

TEL PROJECT ACCELERATOR



Technology Exchange Lab Background Information

Founded in 2009, The Technology Exchange Lab (TEL) is a 501(c)(3) nonprofit organization that is dedicated to bringing communities out of poverty by fostering the exchange of innovative, cost-effective and sustainable solutions that improve the lives of people around the world. TEL is an information nexus where a global network of innovators, social entrepreneurs, NGOs and developing-region SMEs can propose, discover and source practical technology solutions to problems of poverty. Toward these ends, TEL provides two main services via its online platform (www.techxlab.org):

TEL Database

TEL's crowd-sourced database offers up-to-date, curated and globally accessible information on over 650 technology-based solutions in six key areas:

- Water & Sanitation
- Health & Medical Care
- Energy & Clean Cooking
- Agriculture & Tools
- Education & Connectivity
- Housing & Transport

Project Accelerator

A needs-based service, the Project Accelerator empowers NGOs and social entrepreneurs in developing regions to leverage appropriate technology solutions to maximize the impact of their development projects and social ventures. By employing a bottom-up process of needs assessment, TEL helps organizations identify and implement solutions that meet key standards of end-user desirability, organizational feasibility and financial viability.

Client Base

TEL clients include NGOs, community-based organizations, public-sector stakeholders, social entrepreneurs and more.

Our clients serve the 2.4 billion people that live on less than USD \$2 a day.



We're dedicated to maximizing the impact of development projects around the world by applying practical solutions to problems of poverty.

IN-DEPTH LOOK: TEL PROJECT ACCELERATOR

The Problem

Technology-based solutions have proven to be effective at combating a myriad of problems of poverty, but many NGOs, local entrepreneurs and developing-world communities lack the time and expertise to identify, assess and acquire appropriate solutions:



A grassroots organization in Southern India is looking to bring lighting to over 30,000 off-grid homes, but needs help identifying viable solutions.

A community-based organization in Sierra Leone wants to improve health outcomes through public hand washing programs, but lacks access to supply chains and funding.



An NGO in Northern India wants to pilot solar-energy solutions in last-mile communities, but it is inexperienced in conducting energy needs assessments.



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IN-DEPTH LOOK: TEL PROJECT ACCELERATOR

The Solution

TEL facilitates the implementation of high-impact, cost-effective technologies to people who need them most. TEL works with individuals and organizations at all stages of project development in order to:

- 1 Identify needs and opportunities
- 2 Discover potential solutions
- 3 Develop sustainable implementation models
- 4 Procure, test and implement solutions
- 5 Monitor, evaluate, iterate and promote success



Methodologies

The methodologies used throughout the Project Accelerator process include proprietary methods, IDEO's Human Centered Design Toolkit, and methodologies and toolkits developed by TEL's partner organization, the MIT D-Lab Scale-Ups Program.

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IDENTIFYING NEEDS AND OPPORTUNITIES

The majority of technologies and superior methods within TEL's database were developed and informed by a process of Human Centered Design in order to create solutions that respond to the needs, dreams and behaviors of end users. Likewise, by intimately understanding our clients and the stakeholders they serve, TEL empowers projects to deliver appropriate solutions that meet key standards of desirability, feasibility and viability.

To efficiently conduct needs assessments, clients begin by completing a simple form that captures information on:

- Project focus, challenges, goals, scope, countries/regions
- Description and number of stakeholders
- Minimum technology requirements
- Organizational capacities, competencies and human resources
- Project budget

Based on this preliminary information, TEL supports the client in conducting a combination of institutional interviews, stakeholder surveys and supply chain evaluations. The outputs of these assessments determine future courses of action, such as product family selection and distribution method and business modeling.

2 DISCOVERING SOLUTIONS

When clients need guidance in finding the right solution, TEL employs a bottom-up approach to match on-the-ground needs with appropriate technology. First, clients select solutions of interest from TEL's database, and then TEL representatives suggest additional options, resulting in a shortlist of fitting solutions with detailed specifications.

If no appropriate solutions are found, TEL will facilitate introductions to relevant innovators that have the potential to iterate existing technologies to the specifications of the client.



3 DEVELOPING BUSINESS MODELS

Even the most innovative solutions to development challenges can fail for a number of reasons, including lack of demand, adoption and viable supply chains. TEL works with clients to develop distribution and demand-generation strategies that are operable within local contexts. Whether clients' programs are nonprofit or social enterprises, TEL can introduce clients to an array of resources and options for fundraising, including:

- Prizes for innovation and social impact
- International and local microfinance Institutions
- Online crowd funding and microfinance platforms
- Grant opportunities

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PROCURING, TESTING AND IMPLEMENTING SOLUTIONS

If shortlisted solutions are ready-made products that present few logistical barriers to acquisition, TEL contacts solution providers to request demo units and puts both parties in direct communication. For each demo unit acquired, clients agree to submit reviews in the respective comment sections of each solution page within the TEL database.

If shortlisted solutions are superior methods, TEL provides additional resources, literature and online 'do-it-yourself' technical guides, as applicable. TEL may also put the client in touch with other practitioners of selected superior method solutions to exchange best practices.

Once demo units have been acquired and/or superior methods implemented, clients pilot solutions while documenting practicality and end-user acceptance. If solutions are accepted by users, logistically feasible and financially viable, it is the responsibility of the client to scale up the procurement, distribution and/or implementation of solutions. If solutions are not acceptable, further search, selection and testing will be conducted.

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MONITORING, EVALUATION AND PROMOTION

For TEL, recording and assessing impact is integral to not only measure efficacy, but also to consistently enhance the valuable services we provide to our clients. In exchange, and in addition to the data collected throughout the Project Accelerator process, TEL requires all clients to systematically track the progress and impact of their projects.



TEL also provides promotional opportunities for clients by helping them share their story with the world via original content creation and online publication across traditional and social media channels.



Light up Karnataka

Light Up Karnataka is a joint initiative between TEL and Brothers Integrated Rural Development Society (BIRDS) to power rural homes with point-of-use solar lighting solutions. By training local women as sales agents and outfitting retail shops with inventories of solar lights through a micro-consignment model, the program creates employment opportunities for local entrepreneurs, while also providing a safe, cost-effective and sustainable alternative to kerosene lamps and candles for thousands of families.

TEL's Approach

Upon engaging the organization through a detailed needs assessment, TEL initially identified and procured demo solar lighting solutions from five different providers for field testing and product focus groups. TEL also led fundraising efforts to purchase inventory and fund the entrepreneurship training program. TEL and BIRDS work continuously to monitor, evaluate and optimize the performance of the program.



The Results

After field testing five demo units and conducting extensive interviews with key participants, three Greenlight Planet solar lighting models were selected as viable solutions that responded to users' expressed needs and aspirations. TEL received a generous grant from the Dear Foundation to seed Light up Karnataka. BIRDS and TEL are now working with ten local entrepreneurs to light up off-grid villages in Karnataka with clean, affordable and durable lighting solutions.



Clean Water for Sierra Leone

COMIN-SL is a small nonprofit organization currently working to improve water and sanitation conditions within communities ravaged by the Ebola crisis. With little expertise in water and sanitation solutions, COMIN-SL is further challenged by a lack of financial resources, and logistical obstacles that prevent them from importing pre-manufactured water and sanitation solutions into Sierra Leone.

TEL's Approach

After working with COMIN-SL to identify the major issues faced by community members in relation to their water and sanitation needs, TEL introduced COMIN-SL to a variety of 'Do-It-Yourself' solutions that can be locally manufactured to provide clean drinking water and adequate sanitation facilities. Once COMIN-SL selected the solutions that best respond to their stakeholders' needs and desires, TEL provided the organization with detailed design specifications for the local manufacture of simple, robust water and sanitation technologies.



The Results

COMIN-SL selected the Tippy-Tap hand washing system and the Biosand water filter as two locally-implementable solutions to pilot within local schools, markets and community centers. Six Tippy Taps were installed as part of the initial pilot, and COMIN-SL continues to conduct community engagement seminars to educate stakeholders in the importance of hand washing, along with Tippy Tap use and maintenance. Once COMIN-SL has conducted an impact assessment of the Tippy-Tap pilot project, TEL will pursue funding opportunities to scale up successful projects.



Jaya Organic Yojana

Jaya Organic Yojana (JOY) is a grassroots movement in Karnataka, India, that leverages the collective power and network of Indian nonprofit organizations to restore soil fertility and provide business opportunities for thousands of impoverished villagers and farmers, by switching to organic farming and composting. At the core of JOY's activity is a training program that teaches thousands of villagers how to create nutrient-rich fertilizer through vermiculture, a process of composting that uses live earthworms, manure and green waste. Villagers can secure a livelihood by selling the fertilizer to farmers, who in turn benefit from organic farming practices.

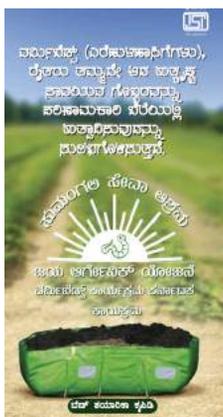
TEL's Approach

After conducting a field visit in Karnataka in late 2013, TEL began working with JOY to both raise the public profile of the movement through the creation and promotion of original content, and to secure partnerships with a major agrarian foundation in India: Morarka Organic in Rajasthan.



The Results

JOY secured a grant from the National Skills and Development Council of India, along with microloans to enroll and train 1,067 beneficiaries across 100 villages, in the first year. Beneficiaries have earned, on average, 3-4x their initial training fee, by selling organic fertilizers and surplus earthworms. Farmers' yields have increased, on average, by 50-60% by using organic fertilizers. Increased income generation has also led to expanded financial inclusion, and a reduction of rural flight as families and young adults find new opportunities at home. In its second year, JOY will enroll an additional 1,832 beneficiaries



The TEL team draws from diverse experiences and skillsets across management consulting, academia and entrepreneurship.

Leadership	Karen von Bismarck Co-founder, CEO and former consultant with The Boston Consulting Group	Gary Bergstrom, Ph.D Co-founder and founder of Acadian Asset Management
	Brennan Lake Programs Director and internet entrepreneur	Éadaoin Ilten, Ph.D Operations Manager and MIT Research Associate

Technology Exchange Lab Institutional Partnerships

As an independent and apolitical nonprofit organization, TEL is a public resource with no commercial allegiance. TEL believes in the power of leveraging mutually beneficial partnerships to help fulfill its mission. As such, TEL is proud to partner in various capacities with nonprofits, universities, social enterprises and other organizations, including:



- The Massachusetts Institute of Technology (MIT)
- The United Nations
- Siemens Stiftung
- USAID
- AID & International Development Forum



Past Client Organizations

