

innovations

TECHNOLOGY | GOVERNANCE | GLOBALIZATION

\$ + <3 = ?

SOCAP11: Impact Investing Special Edition

Prefatory Essays

Kevin Doyle Jones Convener's Message
Philip Auerswald Editor's Introduction

Lead Essays

Wayne Silby Frontier Stories
Elizabeth Littlefield Roots & Branches
Antony Bugg-Levine & Jed Emerson How We Make Money
Mario Morino Leap of Reason
Ann-Kristin Achleitner et al. Unlocking the Mystery
Martin J. Fisher Real Good, Not Feel Good
Brian Trelstad & Robert Katz Mission, Margin, Mandate

Cases Authored by Innovators

Christine Eibs Singer Impact Investing in Energy Enterprises
Manoj Sinha Seeking an End to Energy Starvation
Tim Bauer Enabling Market-Driven Technology
Jaime Ramirez Economic Empowerment through Enterprise

Analysis

Amit Bouri | Katherine Milligan & Mirjam Schöning | Ross Baird

Editors

Philip Auerswald
Iqbal Quadir

Senior Editor

Winthrop Carty

Guest Editors

Kevin Doyle Jones
Paul Hudnut
Robert Katz
Patrick Maloney

Senior Researcher

Adam Hasler

Associate Editors

Dody Riggs
Helen Snively

Strategic Advisor

Erin Krampetz

Advisory Board

Susan Davis
Bill Drayton
David Kellogg
Eric Lemelson
Granger Morgan
Jacqueline Novogratz
Roger Stough
James Turner
Xue Lan

Editorial Board

David Audretsch
Matthew Bunn
Maryann Feldman
Richard Florida
Peter Mandaville
Julia Novy-Hildesley
Francisco Veloso
Yang Xuedong

Publisher

Nicholas Sullivan

Innovations: Technology | Governance | Globalization is co-hosted by the School of Public Policy, George Mason University (Fairfax VA, USA); the Belfer Center for Science and International Affairs, Kennedy School of Government, Harvard University (Cambridge MA, USA); and the Legatum Center for Development and Entrepreneurship, Massachusetts Institute of Technology (Cambridge MA, USA). Support for the journal is provided in part by the Lemelson Foundation and the Ewing Marion Kauffman Foundation.

Innovations (ISSN 1558-2477, E-ISSN 1558-2485) is published 4 times per year by the MIT Press, 55 Hayward Street, Cambridge, MA 02142-1315.

Subscription Information. An electronic, full-text version of *Innovations* is available from the MIT Press. Subscription rates are on a volume-year basis: Electronic only—Students \$24.00, Individuals \$46.00, Institutions \$164.00. Canadians add 5% GST. Print and Electronic—Students \$27.00, Individuals \$51.00, Institutions \$190.00. Canadians add 5% GST. Outside the U.S. and Canada add \$23.00 for postage and handling.

Single Issues: Individuals \$15.00, Institutions \$50.00. Canadians add 5% GST. Outside the U.S. and Canada add \$6.00 per issue for postage and handling.

For subscription information, to purchase single copies, or for address changes, contact MIT Press Journals, 55 Hayward Street, Cambridge, MA 02142-1315; phone: (617) 253-2889; U.S./Canada: (800) 207-8354; fax: (617) 577-1545. Claims for missing issues will be honored if made within three months after the publication date of the issue. Claims may be submitted to: journals-claims@mit.edu. Prices subject to change without notice.

Advertising and Mailing List Information: Contact the Marketing Department, MIT Press Journals, 55 Hayward Street, Cambridge, MA 02142-1315; (617) 253-2866; fax: (617) 253-1709; e-mail: journals-info@mit.edu.

Innovations: Technology | Governance | Globalization is indexed and/or abstracted by AgBiotech News & Information, CAB Abstracts, Forestry Abstracts, Global Health Abstracts, RePec, PAIS International, and World Agricultural Economics & Rural Sociology Abstracts.

website: <http://www.mitpressjournals.org/innovations/>

© 2011 Tagore LLC.

innovations

TECHNOLOGY | GOVERNANCE | GLOBALIZATION

Prefatory Essays

- 3 Convener's Message
Kevin Doyle Jones
- 9 Editor's Introduction
Philip Auerswald

Lead Essays

- 17 Impact Investing: Frontier Stories
Wayne Silby
- 23 Impact Investing: Transforming How We Make Money
while Making a Difference
Elizabeth Littlefield
- 31 Impact Investing: Roots & Branches
Antony Bugg-Levine and Jed Emerson
- 41 Unlocking the Mystery:
An Introduction to Social Investment
Ann-Kristin Achleitner, Andreas Heinecke,
Abigail Noble, Mirjam Schöning, and Wolfgang Spiess-Knafl
- 51 Leap of Reason: Managing to Outcomes In an Era of Scarcity
Mario Morino
- 63 Real Good, Not Feel Good:
A Brief Guide to High-Impact Philanthropy
Martin J. Fisher
- 69 Mission, Margin, Mandate:
The Many Paths To Scale Among Impact Investees
Robert Katz and Brian Trelstad

Cases Authored by Innovators

- E+Co*
- 83 Impact Investing in Energy Enterprises: A Three-Act Play
Christine Eibs Singer

- Husk Power Systems*
- 93 Seeking an End to Energy Starvation
Manoj Sinha
- 113 *Commentary: Simon Desjardins*
- Envirofit International*
- 121 Enabling Market-driven Technology
Tim Bauer
- 131 *Commentary: Pradeep Pursnani*
- Gone Rural*
- 135 Economic Empowerment through Enterprise
Jaime Ramirez

Analysis

- 145 How Standards Emerge: The Role of Investor Leadership in Realizing the Potential of IRIS
Amit Bouri
- 161 Taking a Realistic Approach to Impact Investing: Observations from the World Economic Forum's Global Agenda Council on Social Innovation
Katherine Milligan and Mirjam Schöning
- 173 Seed-Stage Investment and Support: Closing the Gap to Growth in Impact Investing
Ross Baird

About *Innovations*

Innovations is about entrepreneurial solutions to global challenges.

The journal features cases authored by exceptional innovators; commentary and research from leading academics; and essays from globally recognized executives and political leaders. The journal is jointly hosted at George Mason University's School of Public Policy, Harvard's Kennedy School of Government, and MIT's Legatum Center for Development and Entrepreneurship.

Subscribe at
<http://www.mitpressjournals.org/innovations>

Mission, Margin, and Mandate: Multiple Paths to Scale

Yellowstone National Park, the first of its kind in the world, was established in 1872 by an act of the U.S. Congress. Its 2.2 million acres have been protected ever since, stewarded by the U.S. National Park Service for the collective benefit of America's citizens and visitors from around the world. In 2010, more than 3.6 million people visited Yellowstone.¹

In 1961, the Gallup Salt Marsh, a six-acre parcel of private land in Connecticut, was granted to The Nature Conservancy as the organization's first conservation easement.² The parcel, worth just \$300 at the time, has since been protected from development for the benefit of the public and the larger ecosystem of which the Gallup Marsh is a part. Since 1961, more than two million acres of land have been protected by The Nature Conservancy through similar easements.³

The National Park Service and The Nature Conservancy are both scaled organizations and they boast similar values. Each exists to protect and preserve the natural environment for its intrinsic social benefits, and for the enjoyment of current and future generations. One is a government agency, the other a nonprofit supported by grants and donations. Starting with Yellowstone, the National Park Service has grown to encompass more than 84 million acres of protected land; its 2009 federal budget allocation was more than \$2.9 billion.⁴ The Nature Conservancy, meanwhile, has also grown tremendously over the last 50 years; through purchases and easements, the organization now manages more than 17 million acres of land, using \$547 million in revenues to finance its activities in 2009.⁵ Together, the National Park Service (with 4 percent of the nation's 2.4 bil-

Brian Trelstad is the Chief Investment Officer of Acumen Fund, where he has led the growth of Acumen's portfolio to nearly \$60 million. Brian is a founding executive committee member of the Aspen Network of Development Entrepreneurs, a Henry Crown Fellow of the Aspen Institute, and the first impact investor to participate in the Kauffman Fellows program.

Robert Katz is a Portfolio Manager at Acumen Fund, where he leads the firm's knowledge management and applied research work. Prior to Acumen Fund, Rob cofounded and was the managing editor of NextBillion.net, a website and blog about enterprise and development.

lion acres under management) and The Nature Conservancy (with 1 percent) actively manage 5 percent of the nation's total land mass.

The world is facing big problems—global poverty, climate change, income inequality, political instability. Big problems require big solutions, often managed by big organizations. Or, in the language of everyone from development activists to corporate executives to government policymakers, we need large-scale, sustainable solutions to our increasingly interdependent, global problems.

Meanwhile, these two successful land conservation organizations are operating sustainably and at scale. What can their growth paths teach us about scaling impact investments?

UNWRAPPING SCALE AND SUSTAINABILITY

Among social change agents—from environmentalists to development workers—scale is *de rigueur*. A simple keyword search on SocialEdge.org, the industry-leading website about social entrepreneurship, turns up more than 1,600 results for scale, including articles entitled “The Five Meanings of Scale,” “Appropriate Scale,” “Scaling Impact,” “The Fetishization of Scaling Up,” and so forth.⁶ However, there is very little nuance in the discussion, as there seem to be only two settings for scale: pilot programs and “scaled solutions.” Very little in the middle is either large enough or moving there quickly enough. We agree that large-scale problems require large-scale, sustainable solutions. The devil, of course, is in the details: what do we mean by scale, and how do social innovations get—and stay—there?

First, some definitions. By scale we mean something large or pervasive and relevant to the problem at hand. The dominant concept for scale comes from the idea of “economies of scale”; as a traditional manufacturing company gets larger, its scale translates into lower costs and an increasingly more competitive and presumably larger market position. More recently, since the arrival of fax machines and the emergence of the Internet, network-based business models like Skype or Facebook have achieved scale by the growth of their networks. Metcalfe’s Law defines the value of a network as proportional to the square of the number of users, and the cost to acquire and service a customer goes down as the number of customers increases. Scale, then, is a function of the size of a network.

In the social sector and public policy worlds, scale is defined less by the production process than by the organization’s scale relative to the problem being solved. Teach For America (TFA), for example, now trains and places roughly 4,000 new teachers per year, which amounts to 2 percent of the estimated 200,000 new teachers hired in the United States every year.⁷ After 20 years, this is a very respectable level of scale—comparable to The Nature Conservancy’s 1 percent of the total land managed in the United States. When reframed, however, through another lens—getting America’s top talent to commit to a stint in public education—TFA’s scale is more compelling: in 2010, more than 12 percent of all Ivy League seniors applied for the program, and its 9 percent acceptance rate makes it one of the most selective employers in the country. The Nature Conservancy’s scale

is equally impressive when measured not against the entire U.S. land mass but against the much smaller amount of critically endangered habitat that is the focus of its conservation programs.

If scale is a loosely defined concept, sustainability is equally slippery. From our perspective, sustainability does not necessarily mean financially profitable or environmentally sustainable. Rather, a sustainable organization is something enduring, something that lasts. By this definition, any institution that lasts for a century—from the American Red Cross to General Electric to the National Park Service—is sustainable. Yes, environmentalists might argue that without a zero carbon footprint, General Electric cannot be truly sustainable, and alarmists might argue that the latest financial crisis has jeopardized the financial sustainability of the American Republic. For our purposes, however, any institution that can sustain itself for 100 years is sustainable.

As impact investors, what we are trying to do is catalyze and grow large, pervasive interventions that are enduring—in short, sustainable solutions at scale—and that deliver clear social benefits. At Acumen Fund, we support companies that bring quality products and services—and most of all, dignity—to people living in poverty who face real problems that matter. And we are not alone: our peer impact investors face similar challenges and apply similar tools in solving them.

The National Park Service and The Nature Conservancy have both grown to become sustainable organizations operating at scale, delivering tangible social benefits. There are analogous organizations operating in the anti-poverty realm: BRAC, a large NGO, operates in every village in Bangladesh;⁸ the Mexican government's Progres-Oportunidades cash-transfer program reaches more than 90,000 marginalized communities, which will be discussed in detail later.⁹ Both are generally acknowledged to be best-in-class solutions, operating sustainably at scale.

So how did these organizations get to scale? What can we learn from them that will help us guide our impact investees along a similar path?

We argue that there are three paths to scale and sustainability: mission, margin, and mandate.

MISSION

If you think about the large-scale, enduring institutions that matter to you, you might think of your university, a religious institution, or a favorite museum. Two scaled and sustainable institutions are particularly important to Brian's life right now. As the father of two daughters, his family has benefited tremendously from the Girl Scouts and a local youth basketball league. Both the Girl Scouts and youth basketball followed a path to scale we refer to as mission.

The Girl Scouts, nearly a century after being founded, operate in nearly every community in the United States (if they are in the little city of Lambertville, New Jersey, population 4,000,⁹ they must be everywhere!)¹⁰ They achieved scale through their compelling mission: to build girls of courage, confidence, and character who make the world a better place.¹¹ There are more than 2.4 million Girl Scouts and

900,000 volunteers affiliated with the organization. How did Girl Scouts grow and sustain itself? We argue that its mission has attracted the contributions of money and time it needed to grow. The money is the easy part: people, notably parents of young girls, simply believe in the idea that building confidence and character is a good idea, worthy of charitable support and membership fees. The Girl Scouts' cookie sales, \$1 billion in 2009, have also helped the organization to grow. More critical to the scale story, however, is the volunteer energy of the hundreds of thousands of parents and community members who lead local chapters. Without the troop leaders or parents who volunteer, the organization would simply not have scaled.

Another sustainable and scaled idea is youth basketball. Like Girl Scout troops, youth basketball leagues exist in nearly every community in the United States. But unlike the Girl Scouts—which offers a consistent program and set of activities with plenty of room for diversity at the local level—local youth basketball leagues are effectively independent. Nevertheless, the leagues do share a powerful concept: that youth basketball is a way to build confidence and character in children through competitive sports. Bands of parents who believe in the mission find a gym or outdoor court, buy some T-shirts and balls, and get their kids playing. Local leagues rely on registration fees and snack food sales to cover some of the core costs, but again, they would simply not exist without the hundreds of volunteer hours donated by the coaches, parents, referees, and league organizers who make the whole thing work.

Girl Scouts. Youth basketball. The Nature Conservancy, the American Cancer Society, Harvard and Georgetown, every church and synagogue in the country . . . even Acumen Fund. There is simply no way these mission-driven organizations would work in the free market. Mission-based organizations spot problems, define a clear mission, and deliver a set of programs that capture the time, energy, and contributions of thousands or hundreds of thousands of people on their way to scaled solutions relevant to the problems they set out to address. The path to scale for a mission-based organization depends largely on how clear the mission is and how well the organization demonstrates that it can be trusted to convert the donors' money and the volunteers' time into the desired social or environmental outcome.

Scaled successes in the nonprofit sector grow through the power of a compelling *mission*.

MARGIN

Mission may be one thing, but any economist worth her salt will tell you that what drives most scale is the second “m-word,” *margin*. Start with revenues, subtract costs, and you get a company's net income, or margin. A positive margin allows a business to retain capital and reinvest. The lure of future margins can attract investment capital, which can be used to scale a business, which in turn will generate more returns, or margins, over time. All of Acumen Fund's investments have

the potential to generate attractive financial returns, even if margin is not the primary investment criteria for an impact investor like us.

Perhaps the greatest example of getting to scale through a relentless focus on managing margins over the last century is Walmart. In May 1950, a serial entrepreneur named Sam Walton opened his eponymous five-and-dime in Bentonville, Arkansas. Walton drove a hard bargain with his suppliers, a tactic he learned from his previous retail experiences. But unlike his competitors, Walton opted to pass along a portion of those cost savings to his customers, based on the assumption that higher sales volume at a lower margin would make up the difference.

He was right, and in 1952 he reinvested his profits from the five-and-dime to open the first Walmart. By 1967, the small company had grown to 24 stores throughout Arkansas and booked sales of \$12.6 million. The rest of the Walmart story is well known: building on a foundation of everyday low prices, the company expanded rapidly, enriching its stockholders and employees in the process. In 2011, Walmart operates nearly 10,000 stores in 15 countries, serving more than 176 million customers.¹²

Most large businesses, from Walmart to Google to General Electric, have scaled because the economics of their businesses and their business units have generated sufficient profit margins to either reinvest in the business or to attract commercial capital that is interested in getting a piece of that margin over time. The cash flows can be financed through debt, or investors are willing to bet there will be some profits in future years that justify an equity investment. Businesses without margins (at some point in time) do not grow; those with unattractive margins grow slowly; those with fat margins can be rocket ships.

In short, scaled successes in the private sector get there through the power of their *margin*.

MANDATE

Not all that is large scale and pervasive exists in the private or social sector. In cases where the energy of private associations or the economics of a for-profit approach are insufficient, government mandates can enable sustainable solutions at scale. In the United States, for example, there is publicly funded national transportation infrastructure, universal public K-to-12 education, widely adopted pollution controls (thanks to the Clean Air and Clean Water acts), a national military—all are large, scaled programs, services, institutions, or systems that have scaled through a *mandate*. The government has the power to fund and administer massively scaled programs that serve a common purpose, correct for a market failure, or respond to a public need.

While all of the prior examples of mandate come from the United States, one of the more interesting examples of a public policy intervention working at scale comes from Mexico. In 1997, the Zedillo administration launched a new anti-poverty initiative, *Progresá*. The administration recognized poor parents' desire to invest in their children—educating them, keeping them healthy, making sure they

are well fed. It also understood that those same parents often could not afford school fees, nutritious meals, or the opportunity costs of sending their children to school (as opposed to sending them to work). In response, Progresa offered direct cash transfers to mothers, conditional on children's attendance at school and recorded visits to health clinics.¹³

Progresa was pilot tested in a single, mostly rural state. . . .and was both a political and a developmental success. Families (voters) liked receiving the cash transfers as an incentive to do things they already thought valuable but couldn't afford. And a randomized impact evaluation, conducted by outside experts, pointed to impressive results: poor children living in the program's areas of operation had increased school enrollment, had more balanced diets, and received more medical attention than a group of similar children with no intervention.¹⁴

In 2002, shortly after the initial impact evaluation was released, President Ernesto Zedillo was replaced by a new president from the opposing party, Vicente Fox. Generally speaking, Mexican administrations don't like to retain the programs of their predecessors, but the success of Progresa was too overwhelming to ignore. So instead of scrapping the initiative, President Fox renamed it *Oportunidades* and put even more funding and support behind it. He created a centrally administered body to run it, and committed close to half of Mexico's anti-poverty budget to the program.

Thanks to the government mandate—and its investment—more than 25 percent of Mexicans participate in *Oportunidades*. The program continues to post impressive results, based on national survey data: poverty rates are down, health and educational attainment scores are up. Such widespread success would not have been possible without the government mandate, and it wouldn't have been sustainable without a rigorous evaluation of the program's impact.¹⁵

Progresa-*Oportunidades* highlights how a single government can use its mandate to achieve broad public goals. Addressing other areas at scale, meanwhile, sometimes requires many governments cooperating together.

The public need to reduce the rates of HIV/AIDS, tuberculosis (TB), and malaria is well documented. The diseases themselves are proven killers, their victims disproportionately from low-income countries. What's more, a number of proven interventions for these diseases—anti-retrovirals and condoms for HIV/AIDS; DOTS for TB; nets, spraying, and artemisinin-based combination therapies for malaria—are known and available.

Within this context, a coalition of donor and governmental agencies came together in 1999 to set the first measurable targets to reduce the rates of HIV/AIDS, TB, and malaria worldwide. First suggested by the director general of the World Health Organization and endorsed by the United Nations, donor governments and private corporations quickly came on board. The goals quickly became the mandate on which a new funding mechanism was created: the Global Fund to Fight AIDS, TB, and Malaria.¹⁶

Since its formal launch in 2002, the Global Fund, as it is known in public health and development circles, has disbursed more than US\$21 billion to 600 pro-

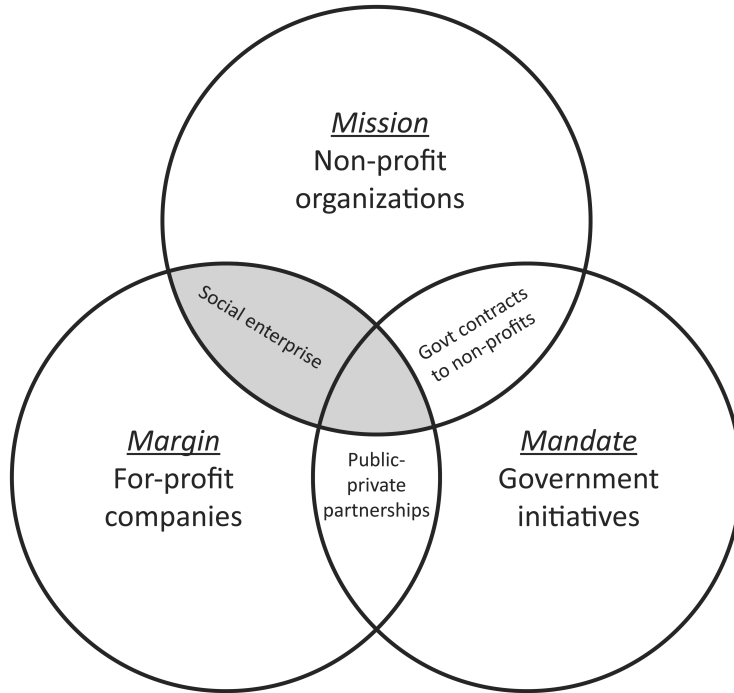


Figure 1. Mission, Margin, Mandate

grams in 150 countries. According to the Global Fund’s rigorous impact assessment data, this funding is directly responsible for more than 3.2 million people having received anti-retroviral treatment for AIDS; for the detection and treatment of 8.2 million cases of infectious TB; and for the distribution of more than 190 million insecticide-treated bed nets to prevent the transmission of malaria.¹⁷

The Global Fund is an example of where the power of an international mandate, backed by financial commitments from donor governments and implemented by local partners, has led to large-scale, sustainable gains in the fight against three critical infectious diseases.

Of course, private experimentation and foundation support are essential in areas like public health, but some problems can’t be solved at scale by mission or market alone. They need active citizen engagement, enlightened policymaking, and a government mandate to catalyze pervasive and enduring change.

Scaled public solutions often rely on a government *mandate*.

The clarity and simplicity of the organizations mentioned earlier mask the fact that a pure path to scale is rare. As we saw with the Girl Scouts, volunteer labor is critical, but the margins on their cookie sales sure do help. General Electric or Google, both fabulously profitable companies, have both benefited tremendously from government mandates, including the institutional purchases of the U.S. military or the creation of the Internet largely with public resources.

What we have observed as impact investors is that almost every social enterprise needs to navigate mission, margin, and mandate in the early stages of the organization's life. The challenges and tradeoffs often require different skills. Writing a grant proposal is not the same as writing a business plan; a good non-profit CEO brings a different skill set to bear than her for-profit counterpart. How does this manifest itself for the impact investee? Let's take a look at the case of Husk Power Systems described in another article in this special issue.¹⁸

MULTIPLE WAYS TO SCALE: THE CASE OF HUSK POWER

They all told Gyanesh Pandey it was impossible. They—the scientists at India's premier research institutions—told him that rice husk waste was chemically unsuitable to be used as a fuel. Sugarcane worked; bagasse too, but the predominant agricultural waste of India's poorest regions didn't burn hot enough, or clean enough, to power electricity generators.

Pandey, however, was not one to take no for an answer. An electrical engineer working in the semiconductor industry, he spent his weekends building a series of test gasifiers, each version more appropriate for the rice husk fuel he knew was out there. Finally, after a seemingly endless series of dead ends, he arrived at a design that could work. Excited at the potential of his creation, he looked for money to build it out in his family's native village, Tamkuha, in the northern Indian state of Bihar. Finding no takers, Pandey liquidated his 401k—paying a penalty—and set up the gasifier, filtering system, retrofitted diesel engine, and wiring scheme with the help of his partner and college friend, Ratnesh Yadav. In August 2007, they inaugurated the plant and brought electricity to Tamkuha for the very first time.

Instead of seeking seed venture capital for its initial funding, Husk Power instead relied on a series of grants from organizations, including the Shell Foundation, which was willing to fund the initial market exploration work around building a small village-level power utility. The company used Shell's money to scale from three to six plants, and then again from six to eleven, all the while learning the chokepoints to avoid and success factors to concentrate on at the plant level.

With a pilot cluster of plants operational and requisite financial planning completed in 2008, Husk Power raised a pre-Series A round of capital from impact investors in 2009 (Bamboo Finance, LGT Venture Philanthropy, DFJ/Cisco, and Acumen Fund).

This first investor capital was complemented by a partnership with the Indian government. The Ministry of New and Renewable Energy, acknowledging that the company's economics would always be challenged by high capital costs, awarded Husk Power a capital subsidy based on the company's ability to deploy renewable energy systems in villages otherwise economically impossible to electrify.

Husk Power Systems Funding Evolution

October 2008: Shell Foundation grant of \$164,000 for three plants (there were already three)

July 2009: Shell Foundation grant of \$279,000 for five more plants, bringing total to 11

September 2009: pre-Series A fundraising round consisting of:

- Acumen Fund, \$375,000
- Oasis Fund (advised by Bamboo Finance), \$375,000
- LGT Venture Philanthropy, \$300,000
- DFJ and Cisco, \$125,000 each as prize money for business plan competitions

April 2010: International Finance Corporation invested \$350,000 as part of a \$1.5 million commitment

July-December 2010: Shell Foundation grant of \$550,000 for Health, Safety, Security, Environment (HSSE), R&D, human resources and training, marketing, and financial management

January-November 2011: Shell Foundation grant of \$1.1 million for HSSE, R&D, human resources and training

Source: Caroline Hartnell, “Husk Power Systems: Interview with Gyanesh Pandey,” *Alliance Magazine*, June 2011. Available at www.alliancemagazine.org.

RELEVANT TO THE IMPACT INVESTOR?

Gyanesh Pandey is a charismatic leader with a mission he calls “power to empower.” He has used his increasingly public profile and the power of his mission to raise a substantial amount of philanthropic funding. This funding—which has come from foundations and business plan competitions—is useful to Husk Power as it conducts further research and development and pilots its business model. The company benefits from offers of volunteer support from all over the world, including people willing to travel to Bihar to work for free. The mission of providing affordable, renewable power in communities that otherwise lack access to formal energy services clearly is compelling.

The operating margins are also quite attractive. The village power plant systems should pay for themselves within two to three years; with that in mind, the business has attracted risk capital from Acumen Fund and investors like Bamboo Finance and Draper Fisher Jurvetson.

Husk Power has real potential for scale via mandate on two fronts. First, it was only after the Ministry of New and Renewable Energy granted Husk Power the capital expense subsidy that the company was economically compelling enough for investors, even impact investors. But even more exciting is the fact that Gyanesh and his team are working with the government of Bihar to write the regulations for how rural biomass gasification can benefit from these exact government subsidies

as they scale. If successful, the mandate for government funding will grow these systems more rapidly than either the compelling mission or the attractive margins would by themselves.

Without grants and private investment, Husk Power would not have gotten started, but without the mandate from the government of Bihar, the company is unlikely to scale.

STANDING OUT IN A CROWD

Mission. Margin. Mandate. These are three often-distinct paths to scale and sustainability. The strategies needed, the time frames required, the management skills, and the sources of capital, however, are different for each path.

As impact investors supporting companies—like Husk Power Systems—we work with our companies to focus on margin, communicate a compelling mission, and advocate for a mandate at various stages of their development. It's not a straightforward exercise, and we are the first to admit that we sometimes get it wrong.

But every time we get it wrong, we learn. Over the years, we've learned that the process begins by recognizing on which path a company has started. As with other impact investors, our portfolio companies have both explicit financial and social goals. Sometimes, a pure-play for-profit company that is focused on profit margin is the optimal legal structure through which to accomplish those goals. Other times, an impact investee might need to adopt a hybrid structure or create an affiliated nonprofit in order to keep its mission-related goals aligned.

Of course, with a hybrid business model, a company CEO must ask himself, where does commercialization conflict with my vision? A philanthropic donor we met once quipped, "I'd give you my kidney for free, if you needed it. But I wouldn't sell it to you if you offered me \$1,000." Margin may often appear to be the path of least resistance, but at what cost?

Companies must choose the structure best suited to their needs. They should also carefully examine their operating environment with an eye toward growth. Are there costs that are borne by the private sector today, but may be borne by the public sector in the future? This is how the market for anti-malarial bed nets has evolved, for example, and companies that got into that market early have been successful financially while generating outsized social benefits at the same time.

But in other aspects of public health, the private benefit to a customer is greatly outweighed by the public benefit to society. In these areas, like immunizations, social enterprises and their impact investors need to keep a close eye on policy, as their path to scale may be dictated by forces beyond their direct control, but that they can influence through their work.

Ultimately, social enterprises like Husk Power Systems don't operate in a vacuum. The path to scale is exciting for Gyanesh and for Acumen Fund, but it also raises the critical question of when to follow which path and in what sequence. Venture capitalists expect their management teams to focus; there will be plenty of

time for fame when the business is sold. A philanthropist, on the other hand, loves to provide a platform for the charismatic grantee, as it is part of the business model, but it can cause the entrepreneur to lose focus. And the policy world is desperate for good ideas, but the pace of change in government is often unpredictable. Waiting for a mandate is about as productive as waiting for Godot . . .

So, you get to scale and sustainability through mission, margin or mandate, or through some combination of all three. The fun part is figuring out which and when; the risk is that choosing the wrong path at the wrong time can mean the difference between a scaled success and yet another pilot program languishing on the ash heaps of failed social change experiments.

So the question may be, how should social enterprises navigate the complicated interplay among mission, margin, and mandate along their journeys to scale?

- At what point do you evangelize your solution to raise mission-based grant capital or volunteer support to work on that new product?
- At what point do you buckle down and simply execute on sales and service to grow your margins?
- When do you approach the government for changes to policy that might help get that mandate to scale?

These are tough questions with no easy answers. There are too few examples of successful social enterprises that have traveled along multiple paths to scale to offer conclusive evidence of what combination of strategies at what times are optimal. But learning from those case studies and sharing what works—and, as importantly, what doesn't—is essential if the sector is to advance.

THE FOURTH M

We have argued that there are three paths to scale. The mission path requires an organization to articulate a compelling vision, then use that vision to raise philanthropic funding, from small donations to large grants, to run its programs and offer its services. Margin is shorthand for capitalism: a business sells goods and services, re-investing profits and raising external capital to grow. Mandate is the government acting, either alone or through partnership, often after a long and unpredictable advocacy process that concludes the government is uniquely positioned to deliver a public good or service. So just pick a path based on your organizational structure and strengths, follow it, and scale and sustainability are sure to follow.

If it were only this easy! Scale, no matter what path you choose, is hard. Scaling a nonprofit, growing a for-profit business, or delivering a government program at scale is incredibly complex and challenging. It is even more difficult when you layer on some important qualifiers. After all, who wants low-quality scale or sustainability without integrity and dignity? And pursuing multiple paths to scale simultaneously is even more complicated.

As an impact investor, we know firsthand that the paths to scale overlap, loop back on each other, and can be fraught with roadblocks. The path to scale for our

investee companies and others like them is unlikely to be linear. In other words, the successful social enterprise should plan to traverse all three paths—mission, margin, and mandate—on its journey.

At Acumen Fund, we are particularly interested in the intersection of these three approaches. What types and stages of capital can limit or accelerate a social enterprise's ability to scale and reach sustainability? When do subsidies—free or low-cost capital provided philanthropically or from government initiatives—help move cost curves to make services more affordable, and when do they distort or

The path to scale for our investee companies and others like them is unlikely to be linear. In other words, the successful social enterprise should plan to traverse all three paths—mission, margin and mandate—on its journey.

destroy markets? How can companies advocate for government policies that promote the creation of new markets without being perceived as self-serving or, worse, self-dealing?

This is a unique time in the impact investing space. Just five or ten years ago, there were not enough data to study the role of subsidy throughout the business process because there were not enough social enterprises. Today, at Acumen Fund, we have data on our portfolio of companies,

including the independent variables (at which stages what types of capital were received) and dependent variables (firm profitability, cumulative growth rate, social impact) to start to ask these questions in a structured way.

And as we step back from looking at individual enterprises on their paths to scale, we realize that Acumen Fund and many of our peers in the impact investing field are making the same choices about how we scale. How much philanthropic capital (mission) should we raise? What kind of commercial returns (margins) should we promise donors? What government policies (mandate) could increase the availability of patient capital to invest in some of the world's toughest problems?

As we think about how to scale our work in the face of such daunting global problems, we consider a fourth path to scale: the meme. Less direct than mission, margin, or mandate, a meme is a powerful idea that spreads within a culture. Fifteen years ago, people were using patient capital to make impact investments, but the ideas had not crystallized into a powerful force that pulled large pools of capital into mission-based funds. Today, with hundreds of millions of dollars in impact investment funds in the United States alone, the idea that capital can drive social change, and that mission, margin, and mandate can co-exist, is fundamentally new.

Mission, Margin, and Mandate: Multiple Paths to Scale

So the study of how to get to scale and sustainability is just beginning; the investigation is far from over. The challenge is to draw clear enough pictures and bold enough ideas that scale widely enough and sustain long enough to make significant progress on the myriad challenges we face. The meme of scale and sustainability has become the holy grail of both business and development. But we do not pursue them for their own sake. We need to understand scale and sustainability so that we can make smarter impact investments and drive more tangible social benefit for society at large.

-
1. "Five Year Annual Recreation Visits Report," Public Use Statistic Office, National Park Service. Accessed May 31, 2011.
 2. "Conservation Easements at The Nature Conservancy," The Nature Conservancy. Available at <http://www.nature.org/aboutus/privatelandsconservation/conservationeasements/conservation-easements-at-the-nature-conservancy.xml>. Accessed May 31, 2011.
 3. Ibid.
 4. "About Us," National Park Service. Available at <http://www.nps.gov/aboutus/index.htm>. Accessed May 31, 2011.
 5. "Annual Report, 2009," The Nature Conservancy. Available at http://www.nature.org/aboutus/annualreport/files/the_nature_conservancy_2009_ar.pdf. Accessed May 31, 2011.
 6. Search for "Scale," Social Edge. Available at <http://www.socialedge.org/search?SearchableText=scale>. Accessed May 31, 2011.
 7. According to a 2009 study by the National Center for Education Statistics, 150,000-200,000 new public school teachers are hired each year.
 8. "Where We Work." BRAC. Available at <http://www.brac.net/content/where-we-work>. The majority of BRAC's work is in Bangladesh. We have been delivering successful programs since 1972 and grown to become the largest development organization in the world. Our-low cost, innovative solutions to the daily problems facing poor families have been scaled up to reach every village in Bangladesh.
 9. "Design and Operation" Oportunidades: http://www.oportunidades.gob.mx/Portal/wb/Web/design_and_operation Accessed June 1, 2011.
 10. The 2010 U.S. Census counted 3,906 residents of Lambertville, New Jersey.
 11. Founder Juliette Gordon Low organized the first Girl Scout troop on March 12, 1912, in Savannah, Georgia. Girl Scouts of the USA was chartered by the U.S. Congress on March 16, 1950.
 12. "Who We Are: Facts," Girl Scouts of the USA. Available at http://www.girlscouts.org/who_we_are/facts/. Accessed June 1, 2011.
 13. Walmart: History. Available: <http://walmartstores.com/AboutUs/297.aspx>. Accessed July 8, 2011.
 14. "Editorial: Paying for Better Parenting." *The New York Times*, October 17, 2006. Available at <http://www.nytimes.com/2006/10/17/opinion/17tues4.html>. Accessed July 25, 2011.
 15. Bulletin of the World Health Organization—Reaching Mexico's poorest. Available at <http://www.who.int/bulletin/volumes/84/8/news10806/en/index.html>. Accessed July 25, 2011.
 16. Abhijit Banerjee and Esther Duflo, *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty*. Philadelphia: Public Affairs, 2011, pp. 78-81.
 17. "Results and Performance," The Global Fund to Fight AIDS, TB and Malaria. Available at <http://www.theglobalfund.org/en/about/resultsandperformance/>. Accessed July 23, 2011.

innovations

TECHNOLOGY | GOVERNANCE | GLOBALIZATION



Entrepreneurial Solutions to Global Challenges

The proof
is in
the doing.

Fazle Abed | Shai Agassi | Ken Banks | Percy Barnevik | Matthew Bishop | Ángel Cabrera
President Jimmy Carter | President William Jefferson Clinton | Ben Cohen | Eileen Claussen | Scott Cowen
Rita Colwell | Bill Drayton | Peter Eigen | Paul Farmer | Martin Fisher | Matt Flannery | William Foege
Francis Fukuyama | Peter Gabriel | Fadi Ghandour | Victoria Hale | Stuart Hart | Pamela Hartigan
John Holdren | Mo Ibrahim | Walter Isaacson | Mary Ellen Iskenderian | Leila Chirayath Janah
President Paul Kagame | Vinod Khosla | Karim R. Lakhani | Thomas Malone | Josh Nesbit
Jacqueline Novogratz | Cory Ondrejka | Tim O'Reilly | María Otero | The Honorable Mary Robinson
Arthur Rosenfeld | Jill A. Panetta | Thomas Schelling | Carl Schramm | Vivek Wadhwa | Andrew Wolk

BE A REBEL

SUBSCRIBE at mitpressjournals.org/innovations

MIT Press Journals | 55 Hayward St. | Cambridge, MA 02142-1315
Tel: 617-253-2889 | US/Canada: 1-800-207-8354 | Fax: 617-577-1545 | journals-orders@mit.edu
Print with Electronic Access: Individual \$51 | Institution \$190 | Student and Retired \$27
Electronic Only: Individual \$46 | Institution \$164 | Student and Retired \$24

innovations

TECHNOLOGY | GOVERNANCE | GLOBALIZATION

This issue of *Innovations* is published in partnership with
SOCAP11

with support from
The Acumen Fund
The Bohemian Foundation
The Schwab Foundation for Social Entrepreneurship



INNOVATIONS IS JOINTLY HOSTED BY

**GEORGE MASON
UNIVERSITY**
School of Public Policy

HARVARD UNIVERSITY
Kennedy School of
Government
Belfer Center for
Science and International
Affairs

**MASSACHUSETTS
INSTITUTE OF
TECHNOLOGY**
Legatum Center for
Development and
Entrepreneurship

with assistance from
The Center for Social Entrepreneurship, George Mason University
masoninnovation.org

mitpressjournals.org/innovations
editors@innovationsjournal.net