Scaling Innovative Climate Finance Instruments: Experience from the Lab

A CPI Discussion Brief
November 2020

CLIMATE POLICY INITIATIVE

AUTHORS

Bella Tonkonogy

Jane Chu

Morgan Richmond

ACKNOWLEDGMENTS

The authors wish to thank the following for their cooperation and valued contributions, including, in alphabetical order, Ben Broche, Barbara Buchner, Elysha Davila, Caroline Dreyer, Rob Kahn, Leigh Madeira, Valerio Micale, Josh Wheeling, Angela Woodall and Vikram Widge. We also wish to thank the proponents of the three profiled Lab instruments for their review: Rodrigo Chaparro, Harald Hirschhofer, and Adam Tunnicliffe. Finally, thank you to external experts for discussion of their work on scale: Justice Johnson, Serena Li, Johannes Linn, and Robyn McGuckin.

ABOUT CPI

CPI is an analysis and advisory organization with deep expertise in finance and policy. Our mission is to help governments, businesses, and financial institutions drive economic growth while addressing climate change. CPI has six offices around the world in Brazil, India, Indonesia, Kenya, the United Kingdom, and the United States.

SECTOR

Climate Finance

REGION

Global

KEYWORDS

Scale, Replication, Climate Finance Innovation

RELATED CPI WORKS

The Global Innovation Lab for Climate Finance 2020 Impact Report

CONTACT

Bella Tonkonogy
Bella.Tonkonogy@cpiglobal.org

TABLE OF CONTENTS

EXECUTIVE SUMMARY

The Global Innovation Lab for Climate Finance (The Lab) identifies, develops, stress tests, and helps launch innovative financial instruments that address investment barriers and drive private finance for energy efficiency, renewable energy, sustainable transport, climate smart agriculture, nature-based solutions, adaptation & resilience, and other sectors key to a sustainable economy. In six years, the Lab has supported the launch of 49 instruments, which have collectively mobilized over USD 2.3 billion, including USD 800 million from the private sector.

As the timeline for addressing climate change shortens rapidly, the ability for Lab ideas to scale quickly becomes increasingly important. Many Lab instruments are themselves focused on creating scale in climate finance – for example, by introducing commercially viable investment models or aggregating many individual projects into a broader investment portfolio. Yet each time a new fund or approach is introduced, a lengthy process of design, fundraising, and partnership negotiation is required, frequently extending to 3-4 years.

Because the Lab focuses on innovative ideas, most Lab instruments are in early stages of development. However, some instruments launched earlier in the Lab are starting to scale up – mobilizing increasing amounts of investment. Three of these instruments – Climate Investor One, Energy Savings Insurance, and Long Term Foreign Exchange Risk Management – demonstrate that, while challenging, scaling up is possible, and is greatly facilitated by four success factors that can be influenced by the entrepreneurs developing these initiatives and their stakeholders. These four success factors, which we identified after reviewing literature on scaling up, conducting interviews, and developing case studies on these three Lab instruments, are:

1. **Establishing a track record,** defined as the instrument meeting its milestones in fundraising and on-the-ground impact. In practice, what milestones an instrument must demonstrate varies by the type of instrument. However, all instruments must define what success means upfront, and demonstrate success in raising investment and in deploying that investment on the ground. They must also establish iterative processes early on in their development, to understand and improve their progress.

2. **Building economies of scale,** defined as implementing a viable strategy for continuously increasing "impact profit" (impact per dollar invested). To scale, instruments must increase their impact at lower cost. Some achieve this through diversification, others by standardizing their processes and making them available to additional implementers, and others by clarifying an instrument's essential elements so it can be more easily tailored by others to their own contexts.

3. **Putting together a robust team and governance structure,** defined as 1) a team having experience in the sector and in working collaboratively; 2) champions who will stay with the project long-term; and 3) organizational, governance, and incentive structures that follow peer best practices. The instrument examples highlighted in this brief show a start-up team with both development and institutional investment experience; another with

an established team taking on a new challenge; and a third with an established institution leveraging its existing national relationships. All have stayed with and championed these instruments throughout their journeys.

4. **Identifying the right long-term partners,** defined as having in place strategic partners for pipeline, fundraising, and marketing. The case studies in particular identified the importance of having long term relationships with funders, and channel partners to generate pipeline at low transaction costs.

Having identified these four success factors, the Lab, and other stakeholders in innovative climate finance, can now better target their support to help achieve scale. Investors and other stakeholders should:

- help teams better understand what they need to demonstrate to attract follow-on funding;
- help entrepreneurs navigate the different needs of public and private investors;
- be ready to support entrepreneurs at the earliest stages with small amounts of seed funding;
- use their geographic and sectoral reach and influence to provide access to key partners, implementers, and knowledge sharing platforms;
- bring in consultative expertise, such as financial, management, regulatory, or legal, to help address barriers or identify efficiencies; and
- help source qualified candidates to fill expertise missing from project teams

Finally, investors and advisors can help project teams bring on partners that can grow with the idea as it scales, especially anchor investors and delivery partners. By leveraging our collective expertise and networks to address these four factors, we increase the chances of innovative ideas reaching scale in less time.

1. INTRODUCTION

1.1 CONTEXT

The Global Innovation Lab for Climate Finance (the Lab) is a public-private partnership that was born out of the need to drive significantly more private investment to tackle the climate challenge. The Lab was developed in 2014 by the UK, US, and German governments in partnership with major development finance institutions, key private sector actors, and several climate finance donor governments—Denmark, France, Japan, The Netherlands, and Norway. Since then, it has grown to include more than 60 governments, philanthropic foundations, development finance institutions, and private sector actors.

The Lab identifies, develops, stress tests, and helps launch innovative financial instruments that address investment barriers and drive private finance for energy efficiency, renewable energy, sustainable transport and infrastructure, climate smart agriculture, nature-based solutions, adaptation & resilience, and other sectors key to a sustainable economy. Financial instruments can include innovative bond applications, private equity funds, leasing approaches, and pay-for-success models among others. In six years, the Lab has helped launched 49 instruments, which have collectively mobilized over USD 2.3 billion, including 800 million from the private sector.

As the timeline for addressing climate change becomes shorter and shorter, the ability for Lab ideas to scale as quickly as possible becomes increasingly important. Many Lab instruments are themselves focused on creating scale in climate finance – for example, by introducing commercially viable investment models or aggregating many individual projects into a broader investment portfolio.

Yet each time a new fund or approach is introduced, a lengthy process of design, fundraising, and partnership negotiation is required, frequently extending 3-4 years. While most Lab instruments are in early stages of development, some of the earlier launched instruments are starting to scale up – mobilizing increasing amounts of investment, including in new sectors and geographies and implemented by new teams.

The goal of this discussion brief is to understand what has facilitated the success of Lab instruments and other innovative finance instruments in scaling up, and to reflect on how the Lab and its stakeholders – including public and private investors, entrepreneurs, and policy-making institutions – can better support the scaling up of other climate finance instruments. Specifically, this brief asks the following questions:

- What are examples of Lab instruments and other innovative finance instruments that have scaled?
- Are there any fundamental elements and key strategies that improve scalability in climate finance instruments?
- How can the Lab and its stakeholders better support deployment of these elements and strategies in climate finance instruments?

1.2 RESEARCH PROCESS AND REPORT STRUCTURE

This discussion brief is supported by information collected through three main channels: 1) quantitative and qualitative analysis of data collected by the Lab between 2015-2020; 2) expert interviews; and 3) review of academic and grey literature that poses theories or empirical evidence of how scale is typically achieved in a variety of contexts and disciplines, including international development, public health, humanitarian relief, education, tech & fintech, city planning, venture capital, startup theory, innovation theory, and general organizational design.

Section 2 introduces how the Lab process has defined, analyzed, and tracked scale in instruments to date. Section 3 highlights three case studies of Lab instruments that successfully scaled. Section 4 identifies the preconditions and pathways for achieving scale learned through the case studies from Section 3, then introduces how other instruments are navigating similar paths to scale. Finally, Section 5 concludes with key takeaways and recommendations for scaling climate finance instruments.

Climate Policy Initiative serves as Secretariat and analytical provider for the Lab. This report is a part of our analytical role in the Lab. The work is supported by Bloomberg Philanthropies, which is also a funder of the Lab's sustainable cities stream.

2. EVALUATING AND TRACKING SCALE IN THE LAB PROCESS

This section establishes a definition of scale based on a review of the literature from both the public and private sectors, and then seeks to understand how the Lab has evaluated and tracked scale to date, during the selection process, the design phase, and finally after launch of the instruments.

2.1 DEFINING SCALE FOR INNOVATIVE FINANCE

There are many definitions of scale in use by both the business and policy communities. In the business literature, scale is typically defined as increasing revenue and market share. An extreme example of this is Blitzscaling, or "the science and art of rapidly building out a company to serve a large and usually global market, with the goal of becoming the first mover" (Hoffman & Yeh, 2018). Public policy literature provides a broader definition that incorporates impact. A Global Environment Facility review (GEF, 2019) of this literature notes that scale can be defined by the quality of impact, including equity, sustainability, knowledge sharing, or relationship building. GEF also notes scale can have different dimensions, including "horizontal" when the expansion of impact is geographic, or "vertical" when there is policy and institutional reform. On the other hand, others in the public sector question whether the scale-as-growth assumption is desirable at all for public projects, arguing that legitimizing a diverse array of small solutions enables greater participation by local actors, and should be encouraged as well (In With Forward, 2018).

The type of finance the Lab supports is Innovative Financing, a new direction in international development that focuses on programs that deliver results while supporting collaboration between the public and private sectors (Global Development Incubator, 2014). This brief therefore adopts a hybrid definition of scale that straddles the public and private sectors, focusing on what is most directly in the control of innovative finance entrepreneurs and immediate partners to influence both financial and social/environmental returns. This approach is consistent with the Lab's own actionability criteria which prioritizes instruments that don't rely on policy change to be implemented. This brief therefore uses the following terminology, based on OECD, 2014:

Scale/Scaling-Up: Activities that expand an instrument's impact as measured by GHG emissions reduced, adaptation benefits realized, revenue generated, and/or finance mobilized.

Replication: Activities that reproduce an instrument in a new geography or sector outside of the initial geographies and sectors. Replication is a subset of scale.

Given challenges and time lag in measuring social and environmental impact, the Lab, and consequently this brief, focus on the measurement of financial mobilization as a proxy for scale.

2.2 HOW THE LAB ASSESSES FOR SCALE

The Lab runs an annual, five-phase process: 1) call for ideas, 2) selection, 3) development, 4) endorsement and launch, 5) implementation, as illustrated in Figure 1.

Figure 1. Lab Cycle Process Overview

The Lab evaluates ideas based on four key criteria:

- **Innovation.** The idea must be a new instrument or approach addressing a barrier or key gap that has not yet been addressed. The idea must demonstrate the ability to address—directly or indirectly—barriers to private climate finance that 1) have not yet been addressed; or 2) will be addressed more effectively compared to other instruments in the market.
- **Actionability.** The entity identified should be willing and capable to engage in idea implementation, and the pathway should be clear. In order to meet this criterion, the idea should identify the type of implementing entities, the pathway to implementation including timeframe, activities, milestones, and possible challenges to implementation and related management strategies.
- **Catalytic Potential.** The idea should be scalable and replicable. Environmental, social, and economic impact should be clearly described. The idea should demonstrate potential to mobilize private climate capital within a sizeable market, be scaled or replicated in other contexts, and achieve socioeconomic, development, and environmental impacts.
- **Financial Sustainability.** The idea must identify a clear pathway towards commercial viability. The idea should identify a strategy to phase out financial support and achieve

market viability and indicate possible challenges to achieving the phase out and management strategies for those challenges.

The Lab uses these criteria to screen selections through the Lab process and conducts seven months of market research, quantitative modelling, stress-testing, and guidance to verify the proposal's feasibility and impact according to these criteria.

Instruments are assessed for scalability throughout these Lab phases on the following grounds:

- The instrument must have a clear potential path to expansion and replication.
- The market opportunity must be sufficient in scale such that successful implementation would have a material market impact.
- Clear pathways must be identified to phase out concessional finance.
- Financial modeling must indicate that financial sustainability of the instrument is possible in the medium- to long-term.
- Impact modeling must indicate that social and climate impacts of the instrument are possible and additional to business-as-usual scenarios.

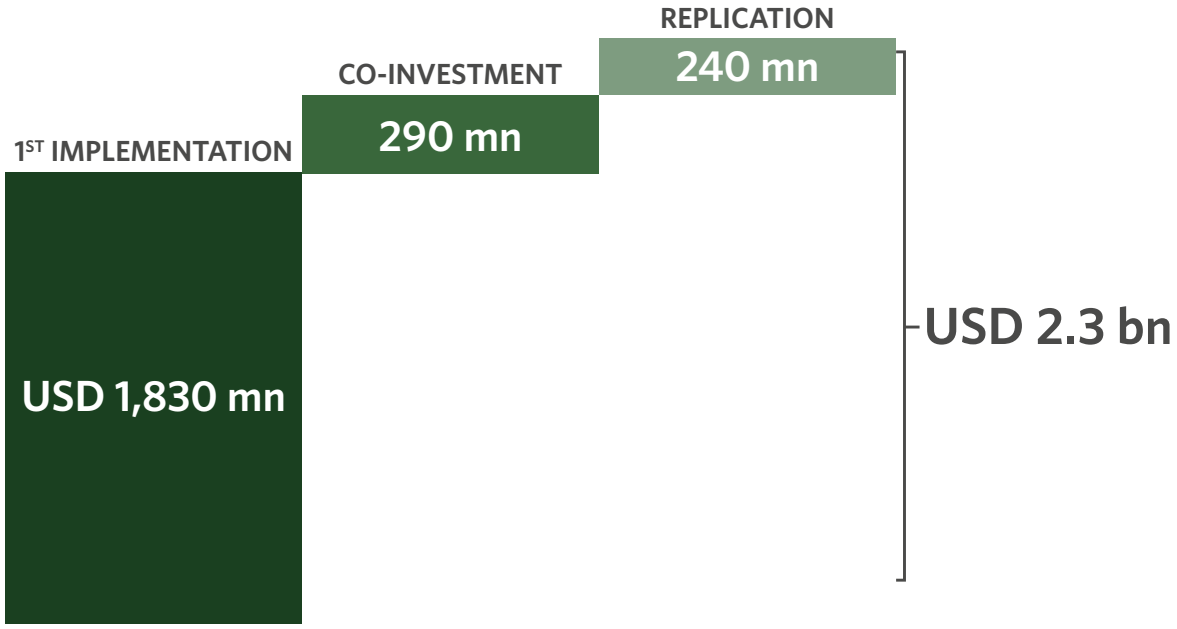
2.3 HOW THE LAB TRACKS SCALE

Once Lab instruments pass through the development cycle, the Lab begins to track finance mobilized. The instruments endorsed by the Lab vary significantly in financial structure, so the point at which instruments "scale" varies. The categorization outlined below aims to capture the various types of finance mobilized in three categories:

- **Investment in first implementation.** This includes investments through close of an initial round and funding for pilot projects, including technical assistance grants and innovation prizes as well as larger debt and equity investments. The vast majority of the Lab's finance mobilization tracked to date falls in this category.
- **Co-investment and tracked leverage.** This category captures finance mobilization that does not flow to the original party or parties that proposed the idea (known in the Lab as "proponents"), but occurs to support implementation. For example, co-investment in a renewable energy project, or finance mobilized by using an insurance product.
- **Scale beyond first implementation.** This category tracks mobilization for scale in either a new geography, new sectors, or scale up within the initial market beyond the initial implementation parameters as set by the instrument. For example, any project that reaches final close and replicates in a new sector or with a new project pipeline would be included here, as would projects looking to implement first in one country and then replicate elsewhere.

Figure 2 shows finance mobilized by the 41 endorsed Lab instruments as of July 2020, categorized into the three categories detailed above, and separated by Lab members and others. Given the Lab's relatively short five-year experience and focus on early stage innovation, most of the finance mobilized to date has been for first implementation. Co-investment is increasing as on-the-ground financing grows, and scale is tracked as well. The latter two categories are challenging to track as the information typically does not come directly from proponents.

Figure 2. Lab Instrument Mobilization Categories



3. SCALE IN THE LAB TO DATE

This section highlights three Lab instruments that have scaled beyond first implementations: Climate Investor One, Energy Savings Insurance, and Long-Term FX Risk Management. These case studies show that climate finance instruments can pursue a variety of pathways on their road to scale. Some instruments scale up by expanding impact in the same sector and/or geography with the same team, while others scale by replicating their original efforts in a new sector or geography, with the same or different team.

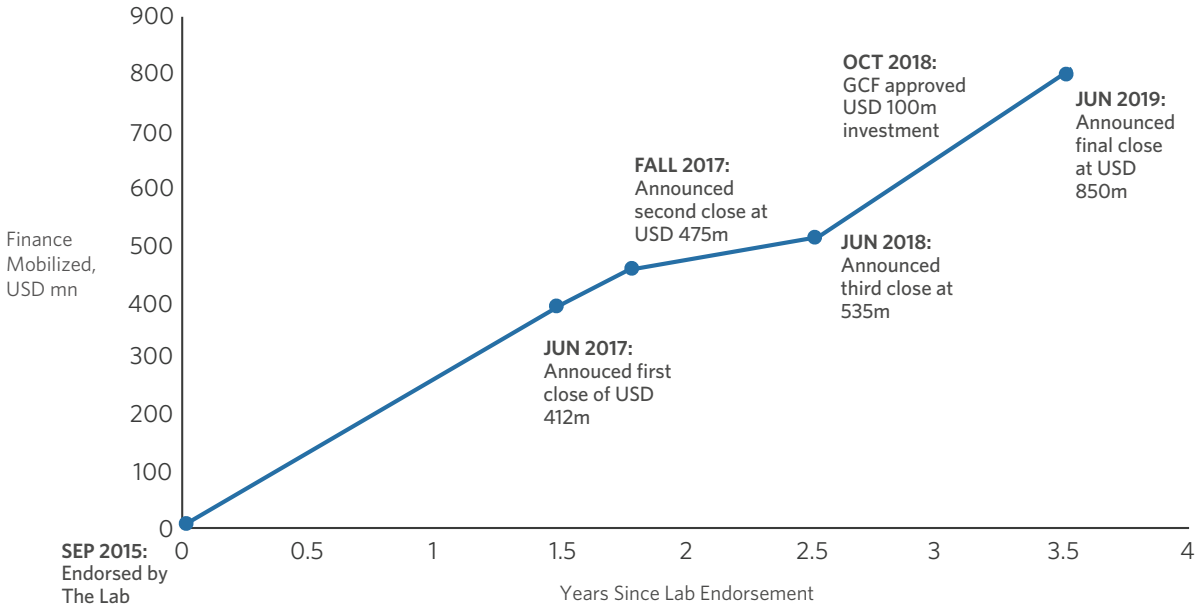
This section describes the financial mobilization pathway of each instrument to date.

3.1 CLIMATE INVESTOR ONE

Proposed by proponents Climate Fund Managers and endorsed by the Lab in 2015, Climate Investor One (CI1) is a financing facility that provides early-stage project development, construction financing, and refinancing to wind, solar, and run-of-river hydro projects in low-income, lower-middle-income, and upper-middle income countries. In June 2019, Climate Fund Managers announced final close at a combined USD 850 million, far beyond its original target of USD 530 million.

The finance mobilization pathway for CI1 is illustrated in Figure 3, which highlights key mobilization milestones towards final close in June 2019.

Figure 3. Finance Mobilization Pathway - Climate Investor One



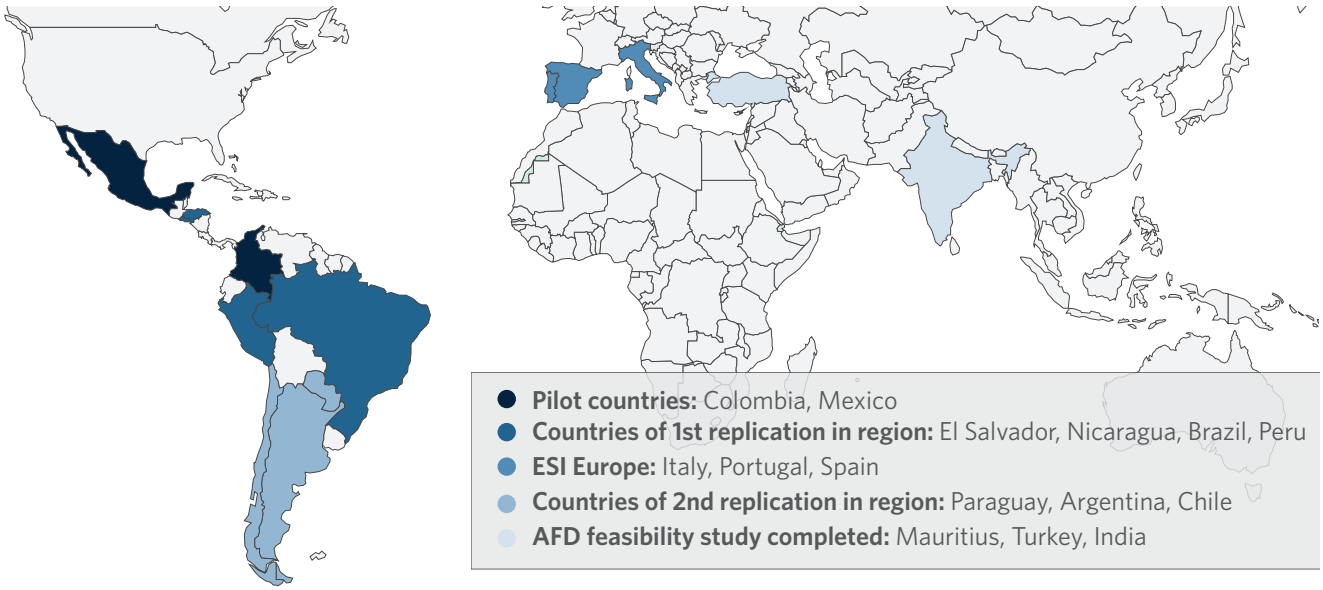
Concurrent to final close of CI1 in June 2019, the Dutch government announced that a consortium including Climate Fund Managers won the tender to manage the €160 million Dutch Fund for Climate and Development (DFCD). Of this total, Climate Fund Managers will manage €75 million as a cornerstone investment in a Climate Investor Two (CI2) facility (Climate Fund Managers, 2020). CI2 will replicate the CI1 structure but will focus on the water, oceans, and sanitation sectors, including municipal and industrial water and wastewater supply, desalination, and waste and wastewater to energy.

Other instiutions are also trying to replicate the success of CI1. For example, PT Sarana Multi Infrastruktur (PTSMI), a development bank in Indonesia, has incorporated learnings from CI1 into their own blended finance facility, SDG Indonesia One, including a whole lifecycle approach.[1]

3.2 ENERGY SAVINGS INSURANCE

Energy Savings Insurance (ESI), developed by the Inter-American Development Bank (IDB), aims to address investment barriers to energy efficiency upgrades at small and medium enterprises (SMEs). SME soften lack the technical capacity to assess the potential of more capital-intensive energy efficiency investments, and lenders lack confidence that they will repay loans for such investments, leading to sub-optimal investment in the sector. ESI addresses these barriers by paying out if the projected value of energy savings is not realized. Technology solutions providers purchase the insurance to back their contractual guarantees to SME clients on the performance of their energy efficiency products.

Figure 4. Energy Savings Insurance - The map below illustrates growth of ESI from initial piloting in Mexico and Colombia, now across four continents.

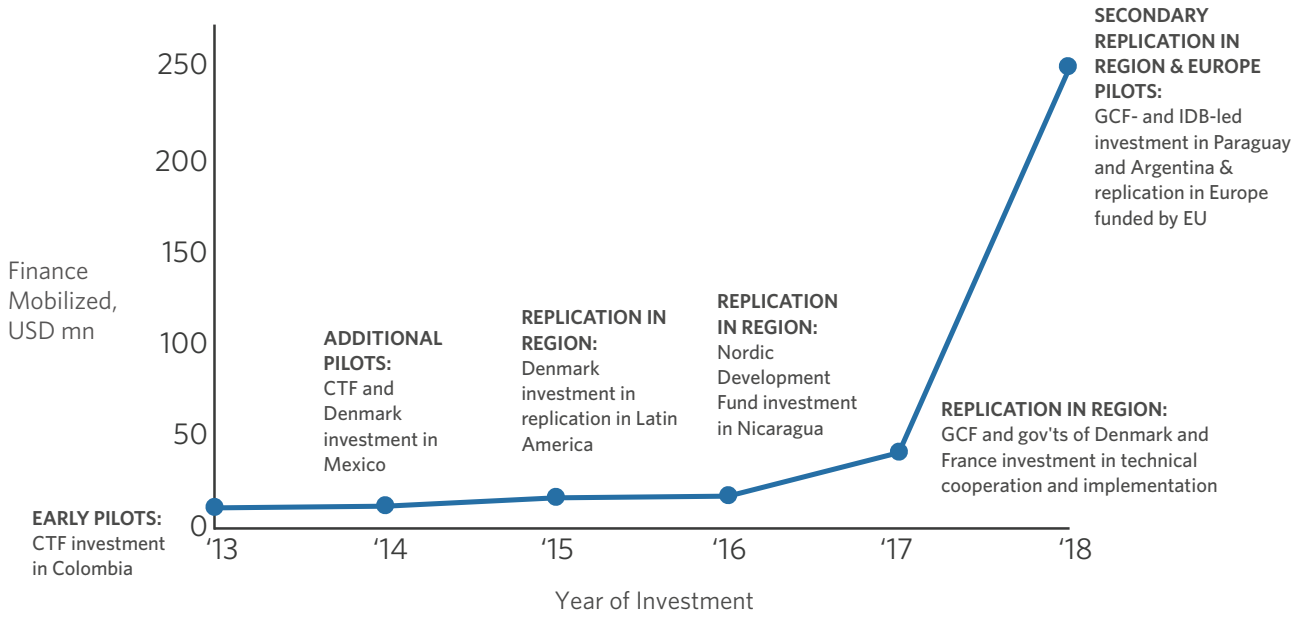


ESI was endorsed by the Lab in 2016. Initial pilots in Colombia and Mexico were funded by the Clean Technology Fund and the Danish government. The program was quickly rolled out to additional countries in Latin America (Figure 4). A Europe-based organization, the Basel

1 https://ptsmi.co.id/sdg-indonesia-one/

Agency for Sustainable Energy (BASE), deployed the model in three countries in Europe with funding from the European Commission (European Commission, 2020). Furthermore, the French Development Agency (AFD) invested in feasibility studies to deploy the model in India, Turkey, and Mauritius and the Green Climate Fund (GCF) invested to scale the concept in El Salvador, Argentina, and Paraguay, partnering with the IDB and national development banks. This finance mobilization is illustrated in Figure 5.

Figure 5. Finance Mobilization Pathway - Energy Savings Insurance



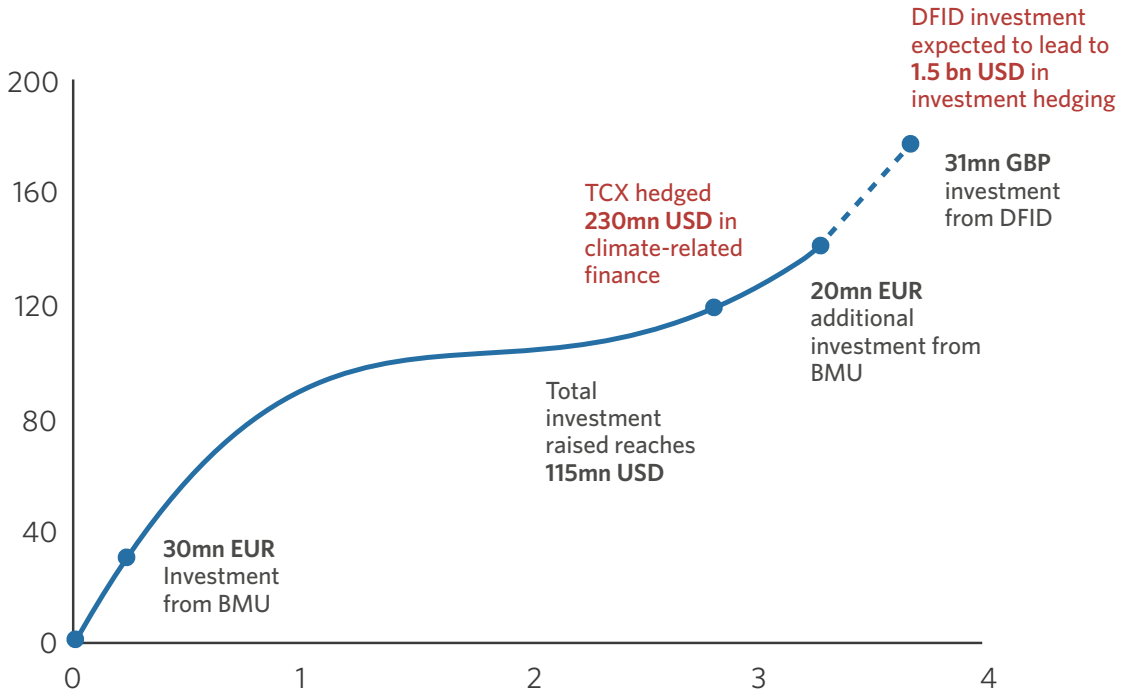
3.3 LONG-TERM FOREIGN EXCHANGE RISK MANAGEMENT

The Long-Term Foreign Exchange Risk Management instrument (implemented by TCX) provides tools to address currency and interest rate risk. Currency risk is one of the most significant and persistent barriers to renewable energy and climate investment in developing economies. In countries with underdeveloped capital markets, the only viable option is to finance projects in a foreign currency like the dollar or the euro. By enabling companies and investors to lock in long-term finance in local currencies, TCX makes more projects attractive, unlocking new investment in projects that provide clean energy, reduce greenhouse gas emissions, and increase climate resilience.

When it went through the Lab process in 2015, TCX was an existing company established by a group of multilateral development banks aiming to hedge emerging and frontier currencies. The Lab process focused on understanding how the instrument could apply to climate change projects, specifically renewable energy. The Lab considers only finance deployed by TCX towards climate projects after Lab endorsement as Lab-supported "mobilized" finance.

Following Lab endorsement, TCX raised EUR 30 million in December 2015 from the German ministry BMU. TCX then hedged USD 230 million in climate-related finance with USD 115 million in investment, working with local financiers who were lending to small renewable energy companies. Following this success, in December 2018 TCX raised an additional EUR 20 million from BMU. In May 2019, the UK Department for International Development (DFID) invested GBP 31 million in TCX (though not exclusively for climate-related projects)[2]. The DFID investment will allow TCX to hedge high impact investments of more than USD 1.5 billion until 2045. This financial mobilization pathway is illustrated in 6.

Figure 6. Finance Mobilization Pathway - TCX



2 It has proven difficult to assess ex-ante mobilization for climate projects from non-earmarked funding such as that provided by DFID, as the funding can be deployed in a variety of development sectors. Therefore, the Lab only tracks this funding ex-post once reported by TCX as having been invested in climate projects.

4. SUCCESS FACTORS FOR SCALE

The Lab criteria discussed in Section 2 broadly address the building blocks for successful climate finance instruments. Deeper investigation of the case studies in Section 3, a meta-analysis of all Lab instrument strategies to date (The Lab, 2020), as well as literature (Agapitova & Linn, 2016) and interviews demonstrate a sub-set of factors that are fundamental to scaling climate finance innovations, as well as are within the control of the proponents and partners (e.g., we do not consider strategies that rely on policy change). These four factors are described in Table 1.

Table 1. Success factors for scale

SUCCESS FACTOR FOR SCALE	DESCRIPTION
Track Record	Instrument has met its milestones in fundraising and on-the-ground impact. Example: CI1 reached first close and made its first project investments before raising GCF scale-up funding.
Economies of Scale	Viable strategy for continuously increasing "impact profit" (e.g., increasing impact per dollar invested over time). Example: ESI developed standardized contracts instead of starting anew with every replication.
Team and Organization	Team has experience in the sector and working together. Champions will stay with the project long-term. Organizational and governance structures and incentives follow peer best practices. Example: TCX was an existing company that adapted its approach for the renewable energy sector.
Partnerships	Strategic partners for pipeline, fundraising, and networking/marketing are in place. Quality pipeline demonstrated. Example: CI1 benefited from a partnership with the Dutch development agency FMO, which provided seed and anchor capital and strategic support as the concept has scaled.

This section gives more details on what these four success factors look like, how they played out in practice through the three case instruments, and finally some examples of how other instruments are starting to exhibit these success factors as early signs of scale potential.

4.1 TRACK RECORD

Instrument has met its milestones in fundraising and on-the-ground impact

Perhaps most obviously, no climate finance instrument scales without a track record. This track record must demonstrate to key stakeholders—including customers, funders, and partners—that the instrument or team is viable. Pilots are often the best way to demonstrate progress. In practice in the Lab, a successful pilot has been defined differently depending on the type of instrument.

For example, completing a CI1 "pilot" could be defined in various ways: as the Construction Equity Fund reaching first close or final close; as the first investment; or even as the fund exiting its last investment. Given a private equity fund's long lifecycle (12+ years), intermediate milestones were used to demonstrate track record, including meeting fundraising benchmarks such as first and final close, and making early project investments.

The following served to demonstrate track record for the instruments in this study:

- On the basis of early performance attracting public and private investment, and investing in early stage projects through the Development Fund, Climate Fund Managers was able to scale CI1 to a higher fundraising total than initially sought, and to launch a second facility in the water sector (CI2) with a similar structure.
- With ESI, initial pilots in three Latin American countries helped the instrument gain traction and expand implementation.
- For TCX, the EUR 30 million initial funding from the German government allowed it to quickly show results in deployment and impact, setting the stage for rapid scale. In addition to directly measurable impacts, TCX also made significant contributions to increasing foreign exchange risk awareness among project financiers, developers, and regulators, contributing to greater resilience of the sector.

Outside of the Lab, the Emerging Africa Infrastructure Fund has been able to scale since its founding in 2000 to its current size of over USD 1 billion, mobilizing progressively more private investment and increasing its debt-to-first-loss equity ratio over time. However, the fund took 15 years to establish its track record before it mobilized its first institutional capital, a USD 120 million investment from Allianz (Convergence, 2018), underlining the challenge of mobilizing private finance into investments that are perceived to be high risk even with substantial subsidization, before a track record is established. Another example of the centrality of track record in scaling financial innovation is microfinance, where a sector initially established by nonprofits and governments establishes its commercial viability over time (Bradach & Grindle, 2014).

Finally, having processes to capture and leverage learning in real-time during implementation is necessary for adapting, which helps achieve a track record and reaching scale (Agapitova & Linn, 2016).

4.2 ECONOMIES OF SCALE

Implement a viable strategy for continuously increasing "impact profit" (impact per dollar invested)

Instruments that unlock economies of scale can deliver greater impact per dollar invested over time. Process standardization is a key strategy for building efficiencies that lead to economies of scale. For example, the IFC Scaling Solar program has been designed for rapid replication by standardizing templates (IFC, 2020). Approaches that pool standardized investments into either programmatic or financial investment portfolios also can create economies of scale (Convergence 2019).

Others approach cost reduction by scaling only the part of an innovation that has the highest impact by "unbundling" its components. Bradach and Grindle (Bradach & Grindle, 2014) highlight a case of a public charter school network in the U.S. that chose to scale their leadership development programs with the intent to have their most impactful approaches introduced even in schools they did not control, increasing impact without necessarily increasing the number of schools in their network. Linn calls this approach "scaling by subtraction" (Linn, 2019).

Regarding the cases presented in this study:

- As a global blended facility with a whole-of-life approach, CI1's core strategy is to achieve economy of scale through diversification and reducing search and transaction costs as investments move along the project lifecycle. This increases returns and impact per unit investment. In fact, many Lab instruments are designed to scale through aggregation (e.g., securitization instruments or pooled funds).
- ESI, which has followed a replication pathway with multiple new implementers, has developed economies of scale through standardized tools and risk mitigation instruments across countries, as well as a knowledge management platform, to improve replication and decrease transaction costs.
- TCX's hedging instrument has built-in economies of scale via currency diversification and its global team, reducing costs as it expands to new geographies.

4.3 TEAM AND ORGANIZATION

Team has experience in the sector and working together. Champions will stay with the project long-term. Organizational, governance and incentive structures follow peer best practices.

Linn (Linn, 2019) describes the biggest impediment to scaling (within the control of the organization) as the organization itself. This is especially true of innovations that arise within existing organizations. Many organizations focus on one-off projects and do not incentivize staff to "think beyond the project's life." New managers prefer to launch new initiatives for which they can get credit for success, rather than taking forward existing projects (Daminger, Davis, Tantia, & Wright, 2014). A strategy for hand-off and scale-up must therefore be

developed from the beginning, with the people who will take the innovation forward involved early on and with executives brought in to stay with the project for at least two to four years (Daminger, Davis, Tantia, & Wright, 2014). On the other hand, start-ups and boutique operations have stronger incentives to take innovation forward but may face organizational constraints when pursuing growth, including ability to expand their footprint to new geographies (Daminger, Davis, Tantia, & Wright, 2014). Governance constraints, especially with companies and funds that include both financial-first and impact-first investors, may also make it challenging to scale quickly (Choi & Seiger, 2020).

Regarding the case studies:

- The team behind CI1, Climate Fund Managers, is a joint venture between FMO and Sanlam InfraWorks, part of the South African group, Sanlam. This hybrid structure, with roots in both development finance and institutional investments - and as a start-up with institutional support from an established institution – can help resolve the challenges described above. In addition, the team itself is comprised of experts in investment and development finance. Separate investment committees for each fund within CI1 reduce conflicts of interest (Choi & Seiger, 2020).
- ESI was a program of the IDB with a dedicated team, which allowed the instrument to replicate rapidly through the IDB's operations in Latin America in cooperation with its pre-existing national development bank partners, facilitating country ownership while maintaining the program identity. At the same time, IDB has been able to support the idea's replication by other institutions through its information hub as well as transparency about the program.
- As an existing company, TCX benefited from an established team and operations that already had a track record of success. Similar to CI1, they adopt a hybrid governance – in this case, a company founded by development finance institutions.

4.4 PARTNERSHIPS

Strategic partners for pipeline, fundraising, and networking/marketing are in place. Quality pipeline demonstrated.

Partnerships are essential for scaling across the board. Investors often cite lack of bankable project pipeline, not lack of finance, as the main barrier to scaling up private investment, which requires partnerships with project developers and project preparation facilities to overcome (Tyson, 2018). As with teams, investors that can stay with an innovation as it scales are also beneficial. Distribution channels, such as alliances,[3] can facilitate knowledge exchange and replication. A large partner can take an idea incubated at a small institution or research organization and scale it up rapidly through an existing platform. For example, Bradach and Grindle (Bradach & Grindle, 2014) cite the case of the YMCA in the U.S. scaling up a health innovation incubated at the National Institutes of Health, figuring out how to reduce the cost by one-quarter while maintaining the same level of impact.

3 For example, the Zero Emission Bus Resource Alliance (ZEBRA), or the Cooling as a Service Alliance

Among the Lab case studies of scale, the following has been identified:

- CI1's partnership with the Dutch government through FMO offered access to seed, anchor, and scale-up capital (Choi & Seiger, 2020), and credibility with Dutch institutional investors who made up the bulk of institutional capital in the fund.
- IDB partnered with the Green Climate Fund (GCF) to scale up the ESI program in several Latin American countries. For pipeline, IDB partnered with national development banks, insurance companies, and technology service providers who could offer the product to existing clients.
- TCX's partnership with the German government facilitated scaling up as this funder was able to increase its funding after the instrument proved successful.

The importance of partnerships is well supported in the research. All interview respondents cited to some extent the indispensable role of knowledge sharing and coalition building in supporting scale.

5. CONCLUSION

While still in its early days, the Lab is beginning to see a few instruments scale up. This experience, alongside the literature, can inform the Lab's methodology and activities going forward.

The lessons from this issue brief can be more broadly applied beyond the Lab to help innovative finance instruments scale successfully. These opportunities include the following:

1. Track record. Investors and other stakeholders should help project teams better understand what they need to demonstrate to attract follow-on funding. Early investors can help provide small amounts of funding needed to launch a pilot and maintain momentum.
2. Economies of scale. Investors and advisors usually have broader geographic and sectoral reach and influence than project teams, so they should focus on providing access to knowledge sharing platforms to help scale ideas.
3. Team. Investors should help identify and seek out expertise missing from project teams. For example, the Lab's recent assessment showed lack of legal expertise as a barrier to scale in instrument pilots, so it is now focusing on securing pro bono legal support for proponents.
4. Partnerships. Supporters and advisors should help project teams identify and secure partners that can grow with the idea as it scales. This includes finding an anchor investor that sees the project as a long-term partnership and intends to increase its funding over time.

Beyond the types of direct support outlined above, those with public sector and other enabling environment roles can work to improve the policy and other spaces within which climate finance instruments operate, smoothing the path to scaling up climate investments.

6. REFERENCES

1. Agapitova, N., & Linn, J. F. (2016). Scaling Up Social Enterprise Innovations: Approaches and Lessons. Brookings, Global Economy and Development. Washington, DC: Brookings. Retrieved 8 21, 2020, from https://www.brookings.edu/wp-content/uploads/2016/07/WorkingPaper95ScalingUpSocialEnterpriseInnovationsRev.pdf
2. Bradach, J., & Grindle, A. (2014, 2 19). Transformative Scale: The Future of Growing What Works. Stanford Social Innovation Review. Retrieved 8 21, 2020, from https://ssir.org/articles/entry/transformative_scale_the_future_of_growing_what_works
3. Choi, E., & Seiger, A. (2020). Catalyzing Capital for the Transition toward Decarbonization: Blended Finance and Its Way Forward. Precourt Institute for Energy, Sustainable Finance Initiative. Palo Alto: Stanford. Retrieved 8 21, 2020, from https://energy.stanford.edu/sites/g/files/sbiybj9971/f/sfi_blended_finance_and_its_way_forward_spring_2020.pdf
4. Climate Fund Managers. (2020, 8 21). Funds. Retrieved from Climate Fund Managers: https://climatefundmanagers.com/funds/
5. Convergence. (2018). Emerging Africa Infrastructure Fund Case Study. Toronto: Convergence. Retrieved 8 21, 2020, from https://www.convergence.finance/resource/6BYvXp0lws20g6yI6U8oEc/view
6. Daminger, A., Davis, K., Tantia, P., & Wright, J. (2014). Driving Positive Innovations to Scale in the Financial Services Sector. Retrieved from https://www.ideas42.org/wp-content/uploads/2015/05/Driving-Positive-Innovations-to-Scale-in-the-Financial-Services-Sector-August-Final.pdf
7. European Commission. (2020, 8 21). Driving Investment in Energy Efficiency through Energy Savings Insurance in Europe. Retrieved from CORDIS EU Research Results: https://cordis.europa.eu/project/id/785061
8. GEF. (2019). Evaluation of GEF Support to Scaling Up Impact. Washington, DC: GEF. Retrieved 8 21, 2020, from https://www.thegef.org/sites/default/files/council-meeting-documents/EN_GEF.ME_C56_Inf.03_Evaluation_of_GEF_support_to_Scaling-Up_Impact_May_2019.pdf
9. Global Development Incubator. (2014). Innovative Financing for Development: Scaling Business Models that Produce Economic, Social, and Environmental Outcomes. New York City: Global Development Incubator.
10. Hoffman, R., & Yeh, C. (2018). Blitzscaling: The Lightning-Fast Path to Building Massively Valuable Companies. New York City: Penguin Random House LLC.
11. IFC. (2020). Scaling Infrastructure: New Tools for a New Strategy. Washington, DC: IFC. Retrieved 8 21, 2020, from https://library.pppknowledgelab.org/documents/5853/download

12. In With Forward. (2018, 1 30). In With Forward. Retrieved from Problematizing Scale in the Social Sector (1): Expanding Conceptions: https://inwithforward.com/2018/01/expanding-conceptions-scale-within-social-sector/

13. Linn, J. F. (2019, 11 25). Opinion: Scaling Up Development Impact--The Opportunities and Challenges. Retrieved 8 21, 2020, from DEVEX: https://www.devex.com/news/opinion-scaling-up-development-impact-the-opportunities-and-challenges-95950

14. OECD. (2014). Scaling up and Replicating Effective Climate Finance Interventions. Paris: OECD.

15. The Lab. (2020, 8 21). The Ideas. Retrieved from The Lab: https://www.climatefinancelab.org/project/?_sfm_status=Endorsed-%2C-Fire%20Winner-%2C-In%20Development

16. Tyson, J. E. (2018). Private Infrastructure Financing in Developing Countries. ODI. London: ODI. Retrieved 8 21, 2020, from https://www.odi.org/sites/odi.org.uk/files/resource-documents/12366.pdf

climatepolicyinitiative.org