Challenging the Public to Do Good

Introduction

Due to the recent recession, nonprofit organizations (NPOs) have been hit with the most challenging years they have experienced in decades. The years 2008 and 2009 saw total donations down, 2010 was essentially flat, and anemic growth is expected in the years ahead. At the same time, investment losses, shifts in tax policy, regulatory pressures, devolution of funding from the federal government to the states, and declines in overall government funding – which accounts for roughly 30% of the average NPO’s revenue – are all consorting with the reduction in donations to create a perfect storm for nonprofits.

Securing the funding to maintain a sustainable organization that can accomplish its mission is the most significant challenge facing most NPOs. Yet fundraising efforts have also come under severe pressure, as NPOs have been forced to lay off workers, and both governments and donors are increasingly scrutinizing their contributions and demanding to see real impact from them. Indeed, the measurement of outcomes in an open and transparent manner is becoming the new currency of philanthropy.

So what is a nonprofit organization to do when faced with such constraints and pressures? One answer, which this white paper puts forth, is to leverage the power of Challenges, open innovation, and crowdsourcing – what InnoCentive calls Challenge Driven Innovation™ as a critical mechanism for:

- Developing creative programs focused on the mission to solve Challenges that matter most for the public good
- Assisting fundraising efforts by bringing significant energy, interest, and buzz to the Challenges at hand
- Optimizing scarce resources by extending reach to diverse people who care about today’s important Challenges
- Harnessing the same proven innovation methods and tools that commercial enterprises have had at their disposal for years

What Is a Challenge?

In its most basic form, a Challenge is a well-formed problem whose solution has value to an organization. Challenges come in a variety of forms, from pure ideation (a broad question formulated to obtain access to new ideas) to those that require...
more rigor (e.g., the physical attributes of a disease biomarker). NPOs have specific missions to which a Challenge or series of Challenges can be assigned in pursuit of organizational goals. From this perspective, Challenges are a formidable mechanism for decomposing problems into manageable fragments and distributing the work to the individuals and groups that can best solve them. Solved Challenges advance the NPO mission in a clear, measurable way evident to donors.

**Where Does InnoCentive Fit In?**

Founded in 2001, InnoCentive was incubated within the pharmaceutical giant Eli Lilly and spun out as an independent company in 2005. The company specializes in connecting solution Seekers – nonprofit organizations, public sector agencies, and commercial enterprises – to problem Solvers to help solve their most pressing problems. Put simply, InnoCentive enables prize-based competitions whereby NPOs can post their toughest Challenges to a global network of 375,000 InnoCentive problem Solvers who try to solve them.

Challenges have a monetary award associated with them, which can range from $5,000 to $1 million and more. Yet with Challenges pertaining to philanthropy and the public good, Solver motivation to participate is typically not about the award. Rather, it is the fundamental desire to work on Challenges that can make a positive impact on the world that drives participation in the process.

InnoCentive’s unique approach to prize-based competitions, called Challenge Driven Innovation (CDI), leverages open innovation and crowdsourcing along with defined methodology, process, and tools to help NPOs develop and implement actionable solutions to their key problems, opportunities, and Challenges. The approach recognizes that ideas are everywhere, but solutions are more elusive and highly valued. Throughout its decade-long history, InnoCentive has worked with organizations around the world on more than 2,000 Challenges.

**How InnoCentive Works with Nonprofit Organizations**

The way in which InnoCentive typically works with a nonprofit organization is as follows:

- InnoCentive’s PhD-educated Challenge Experts work with the NPO to identify and develop a Challenge or series of Challenges that are important to the mission of the NPO. InnoCentive’s CDI methodology plays a key role in this stage, since how a Challenge is formulated directly impacts the probability of a successful outcome (i.e., a solution that is valuable to the Seeker).
- The Challenge is then posted to InnoCentive’s global network of problem Solvers. This diverse, 375,000-strong network includes creative and passionate minds from nearly 200 public sector agencies, and commercial enterprises – to problem Solvers to help solve their most pressing problems. Put simply, InnoCentive enables prize-based competitions whereby NPOs can post their toughest Challenges to a global network of 375,000 InnoCentive problem Solvers who try to solve them.

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countries, 60% of whom have advanced degrees in a variety of fields. Reach is extended to an audience of millions via InnoCentive’s key partnerships (more on this later).

- InnoCentive and the NPO engage in co-marketing and public relations activities to promote the Challenge and drive interest and engagement among donors, Solvers, partners, and media/press.
- InnoCentive monitors and filters the flow of solution submissions and works with the NPO to select winner(s). InnoCentive completes a Solver verification process, ensures payment of the award, and completes and transfers documentation to the Seeker for each solution awarded.

Past InnoCentive Challenges That Have Contributed to the Public Good

The Oil Spill Recovery Institute (OSRI) is a prime example of InnoCentive in action. Authorized by the U.S. Congress through the Oil Pollution Act of 1990 as a result of the Exxon Valdez spill, OSRI is located in Cordova, Alaska and is administered through the Prince William Sound Science Center (PWSSC), a nonprofit research organization founded in 1989 to facilitate and encourage ecosystem studies in the Greater Prince William Sound region.

InnoCentive worked closely with OSRI on a number of Challenges, including one that required a method to break the viscous shear of crude oil under cold weather conditions to allow oil to flow to a pump inlet. Basically, the pumps could not handle the near solid oil sludge that was a result of the frigid waters in the Gulf of Alaska.

The Challenge was posted to InnoCentive’s Global Solver Network and a solution was proposed by the most unlikely of sources: an Illinois chemist – who once poured concrete for a summer job – wrote the award winning solution based on a technique that had been used for years to vibrate and move viscous concrete. As a result, the chemist won $20,000, environmental cleanup was accelerated, and the oil industry solved an age-old problem within two months of posting the Challenge to InnoCentive’s network. This example highlights the importance of diversity and how the different perspectives enabled by crowdsourcing can approach and solve Challenges in unique ways.

Additional examples of Challenges faced and solved by InnoCentive’s NPO clients include:

- Seeking new perspectives related to Type 1 diabetes, a Challenge by Harvard Medical School
- Increasing parental involvement in child education, a Challenge by the UK-based NESTA foundation
- Developing methods to fortify staple foods with folic acid and reduce infant mortality, a Challenge by Scientists Without Borders
- Helping to create a community of successful readers, a Challenge by the North Louisiana Community Foundation
- Developing methods for capturing atmospheric carbon to address global warming, a Challenge by InnoCentive’s partner The Economist
In total, InnoCentive has developed and executed more than 50 Challenges for NPOs, attracting over 26,000 problem solvers and 2,800 solution submissions from around the globe. Over $3 million of total awards have been posted as a result of these Challenges, with an overall success rate of 76% (i.e., the problem was solved).

The Importance of Grand Challenges

A Grand Challenge is a well-formed problem – or series of problems – for which a solution has high value and far-reaching benefits to humanity and the world. Grand Challenges are designed to induce innovative solutions, through large financial awards, from a broad, diverse, and global community of problem solvers that expands well beyond core industry subject matter experts. The collective award value for Grand Challenges is typically high, with awards of $1 million or more becoming common.

While Grand Challenges are designed and executed via the CDI framework and methodology, these Challenges possess some unique characteristics. In particular, Grand Challenges offer significant marketing and brand-enhancing opportunities which induce the public via open innovation and crowdsourcing to either address a problem that matters for the public good or solve a high-value problem that matters to any nonprofit organization or business. Grand Challenges can take a couple of different forms, both which will be illustrated via real-world examples.

A Challenge Series with Stages or Milestones

Prize4Life is a 501(c)3 nonprofit organization dedicated to accelerating the discovery of treatments and cures for ALS (amyotrophic lateral sclerosis), also known as Lou Gehrig’s disease. The organization was founded in 2006 by Avi Kremer, a Harvard Business School student diagnosed with ALS at the age of twenty-nine.

In 2006, Prize4Life partnered with InnoCentive to launch the $1 million ALS Biomarker Prize. This Challenge focused on finding a biomarker to measure the progression of ALS in patients, thereby facilitating the cost effective development of treatments by pharmaceutical and biotech companies.
The first million-dollar prize was launched via InnoCentive in 2006. In 2007, as part of the first two stages of the Challenge, Prize4Life awarded several ‘thought’ prizes to encourage promising concepts. Of particular note, a dermatologist with no prior ALS experience was recognized and rewarded for applying a skin-elasticity method used in the cosmetic industry. In total, partial awards totaling $75,000 went to five groups.

In 2009, the third stage of the $1 million Grand Challenge was posted to InnoCentive’s global Solver network. Two years later, the full amount was awarded to Dr. Seward Rutkove, a neurologist at Beth Israel Deaconess Medical Center, for his biomarker discovery. Dr. Rutkove developed a non-invasive test that measures the flow of a small electrical current through muscle tissue. Electrical current travels differently through healthy and diseased tissue, and by comparing the size and speed of the current, Dr. Rutkove’s method can accurately measure the progression of ALS.

While the Grand Challenge process culminated in the identification of a biomarker, the five-year process inspired many new ideas from new thinkers, some of whom had no prior ALS experience. In total, nearly 3,000 Solvers and over 100 solutions from dozens of countries were proposed over the course of the Grand Challenge.

“Participating in the Challenge helped to refine my thinking,” said Dr. Rutkove. “It led me to apply my technology research specifically to ALS focusing on both the animal studies and device development. In our case, participation has effectively sped the development of a handheld device to sensitively measure disease progression.”

A Series of Synergistic Challenges That Together Form a Total Solution

Conquer Paralysis Now (CPN) is a foundation that funds Spinal Cord Injury (SCI) research and ultimately aims to cure paralysis. The Foundation was set up in 2001 after Sam Schmidt, its founder and a former IndyCar driver, crashed during a test lap in Florida, which left him quadriplegic.

In 2011, CPN chose InnoCentive to design and help execute the Conquer Paralysis Now Challenge, to help them achieve their goal of curing paralysis. After consulting top researchers, many of whom are now on the Science Advisory Council that reviews proposals, ‘curing paralysis’ was defined as restoring basic functions that most of us take for granted such as walking, reaching and grasping objects, bowel and bladder control, and sexual function.

Given the complexity of the problem, the Challenge was broken down into 3 Stages over the course of a 10-year program. The aim of Stage I is to fund disruptive, out-of-the-box approaches that may be overlooked by more traditional funding agencies, through 12 annual grants of $50,000. In the first round of Stage I, grantees were selected from a pool of 100 applicants, representing 80 institutions and more than 25 countries.
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Stage II will serve as a "stepping stone" between the initial research of Stage I and the robust demonstration of functional recovery in Stage III. It will set significant milestone prizes for translating basic science into animal and human application. A total of four prizes will be awarded, two prizes of $500,000 in the animal category and two prizes of $500,000 in the human category. Finally, the first individual or consortium to show functional recovery in at least two functions of SCI patients within 10 years will receive the $10 million prize in Stage III.

This Challenge offers a true glimpse into the potential of Challenges to focus the research and development efforts of global communities of scientists and entrepreneurs, break down complex problems into achievable goals and milestones, and have a tremendous impact on global health and wellbeing.

Extending Reach Through InnoCentive Partners

In addition to InnoCentive’s 375,000-strong global Solver network, the reach of Challenges can be extended to millions more through InnoCentive’s partners.

Conclusion

Despite a tough few years, nonprofit organizations have a tremendous opportunity to achieve their goals and push their missions forward by embracing Challenge Driven Innovation. Imagine being able to harness the same proven innovation methods and tools that commercial enterprises have had at their disposal for years. Then imagine the energy and excitement that prize-based competitions can drive both within the organization and across external fundraising efforts. And finally, think about the actual solutions that can be delivered as a result of tapping into the collective wisdom of problem Solvers around the globe. Why not challenge the public to do good?

Authored by: InnoCentive, Inc.

For more information on how you can easily run your own Challenges to rapidly solve problems and accelerate your innovation outcomes, visit www.innocentive.com or call 1-855-276-9366 (North America) or +44 (0) 207 224 0110 (Non-US) to speak directly with a Consultant.

InnoCentive is the Open Innovation Pioneer and global leader in Challenge Driven Innovation. It is where leading commercial, non-profit and government organizations from around the world come to solve their important business, social, policy, scientific, and technical challenges. Worldwide headquarters in Waltham, MA, USA and EMEA headquarters in London, UK. www.innocentive.com.

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