A Letter from Dr. Peter A. Singer

BOLD IDEAS
WITH BIG IMPACT

Grand Challenges Canada
Grands Défis Canada
May 2014

After four years, Grand Challenges Canada has evolved into a platform that nurtures innovative solutions in global health. It offers opportunities for social enterprises and impact investors to generate measurable and sustainable social impact.

What does it take for a nation to become prosperous? There are really only two primary sources of prosperity: material resources found in the ground and ideas found in peoples' heads.

In what we call 'developed' nations, it is widely agreed that mining ideas and turning them into goods and services that people value – a process called innovation – is key to stimulating economic growth, creating jobs and fostering prosperity. If innovation is key to securing prosperity in 'developed' nations, why would the same approach not make sense for developing nations?

Innovation is a term used so widely these days that it can become easy to overlook the powerful and important concept that lies at its centre: to harness good ideas to overcome established problems in ways that are better, easier and less costly.

At Grand Challenges Canada, we use the term “innovation” to apply to science and technology innovation, social innovation, and business innovation. We like to see these types of innovation come together – something we call Integrated Innovation – which we see as leading to sustainability and scaling impact. We see innovation as the path and impact as the destination.

In its broadest sense, innovation means that tomorrow will be a brighter day than today. Innovation allows us to accelerate along the long road that is often taken when it comes to securing results – to reach the positive outcomes we seek sooner.

For years, this philosophy has driven the private sector in its approach to business development. It has guided major industrialized nations in securing prosperity. The opportunity to leverage innovation in service to international development is one that we dare not overlook. Of course, it should be emphasized that innovation can’t be seen as a substitute for traditional approaches to aid. The goal – our goal – is to add to that foundation.

Traditionally, however, there has been a significant challenge in turning this objective into reality. Fundamental questions remain. What are the best ways to catalyze impact at scale by using public dollars to catalyse private dollars for social impact? And how does a project become sustainable? In particular, what happens after the last public dollar has been spent? The private sector has dedicated tremendous effort and enormous good intention to these questions of impact at scale and sustainability.

Grand Challenges Canada has been experimenting with different innovative models that leverage private investment and partnerships. The good news is that, after four years, we’ve learned some lessons and identified effective models for engaging the private sector’s skill to secure positive social impact through innovation. In a sense, we’ve been serving as a laboratory for development innovation.

Launched in 2010 and funded by the Government of Canada, Grand Challenges Canada is funding innovators in low- and middle-income countries and Canada. The
bold ideas we support integrate science and technology, social and business innovation – called Integrated Innovation. We work to bring successful innovation to scale, catalyzing sustainability and impact. We have a determined focus on results, and on saving and improving lives.

Social Enterprises

According to Social Enterprise UK, social enterprises are “businesses that trade to tackle social problems, improve communities, people’s life chances or the environment. They make their money from selling goods and services in the open market, but they reinvest their profits back into the business or the local community.”

With the support of Grand Challenges Canada, SOIL Haiti installs private toilets (EcoSan) in northern Haiti. In doing so, it is developing an innovative new social business model for providing household sanitation in urban slums. The toilets produce compost as a by-product of waste treatment, critical for agriculture and reforestation. This operation is not only addressing the challenge of sanitation – providing services to 2,650 people in Haiti – it also promises to be financially sustainable. Selling the compost can support operational costs, thereby keeping user fees affordable. This viable business model for providing complete sanitation will entice more social enterprises to emerge, stimulating even larger social impact, jobs and economic growth, and can inspire entrepreneurs to replicate the project on a global scale.

The Kenyan social enterprise ZanaAfrica is recognized as a leading innovator in global health, focusing on girls and education. With a Phase II Grand Challenges Exploration grant, a partnership between Grand Challenges Canada and the Bill & Melinda Gates Foundation, ZanaAfrica is manufacturing and selling affordable, directly accessible sanitary pads, coupled with underpants and free health education, to women and girls who lack access. The program is revolutionizing female health and empowerment in Kenya. Over 850,000 girls in Kenya lose many weeks of school each year and valuable work hours are lost by working women because they cannot afford sanitary pads, thus perpetuating the cycle of poverty. ZanaAfrica is using profits to fund charitable activities, such as health education and policy advocacy. This brings together non-profit passion to help women thrive, creating sustainable economic benefits throughout the supply chain.
Another model is “buy one, give one”, an approach pioneered by Tom’s Shoes. Through a Stars grant from Grand Challenges Canada, the Hospital for Sick Children has engaged community health workers in remote communities in Pakistan to deliver to pregnant women a kit of low-cost, evidence-based interventions. The goal of this neonatal toolkit is to bring the newborn mortality rate down by up to 40% in a cost-effective way. The kit is also being evaluated in our Saving Brains program for its effect on child development. The project has led to a rewarding partnership with Baby Hero, a new company in Hong Kong that produces organic cotton baby clothes under ethical labour practices, with a vision of using profits to fund innovations in maternal and infant health while focussing on economic sustainability, social impact and minimal environmental impact. Baby Hero was looking for a partner working in maternal and child health in Pakistan that could contribute to this vision. The result is that today, for each item of baby clothing sold, Baby Hero will give a newborn toolkit to a mother in Pakistan. Furthermore, the project partnered with Maternova, a company devoted to distributing products designed to save the lives of women and children, from whom they are sourcing several key components of the kits. These are intriguing new partnerships that we will closely monitor to evaluate scalability and sustainability.
Angel Investor Model

Small and medium enterprise

Angel investors have long been key to supporting exciting private sector start-ups. By providing early capital, they can turn a good idea into a great business that fills a new and unique need. In specific circumstances, the same method can be used to help create bold health solutions and new sustainable social enterprises. Some angel investors are interested in supporting the development of bold ideas in a financially sustainable way, with the hope of improving the health of people throughout the developing world.

For example, it was the involvement of an angel investor that led to scale-up financing of the Phone Oximeter. Developed by innovators at the University of British Columbia (UBC), this smartphone-enabled technology offers real-time monitoring of vital signs, and will enable diagnosis and treatment of pre-eclampsia during pregnancy. Every year, over 80,000 women and more than 500,000 infants die from pre-eclampsia, one of the leading causes of maternal mortality. Almost all of these deaths are in low-resource countries. LGTmedical, a Vancouver-based social enterprise, was created as a spin-off company from UBC. The innovation was awarded a seed grant in 2011 by Saving Lives at Birth, a partnership between Grand Challenges Canada, the U.S. Agency for International Development (USAID), the U.K. Department for International Development (DFID), the Government of Norway and the Bill & Melinda Gates Foundation. To enable the scaling of this innovation, Grand Challenges Canada played an important catalytic role by leveraging in a prominent angel investor to chair their Board of Directors and help lead LGTmedical forward. In addition, the lead angel investor formed a conglomerate of angels that injected a $1 million financial commitment into LGTmedical. We then matched this amount, thanks to a new strategic partnership between Grand Challenges Canada and the Department of Foreign Affairs and Trade Canada (DFATD). This deal will scale up the highly promising Phone Oximeter in developing countries, address a critical global health need, and create jobs and economic opportunities in Canada and elsewhere.

ChipCare is an additional example of a Canadian enterprise being leveraged to address a major health challenge in the developing world, with the promise of financial and business rewards at home in Canada. Last year, ChipCare secured the second largest-ever angel investment in Canada’s life sciences sector for its handheld analyzer. The device has the capacity to transform the way in which point-of-care diagnostics are delivered in the field for developing world populations. The portable tester uses wireless computer technology and disposable, low-cost “chips” to easily read a patient’s blood sample. The appeal of the innovation is that it relies upon a single, small blood sample, using only one drop taken from a finger prick. Initially, the tool will be used to read a patient’s CD4 cell count to monitor HIV infection. The device can potentially be modified in future for the testing of other infectious and non-communicable diseases. The financing evolved through a uniquely collaborative funding model among Canadian social angel investors, including Maple Leaf Angels, MaRS Innovation, Ontario Centres of Excellence and the University of Toronto, with special financing leadership from Grand Challenges Canada and the Government of Canada.
According to the Shared Value Initiative, shared value is a "management strategy focused on companies creating measurable business value by identifying and addressing social problems that intersect with their business." Two of our investments through Saving Lives at Birth, a partnership with USAID, the Bill & Melinda Gates Foundation, U.K. Department for International Development (DFID), and the Government of Norway are following this path.

In 2012, the Saving Lives at Birth partners awarded a US $250,000 grant to the World Health Organization (WHO) to prove the concept of the Odón Device – an innovation in assisted vaginal delivery in the case of prolonged, troublesome second-stage labour. In September 2013, BD (Becton, Dickinson and Company), a leading global medical technology company, announced a collaborative initiative with WHO and the Saving Lives at Birth partners to take this innovation to scale. The estimated cost to develop the Odón Device, including clinical trials, product development and manufacturing equipment, is expected to exceed US $15 million. BD has demonstrated the ability to scale health devices in the developing world in an affordable manner: for example, auto-disable immunization syringes that prevent diseases spreading to children resulting from reuse, and CD4 tests to monitor the immune system of people living with HIV/AIDS. The shared goal of the Odón Device collaboration is to ensure that this innovation to reduce maternal and newborn mortality reaches the women and children who need it most, to save and improve their lives.

The Odón device is assisting vaginal delivery in the case of delayed labour (Becton, Dickinson and Company)
Shared Value Model (continued)

Changamka Microhealth, an integrated Health Finance company based in Nairobi, Kenya, is using novel technologies to help finance healthcare of Kenyans. Not receiving adequate care is a leading cause of maternal mortality in the developing world. In 2011, the company received a grant from the Saving Lives at Birth partners and developed a platform that issues phone-based e-voucher subsidies that women can use for skilled antenatal care, facility delivery and transportation. Earlier this year, Changamka announced a partnership with financial services group Britam and communications provider Safaricom to launch an innovative and affordable healthcare micro-insurance product running on the same platform. Making registration available on a mobile phone is an innovation that tackles the problem of distribution of micro-insurance products. The premiums are payable in installments by MPESA, with quality healthcare being available after the premium has been saved in a premium deposit facility on the user’s mobile phone.

Global Health Investment Fund

The above examples represent direct investments into innovations and enterprises. Another model is to invest in a fund which then makes a portfolio of direct investments. Last year, Grand Challenges Canada made an anchor investment into the $108 million Global Health Investment Fund (GHIF). With the commitment of a pioneering group of investors, including the German Ministry for Economic Cooperation and Development (acting through KfW, a banking group) and the Children’s Investment Fund Foundation, the GHIF will help advance the most promising interventions to fight challenges in low-income countries, such as malaria, tuberculosis, HIV/AIDS, and maternal and infant mortality. The Fund was structured by JP Morgan Chase & Co. and the Bill & Melinda Gates Foundation. Its novelty lies in the fact that investors are partially protected against financial loss through risk-sharing guarantees from the Bill & Melinda Gates Foundation and the Swedish International Development Cooperation Agency (Sida). The Fund will produce developmental benefits by investing in late-stage vaccines, drugs and diagnostics for global health, and with the goal of providing high-single-digit economic returns. It is the first global health impact investment fund that takes an impact investment approach to balance both social and financial return.
What have we learned?

Early lessons include:

- Innovation is a way for the public and private sectors to work together to achieve social impact. Executed shrewdly, innovation can make the same dramatic impact on development that it has made in business circles for decades.

- People matter. While at proof of concept the focus is on the cool idea, in transitioning to scale, the leadership skills and determination of the social entrepreneur and his/her team are fundamental to success.

- The role of ‘smart partners’ is essential. The challenges in global health are too big to be solved by any one organization or sector alone. Like-minded people committed to important social outcomes can find common cause across sectors.

- Public funds can catalyze private investment and engagement. The perceived risks of social impact investments, especially in international development, are seen as high by private investors. But this perception can be lessened – and social investment triggered – by using public funds to mitigate the perception of risk.

- Learning by doing is key. Projects teach us a great deal, even when they don't always meet their goals. We must be open to successes and failures.

- These models are not exhaustive. Exciting work is occurring with different models, such as social impact bonds. But more experimentation is required.

It is an enormous privilege to be part of Grand Challenges Canada. I want to thank the Government of Canada for its support, as well as all the partners we work with, our dedicated Board of Directors chaired by Mr. Joseph L. Rotman, our Scientific Advisory Board, the committed staff at Grand Challenges Canada, and particularly the innovators and social entrepreneurs we are privileged to support.

Above all else, our eyes are on the end beneficiaries – particularly women and children in developing countries. At Grand Challenges Canada, innovation is only the path; the destination is saving and improving lives.

Yours truly

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