

IMPACT REPORT 2017/2018



GIF invests in entrepreneurs and innovators with the potential to improve the lives of millions of the world's poorest people.



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As Chair of the Global Innovation Fund Board, I am delighted to introduce our 2018 impact report.

GIF was founded in 2014 with a clear mission: to solve hard development challenges by investing in innovation with the potential to transform the lives of millions of people living in poverty.

We make grant, equity, and debt investments to support entrepreneurs who are scaling up programmes either through the public sector or through markets. Our decision-making process emphasises innovation, rigorous evidence, and the potential for scale. We don't fund innovation for its own sake: we want to drive ideas to impact.

We challenge ourselves to be led by entrepreneurs and their ideas with our partners and co-investors, and to ask, "How can we support you to generate evidence of impact for your innovation, and pivot your way to an inclusive and resilient business model?"

This report tells the story of a year that has seen us live up to our mission to find and fund innovations targeted at improving the lives of the poorest people in developing countries in pursuit of out-sized social impact. It describes how, over the past twelve months, we have grown the potential impact of our portfolio by funding a range of interesting high-impact innovations, while providing targeted venture support to the innovations in our investment portfolio to help them realise their full potential.

We also reaffirm our commitment to rigorous evidence, which sits at the very core of our organisational philosophy and investment decision-making. Generating and using evidence of impact to make choices is key to how we engage with the entrepreneurs in our portfolio and pipeline. We share how

we have worked with innovators to ensure that the generation and use of evidence is embedded in our partnership.

I would like to welcome Jack Hawkins, Jane Siebels, and Santhosh Mathew onto the GIF Board. I am excited by the collective expertise and vision that these new Board members will bring to bear for GIF, and I very much look forward to working with them in 2019 and beyond.

I extend my sincere thanks to Russ Siegelman and Michael Kremer, who stepped down as Chair and as a member of the GIF Board respectively last year. Russ and Michael each made a significant contribution to the success of the organisation during their time as serving Board members, and they leave with the very best wishes of the entire GIF team.

The progress we have made during 2018 fills me with optimism for the year ahead, and for the potential that we have to bring about lasting social impact for millions of people.



Kanini Mutooni Chair, Board of Directors



I am grateful for the progress that we have made in advancing our mission to improve the lives of millions of the world's poor. 2018 has been a significant year for us, and this report offers the opportunity to reflect on what we have achieved, and where we want to be in 2019.

We have grown our portfolio of evidencebased investments. We are currently funding 38 innovations in sectors such as education. agriculture, transport, and domestic resource mobilisation, each with the potential to bring about lasting social impact.

But we're not just investing in new innovations: we're also supporting the entrepreneurs already in our portfolio to maximise their impact and growth potential.

To take one example that I am especially proud of, this year we helped our partner Educational Initiatives to scale up the adoption of its personalised adaptive learning solution, Mindspark, in Indian state schools. Following a GIF-funded pilot in 80 schools, the Government of Rajasthan has agreed to expand evidence-based edtech solutions to at least 750 schools, starting in the 2018-19 school year. You can read more about this investment later in this report.

2018 was also a year in which we built new partnerships, while strengthening our relationships with each of our existing donors - without whose unwavering support and leadership none of our achievements would be possible - to ensure that we can continue to invest in great entrepreneurs and innovators well into the future.

Lattended the 2018 G7 Finance Ministers' Meeting to kickstart our partnership with Global Affairs Canada, I was proud to appear alongside the then Canadian Minister of International Development, The Honourable Marie-Claude Bibeau, to talk about our innovation for gender equality partnership that will help support Canada's broader international feminist agenda.

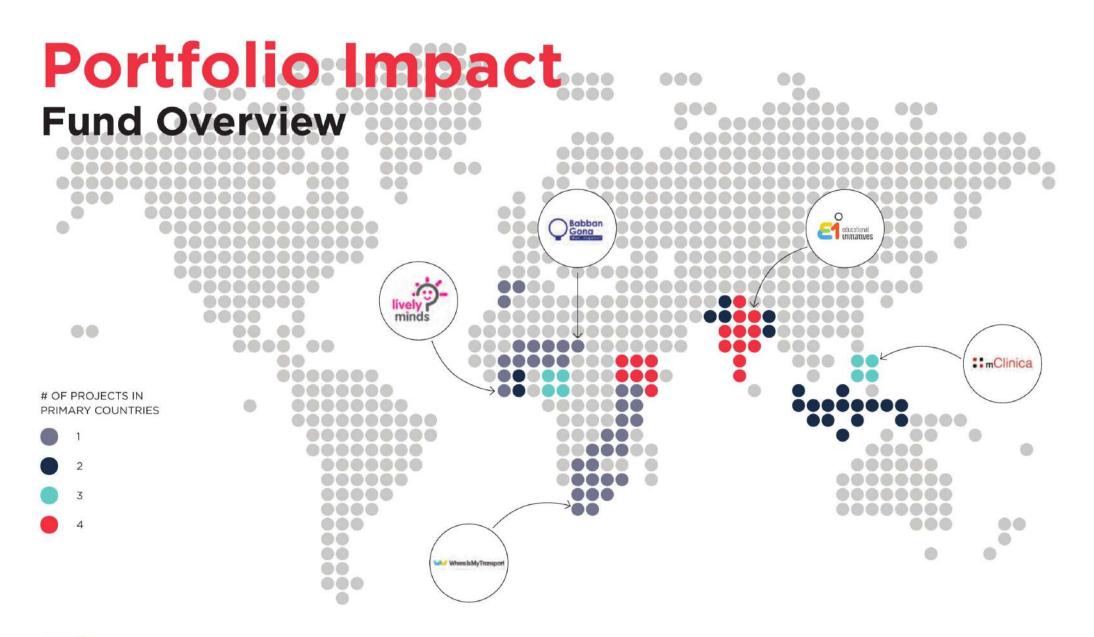
We also partnered with Unilever to create a dedicated fund. ADVANCE, focused on resilient and inclusive value chains, universal access to basic services, sustainable land use and production, economic inclusion and equal opportunities. ADVANCE is a unique partnership for advancing the Sustainable Development Goals, and we anticipate further partnerships under this umbrella. This momentum began in 2018 when we signed a Memorandum of Understanding with the Rural Electrification Corporation of India. which will co-fund with GIF on a range of projects across the country.

Looking ahead to 2019, our focus will be on continuing to deliver impact smartly, while achieving value for money for the donors who fund us. 2019 will also be the year that we truly begin to share with the development and investment communities the lessons we have learned since we were founded five years ago. We hope to support adoption of the use of evidence, smart risk-taking, and new approaches to mobilising aid budgets in the pursuit of social impact.

Reflecting on the many successes of 2018, and looking forward to an exciting 2019 for GIF, I am reminded of the pivotal role that Michael Kremer, who this year stepped down as a member of the GIF Board of Directors. has played in the evolution and achievements of GIF since its inception. I want to take this moment to thank Michael for all that he has done in service of GIF during his time on the Board, but also for his mentorship and friendship to me personally over the course of the past two decades. We at GIF wish Michael the very best for the future.

Alix Peterson Zwane PhD

Chief Executive Officer



38 investments delivering impact

\$69 million

concurrent co-funding

Considers 16 of 38 investments with concurrent co-funding reported. Those investments total \$33 million of GIF committed capital

\$165 million

follow-on financing

Considers 12 of 38 investments with follow-on financing reported. Those investments total \$24 million of GIF committed capital



87 million

People in low and middle-income countries that GIFbacked innovations are expected to impact in 10 years



\$4.31

Additional capital crowded in per \$1 of GIF for-profit investment



Follow-on investments raised by portfolio companies



\$69 million

Invested/ committed



6%

Expected annual improvement in livelihood of beneficiaries



308%

Revenue growth since initial investment

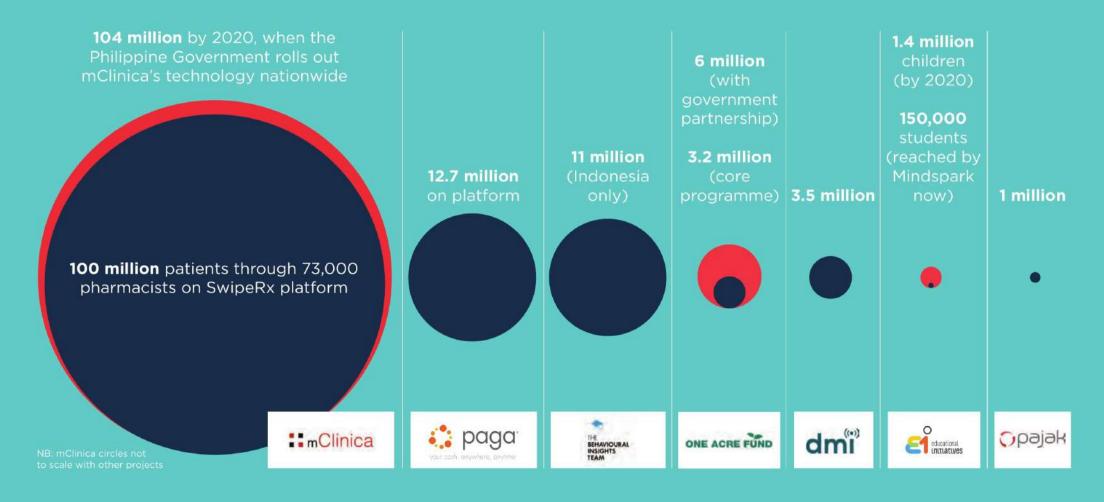


1.6 x

Exit multiple on first exit (29% internal rate of return), enabling GIF to recycle capital to fund additional innovations

GIF's portfolio

Here are the portfolio organisations that are already reaching one million people or are expected to do so by 2020.





About the Global Innovation Fund

The Global Innovation Fund (GIF) is an independent, multilateral investment vehicle that works with mission-aligned development agencies, philanthropy, and other funders to find and fund open innovation with the potential to positively impact the lives of millions of the world's poorest people.

Launched in 2013, GIF is supported by the U.S. Agency for International Development, the UK's Department for International Development, Australia's Department of Foreign Affairs and Trade, the Swedish International Development Agency, and Global Affairs Canada. The Omidyar Network supported the launch of GIF. GIF has co-financing partnerships with South Africa's Department of Science and Technology and the Indian Rural Electrification Corporation and launched a corporate partnership with Unilever in 2018.

GIF uses rigorous evidence and development economics to identify and invest in high-impact, early-stage enterprises and innovations. At this early-stage, social enterprises and innovators face a significant funding gap post-proof of concept and pre-scale up given the risks that still exist. GIF's funding helps to de-risk and accelerate evidence-based innovations using a range of flexible financial instruments – grants, debt, and equity. GIF seeks to meet innovators on their terms, providing the support they need to continue to refine their approach, attract necessary funding, and move toward scale.

GIF provides grants to support innovations that will scale through public sector uptake and support. In contexts where the state is weak, it is challenging for local government to support innovation given the high level of risk. Our funding gives innovators the space to experiment and further prove their model. Having an outside entity that can manage this risk can yield socials returns that will impact the broader investment climate, and GIF has built a portfolio that makes a strong case for this.

For its private sector partners, GIF uses its concessional finance to de-risk social enterprises, so they can fit the risk/return criteria of other private sector investors, such as Development Finance Institutions. Innovators and entrepreneurs in developing countries need patient funding, flexible instruments, concessional capital that helps to de-risk their business models, and tailored funding amounts tied to an entity's stage. GIF's flexibility and focus on social returns allows us to structure deals so that other funders can enter investments they could otherwise not, helping build a stronger future pipeline for larger investors.

Practical Impact

Practical Impact is our approach to measuring success. It enables us to forecast, track, and aggregate impact across our portfolio.

Practical Impact goes beyond the standard practice of counting 'people reached' to measure impact.

For each innovation, it starts with a disciplined estimate of the breadth of impact at scale (the number of lowincome people who will benefit if scaleup succeeds). It adjusts that breadth by depth of impact (the benefit per person relative to annual income). The depth measure is universal, encompassing both monetary and non-monetary benefits. Finally, the impact estimate is adjusted by the probability of success at scale. The probability of success is estimated based on an accounting of risks.

The unit of measurement is the personyear of income (PYI). If one person receives an extra 100% of income for one year, that's one PYI. If ten people each receive an extra 10% of income for a year, Practical Impact = low-income people impacted at year 10 x depth of impact x probability of success



Breadth of impact The number of low-income people

who will benefit at year 10

Depth of impact Benefit per person relative to annual income



Probability of success The likelihood that the innovation will be successful in 10 years

that also counts as one PYI. We convert health and education benefits into income equivalents, and we tally only benefits to low-income people. Adding it all up, the investments we support are on track to generate 2.2 to 7.5 million person-years of income annually by 2028. That is roughly equivalent to 2.2 to 7.5 billion USD of annual benefits. Alternatively, it means that we expect about 83 million people to enjoy just over three weeks' additional income (or equivalent) per year.





Nikhita S on Unsplash

Practical Impact: Developments in 2018

In 2018 we expanded the use of Practical Impact and continued to refine our methodology and process. Whereas in 2017 Practical Impact was applied to 14 of our investments, during 2018 the methodology was extended to almost all of our existing portfolio in addition to incoming investments. Our Investment and Analytics teams also worked in a more integrated way to perform rigorous Practical Impact analysis.

During 2018 we improved our ability to assess risk to overall portfolio impact. Our forecasts incorporate two aspects of risk. First, that investments are inherently risky: some thrive, others fail. We capture this in our estimate of probability of success. Second, that our forecasts, while based on the best available evidence and

judgement, are still only forecasts, with built-in uncertainty.

To understand overall impact risk, we simulated thousands of possible portfolio outcomes based on our assessments of risk and uncertainty for each investment. This allows us to go beyond just saying that our best forecast of impact is a single number: 5.1 million PYI/year in 2028. We can report, further, that there is a 75% chance that impact will be greater than 2.2 million (which would already be very good) and a 25% chance that it will be greater than 7.5 million (which would be extraordinary).



What are we learning?

Our investments are designed to produce evidence of impact, efficacy, uptake, and cost-effectiveness. Evidence can take the form of feedback to improve operational effectiveness; it can also guide decisions about whether, or how, to scale up an innovation.

As our portfolio matures, this evidence is growing. While some of 2018's results are still too preliminary to quote in detail, they include the following:

- Educational Initiatives: Preliminary results from implementing Mindspark an educational technology intervention - in government-run schools in Rajasthan show substantial performance increases, in both Hindi and maths, for primary and middleschool pupils.
- Anti-Malaria Home-Proofing: This pilot project tested whether insecticide-treated wall smearings could be safer and more effective than the standard practice of interior spraying. The test was terminated because the innovative treatment was found to be less effective than the standard alternative.
- · Family planning in Burkina Faso: The grant supported a randomised controlled trial of the impact of radio broadcast messages promoting the use of modern contraceptive methods. Preliminary results suggest a substantial impact on uptake.
- Lively Minds: Midterm results of this early childhood development intervention indicated large and significant impacts on school readiness, including emergent numeracy and literacy.
- No Lean Season: A randomised controlled trial found that the scaled-up programme did not have the impact on inducing migration and consumption observed in a smaller, earlier trial. The implementers, Evidence Action, believe that this reflects operational issues, which they are addressing. A second randomised controlled trial's results are expected in 2019 and will provide another reading and further insight on the effectiveness of the intervention.

- One Acre Fund: A randomised controlled trial assessed One Acre's programme in Teso District, Kenya, It found a statistically and economically significant impact of the programme on farmer yields (+14% on maize) and profits (+20% on maize and beans).
- Behavioural Insights Team: The Behavioural Insights Team implemented a randomised controlled trial testing the responses of more than 11 million Indonesian tax payers to different letters urging early tax filing. The most successful one induced a 1.2 percentage point increase in filing, and a 2.1 percentage point increase in early filing. The most successful nudge resulted in an additional 1.93 million USD paid at the point of filing at a negligible cost, suggesting a highly cost-effective innovation.

As part of our efforts to promote the more rapid and effective use of evidence, GIF convened representatives of nine investees for a workshop on the uses of Big Data. The advent of Big Data opens up exciting new possibilities in rapid feedback and insightful evidence analysis, but brings challenges as well. The workshop brought in external experts and facilitated mutual learning among the investees. Practical issues of data security and anonymity came to the fore during these discussions.



Building new partnerships for impact

Throughout the course of 2018 we developed a number of exciting new partnerships, growing the range of organisations that we work with and harnessing our unique approach to impact investment in new and interesting ways.



Global Affairs Canada

Affaires mondiales Canada

Global Affairs Canada Gender **Equality partnership**

At the 2018 G7 Development Ministers' meeting in May our CEO, Alix Peterson Zwane, spoke about a new partnership with Global Affairs Canada to support gender equality investments, aligning Canada's feminist development agenda with GIF's focus on innovation to increase the agency of women and girls.

We are incredibly excited about this partnership and the opportunities that it offers to bring about lasting social impact for some of the world's most vulnerable people. Working closely with Global Affairs Canada, our team will focus on finding and funding innovations that can have a measurable impact on gender equality, be it improving rights of women and girls, creating more equitable access to resources, or increasing participation in decision-making.

We expect to make our first investments under this partnership in 2019.



ADVANCE: Corporate partnership with Unilever

This year we also announced the launch of our ADVANCE Fund, a unique corporate partnership with Unilever which will help to unlock the private sector investment needed to scale up new business models and, crucially, help to make progress towards achieving the UN's Sustainable Development Goals.

Through this partnership, our ambition is to invest in innovations which extend last-mile distribution, take action on waste, tackle climate change, deforestation, and food insecurity, and which improve livelihoods and create more opportunities for women and girls.

We are currently in the process of carrying out due diligence on a number of innovative projects that have met the fund's criteria, and we hope to be able to announce our first ADVANCE investments in 2019.



Educational Initiatives

"First, I did not understand what this programme was. We were then told what a laptop was, what a mouse was, and how to operate these. When I started going to the lab to study math, I was getting all division sums wrong. Whenever my answer was wrong, Mindspark would show me where I had made my mistake and how to solve it correctly. This is how I learnt division."

Karthik (Student, Dhadhar)



The innovation

In India, over 60% of 6-14-year-olds can't read at a second-grade level, despite primary school enrolment rates of over 95% and significant increases in education spending.

A number of randomised controlled trials have shown that the reason behind these challenges may be simple: every student learns differently, and they do so at their own pace. This creates a challenge for teachers faced with large classes of children at very different levels of mastery and understanding. If we had ways to teach children, not classes, we might make teachers' iobs much easier and more effective.

This is precisely what GIF partner Educational Initiatives is setting out to do. Its interactive software, Mindspark, delivers personalised learning to individual students in classrooms. Mindspark then uses the data it generates to understand the learning level of each child, and adapts the material presented so that it matches students' individual levels of progress and capability. This approach is called personalised adaptive learning.

How we helped achieve impact

Back in 2017 we supported Educational Initiatives to introduce its Mindspark software into 80 public schools across Rajasthan. Our hope was that this pilot initiative would both demonstrate to governments across India the potential of personalised adaptive learning to help children to thrive and excel at school and also figure out an operational plan to implement the programme at scale.

The pilot was a success and in early 2018 the Government of Rajasthan asked Educational Initiatives to expand its project to 750 schools. Excited by the potential to achieve something truly transformative, and keen to figure out a pathway to scale, we reached out to state governments across India, and a range of organisations focused on improving the quality of education, including the Central Square Foundation, the Bill and Melinda Gates Foundation and the EkStep Foundation.

At the request of the Government of India, all three funders worked with Dalberg Consulting to prepare a blueprint for the procurement and implementation of solutions like Mindspark across India. The then Secretary for Education in India convened education secretaries from five state governments and the blueprint was issued as guidance to enable states to procure and implement personalised adaptive learning solutions.

Since then some state governments in India have initiated steps to procure and implement such solutions in public schools. The Government of Andhra Pradesh is in the process of implementing personalised adaptive learning solutions in 2,600 schools covering nearly one million children by following the blueprint. Our vision is that our ongoing support will help to produce evidence that will encourage other state governments to procure and implement ed-tech software to improve learning opportunities for children across India.

"Some students are weak in class and cannot keep up with what is taught. Remedial classes are given to such students to catch up. Until students learn to read and write, they will find it difficult to understand the curriculum. When the Mindspark team first came to our school, they requested a room to set up the computer lab to teach students of grades 1 to 8 through computers. Based on our visits to various rural schools, we saw that largely children from poor families come to government schools. They have never had exposure to computers before."

Hardutt Ram (Teacher, Dhadhar)



SparkMeter

"SparkMeters are smart meters. The ability to remotely gather real-time data on usage and usage trends, revenue and payment trends, faults among other metrics, allows for better planning and operations. Whilst other smart meters provide similar capabilities, the SparkMeter interface is literally user friendly - simple in its structure yet informative. We wouldn't be at the scale that we're at today without SparkMeter, and neither would the sector. We look forward to working with SparkMeter closely for years to come to support them in staying at the forefront of the smart-metering sector."

PowerGen energy provider



The innovation

Across the world, as many as 1.1 billion people are living without electricity, and a further one billion are dependent on very unreliable grid systems. For many, especially those based in more rural, remote communities, frequent power outages and unreliable service are the norm. Our investment in SparkMeter is helping to address these challenges.

In 2016 we partnered with SparkMeter, which provides smart metering technology to central grid utilities and micro-grids to enable real-time monitoring and pay-as-you-go electricity usage. and puts in place measures to prevent outages. So far SparkMeter's technology has connected thousands of customers in Africa, Asia, and Latin America.

SparkMeter: Smart meter, big impact

SparkMeter's mission is to improve energy access for millions of people across the developing world. To help it realise its ambitions, it is focusing on two key gaps in the market.

SparkMeter is offering low-cost meters to micro-grids that are already serving rural, low-income communities. At the moment, the micro-grid industry is operating unprofitably, which makes it unappealing to potential investors. By helping to make micro-grids more efficient and affordable for the poorest people in society, SparkMeter hopes to demonstrate a strong social and economic rationale for investors to come on board and help the industry to scale up.

SparkMeter is also supplying low-cost, advanced metering to central grid utilities. Their hope is that, by providing millions of dollars in cost savings to utility companies that are vet to meter many of their low-tier, low-income customers, SparkMeter can encourage and incentivise major utilities companies to improve services for their poorest users. Although it is yet to be proven, SparkMeter hopes central grid utilities will be willing to invest in expanding the grid to include the many unconnected customers that are within their reach.

So far, SparkMeter has sold over 50,000 meters. and has 40 micro-grid utilities using its meters on over 200 micro-grid systems in 25 countries. Connections using SparkMeters are serving over 100,000 people with electricity.

Testimonial

PowerGen is a growing energy provider in East Africa and beyond, providing energy solutions to residential, communities, commercial, and industrial customers that are not served by central grids. Using the full range of SparkMeters, PowerGen is able to build new grids better tailored to a range of consumption levels, helping it take on larger grid projects.

Paga

"I work with a lot of cash, and my bank is not located anywhere in this area. Usually, I would go through the stress of traffic, transportation costs. and the worry of carrying lump sums of cash around. I had heard of Paga before but I didn't pay too much attention because I had already accepted my system of doing things. All this changed the day I got attacked by armed robbers, who took my entire earnings for the day and all valuables I had on me. That is when I wanted to know what Paga was really about. Now I walk into a center and I am out in about 10 minutes or less. I can make multiple deposits in a day and the withdrawal fee is less than the transportation costs to get to my bank branch. I am extremely happy with this service."



The innovation

Across Africa, millions of people lack access to formal financial services. In Nigeria, Africa's largest economy, as much as 42% of the population are financially excluded, and this number is rising every year, disproportionately affecting women and young adults.

Paga is Nigeria's market leader in mobile payments and digital financial services. Through its large and rapidly-growing agent network (places such as small kiosk shops and pharmacies), it delivers a variety of financial services including peer-to-peer payments, transfers to bank accounts, bill payments. remittances, and savings accounts to its 12.7 million unique users.

The GIF investment thesis

By offering digital financial services, promoting the usage of mobile money, and de-risking new consumer channels, we believe that Paga is supporting inclusive growth in Nigeria.

GIF is backing Paga's ambition to transform Nigeria's mass market from cash to digital payments. Historically, Nigeria has been slow to adopt mobile money services, despite the emerging evidence of the benefits to economies in Sub-Saharan Africa, For example, a sixyear study on Kenya's M-Pesa found that the intervention has lifted as many as 2% of Kenyan households out of poverty.

Our partnership with Paga is enabling them to bring a broader range of essential financial services to Nigerians living in poverty. Building

on their digital payments platform, in time Paga could potentially grow to allow families to save, empowering them to weather financial difficulties, build up assets, and, crucially, to invest in health and education.

Finally, the catalytic nature of our support for Paga has helped to bring in additional capital from some of its existing investors, assisting the organisation on its path to scale. Through our partnership, Paga is seeking to broaden its range of products and establish a nationwide footprint. We hope that this will encourage more commercial capital to look to Nigeria's blossoming fintech ecosystem and consider further investment.

> "I have been using Paga for over a year now. Before I had to spend over an hour on the road to get to the nearest bank, then stand in line for hours before receiving any service. I am a tailor and so I am always buying materials and receiving payments, and I needed a faster way to access and deposit my money. With the Paga agents in our neighbourhood, it is easy for me to deposit and withdraw my cash and much more convenient."

Olatoyosi Oluwatosin, Paga customer

OnlinePajak

"Our company specialises in waterproofing and sport courts construction. I was faced with a really complex issue. After several checks, there were quite a few unpaid and unfiled taxes likely due to oversight, or lack of time because of the need to be physically present at the bank. I entrusted some employees to address our company taxation matters. However, they were neglected and accumulated for years. Conventional methods open up possibilities for human error such as oversight on filing and storing tax documents and invoices. But with OnlinePajak everything is digitised, confidential, and free of charge. OnlinePajak is the solution for my company's tax issue."

Harianto, Director of PT Cita Inti Pratam

The innovation

In many developing countries, government services are too often of poor quality or limited in their reach. Improving public services requires money, whether it is from borrowing, aid, or the mobilisation of domestic resources through taxation, savings, or even investments.

This year we partnered with OnlinePajak, an organisation which offers individuals and businesses in Indonesia free software to help them to prepare, pay, and file their taxes. The innovation has transformative potential: working closely with the Indonesian Directorate General of Taxes, OnlinePajak is enabling the Indonesian government to capture additional revenue. improve domestic resource mobilisation, and redirect money towards the improvement of key public services such as healthcare and education.

OnlinePajak has become the leading tax application in Indonesia. Reaching approximately one million users, the organisation estimates that in the 2017 tax year, 3.3 billion USD of revenue was collected by the government through its platform. That is approximately 3% of the state budget.

How OnlinePajak creates impact

OnlinePajak's potential to increase the tax base within Indonesia is significant. For example, an improvement of just one-tenth of one percent by 2028 would generate 144 million USD in additional annual tax revenue which could be redirected towards improving government services. OnlinePajak is also generating benefits for firms by reducing tax compliance costs, and is improving public sector governance through auditable data trails and strong internal controls.

The aim of our investment is to grow OnlinePajak's capacity and products to improve its services to the taxpavers of Indonesia. We hope to improve the ease of doing business for small businesses, while supporting the Directorate General of Taxes to collect vital domestic resources for improved public services.



Investments in 2018





A global rape prevention organisation whose aim is to end sexual violence against women and children.

Investment summary

Size \$225,000 Grant Type Pilot Stage

Sector Gender equality Uganda and Namibia Country Sub-Saharan Africa Region

The innovation

- No Means No Worldwide has developed a curriculum called IMpower, delivered to boys and girls aged between 10 and 20. Its aim is to end the cycle of violence by teaching boys to respect women and girls, and to empower girls to stand up for their rights.
- · An estimated 35% of women worldwide experience sexual violence in their lifetime: the team at No Means No Worldwide are seeking to effect change through skills-based training and education. Their 12-hour behaviour change programme uses role play to teach mental, verbal and physical self-defence skills.
- · The curriculum has already been delivered to over 300,000 people, and No Means No Worldwide's ambition is to significantly expand this reach through new partners.



- · Implement a training programme for new and existing staff to ensure that partner organisations are able to deliver the curriculum.
- Build a framework to monitor implementation of the curriculum by partner organisations, and help to expand the programme reach by raising awareness through GIF's network.



Smart solutions for managing online taxes.

Investment summary

Size \$1,750,000

Type Equity

Stage Test and transition
Sector Domestic Resource

Mobilisation

Country Indonesia

Region East Asia and Pacific

The innovation

- OnlinePajak offers free tax-filing software to individuals and businesses in Indonesia, allowing them to prepare, pay, and file their own taxes.
 Its free, user-friendly technology reduces the cost of tax compliance to individuals, firms, and government.
- OnlinePajak's technology can help to lower barriers to tax filing and payment, leading to extra tax revenue, and therefore improved domestic resource mobilisation in Indonesia. It is already the leading tax application in the country.
- Reaching approximately one million users,
 OnlinePajak has seen rapid customer growth
 since its launch in 2015, and has substantial
 potential for further growth, with a potential
 market of more than 50 million companies
 registered in Indonesia.



GIF's investment

- Increase tax revenues for the Indonesian government, reducing tax compliance costs for small businesses, and improving public sector governance.
- Grow OnlinePajak's operations and services, including the development of payment services, invoice financing, and HR software.

What we have learned so far

 How close government partnerships can enable SME services like OnlinePajak to be more effective in easing the cost of doing business.



To improve millions of lives by transforming how the social sector innovates, learns and improves.

Investment summary

Size \$230,000 Type Grant

Pilot Stage

Improving state Sector

capacity

Country Zambia

Sub-Saharan Africa Region

The innovation

- · Management information systems are essential for informed public sector decision-making, yet often these systems are top-down and fail to produce relevant, timely, and actionable information in a form that is easy to use for frontline officials.
- · IDinsight's Nano Information System aims to establish a replicable means of quickly producing robust information at a low-cost for frontline decision-makers to inform how they can effectively monitor programmes and improve lives.
- · The Nano Information System provides data on the issues users care about most and allows users to access results through clear, intuitive interfaces.



- · Create and test the Nano Information System within one Chiefdom in Zambia to inform local decision-making.
- Generate learning to inform the scalability of the Nano approach.



Non-profit at the forefront of behavioural science to change millions of lives.

Investment summary

Size \$2,200,000

Type Grant

StageTest and transitionSectorSocial protectionCountryGhana, Kenya,

Tanzania

Region Sub-Saharan Africa

The innovation

- ideas42 is seeking to incorporate behavioural designs into cash transfer programmes across Sub-Saharan Africa. The team's objective is to analyse each country's cash transfer programme to define problems, diagnose behavioural constraints, and design possible solutions. They have identified, implemented, and pilot tested the designs in two countries.
- Applying insights from the growing literature on behavioural science has the potential to bring about significant additional cost-effective impact by minor adjustments to programme features to "nudge" people on their decisions and actions.
- The impact of ideas 42's nudges will be rigorously evaluated, and the findings will be shared with the World Bank, country governments, and other stakeholders. They will also add to the evidence base for the effectiveness of behavioural design in cash transfer programmes.



GIF's investment

 Diffuse the evidence on the cost-effectiveness of behavioural design and the process for incorporating nudges into government cash transfer programmes.



Non-profit at the forefront of behavioural science to change millions of lives.

Investment summary

Size \$300,000 Type Grant Stage Pilot

Sector State capacity and

environment

Country To be decided **Region** To be decided



- ideas42 is also planning to test the costeffectiveness of incorporating behavioural nudges into tax payment and optimising energy and water consumption, to encourage at least three participating cities to adopt its innovation.
- Approaches like this have started to become more widely adopted in high-income countries, however, governments in developing countries have not yet significantly followed suit.
- ideas42 hopes to spread evidence on the cost-effectiveness of behavioural nudges and mainstream their use across government programmes.



- Identify three cities where this pilot may be needed.
- Pilot the use of 'pay-for-performance' contracts by municipal governments to procure energy or water conservation, or tax compliance, using behavioural nudges.
- Demonstrate an alternative performancebased payment approach to financing nudges compared to the current grants-based approach.



To help bring running water to every urban home, and to boost the health, dignity, and productivity of the urban poor in developing countries.

Investment summary

Size \$500,000

Type Convertible loan
Stage Test and transition

Sector Water access
Country Niger (in current

phase)

Region Sub-Saharan Africa

The innovation

- CityTaps has developed a solution that bridges the gap between water utilities and the urban poor: a pre-payment service that comprises the world's only smart and pre-paid water meter and billing software.
- Customers use mobile money to pre-pay for running water with any mobile phone, at any time, for any amount. Running water in the home is substantially cheaper, more convenient, and healthier than any alternative.
- CityTaps' solution has the potential to dramatically improve the lives and well-being of people who do not have access to water in the home. By the end of 2019, City Taps hopes that its project in Niger will benefit over 250,000 people.



- Roll out 10,000 meters as part of an ongoing pilot in Niamey, Niger.
- Collect data on the usage and reliability of the meters to build evidence for utilities to use going forward.
- Reduce the cost of goods sold, and to develop innovative financing partnerships.
- Build institutional capacity and governance best practices in preparation for future expansion.

CENTER ON FOOD SECURITY AND THE ENVIRONMENT - STANFORD

Mission

To generate solutions to the persistent problems of global hunger and environmental damage from agricultural practices worldwide.

Investment summary

Size \$460,000 Type Grant

Stage Pilot

Sector Agriculture and

livelihoods

Country Burkina Faso,

Ghana, Kenya, Mali, Mozambique, Ghana, Rwanda, Tanzania

Region Sub-Saharan Africa

The innovation

- Africa's 50 million smallholder farmers have crop yields far beneath what they could be achieving.
- Attempts to address this gap have been held back by a lack of data, stemming from the difficulty and cost of traditional survey methods for measuring crop yields and plot areas of small farms.
- Tests have shown that the remote sensing methods can perform well against traditional ground-based measures.
- The Stanford Center on Food Security and the Environment's innovation is a low-cost, real-time system that uses high-resolution and highfrequency satellite imagery to measure field scale and predict smallholder yields.



- Reliability testing of the innovation in a wider range of contexts and use-cases, and employing different types of remote sensing data.
- Partnering with other ventures in the GIF portfolio to try introducing rapid, rigorous feedback into agricultural extension efforts.



Making it simple for one billion people to access and use money.

Investment summary

Size \$5,000,000

Type Equity
Stage Scale

Sector Financial Inclusion

Country Nigeria

Region Sub-Saharan Africa

The innovation

- Paga is Nigeria's market leader in mobile payments and digital financial services.
 Through agents such as small kiosk shops and pharmacies, Paga delivers a wide variety of financial services to its customers, including bill payments, airtime purchases, remittances, and savings accounts.
- With 42% of Nigerians financially excluded, dealing in the cash economy and having to live without access to essential financial services has held back the poorest in society from creating safety nets and opportunities to get out of poverty.
- With around 12.7 million users, Paga is bringing about meaningful change. It hopes to be a leading player in Nigeria's transition from a cash to digital payment economy, and to create a world in which the poorest people do not have to rely on expensive and insecure informal savings schemes.



- Provide the platform to support impactful research on financial inclusion.
- Catalyse existing and new capital through GIF's rigorous vetting process.
- Build out new products, such as savings services, catered towards the mass market.

Follow-on funding in 2018





PayGo

In 2016 GIF made a \$230.000 debt investment to support PayGo Energy to pilot its smart metering

system that enables customers in developing countries to pre-pay for clean cooking gas. These smart meters monitor credit and gas consumption, to help predict usage and provide portions of gas. GIF was one of PayGo's earliest risk capital investors. Our decision to invest was catalytic and helped de-risk the company to draw in subsequent seed investors.

Since we made our investment, PayGo has not only achieved the aims of the pilot, but also gained significant business traction and raised significant funding on the back of GIF's early investment. It has completed development of its field-ready meter and significantly exceeded the original pilot size of 100 customers (the pilot has 296 active customers), and has also demonstrated customer demand with average consumption above initial projections.

In 2018 we invested an additional \$186,000 as part of PayGo's recent Series A round, in which all existing seed investors participated. GIF was excited to increase its commitment to PayGo given the traction the organisation has shown toward scale, the ability to benefit from continued learning about what works in the clean energy sector, and the strong fit with GIF's gender focus (73% of PayGo's customers are female).

Afrimarket

In 2016 GIF made a €2m equity investment in Afrimarket, a company which provides a low-cost



service for sending remittances through a cash-to-goods approach. Afrimarket locally sources and distributes a wide variety of products, including food, sanitation and construction materials in West Africa, serving as a compliment to traditional money transfer operators.

The innovation increases remittance flows through reduced sender costs using a mobile, no-middleman model, and also increases trust levels by allowing users to send specific products to recipients or to make use of a voucher system. Afrimarket also operates a leading eCommerce platform that delivers quality products even in the remote areas across West Africa.

GIF invested an additional €750.000 in Afrimarket in 2018. alongside existing co-investors. This additional capital enables Afrimarket to scale its operations, improving client profitability, and expand its B2B third-party delivery activities.

Further innovations in our portfolio





Building a world where refugees can rebuild their lives while contributing to the global economy.

Investment summary

Size \$230,000
Type Grant
Stage Pilot
Sector Refugee

self-sufficiency

Country Jordan, Lebanon,

Morocco, UAE

Region Middle East and North

Africa



- With more than 65 million people forcibly misplaced and 21 million refugees outside their home countries, existing resettlement pathways are ill-equipped to provide sustainable solutions to the refugee crisis.
- Talent Beyond Boundaries is working to identify skills within refugee populations and work with relevant authorities to open immigration pathways for refugees based on demand for their skills from employers across the world.
- The goal is to place refugees in jobs in stable countries where they can regain self-reliance through work.



 In 2018 Talent Beyond Boundaries contributed to the drafting process for the Global Compacts on Refugees and Migration. These compacts have been adopted by the United Nations General Assembly and provide credibility and impetus to the use of labour mobility pathways as a solution for refugee relocation.

- Test the viability of the labour mobility pathway by securing skilled employment, work permits and visas for 20 refugees located in Jordan and/ or Lebanon.
- Document processes and generate learning which will provide for changes to immigration regimes and expansion of the labour mobility approach to resettlement.



An effort to ensure every child learns with understanding.

Investment summary

Size \$2,300,000

Type Grant

Stage Test and transition

Sector Education
Country India

Region South Asia

The innovation

- There is a widely-acknowledged 'learning crisis' in low-income countries. Recent evidence in India suggests that over 60% of children aged 6-14 are not able to read at the second-grade level, despite primary school enrolment rates being over 95%.
- Educational Initiatives' interactive software, Mindspark, delivers personalised learning to individual students in classrooms. Mindspark then uses the data it generates to understand the learning level of each child, and adapts the material presented so that it matches students' individual levels of progress.
- In 2017 Educational Initiatives introduced Mindspark into 80 public schools across Rajasthan, and in 2018 the state government asked it to expand its project to 750 schools. The governments of Andhra Pradesh and Chhattisgarh have also both begun the process of procuring personalised adaptive solutions.



- De-risk the implementation of Mindspark and other personalised adaptive learning tools in government schools.
- Produce evidence that will encourage other state governments to procure and implement ed-tech software to improve the learning opportunities for children across India.



India's first pay-peruse farm technology services company for providing affordable wideband farm services to smallholder farmers.

Investment summary

Size \$7,400,000 (tranched)

Type Equity

Stage Test and transition

Sector Agriculture

Country India

Region South Asia



- A significant barrier to inclusive growth and increased productivity is a lack of access to mechanised farming equipment, which is too expensive for most smallholder farmers. This is to be extended in due course to other agritech and fintech services.
- EM3 has developed a first-of-its-kind solution to tackle the challenges that Indian smallholder farmers face when trying to access mechanised farming equipment.
- It connects equipment owners with smallholder farmers in need of services, offering on-demand, pay-per-use services of harvesters, tractors, and other farming equipment.
- Through EM3's innovative platform, smallholder farmers can access farming services such as land preparation, sowing and harvesting, all billed per acre or per hour.



- Scale up the innovation and expand into new geographies and crops so that EM3 is able to serve the needs of smallholder farmers across India.
- Work with EM3 to prioritise and roll out partnerships, including with strategic, commercial, and financial companies that will help the company on its pathway to scale.



Increasing remittance flows through non-binding labelling.

Investment summary

Size \$1,700,000 **Type** Grant

Stage Test and transition

Sector Remittances

Country Philippines, Pacific

Islands

Region East Asia and Pacific

The innovation

- Remittances are a key financial flow to developing countries, but they currently represent a small share of the total earnings of overseas migrant workers. Part of this is a lack of confidence on the part of the sender that recipients will put the savings to good use.
- The Labelled Remittances innovation enables individuals to label, in a non-binding way, the intended use of the remittance that they are sending. Field experiments have shown that giving migrants this ability increases the volume of remittances they are willing to send to their recipients.
- If this intervention is proven to be effective, it could be scaled by banks and other remittance providers like money transfer operators quite easily, because labelling requires minimal modification to existing platforms.



- Run a randomised controlled trial to test the impacts of a real-world version of the remittance labelling product.
- The trial will test both the changes in remittance behaviour of the migrants, and changes in spending patterns and life outcomes of the recipient households, in the Philippines and Pacific Islands.



Bringing new technologies to life through a global innovation forum of the world's leading end users.

Investment summary

Size \$178,000 Grant Type Pilot Stage Sector Water Country Pan-Africa

Sub-Saharan Africa Region

The innovation

- · According to UN data, more than 600 million people globally are still without improved drinking water sources, and 1.8 billion people use a source of water that is faecally contaminated.
- Isle Utilities' Technology Approval Group (TAG) is a forum which brings together representatives of national and private water utilities, suppliers, and regulators to learn more about cutting-edge water technologies. While this innovation has been tested in the developed world, Isle is now piloting the TAG model in Africa.
- Isle identifies the most promising technologies in the water industry and links them directly with the decision-makers within African water utilities at TAG events.

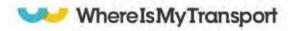


GIF's investment

- Pilot the TAG model in Africa, including an initial scoping piece of work to identify relevant water technology providers and water utility customers.
- Run a series of matchmaking engagements between worldwide water technology providers and African water utilities.

What we learned

Matchmaking decision-makers in developing markets with appropriate technologies can lead to meaningful pilots and adoption.



Empowering people through public transport data for emerging cities.

Investment summary

\$690,000 Size

Simple Agreement for Type

Future Equity (SAFE)

Test and transition Stage

Sector Transport Country South Africa

Region Sub-Saharan Africa

The innovation

- Poor mass transit is a significant problem that disproportionately affects those living on less than \$5 per day, with approximately 70% of trips in South Africa made via informal transport.
- · WhereIsMyTransport has created an open platform for bringing together formal and informal transport data. This enables apps to provide real-time transport information, and also allows for more efficient planning and regulation of transport systems by local governments.
- · The poor spend a larger portion of their income on transport, and many cannot afford motorised transport at all. Crucially, WherelsMyTransport makes mass transportation more accessible. efficient, and safe for low-income communities.
- In 2018 WhereIsMyTransport secured Series A funding and expanded into India, Southeast Asia and Latin America.



- · Seek to scale the innovation beyond South Africa by mapping informal transport routes in additional cities globally.
- Collecting data in South Africa's major metropolitan regions, and refining our technical and operational approach in the process.

MBL

Mission

Ugandan biomedical research institution leading projects on malaria, tuberculosis, HIV-1/AIDS, cassava, and environmental biotechnology.

Investment summary

Size \$230,000
Type Grant
Stage Pilot
Sector Health
Country Uganda

Region Sub-Saharan Africa

The innovation

- Malaria is one of the leading causes of death worldwide, with over 400,000 attributable deaths last year, 90% of those occurring in Africa.
- In seeking to tackle this problem, Med Biotech Laboratories tested a novel approach to malaria protection, HD4MC. This incorporates insecticides into the interior wall decorations of dwellings, as an alternative to the standard approach, Indoor Residual Spraying (IRS).
- The innovation showed potential to perform a similar function to IRS, where mosquitoes are killed if they come into contact with treated surfaces.



GIF's investment

 Conduct a trial to test the efficacy of the innovation in the field.

What we learned

- While it was found that people accepted the idea of HD4MC, it proved to be no more effective than IRS at killing mosquitoes. As a result, the trial was ended early.
- Funding ceased when evidence coming out of the trial did not support further scale-up, in line with GIF's commitment to evidence-based impact investment.
- However, in the course of an associated clinical trial, MBL demonstrated the usefulness of an improved new field diagnostic test for malaria, and found that asymptomatic malaria was much more widespread than previously thought.



Evidence Action aims to be a world leader in scaling evidencebased and cost-effective programmes to reduce the burden of poverty.

Investment summary

\$2,570,000 Size

Grant Type

Test and transition Stage Agriculture, seasonal Sector

migration

Country Bangladesh, Indonesia

Region South Asia

The innovation

- With an estimated 300 million people suffering from seasonal hunger, Evidence Action's No Lean Season offers subsidies to low-income agricultural workers as an incentive to migrate to urban areas during the famine season, where higher wages can be earned.
- In 2017 Evidence Action expanded No Lean Season ten-fold to reach 700 villages, disbursing over 40,000 loans, and decided to rigorously test its scalability through a randomised controlled trial. In 2018, Evidence Action announced that the trial results showed the 2017 implementation round was not effective in increasing migration or improving outcomes for the rural poor.
- · In light of these results, Evidence Action decided to cease fundraising for the programme until the results of the on-going evaluation of its 2018 implementation round come in, demonstrating the commitment that it shares with GIF to evidence-based impact investment.



- Design and implement a scalable programme. and test whether the impact of the programme holds at scale.
- Generate evidence not just on the effectiveness of a programme, but on the design of the programme and how this can provide reasonable certainty about its impact.



To reduce poverty by ensuring that policy is informed by scientific evidence through research, policy outreach, and training.

Investment summary

Size \$1,300,000

Type Grant

Stage Test and transition

Sector Health
Country India
Region South Asia



The innovation

- According to the World Health Organization, there are about two billion people with anaemia in the world, and half of these cases come about as a result of iron deficiency. Grain fortification is considered to be an effective way of tackling high rates of prevalence of anaemia.
- J-PAL is conducting a randomised controlled trial to test the effectiveness of delivering fortified rice in tackling anaemia. The rice will be delivered through the Public Distribution System in Tamil Nadu, India.

- Generate and document evidence on the effectiveness of this innovation, as well as its implementation through a Public Distribution System.
- Share the results that come out of this trial in an effort to support the wider adoption of this approach (if successful) by other organisations.



Providing cost effective end-to-end services to smallholder farmers.

Investment summary

\$2,500,000 Size

Debt and convertible Type

note

Test and transition Stage

Sector Agriculture Country Nigeria

Region Sub-Saharan Africa



- Babban Gona provides a comprehensive agriculture franchise model that seeks to sustainably improve the lives of smallholder farmers through the provision of end-to-end farming services.
- · It operates in rural northern Nigeria, where it provides farmers with all they need to thrive, be it knowledge, harvesting services, or storage. This enables smallholder farmers to increase yields, lower their production costs, and gain a higher price for their crop.
- · Through Babban Gona's model, each farmer receives a net income of \$542, which is three times greater than the average smallholder. Over the last four years the model has dramatically increased its reach and currently supports approximately 16,080 smallholder farmers.



GIF's investment

- Grow to over 80,000 smallholder members by 2020.
- · Attract approximately \$30 million of additional debt to finance expansion plans.
- · Improve the sustainability of Babban Gona's business model through introducing new products and services.
- Collect rigorous evidence of impact through conducting a randomised controlled trial.

What we have learned so far

 How a smallholder network can be strengthened through last mile distribution services.



Connecting pharmacies.
Transforming Global
Health.

Investment summary

Size \$2,000,000

Type Equity

Stage Test and transition

Sector Health

Country Philippines, Malaysia,

Vietnam, Thailand,

Indonesia, Cambodia

Region East Asia and Pacific



- Pharmacies are the first point of access to modern medical advice and treatment for many people in low and middle-income countries. Despite their critical role, pharmacies are often neglected by public health and development communities.
- mClinica's mobile solutions connect pharmacies by digitizing patient programmes, building capacity in the pharmacy workforce, improving the pharmaceutical supply chain, and generating data.
- SwipeRx, South East Asia's largest social network of pharmacies, connects over 140,000 pharmacists, acting as a one-stop shop to communicate, take CPD modules, search for jobs, and access drug information.
- SnapRx is an Al-powered health information system built on prescription data. Data generated by SnapRx is used to monitor medicine use at both public and private sector pharmacies and inform healthcare policy and programmes.



 Connect, a data-driven digital patient assistance programme, enables pharmaceutical companies to run compliant digital patient assistance programmes to improve patient access, affordability and adherence.

- Improve health outcomes for patients across
 South East Asia, especially among rural and
 low-income populations, by reducing healthcare
 expenditures, increasing adherence and
 compliance.
- Support evidence-based policy making through the collection of data and insights from the pharmacy channel.
- Expand throughout South East Asia, including entering new markets in other lower-middle income countries.



Improve the quality of life for deprived children in rural Ghana and Uganda through creative early childhood development programmes that enliven minds and empower communities.

Investment summary

Size \$1,300,000 to Lively

Minds, \$785,000 to the Institute for Fiscal

Studies

Type Grant

Stage Test and transition
Sector Early Childhood

Development

Country Ghana

Region Sub-Saharan Africa



- With 250 million children in developing countries failing to reach their full potential in terms of cognitive development, Lively Minds focuses on involving parents to incorporate play in kindergarten services.
- Lively Minds trains government kindergarten teachers, who in turn train mothers to run play schemes in kindergartens and to integrate play-based learning activities in children's daily routines.
- Play-based learning leads to improved literacy and numeracy skills for children, while parental engagement in learning brings benefits for mothers and teachers too.



- Train district education officials, kindergarten teachers and mothers to set up and run 250 new play schemes.
- Test the impact of the Lively Minds model through a randomised controlled trial in partnership with the Institute of Fiscal Studies and led by Orazio Attanasio, IFS research Director and Head of Economics, University College London.



A non-profit social enterprise that supplies financing and training to help smallholders grow their way out of hunger and build lasting pathways to prosperity.

Investment summary

Size \$15,000,000

Type Grant Stage Scale

Sector Agriculture

Country Rwanda, Kenya, Uganda,

Burundi, Tanzania,

Malawi

Region Sub-Saharan Africa



- As a group, smallholder farmers are among the most disadvantaged and vulnerable in the developing world.
- One Acre Fund has developed an innovative system for testing, evaluating and scaling critical farm technologies and practices that increase the productivity and income of rural smallholder farmers.
- To date, the organisation has a track record of improving the incomes of 800,000 smallholder farmers.
- Committed to determining what works in enabling new impact, One Acre Fund commissioned a randomised controlled trial evaluation in Kenya's Teso District, which showed improvements in both harvests and yields for maize and bean crops.



- Improve technologies and approaches by scaling through its own system and partners.
- Drive reductions in the donor subsidy per farmer necessary for the group to create and amplify impact.
- Enable One Acre Fund to encourage other actors operating in this space to adopt its innovations, with targets to generate \$65 million in benefits for smallholder farmers.

SPARKMETER*

Mission

Helping to make access to electricity possible in hard-to-reach places and under-served markets.

Investment summary

Size \$658,000

Type Loan and equity
Stage Test and transition
Sector Energy access

Country Nigeria, Kenya,

Tanzania **Region** Sub-Saharan Africa

The innovation

- Over one billion people lack access to any form of electricity, 95% of whom are located within Sub-Saharan Africa or developing Asia.
- SparkMeter is offering low-cost meters to micro-grids that are already serving rural, low-income communities. By helping to make micro-grids more efficient and affordable for the poorest people in society, SparkMeter hopes to encourage new investors to come on board and help the industry to scale up.
- SparkMeter is also supplying low-cost, advanced metering to central grid utilities. Their hope is that, by providing cost savings to utility companies, they can encourage major utilities companies to improve services for their poorest users.



- Establish a full suite of certified meters that can scale to both micro-grids and central grid utilities.
- Bring in additional financing to help to expand SparkMeter's operations by partnering with other investors.
- Access real-time data from SparkMeter's meters in order to be able to evaluate energy improvements in low-income households.



Backing new ideas
to tackle the big
challenges of our time,
from the pressures of
an ageing population
to stretched public
services and a fast
changing jobs market.

Investment summary

Size \$290,000 **Type** Grant

Stage Test and transition

Sector Aquaculture

Country Bangladesh and India

Region South Asia



- With 281 million undernourished children and adults in South Asia, Nesta sought an innovative way to boost the production of fish farming in poor communities in Bangladesh and India, supporting livelihoods and ecosystems in the process.
- Nesta, in collaboration with Forum for the Future and University of Sterling, designed the Integrated Services in Aquaculture Prize, aimed at improving the productivity of small farms and benefiting individual fish farmers, through improved output and profitability; and consumers through increased supply of fish at lower cost.
- After considering four prize concepts, the team designed the Integrated Services Prize, which will reward a competitor that can create a service that helps smallholder fish farmers in India or Bangladesh to substantially increase their production and profit.



- Implement the design phase of the Challenge Prize in Aquaculture for Global Development.
- Learn about prizes as a means of paying for results, and addressing an important development challenge for a large number of people living on less than \$5 a day.



To revolutionise distribution and unlock access to gas for the next billion users.

Investment summary

\$410,000 Size

Debt and equity Type

Stage Pilot

Sector Clean energy

Country Kenya

Region Sub-Saharan Africa



- 88% of Kenyan households are currently cooking on dirty fuels such as kerosene and charcoal, which have long been associated with adverse health and environmental risks.
- · PayGo is developing smart metering systems that enable customers to pre-pay for clean cooking gas, which is often unaffordable to lowincome urban consumers due to upfront and recurring costs.
- · PayGo's smart meters monitor credit and gas consumption, to help predict usage and provide portions of gas. This allows PayGo to provide an uninterrupted supply of affordable gas to their customers.
- In 2018 PayGo raised Series A funding and is learning about B2B models to scale up access to clean cooking gas.



- Finalise a field-ready product and test across 300 households in Kenya.
- Implement a pilot to test PayGo's ability to acquire customers, customers' ongoing demand for Liquefied Petroleum Gas (LPG), and different distribution models for cylinder exchanges.
- Catalyse a seed round from equity investors, and strengthen environmental, social, and governance systems at PayGo.



Improving the lives of vulnerable communities by building a network that shares ideas and innovations to create global impact.

Investment summary

Size \$856,000

Type Grant

Stage Test and transition

Sector Health Country Pakistan Region South Asia



The innovation

- In Pakistan alone, an estimated nine to 13 million children under the age of two have not received age-appropriate immunisation coverage.
- Interactive Research and Development (IRD)
 is carrying out a three-year randomised
 controlled trial to find the most cost-effective
 way to ensure parents complete the required
 immunisation vaccines for children under two.
- IRD is using lessons from India where nudges have successfully been used to increase immunisation rates. If successful, this study will provide a model for scaling and replicating the use of nudges for immunisations in other contexts.

- Three-year randomised controlled trial to find the optimal incentive amount, schedule, and design to achieve a higher immunisation rate in the most cost-effective way in Karachi, Pakistan.
- A total of 11,200 children under two visiting an immunisation centre, or contacted during outreach activities, for any one of the routine immunisations will be enrolled in the study.



Working in partnership with governments, local authorities, businesses and charities, often using simple changes to tackle major policy problems.

Investment summary

\$3,850,000 Size

Grant Type Stage Scale Multiple Sector

Country Guatemala, Indonesia,

Bangladesh, Philippines

Region East Asia and the

Pacific



- · To achieve the UN Sustainable Development Goals, governments must design cost-effective policies that address a range of social needs. A critical aspect of this challenge is human behaviour.
- · GIF and BIT are partnering to conduct handson training in applying behavioural insights to public policy, and to measure the impact of interventions with rigorous evaluation methods.
- The early focus is on increasing tax compliance, building revenue for essential public services at the same time as building capability in the use of behavioural and experimental approaches within the administration.



- Deliver a series of randomised controlled. behavioural-based trials primarily focused on improved tax compliance capacity building of local civil servants.
- Build an evidence base to understand how behaviourally-informed policies can improve the lives and opportunities of people in the developing world.



Mission Every person counts.

Investment summary

Size \$200,000 **Type** Grant

Stage Pilot

Sector Digital identity
Country Bangladesh
Region South Asia



- Simprints is a non-profit technology company from the University of Cambridge. It builds opensource software and biometric hardware that empowers the mobile tools used by researchers, NGOs, and governments fighting poverty around the globe.
- Recognising a significant gap in current biometric technology, Simprints has developed an open-source fingerprint system for the world's toughest settings that is more than 200% more accurate and four times cheaper than existing solutions.
- Increased adoption of solutions like Simprints will help identify the 1.5 billion people worldwide who do not officially exist due to a lack of formal identification.



- Develop Simprints' product, including moving to a larger scale of manufacturing.
- Contribute to the biometric evidence base through a randomised controlled trial. The study will measure the impact of Simprints' technology on a mobile health programme in Bangladesh.



A leading e-commerce platform in West Africa that provides a lowcost cash-to-goods remittance service.

Investment summary

€3,000,000 Size Preferred equity Type Stage Test and transition Domestic resource Sector

mobilisation

Country Cote d'Ivoire, Senegal,

Benin, Togo and

Cameroon

Sub-Saharan Africa Region



- Remittances play an important role in domestic resource mobilisation, representing up to 5% of GDP in West Africa.
- · Afrimarket provides a low-cost, cash-to-goods service for sending remittances, locally sourcing and distributing products including food, sanitation and construction materials in West Africa, serving as a compliment to traditional money transfer operators.
- · Afrimarket's innovation increases remittance flows through reduced sender costs using a mobile, no-middleman model, and also increases trust levels by allowing users to send specific products to recipients.



- Serve as a thought partner for Afrimarket on environmental, social, and governance issues, as well as data privacy.
- Play a critical role in crowding-in other investors to support Afrimarket's growth.
- Develop Afrimarket's distribution and logistics operations.



Moving smallholder farmers out of poverty.

Investment summary

Size \$225,000 Type Grant Stage Pilot

Sector Agriculture

Country Mali

Region Sub-Saharan Africa

The innovation

- Smallholder farmers are feeding the world, but only 7% have access to finance through traditional financial institutions. myAgro is supporting farmers finance themselves.
- myAgro is a social enterprise that aims to move smallholder farmers out of extreme poverty.
 They have developed the first mobile layaway scheme for smallholder farmers in the world.
- Their scratch card system allows smallholder farmers to save for improved farm inputs such as seeds and fertiliser at harvest time.
- 60% of myAgro clients are women, and results have shown that myAgro has supported farmers to grow 100% more food and double their net farming income.



- Carry out a one-season pilot to try to lower the cost of acquiring new customers by marketing to existing groups, and lower the cost to serve each farmer by increasing the number of customers.
- Gather data from the pilot to better understand the effectiveness of this innovation on the sector.

SIMPA NETWORKS

Mission

To make clean power simple, affordable and accessible for everyone.

Investment summary

\$2,300,000 Size Preferred equity Type Stage Test and transition Sector Clean energy Country India

Region South Asia

The innovation

- · Simpa Networks' innovation is an off-grid payas-you-go solar lighting and home system that combines both financial inclusion and clean energy access for rural families in India.
- · Simpa has already provided access to clean energy to over 250,000 people and is live on more than 50,000 rural rooftops in over 5,000 villages - meaning Simpa is delivering 18.5 million energy days per year right now, making it one of the largest private energy distribution companies in India.
- Simpa delivers 4.5M kWh per year.



- · Expand to cover a greater number of lowerincome customers through the roll-out of cheaper products, and replicate innovation in other districts.
- Deliver a 3.5 x growth in the number of installed Simpa systems and households reached over the last three years.



Modernising informal transportation and ensuring safe access to mobility.

Investment summary

Size \$230,000

Type Convertible debt

Stage Pilot

Sector Mobility/transportation

safety

Country Uganda, Kenya, and

Nigeria

Region Sub-Saharan Africa



- With road accidents set to match HIV/AIDS as the highest cause of death in low and middleincome countries by 2030, SafeBoda is providing a solution by creating a network of safe taxi motorbike drivers. The key safety intervention is the provision of drivers that are trained on safety, trusted, and have a spare helmet for passengers.
- SafeBoda has proven its model in Uganda and has attracted commercial capital to help it to scale. After a number of new investors showed interest, GIF decided to exit the investment, selling our shares at \$362k, approximately 1.58 times its original value.
- With commercial investors in place, GIF was able to hand off the investment to the next set of investors and use the proceeds to make additional catalytic investments in new highimpact organisations.



GIF's investment

- Prove the effectiveness of SafeBoda's safety innovation in Kampala, Uganda.
- Guide the founders on governance, systems, and impact measurement.
- Raise follow-on funding from commercial investors to enable Safeboda to scale its innovation across Africa.

What we learned

- Working with early-stage innovators like SafeBoda requires more time from GIF, but can be some of the highest value additionality when business and impact goals are aligned.
- With significant commercial interest in the model, GIF may not need to be involved as an equity partner in the long-term, in order for the company to continue its scale journey.



Connecting youth to proven life-saving information.

Investment summary

Size \$168,000 to Younglove

\$195,000 to Evidence

Action

Grant Type

Stage Test and transition Sector Reproductive health

Country Botswana

Sub-Saharan Africa Region



- · With young women acquiring HIV infection at least five to seven years earlier than men, Young love developed a one hour "sugar daddy" class for high school students to educate them about the relatively higher risk of sex with older partners, versus people of a similar age.
- · Following a successful trial in Kenya in 2005, Young love conducted a randomised controlled trial in 2016 to test the programme's effectiveness in Botswana. The results produced more ambiguous results, and did not demonstrate the clear impact on pregnancy it had hoped for. Following this, GIF decided to discontinue its funding for the innovation.



· GIF takes smart bets on interventions that have the potential to be game changing, which also means discontinuing funding when evidence does not support further scale-up. The testing of the 'No Sugar' programme highlights the importance of rigorous evidence in policymaking and testing interventions in multiple contexts before scaling up.

GIF's investment

· Conduct a randomised controlled trial to test the effectiveness of Young love's peer education approach to empower girls in secondary school in Botswana to reduce their risks of HIV/AIDS and unplanned pregnancies.



Not to import solutions into the developing world, but to add value to society and industry locally.

Investment summary

Size \$120,000
Type Grant
Stage Pilot
Sector Nutrition
Country Malawi

Region Sub-Saharan Africa



The innovation

- According to UNICEF, more than 50 million children (under five) suffer from Acute
 Malnutrition (comprising Severe and Moderate
 Acute Malnutrition). Chronic Malnutrition a
 condition which leads to both physical and
 mental 'stunting', affects a further 150 million
 children in developing countries. VALID
 Nutrition's mission is to develop and bring
 the choice of highly effective, affordable
 and appealing ready-to-use foods (RUFs) to
 impoverished consumers in developing countries
 at scale.
- RUFs are energy dense, fortified pastes designed to combat malnutrition. Existing products are made from expensive inputs such as milkpowder and high quality peanuts which reduces the number of children being treated due to cost, and is also not conducive to supporting local production of these products in Africa.
 VALID and its research partner, Ajinomoto Co. Inc., developed an innovative, lower cost readyto-use therapeutic food (RUTF) comprising

crystallised amino acids, combined with the main ingredients of Soya, Maize and Sorghum (SMS-RUTF). With 96% of ingredients being readily available in Africa, SMS-RUTF allows VALID to source ingredients where the foods are being deployed, adding long term value to local agriculture and communities.

 For the first time since RUFs were developed, we now have a lower cost product that is as efficacious as the standard milk-peanut product, but contains locally sourced ingredients and is proven superior in treating anaemia, and replenishing body iron stores. SMS-RUFs are a transformational development for the international RUFs market, and most importantly for 200+ million children suffering from various forms of malnutrition.

GIF's investment

 Conduct clinical and acceptability trials of their new products to demonstrate its effectiveness, as well as the potential for cost savings.



To improve the income of the poor through skills-based secondary education in Africa.

Investment summary

\$300,000 Size Grant Type

Stage Test and transition Youth employment Sector Country Uganda and Rwanda Sub-Saharan Africa Region



- A vast number of youth in developing countries lack employability skills even after completing secondary school.
- · Educate! focuses on reforming what schools teach and how they teach it. It seeks to tackle the issue of unemployment in Sub-Saharan Africa head-on by providing young people with leadership, entrepreneurship and workforce readiness skills training.
- · The Educate! model is delivered through practically-trained teachers and empowered youth mentors. The organisation's goal is to make this practical, skills-based model part of national education systems.



- · Test and expand the Educate! skills-based Education programme, with a view to encouraging government adoption.
- · Conduct the end-line survey of a randomised controlled trial to test whether the model creates long term outcomes. This is a critical question that will inform the future scale up of the programme.



Unrelenting advocates for newborns.
It's Due Time.

Investment summary

Size \$225,000
Type Grant
Stage Pilot
Sector Health
Country Philippines

Region East Asia and Pacific

The innovation

- Globally 2.5 million babies die in their first week of life each year due to neonatal infection with a third of these deaths attributable to infection in the neonatal period, primarily pneumonia and sepsis.
- Low blood oxygen is an early indicator of infection. The Newborn Foundation, in collaboration with a medical technology company, has developed a low-cost pulse oximeter to measure blood oxygen levels in newborns.
- With the potential to detect sepsis, pneumonia, and congenital heart defects earlier than standard practice, pulse oximetry is expected to reduce infant mortality.



GIF's investment

 Generate data on the operational effectiveness of the technology and the feasibility of using the technology in resource-poor settings, to assess the applicability of the screening to other countries.



Changing behaviours. Saving lives.

Investment summary

\$2,000,000 Size

Type Grant

Test and transition Stage Health and Family Sector

Planning

Country Burkina Faso

Region Sub-Saharan Africa



- Many women in the Sahel face informational and social barriers that prevent the uptake of modern contraception.
- · GIF provided Development Media International (DMI) a grant to rigorously test the impact of a radio-based saturation mass media campaign to encourage the use of modern contraceptives in Burkina Faso. The behaviour change campaign focused on overcoming the cultural barriers and social norms that prevent the uptake of modern contraceptives. The saturation campaign featured 60-second radio spots broadcast ten times a day, as well as regular interactive phonein radio shows.
- The campaign (June 2016 -December 2018) reached an estimated two million people and at scale could potentially reach 11 million people in Burkina Faso in a cost-effective manner. Endline results (from JPAL) are expected in September 2019, with encouraging



preliminary findings showing increased modern contraception uptake (mCPR) amongst women reached by the campaign. Furthermore, DMI has established a partnership with the Sahel Women's Empowerment and Demographic Dividend (SWEDD) project, which is backed by UNFPA and the World Bank. By organising DMI-led training workshops on evidence-based radio campaign strategies and by the sharing of scripts, it is hoped that Mauritania, Mali, Niger, Côte d'Ivoire and Tchad will also scale up their family planning efforts by building on DMI's work in Burkina Faso.

- Enable DMI to produce radio content that promotes the use of modern contraceptives, for broadcast on local radio stations.
- If the campaign demonstrates cost-effective impact, DMI will be well positioned to adapt mass media family planning behaviour change campaigns to other countries.



Frontier market payments, simplified.

Investment summary

Size \$750,000 **Type** Equity

Stage Test and transition
Sector Poverty and social

protection

Country Kenya, Uganda,

Pakistan

Region Africa and South Asia



- Cash transfers are a cost-effective, evidencebased means of enabling vulnerable people to meet basic needs in emergencies and to escape poverty. Yet identifying who should be paid, integrating across the dozens of payment networks required to reach them, remains a slow, manual, risky process.
- Segovia provides a software technology platform that radically improves the efficiency of aid by making it faster, cheaper, and more secure to transfer funds directly to vulnerable populations.
- Segovia's first-of-its-kind technology product aims to increase the money received by poor beneficiaries by 20-30% by reducing diversions, transfer costs and inefficiencies.



- Test the efficacy of Segovia's software.
- Extend the reach of Segovia's technology by growing its client base.
- Deepen the functionality of the platform, including advanced customer support and data security.

POA POWER HOME ENERGY

Mission

Providing communities with affordable clean energy.

Investment summary

Size \$240,000

Type Convertible debt

Stage Pilot

Sector Energy Access

Country Kenya

Region Sub-Saharan Africa

The innovation

- 1.1 billion people have no electricity worldwide, many of whom live in communities out of reach of central grid utilities in Sub-Saharan Africa.
- PoaPower is a social enterprise which provides clean and affordable electricity to off-grid, low-income consumers in Kenya through a unique a 'pay-as-you-go' business model.
- This business model allows PoaPower to sell energy on a metered pay-as-you-go basis with no upfront equipment costs. This ensures that even the lowest income households can access clean energy as and when they choose.



- Provide proof-of-concept services to 500 select households in off-grid areas in peri-urban Nairobi.
- Structure the company's first risk capital investment with milestones to bring in other risk capital investment if met.

Thank you to all 2017/18 decision panellists:

Jake Kendall, Director, The DFS Lab

Varun Sahni, Co-founder and COO, CreditEnable

Beau Seil, Co-founder & Partner, Patamar Capital

Oeindrila Dube, Philip K. Pearson Professor, University of Chicago - Harris School of Public Policy

Cheick Sanankoua, Managing Partner, HC Capital Properties

Goufrane Mansour, Consultant, Water and Sanitation Specialist, Aguaconsult

Harvey Koh, Managing Director, FSG

Chris Locke, Founder, Caribou Digital

Vera Mshana, Program Officer, Natural Resources & Climate Change, Ford Foundation

Jessica Seddon, Director of Integrated Urban Strategy, World Resources Institute

Dennis Whittle, Co-founder and former CEO, Feedback Labs and GlobalGiving

Julie Cobill, Global New Business Models Manager, Unilever

Vijayendra Rao, Lead Economist, Development Research Group, The World Bank

Nolwazi Mkhwanazi, Senior Lecturer, Dept of Social Anthropology and Senior researcher, Wits Institute for Social and Economic Research (WiSER), University of the Witwatersrand



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Simon Jones - Chief Finance Officer

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Taniya Bajaj - Investment Associate Tom Mason - Group Financial Controller Vineet Bewtra - Senior Advisor Zach Johnstone - Senior Advisor, Policy and Communications

"I love that GIF can say 'yes', where many other investment funds have to say 'no' because of ticket size or financial risk. We can say 'yes' when the promise of impact on the lives of poor people is great, and then figure out what works for our partners in terms of what kind of funding and how much they need."

Kanini Mutooni GIF Board Chair "GIF works hard to fund not just the 'usual suspects', but promising innovators with the potential to bring about lasting social impact, wherever they are."

Santhosh Mathew GIF Board Member "It's great that we define innovation broadly, and encourage researchers to apply to GIF. I'm committed to helping GIF fund innovation that comes from academics, researchers, and the wider economics community."

Stefan Dercon
GIF Board Member



IMPACT **REPORT** 2017-2018

