

Building a New Model of Acceleration While Building a Community

A GRAND CHALLENGES CASE STUDY



THE PROBLEM

A billion people on the planet do not have enough to eat. Changes in weather patterns combined with population shifts are compounding the problem. Increased agricultural production is needed; yet agriculture already accounted for 70% of worldwide water consumption in 2014¹. How can the industry grow more food without additional strain on the planet's water supply?

New ideas are needed and urgently. Promising innovations already exist, and new ideas are emerging, but often scientists and innovators do not have access to the business acumen that could help scale these solutions and bring them to market.

USAID, Sweden through the Swedish International Development Cooperation Agency (Sida), and the Ministry of Foreign Affairs of the Kingdom of the Netherlands recognized the imperative to identify and support innovators working in the water-agriculture nexus. These three founding partners launched Securing Water for Food (SWFF) in 2013 and, together with the newest partner, South Africa's Department of Science and Technology, provide funding and technical assistance to accelerate solutions that produce more food with less water.

1 World Bank data

Securing Water for Food (SWFF): A Grand Challenge for Development (GCD) sources and accelerates innovations that make more water available for food production, processing, and distribution; and enable the production of more food using less water.

OBJECTIVE

Promote science and technology solutions that enable the production of more food with less water and/or make more water available. Support the entrepreneurs and scientists behind groundbreaking new approaches with the targeted support they need to apply and expand their solutions around the world.

VISION

SWFF innovators successfully “graduate” from the program in a position of market-led financial sustainability, with innovations and solutions ready to scale.

SWFF is a network of active and alumni innovators as well as a consortium of technical service providers that work together on bringing innovations to scale.

SWFF’s Technical Assistance Facility works closely with innovators to identify specific barriers to scaling their business models and/or technologies, and then connects them to high-impact service providers that help them overcome those obstacles.

IMPROVING INNOVATOR SUPPORT

The SWFF partners set out to design a program that would not only fund promising innovators with good ideas, but would also help them rapidly expand their businesses and customer bases. In 2013, this was still a novel idea for most donors since investing in innovation meant accepting a higher level of risk.

“It’s said that new innovations fail 90% of the time,” explained Dr. Ku McMahan, USAID’s team lead on SWFF, “but the complex challenge that SWFF took on demanded a better rate of success. We wanted to structure a program that supported innovators in a way that would give them the highest chance at commercial uptake and scale.”

Before launching, SWFF partners undertook a rigorous analysis of existing solutions and barriers to their success. They also evaluated multiple development activities that focused on entrepreneurs and start-ups to understand what works and what doesn’t. In addition, the team thoughtfully designed a Request for Information to solicit insights directly from those that would ultimately respond to the call for innovations. This methodical approach centered around one question: How could SWFF provide both financial resources as well as business support in a way that genuinely moved innovators forward and would make progress toward the ultimate goal of producing more food with less water?

SWFF made it clear that participation in the program would include hands-on technical support. SWFF would carefully track innovators' progress and play an active role in their success.

SWFF designed a new kind of accelerator, drawing from a variety of models, with milestone-based funding and featuring a robust network of technical assistance to fully support innovator needs. Everything was measured, bold changes were made based on the data, and the partners focused on building the community of innovators.

“We are looking for innovators who can use SWFF funding as a catalyst ... If you have a product or business model that you would pitch to an investor, we want you to apply to SWFF.” –SWFF Round 3 Request for Applications, 2015

1 New model of acceleration: The SWFF team reviewed a variety of accelerator models, but didn't find any approaches that fit all of their objectives. They also reviewed other kinds of programs that support start-ups, both those previously supported by donors and those outside of the development realm. The team sought input from a variety of stakeholders, and in the end, devised a composite approach that drew on aspects of multiple models.

THE FOUR INSTITUTIONS THAT SUPPORT STARTUPS

| | INCUBATORS | ANGEL INVESTORS | ACCELERATORS | HYBRID |
|-------------------------|--------------------------------|-----------------------|-----------------------------------|---|
| Duration | 1 to 5 years | Ongoing | 3 to 6 months | 3 months to 2 years |
| Cohorts | No | No | Yes | No |
| Business Model | Rent; nonprofit | Investment | Investment; can also be nonprofit | Investment; can also be nonprofit |
| Selection | Noncompetitive | Competitive, ongoing | Competitive, cyclical | Competitive, ongoing |
| Venture Stage | Early or late | Early | Early | Early |
| Education | Ad hoc, human resources, legal | None | Seminars | Various incubator and accelerator practices |
| Mentorship | Minimal, tactical | As needed by investor | Intense, by self and others | Staff expert support, some mentoring |
| Venture Location | On-site | Off-site | On-site | On-site |

Source “What do Accelerators Do? Insights from Incubators and Angels” by Susan Cohen, 2013; Adaptations by Ian Hathaway in Harvard Business Review 2016.

SWFF wanted to offer the intense kind of mentorship that was a hallmark of accelerators, but knew that a longer timeframe would be needed if the selected innovators would be spread across multiple countries. They also knew that the education aspect – the direct business support for SWFF innovators – had to be tailored to both the innovation (product or business model) as well as the specific market conditions.

“Accelerators aren't new in the development world. We looked at a lot of different approaches, but there was nothing that would match the kind of hands-on work we wanted to do in this sector. In the end, we borrowed a few of the best concepts from others, and then added our own ideas. We had to build an entirely new model in order to do what we wanted to do.” – Dr. Ku McMahan, SWFF Team Lead

2 Mile-stone based financing: Instead of providing full lump-sum grants to innovators, SWFF designed a milestone-based system where, after an initial tranche at the beginning, additional funding would only be available once agreed-upon annual milestones were met. The milestones, individually set for each innovator and identified collaboratively, were clearly defined and designed to be ambitious.

The amounts in the second and third years were higher than the first year, to further motivate innovators to reach the agreed-upon goals, which also increased annually in scope and challenge for each innovator. “The bar is higher [in the out years] because funding amounts are higher,” explained Dr. McMahan. If an innovator failed to meet targets, even after remediation efforts, further funding was cancelled.



How SWFF’s Milestone-Based Funding Works

TIER 1 FUNDING

All innovators received \$100,000, disbursed in installments when requested deliverables or information were received. If they met 80% of Year 1 targets, they received Year 2 money – \$150,000 – in tranches as milestones were reached. Finally, if they reached Year 2 targets, they received \$250,000 in the last year of the award.

TIER 2 FUNDING

Although the structure for Tier 2 innovator funding changed slightly over time, each innovator received a maximum of \$500,000 in the first year, \$1-1.5M in the second year, and the remainder (\$1-2M) in the third year.



3 Robust network of technical assistance providers: Innovators and their businesses are at the center of all of SWFF’s activities. The SWFF partners set out to deliver multi-layered, individualized and responsive support to their selected entrepreneurs. Critically, this support was focused on helping the innovators to unlock funding past the first year; in this way the technical assistance was directly linked to the innovator’s ability to grow and to scale their solutions.

To achieve these linked objectives, the team provides four lines of technical assistance support to SWFF firms:

a. Direct support from the SWFF Technical Assistance Facility

The SWFF Technical Assistance Facility (TA Facility), a project of The Kaizen Company, is the central component of the program’s approach to acceleration. The TA Facility works with each innovator on

an initial needs assessment when they enter the program. By evaluating an innovator's product and services, business plan, market assessment, and finances, the TA Facility can form a general picture of what services will be needed right from the start.

From the diagnostic needs assessment, the TA Facility works closely with each innovator to develop an annual work plan; the parties jointly define the milestones that, if reached, will unlock the next level of funding. The work plan documents specific activities, deliverables, assumptions and stakeholder commitments. During this process, specific TA needs are identified that will move the firm toward its annual goals. Each innovator is entitled to roughly the same amount of technical assistance (approximately \$15,000 value). If a specific need goes beyond what is available then a request can be made to either increase the budget allocation or go outside the network for specific support.

The TA Facility has a staff of five, and works with all selected innovators on SWFF program start-up and planning, and provides some technical assistance directly, such as business model development, strategic thinking and financial planning, human resources development, and M&E.

b. Individualized technical assistance from the TA Facility network of vendors

Most TA services for innovators are provided through a network of vendors identified and vetted by SWFF. These 38 firms offer a wide range of services, including partnership development; business model and strategy development; product development; supply chain management; human resources management; investor readiness; and market research and analysis.

If specialized services are required by an innovator that are not readily available in the existing consortium, the TA Facility works with them to procure it outside the network. For in-network providers, innovators interview the top two or three service providers in a needed category to gauge the expertise the vendor would bring to the assignment, determine their own ability to work well with them, and assess the vendor's knowledge of the marketplace. Innovators then select their own providers, depending on their business needs, and design a scope of work targeting the specific support they require. Afterward, the innovator rates the service they received (see below section on measurement).

c. Strategic planning and other support from USAID

In addition to the variety of services available through the TA Facility and its network, SWFF innovators benefit from strategic planning and linkages from USAID. The Team Lead visits many of the innovators at their place of operations, and is able to assist on the spot with strategic planning issues or data collection for M&E reporting. While this support is not usually focused on a specific measurable outcome, it can help foundational and/or strategic issues for innovators that can improve overall performance.

In addition, the Team Lead makes linkages, where appropriate, to other relevant USAID activities in-country, and to appropriate investors that reach out to USAID.

One of the benefits of this hands-on engagement is the possibility of cross-pollination. If the Team Lead sees that a certain system or approach is working well with one innovator, he is able to provide that

example and then work with the innovator to explore whether it can be adapted. “In that way,” explains Ku McMahan, “I might be able to help them see holes that they may not see themselves. I’ve seen other innovators struggle with the same issues and can share what has worked elsewhere.”

d. Pro-bono support from interested organizations

Pro bono support is sometimes available for SWFF innovators when an organization hears of the program or of a specific business success and offers to share resources or linkages. For example, a university or NGO may offer to work with SWFF awardees to advance progress in a geography or market sector. The SWFF team evaluates these offers of support and makes linkages where appropriate.



How SWFF’s Milestone-Based Funding Works

The partners coalesced around an approach that focused on three topic areas that appeared to be key to solutions: water re-use and efficiency; water capture and storage; and salinity and saltwater intrusion. Within those areas, the partners narrowed their call for ideas to two types of companies:

STAGE 1

Early stage companies that had piloted innovative technologies or business models, and were seeking replication or adaptation to new markets or countries. These companies would be eligible for up to \$500,000 in grant funding, and would be required to contribute significant resources from internal or external sources.

STAGE 2

Companies that had already tested a product or business model, had existing customers and were seeking to grow. Stage 2 companies were expected to have some existing financing, and would also be required to contribute their own (or partner) resources. These companies would be eligible for up to \$3 million in SWFF grant funding.

4 Measure everything. The SWFF team places a strong emphasis on data, and measures multiple aspects of innovator performance as well as the performance of the SWFF TA Facility, and the overall program. The Founding Partners actively review and discuss the data, and have not been afraid to make changes when progress stalled or something was not working.

The innovators report every 6 months on their progress toward meeting milestones, and the SWFF team and TA Facility offers advice and support when things get stuck. All parties work to support the innovator in reaching annual goals and thus improving their ability to receive the next tranche of funding.

“We take innovator feedback seriously and improve our processes accordingly. We aim to provide the innovators with the most relevant, high-quality technical resources that will move their business forward.” – SWFF Technical Assistance Facility

The technical assistance providers are also reviewed and rated by the innovators. The SWFF team evaluates both short-term and long-term success of the technical assistance. Over the long term, providers are measured on whether their services and advice result in long-term business success². The TA Facility uses a distinct measurement tool – “a promoter score” – which reflects the degree to which innovators would recommend a provider to their peers. The team examines these scores carefully and uses them to determine which providers and types of services provide value.

During the first year, it became clear that the innovators preferred receiving technical support from vendors who understood the local market conditions and context. The TA Facility recruited more vendors who worked in the countries where SWFF innovators reside and both satisfaction and results improved. “The vendors who came in from abroad faced a lot of challenges they didn’t expect, which affected the way in which they could support the innovators,” said Dr. McMahan. “When we got more innovators and providers from developing countries, we got better results because expectations matched.”

Similarly, when innovators said that the start-up process to get TA took too long, the TA Facility developed a catalog of both scopes of work and work plans within common support categories, reducing the paperwork needed for new work requests.

5 They focused on building the community. Typical start-up accelerators accept companies in cohorts, knowing that entrepreneurs can form a strong network that can provide support as the firms grow. The SWFF team also believed in the value of supporting a group of companies that would be receiving services simultaneously; however, SWFF innovators were spread across the globe, with many in rural or semi-rural areas.

So SWFF thought carefully through the ways that a community could be engaged and supported. The SWFF program intentionally and proactively connects innovators to each other. Although the network is active in more than thirty countries, innovators often find they have common challenges, allowing them to share ideas, resources, and approaches.

Innovators connect online via the SWFF program. They also meet each other in person each year during SWFF annual meetings. Tellingly, even companies that have graduated from the SWFF program often return to these annual meetings, in order to stay connected to the program and to each other. In addition, the innovators have created their own social media groups to share pictures, lessons learned, and maintain their annual meeting connections.

² From annual report: A support engagement is identified as a long-term success if the services delivered are adopted and applied by the innovator, and if it results in valuable outcomes such as a shift in strategy, an effective partnership, additional funding, new financial forecasting capabilities, or an improved product design.

SWFF INNOVATOR INPUT

Needs Assessment

- » What services would help your business grow?
- » How detailed is your financial plan?

Work Plan

- » What activities are planned for the next 12 months?
- » Will these activities help your company reach its objectives for the next round of SWFF funding?

Gender

- » How do you reach women as customers?
- » How are women involved in key strategic decision-making in your organization?

TA Provider Selection

- » Which provider’s expertise best matches what you need?
- » How quickly can they respond?

TA Provider Assessment

- » Did you receive what you expected?
- » Would you recommend this TA provider to other innovators?

And although the friendships among SWFF innovators are real, connections often extend into bottom-line business relationships as well. Partnerships have been formed between the innovators and they are providing resources and services to each other.

 *“In some ways, connecting the innovators to each other is the most important thing we’ve done. The results are just astonishing, and really gratifying. Even though they may be on different continents, our innovators understand each other’s challenges and can offer potential solutions that could only come from working on the ground, on the same issues, themselves.”* – Dr. Ku McMahon, SWFF Team Lead

IMPACT

SWFF’s unique approach is working. As of August 2018, SWFF innovators have helped farmers and other customers reduce their water consumption by 11.5 billion liters in comparison to traditional ag practices, helped farmers produce more than three and a half million tons of food and reach more than 6 million farmers and other customers. More than six million hectares of rangeland and cropland are under improved practices due in part to SWFF innovations. Innovators have also leveraged SWFF funding for more than \$16 million in additional funding through more than 150 partnerships and achieved more than \$5 million in sales.

Since its inception through mid-2018, the TA Facility delivered more than 150 support packages (total value over \$1.5 million) directly to innovators, and that technical support makes SWFF’s grant funding more effective. While these numbers are impressive, they also bolster the conclusions SWFF reached when innovator performance was measured against peers who were not selected for the program. Comparing SWFF innovators, finalists and non-finalists, SWFF innovators have been able to scale more rapidly than non-awardees. SWFF innovators are more likely to have formed partnerships that help them scale, met or exceeded their own expectations, and advanced from pre-commercialization to early commercialization phase when compared to finalists and non-finalists.

INSIGHTS / LESSONS LEARNED

- **It’s important to stop doing what doesn’t work.** SWFF’s approach of being closely involved with the innovators, and of regularly assessing data, means that the team could quickly see when things were not working. Changing a particular approach or process, or making a more drastic change when things weren’t working, was part of the team’s insistence on impact and scale.

For example, the TA Facility started with only three vendors available to support grantees. This meant some innovators – eager to grow their companies – had to wait a long time for targeted support. SWFF changed the approach to a voucher system, allowing a much larger pool of vendors to bid on work where they were well-qualified and could meet timing requirements. (This reduced the amount of money each vendor received from USAID, but dramatically improved their scores in innovator satisfaction ratings).

Similarly, when innovators expressed a strong preference for local service providers who could navigate the local market conditions rather than the international vendors available, the SWFF team identified and vetted local actors, and now more than half of SWFF technical assistance system

service providers are based in regions where innovators operate. In addition to improving promoter scores for individual vendors, innovators reported an increased overall satisfaction with support received from the TA Facility.

- **Technical assistance and support can improve over time, even with geographically diverse cohorts.** By 2018, the TA Facility had provided assistance, or overseen vendor services, to all SWFF innovators. This history of deep engagement gave TA Facility staff insight into an innovator's organizational development, and to develop core offerings that would assist all SWFF innovators in the water-agriculture sector. Now, only about 20% of the TA Facility technical assistance needs to be contextualized for individual companies. "We've learned what we're really good at," said one TA Facility staff member, "We know where we can add value ourselves and where a vendor would be a better choice." Their experience allows the TA Facility to not only recommend specific technical assistance, but also to be able to describe anticipated results based on past engagements, adding further motivation for innovators.
- **For entrepreneurs focused on growth, quick wins can build momentum for longer-term efforts.** The SWFF team found that TA support was more effective and rated higher by users when it was broken down into smaller chunks. Innovators met their targets faster when they could experience quick wins and show more immediate progress toward milestones. The SWFF team noted that this built momentum toward the final milestones and targets, and boosted confidence when innovators were asked to change their approach or try something new.

BARRIERS & CHALLENGES

- **More early-stage companies applied than were expected.** When the Challenge was launched, the SWFF team expected more interest from Tier 2 entrepreneurs, who would be poised for commercial growth and scale. Instead, in early rounds the SWFF team saw many more applications from Tier 1 innovators -- smaller firms at an earlier stage of business development. In addition, in subsequent rounds the percentage of applicants from local innovators (based in the country of operation) increased. While a majority of innovators are still early stage, even in Round 4, "They're moving really fast," says Dr. McMahan. "We've got a target that each of them reach at least 10,000 customers or end users. That's really a stretch for some of them; we're pushing them, in a good way, and it's exciting to see them reach those goals."
- **Linking innovators to private investment was an ambitious target.** Connecting innovators to private investors was part of the original vision of the SWFF approach. Despite offering investor readiness services through the TA Facility, organizing large-scale events like the 2016 Innovation Investor Summit, and making individual introductions, securing follow-on private investment has remained a challenge for some innovators. The SWFF team is actively developing a solution that may serve as a bridge from donor funding to private investment for SWFF alumni.

HOW TO BUILD A TA FACILITY / INCUBATOR / ACCELERATOR

- **Borrow good ideas. Don't start from scratch.** Accelerators and incubators have become part of the development landscape. You don't have to start from scratch. Review approaches and methods, and see what fits for your project and grantee organizations. Don't be afraid to copy good ideas, and then improve on them to make your activities even more effective.
- **Make sure that technical assistance ecosystem already exists.** SWFF was able to offer a wide range of services, but the service providers already existed, some of whom required capacity building and mentoring. If an ecosystem is not already in place or services providers require extensive capacity building, this model may not work for you.
- **Consider outsourcing the management of TA service providers.** A robust network of technical assistance providers requires dedicated management as well as regular monitoring of quality and responsiveness. The more complex the network, the higher the management burden. SWFF provided a full suite of services to its innovators, and found it necessary to have an implementer manage this piece of the work.
- **Get on the ground early (and plan for this in the budget).** The SWFF team found that site visits early in the process – even as part of innovator selection – was an important factor. Video conferencing cannot replace face-to-face discussions, nor does it allow to the core team to get an up-close, tangible sense of the business, its processes and products. Depending on the location, site visits may not be a large barrier for Missions visiting local applicants.
- **Manage expectations between awardees and service providers.** Managing expectations of what kind of services would be provided to SWFF innovators, how many services would be available for each organization, and over what time frame, took some adjustment. In Year 2, the TA Facility revised the work plan template that was used to frame support, more clearly defining which services are included and which are not.