
Enterprise Solutions for 2030

Building inclusive markets to accelerate progress towards the Sustainable Development Goals

This report was written by Shell Foundation's Richard Gomes.

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Executive Summary

When Shell Foundation (SF) was created in 2000, we set out to test a theory, largely unproven at the time, that market forces could be directed to deliver lasting socio-economic, health and environmental value to low-income communities – and that eradicating many of the world’s most entrenched development challenges could be financed predominantly from private capital.

These were muddy waters to trawl and we have been forced to change track several times in response to setbacks, failures and dead-ends. Fast forward 15 years, however and the results from our programmes and the sector are promising. The world’s poorest communities have proven willing and able to pay for a raft of new “social” goods and services from enterprises that have attracted significant private capital to fund expansion. Tens of millions of Africans living in off-grid areas can now access brighter, cheaper solar power. Mobile money is transforming the earning potential of people in East Africa as microfinance has done in Asia. SMES supported by new dedicated intermediaries are growing, creating jobs and contributing to local economies.

The inspired efforts of a large number of entrepreneurs, social investors, governments, NGOs and corporates, supported by different forms of philanthropy, have proven beyond doubt that social enterprises can deliver tremendous value. Buoyed by this success, new asset classes such as “impact investment” and “venture philanthropy” have emerged to accelerate the impact of inclusive businesses and market-led approaches to the provision of essential services, such as access to clean water, sanitation and transport.

THE GROWING IMPORTANCE OF INCLUSIVE MARKETS

This year, world leaders rallied around a new set of “Sustainable Development Goals” (SDGs) against which progress towards a fairer and safer society will be measured. These daunting and highly complex challenges, affecting well over four billion people, will weigh heavily given the current pace

of change. Even allowing for increasing volumes of foreign direct investment, corporate social responsibility and philanthropy, radically different approaches will be needed to “end poverty in all its forms” within just 15 years.

Emerging evidence shows that “inclusive” markets focused on low-income consumers will be essential to deliver the SDGs. While work to redress social inequality and remove obstacles to economic participation must continue, the sheer size of the challenges we face and the limited public finance available to solve them will necessitate a greater focus on private markets to deliver social goods and services. This will result in the faster delivery of development outcomes, at lower public cost, and with a more pervasive long-term impact.

There are, however, two major challenges to achieving this vision.

First, despite the hype and white noise around the social investment sector in recent years, there remain relatively few examples of social enterprises serving low-income consumers at a meaningful scale. Promising social enterprises are struggling to grow.

Second, when we examine the formation of inclusive markets such as microfinance, mobile money or off-grid solar, we typically see a time lag of several decades between the emergence of a new technology or business solution and the growth of a vibrant market delivering material impact on an international stage. Inclusive markets do not grow quickly, regardless of consumer demand or potential impact.

WHY READ THIS REPORT?

In the last 15 years, SF has deployed \$207 million towards the creation of social enterprises and market-enablers with the potential to deliver lasting development outcomes at scale. Within these pages we report the impact from this investment and the major turning points in our strategy that led to improvements in performance.

The challenge we now face, explored in this report, is how to deliver a step change required to **eradicate** issues related to energy poverty, urban mobility and job creation once and for all within the next 15 years.

The dimensions of these challenges are frightening. In 2015, for the first time, a solar light manufacturer and a clean cookstoves business will surpass ten million lights and one million stoves sold respectively, providing over 55 million people with affordable light, cleaner air and fuel savings. Yet since 2002 over 50 million people have died from household air pollution – more than the entire population of South Africa. Today 1.2 billion people lack access to reliable energy for household, community or productive use – yet on current trends one billion will still lack affordable power by 2030.

In this report we share our views on the best way SF can help to achieve the SDGs by accelerating the growth of such markets. Where can we best deploy capital to maximise long-term value for the people we serve? What is the most cost-efficient way to achieve these charitable goals? How can we partner with like-minded organisations to unlock private capital to fund greater impact?

To do this, we aggregate the common learning from our work to enhance energy access, sustainable mobility, job creation and supply chain sustainability over the last 15 years, drawing on the experience of our social enterprise and market intermediary partners and over 200 collaborations with social investors to support their scale-up. In making these views public, we invite insight from peers to help us further improve our effectiveness going forward.

KEY TAKEAWAYS

1. Our experience in working to catalyse enterprise solutions to a range of development challenges is that specific types of market-

building support are required for businesses at different stages of growth. In our view, these **“building blocks for scale”** sensibly fall into four distinct categories related to supply, demand, finance and institutional support, although we are aware others may group them differently. We offer a framework for the critical determinants of market growth in Chapter 3 of this report.

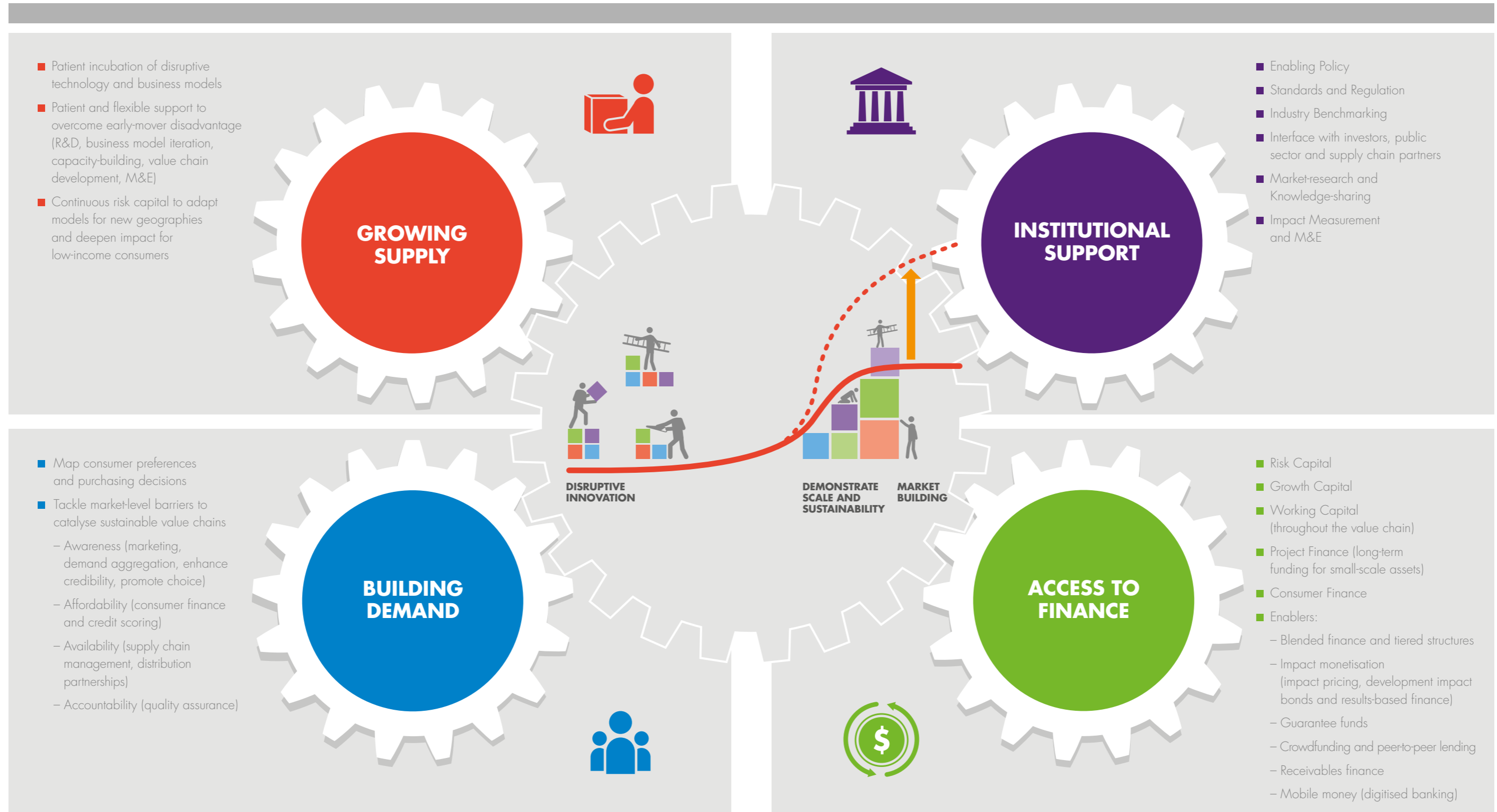
One conclusion from our research is that this supportive ecosystem must function as an integrated whole in order for social enterprises in new sectors to succeed. The reason that most markets take decades to scale is that support to early-stage pioneers is only partially available in key areas. As soon as ALL key elements are provided simultaneously, inclusive markets emerge and scale within a relatively short timeframe.

2. We believe that sufficient evidence now exists – from markets that have benefited hundreds of millions of low-income customers – to show how the various comparative advantages of different stakeholders in the social investment ecosystem can be better harnessed to enhance the innovation and adoption of market-based solutions. In Chapter 4, we turn our attention to the *builders* of this market and to **how** the essential building blocks for market growth can be hauled into place quickly and more efficiently.
3. Catalytic collaborations that move a market forward are hard to forge, yet achieving scale will require hundreds of alliances that focus on very specific parts of a moving system. We examine the specific resources, skills and risk-appetite required to build a supportive environment for inclusive businesses to thrive, and the relative strengths of organisations that can provide them.
4. Finally, we offer a simple framework to show how SF (and other foundations) can align their programming with social investors, governments, corporates and others to meet individual objectives while amplifying collective impact. We now hope to test and further develop this framework in the coming months and to use this to improve the effectiveness of our partnerships over the next five years.

DETERMINANTS OF SCALE: GAPS IN THE CURRENT SOCIAL INVESTMENT ECOSYSTEM

Based on the learning from the scale-up challenges of our partners and collaborations with over 200 private and public organisations over the last 15 years, SF believe that foundations will need to play a critical role to identify and create the key building blocks required for inclusive markets to thrive.

We believe that **simultaneous** market-building support in four critical areas, delivered through the coordinated actions of a range of stakeholders, is a prerequisite to sustain and accelerate the growth of inclusive markets.



HARNESSING COMPARATIVE ADVANTAGE TO ACCELERATE THE GROWTH OF INCLUSIVE MARKETS:

HIGH PRIORITY AREAS FOR FOUNDATIONS TO ALIGN PROGRAMMING WITH KEY STAKEHOLDERS

Having established our view of the critical **building blocks** required for inclusive markets to thrive – we turn our attention to how these blocks can be put into place faster. We believe that foundations such as SF can do far better to coordinate programming with key stakeholders in the social investment ecosystem in order to meet individual business objectives and amplify collective impact. Below, we outline the high-priority areas for collaboration where we feel SF can add most value to move inclusive markets along the path to scale and sustainability.

This framework will be imperfect and is purely our view of the market today. We offer this as a first draft, as we build our understanding of different perspectives in the sector and seek to build a robust framework upon which to base investment decisions going forward.

		Foundations	Governments	NGOs	Impact Investors	Multilateral Banks and DFIs	Corporates	Commercial Investors
CRITICAL DETERMINANTS OF SCALE		↑ High		RISK: RETURN RATIO				Low ↓
		↔ Long		TIME HORIZON				Short ↔
		★ Impact First		IMPACT EXPECTATION				Finance First \$
GROWING SUPPLY	Patient incubation of disruptive technology and business models	▲	▲	▲			▲	
	Patient and flexible support to overcome early-mover disadvantage (R&D, business model iteration, capacity-building, value chain development, M&E)	▲	▲		▲	▲	▲	
	Continuous risk capital to adapt models for new geographies and deepen impact for low-income consumers	▲	▲		▲	▲		
BUILDING DEMAND	Map consumer preferences and purchasing decisions	▲	▲	▲			▲	
	Tackle market-level barriers to catalyse sustainable value chains							
	1. Awareness (marketing, demand aggregation, enhance credibility, promote choice)	▲		▲			▲	
	2. Affordability (consumer finance and credit scoring)	▲					▲	
	3. Availability (supply chain management, distribution partnerships)	▲					▲	
ACCESS TO FINANCE	4. Accountability (quality assurance)	▲	▲					
	Risk Capital	▲	▲		▲	▲	▲	▲
	Growth Capital	▲			▲	▲	▲	▲
	Working Capital (throughout the value chain)	▲			▲	▲		▲
	Project Finance (long-term funding for small-scale assets)	▲			▲	▲		▲
	Consumer Finance	▲			▲	▲		
	Enablers: ■ Blended finance and tiered structures	▲			▲	▲	▲	▲
	■ Impact monetisation (impact pricing, development impact bonds and results-based finance)	▲	▲		▲	▲	▲	
	■ Guarantee funds	▲			▲	▲		▲
	■ Crowdfunding and Peer-to-Peer lending	▲		▲				
■ Receivables Finance	▲						▲	
■ Mobile Money (digitised banking)	▲							
INSTITUTIONAL SUPPORT	Enabling Policy	▲	▲	▲				
	Standards and Regulation	▲	▲	▲				
	Industry Benchmarking	▲	▲	▲	▲	▲	▲	
	Interface with investors, public sector and supply chain partners	▲		▲	▲	▲	▲	▲
	Market research and knowledge sharing	▲	▲	▲				
	Impact Measurement and Monitoring & Evaluation	▲	▲	▲	▲	▲	▲	

LOOKING FORWARD

If social investment markets are to make a meaningful contribution to the delivery of the SDGs we will need to see a step-change in the impact we deliver – and we see the type of partnerships outlined in this report as our best chance to do this. We firmly believe that achieving the SDGs will require the presence of a diverse set of inclusive markets with global reach. Once they emerge, many of these goals will be delivered on a much tighter timeframe and at far lower cost to the public. The evidence shows that foundations can significantly accelerate this reality.

Realistically, much of our work over the next five years will go towards accelerating the growth of our early-stage partners. These businesses and non-profit institutions are delivering promising results, but they are all in early phases of growth and have a long way to go, especially given the size of the market they aim to serve. They and other pioneers face formidable barriers to scale, and they will need our continued support to deepen their impact on low-income consumers, broaden their range of products and services to serve different demographics, prove financial viability and attract growth finance.

At the same time, we will continue to search for and create game-changing solutions to specific market failures with the potential to deliver social and environmental impact at scale.

Many of these new innovations will be specific to the sectors in which we work – energy access, sustainable mobility and job creation – though increasingly we expect to see social enterprises exploring synergies between sectors (e.g. cold chain solutions with applications for energy access, health and agriculture, or sanitation systems as a source of energy).

We equally see market opportunities to support **cross-sector solutions** to bottlenecks within the social investment sector more broadly, potentially catalysing the growth of all types of social-impact markets. We offer a few areas of particular interest in Chapter 5, including: new incubation models; the application of data-driven software to aggregate consumer demand and enhance credit assessment; financial innovation related to project finance and impact valuation; and major improvements that SF and others must make with respect to impact measurement, benchmarking and transparent reporting (to improve the efficient flow of capital towards high-impact solutions).

Lastly, while this report has focused on “bilateral” partnerships between foundations and social investors in order to illustrate learnings on the varied assets that different stakeholders can bring to bear, we realise that it will take far **greater multilateral coordination across public and private sectors** to access the size and type of resources required to achieve a global scale of impact. We stand ready to join such initiatives, either by combining forces to **syndicate resources** through effective intermediaries or by **forming consortia** with like-minded organisations willing to align programming at a country-level in order to “fast-track” progress towards shared target outcomes.

01

Introduction

When Shell Foundation was created, back in 2000, we set out to test a theory, largely unproven at the time, that market forces could be directed to deliver lasting socio-economic, health and environmental value to the poor – and that eradicating some of the world’s most entrenched development challenges could be financed predominantly from private capital.

Fast forward 15 years and the results are promising. The world’s poorest communities have proven willing and able to pay for a raft of new “social” goods and services from enterprises that have attracted significant private capital to fund international expansion. Mobile money is transforming the earning potential of people in East Africa as microfinance has done in Asia. Millions of people from poor suburban neighbourhoods in Latin America now cut through traffic using dedicated bus corridors to access jobs at the heart of congested cities. Tens of millions of people who live in off-grid areas of Africa can now access brighter, cheaper solar power.

The inspired efforts of a large number of entrepreneurs, social investors, governments, NGOs and corporates – supported by different forms of philanthropy – have proven beyond doubt that such models can deliver tremendous value. Buoyed by this success, new forms of capital have emerged to accelerate the impact of “inclusive” businesses and market-led approaches to the public provision of essential services. \$12.2 billion is projected to be spent by impact investors in 2015 alone¹ while an increasing percentage of overseas aid and private philanthropy is spent on removing barriers to “inclusive” growth. Rising foreign investment in emerging economies enhances the availability of capital for any business that proves viable and scaleable, regardless of the constituencies they serve.

SUSTAINABLE DEVELOPMENT: THE SCOPE OF THE CHALLENGE

The reality, however, is that promising markets that can deliver “inclusive” growth and improve quality of life in under-served areas are intolerably slow to scale – sometimes taking decades. Social investors (including ourselves) remain entirely reliant on a small number of successful social enterprises to validate our belief in the power of market forces to solve development challenges.

Furthermore, the issues we are trying to address are growing. In 2015, for the first time, a global clean cookstoves business will surpass one million stoves sold – providing over five million people with cleaner air and fuel savings. Yet since 2002 (when SF started working on this issue) over *55 million people* have died from household air pollution – more than the entire population of South Africa. Today, 1.2 billion people lack access to reliable energy for household, community or productive use. On current trends, one billion will still lack affordable power by 2030.

This year, debate around international policy has centred on the new Sustainable Development Goals (SDGs); specifically which issues to include, what metrics to use to measure progress and how to prioritise action. Yet “ending all poverty in all its forms” (SDG1) and “ensuring universal access to modern energy” (SDG7) are daunting, unpredictable and highly complex challenges.

¹ Eyes on the Horizon, JP Morgan & the Global Impact Investor Network, 2015.

The Copenhagen Consensus, a network of acclaimed economists, suggest that the world will spend over \$2.5 trillion in pursuit of the SDGs. It is likely that the majority of this expenditure will be directed towards programmes offering a poor social or environmental return on investment, limiting overall impact.

We share the view that these targets will *not* be achieved if actors in the development ecosystem (governments, businesses, multilateral agencies, charities, foundations and social investors) maintain the current trajectory of activity, even allowing for rapidly increasing volumes of foreign direct investment, CSR and philanthropy. Something has to change.

We believe the emerging evidence proves that sustainable “inclusive” markets focused on low-income consumers will be essential to delivering the sustainable development goals.

While work to readdress social inequality and remove obstacles to economic participation and social mobility must continue, the sheer size of the development challenges we face and the limited public finance available to solve them will necessitate a greater focus on effective ways to deliver social goods and services through private markets. This will result in the faster delivery of

development outcomes, at lower public cost, and with a more pervasive long-term impact².

THE DEVELOPMENT LANDSCAPE: SHELL FOUNDATION’S ROLE IN A NEW ECOSYSTEM

In this report we offer our view on the best way SF can help to achieve the SDGs by accelerating the growth of such markets. Where can we best deploy capital and structure partnerships to offer maximum value to the people we exist to serve, now and in the future? How can we achieve these charitable objectives in the most cost-efficient way possible? And how can we use our resources with like-minded organisations to unlock new sources of capital towards these goals?

To do this we aggregate the common learning from our work to enhance energy access, sustainable transport, job creation and supply chain sustainability over the last 15 years – drawing on the experience of our social enterprise and market intermediary partners, and over 200 collaborations with public and private social investors to support their scale-up. In making these views public, we invite insight from peers to help us further improve our organisational effectiveness going forward.

Three principles underpin this report:

1. That philanthropy can and must become far more effective in catalysing social innovation. While the philanthropic sector has long been identified as a major source of capital to address the SDGs, little attention has been given to the long-term impact of this capital or the efficiency with which it is deployed.
2. That foundations can play an equally catalytic role to tackle the market-level barriers preventing the scale-up of individual social enterprises. Global market penetration for products such as solar lights and clean cookstoves aimed at low-income consumer markets is still under 5%, despite businesses in these sectors having demonstrated viability. This report summarises these barriers, with deeper analysis from specific sectors available in our own published research³ and articulated in seminal papers by Monitor Deloitte (“Blueprint to Scale” and “Beyond the Pioneer”), Omidyar Network (“Priming the Pump”) and others.
3. That sufficient evidence exists from markets such as mobile money or off-grid solar to show how the comparative advantages of diverse stakeholders can be better leveraged at a sector level, with the appropriate facilitation, to accelerate market growth and confer economic, social and environmental benefits to hundreds of millions of people.

GLOSSARY: ARE WE SPEAKING THE SAME LANGUAGE?

Inclusive Business or Social Enterprise:

In this report we use these terms to describe any business that provides a product or service which is socially beneficial to low-income consumers in emerging markets, based on a business model that is both financially-viable and scaleable.

Inclusive Market:

Industries that extend choices and livelihood-enhancing opportunities to low-income markets as producers, consumers and wage earners. Inclusive markets thus create jobs and affordable goods and services that are needed by both the urban and rural poor. *(Adaptation of UNDP definition)*

Social Investor:

An organisation, individual or intermediary fund that deploys capital into businesses that generate social and/or environmental benefit through the sale of a product or service. This encompasses a full spectrum of instruments: from impact-focused grant-makers to finance-focused commercial funders.

Sustainable Development Goals:

17 goals (with 169 targets) designed by the UN General Assembly to replace the Millennium Development Goals at the end of 2015. They cover a broad range of development issues including ending poverty and hunger, improving health and education, making cities more sustainable, combatting climate change and delivering universal access to energy.

² For example, the International Energy Agency estimates it will take up to take up to \$1 trillion investment to extend national grids to meet the “basic” energy needs of rural and urban consumers by 2030. Basic energy is defined by the UN as 250KW/h per year – barely sufficient to power 2-3 lights, a fan and mobile phone charging. Alternatively, a capital injection of \$100 billion could fund the expansion of existing manufacturers of small-scale solar home systems and mini-grid operators to meet the holistic energy needs of all low-income households, communities and businesses within just a few years given far fewer infrastructure installations are required to meet the same demand.

³ Key lessons and analysis from our work in energy access, sustainable mobility and supply chain sustainability available at www.shellfoundation.org/reports.

UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

<p>01 END POVERTY IN ALL ITS FORMS EVERYWHERE</p>	<p>10 REDUCE INEQUALITY WITHIN AND AMONG COUNTRIES</p>
<p>02 END HUNGER, ACHIEVE FOOD SECURITY AND IMPROVED NUTRITION AND PROMOTE SUSTAINABLE AGRICULTURE</p>	<p>11 MAKE CITIES AND HUMAN SETTLEMENTS INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE</p>
<p>03 ENSURE HEALTHY LIVES AND PROMOTE WELL-BEING FOR ALL AT ALL AGES</p>	<p>12 ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS</p>
<p>04 ENSURE INCLUSIVE AND EQUITABLE QUALITY EDUCATION AND PROMOTE LIFELONG LEARNING OPPORTUNITIES FOR ALL</p>	<p>13 TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS*</p>
<p>05 ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS</p>	<p>14 CONSERVE AND SUSTAINABLY USE THE OCEANS, SEAS AND MARINE RESOURCES FOR SUSTAINABLE DEVELOPMENT</p>
<p>06 ENSURE AVAILABILITY AND SUSTAINABLE MANAGEMENT OF WATER AND SANITATION FOR ALL</p>	<p>15 PROTECT, RESTORE AND PROMOTE SUSTAINABLE USE OF TERRESTRIAL ECOSYSTEMS, SUSTAINABLY MANAGE FORESTS, COMBAT DESERTIFICATION, AND HALT AND REVERSE LAND DEGRADATION AND BIODIVERSITY LOSS</p>
<p>07 ENSURE ACCESS TO AFFORDABLE, RELIABLE, SUSTAINABLE AND MODERN ENERGY FOR ALL</p>	<p>16 PROMOTE PEACEFUL AND INCLUSIVE SOCIETIES FOR SUSTAINABLE DEVELOPMENT, PROVIDE ACCESS TO JUSTICE FOR ALL AND BUILD EFFECTIVE ACCOUNTABLE AND INCLUSIVE INSTITUTIONS AT ALL LEVELS</p>
<p>08 PROMOTE SUSTAINED, INCLUSIVE AND SUSTAINABLE ECONOMIC GROWTH, FULL AND PRODUCTIVE EMPLOYMENT AND DECENT WORK FOR ALL</p>	<p>17 STRENGTHEN THE MEANS OF IMPLEMENTATION AND REVITALISE THE GLOBAL PARTNERSHIP FOR SUSTAINABLE DEVELOPMENT</p>
<p>09 BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALISATION AND FOSTER INNOVATION</p>	<p><i>*Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change.</i></p>

02

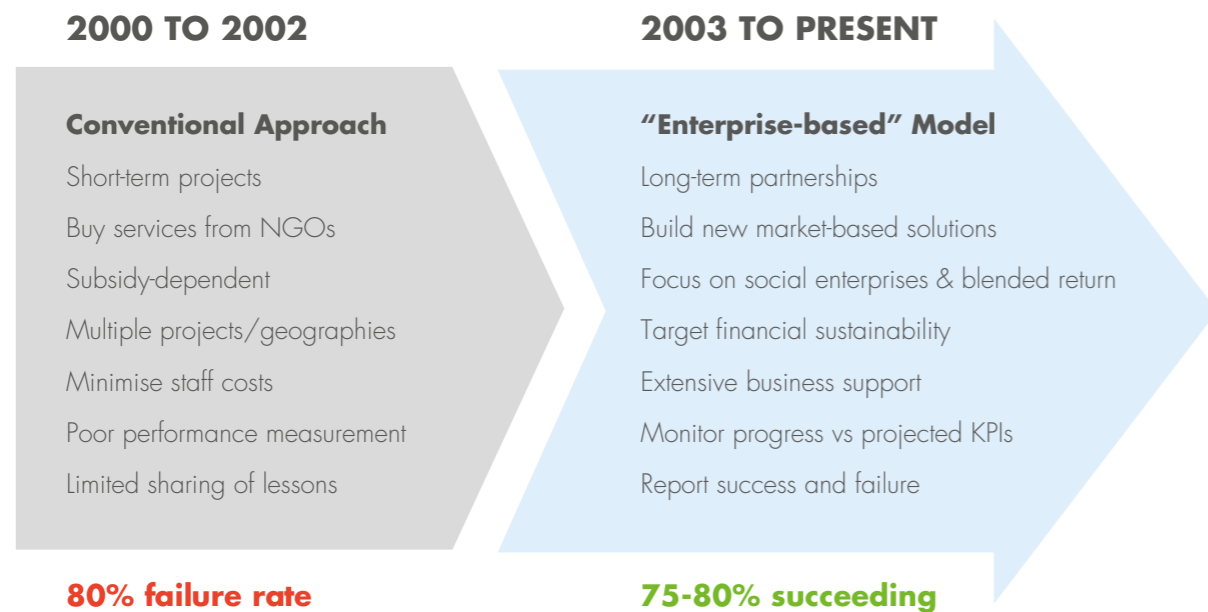
Our Journey

We begin by describing the key turning points in our strategy over the last 15 years as we pushed year-on-year for greater impact and cost-efficiency. This chapter also includes a snapshot of our current portfolio, which we draw on through the remainder of this report in considering how we can best add momentum to international efforts to achieve the SDGs over coming years.

Organisational Effectiveness

From the start, SF focused on catalysing new sustainable and scalable solutions to improve access to energy and transport for low-income communities and to spur job creation through the SME sector. For almost a decade, we also worked to test ways to adapt agricultural supply chains to deliver a range of development outcomes. As we have reported extensively⁴, we adopted at the outset a conventional form of philanthropy that resulted in over 80% of funding to grantees failing to demonstrate any potential for large-scale impact⁵ between 2000 and 2003.

In response to this failure we evolved a new model over time, working proactively with a small number of entrepreneurs to identify the market failures that underpin many of the world's problems and co-create enterprises to solve them. We learned that patient grant funding, business support and access to networks are critical to help pioneers validate new models, achieve financial independence and expand across geographies. Where appropriate we began to leverage the brand, networks and technical and functional expertise of our founder, Shell, to further support partners.



By 2009, this new model had resulted in a small portfolio of social enterprise pioneers who were demonstrating demand for a range of affordable energy products and services (such as clean cookstoves, affordable solar lights and electricity from agricultural waste). We had also co-created the world's first and largest financier of early-stage SMEs (GroFin) and a new intermediary to help cities implement more sustainable transport solutions to reduce pollution and congestion by increasing access to business thinking and international mobility experts (EMBARQ).

These partners were delivering far greater impact than we had previously seen, yet many of these organisations remained fragile. We found that their growth potential was constrained by structural barriers beyond their control, such as low consumer awareness, affordability constraints and limited routes to market. They also had great difficulty attracting follow-on funding for further expansion.

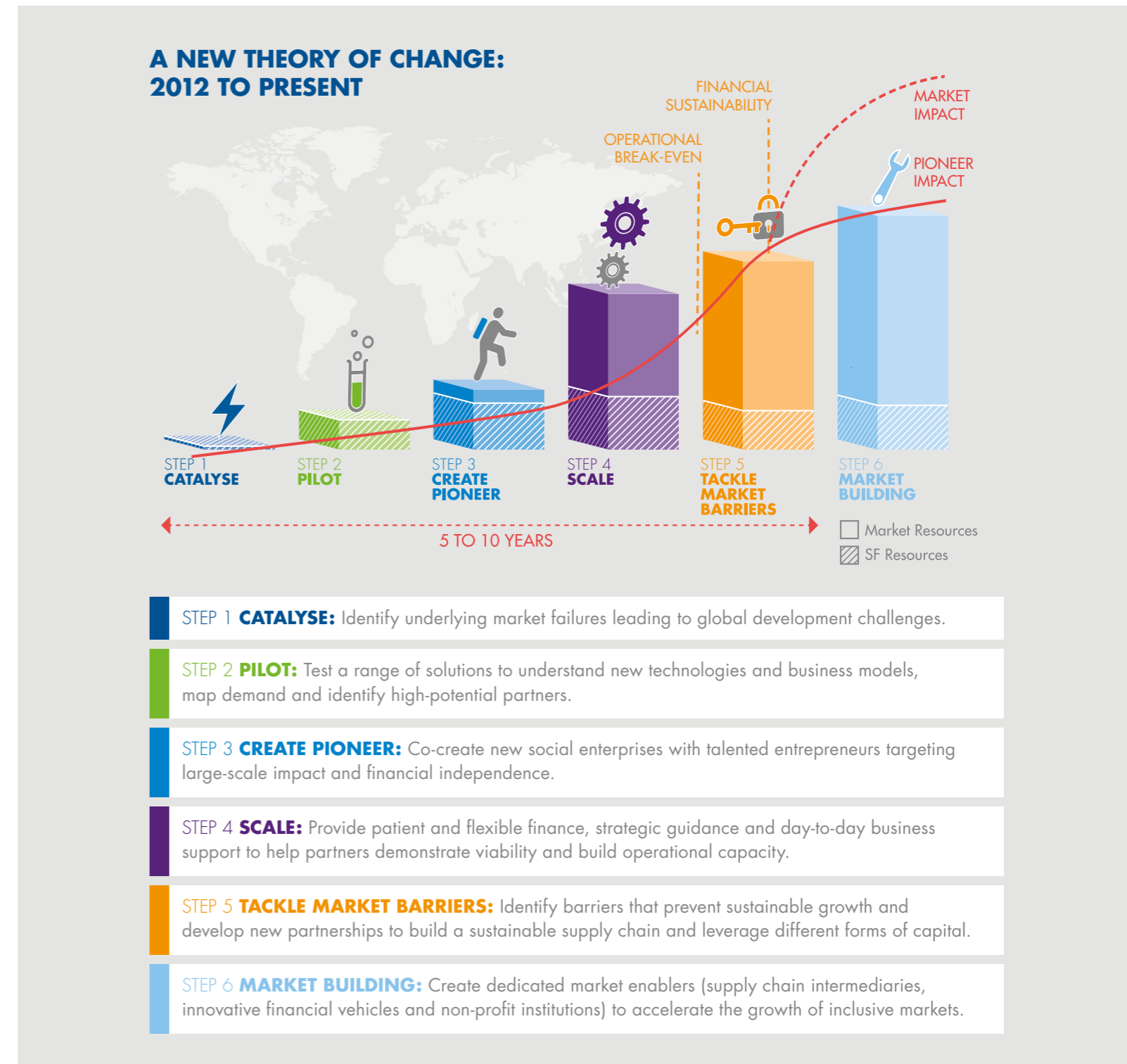
This led to a second phase of organisational growth as SF began initiating new activities to help all enterprises in the markets we worked in to

⁴ We report the statistical basis for this transition and the decisions related to resource allocation and staff that were required over this period in our 2010 report, Enterprise Solutions to Scale.

⁵ For us, this means demonstrating the potential to deliver cost-efficient solutions that impact at least 10 million beneficiaries across multiple countries.

overcome structural barriers to scale. Our role to kickstart markets such as growth finance, clean cookstoves, portable solar lanterns, pay-as-you-go solar energy and mini-grid power has since been described by Monitor Deloitte as "industry

facilitation"⁶. This perhaps suggests a more deliberate strategy than we had at the time, whereas in reality this was more of a gradual evolution towards market-building as we responded to partners' needs.



⁶ Beyond the Pioneer, Koh, Hedge and Karamchandani, April 2014.

Performance Analysis

In line with our "enterprise-based" approach, we focus on measuring both our own performance and our partners' progress towards sustainability and large-scale impact. Since 2010, we have used four aggregate metrics to measure our overall developmental impact, with the intention to facilitate knowledge and learning rather than to use the KPIs as goals in themselves. Tracking and measuring changes in our performance against pre-defined milestones and impact targets allows us to better allocate our resources to deliver greater development outcomes.

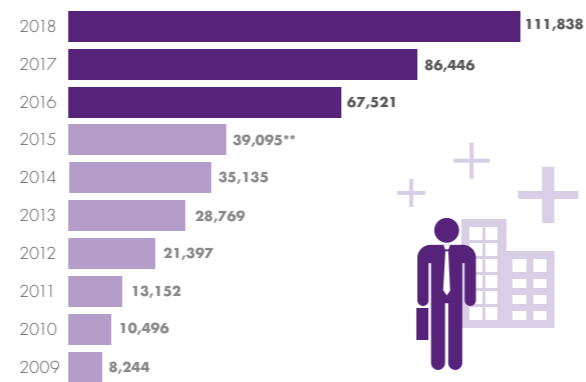
PARTNER PERFORMANCE

From the outset we support partners to define a few key metrics specific to their own enterprise. Wherever possible, we draw upon independent monitoring and evaluation to validate reported data. Our partners track and measure a wide variety of development outcomes including:

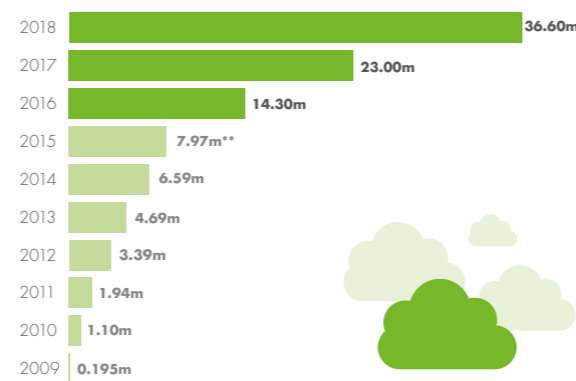
- low-income customers served, e.g. through product sales or bus ridership;
- environmental benefit, e.g. reductions in emissions or water usage;
- economic benefit, e.g. jobs created, earnings increase, money saved;
- social benefit, e.g. improved health or time saving.

They also track progress to financial sustainability through monthly and quarterly financial reporting as well as performance ratios (such as subsidy per product sold). Regularly tracking performance against projected targets helps us to better understand the overall business, respond quickly to unexpected challenges and improve the effectiveness and efficiency of our support over time.

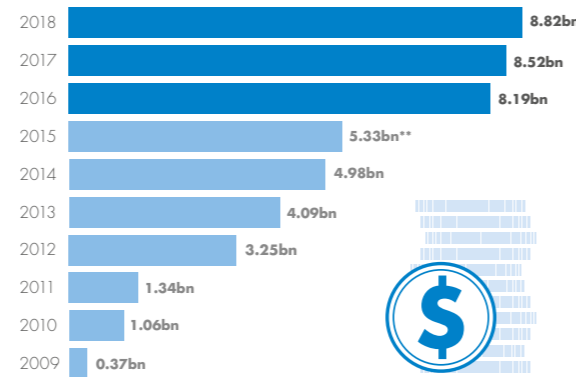
Jobs created through SME growth



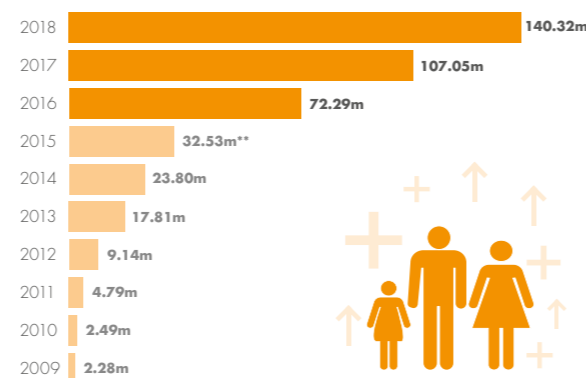
Carbon reductions (tonnes)



Leverage (USD)

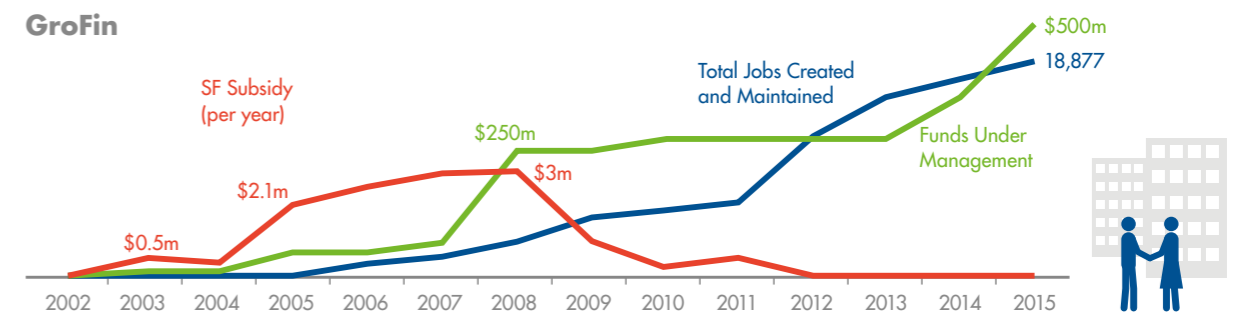
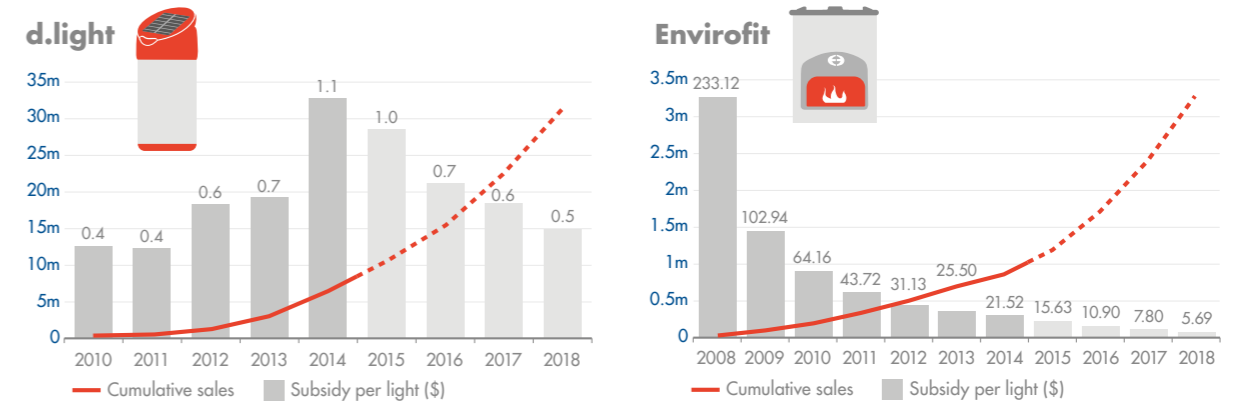


Livelihoods improved*



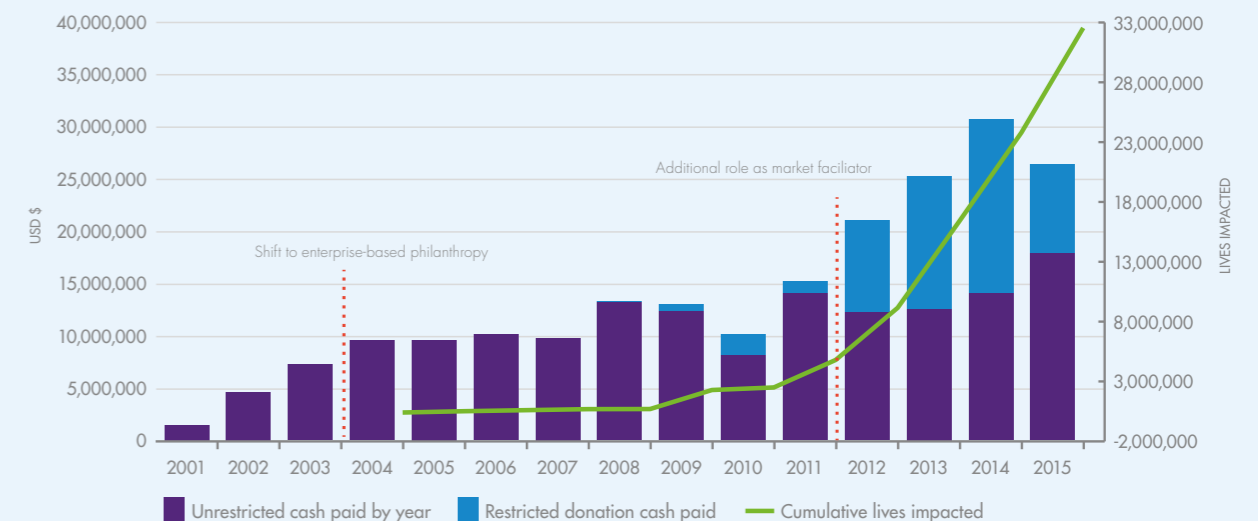
*Target beneficiaries for SF programmes are low-income consumers.
 **2015 figures are only until April 2015
 All figures are cumulative

We share the impact generated by all of our social enterprise partners in the subsequent portfolio overview and include three examples below to illustrate the way we track progress towards scale and financial independence:



FUNDS DEPLOYED

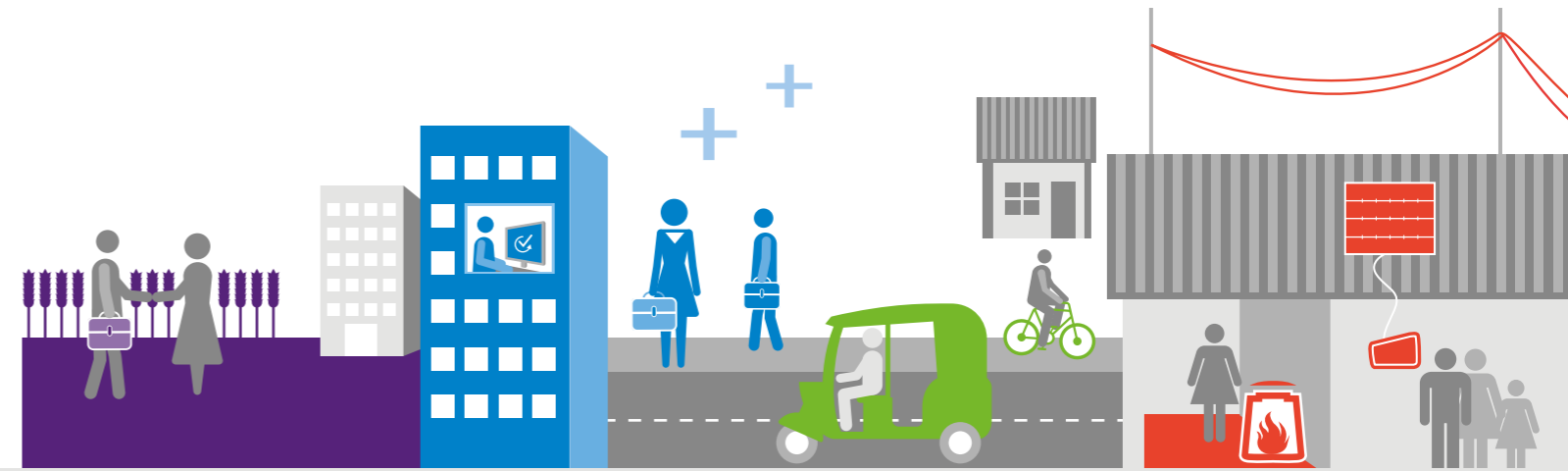
SF has invested \$207 million in 274 organisations since inception. 91% of this was grant funding, with the remainder programme-related investments such as equity, convertible grants or loan guarantees. Increases in our operating budget in recent years reflect the funding requirements of partners as they move through growth phases, as well as a gradual expansion of the portfolio in line with a more experienced team and evidence of impact.



PORTFOLIO OVERVIEW: INTRODUCING OUR CURRENT PARTNERS

Our current social enterprise and non-profit partners, all in varying stages of incubation and scale-up, share the potential to impact over 10 million low-income consumer beneficiaries and achieve financial viability in the long-term.

SF purposely seeks to take high levels of risk in developing new technologies and new business models – and we have been involved in the co-creation of the majority of these pioneers. Once a model has been sufficiently validated we work to leverage second-stage funding for further growth and geographic expansion.



MANUFACTURERS AND SERVICE PROVIDERS

d.light

SF partner since 2009
www.dlightdesign.com



d.light is a global leader in the design, manufacture and distribution of affordable solar power for low-income households and small businesses across emerging markets.

Organisation Size: 400+
Areas of Operation: Global
Livelihoods Improved: 52 million
Projected Financial Sustainability: Viable
Total Investment Secured: \$49.1 million (8% from SF)

Lightning Hybrids

SF partner since 2015
www.lightninghybrids.com



Lightning Hybrids' hydraulic system can be retrofitted in existing fleet vehicles or buses. The system stores brake energy, and upon acceleration, motors use the stored energy to power the wheels delivering up to 40% fuel efficiencies.

Organisation Size: 42
Projected Financial Sustainability: 2019-2020
Total Investment Secured: \$15 million (10% from SF)

Envirofit

SF partner since 2007
www.envirofit.org



Envirofit is a global clean cookstove business that designs, produces and markets affordable biomass stoves which significantly reduce emissions, fuel costs and cooking time for low-income households and institutions.

Organisation Size: 450
Areas of Operation: Global
Livelihoods Improved: 4.25 million
Projected Financial Sustainability: 2016
Total Investment Secured: \$31.8 million (70% from SF)

M-KOPA Solar

SF partner since 2010
www.m-kopa.com



M-KOPA Solar combines solar and mobile technology to provide affordable energy to off-grid villages in East Africa. The company provides smart credit to low-income consumers, enabling them to access a range of energy products which they pay for in instalments using mobile money platforms such as M-PESA.

Organisation Size: 550
Areas of Operation: Kenya, Uganda, Tanzania
Livelihoods Improved: 900,000
Projected Financial Sustainability: Viable
Total Investment Secured: \$40 million (7% from SF)

Husk Power Systems

SF partner since 2008
www.huskpowersystems.com



Husk Power Systems is a pioneer in decentralised renewable power supply to off-grid communities. The company designs, installs and operates small-scale power plants that convert solar energy or agricultural waste into affordable electricity for people in rural India and East Africa.

Organisation Size: 200
Areas of Operation: India, Uganda, Kenya
Livelihoods Improved: 82,000
Projected Financial Sustainability: 2016
Total Investment Secured: \$12.3 million (31% from SF)

Redavia

SF partner since 2014
www.redaviasolar.com



Redavia integrates solar power with existing diesel systems to provide a hybrid energy solution for rural industry, business and communities in emerging markets. Their modular solar system can be swiftly deployed with no upfront costs – resulting in significant savings and emissions reductions.

Organisation Size: 15
Areas of Operation: East Africa, West Africa, Central Asia and Pacific
Projected Financial Sustainability: 2017
Total Investment Secured: \$4.2 million (34% from SF)

SUPPLY CHAIN INTERMEDIARIES

CottonConnect

SF partner since 2009
www.cottonconnect.org



CottonConnect is a social business that works with leading retailers and brands to create more sustainable supply chains that benefit smallholder cotton farmers in south Asia, China and Latin America.

Organisation Size: 40
Areas of Operation: India, China, Pakistan and Peru
Livelihoods Improved: 693,000
Projected Financial Sustainability: Viable
Total Investment Secured: \$5.3 million (48% from SF)

Dharma Life

SF partner since 2010
www.dharma.net.in



Dharma Life catalyses rural employment, creates rural supply chains and builds market demand for new types of social-impact products that deliver economic and social benefits to low-income consumers in remote areas.

Organisation Size: 70
Areas of Operation: India
Livelihoods Improved: 1.4 million
Projected Financial Sustainability: 2018
Total Investment Secured: \$5.3 million (67% from SF)

Logistimo

SF partner since 2014
www.logistimo.com



Logistimo's mobile-based "last mile" distribution platform enables product providers to engage users that have their own transport to carry goods from one location to another, creating a mobile based "market place" that enhances rural access to products and reduces distribution costs.

Organisation Size: 10
Areas of Operation: India

INCUBATOR

BIX Fund

SF partner since 2013
www.bixfund.com



The Base of the Pyramid Exchange Fund (BIX), co-created with Cardano in 2013, will catalyse the use of impact certification mechanisms such as the voluntary carbon credit market to improve the availability and affordability of essential energy products for low-income households.

Intellecap Africa

SF partner since 2015
www.intellecap.com



Intellecap is creating a new intermediary enterprise to deliver independent market data and capacity-building services to help social investors direct appropriate capital towards high potential social enterprises in East Africa.

SparkMeter

SF partner since 2015
www.sparkmeter.io



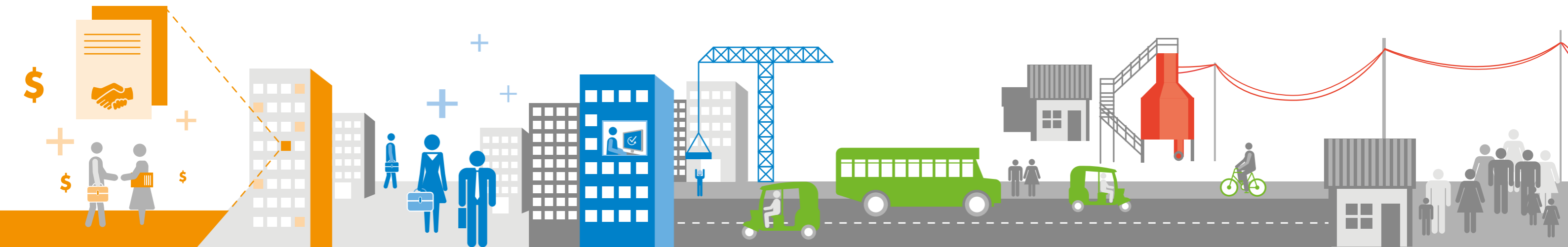
SparkMeter offer a demand management solution for mini-grids and central utilities, including smart metering, two-way communication and payment mechanisms. This allows mini-grids operators to customise tariffs, manage demand, reduce theft and offer pay-as-you-use services.

Access to Energy

Sustainable Mobility

Sustainable Job Creation

Sustainable Supply Chains



FINANCIAL INTERMEDIARIES AND VEHICLES

Factor(E)

SF partner since 2013
www.factorventures.org



Factor(E) is a venture development firm, co-created by Shell Foundation and Colorado State University in 2013 to support early-stage entrepreneurs with a blend of risk capital and world-class engineering support to accelerate energy access in emerging markets.

Total Investment Secured: \$4.35 million (59% from SF)

IntelleGrow

SF partner since 2010
www.intellegrow.com



IntelleGrow is an intermediary that provides venture debt finance and skills support to small and growing businesses serving low-income communities in India, with a major focus on access to energy.

Organisation Size: 24
Areas of Operation: India
Livelihoods Improved: 3.7 million
Projected Financial Sustainability: Viable
Total Investment Secured: \$31.1 million (5% from SF)

Sangam

SF partner since 2011
www.sangam.vc



Sangam Ventures is a new type of seed and early-stage venture fund, first piloted in 2011, that provides capital and tailored business support to early-stage energy enterprises who serve low-income communities in India. The venture has developed a range of new tools to support Indian entrepreneurs to refine business models, build capacity and attract growth capital.

Organisation Size: 3
Areas of Operation: India
Livelihoods Improved: 23,500
Projected Financial Sustainability: 2018
Total Investment Secured: \$4 million (55% from SF)

GroFin

SF partner since 2003
www.grofin.com



GroFin is a pioneering SME development financier that provides integrated business support, growth finance and market linkages to start-up and growing businesses – as a way to catalyse sustainable job creation and inclusive economic growth.

Organisation Size: 130
Areas of Operation: Africa and Middle East
Livelihoods Improved: 297,313
Projected Financial Sustainability: Viable
Total Investment Secured: \$500 million (6.37% from SF)

responsAbility-managed energy access debt fund

SF partner since 2015

This \$30 million fund (with investment from IFC, Lundin Foundation and other private investors) aims to support the growth of small and medium-sized businesses active in the energy access space through the provision of short- and medium-term debt financing.

Areas of Operation: Global
Projected Financial Sustainability: 2018
Total Investment Secured: \$34 million (8% from SF)

CATALYTIC INSTITUTIONS AND INDUSTRY ASSOCIATIONS

Aspen Network for Development Entrepreneurs

SF partner since 2009
www.andeglobal.org



A global network of organisations that support small and growing businesses. ANDE shares best practice in metrics and evaluation of socio-economic impact, disseminates market research and facilitates collaboration between actors in the sector. ANDE now has over 200 members who operate across 150 countries.

Global Alliance for Clean Cookstoves

SF partner since 2010
www.cleancookstoves.org



A multi-stakeholder public-private partnership co-developed by the UN Foundation, Shell Foundation and the US State Department, established in 2010, that works to build a global market for efficient household cookstoves. The Alliance has now secured commitments exceeding \$200 million from a range of government, private and NGO stakeholders and aims to benefit 100 million households before 2020.

Areas of Operation: Global
Projected Financial Sustainability: Viable
Total Investment Secured: \$67.4 million (1% from SF)

Smart Freight Centre

SF partner since 2013
www.smartfreightcentre.org



Smart Freight Centre is a catalytic institution, created in 2013, that supports and incentivises the global freight industry to reduce emission intensity and improve fuel efficiency.

Total Investment Secured: \$1.6 million (81% from SF)

EMBARQ

SF partner since 2003
www.wricities.org



EMBARQ is a global network of transport experts that accelerate the adoption of sustainable mobility solutions to tackle congestion and pollution in fast-growing cities within developing countries.

Total leveraged: \$4.78 billion

Global Off-Grid Lighting Association

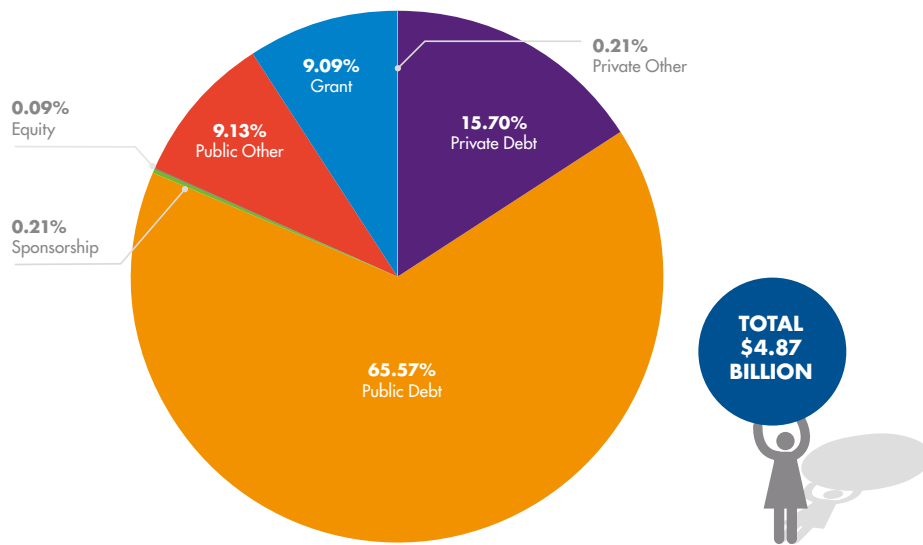
SF partner since 2013
www.global-off-grid-lighting-association.org



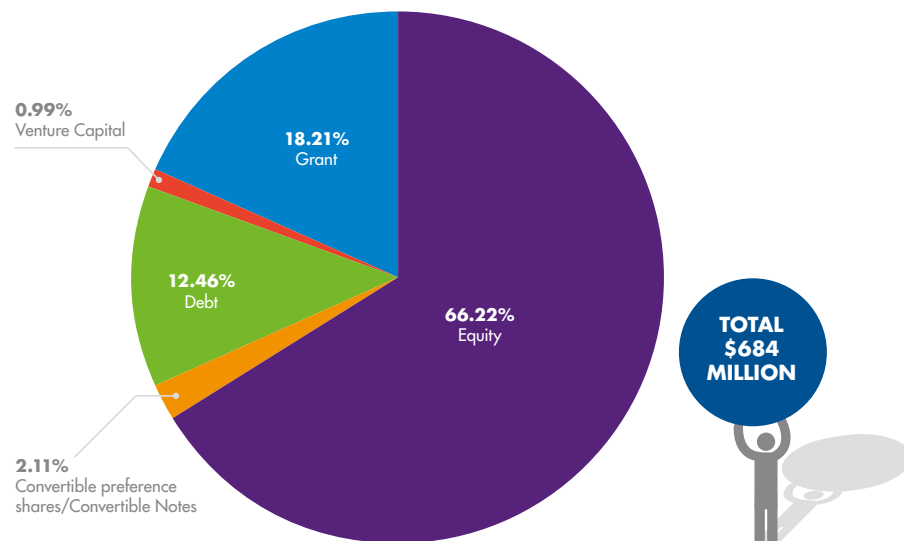
A neutral, not-for-profit industry association, formed in 2013 on the back of IFC's Lighting Africa programme to accelerate market development of clean, high-quality off-grid lighting for businesses and individuals. SF supports GOGLA to build organisational capacity and amplify its impact.

Total Investment Secured: \$570,000 (49% from SF)

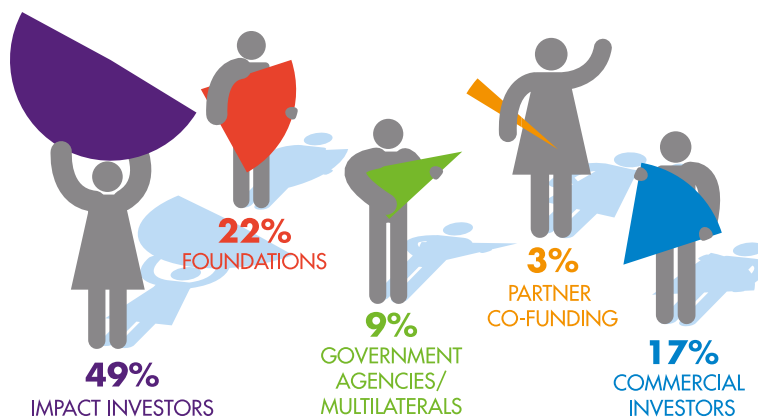
FUNDS LEVERAGED BY SF NON-PROFIT PARTNERS BY INSTRUMENT



FUNDS LEVERAGED BY SF FOR-PROFIT PARTNERS BY INSTRUMENT



FUNDS LEVERAGED BY ALL SF PARTNERS BY STAKEHOLDER GROUP



How to Influence the Growth Rate of Inclusive Markets?

03

Our experience working with social enterprises and market intermediaries across a very diverse set of development challenges, corroborated by others in the sector, suggests that certain ingredients are required for inclusive markets to thrive. Specific types of support for businesses at different stages of growth must be present in order for a successful market to grow (once a product or service has proven desirable by consumers).

In our view, these ingredients sensibly fall into **four distinct categories** related to supply, demand, finance and institutional support, although we are aware others may group them differently. What is critically important, however, is that the main learning from efforts to scale nascent markets such as solar lighting or clean cookstoves indicates that **ALL key elements of the supporting infrastructure must be in place simultaneously for new markets to scale.**

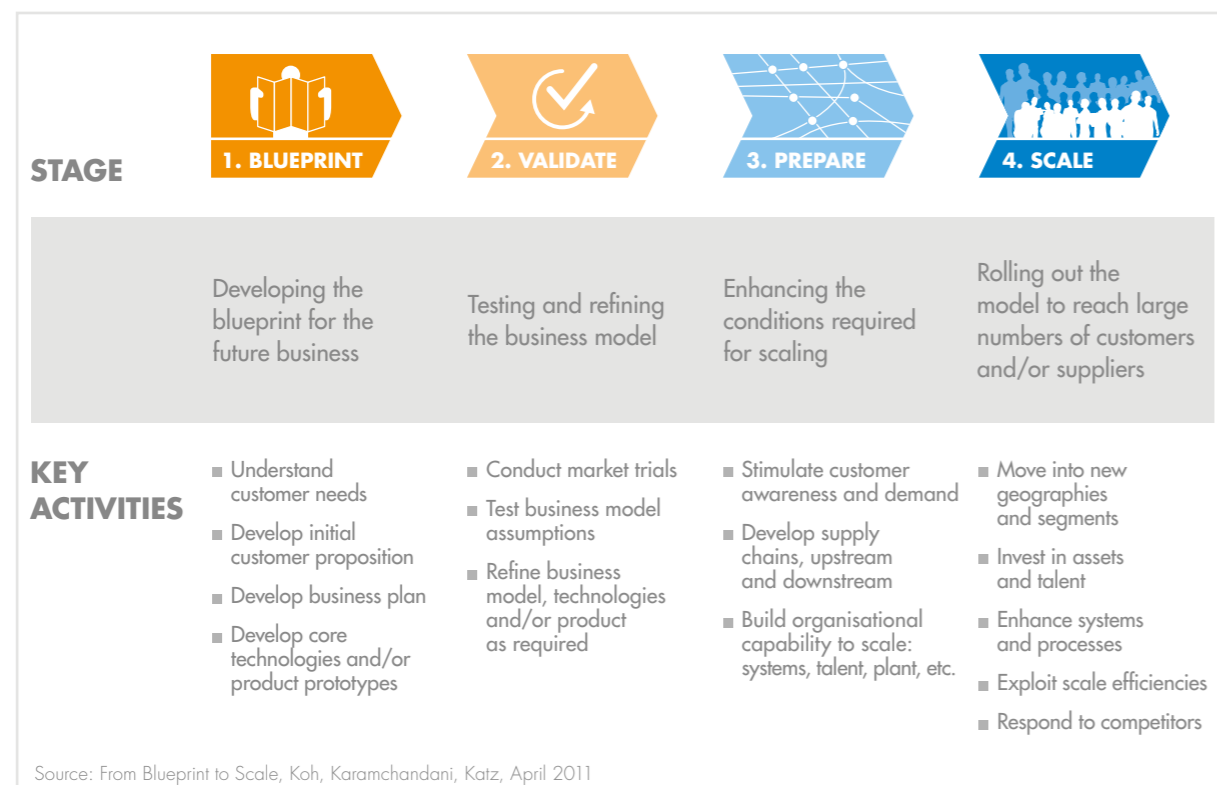
Without them we see isolated enterprises who will fail to grow, or wasted investment in some parts of the ecosystem that will prove fruitless while critical gaps exist elsewhere. In this chapter we offer our view on the key determinants of market growth that will ultimately cap the total impact that any individual business or social investor is able to deliver to low-income consumers.



Growing the Supply of Social Impact Products and Services

Social enterprises serving low-income communities at scale are few and far between, and only a small number are able to absorb meaningful levels of capital (>\$1m) to grow their businesses. The lack of an investable pipeline is a popular refrain of social investors. So what type of support will enable aspiring manufacturers and service providers, operating in low-margin sectors, to attract the finance they need to serve hundreds of millions of customers?

If the first pioneers of a new sector can demonstrably meet market demand, grow their presence and attract commercial capital, this offsets the risk for new entrants and social investors to grow the market. The Monitor Group's "four stages of pioneer firm development"⁷ is a useful framework to consider the challenges they face to achieve this. In the four years since this excellent analysis was published we have seen greater interest in incubators and accelerators, but little increase in the type and depth of early-stage support that pioneers truly need; perpetuating high failure rates and eroding investor confidence in early-stage enterprises.



KEY LEARNING FROM SF PROGRAMMES

①
To identify a "game-changer", the skills and competence of the management team tell you far more than the product, service or business model

A large number of our partners over the years have, while making a genuine difference at a local level, failed to meet our expectations for scale and sustainability. While we work to mitigate these risks through improved partner selection and due diligence, we recognise that these failures are a necessary step towards disruptive innovation, provided you learn, learn quickly and share lessons widely. Time and again our experiences and iterative learning has led to the insight we need to find a successful partner.

This said, we consistently find that the **single largest cause of failure** occurs when management teams lack the necessary business skills and competences to accurately analyse market demand, assess risk, develop a viable value proposition and deliver business plans efficiently. Ideas are plentiful but finding teams with the **ability to execute** is extremely difficult.

Over the years we have learned to proactively select partners with aligned vision, commercial track record, entrepreneurial flair and management skillset – in contrast to open requests for proposals. We then conduct short pilots to demonstrate core alignment and commercial acumen of the team. With the right team in place we may allow more time to conduct market trials and develop prototypes, even if demand is unclear for an initial offering. If not our motto is fail fast and exit early.

②
Innovators of new products and services for low-income customers require significant risk-tolerant capital and differentiated support (in the "Blueprint" phase)

Testing transformative ideas, technologies and business innovations for low-income communities requires comfort with a staggering level of risk and uncertainty. Market data on customers' wants, needs and decision-making processes rarely exists – nor do obvious routes to market, particularly in rural areas. Significant iteration of products and models is required, with partners such as M-KOPA or Envirofit taking one to two years to pivot around key elements of product design in response to customer feedback.

We believe a new range of "Incubation" vehicles – such as Factor(E) and Sangam – are required to give breakthrough innovators the breathing space to develop their customer offerings. In practice this means proactively identifying innovative solutions then providing appropriate capital in the region of **\$300K to \$2 million over a two year time frame** (in equity, patient grant or convertible grant) alongside technical and business expertise depending on their risk profiles.

⁷ From Blueprint to Scale, Koh/Karamchandani/Katz, April 2011.

3

You need a long runway and significant capital to test and refine unproven inclusive models and create the market conditions necessary for scale (in the "Validate" and "Prepare" phases)

Our experience working with a range of partners has shown it can take **six to 10 years and anywhere between \$5 million to \$20 million** for a pioneer to understand the wants and needs of their target audience, design a range of high-performance products and services that low-income customers are willing to buy, adapt their business models to overcome gaps in the value chain, monitor impact and build the systems, talent and assets to achieve a net positive cashflow.

In practice this type of support is rarely available, even from foundations with access to unrestricted, risk-tolerant capital. While our for-profit partners have collectively been able to leverage \$684 million from a variety of social and commercial investors to-date, it has typically taken **three to four years** before a pioneer can attract sufficient co-investment to cover their core costs.

4

For early-stage social investors, "real time" business support on a day-to-day basis is key to understanding value propositions and managing risk

The levels of investment required by pioneers with genuine potential for scale, and the need to adapt to unforeseen developments in uncertain operating environments, ratchets up the risk of backing a lost cause. The best way to mitigate this is through extensive hands-on engagement at every level, which enables us to understand performance variances, take better decisions on continued investment and provide the right support to progress towards sustainability.

For SF, this meant recruiting a core team with a unique blend of entrepreneurial, commercial and development experience to analyse and respond to pioneer needs – **with each of our delivery team providing support to no more than three to four partners on average.** This differs greatly from our early years where one individual would manage dozens of organisations. Senior leaders often provide additional governance support to help partners achieve their social and environmental targets and to build the track record they need to attract second-stage finance.

Priority areas of business support required by SF partners

1. Strategy and Business Model Development
2. Human Resources (Recruitment and Talent Management)
3. Fundraising
4. Access to Market Channel Partners: Identification and Negotiation
5. Marketing and Sales
6. Performance Management, Risk Analysis and ESG Compliance
7. Financial Modelling and Functional Support (Tax, Treasury, Insurance, Controls, Audit)
8. Governance and Leadership Development
9. Access to Specialists: Legal, Technical, Engineering, Product Development, IT, Mentorship
10. Value Delivery: Manufacturing, Supply Chain, Logistics

5

Attracting and retaining world-class talent is crucial – and that means paying market rates

Early focus on talent development is crucial to the long-term viability of social enterprises. "Business growth figures speak for themselves," says former SF Director, Chris West. "The statistics show that pioneers who make considerable investments into attracting and retaining world-class talent can achieve scale and sustainability far more quickly than others. This theory sounds obvious but is rarely practiced. Failure to invest in people with the skills, track-record and experience to perform efficiently in uncertain environments ultimately harms an enterprise's ability to execute and to fundraise, placing early-stage investment at higher risk."

Over the last 15 years we have found partial and time-bound subsidy support to enable enterprises to hire appropriate senior talent is a highly effective use of philanthropy that helps enterprises charter the critical early phases of their growth. d.light, for instance, decided to recruit a raft of talent from the private sector in 2011, remunerated at market value. This investment paid off handsomely with the business able to treble growth figures within the next three years.

Harnessing world class talent at M-KOPA

M-KOPA, a Shell Foundation partner since 2009, is the world's pioneer pay-as-you-go solar business. From its inception, founders Nick Hughes (who started M-PESA) and Jesse Moore understood that they would need world-class talent across a range of skill sets, from software developers to electrical engineers to sales executives to finance managers. Jesse Moore explains, "I spend more time on managing and retaining talent than any other activity on my plate. We know that we can do even better and are perpetually looking for ways to improve the way we attract and manage talent."

There are several ways in which the company has sourced and retained an unusually strong team:

1. Hire who you will need eight months from now, not who you need today.
2. Introduce transparency and team buy-in into the hiring process to enhance respect.
3. Pay market rate salaries and secure investor buy-in early on compensation packages.
4. Hire locally unless absolutely necessary to use expats to enhance local knowledge and reduce costs and turnover of staff.
5. Offer staff genuine opportunities for skills development and career progression within the organisation.



Building Demand for Social-Impact Products and Services

Low-income consumers are no different from any others in the way they make their purchasing decisions. They are, however, far more sensitive to risk and value and this means that demand for new products is almost always low. Further, dispersed demand, low margins and high marketing costs mean that existing channels to reach consumers are typically uneconomical in rural areas.

Overcoming these barriers represents a significant sunk cost that no individual enterprise can bear alone. Since 2007 SF has experimented with different ways to support social enterprises to reach the tipping point for demand, i.e. the level at which value of their products and services are well recognised by consumers and sales start being driven by “word of mouth” and customer experience.

KEY LEARNING FROM SF PROGRAMMES

1 Don't expect early adopters of solutions to be the poorest of the poor

Between 2007 and 2010, with many of our partners struggling to grow, SF invested heavily in new ways to increase the uptake through a variety of new retail channels, microfinance and NGO channels without significant success. We discovered four entrenched “barriers to purchase” – Awareness, Availability, Affordability and Accountability – that must be removed to gain traction with low-income consumers.

This requires considerable funding and can often take several years. It took partners such as Envirofit and d.light over five years to achieve the economies of scale and brand credibility needed to create, market and sell products at scale in India. For this reason, early adopters tend to be slightly higher earners and exposed to less risk. These first customers create the “aspiration to own” among lower-income consumers, especially where value is not easy to demonstrate (e.g. for products like clean cookstoves where financial savings accrue only after many months of use).

M-KOPA has been able to collect hard data to prove this point. As awareness of the cost savings offered by M-KOPA's solar home system has spread, the percentage of their customers living on less than \$2/day has materially increased. In fact this rose by over 15% (from 66% to 81%) in 2014 alone.

2 Significant investment in value chain innovation is still urgently needed

Early-stage enterprises must tackle severe strangleholds related to demand creation, consumer finance and last mile distribution to create sustainable value chains. We have found that while many investors are attracted to technology solutions to these challenges – such as improving affordability through pay-as-you-go energy – less time is afforded to allow these enterprises to pilot, prove and scale partnerships with national distributors and microfinance institutions. This then means less time to build the backend support required for first-class customer service, and to optimise logistics between manufacturers, wholesalers and retailers. This is just as crucial to sustainable growth.

Equally, intermediaries such as Dharma Life who provide an end-to-end solution to this problem are rarely considered compelling by social investors, yet their integrated model to build demand and supply for social-impact and income-generating products (such as sewing machines, mobile phones and bicycles) offers the potential to open these markets to millions of consumers in rural India.

3 The rapid growth of mobile phone usage across Africa and Asia will facilitate a host of new solutions to foster demand, well beyond improved affordability through mobile money

A key barrier to improving the availability of products is the lack of accessible data within the supply chain. In recent years, consumer and location data enabled by the internet and/or mobile phone networks and driven by adaptive software have transformed distribution in developed markets (e.g. ZipCar, Uber and Amazon) as well as in developing markets (B-Kash and M-KOPA). Data that drives route optimisation, aggregation of demand and wider choice of channels has enabled affordable products to be delivered to customers.

For example, Logistimo, based in Bangalore, has created a mobile-based distribution platform to enhance agriculture, healthcare, consumer goods and waste management in rural areas. The business has developed a **crowd-sourced distribution service** that connects customers, retailers, distributors, wholesalers and producers to potential transporters. These include businesses with trucks that are returning empty from deliveries, or individual vehicle-owners. The technology optimises these connections to create quick and convenient supply routes: maximising efficiency by utilising empty loads and significantly lowering the cost of products to the end consumer.

4 Building trust and credibility is critical – but this takes feet on the ground

Our enterprise partners' experience shows that low-income consumers are willing to pay for relatively expensive assets if they trust and like the brand, see measurable value in the purchase and can pay in instalments that are suited to irregular earning patterns.

M-KOPA customers that have paid off the balance owed on their solar home system have shown huge appetite to re-mortgage the asset to purchase school fee loans or clean cookstoves. Logistimo customers living in poor, remote areas have purchased items such as refrigerators and televisions in India. Dharma Life's entrepreneurs are selling expensive durables like sewing machines and bicycles across rural India.

Enterprises need to invest in building this level of trust, either directly or through alliances. Commercial distribution partnerships with trusted brands like Safaricom (M-KOPA), Total (d.light) or Unilever (Envirofit) or with popular microfinance institutions have proven effective to accelerate market

Responsive after-sales support is also a major determinant of trust and one that very few companies do well.

penetration, but this only gets you so far. Whether through distributors or via a direct salesforce, **brands need a human face on the ground**, and this type of expenditure across states and countries can break the back of an organisation in its early years.

d.light, Envirofit and M-KOPA integrate distributor partnerships with the use of their own in-house salesforce to meet this need. Alternatively, supply chain intermediaries can step in to play this role. For example, by offering a portfolio of pull products (such as mobile phones) and push products (like water purifiers and clean cooking products) Dharma Life is able to aggregate demand and improve the unit economics of marketing and distribution at the last mile.

"We need a network of entrepreneurs and sales agents to make this work," says Dharma Life CEO, Gaurav Mehta. "We undertake three types of activities to generate demand depending on the products and the target audience. First we engage key opinion leaders in the village, such as Anganwadi workers and teachers to promote awareness about a cause and product. Then we conduct interactive marketing campaigns at prominent access points such as schools and retail outlets. Only then can we engage consumers directly to activate demand."

Responsive after-sales support is also a major determinant of trust and one that very few companies do well due to the upfront investment required to hire local field agents and back-end support.

"M-KOPA's acquisition of nearly a quarter of a million customers in East Africa in the last three years comes from building the business around a service model," explains M-KOPA founder, Nick Hughes. "We do not sell technology – we set out to offer the customer affordable energy as a service. We minimise the risk to them in making a purchase decision. For example, we offer a refundable deposit if they decide M-KOPA is not for them. We offer 24 hour support in the event of there being a problem with their system, something that is only made possible by us being able to remotely analyse their system for any technical issues and measure system performance."

Explaining SF strategy: why focus on pioneers?

Pioneers of socially-beneficial products and services (and their early investors) often underestimate the cost of technological and business model development as they work to validate demand, build organisational capacity and attract growth capital. Without sufficient support, these businesses remain fragile and unable to attract support from impact investors, development financiers and the private sector to support their growth.

A common learning across all SF programmes, discovered the hard way, is that developing new models takes time, money and considerable effort. Entrepreneurs require patient and flexible support for BOTH product and supply chain innovation and a mixture of sizeable funding and business skills to build the organisational capacity to overcome barriers to scale.

Today's most promising inclusive markets (including mobile money, microfinance, affordable solar, growth finance, clean cookstoves and pay-as-you-go energy) were triggered by the early success of a small number of first-movers who lowered the risk for other enterprises and investors to enter the market. Proof of demand and viability from these businesses reduced the lead time for new entrants to provide competitive alternatives, accelerating product innovation and the introduction of choice for customers. This further incentivised investors and talent to participate by demonstrating the scope of opportunity and the viability of multiple route-to-market strategies.



Access to Appropriate Finance

The growth of impact investment and venture philanthropy has ballooned in recent years, with estimates of annual funds deployed in 2014 ranging between \$15 and \$20 billion a year (depending on definitions). These figures, however, belie major financial constraints in the social investment ecosystem:

- According to 146 GIIN members, the top two challenges to the growth of the impact investing industry today are "lack of appropriate capital across the risk/return spectrum" and "a shortage of high quality investment opportunities with track record".⁸
- Investment in Africa centres on East Africa (predominantly Kenya).
- 60% of the \$1.6 billion invested in social enterprises in India has been placed with 15 enterprises⁹, while 70% of capital was directed towards Financial Inclusion alone.
- Follow-on investment from local funders remains low.
- Rural businesses are far less likely to attract investment than urban social enterprises.

The sector lacks the mechanisms to allocate capital confidently to businesses where risk and uncertainty may be highest but social return and growth potential are great. In particular, the dearth of finance available to high-risk, early-stage ventures is a threat that runs to the core of the "impact investment" value proposition. Is it really possible to invest for social value and deliver financial return?

KEY LEARNING FROM SF PROGRAMMES

1 There is a fundamental misalignment between social investor expectations and the return that social enterprises serving low-income consumers are able to deliver

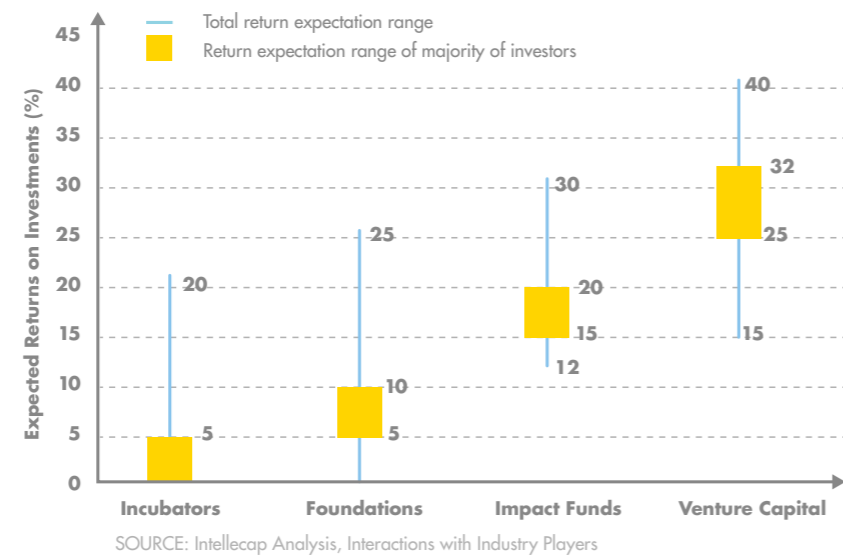
Despite an increasing number of social investors entering the market, very few have the ability and appetite to invest material levels of capital to support pre-EBIDTA positive businesses, as the risk profiles typically do not match their return expectations. The majority of investors screen in order to first meet their financial return obligations before assessing impact potential.

The figure overleaf shows the average return expectations for investors in India. Though some investors do seek 10-15% IRR for investments in early-stage enterprises, very few investors are willing to accept return at the 0-10% range. Equally, for a fund to deliver 10% hard currency return it will need to include investments in its portfolio that deliver this many times over, which explains why we can count on one hand the number of funds that have actually provided this level of return.

⁸ Eyes on the Horizon, JP Morgan & the Global Impact Investor Network, 2015.

⁹ Invest. Catalyse. Mainstream, Intelicap, 2014.

Comparison of Expected Returns

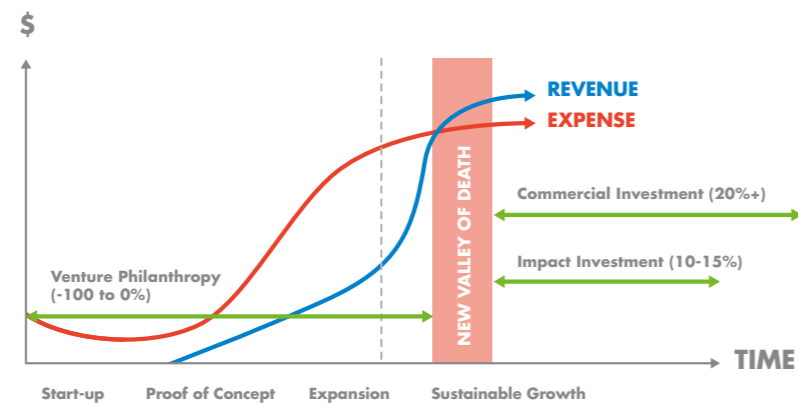


This raises a big problem. When SF was first established, we believed it was possible for all social enterprises to (eventually) attract commercial capital at commercial rates. The reality has proved very different.

Bar one or two exceptions in our portfolio, nearly all the social enterprise and market intermediary businesses we have supported are low-margin businesses.

While we are confident they will be able to achieve global scale and deliver stable returns to investors, these returns are likely to be below market standards, **unless the impact they create is valued and monetised.**

Funding available to an early-stage social enterprise serving low-income communities



2
Innovative use of philanthropy can offset risk to attract early-stage investment into social enterprises, on terms that match investor preferences for return and liquidity

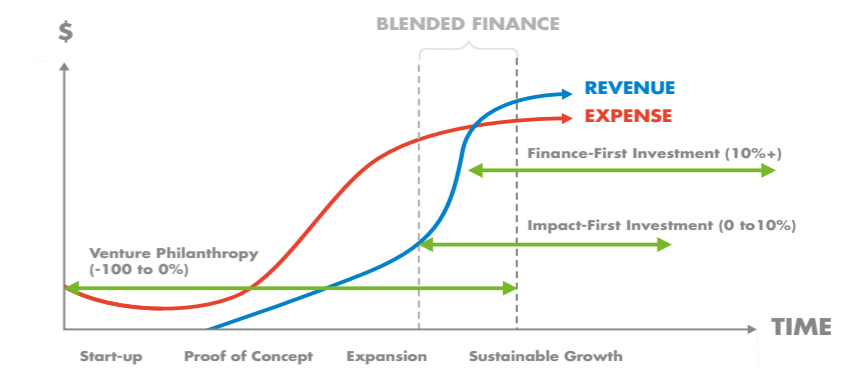
Reflecting on our joint fundraising efforts with partners, we have found ourselves working on three distinct approaches to increase capital flows from impact investors and development finance institutions into early-stage social enterprises. All three involve proactive financial partnerships with "impact-first" investors who are prepared to trade financial return for social or environmental impact at scale. Several of these partnerships are outlined further in the next chapter.

i) **Offset risk by deploying grant capital alongside impact investment during the validation stage of a pioneer's growth.**

This has worked well with partners such as M-KOPA and d.light who have gone on to attract over \$65 million from social investors and commercial investors between them. In recent years, SF has started using grant-based instruments (such as recoverable grant or loan guarantees) and programme-related investments (such as convertible grants or equity) to demonstrate the ability of partners to serve harder forms of finance and ease the transition to second-stage investment. In our early years, we sought to help partners progress from grant to impact investment to commercial finance in sequence. By contrast the evidence from SF partners, and also the growth of microfinance and mobile money sectors, shows that stacking investments from the start can dramatically enhance progression towards financial independence and scale.

Where businesses offer single digit returns, there can be a continued need for grant funders to accelerate their expansion into new geographies and support product development to deepen value for low-income consumers. That said, the risk of providing grant funding to enterprises without a genuine first-mover disadvantage and who are in a position to attract harder forms of finance is great. To guard against such market distortion SF reports and engages transparently around the full experiences of our partners so as to maintain a primary focus on gathering data to build sectors, not individual enterprises.

Opportunities for Blended Finance to Accelerate Impact



Social enterprises exist to deliver impact yet this is an asset that is rarely priced and sold.

ii) Create tiered capital structures to unlock private capital

There are several existing examples of grant being used as concessional finance to enable an enterprise or vehicle to offer impact investors, DFIs and perhaps commercial funders lower risk and higher returns, with philanthropic capital acting as a first loss cushion for investors. We have similarly experimented with a variety of tiered capital structures to allow investors **with aligned social interests** but different risk and return appetites to participate in the same funding vehicle. Variants of these structures are used by GroFin, BIX Fund and responsAbility's energy access debt fund. Risk capital is tiered according to a pre-agreed order of liability or by offering higher returns to those who make a longer-term commitment and carry higher risk. We expect to be involved in further evolution of such models in future years and see them as highly scaleable.

iii) Impact monetisation through carbon markets, development impact bonds or results-based finance

Social enterprises exist to deliver impact yet this is an asset that is rarely priced and sold. We believe the monetisation of impact, while in its infancy as a concept, has the potential not only to help improve measurement tools, but also enhance the overall return of low-margin businesses, by creating a revenue stream that can be used to underpin returns to private investors. For an early-stage enterprise to make this work some element of "pre-finance" is needed. Entering the carbon market, for example, requires a lengthy registration process that includes the need to establish baselines in different geographies, track sales and support audits and can often take over two years. Having experienced this several times with Envirofit, in 2013 SF joined forces with Cardano Development (a Netherlands-based fund manager with a track record for establishing new financial instruments for emerging markets) to create BIX Fund to meet this need. The new intermediary is now raising \$25 million from investors to spur the purchase of impact beyond carbon credits in emerging markets.

Promising variants of impact monetisation include **results-based financing** and **development impact bonds**, where the aim is to use finance from socially-motivated donors (e.g. governments and foundations) who pay only when their goals are delivered. This enables social enterprises to offer more attractive returns for impact and commercial investors.



For enterprises that already sell thousands of products each month, provide services to millions of customers or work with hundreds of entrepreneurs on a daily basis, **a major barrier to scale is the lack of affordable debt available to them for expansion.** These enterprises struggle to access finance from banks or social investors due to a lack of collateral, track record or because of the perceived risks associated with serving low-income consumers in fragile economies.

The same enterprises are similarly overlooked by grant-makers who believe that organisations with a turnover of \$40 million or more should look to commercial capital to support further scale, ignoring the fact that the pioneer risk in nascent markets is high. This forces entrepreneurs to use expensive equity reserves to fund short-term working capital and medium-term capacity building needs. The problem is exacerbated in a local context, where debt in Africa and Asia for unproven enterprises can cost as much as 20-30% in interest, presuming collateral is available.¹⁰

We believe a suite of debt products is required to cater to the needs of these enterprises over their lifecycle. They must include:

- Short-term debt for capacity-building;
- Medium-term debt or quasi-equity to fund the growth of proven models;
- Working capital for manufacturers, distributors and retailers;
- Long-term debt to act as "project finance" for small-scale assets (such as mini-grid plants).

We outline three emerging solutions to the debt gap overleaf. An unexplored area still exists in the provision of **long-term** committed debt at the early stages of their company's growth. Many of our core partners need long-term debt (>4 years) to reach the next level of scale, yet only when there is significant evidence of market growth and risk is sufficiently offset will investors with deep pockets start to emerge.

One promising way for pioneers of pay-as-you-go financing (through mobile money platforms) to raise capital is by securitising their consumer receivables, as M-KOPA has been able to do in partnership with the Commercial Bank of Africa and Gates Foundation. New intermediaries such as Lendable (serving African markets) and LendEnable (serving India and Ghana) are now using digital technology to provide consumer credit assessments, quantify the risk of these receivables, aggregate portfolios and connect such companies to micro-lenders.

¹⁰ Intelicap report on decentralised energy solutions in Africa and India.

THREE EMERGING SOLUTIONS TO THE DEBT GAP

DEBT FINANCE PROVIDER	responsAbility energy access debt fund (Working Capital)	IntelleGrow (Short-term Debt for Capacity-Building)	GroFin (Start-up & Growth Finance)	Long-term Debt
Established	2015	2011	2004	Missing
Challenge	Fast-growing inclusive energy markets such as solar lights will struggle to scale due to the credit burden on manufacturers to facilitate the entire supply chain. Cash-to-cash cycles can take up to 52 weeks.	Most early-stage energy SMEs lack sufficient track record or collateral to secure debt from banks. This often results in enterprises seeking equity much too early, compromising on business validation.	Start-up and growing entrepreneurs in Africa typically struggle to access the finance and skills they need to grow their businesses successfully. This creates a finance gap in most markets known as the 'missing middle' – a major constraint on inclusive economic growth.	A growing number of established social enterprises require large up-front investment to build an asset base for expansion. Without affordable debt funding that matches the productive lifetime of these assets, growth of promising sectors will stall, limiting their impact.
Type of Funding	Loans for growing energy enterprises.	Venture debt (early-stage, viability-based loans linked to cashflow).	Viability-based loan, linked to cashflow. Risk-adjusted returns.	Asset backed lending (e.g. securitisation of revenue from paying customers or project finance for capacity building)
Size of Investment	Up to \$3 million	\$50K to \$1.25 million	>\$50K to \$1.5 million	Over \$5 million required
Fund Size	Target first close of \$30 million with investment from IFC, Lundin Foundation and other social investors.	\$10 million from a range of social investors including Omidyar Network and Michael and Susan Dell Foundation.	\$400 million under management from a range of social and commercial investors.	\$100 million minimum required
Non-financial Support	Technical assistance services for borrowers.	Nimble structure with decision to lend made within six weeks (rather than months).	Extensive business support pre-, during and post-investment and links to international supply chains and functional expertise.	Significant business support and improved credit assessment and monitoring tools required to assess quality of paying customer and performance of assets.
Investment time horizon	Six to 24 months revolving fund	12 to 36 months	Three to six years	7-15 years
Outcomes	Launched in 2015	Still in its early stages, the business has disbursed 117 loans across high social impact sectors – energy, financial inclusion, education, healthcare – with a 100% repayment rate to date.	500+ businesses supported (26% in energy and transport). Total job creation of over 18,500 jobs, over a third of which held by women, with 300,000 livelihoods improved.	N/A
TARGET IMPACT	Expected to impact 50 million livelihoods and significantly reduce CO ₂ emissions.	\$230 million deployed by 2020 improving 10 million livelihoods.	\$650 million deployed, creating over 75,000 jobs and benefiting more than 1.2 million people.	Opportunity to catalyse the growth of proven markets to impact hundreds of millions of people.



Institutional Support and Infrastructure

In their 2014 report, “Beyond the Pioneer”, Monitor Deloitte refer to barriers to growth within the industry ecosystem that individual firms working in emerging markets are poorly placed to resolve. These include the value chain barriers referenced earlier in this report but also the absence of public goods such as physical and communications infrastructure, IP protection, enforceable legal contracts, a trained workforce and an educated and informed public. Solving these challenges benefits all firms in the same industry and hence will rarely be funded by enterprises or investors.

For example, mobile money platforms have often struggled to grow outside of East Africa because of the lack of alignment between two sets of regulators (central banks and telecoms). This is totally outside any one firm’s control.

SF started out as a social investor concentrating narrowly on the creation of enterprises who could deliver products and services to low-income consumers. In response to the market barriers our partners faced, we began to create a suite of supply chain intermediaries and financial vehicles to support their scale-up.

As this work has evolved, we have come to see professionally managed, neutral industry associations, networks and public-private partnerships as essential to set international standards, codify best practice, publish market data and provide the legitimacy that potential new entrants and investors need to see before they commit to nascent markets.

KEY LEARNING FROM SF PROGRAMMES

The public sector is critical to facilitate the growth of inclusive markets

When SF was established in 2000, we believed that a combination of private sector actors (philanthropists, social investors, big business and commercial funders) would be able to catalyse and scale market-based solutions alone, with the public sector required only to support fair regulation once markets were fully established. The intervening years have shown that while the private sector excels at innovation, governments are crucial to scale.

Inclusive businesses operating in the world's toughest markets rarely face a level playing field and, as we have discovered, national policy on energy (related to tax, subsidy and regulation of small-scale renewable energy products and services) and mobility (related to best practice and regulation of infrastructure, city design and emissions reporting) can make or break a new market. The rapid increase in Bus Rapid Transit systems or widespread adoption of affordable solar lighting in rural Africa, referred to in the accompanying case studies, would not have taken place without strong public-sector support. Supportive policy and an efficient interface between private and public sectors is critical to scale.

As pioneers start to demonstrate the public benefit of their solutions, industry-specific associations (such as the Global Off-Grid Lighting Association – GOGLA), non-profit institutions (like Smart Freight Centre) or public-private partnerships (such as the Global Alliance for Clean Cookstoves) have started to support governments in both developing and developed countries to strengthen the enabling environment in which social enterprises operate.

2
Institutional support is required prior to the formation of global associations and networks

In the absence of market analysts and capacity-building intermediaries, pioneers setting out to test new technologies face an uphill challenge to learn about their customers' needs.

In seeking to demonstrate the viability of the clean cookstoves sector, for example, SF was one of few to support independent M&E, market research and awareness-raising, and provide an interface between partners and local or national governments in the early years. Similarly, prior to the creation of GOGLA, the IFC stepped in to play a convening role for the industry through their Lighting Africa programme. This provided reliable data on the solar lighting market, setting industry quality standards and creating demand amongst consumers.

"We had to make very big assumptions about the characteristics of the solar lighting market before Lighting Africa came along in 2009", explains Anish Thakkar, Founder of Greenlight Planet. "It was harder to engage productively with potential investors, who all wanted validation that the market we were describing actually existed. Today, the doubts on the market potential have evaporated, and the focus has now shifted to where it should be – on innovation capacity and distribution models."

The Rockefeller Foundation had a similar experience working to catalyse the mini-grid sector as a means to enhance affordable electricity in rural India, through their Smart Power programme. "A variety of actors are needed to spur the growth of mini-grids in India – from the private sector to funders to government to civil society", said Clare Boland Ross, Associate Director. "When we started working in the area in 2010, one of the first things we found was that these diverse organisations are not always aligned around the same goal. We discovered a local and neutral non-profit organisation (Smart Power India) was needed to help ensure disconnected activities are integrated and geared towards driving scale and impact."

3
Global institutions and cross-sector partnerships must focus on supporting first-movers to demonstrate viability before leveraging widespread support for replication

Establishing the credibility of new industries requires a disciplined focus on the challenges faced by pioneers to enable one or more of the first-movers to achieve scale and viability. This lowers the risk for new investors and entrepreneurs to enter the market, ultimately promoting competition and innovation. Only then will awareness-raising, knowledge-sharing and dialogue with policy-makers foster a more conducive enabling environment.

EMBARQ, a network of sustainable mobility experts created by the World Resources Institute and SF, has similarly found that the success of a few flagship projects in major cities, such as the Metrobus BRT system in Mexico City, was pivotal to influence transport policy at an international level.

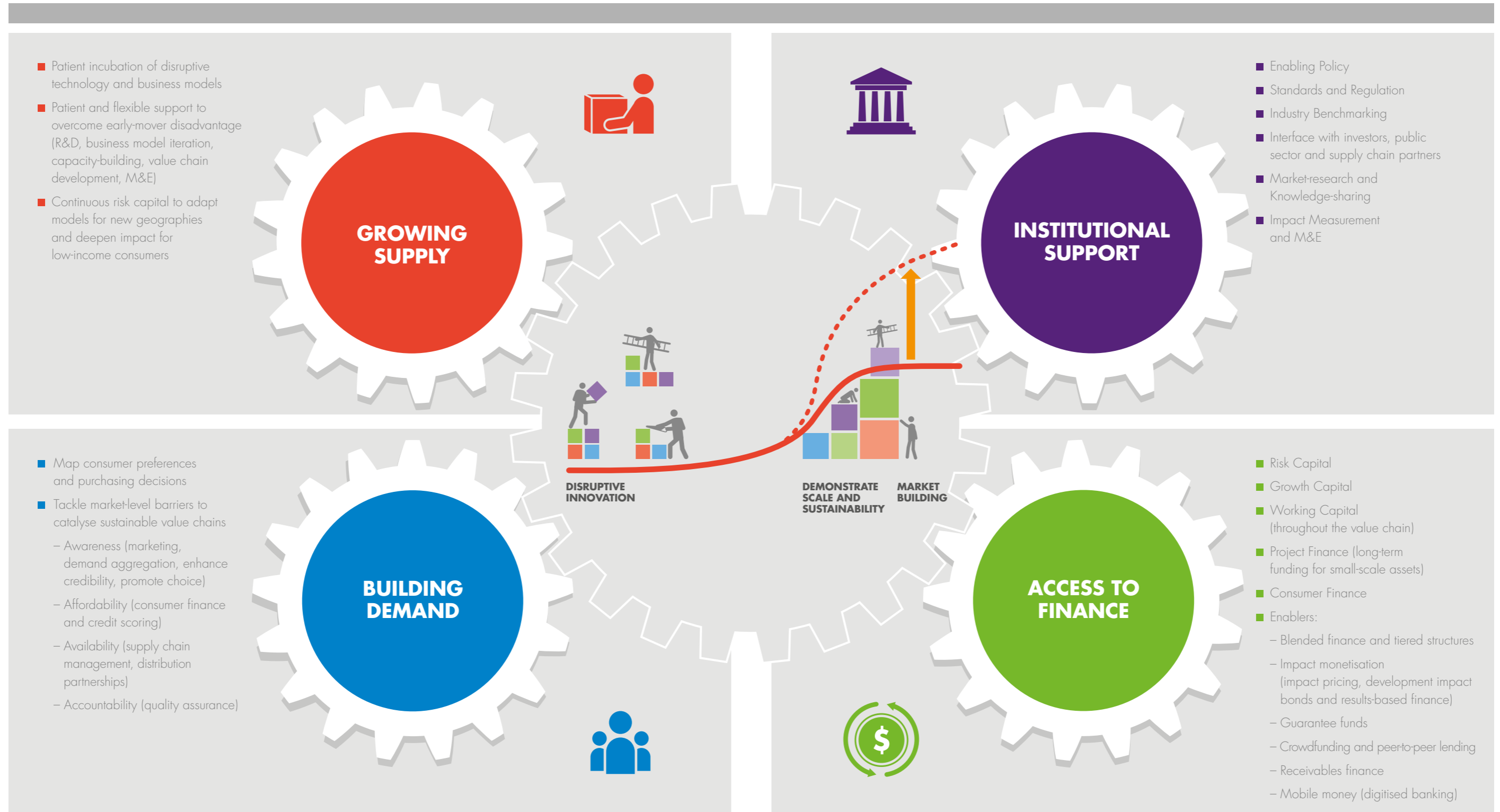
Rather than focus on building a huge membership base, GOGLA have decided to concentrate on adding value to its existing members through "working groups" steered by leading practitioners and designed to build consensus on such issues as quality standards, end-of-life recycling solutions, access to finance and market data. It will then work through strategic partnerships on advocacy and recommendations to policy-makers.

Minimum quality standards that help protect the reputation of the sector and ensure that end-consumers access quality products are a key enabler of success, and an area of relentless focus for GOGLA, IFC and the Global Alliance for Clean Cookstoves. Though difficult to achieve consensus among a diverse stakeholder group, the continued absence of accepted international standards and independently-ratified assurance of product performance and impact in many markets, risks creating confusion among investors and consumers that will compromise the success of the sector. Many companies have suggested that the Lighting Global quality standard for solar devices (now adopted by several African countries) has been the most important work that IFC has done in the market and an important catalyst for the growth of the sector.

DETERMINANTS OF SCALE: GAPS IN THE CURRENT SOCIAL INVESTMENT ECOSYSTEM

Based on the learning from the scale-up challenges of our partners and collaborations with over 200 private and public organisations over the last 15 years, SF believe that foundations will need to play a critical role to identify and create the key building blocks required for inclusive markets to thrive.

We believe that **simultaneous** market-building support in four critical areas, delivered through the coordinated actions of a range of stakeholders, is a prerequisite to sustain and accelerate the growth of inclusive markets.



Case Study 1: Key Market Drivers

Off-Grid Solar Lights and Home Systems

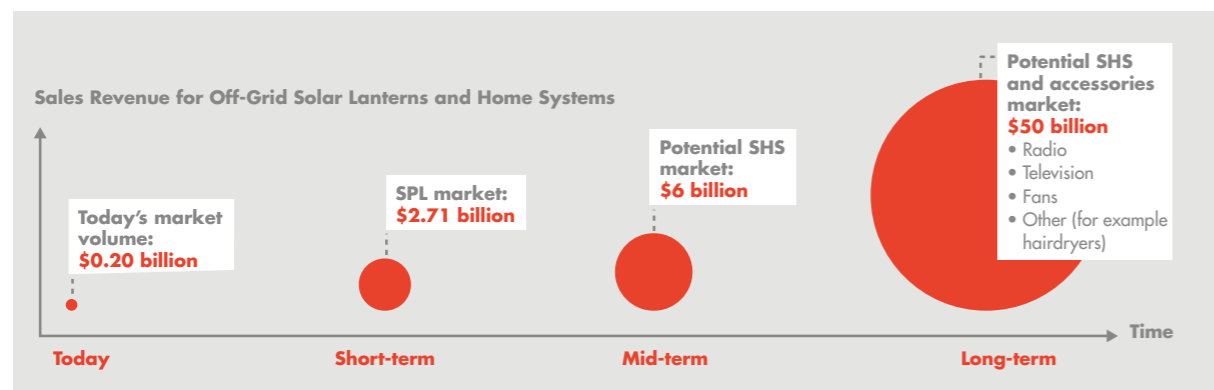
In 2010, Neil MacGregor, the then Director of the British Museum was asked by the BBC to present a 100-episode radio series on the history of the world, with each episode focusing on one object that defined an era. His choices went back over two million years, from hand axes to spears to early writing tablets, all the way through to maps, coins and credit cards. His last choice, Object 100, was an affordable solar light; his prediction that this simple object would go on to entirely transform the lives of billions of people in the 21st century.

In fact, solar PV was heralded as the catalyst for sustained development as early as the 1980s – yet by the turn of the century less than one million households in emerging markets were using solar power for light or electricity¹¹. It was only between 2007 and 2012 that this picture began to change.

By contrast, sales growth for off-grid solar lanterns and home systems in Africa was estimated by the IFC to exceed 100% in the years from 2009 to 2012. **Today, the market is thought to be worth \$200m each year in global revenues according to research from A.T. Kearney and GOGLA – improving earning potential, health, quality of life and study time for tens of millions of people.**

Today's market for solar power shares many of the same characteristics as the mobile phone market in Africa, which has seen subscribers increase from 5% to 73% over the last 10 years (driven by investment of just under \$44 billion) according to the GSMA. Falling unit costs, value that's easy to demonstrate and strong economic incentives have led many to believe that the off-grid solar market could match this trajectory. We believe there is a realistic chance that this market could grow to serve a high percentage of consumers who today live without access to reliable and affordable energy (over two billion people) – **assuming the key barriers to scale referenced in this report can be addressed.**

MARKET POTENTIAL IN OFF-GRID ELECTRICITY



Sources: Lighting Asia, Energy Practitioner Network, A.T. Kearney analysis

¹¹ Selling Solar: The Diffusion of Renewable Energy in Emerging Markets, Damian Miller, 2009.

THE STORY SO FAR: KEY DRIVERS OF GROWTH



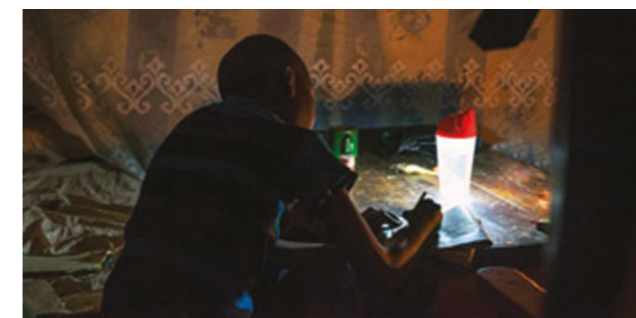
GROWING SUPPLY

Many observers of off-grid solar point to the rapid decline in component costs suddenly making solar lanterns and home systems economically viable for entrepreneurs. While true, this perhaps underplays the level of innovation in design and distribution led by entrepreneurs, and the level of incubation and funding support provided to create an enabling environment more conducive to new product development.

Prior to 2000, most entrepreneurial efforts to provide solar power to low-income communities were driven and promoted by NGOs, with few considered seriously as change agents by private markets. Two things altered this picture: first, a few pioneering entrepreneurs identified the potential to develop pro-poor solar lighting products that could serve the masses. Crucially, they (correctly) ignored sceptics who suggested it would be the large multinationals that would develop these products and sell them at scale. In parallel, innovation hubs such as Stanford and Santa Clara University started running business plan competitions encouraging new solutions to be developed, offering an important signal of market opportunity to donors and early investors.

Second, a small group of focused early-stage investors (including Gray Ghost Ventures, Bamboo Finance, DFJ and others) and grant-makers provided targeted support to a few highly-promising businesses such as d.light and Greenlight Planet. This investment spurred the demand-led innovation that resulted not only in the world's first \$10 light, but in dramatic improvements in performance, battery life, durability and appeal. The confluence of actors working to identify promising solutions, to develop a range of products that actually met the needs and desires of the market, and to test customers' willingness to pay, ultimately led to these pioneers and others to achieve a level of global scale, selling hundreds of thousands of products every month.

Over time, a larger and more active number of players have made the industry more competitive, leading to major innovations in product quality and range of customer offerings.



d.light have now provided 50 million people with access to a range of solar power products.



M-KOPA solar uses mobile money platforms such as M-PESA to provide pay-as-you-go solar energy.



BUILDING DEMAND

Demand for reliable electricity is soaring in off-grid areas, triggered by the increased availability of affordable and high-quality technology such as TVs, radios and fridges, the rapid increase in mobile phone usage (which of course need charging) and by the long-term increase in traditional fuel prices.

Two major barriers prevented customers, particularly in Africa and Asia, from buying solar products. The first is that customers needed to see high quality products on shelves, and to achieve this businesses needed time and investment to build (and incentivise) entire value chains: from production to international distribution to retail on the ground. A catalyst for this was the emergence of international distributor partners, such as Total and SolarAid, who brought down the cost for manufacturers to reach customers. Other distribution models, such as Greenlight Planet's direct sales approach in India, took time to develop but ended up being highly successful. Once these channels were in place, product quality was able to shine through – with sales agents staging nighttime demonstrations and throwing lanterns to the floor to demonstrate their durability. These partnerships took time to forge, with early entrepreneurs leaning heavily on investors for networks and market connections.

The second major barrier was affordability. Even \$10 lanterns stretched the budgets of low-income consumers and \$100+ solar home systems were out of reach for almost everyone in that segment. The simultaneous, and well-documented innovation of consumer financing through manufacturer partnerships with microfinance institutions and the advent of “pay-as-you-go” solar have revolutionised the market.

Before the advent of pay-as-you-go solutions, many including SF had thought that the only way to provide affordability to consumers was via microfinance institutions, given their unique (at the time) ability to offer small loans and their large customer base that usually could benefit from a solar light. Between 2007 and 2010 SF invested heavily in testing distribution partnerships with MFIs in India. These pilots all failed due to the level of training and ongoing incentives needed to maintain that approach. Buy-in from CEOs did not translate into incentives and capabilities for ground-level loan officers to sell products, so they never took off. We wrote off the channel as a viable option. Only in recent months, after the global microfinance sector has evolved significantly and new market and political forces have incentivised MFIs to diversify their offering to customers, are we starting to see MFI partnerships become major viable channels for the sale of energy products. We expect these partnerships will only grow in number and significance.

The story often not told about the pay-as-you-go solar space was how difficult and costly it was (and continues to be) for entrepreneurs to prove the technology could work and demonstrate that the market is viable. The level of effort, talent, and capital that went into building the core technology, IT back-end, and sales channels of companies such as M-KOPA is often forgotten by new entrants and investors alike. When these concepts were originally brought to the attention of the funding community, almost nobody wanted to participate given the level of perceived risk. Even after initial validation, some impact investors, extraordinarily, needed loan guarantees to participate. Today there is a line up.



ACCESS TO FINANCE

Blended finance from grant-makers and impact investors, such as Gray Ghost Ventures, Omidyar Network, Doen Foundation, Lundin Foundation, DFID, Gates Foundation, Acumen and others, between 2007 and the present day has been crucial to enable a small number of early pioneers to demonstrate an ability to meet market demand in viable ways, and to operate on a global stage. The early growth of these businesses, including d.light, Greenlight Planet, Off-Grid Electric, M-KOPA, Selco, BBox, Barefoot Power and others, have encouraged further entrants into the sector, with over 40 manufacturers now operating in multiple countries.

While this represents significant investment, multi-billion dollar funding is required to take the market to scale. Lack of access to short-term debt for working capital is now choking growth, with manufacturers typically unable to offer credit terms to wholesalers, local distributors and retailers, and value chain partners unwilling to take balance sheet exposure. Available capital comes predominantly from foreign sources, leaving enterprises exposed to currency fluctuations. Emerging data from the IFC and GOGLA shows growth of off-grid solar markets in leading countries is slowing for this reason.



INSTITUTIONAL SUPPORT

In 2007 the IFC and World Bank created Lighting Africa, a joint market-building programme that would go on to operate in 11 countries in Africa and evolve similar programmes in Asia and at a global level. The Lighting Africa conference alone proved an important moment for entrepreneurs, donors, investors and supporters convening as an industry to share learning, showcase achievement and engage as an industry with policy-makers. It is hard to overstate the importance of Lighting Africa and Lighting Global in providing independent market intelligence, defining minimum quality standards, leveraging finance and providing important assurances to early consumers. Part of the Lighting Africa work led to the creation of the entity that became the Global Off-Grid Lighting Association, the sector's leading industry body now managed and operated as an independent entity providing a range of support services to its members.

IFC was not alone in providing this institutional support. Organisations such as UNEP, GIZ, Practical Action, SolarAid and Sierra Club have been powerful advocates and successful in drawing international policymakers' attention to the potential of the off-grid solar market to meet the energy needs of the under-served. This combined effort led several countries across Africa to abolish import duties for solar products.

“We saw the emergence of LED technology as a game-changer that would allow downsizing of solar home systems to devices which could be packaged and sold at different price points to address different market segments. We engaged system integrators and LED companies and described for them the off-grid lighting market and demonstrated the superiority and potential of LED-based technology to fuel-based products which were the incumbents. Lighting Africa was simply the set of instruments that the industry members (before there was even an industry) defined as needed if they were to enter the market and achieve success.”

Russell Sturm, Global Head, Energy Access, IFC Advisory Services

Case Study 2: Key Market Drivers

Bus Rapid Transit Systems

The issue of urban mobility in developing countries has emerged over the last decade as one of the world's most pressing development challenges. On current projections, 75% of the world's population will be living in cities by 2050, yet long traffic queues, smog, honking horns, pedestrians and traders dodging heavy traffic are already facts of life in many of today's bustling megacities.



Mexico City's Metrobus serves 900,000 people each day and cuts travel time by up to 50%.

70% of CO₂ emissions come from cities and 85% of the world's traffic fatalities occur in developing countries. For many, heavy congestion and pollution is considered a normal part of daily life, disproportionately impacting the urban poor by separating people from jobs and access to essential goods and services, resulting in emerging market cities losing billions of dollars in lost productivity.

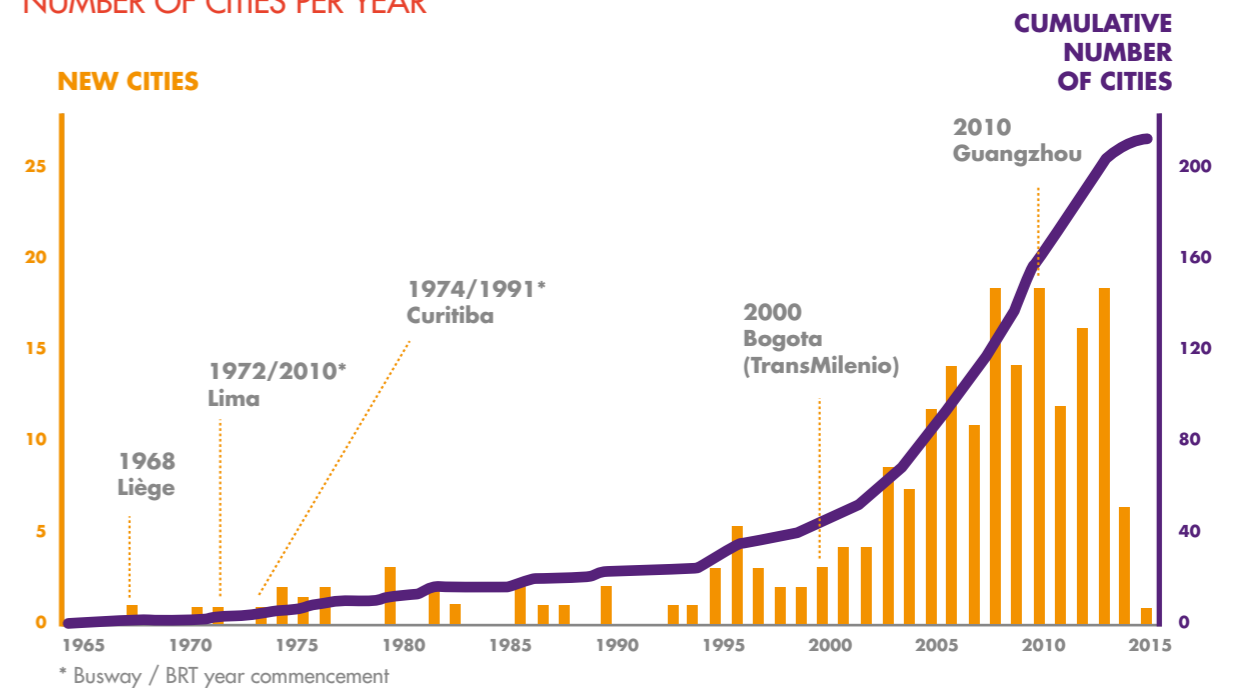
Bus Rapid Transit (BRT) systems emerged in the early 1970s as a low-cost solution to offer high-capacity public transport to people living in mega-cities in developing countries.

These systems can offer similar capacities and service levels to light rail or metro systems. In a full system, fuel-efficient buses run on dedicated lanes through the centre of busy city arteries (so as not to be delayed by cars parking or turning) with customers pre-paying at stations to reduce boarding time. BRT systems can carry up to 46,000 passengers per hour per direction matching some of the world's busiest metros – and can be implemented at one-tenth to one-half of the time and cost of subways and light rail.

The first city to adopt this system was Curitiba in Brazil in 1974 to widespread acclaim. From there it took over 25 years for BRT systems to be replicated in a significant number of cities, and by the early 2000s adoption was largely restricted to Latin America. Only now, 40 years on, is BRT regarded as a mainstream solution with 195 cities across different continents now using BRT or hybrid BRT solutions.

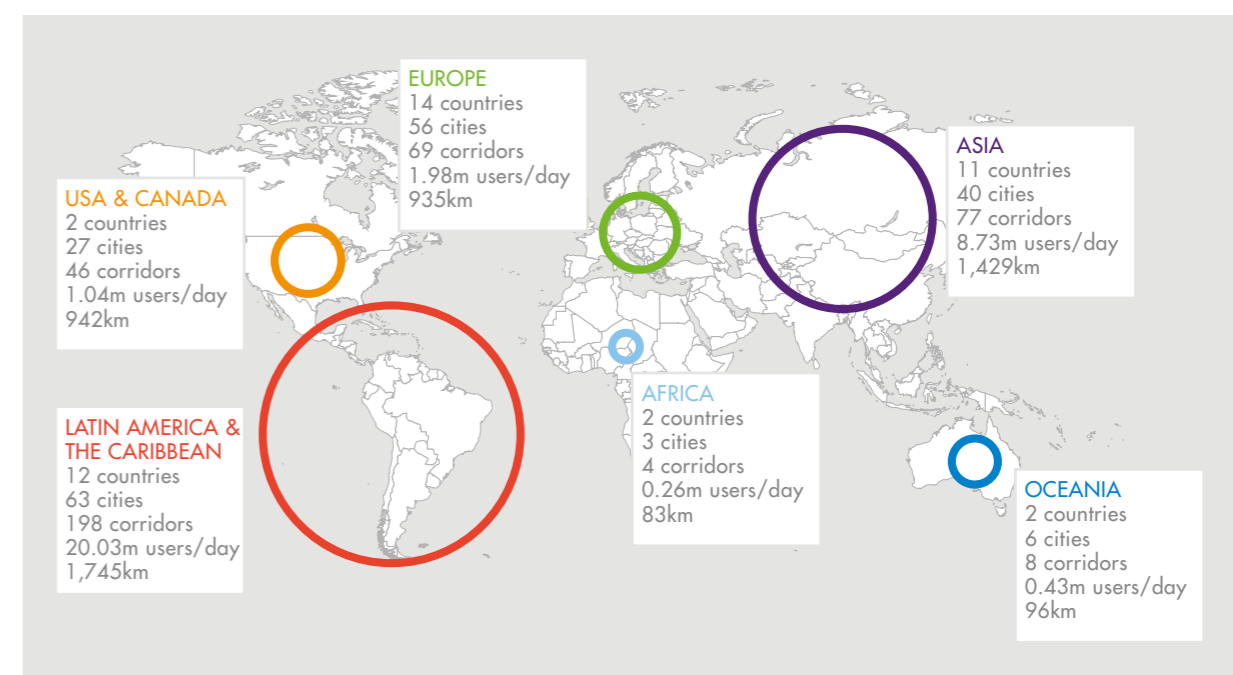
The rapid rise of BRT since 2000 carries lessons on the suitability of a business approach to market-building for the provision of public services. Since 2002, EMBARQ, a market-enabling institution co-created by SF and the World Resources Institute, has been working to help implement and catalyse the BRT concept around the world, acting as a neutral broker to help public and private actors design, finance and implement more efficient mobility solutions for their cities. Our shared experience has been that simultaneous support in **four familiar market-building areas** was required for BRT to be adopted as a mainstream solution to congestion and pollution in urban areas

BUS PRIORITY SYSTEMS IN THE WORLD NUMBER OF CITIES PER YEAR



Source: BRTData.org, September 2015

DAILY DEMAND PER REGION ADDS UP TO 32M DAILY USERS



Source: BRTData.org, September 2015

THE STORY SO FAR: KEY DRIVERS OF GROWTH



GROWING SUPPLY

EMBARQ found that city authorities responsible for transport services lacked the incubation capacity and technical skills to conceive and design sustainable transport solutions as an alternative to large-scale infrastructure projects like subways and additional roads.

To provide this at scale, the organisation created national centres of sustainable transport to build local expertise and to work with individual cities: guiding them through the complex process of diagnostics, system design and convening the wide-array of relevant stakeholders to secure approvals and financial support. Their work has subsequently evolved to engage federal and national governments to support the roll-out of BRT at a national level and their in-country centres now form an international network of sustainable transport experts providing guidance in engineering, policy, city design, health, the environment and finance.

Working in this way EMBARQ and organisations such as the Institute for Transport and Development Policy (ITDP) have been able to **build the capacity of local authorities to diagnose critical mobility problems, design effective solutions and convene stakeholders across government, business and civil society** to support their implementation.



BUILDING DEMAND

A major obstacle to the implementation of BRT systems at scale related to a widespread lack of awareness by both city administrators and the general public on the benefits of BRT and relative ease of construction. Often the poor quality of current bus systems and the use of old, overcrowded vehicles means that buses are not perceived to be an aspirational form of transport and are only for low-income users. **EMBARQ's deliberate response was to work with a small number of cities to deliver flagship on-the-ground projects and showcase best practice for BRT in iconic cities.**

EMBARQ's first flagship project was with the government of Mexico City to create "Metrobus" in 2005 – a 20km BRT corridor that provides affordable mass transit via dedicated bus lanes on a major city artery. Metrobus has now expanded to a 105km system that serves more than 900,000 people per day, cutting travel times by up to 50% and reducing CO₂ emissions by 122,000 tonnes per year. This was a breakthrough for mass-transit in Mexico City and the success led to the development of a further six BRT systems supported by EMBARQ Mexico in cities such as Guadalajara and Leon. EMBARQ went on to deliver iconic systems in cities such as Istanbul (linking Europe to Asia across the Bosphorus River in 2007) and in Ahmedabad, India in 2009 (an example used by UN Secretary General Ban Ki-moon's Momentum for Change Initiative at the 2012 UN Climate Change Conference).

EMBARQ has now supported the installation of 20 BRT systems that have made over five billion trips since 2005, reducing CO₂ emissions, improving safety and saving roughly 30% travel time for BRT riders.

Combining this work with effective user information, signage and social marketing campaigns in key cities has helped to broaden the appeal of BRT and raise the status of shared ridership above the aspiration for private vehicle ownership. Incorporation of new technologies, such as cashless payment cards, mobile money payments and smart tracking systems to enhance bus operations, continues to improve service levels and user satisfaction. In parallel, new ways of engaging communities around sustainable transport alternatives are building user demand. Car-free days in cities such as Gurgaon in India combine community festivals, entertainment and leisure activities with education around modes of sustainable transport.

A sign of the growing confidence of cities to use BRT systems to meet high capacity transport needs was the decision made by Brazil on where to base their transport plans when hosting the 2014 Football World Cup and 2016 Olympics on BRT systems. The cities of Rio de Janeiro, Belo Horizonte and Brasilia quickly proceeded to implement high-quality BRT systems to move hundreds of thousands of additional tourists around congested cities.



ACCESS TO FINANCE

Sustainable transport projects implemented at a city level are often hampered by a lack of suitable financing. Access to public finance may be split between city, federal and national budgets with different drivers and constraints at various levels. Private finance from industry and banks is typically targeted towards large infrastructure projects or those with clearer returns such as toll roads. Funding for technical support is difficult to attract on its own and has been most readily available as a package from providers of engineering services focused towards large rail and road projects.

The messy and complex nature of city transport services with multiple engaged stakeholders has been a deterrent to developing specific financing solutions. Against this backdrop, EMBARQ has pioneered innovative commercial models to attract funding from a range of private and public sources for BRT systems, starting with Metrobus in Mexico City and including India's first public-private partnership for sustainable transport in the city of Indore (leading to Indore's bus network doubling in size). By building a reputation for delivering results, EMBARQ has leveraged more than \$4.7 billion from private and public investors into the infrastructure projects they have helped to implement.

Internationally, EMBARQ collaborated with several NGOs and development bank champions to support eight multilateral banks to commit \$175 billion toward sustainable transport, including BRT, by 2021. These billions are envisioned to leverage trillions of dollars of national and local investment into BRT that simply would not have existed 20 years ago.



INSTITUTIONAL SUPPORT

A key finding of EMBARQ's early work was that limited supporting infrastructure existed at a national level to help governments build best-in-class BRT systems into their sustainable transport plans. The provision of these services at a national and international level had an immediate impact on the rate of BRT adoption. The government of Mexico, for example, has led the way in initiating a dedicated public transport fund (PROTRAM) to enable cities across the country to access finance for solutions such as BRT.

A far greater repository of research and shared learning has also supported wider implementation. For example, The Latin American Association of Integrated Systems and BRT (SIBRT), established in 2010, is a network of BRT and bus agencies from 21 Latin American cities designed to enable learning, share best practice and advocate for supportive policy.



In Ahmedabad, India, BRT stations are designed to be attractive, safe and quick for passengers to access.

Leveraging Comparative Advantage

04

Having examined the essential, and in many cases missing, **building blocks** required to accelerate the growth of inclusive markets that enhance the livelihoods and quality of life for low-income consumers, we turn our attention to the *builders* of this market and **how** these blocks can be hauled into place quickly and efficiently.

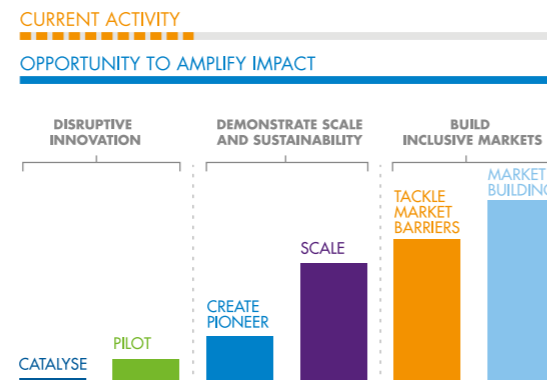
We believe sufficient evidence now exists from markets that have benefited hundreds of millions of low-income customers (e.g. mobile phones, mobile money, microfinance, small-scale off-grid solar) to show how the various comparative advantages of different stakeholders in the social investment ecosystem **can be better harnessed** to enhance the innovation and adoption of market-based solutions.

In this chapter we offer thoughts and examples to show how foundations can coordinate with social investors, governments, corporates and others

to build the supportive environment required for inclusive markets to thrive – enhancing the value proposition for each individual organisation and amplifying collective impact.

We expect this framework to form the basis of our partnership strategy in the next five years, as we seek to accelerate progress towards the SDGs through our work in energy access, sustainable mobility and job creation.

FOUNDATIONS



Philanthropists involved in social investment have access to the world's most risk-tolerant capital. Those that can deploy it effectively will seed innovation, support pioneers to demonstrate sustainability and foster a supportive environment for inclusive markets to bloom.

Throughout history grant funding has played a transformative role to nurture ideas, individuals and organisations who disrupt the way the world works. The internet, satellite navigation or smartphones would not exist without extensive grant funding, yet few foundations fully leverage this ability to test disruptive solutions to complex challenges or back promising yet unproven ideas over the course of many years – or decades!

SF has found operating effectively in this space exceptionally difficult. It takes time and considerable effort to understand low-income markets, gain comfort with risk and failure, build a team with the right skillset and improve partner selection. Any progress we have made has required immense patience from our trustees and the flexibility for continuous course correction. With this in mind, we are committed to helping others on a similar journey to navigate pitfalls and accelerate progress by learning through partnership.

AMPLIFYING IMPACT: HIGH PRIORITY AREAS FOR COLLABORATION

1

Syndicate grant capital to provide high-risk support for breakthrough innovators

As we saw in Chapter 3, catalytic grant funding can help establish the actual investable business model in advance of equity financing, although our own experience in seeking co-funding for partners is that there is very limited high-risk grant out there. Donor funding from foundations and challenge funds tends to be small and thinly spread, offering scant opportunity for enterprises to test technology, develop sustainable models and adapt distribution and sales strategies to market realities before attempting to scale. This is a huge handicap to success.

Syndicating capital can provide larger levels of support to innovators, while reducing donor exposure and providing an opportunity for new enterprise partners to better understand the sector – provided expectations around impact and timeline to financial sustainability are sufficiently aligned.

Grant funding into M-KOPA

SF provided the first grant funding to M-KOPA alongside DOEN Foundation and d.o.b. Foundation, in support of a one year pilot in Kenya to test the application of embedded mobile payment technology in a portable solar lantern. While the technology worked, the economics of using a low-value product proved unfeasible and customers actually aspired to a larger home system, forcing the business to pivot around its original business assumptions.

“ M-KOPA’s offer to low income consumers has appealed to a variety of investors for particular reasons – and at different stages of growth. In the early days, testing the product concept was only made possible because we aligned well with various grant-making bodies that were keen to see if consumers would adopt this method of accessing clean, renewable energy. Having that breathing space to prove the concept allowed us to explore a more scalable delivery model, which in turn attracted new funding from social investors and follow on support for R&D grants at a larger-scale from organisations like DFID. ”

Nick Hughes, Co-founder, M-KOPA Solar

“ M-KOPA went to market with a needed innovation: a pay-per-use method for off-grid energy products. Given the previous work of the founders in creating M-PESA, it looked to us like a possible game-changer but there was a degree of uncertainty around the model and product, and given this risk we felt grant was the right instrument to use. Once they found the right model, their need for working capital and growth finance was better served by impact investors such as Gray Ghost. ”

Jeffrey Prins, Programme Manager, DOEN Foundation

Bill and Melinda Gates Foundation and Factor(E)

Brian Arbogast, from the Bill and Melinda Gates Foundation, explains their decision to provide grant funding to Waste Enterprisers, a Factor(E) investee that has developed a new way to convert faecal sludge from waste-water plants to fuel for industrial uses.

“ Our investment dollars should have the highest appetite for risk – so we are in the best position to make high-risk bets that have the potential for high-impact returns. Waste Enterprisers is one of very few companies in the world who are trying to generate revenues out of human waste, what we like to refer to as “turning shit into gold!” The first one to prove that a business model can be steady-state profitable and replicable will change the entire sanitation sector: it will be a true inflection point.

Knowing that Factor(E) are engaged and committed to providing technical assistance across many dimensions – especially after we got to know the expertise of their principals – greatly increased the likelihood in our minds that our investment would generate a high ROI in terms of impact.

We are working together to help investors evaluate the opportunity, provide sanitation expertise and signal to the market that we think the approach is well designed. That gives investors the confidence to focus on the unit economics, time to profitability, likeliest exit opportunities and other financial metrics that will drive an investment decision. ”

2

Look beyond technology to support value chain innovation and institutional capacity – because no one else will



Social enterprises who target the world's poorest consumers are working under tough operating constraints characterised by disproportionate costs to serve and significant barriers to growth that are predominantly outside their control. Grant-makers interested in eradicating complex development challenges must look beyond the next "game-changing" consumer product to support breakthrough innovations to remove these barriers if they are to succeed.

Specialist "market-enablers" (beyond those referenced in this report!) will be needed to support viable growth, adaptation and replication in new markets. We believe they will include:

- **intermediary businesses or funds** who tackle barriers to scale across the value chain (such as the talent gap, consumer affordability or last mile distribution) or provide appropriate capital to "pro-poor" enterprises at different stages of growth.
- **non-profit "institutions"** who build the infrastructure needed for markets to thrive: codifying best practice, developing standards, leveraging investment or advocating for policy, legal or regulatory change.

These enablers are critical to the sustainability of inclusive markets but, while the need may be obvious to many, we have found that far fewer donors are prepared to provide the same level of capacity-building support to intermediaries as they are to manufacturers and service providers.

Hewlett Foundation's support for sustainable mobility solutions



The William and Flora Hewlett Foundation, based in Menlo Park, California, has been a long-standing supporter of institutions who deliver environmental impact through policy and enabling interventions that transform markets.

In Mexico, Hewlett and SF provided core funding to help EMBARQ build a local centre for sustainable transport; providing city administrators with access to expertise across a range of disciplines in order to identify and install innovative and cost-effective "mass transit" solutions in congested cities. Since 2005 this has enabled EMBARQ to facilitate flagship projects like Metrobus in Mexico City and to gain credibility with the Mexican government as a trusted advisor on national transport policy. More recently, they helped EMBARQ in India to initiate a programme to incentivise new enterprise solutions to enhance low-carbon transport options for urban citizens.

In 2015, the Foundation also began exploring ways to incentivise freight businesses to deliver major carbon savings. Their "systems-level" approach led to a new partnership with the Smart Freight Centre to analyse the logistics sector in China and help demonstrate the cost-savings and emissions reductions that proven technologies, such as high quality tyres and fleet management, can deliver.

“Public policy has tremendous leverage and impact when designed well and enforced – but catalysing change in this area takes a long time to come to fruition. For us, strengthening the enabling field for new public-private partnerships has emerged as a key solution. Private enterprises that deliver a public good can scale faster with the right support and sound policy – and the innovation of new technology, such as apps to map demand, is happening much faster in private companies. Our partnership with EMBARQ has also allowed us to learn how private sector solutions can better integrate with public transport systems.”

Margarita Parra, Programme Officer, Hewlett Foundation

Using philanthropy to tackle the need for affordable working capital



In 2011, SF partnered with the OPEC Fund for International Development (OFID) to pilot a revolving working capital facility totalling \$2 million. The facility enabled d.light and Envirofit to import products into Africa and to extend credit terms and skills support to carefully selected distributors.

The pilot exceeded expectations, catalysing the sale of over 450,000 solar lights (against a 225,000 target) and 130,000 clean cookstoves (against a 50,000 target) in less than 36 months.

This experience validated our thinking that working capital funding was both needed and manageable by the right teams, but our grant-led intervention didn't solve a sector-wide problem. Further exploration revealed that short term (<3 year) working capital was in many cases the single largest barrier to growth for almost every leading solar product company and that a broader solution was needed to serve these enterprises and others. The experience informed our work with asset manager, responsAbility, to create a dedicated fund for fast-growing energy access companies and distribution channels suitable for scale.

3

Provide "second-stage" investment to unlock finance into pioneer enterprises



In our experience, foundations who are prepared to offer second-stage support to high-risk enterprises via **programme-related investments** or **guarantees** can provide important market signals to impact investors and development financiers, enhancing a pioneer's ability to unlock capital for growth and transition to more commercial forms of finance.

Pricing for impact is key to making this work in practice. All too often we see foundations (or fund-managers of philanthropic capital) use a purely financial lens to analyse risk and return when investing in early-stage pioneer enterprises. Under-capitalised start-up businesses with a limited track-record rarely look attractive at this stage, resulting in the fabled valley of death. Foundations who can leverage their higher tolerance for failure can help pioneers bridge this gap and offer important assurances to finance-first impact investors.

One impact-first investor is Lundin Foundation, who provide a vertically-integrated suite of financial instruments to early-stage innovators, including grants, technical assistance, debt, quasi-equity, equity and guarantees. Lundin were able to offer second-stage support to M-KOPA as they started to scale.

"Our decision to support M-KOPA was premised on several factors: a strong management team, a solid business plan, and a clear opportunity for rapid scale and impact. From the outset, they understood that success would be driven less by technology than distribution strategy and innovative finance," recalls Stephen Nairne, Lundin's CEO.

"We based our support on a dynamic assessment of the company's needs at various stages of growth, including grants to explore agricultural applications of mobile-to-mobile technology, equity to build core operations, and working capital to support rapid growth and cross-border expansion. In many respects, our experience with M-KOPA validated our thesis on the critical need for 'fit for purpose' capital."

Partnership with Calvert Foundation

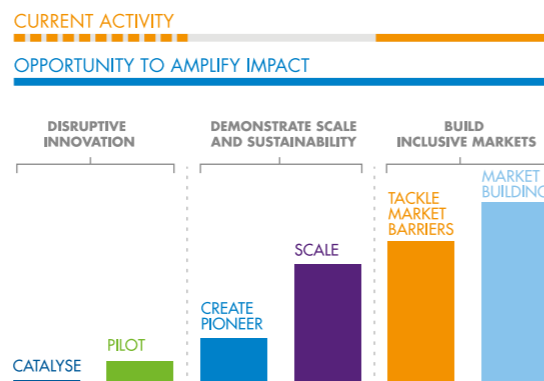


In 2012, Calvert Foundation provided a \$3m working capital loan to Envirofit, made possible by a guarantee from SF and Barr Foundation. Having developed confidence, this has grown into a larger partnership in which SF provides risk coverage to Calvert that allows them to provide debt at favourable rates to multiple SF partners, including GroFin and IntelleGrow, and access further capital from the Overseas Private Investment Corporation. By working in this way, a provision of \$1m to Calvert can unlock \$20m in debt funding to early-stage social enterprises – allowing them to build the track-record they need to secure commercial funding in future.

“Ultimately we want to build long-term relationships with these social enterprises. As an early investor in each organisation, we sought outside capital to enable us to take an increased early stage role and find a way to wind these provisions down as the business succeeds. Spanning the capital continuum by working with others has become a focused element of our strategy. We realise that if we can ride the spectrum from mezzanine debt to more senior debt we can assist strong enterprises in getting through the capital gaps that are still present in developing sectors.”

Jennifer Pryce, CEO, Calvert Foundation

GOVERNMENTS



The emergence of businesses who deliver essential services (such as access to energy, clean water or waste management), enhance education and healthcare and spur economic growth in low-income communities – in ways that can tap private capital to scale – has piqued the interest of many national governments and development agencies. Early interventions from the public sector have been small in line with uncertainty around the potential of such businesses to deliver equitable and lasting public benefit. What is now beyond doubt, however, is that policymakers and politicians will ultimately define the scale of impact these businesses can achieve.

From our perspective, we see three strong opportunities for progressive governments and foundations to work hand-in-hand to accelerate the growth of inclusive markets in developing countries. In all cases, however, **success depends on the ability of both organisations to define and quantify shared objectives.** Over the years public agencies have been wary of philanthropic organisations who are not directly accountable to the public. Private foundations, in turn, are often frustrated by the pace of movement and inflexibility of administrators.

We believe the onus should rest with foundations to demonstrate how their activities will support the delivery of the SDGs in ways that are more cost-efficient than the public sector acting alone, providing a solid basis for partnership.

AMPLIFYING IMPACT: HIGH PRIORITY AREAS FOR COLLABORATION



Joint programmes to validate the viability and potential impact of promising enterprises and intermediary solutions to unlock private capital for early-stage growth

In the past, governments and public agencies have sought to incentivise innovation and market activity in areas they feel have high potential. In recent years, however, there has been increasing recognition that the private sector (including private foundations, entrepreneurs and “intrapreneurs” within corporates) may be better placed to identify truly transformative innovation

The need for risk-tolerant capital and the right capability and skillset to support this has given rise to new types of “private-public” partnerships, in which foundations carry “pioneer risk” and government agencies work to “validate” promising models. This leverages the relative strengths of both types of organisations to build investor confidence in new markets and identify opportunities for the public sector to save costs by incentivising social enterprises as efficient service-providers.

Strategic partnership with the UK Department for International Development (DFID)



A significant barrier to the adoption of modern energy products in developing markets is affordability. In 2012, DFID awarded an initial grant to SF to help M-KOPA explore the application of embedded pay-as-you-go technology to a range of energy products and services targeting under-served households and SMEs in off-grid areas, suitable for different customer segments. This lower cost technology would also pave the way for other enterprises, generating widespread public benefit.

Leveraging DFID funding to validate cost reduction in its core technology directly led to further private sector investment in M-KOPA from Gray Ghost Ventures, Gates Foundation and the Commercial Bank of Africa. By channelling its funds through SF, DFID increased its impact in two ways. First, we were able to provide deep market expertise and experienced staff, increasing the efficiency of capital deployed. Second, DFID funding was matched through a grant contribution from SF and co-investment from M-KOPA. This partnership proved highly successful and was shortlisted for a UK National Civil Service Award in the “Innovative Delivery” category in 2012.

Based on this success, DFID scaled-up its partnership with SF in 2013 and increased its scope to identify bottlenecks and test a wider set of new energy applications, business models and market building work – such as the exploration of new credit assessment models – that could drive mass adoption of modern energy services. With a £4.3 million contribution from DFID and matched funding from SF, we are now working with M-KOPA, d.light, Dharma Life and others to achieve this public benefit outcome.

“Our partnership with Shell Foundation is on track to significantly enhance access to modern energy services and, at a strategic level, it has validated the potential for DFID to successfully leverage a private foundation to generate public benefit more efficiently than we could do independently.”

Leanne Jones, Innovation Advisor DFID, and chief architect of our Access to Energy partnership

Building market intermediaries to accelerate entrepreneurship with USAID



In September 2014 the Global Development Lab of the US Agency for International Development (USAID) partnered with SF to develop and scale-up new approaches to accelerate entrepreneurship in the energy sector. With USAID support of \$2.2 million and \$12.85 million of our own funding, SF is scaling-up three complementary business acceleration models: Factor(E), Sangam and SF's in-house Energy Access Incubator. Each model has a mandate to support entrepreneurs seeking to provide access to modern energy services for low-income communities in developing countries, with a focus on Africa and Asia.

Leveraging USAID funding to support these three incubation models will help further develop and validate these three approaches to enable them to reach scale and financial sustainability. Publishing reports related to these approaches will encourage their replication by others. These outcomes will drive the broader social impact objective of providing access to modern energy services for a significant number of low-income households and businesses in developing countries.

“Donors like USAID can play a particularly catalytic role in strengthening ecosystems by playing to our comparative advantages. By addressing market failures, tackling policy issues, and investing in public goods in sectors like agriculture, health, and energy access, we can help markets work better and enable entrepreneurs and investors to do what they do best in taking market-driven solutions to scale.

We also believe, based on our experience, that collaboration between bilateral donors, private foundations and other “social investors” offer tremendous potential to help more impact enterprises bridge the pioneer gap through blended financing approaches. That means leveraging the tools we have as a donor – targeted grants, credit guarantees and co-investment models – to put in a layer of risk capital alongside private capital, catalysing finance that would otherwise not occur and helping more early stage ventures become investment-ready.”

Chris Jurgens, Director - Global Partnerships, US Global Development Lab, USAID

2

Join forces to create non-profit institutions that maximise the public benefit that social enterprises can deliver



Many social enterprises working in emerging countries face significant political and fiscal disadvantages. For solar energy providers, for example, tax on solar panels, subsidies offered to competing fuel providers, customs duties on imported technology, low feed-in tariffs and government preferences for national grid extension, all load the dice against success. On the other hand the economic value proposition and impact that these enterprises can deliver is not immediately obvious, and significant data and proof points are needed to justify policy changes to favour new sectors.

We see huge value in foundations working with government departments to catalyse the creation of independent institutions with strong relationships with the public sector. These intermediaries are then able to provide capacity-building support to enterprises and the public sector alike, in order to better nurture and regulate new markets and to level the playing field for new entrants.

In 2009 for example, SF, the US State Department, the Environmental Protection Agency and the UN Foundation built on a long-standing relationship to drive the creation of the Global Alliance for Clean Cookstoves – a partnership that has now leveraged over \$200 million from a range of private, NGO and government stakeholders to provide the infrastructure needed for a global market to thrive. A central part of the Alliance's mission is to help national governments improve the enabling environment for clean cookstove manufacturers, distributors and investors. Having a political champion in Hillary Clinton, then the US Secretary of State, was critical to build credibility and networks, and to bring legitimacy to the sector, with over 50 countries now supporting and engaging around this work.

Government support is also required to create a fair competition between social enterprises, by providing robust standards and quality assurance processes to prevent counterfeit and sub-standard products entering the market. In its absence, increased subsidy is required at the firm level to demonstrate market viability, raising barriers to entry in the short-term and creating a drag on innovation.

Partnerships to support the expansion of market enablers

Partnerships between governments and foundations can be similarly effective in supporting the creation and expansion of intermediaries and new financial vehicles to spur inclusive development. In the last three years, for example, DFID and USAID have provided restricted donations of just under \$35 million to help SF expand GroFin's work into the Middle East and North Africa.

By 2012, GroFin's model had already proven capable of generating 8,000 jobs in Africa through the integrated provision of business skills, market linkages and risk capital to under-served start-ups and SMEs. Though the business was growing steadily across 12 countries in Africa, adapting the model to suit a region with totally different investment conditions would not have been possible.

DFID and USAID support allowed GroFin to test the market and establish operations in Jordan, Egypt and Iraq. This gave them a platform to leverage support from a range of investors for country and regional funds totalling \$100m, with the aim to generate 15,000 employment opportunities for disadvantaged communities by 2025.

3

Participate in new vehicles and instruments that allow governments to purchase social and environmental impact from inclusive businesses



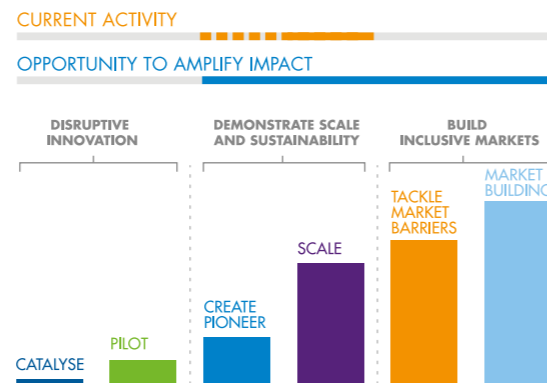
One relatively unexplored area of high potential for foundation-government partnerships is the use of impact bonds as revenue streams to enhance the financial sustainability of enterprises serving low-income consumers. SF is currently working with multiple partners, including Social Finance, the architect of the world's first social impact bond, and Intelicap, a service company that provides capacity-building support to social entrepreneurs and investors in India and Africa, to test the use of such bonds to make solar energy products and electricity through mini-grids available to low-income households in rural India.

“Pricing and valuing impact is extremely challenging as you need to give a standardised value to something that is actually very subjective and largely determined by local context,” explains Atreya Rayprolu, Executive Director of Intelicap Africa, “In fact, the best benchmark we have is where the cost to the government of delivering a specific social outcome is known, for example for public utilities to provide electricity in rural areas. Then you have a compelling opportunity for a third-party to price the value of impact against this benchmark.”

Impact bonds are a form of results-based payment, where the ultimate “buyer” of the impact pays only if it gets delivered. In the context of many social enterprises, including SF partners, much of the impact they generate beyond carbon savings (which can be traded through registered programmes) goes un-monetised. A results-based payment model can be a more efficient, effective and risk-free way for governments to deliver impact than traditional incentives such as subsidies (which are typically sunk costs regardless of output). Moreover, they encourage the delivery agent to choose the most cost-efficient approach possible, if they are to optimise the value from the deal.

We believe these models, if structured appropriately, can enable the growth of a sector, promote competition and enhance cost-efficiency. They will be particularly relevant for marginal return businesses that choose to focus on low-income consumers as their core raison d’être, as a potential solution to their ongoing need for affordable working capital and project finance.

IMPACT INVESTORS



The objectives of impact-first investors and venture philanthropists (such as SF) are fundamentally aligned. Both types of organisations ultimately want a steady flow of viable early-stage enterprises which can attract different forms of private finance to deliver outsized development outcomes at scale.

Given the inherent risk and uncertainty involved in pioneering such models, and the fact that in their stable state they may still be marginal return businesses, some combination of grant funding and impact monetisation will typically be required to unlock investment on commercial terms. So far, so sensible? In reality, as we explored in Chapter 3, these potential partners rarely combine well, leading to a “valley of death” that prevents enterprises in inclusive markets from fulfilling their true potential.

We believe much time has been wasted in recent years trying to address two issues in parallel: persuading foundations to provide the higher-risk, more flexible, longer-term capital that early-stage enterprises urgently need **and** calling for impact investors to change their risk perceptions around early-stage pioneers. Instead, our view is that foundations and impact investors can collaborate in two meaningful ways to ensure different investors are able to meet their varied expectations for risk, return and impact across different time horizons by using blended models.

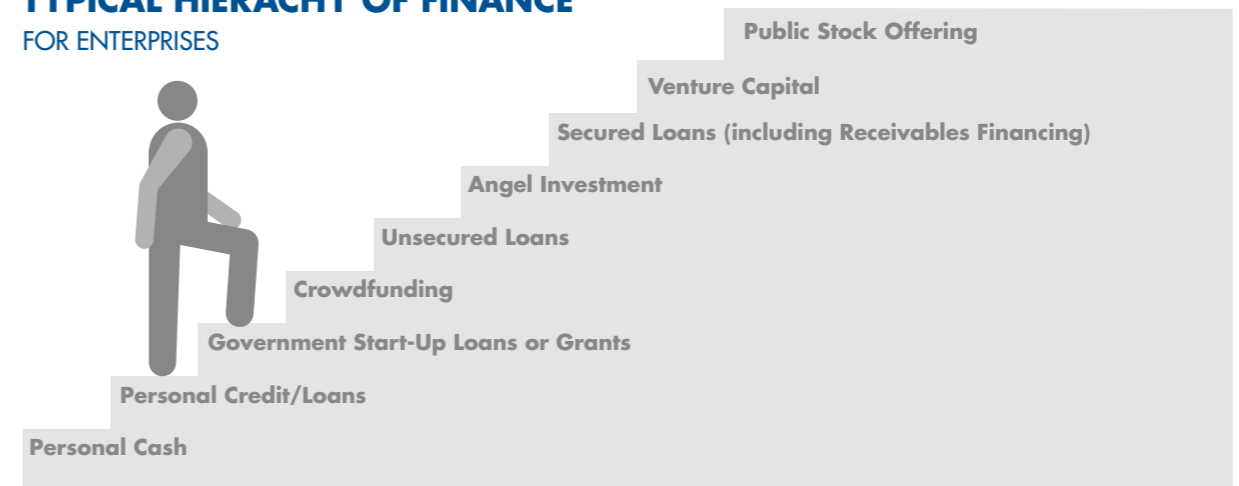
AMPLIFYING IMPACT: HIGH PRIORITY AREAS FOR COLLABORATION

1 Enable impact investors to deploy early-stage capital by using grant funding to mitigate risk and enhance financial and social/environmental return

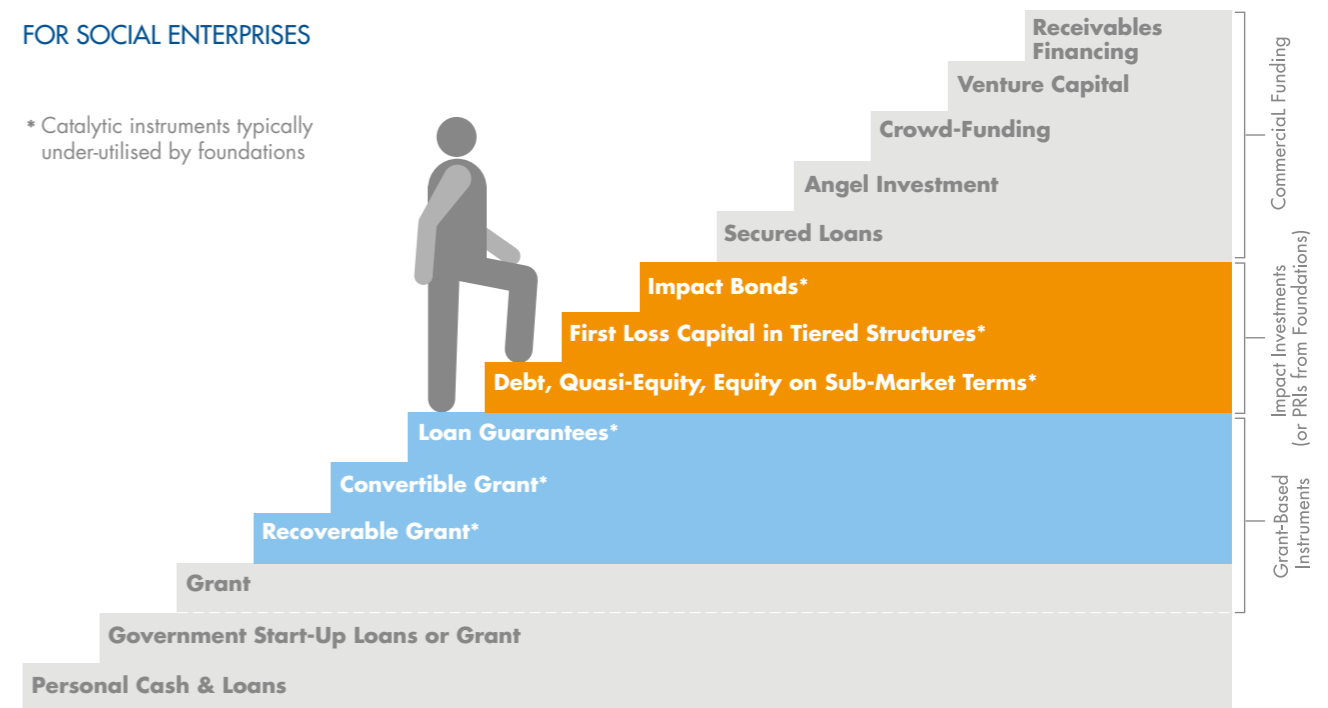
Improved vertical integration between foundations and impact investors will resolve many of the challenges that impact investors face related to pipeline, deal flow and risk-adjusted returns. By forging close working relationships with second-stage funders, and developing a better understanding of their investment criteria, SF has been able to improve the sustainability of partners and reduce risk for both parties.

Strengthening these communication channels has enabled us to act more boldly in using targeted grant funding and/or programme-related investment to help partners attract impact investment, allaying the fear that we are building a bridge to nowhere. By using a range of new tools, indicated below, we have been able to facilitate larger sources of funding at an earlier stage – giving partners the bandwidth to quickly demonstrate competence, track-record and viability and ultimately unlocking growth capital from commercial sources at a far faster rate.

TYPICAL HIERACHY OF FINANCE FOR ENTERPRISES



FOR SOCIAL ENTERPRISES



Closer alignment and risk-sharing between venture philanthropists and impact investors has two important additional benefits:

- a) At a governance level where co-investors will often sit side-by-side on an investee's Board of Directors, differences of opinion around a business's readiness to scale can often pull entrepreneurs in multiple directions and compromise the long-term sustainability of the business. We have found this to be a key stress point for social entrepreneurs, especially those just starting out (which in theory should never occur as all Board Members should make decisions in the best interests of that company alone, ignoring the vested interests of their own organisations). The use of simultaneous grant and impact investment eases the pressure to deliver high financial return in the short-term, ensuring greater alignment between invested parties.
- b) Sharing market analysis (from different angles) improves each organisation's ability to assess risk and in turn to better define the parameters around which they will invest. We believe an open and honest communication of these investment criteria – in addition to independent benchmarks tracking capital deployed and impact delivered – is an essential component for improved market mechanisms to allocate impact capital to areas where it will meet investor expectations while maximising public value.

Gray Ghost Ventures and Shell Foundation



Early collaboration between foundations and impact investors can build confidence in the validity of a new business and ease the transition to non-grant funding, as illustrated by both M-KOPA and d.light.

During M-KOPA's initial pilot phase in 2010 the team identified two ideal equity investors and invited them to join the company's advisory committee. After the lessons from the pilot were absorbed and a viable business model emerged, one of these advisors – Gray Ghost Ventures – ended up being the anchor investor in the company.

“ The process of transparently working alongside Shell Foundation and other donors enabled us to far more accurately establish what we were investing in with M-KOPA, The grants enabled us to reduce investor risk and to understand what level of capital was really required. Attempting to invest at the outset would have resulted in a far smaller round of funding, with far less potential for impact. ”

Arun Gore, President and CEO, Gray Ghost Ventures

Gray Ghost, a pioneer investor with deep experience working with high-risk start-ups in low-income communities, was also the first impact investor in d.light. The combined involvement of Gray Ghost and SF, among others, allowed both businesses to iterate and improve their customer offering and to showcase their potential for scale. This gave further confidence to future investors such as Omidyar Network and Acumen Fund (in d.light) and Blue Haven and LGT (in M-KOPA) and allowed them to concentrate on running the business as oppose to fundraising.

“ Patient capital from both foundations and impact investors who understood that it takes time to crack the challenges that we faced was critical to our growth. They also have a totally different set of networks, for example with distribution partners, and offer services like fellows or PR endorsements that other investors don't typically provide. ”

Ned Tozun, Founder and CEO of d.light

Searching for unicorns with Blue Haven Initiative

Building on a relationship that began as co-investors in multiple businesses, SF has developed a strategic partnership with Blue Haven Initiative, a family office dedicated to making for-profit investments into early-stage social enterprises in line with the values of its principals, Liesel Pritzker Simmons and Ian Simmons. This will see both parties share funding opportunities, due diligence and market learning; strengthen the capacity of both organisations, reduce cost and risk, and smooth the pioneer's path towards sustainable finance.

“ Commercial investors have started to better understand the evolution of early-stage social enterprises and how we can support the transition to commercial capital at the right time. We are looking for impact investing unicorns – a world class management team with business models that marry financial and impact returns in a direct relationship and are attacking multibillion dollar opportunities. Shell Foundation has years of experience in the innovation and delivery of renewable energy and social-impact products for the world's under-served, and their team is constantly on the move looking for the best new ideas in transport, distribution and financing in a way that BHI could never hope to do on its own.

In turn, we can help bring entrepreneurs to the next level through advice, connections to co-investors and the provision of commercial capital at a stage that is still relatively rare in the impact investing industry. The partnership is a two-way street that improves the ability of both parties to better support the industry in the future. ”

Lauren Cochran, Director of Private Investments, Blue Haven Initiative



Collaborate to create and scale specialist financial vehicles that deploy appropriate funding to inclusive businesses at different stages of growth

In recent years we have seen a small number of impact investors take a “fund of funds” approach to establish new financial vehicles that can provide different forms of capital to under-served start-ups or social enterprises operating in low-income markets, typically alongside significant business development support or technical assistance designed to keep repayment rates high.

We see a key role for market-building foundations to identify and support promising financial intermediaries, and provide first-loss “anchor” investment to throw open the doors to impact investors from the start. Partners such as GroFin, responsAbility and Intellegrow have had tremendous success raising funds in this way, leading to a far higher level of participation that significantly amplifies their impact.

Skopos Impact Fund, for example, was an early investor in the energy access debt fund launched by responsAbility and SF to provide missing working capital to energy enterprise and value chain partners serving low-income communities globally, particularly in Asia and Africa.

"We see enormous potential in fund structures that leverage expertise and efficiency in order to reach more social enterprises than any one impact investor can do alone," offers Lisa Hall, Managing Director of Skopos. "Our due diligence showed that there were no wholesale capital providers in the energy access sector and debt was needed for these companies to scale – so a clear market need existed. The involvement of Shell Foundation providing expertise and first-loss capital and later the International Finance Corporation, brought significant experience in the energy access sector and complemented responsAbility's track-record and skillset as an asset manager. This, plus certain performance-based governance mechanisms, made it far easier to invest at the conception phase."

Creating a market for venture debt with Omidyar Network



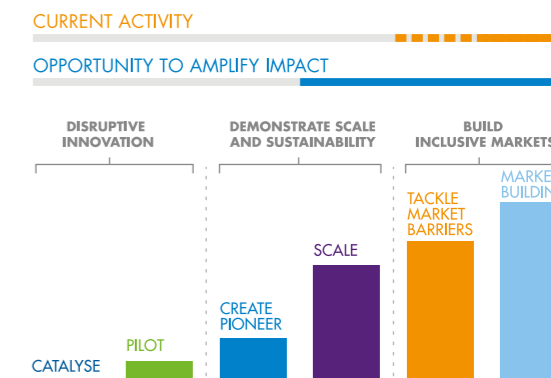
Mike Kubzansky, Partner and Head of Intellectual Capital at Omidyar Network, took a similar view in considering their \$4.5 million investment in Intellegrow – a finance-company based in Mumbai that provides short-term "venture debt" to start-up enterprises adapting a proven model to serve low-income communities in India.

“ We start with a view of what it will take to drive change at the sector level and then use a range of tools – including early-stage investments, field-building grants and human capital support – to help innovators prove new models to serve low-income consumers at scale. Of course this means the risk is high, and we take that risk in the service of the promise of high social impact.

We always have very aligned points of view with Shell Foundation, and very aligned interests in building not just great firms but in addressing whole sectors. So a potential partnership in Intellegrow was a good fit. In this instance it was SF who had provided grants to help establish early operations, and we could then come in as an investor to demonstrate potential to scale. Often it will be Omidyar Network acting as grant-maker in the market with a similar goal. That level of flexibility in foundations is rare and works well.

Here was a case of knowing about a real hole in the entrepreneurial finance market first-hand from all of our investing work – namely venture debt – which entrepreneurs badly need. And we thought Intellegrow was best of breed of the venture debt firms we scouted. We feel strongly that even with our investment in Intellegrow, the market still needs more venture debt availability if the ecosystem is to work properly. ”

MULTILATERALS AND DEVELOPMENT FINANCE INSTITUTIONS



Multilateral banks, such as the World Bank, IFC and the African Development Bank, and national development finance institutions (DFIs) including the UK's CDC or Germany's KfW, use scarce public funding from developed countries to fuel sustainable long-term growth in emerging markets.

In 2014 alone, the world's seven largest multilateral banks deployed \$137 billion to support economic development in low- and middle-income countries.¹² The ultimate goal of these organisations is to corral private finance into areas or sectors which can deliver greatest public value. To put this tremendous scaling power into perspective, all private investment in emerging markets totalled \$778 billion in 2013¹³ – with only 7% of this representing greenfield investments in Africa.¹⁴

Foundations that bring grant capital or PRI instruments, as well as deep expertise working in unproven or under-researched markets, into partnerships, can offer an entry point for development banks to explore these markets first-hand.

Investments that look small to a multilateral or DFI (though huge for the social investment sector) would be sufficient to enable fast-growing social enterprises to build investor confidence in their ability to deliver impact and stable returns – and hence unlock vast new sources of private capital to accelerate progress towards the SDGs.

SF's experience working with IFC, the Inter-American Development Bank, FMO and many others is that these relationships often become symbiotic. For foundations, acting to offset risk for development banks brings more affordable capital into play to prove the sustainability of new models – especially for marginal return businesses. This offers the development banks a chance to better understand the market, which in turn alters their perceived risk and can reduce the need for credit enhancement over time. Development banks who commit to inclusive businesses bring legitimacy that draws commercial investment far more quickly than impact investors alone, leading to the amplification effect that foundations crave.

"By providing first-loss capital and funding for core costs of a new intermediary, foundations can off-set a huge part of the risk that a multilateral would face in investing in an unproven market," said Faheen Allibhoy, Principal Investment Officer at the International Finance Corporation. "In the case of the responsAbility-managed debt fund, Shell Foundation's experience was instrumental to identify like-minded organisations and bring the different parts of the jigsaw together – responsAbility, with their track-record for asset management, ourselves and family investors to provide capital and foundations to take the first loss. This meant the right partners came together at the right time to support the energy sector in the right way."

¹² Joint Report on Multilateral Development Bank's Climate Finance, June 2015.

¹³ World Investment Report 2014, UN conference on Trade and Development, April 2014.

¹⁴ According to the IDI – a data division of the Financial Times.

Partnering with OPIC to validate the sustainability and scaleability of new models



SF and the Overseas Private Investment Corporation (OPIC) have invested together in several promising enterprises and intermediaries to enhance access to energy, job creation and economic growth in low-income populations. Some of the investments made by OPIC, the US government's development finance institution, include early-stage support for Husk Power Systems in 2009, a \$4m medium-term loan commitment to help Envirofit expand its manufacturing capacity in Africa, Latin America and India, and a \$5m guarantee commitment that will leverage \$8m investment from Calvert Foundation into Intellegrow.

“ These investments show that both SF and OPIC are committed to supporting innovative enterprises that address the toughest development challenges and make a positive impact. SF's role in providing capital, credit enhancements and technical support can be critical in making such businesses eligible for OPIC financing – particularly now we have a dedicated “Portfolio for Impact” programme to support earlier stage social enterprises.

OPIC seeks to support enterprises, funds or vehicles that invest in companies with an impact or social enterprise component – but such ventures sometimes have trouble raising the amount of equity needed to make themselves viable for OPIC financing. When we recently committed financing to Envirofit, we chose to support one of the few companies with the potential to materially expand the availability of quality clean cookstoves around the world. We followed an underwriting process in which we collaborated closely with SF, who brought knowledge and expertise to help us evaluate the challenges as well as the opportunity. ”

Richard Greenberg, Managing Director of SME Finance, OPIC

“ FMO has worked with Shell Foundation on various initiatives ranging from GroFin to BIX and many more. The relationship has always added to our respective strengths and complements the different risk-return objectives of our institutions.

It has been a long and very successful partnership focused on constructive solutions to market challenges but the key to success, in my view, has been placing the interests of the end-client, wherever they may be in the world, at the front and centre of any joint initiative. ”

Magchiel Groot, Senior Investment Officer – Private Equity, FMO

Partnering with KFW and Norfund to scale a proven solution to sustainable job creation in Africa

Over the last 11 years, GroFin has raised over \$500m in committed funding, with several DFIs such as FMO and CDC among their investors. This enabled them to deliver integrated business support and mezzanine finance (loans ranging from \$100K to \$1.5m, over two to seven years, with interest rate incentives based on performance) to over 600 viable start-up and growing businesses. Their work has created and sustained more than 18,000 jobs and delivered \$2.4 billion in economic value across 14 countries in Africa and the Middle East – and has proven a highly cost-efficient route to generate employment opportunities in low-income areas.

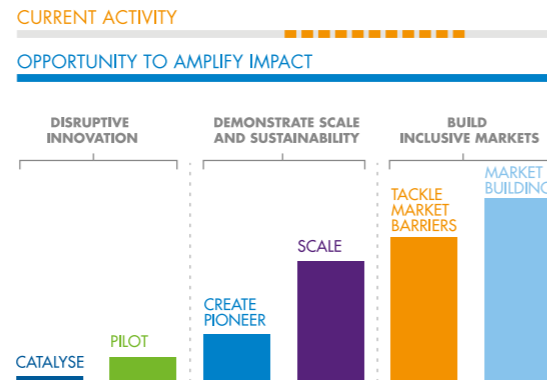
Building on this success, SF and GroFin have now launched a new pan-Africa fund, using a tiered structure to attract private capital at a greatly reduced risk while allowing impact-first investors to take more risk for greater impact, less liquidity and a slightly higher return. The structure makes it easier for GroFin to offer short-term debt options to enable investors to build confidence in their business. SF made an anchor investment of \$15m and also contributed to a grant facility to offset business support costs until the fund reaches critical scale.

The new fund has already attracted support from KFW, Norfund and the Dutch government (through the Dutch Good Growth Fund) – who have invested \$37 million at the first tranche, in return for enhanced development impact and higher returns. GroFin aims to grow the fund to \$150m in order to generate 33,000 jobs over the next 10 years.

		Protection	Return	Investors
Notes	N Debt	✓✓✓✓	✓	Institutional Investors Private Investors
Capital	A Senior	✓✓✓	✓✓	SRI, PRI, HNWI Some DFIs
Capital	B Mezzanine	✓	✓✓✓	DFIs
First Loss Capital	C Shares		✓✓✓✓	DFIs, SF, Dev. Agencies, Manager

Source: GroFin, 2015

CORPORATES



According to a recent study on corporate social responsibility (CSR), Global Fortune 500 companies spent a total of **\$19.97 billion** per year on CSR between 2011 and 2013.¹⁵ Factor in the strategic investments made by a small but growing wave of companies who are integrating “shared value” into their business activities, and the expenditure of a far larger number of corporates interested in reaching lower-income consumers to gain traction in emerging markets, and you have a major constituency seeking to maximise triple bottom line returns that are largely ignored by social investors.

Whether the primary motivation for a corporate is to enhance its value proposition to customers, employees, shareholders or government partners, or to improve long-term sustainability by integrating viable “inclusive” business lines into their suite of activities, most find it difficult to both achieve their goals and to deliver lasting social or environmental outcomes at **scale**.

Critics argue that this is an inevitable feature of “big business”: where the innovation of new business models requires high R&D costs and long gestation periods that run contrary to the need to show short-term shareholder value, where employees are incentivised to deliver economic return and enhance brand equity (and are not also appraised on social and environmental metrics) and where inherent difficulties exist to monetise the long-term value of social investments.

By contrast, we believe a huge opportunity exists for corporates to harness their natural advantages (access to far larger pools of capital, market networks and supply chain expertise) to achieve their business objectives while supporting the growth of inclusive markets that deliver development outcomes – a far more cost-efficient delivery mechanism that maximises both impact and sustainability while offering genuine competitive advantage. We see three principal ways in which foundations can support these objectives:

AMPLIFYING IMPACT: HIGH PRIORITY AREAS FOR COLLABORATION

1

Partner with corporates and corporate venture funds to test and validate new inclusive models that align to core business activities and deliver development impact at scale

Foundations willing to deploy both risk capital and market expertise can facilitate entry points for corporates to test new products for low-income consumers, where these products also enhance livelihoods or remove obstacles to development. M-KOPA’s pivotal relationship with Safaricom is a prime example of this, with SF’s grant funding and business support enabling M-KOPA to augment their business case to the mobile telecoms operator at a very early stage. Safaricom are now reaping the rewards from the early gamble, with rapid uptake in M-KOPA sales driving tens of thousands of new customers to their M-PESA platform in Kenya.

To give a less well-documented example, in 2013 SF and Envirofit teamed up with Unilever to produce a jointly-branded clean cookstove for the Kenyan market that would sell under Unilever’s category brand Royco. This integrated value proposition allowed customers to link a new product with an existing household brand they knew and trusted. Early pilots were promising and the value they got from the stove (reduced fuel use, emissions and cooking time) further enhanced their loyalty to Unilever.

¹⁵ EPG Consulting & Strategy Report for Business Backs Education, January 2015.

A new wave of companies are also starting to make venture capital investments in disruptive technologies that can deliver goods and services to under-served areas in emerging markets, with Schneider Electric and SunEdison just two examples from the energy access sector. Foundations can further support this work by sharing lessons from failure and success, and sharing risk through tiered capital structures and blended finance, in order to direct capital to models with the greatest potential for impact at scale.

2

Support corporates to identify technology and value chain barriers preventing the growth of inclusive markets – and deploy a full range of joint assets to solve them

No matter how compelling their products or services, early-stage social enterprises will struggle to serve low-income markets unless they can successfully tackle a wide range of demand- and supply-side constraints to create sustainable value chains. This provides a rich area of opportunity for corporates willing to tap their engineering facilities, business acumen, supply chain relationships and retail channels to support the growth of inclusive enterprises.

As our partners have started to scale, SF has helped establish value-add relationships with corporates and distributors. Both Envirofit and d.light, for example, have created cost-effective partnerships with corporates and distributors with national reach, rather than seeking to own the entire value chain. d.light’s partnerships include a relationship with Total, the French energy group, across Cameroon, Indonesia, Burkina Faso, Togo, Gabon, Mali, Malawi, Niger, Senegal, South Africa, Uganda, Zimbabwe, Kenya and the Republic of Congo to stock solar lanterns across thousands of retail outlets. The partnership has resulted in the sale of over one million solar lights and is now one of d.light’s largest sales channels. Envirofit similarly partners with a range of national corporates in India and Africa including Unilever and Comcraft (Africa’s largest kitchenware producer) in Kenya and Nigeria, and Amul (a dairy producer) and Ultratech (a cement manufacturer) in India.

These corporates permit both enterprises to benefit from their established marketing and sales channels, significantly reducing their costs. Within two years of switching to a B2B model with corporate partners, Envirofit had reduced costs by over 75%, staff by 90% and doubled sales in India. Leveraging the credibility of these well-regarded brands at national and local level also increases recognition and trust with customers, which in turn creates a snowball effect by triggering new and larger partnerships with further corporates at a national and international level.

“The partnership with SF brought us credibility that we would not otherwise have had – and opened the doorway to corporates that have become substantial distribution partners,” said Ron Bills, CEO of Envirofit. “These partners took a gamble not only because they believed in the business, but because they believe in the force of the SF-Envirofit coalition to overcome obstacles. Comcraft is just one example of this.”

These partnerships work best where buy-in exists at the very top of the organisation, ensuring the corporate’s best talent have the bandwidth they need to ensure success. All too often we see promising corporate partnerships fail, not through lack of will from individuals, but because they simply don’t have the internal support required to stick with programmes where time is required to build demand from risk-averse low-income consumers.

Technology development at Husk Power Systems



“ Over the years, Husk Power Systems has developed great partnerships with organisations like First Solar and Cummins. First Solar made a strategic equity investment in the company and more importantly helped us secure high quality equipment at a price point that only a 10MW order size could get. Even when our order size is only 200kW, the order does not get pushed down in priority and lead time is extremely low. This may sound insignificant but these are the little things that can delay projects for many months. We have experienced such delays from many battery suppliers.

With Cummins, our relationship is tied around joint R&D. Biomass, especially rice husk, is a very tough biomass waste to operate with. The tremendous knowledge of Cummins’ senior engineers and their commitment to Husk Power enabled us to achieve a breakthrough that we could not have imagined. That breakthrough has enabled us to launch a Hybrid Solar-Biomass system for generating 16 hours of affordable power for people in rural villages. ”

Manoj Sinha, CEO, Husk Power Systems

3

Catalyse pre-competitive collaborations with and between corporates to create the conditions, incentives and enabling environment necessary to enter a new inclusive market

Corporates who may have less scope to make the high-risk investments required to test new business lines, or to engage proactively with social enterprises through their value chains, can instead play an equally valuable role at a sector level by strengthening the pre-commercial “business case” for wholesale commitment to inclusive markets.

In practice, this means leveraging global influence to a) identify barriers and incentives to scale and b) create platforms or new institutions to accelerate market transformation.

We can use the freight sector to illustrate this point. Companies moving goods around the world by road, air, rail or sea are vital contributors to economic development, connecting raw materials, manufacturers and customers. Yet the rising trend toward globalisation and urban growth means these services come with a significant environmental burden. Longer and more complex supply chains result in freight movements that contribute disproportionately to fuel use, CO₂ emissions and air pollution.

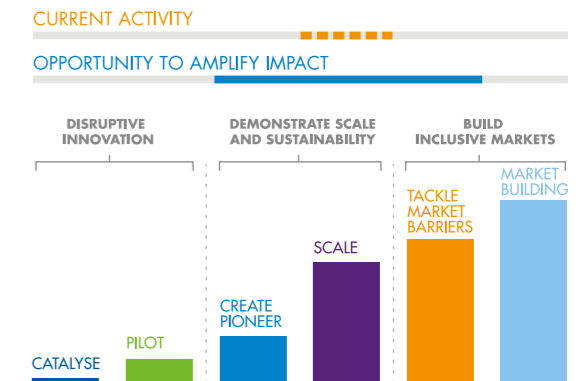
In India, for example, only 5% of vehicles are trucks, yet these generate roughly 60% of transport emissions. In many developing countries logistical complexity means that as many as 40% of truck trips carry no load whatsoever. As the freight sector grows, momentum for smarter and more cost-effective ways to move goods between cities is building. Yet despite broad-based consensus among freight and logistics companies to move in this direction, established solutions to improve sustainability continue to have low uptake and the innovation of better practices within the sector is rare. Inconsistent legislation between countries and a lack of pre-competitive collaboration adds to the challenge.

Recognising this, SF combined with entrepreneur, Sophie Punte, to create the Smart Freight Centre, a non-profit institution based in the Netherlands, that will partner with leading freight shippers, logistics companies, carriers, equipment manufacturers, industry associations and governments to create the conditions necessary for widespread adoption of sustainable solutions that reduce emissions and costs.

One important ingredient is to create a universal and transparent framework which companies will use to calculate and report logistics emissions across the global supply chain – enabling carriers to prioritise efficient reduction measures, and shippers to select carriers and channels based on their emissions footprint.

Through this work, several companies have committed time and support to test and help shape potential standards, including DHL, TNT, HP, Maersk and Sainsbury’s, who have all become members of a Global Logistics Emissions Council alongside sustainability experts. Once in place, these standards will create a cross-industry incentive to implement technologies and strategies that drive fuel and emission reductions.

COMMERCIAL INVESTORS



Looking back across 15 years of enterprise-based philanthropy, we note that very few of our social enterprise or market-enabling partners have yet been able to attract commercial investment without risk reduction or credit enhancement tools at play.

- **d.light** received early commercial equity from DraperFisherJurveston, a venture capital firm.
- **GroFin** and Intellegrow have secured equity and debt from local banks in Africa and India.
- **M-KOPA** has been able to leverage the receivables on its balance sheet to secure a \$10m debt facility with the Commercial Bank of Africa, the first of its kind for a small-scale energy company serving low-income communities, though this was secured through a loan guarantee from the Bill & Melinda Gates Foundation.

We see this as a reflection not only of the lead time required for genuinely transformative innovators to develop technologies and business models to serve the world’s poorest consumers, but that the risk-adjusted return that the majority of enterprises serving low-income communities will be able to deliver is always likely to be low.

This being said, we strongly believe that the growing sophistication of the social investment sector, evidenced by the evolution of new tools (many listed in this report) and structures to direct differentiated capital from a range of social and commercial investors toward inclusive markets, will unlock significant investment from commercial sources – particularly banks and institutional investors who prize low, stable returns over a medium-term time horizon as part of a balanced portfolio (made more desirable by the significant social and environmental impact they confer).

“Some social enterprises in India that have received early-stage impact investment have gone on to raise further rounds of funding from typically mainstream commercial investors,” offers Atreya Rayprolu, Executive Director of Intellegrow Africa. “A few examples are Milk Mantra that raised capital from Fidelity, AgroStar that raised money from IDG Ventures, EPS that raised capital from private equity and many microfinance institutions that have raised capital from large private equity investors such as Morgan Stanley and Tano Capital.”

Certainly these are the exception rather than the norm. Being a social enterprise in India is tough but need not necessarily preclude attractive financial return if volumes are sufficiently high and the market well understood by investors. Innovation in business models, products, services and solutions can allow one to address an underserved market, create large-scale impact and at the same time deliver steady medium-term returns – which should be attractive to institutional investors in particular.

The road to commercial viability: thoughts from M-KOPA

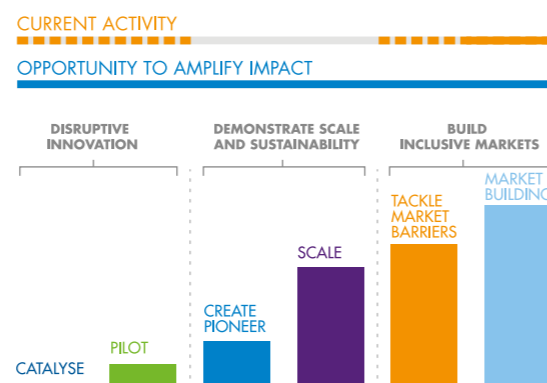
“ Today, the early risks of new product development have been worked through. More than 250,000 customers like our proposition and we can show returns that make us more attractive to commercial funders. Our off-grid-product meets ubiquitous customer needs, while our credit-sale methodology opens a financial service for customers.

Looking forward three years, I see M-KOPA as a business that enables customers to leverage their investments in affordable power to purchase new productive assets and services. Essentially we will be a business that offers customers credit on the basis of our existing relationship. To execute this next phase successfully we must innovate now – sourcing, researching and testing new opportunities that add value to our customers, in ways that they can afford.

Successful companies find ways to do this well – balancing frontier innovation with delivery. Frontier work is still high-risk and young companies often don't have the cashflow to invest huge amounts into this area – this is where grants and other forms of funding and technical support can be critical. Our early stage hurdles may be behind us but more wait to be crossed before we can realise the full potential of this whole new sector! ”

Nick Hughes, Co-Founder, M-KOPA

NGOs



Proponents of social investment often downplay the exceptional work of NGOs in addressing inequality and removing barriers to inclusive economic growth. On the contrary, we see partnerships with progressive NGOs as essential to the viable growth of inclusive markets in such ways as to deliver the greatest possible impact to the low-income consumers we seek to serve.

AMPLIFYING IMPACT: HIGH PRIORITY AREAS FOR COLLABORATION

We see four areas where foundation support to NGOs will be particularly catalytic to accelerate market growth:

① Support independent market research, analysis and advice to policy-makers

NGOs are an invaluable source of data to better understand the challenges that low-income consumers face, as well as on-the-ground analysis that may lead to market opportunities. Neutral organisations are also far better placed to validate and endorse new markets – providing important signals for social investors who lack transparent market information. Specialist non-profit “consultancies”, such as the UK’s Social Finance, work across public and private sectors to diagnose system failures and structure solutions. International development charities such as Oxfam, Practical Action and SolarAid provide instrumental research and policy advice to guide the actions of governments, multilaterals and the private sector toward activities that deliver enhanced value for the underserved.

② Support independent M&E and impact measurement

Social investors will ultimately require independently verified impact data on which to base decisions, and the need for this data will only increase as new opportunities to monetise impact come onto the market. Specialist NGOs bring academic rigour and cutting-edge analytical tools to appraise not only short-term “output” but also the long-term effect of a social enterprise’s work in the wider community. For new markets these tools can often be missing. SF has worked with several NGO partners to support the creation of independent M&E agencies, such as Berkeley Air Monitoring Group, to develop methodologies and benchmarks against which success can be determined.

③ Create neutral “market-building” institutions to provide critical infrastructure and act as independent intermediaries between the private and public sectors

Nascent markets require independent institutions to provide standards, regulation and capacity-building support to entrepreneurs and investors alike, and to provide arms-length advice to national and local policy-makers in order to enhance public benefit.

Most often, these institutions are best created in partnership with existing NGOs that bring international credibility and expertise, such as the World Resources Institute with whom SF co-created EMBARQ in 2002.

④ Collaborate to find new ways to connect disadvantaged communities and “the poorest of the poor” with high-quality social-impact products and services

NGOs often have extensive local networks that run into the heart of the most disadvantaged communities and the trust of the communities they serve. SF has long collaborated with local NGOs and community groups, non-profit micro-financiers and distributors, as well as international charities such as Mercy Corps or World Vision to benefit from their local on-the-ground insight to understand how local markets and systems function – and to find new ways to make high-performance social-impact products such as solar lights or clean cookstoves available for their communities across Africa and Asia (often by developing the skills of local micro-entrepreneurs and retailers and tailoring appropriate financing mechanisms such as micro-lending and carbon monetisation).

HARNESSING COMPARATIVE ADVANTAGE TO ACCELERATE THE GROWTH OF INCLUSIVE MARKETS:

HIGH PRIORITY AREAS FOR FOUNDATIONS TO ALIGN PROGRAMMING WITH KEY STAKEHOLDERS

Having established our view of the critical **building blocks** required for inclusive markets to thrive – we turn our attention to how these blocks can be put into place faster. We believe that foundations such as SF can do far better to coordinate programming with key stakeholders in the social investment ecosystem in order to meet individual business objectives and amplify collective impact. Below, we outline the high-priority areas for collaboration where we feel SF can add most value to move inclusive markets along the path to scale and sustainability.

This framework will be imperfect and is purely our view of the market today. We offer this as a first draft, as we build our understanding of different perspectives in the sector and seek to build a robust framework upon which to base investment decisions going forward.

		Foundations	Governments	NGOs	Impact Investors	Multilateral Banks and DFIs	Corporates	Commercial Investors
CRITICAL DETERMINANTS OF SCALE		↑ High		RISK: RETURN RATIO				Low ↓
		↔ Long		TIME HORIZON				Short ↔
		★ Impact First		IMPACT EXPECTATION				Finance First \$
GROWING SUPPLY	Patient incubation of disruptive technology and business models	▲	▲	▲			▲	
	Patient and flexible support to overcome early-mover disadvantage (R&D, business model iteration, capacity-building, value chain development, M&E)	▲	▲		▲	▲	▲	
	Continuous risk capital to adapt models for new geographies and deepen impact for low-income consumers	▲	▲		▲	▲		
BUILDING DEMAND	Map consumer preferences and purchasing decisions	▲	▲	▲			▲	
	Tackle market-level barriers to catalyse sustainable value chains							
	1. Awareness (marketing, demand aggregation, enhance credibility, promote choice)	▲		▲			▲	
	2. Affordability (consumer finance and credit scoring)	▲					▲	
	3. Availability (supply chain management, distribution partnerships)	▲					▲	
4. Accountability (quality assurance)	▲	▲						
ACCESS TO FINANCE	Risk Capital	▲	▲		▲	▲	▲	▲
	Growth Capital	▲			▲	▲	▲	▲
	Working Capital (throughout the value chain)	▲			▲	▲		▲
	Project Finance (long-term funding for small-scale assets)	▲			▲	▲		▲
	Consumer Finance	▲			▲	▲		
	Enablers: ■ Blended finance and tiered structures	▲			▲	▲	▲	▲
	■ Impact monetisation (impact pricing, development impact bonds and results-based finance)	▲	▲		▲	▲	▲	
	■ Guarantee funds	▲			▲	▲		▲
	■ Crowdfunding and Peer-to-Peer lending	▲		▲				
	■ Receivables Finance	▲						▲
■ Mobile Money (digitised banking)	▲							
INSTITUTIONAL SUPPORT	Enabling Policy	▲	▲	▲				
	Standards and Regulation	▲	▲	▲				
	Industry Benchmarking	▲	▲	▲	▲	▲	▲	
	Interface with investors, public sector and supply chain partners	▲		▲	▲	▲	▲	▲
	Market research and knowledge sharing	▲	▲	▲				
	Impact Measurement and Monitoring & Evaluation	▲	▲	▲	▲	▲	▲	

Case Study 3: Mini-Grids and Rural Utilities

Three in every 10 people in the world live without access to reliable and affordable electricity, constraining their health, education and earning potential. The energy deficit forms a formidable barrier to inclusive economic growth.

The UN's SDG goal for "universal energy access", defined as 250kWh/year per household, is not going to be sufficient to meet the growing energy needs of the low-income consumers. This amount is barely enough electricity to power a few lights, fans and charge mobile phones. Kickstarting inclusive growth will mean access to a scaleable supply of affordable, reliable and clean energy for households, community service providers, farms and businesses. Researchers using World Bank data have estimated that Africa misses out on 2-4% a year in GDP growth due to power shortages.¹⁶

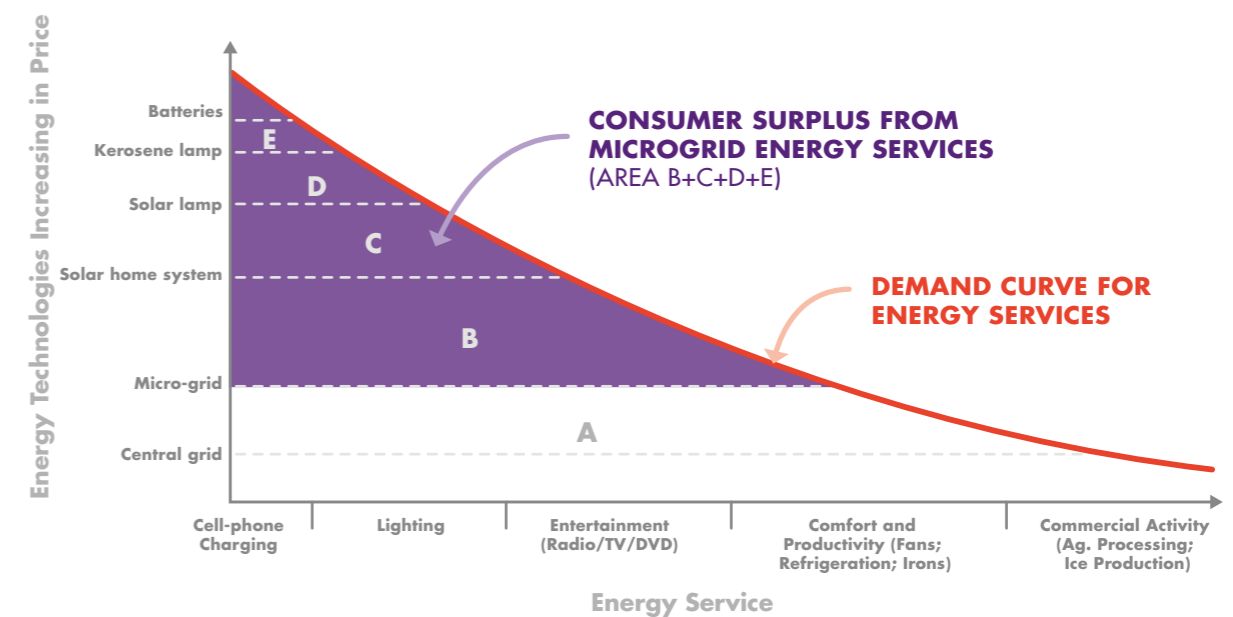
Each year hundreds of millions of dollars are invested into national grid extensions to meet this need, yet 85% of people without electricity live in remote, sparsely populated areas where energy usage is relatively low. High distribution, power plant and infrastructure costs mean an extension of the national grid to serve these communities is typically unviable. Equally, low-income consumers in peri-urban areas often have inconsistent income patterns, so even where grid services are available, they may not necessarily be accessible.



Husk Power Systems convert agricultural waste and solar power to affordable electricity for people in rural India.

¹⁶ Power Outages and Economic Growth in Africa, 2013, Andersen and Dalgaard.

PRICE OF ENERGY SERVICES PROVIDED BY FUELS AND TECHNOLOGIES



Source: Micro-grids for Rural Electrification, February 2014, Schnitzer, Lounsbury, Carvallo & Deshmukh.

Small-scale decentralised energy solutions are better suited to the needs of people living in areas where grid electricity is patchy and unreliable, or in off-grid rural communities. In recent years we have seen a range of promising businesses emerge that provide affordable energy from abundant renewable sources such as solar and agricultural waste – yet while markets for stand-alone solar products (providing DC power to households) and energy-efficient appliances are growing quickly, there is still a major gap for mini-grid services in the 1KW to 1MW range.

To-date, few mini-grid operators anywhere in the world have been able to meet household **and** business demand in low-income rural areas. Many models show extraordinary promise. Husk Power Systems, for example, are able to deliver electricity to households at a cost of \$0.30 per kWh for both biomass and solar PV powered mini-grids (providing electricity for 6-7 hours day). Redavia is providing energy at \$0.20 per kWh to rural power utilities operating mini-grids. To put this into comparison, sourcing this power through diesel generators would cost approximately \$0.35-\$1.50 depending on engine size, efficiency and fuel prices. Several market barriers prevent these businesses from scaling – yet the International Energy Agency suggest that mini-grids will need to meet over 40% of demand to achieve the UN goal of universal energy access by 2030. Today the market would meet less than 1% of demand.

Given the need to break away from the typical economic model of grid delivery, we will need to look beyond incremental change to support the radical innovation that is required in the mini-grid sector in order to achieve universal energy access by 2030. In our view, coordinated support in **four key areas** would unlock the potential of this market to serve billions of consumers within just a few years, and with far lower capex costs than grid installation.



GROWING SUPPLY

For renewable power via mini-grids to be a viable solution in low-income communities, the costs of electricity generation and distribution will need to drop significantly. This will require breakthroughs in technology and business design. For example, hybrid diesel/PV systems that provide 24 hour coverage could expand rapidly with advances to control technologies (optimising solar energy conversion by mapping the sun's location and weather patterns). Improvements in load-management technology and finding productive uses for the excess power that pure solar mini-grids (using batteries for storage) can generate will radically improve return on investment. Lower cost power poles or underground lines would remove safety concerns and open up significant funding.



From a business perspective, the majority of solutions are forced to use off the shelf equipment created for major urban utilities, which is hard to reconfigure. In addition to technological constraints, soft costs for site selection, financing, design, logistics, stakeholder management and legal support are hugely restrictive. We see tremendous potential for focused innovation to create "Plug & Play" systems that eliminate the need for costly controls and bespoke design, and can allow a mini-grid to add power generation over time without additional programming changes. This increase in flexibility and reduction in overhead costs is critical for mini-grids to scale in Asia and Africa.

Morgan DeFoort, CEO, Factor(E) Ventures

Support is also required to overcome the **talent shortage** in low-income rural areas – with skilled operators and plant engineers simply unavailable at the volumes required to reach scale. Husk Power Systems had to invest heavily in its own in-house training programme to build the skills required for its junior staff before they are deployed in the field as they were unable to pay the 30-40% premium required to attract workers from urban areas.



BUILDING DEMAND

The majority of people who lack access to affordable modern energy live in rural villages where demand is extremely low and dispersed. Mini-grid operators who move into a new area commonly see high initial uptake as customers switch from expensive traditional fuels to more affordable power but this typically plateaus once basic needs are met. Substantial increases in demand will be required for these mini-grids to achieve operational viability. This will require local and national awareness-raising campaigns to convey the economic and social value that electricity brings to people and businesses, a greater range of consumer finance, and improvements in the availability of consumer and SME appliances. Only then will operators have the confidence to move into new areas.

In particular, the ability to supply power around the clock, to provide different quantities to different customers and to improve affordability through pay-as-you-go technology will require significant advances in metering.



Metering is a big problem. Metering systems enable pre-payment and load-limiting which allows you to provide a greater range of services to suit the needs of different customers and to reduce your payment collection costs (which can make up to 50% of operational costs). But it is difficult to find a full-featured product at a viable price point. Remote monitoring is necessary because mini-grids are vulnerable and prone to failure; they need constant upkeep but mini-grid developers cannot be in every village at all times. They need an automatic, unflinching monitor that provides them with real-time feedback. Today's smart meters require significant customisation and can cost up to \$750 per household. This is very expensive and is far beyond the means of most rural utilities.

Dan Schnitzel, CEO, SparkMeter



ACCESS TO FINANCE

Renewable mini-grid operators operating in off-grid areas predominantly rely on solar and biomass energy sources. Installation costs vary between \$30,000 for a 10KW system to \$2 million for a 1MW system and recovery times can be slow depending on the income levels of the target market and the quality of site selection. With government subsidies for rural utilities difficult to obtain, enterprises need access to a deep pool of long-term capital (with 10-15 year tenures corresponding to the lifetime of plant assets). Without a track-record, and with a customer base with no credit history, very few lenders will provide this capital at rates they can afford.

“Mini-grids have emerged as a formal sector in recent times but we are still light years behind solar lanterns and home systems in terms of growth. What we find is that there are very few DFIs who are extending long-term debt capital to mini-grids serving low-income households. OPIC and The Rockefeller Foundation’s SMART programme have been exceptions in India. Lack of debt capital presents a huge hurdle for enabling mini-grid operators to scale.”

Manoj Sinha, CEO, Husk Power Systems

Improved coordination and knowledge sharing between social investors will be pivotal to overcoming this hurdle, including shared due diligence and the use of the blended and tiered funding instruments outlined in this chapter. So too innovations in **franchising models** enabling mini-grid operators to expand through partnerships with local entrepreneurs who may themselves have high energy requirements that can be used as an anchor load to serve low-income communities, and in **asset financing** led by businesses, such as Redavia, that reduce investor risk by separating into an “asset company” (that generates income from assets deployed) and a holding company (that covers core costs and R&D).

“Working on new business structures can present clear and attractive opportunities for institutional debt and equity financiers to fulfil their mandates, and drive inclusive rural growth by combining with impact investors to provide significant capital investments into remote community mini-grids.”

Erwin Spolders, CEO, Redavia



INSTITUTIONAL SUPPORT

Major changes will be required to national policy if mini-grid operators are to succeed. Countries such as Rwanda and Tanzania have introduced policies to promote market oriented and financially sustainable mini-grid solutions for rural electrification, resulting in a wave of project developers moving into these regions. By contrast, most countries offer no certainty to mini-grid operators working in rural areas as to what will happen when and if the national grid arrives. On top of this, operators often face major barriers related to licensing, feed-in tariffs and traditional fuel subsidies which make mini-grids uncompetitive. **Typically they have no idea if they can sell power to the grid once it arrives and no guidance on how to ensure their grids are technologically compatible if so.** This level of unpredictability presents a tremendous hurdle for operators who seek to raise long-term project financing. A knock-on effect is that it can often prevent consumers from signing up to mini-grid power (in favour of subsidised electricity that may never come).

Early-stage enterprises serving low-income consumer markets also need support for feasibility studies to better model changes to consumer demand once reliable energy provision is available, improving their ability to select plant sites with the greatest probability of succeeding. Few developers can carry out all these activities on their own, and even fewer have the capital required to put at risk to fund such activities. Non-profit institutions such as the Alliance for Renewable Electrification (working at a global level) or Smart Power India (created by The Rockefeller Foundation) will be critical to convene a range of public and private actors and coordinate their activities in order to provide this support.



Looking Ahead

So what does this all really mean? To recap, in writing this report we had two objectives: the first to share an emerging view on the type of “market-building” support that is critical to tackle development challenges at scale, the second to establish where and how SF can work (smarter) with others to provide this quickly and efficiently as a means to amplify impact **at a sector level**.

When we set out 15 years ago, we had several open questions that a vibrant social investment sector has evolved to answer: do low-income consumers want high-impact products and services? Yes. Can a business meet this demand at scale? Yes. Can they attract non-grant funding to grow? Yes.

Yet despite showing promise, **our sector has yet to solve a single development challenge**. The pace of change is painfully slow. Our Access to Energy programme, for example, has improved 25 million lives in just over 11 years. By most definitions that is “scale”, yet more than one billion people in the world have no access to electricity. Such problems are growing far faster than the solutions and we are not even close to solving them.

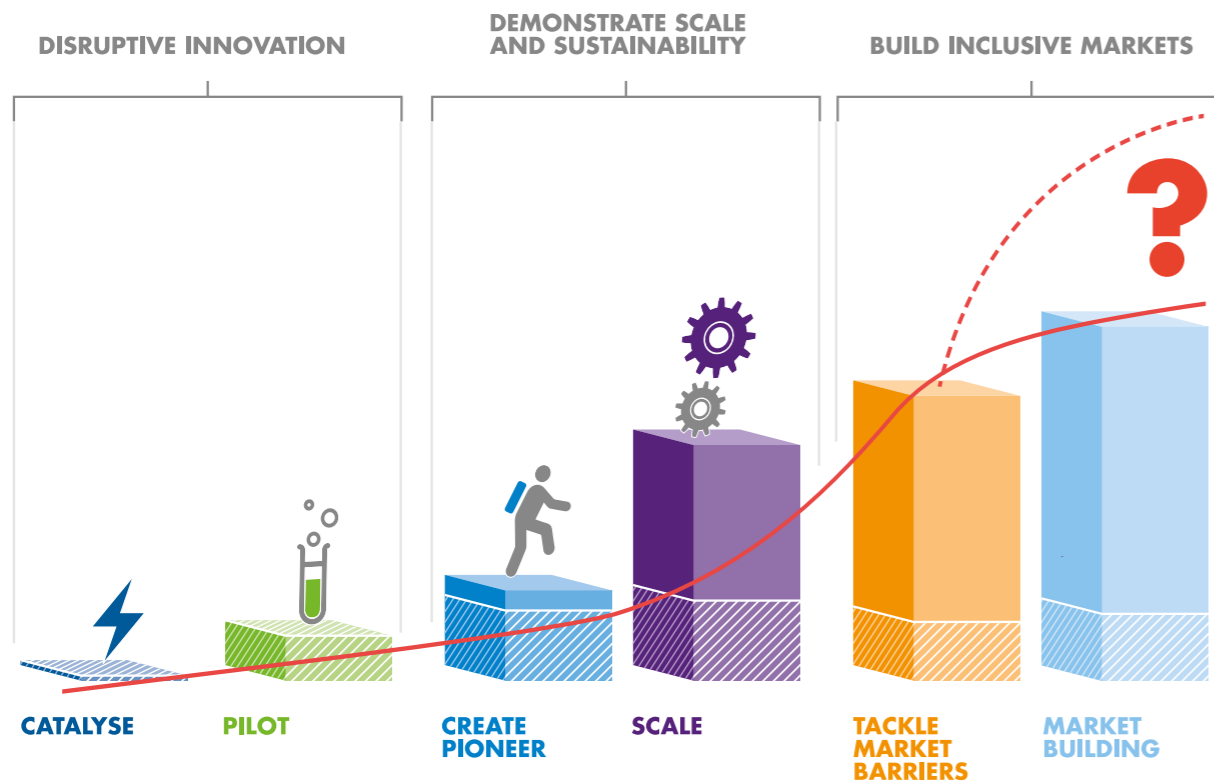
Set in the context of the Sustainable Development Goals, this means we need another step-change in the impact we can deliver – and we see the type of partnerships outlined in this paper as our best chance to do this. We firmly believe that achieving the SDGs will require the presence of a diverse set of inclusive markets with global reach. Once they emerge, many of these goals will be delivered on a much tighter timeframe and at far lower cost to the public. The evidence shows that foundations can significantly accelerate this reality.

Realistically, much of our work over the next five years will go towards accelerating the growth of our early-stage partners. These businesses and non-profit institutions are delivering promising results, but they are all in early phases of growth and have a long way to go, especially given the size of the market they aim to serve. They and other pioneers face formidable barriers to scale, and they will need our continued support to deepen their impact on low-income consumer markets, broaden their range of products and services to serve different demographics, prove financial viability and attract growth finance.

At the same time, we will continue to search for and create game-changing solutions to specific market failures with the potential to deliver social and environmental impact at scale. Many of these new innovations will be specific to the sectors in which we work: energy access, sustainable mobility and job creation; though increasingly we expect to see social enterprises exploring synergies between sectors (e.g. cold chain solutions with applications for energy access, health and agriculture, or sanitation systems as a source of energy).

We equally see market opportunities to support **cross-sector solutions** to bottlenecks within the social investment sector more broadly, potentially catalysing the growth of all types of social-impact markets. We offer a few areas of particular interest shown in the following pages.

Lastly, while this report has focused on “bilateral” partnerships between foundations and social investors in order to illustrate learnings on the varied assets that different stakeholders can bring to bear, we realise that it will take far greater **multilateral coordination across public and private sectors** to access the size and type of resources required to achieve a global scale of impact. We stand ready to join such initiatives, either by combining forces to **syndicate resources** through effective intermediaries or by **forming consortia** with like-minded organisations willing to align programming at a country-level in order to “fast-track” progress towards shared target outcomes.



High Potential Opportunities for Cross-sector Innovation



New Incubation Models

A complex blend of *patient* capital, technological expertise and business support is needed to kickstart a global ecosystem of social entrepreneurs. We believe there is a role for multiple “intermediary” vehicles, backed by a blend of funders, that provide different types of capital to early-stage innovators tailored to the different risk categories that they typically face: key forms being execution, technology or market risk.

Looking beyond our own in-house incubation activities, SF will create new models to accelerate innovation, such as Factor(E) Ventures, a spin-off from Colorado State University’s Energy Lab, by syndicating capital, validating markets and building a pipeline of investable deals. This will mean finding ways to share the costs of incubation and market analysis with other social investors, and to expand our regional footprint by forming long-term partnerships with centres of technology and business innovation within the countries in which we operate (sitting closest to the market need).



Demand Aggregation

The rapid adoption of mobile phones and growth in internet usage by low-income communities in both urban and rural areas in emerging markets is giving rise to the same wealth of consumer and location data that is revolutionising developed markets, for instance the “demand aggregation” and “market mapping” services employed by Uber and optimised distribution services used by Amazon and others. SF is exploring a range of new partnerships with software and logistics companies, such as Logistimo, to create crowd-sourced platforms to transform access to social-impact products, and to explore services such as on-demand access to safe auto-rickshaws in congested city centres.

Credit Assessment

We believe that “receivables financing” for enterprises with mobile-enabled products and services will prove a transformative means to secure long-term committed capital. At present, a key bottleneck to this is the fact that lenders struggle to assess the credit risk of different low-income borrowers, making portfolio valuation and risk mitigation impossible. Supporting innovative third party intermediaries to provide sophisticated data analytics and dedicated trading platforms to enterprises and lenders will offer a cheaper and faster way to secure growth capital through this mechanism.



Small-Scale Project Finance

Social enterprises who can demonstrate viability at a regional level, will require long-term project finance (five years or more) at smaller amounts than commercial investors are comfortable with (under \$10 million) as they build their asset base for national expansion. This is one of the last financial gaps within social investment to remain totally unexplored. SF has begun testing multiple possible solutions to this gap, included standardised franchise models, asset leasing (such as Redavia) and debt aggregation platforms that can offer debt to multiple social enterprises and then bundle this into single packages that are more attractive to larger commercial investors.

Impact Assessment and Valuation

SF see a continued need to invest heavily in credible research to assess and validate the long-term development outcomes that our partners deliver, with the view that this evidence will determine our ability to enhance public benefit and leverage social finance to amplify impact. This will include far more analysis of the gender dimensions of impacts to low-income consumers served by partners, as well as efforts to better understand the differential value gained by consumers at different income levels.

Given that many of our partners are still marginal return enterprises, we see potential to measure and validate social benefits as a precursor to monetising social impact and thereby create additional income streams that can enhance their sustainability. We are currently investigating various ways to measure, price and sell impact to organisations interested in results-based finance.



Benchmarks and Transparent Reporting

We see merit in working with independent analysts and the emerging institutions serving the social investment community, such as the Asian and European Venture Philanthropy Associations (AVPN and EVPA) and the Global Impact Investors Network (GIIN), to support the creation of public benchmarks that publish the impact and cost-efficiency of delivery for all social investors, in order to better link social investors with shared objectives and to improve the allocation of capital towards enterprises that deliver impact most effectively. In our view this will be critical to build the legitimacy of these sectors at a country level, which will be vital to attract resources from local donors and investors.

ABOUT SHELL FOUNDATION

Shell Foundation is an independent charity, established in 2000 by the Shell Group. We work to create and scale new solutions to global development challenges by applying business thinking to major social and environmental issues linked to energy and mobility.

Learning from both success and failure we have gradually developed a new 'enterprise-based' model to catalyse lasting social and environmental impact on a global scale. This sees us deploy a blend of financial and non-financial resources to accelerate transformative innovation and harness private markets to deliver public benefit at scale.

Our Approach

Shell Foundation works with a small number of entrepreneurial partners to identify the underlying market failures behind intractable problems and co-create new social enterprises to solve them. We provide patient grant funding, extensive business support and access to networks to help pioneers to validate new models, achieve financial independence and expand across geographies.

We then create specialist intermediaries to facilitate growth and replication at an industry level. By working in this way we now have several strategic partners – addressing issues as diverse as energy access, sustainable mobility and job creation through the SME sector – that are now delivering large-scale impact in multiple countries across Africa, Asia and Latin America.

www.shellfoundation.org