to offer the training they need to develop their financial services capacity. The systemic TA intervention creates a local financial-market environment which is more conducive to interbank deal flow.



8

Political Cycles and Pre-empting the Next Trend



Our business is dominated by a small number of donor agencies and development banks, which together determine the upcoming trends and desired purpose for the institutions they support. The start-ups that we design and present to these institutions for early funding are often required to fit their narrow and changeable mandate, which can sometimes create mission drift and moves teams away from their original business goals. Very frequently, these funders desire to add to the business KPIs of our start-ups, with the risk of reduced focus and chasing too many goals.

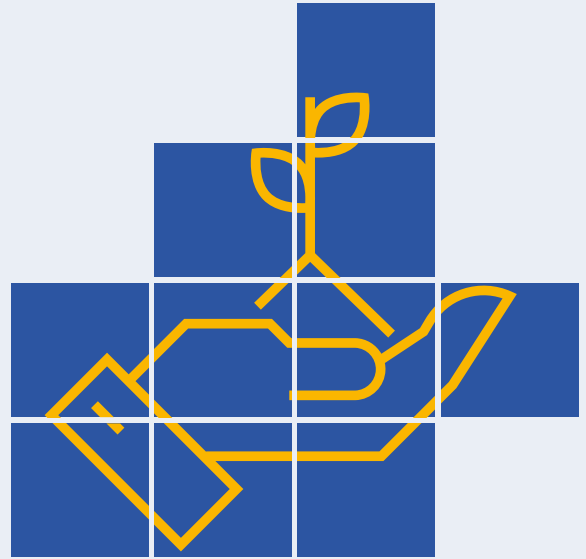
Government institutions tend to work in electoral (typically four year) cycles. This means that official donor funders apply their focus for a limited period on specific subjects and mandates (such as gender, financial inclusion, climate, water and sanitation, etc). This leaves start-ups that are designed to fit such a purpose exposed and gives them limited time to scale-up operations. Establishing close relationships with partner institutions can help create trust and soften the effects of no longer being in fashion.

Another dependency is the political climate in the country(ies) of operation. The phase in the political cycle on the ground should be a major factor when considering to start-up. In our experience, the year before and after relevant elections are particularly unstable when trying to achieve approvals with government agencies. This may mean that badly timed start-ups waste two years of work, but also that the window of opportunity to get started before the next cycle starts is also two years shorter. Private investments with limited dependency on public sector decision-making should be expected to do better in uncertain times. Extended timelines caused by political inertia can also mean higher budgets (cost assumption) and financing needed to survive a longer than expected project timeline.



10

Work with Local Markets on Local Currency



Our core mission is to develop local capital markets through the provision of local currency products (LCY). This is most visible in three of our existing mandates, **TCX**, **GuarantCo** and **The Water Finance Facility**. LCY is the practice of issuing debt in the currency of the borrower's income and helps them to avoid currency mismatches. It allows businesses to service their debts stably in the event of depreciation and avoid bankruptcy.

We have found that the domestic counterparts and funders that we engage with in pursuit of LCY business more frequently share our urgency to develop local markets and understand the constraints that start-ups need to overcome in their markets. We currently prefer, where possible, to include these local investors and local operational partners in our plans.

We have found that the domestic counterparts and funders that we engage with in pursuit of LCY business more frequently share our urgency to develop local markets and understand the constraints that start-ups need to overcome in their markets. We currently prefer, where possible, to include these local investors and local operational partners in our plans. We have found that the world in our target economies is still highly dollarised and that the resistance to LCY remains pervasive. Ultimately clients naturally dislike the high interest rates associated with LCY and have a cognitive bias in considering devaluation risk (people invariably underestimate past devaluation rates). At the same time, LCY does not seem appealing during the frequent period of high positive real interest rates and apparent currency stability, until the next crisis occurs unannounced. Championing LCY therefore remains an active debate with many sceptics, we continuously need to steer away from simple yield comparisons and point to the inherent risks of currency mismatch.



Conclusion

To ensure the future development of financial markets in emerging and frontier economies, financial sector entrepreneurs such as CD need to manage a number of key elements carefully. We need multiple and diverse investors to understand our markets, be patient and be willing to take the risks needed to grow start-ups that spur economic growth.

We would like 2021 to be the year we move closer to mobilising the financing community to work together to gather, share and disseminate data on an ever-widening scale, urgently needed to unlock the capital required for the exponential growth in investments needed to achieve the SGDs.

And finally, we need pioneers with innovative business concepts and investors with the risk-appetite to work with us to forge frontier market development!

Feedback Contacts

We would like to hear feedback from our peers, and help others in similar situations, to collectively enhance our effectiveness. Please reach out to any of our senior leaders.



Joost Zuidberg, CEO



Frank Gosselink, CEO



Fleur Henderson,
Senior Project Director



Supporters of the Incubator and Project Companies

KFW



Ministry of Foreign Affairs of
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Cardano Development Group Companies



Water
Finance
Facility



TÇX

dImfinance

IMFACT

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