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# DEVELOPMENT INNOVATIONS CONSOLIDATED RESULTS AND LEARNING ASSESSMENT 2013-2019

Lessons Learned and Considerations for Future  
Investments in Innovative Civil Society Programs

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## TABLE OF CONTENTS

TABLE OF CONTENTS.....	1
ACRONYMS.....	2
EXECUTIVE SUMMARY.....	3
INTRODUCTION.....	5
ASSESSMENT METHODOLOGY AND LIMITATIONS .....	6
DI'S EVOLUTION .....	7
OVERALL FINDINGS.....	8
MULTIPLIER EFFECTS AND UNEXPECTED OUTCOMES.....	21
SUSTAINABILITY .....	27
RECOMMENDATIONS .....	31
CONCLUSION .....	37
Annex A – List of Documents Reviewed .....	38
Annex B – List of Interviewees.....	40
Annex C – List of awards, scholarships, and international recognition for DI staff, partners, and beneficiaries.....	42

## ACRONYMS

API	Advocacy and Policy Institute	MoEYS	Ministry of Education, Youth and Sport
ASEAN	Association of Southeast Asian Nations	MOU	Memorandum of Understanding
CBRD	Capacity Building, Research and Development (fund)	MPTC	Ministry of Post and Telecommunications
CCC	Cooperation Committee for Cambodia	MSP	Mekong Strategic Partners
CCIM	Cambodian Centre for Independent Media	NIPTICT	National Institute for Post, Telecoms and ICT
CCSS	Cambodia Civil Society Strengthening Program	OI	Open Institute
CIF	Children in Families	OTI	Office of Transition Initiatives
CJ	Citizen Journalist	PIN	People in Need
CLA	Collaborating, Learning and Adapting	R&L	Results and Learning
CSO	Civil Society Organization	RGC	Royal Government of Cambodia
CSR	Corporate Social Responsibility	SFB	Supporting Forests and Biodiversity Program
CTIP	Counter Trafficking in Persons	SHE	Support Her Enterprise Investments
DDGS	Direct Distribution of Goods and Services	SILK	Social Innovation Lab Kampuchea
DG	Democratic Governance	SK/R	Saturday Kids/Raintree
DI	Development Innovations	SME	Small and Medium Enterprise(s)
DW	Deutsche Welle	SoC	Sisters of Code
EPIC	Entrepreneurship Program for ICT Change	STTA	Short Term Technical Assistance
ESCAP	Economic and Social Commission for Asia and the Pacific	STEM	Science, Technology, Engineering and Mathematics
EWMI	East West Management Institute	TdH	Terres des Hommes
FAA	Fixed Award Amount	TEST	Technology for Education Systems Transformation
FGD	Focus Group Discussion	TI	Transparency International Cambodia
HCD	Human-Centered Design	TLC	The Lake Clinic
ICT	Information and Communication Technology	TOT	Training of Trainers
IHPP	Impact Hub Phnom Penh	TRC	Telecommunications Regulator of Cambodia
ILO	International Labour Organization	TSP	Technical Service Provider
InSTEDD	Innovative Support to Emergencies, Diseases and Disasters	TTC	Teacher Training College
IoT	Internet of Things	UN	United Nations
IT	Information Technology	UNDP	United Nations Development Programme
ITC	Institute of Technology of Cambodia	UNICEF	United Nations Children's Fund
KYA	Khmer Youth Association	URC	University Research Center
MEL	Monitoring, Evaluation and Learning	USAID	US Agency for International Development
MFI	Micro-Finance Institution	USG	United States Government
MoEF	Ministry of Economy and Finance	VBNK	Vicheastan Bamreu Neak Krubkrong Kangea Aphiwat
		WE	World Education
		YEA	Young Eco-Ambassador
		YI	Young Innovators
		YIC	Youth Innovate Cambodia
		YP	Young Professionals

## EXECUTIVE SUMMARY

Development Innovations (DI) is a six-year, \$12M project funded by the United States Agency for International Development (USAID) in Cambodia that helps civil society organizations (CSOs), technology companies, and social enterprises and young innovators to design and use information and communication technology (ICT) solutions and employ innovative processes to tackle Cambodia's development challenges. Shortly before DI's end in November 2019, the DI team commissioned a project-wide results & learning assessment. This assessment sought to capture key results and lessons learned over the entire six-year lifespan of the project and provide a set of considerations for future innovation-focused civil society programs in Cambodia and globally.

The review concludes that DI did achieve its goal of “fostering an ecosystem of tech-enabled CSOs and Cambodian suppliers of technology solutions to help civil society use ICTs to improve programming, reach and impact.”<sup>1</sup> Its top line findings are summarized as follows:

***Adaptive management improved focus and activity quality over program's life.*** From the beginning, DI learned more from its failures than its successes. This applied learning has led to more targeted objectives and offerings. As the program became more targeted, it developed higher quality interventions and obtained improved outcomes. Adaptive management inspired DI staff, partners and service providers to maximize each investment.

***DI catalyzed behavior change amongst partners, beneficiaries and the public sector.*** Over the program's life, DI demonstrated different ways of doing business with its partners, beneficiaries and other stakeholders. As a result, each year brought new stories of uptake, replication and, most importantly, adaptation across the civic technology ecosystem. Partners modelled and institutionalized DI processes and practices, extending DI's influence well beyond the program's life. In addition, DI facilitated organizational mindset shifts, enabling civic technology stakeholders to develop in unexpected ways.

***DI assistance, networks and convening power conferred and increased credibility to partners' reputations and profiles, attracting the attention, support and respect of government ministries, international donors and the private sector.*** DI played a central role in fostering Cambodia's budding civic technology ecosystem by positioning itself as the country's primary civic technology nexus, linking civil society to the tech sector. In attracting major private sector players, the public sector and donors, DI brought together disparate actors, consolidating the civic technology ecosystem. DI conferred its partner's credibility with prominent national and international stakeholders. Moreover, it served as a cross-sectoral bridge for USAID, reinforcing programmatic integration and coordination.

As the development and civic technology communities look to the future, the assessment team proposes the following considerations when designing similar programs:

### ***Improving Activity Designs and the Co-design Phase***

- Building a rapid activity co-design process into every future program.
- Encouraging more partner investment in proposed activities.
- Applying HCD principles throughout all activity stages.
- Striking a balance between quantity and quality for trainings.
- Targeting youth as information and tech disseminators.
- Tailoring all program content to the local context and local language.
- Considering different manifestations of sustainability.

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<sup>1</sup> Development Innovations Year 6 Extension document.

### ***Streamlining Funding Processes and Mechanisms for Partners***

- Minimizing bureaucracy and regulatory obstacles while emphasizing agility and responsiveness in grants management.
- Simplifying fixed award amount (FAA) grant milestones and deliverables.
- Exploring alternative funding mechanisms for smaller activities.

### ***Providing More Tailored Integrated Assistance to Partners***

- Offering an individualized integrated service suite that complements grant funding.
- Segmenting partners by capacity and skill level to target appropriate support.
- Coupling entrepreneurship training with digital skills training for an integrated skills development package.
- Selecting and customizing mentorship recruitment, retention and coordination.
- Hiring an appropriate number of capable staff across all areas of the program.

### ***Optimizing Communications with Programs and Activities***

- Recruiting a well-staffed strategic communications and/or social media team.
- Developing a program-wide strategic communications plan.
- Building in strategic communications support to partners.

### ***Fostering Relationships and Managing Perceptions and Expectations of Civic Technology Programs***

- Providing a comprehensive orientation to partners.
- Fostering collaborative relationships between CSOs, social enterprises and TSPs.
- Reiterating program goals, roles and responsibilities with current and potential partners.

### ***Championing a Collaborative, Adaptive Learning Culture***

- Enshrining CLA culture at the program design and implementation stage.
- Investing heavily in rapid or design research.
- Holding regular program level reflection, lessons learned and strategic review sessions.

### ***Cultivating, Expanding and Solidifying the Civic Technology Ecosystem***

- Investing time in understanding the local tech ecosystem and the existing civil society/tech nexus.
- Pulling in the private sector, public sector or other development actors, where interests align.
- Linking partners and initiatives to each other.
- Promoting existing civic technology networking events and encouraging other organizations to host them.

## INTRODUCTION

### **Technology Use and Growth in Cambodia (Project Context)**

Technology use in Cambodia has burgeoned in the last five years. According to the Telecommunications Regulator of Cambodia's (TRC) August 2019 statistics, Cambodia has 21.4 million mobile subscribers, equivalent to a 134% mobile penetration rate. This ranks among the highest in the world, according to Mekong Strategic Partners' and Raintree's 2019 *Start-Up Kingdom* report. Similarly, the TRC also reports 16.1 million internet subscribers in August 2019. This represents an 18% increase over 2018's 13.6 million figure and a remarkable 98% increase over 2016's 8.1 million subscribers. This level of internet penetration is likely driven by smartphone usage.

Reflecting the rapid rise of mobile phone and internet penetration in Cambodia, social media use has surged. In particular, Facebook use by Cambodians has seen significant increases over the past three years. In 2016, 3.4 million Cambodians used Facebook; by 2019, that figure had soared to 8.8 million – more than 50% of Cambodia's population. Crucially, Facebook usage was heavily concentrated in the country's youth cohort. The 18-35-year old age bracket constituted 83% of all Facebook users nationwide.<sup>2</sup> *Start-Up Kingdom* cites a statistic showing that 38% of survey respondents in Cambodia had accessed the internet, while 47% reported accessing Facebook. This shows the extent to which the internet and social media are widely perceived to be one and the same. Accordingly, Facebook and Youtube were two of the five most visited websites in Cambodia in 2018.<sup>3</sup>

The above-referenced statistics also reflect the dramatic uptake of technology among Cambodian civil society and civil society organizations (CSOs). In 2013, the tech innovation sector was largely fragmented, with a handful of CSOs implementing technology-enabled social innovations. Since then, Cambodia's CSOs have increasingly turned to new technologies to address social issues. They have experimented with new tools, techniques and processes, positively impacting Cambodians, from flood-prone community members to female entrepreneurs. Both civil society and the private sector have benefited from the strides made by creative start-ups in the civic technology space.

### **Development Innovations Project Background**

USAID launched the Development Innovations (DI) project with the goal of fostering an ecosystem of tech-enabled CSOs and Cambodian suppliers of technology solutions to help civil society use information and communication technologies (ICTs) to improve their programming, reach and impact<sup>4</sup>. Now completing its sixth and final year, DI's objectives for the period 2018-2019 are:

- Objective 1: Girls and women have increased access to opportunities in technology, innovation, and entrepreneurship.
- Objective 2: Tools, resources, and mechanisms to propel Cambodian innovation are advanced.

DI defines innovation as “trying something new to improve results and can take three main forms: 1) creating totally new tools or solutions, 2) applying existing tools or solutions to a new partner, and/or 3) applying an existing tool or solution to a new user”<sup>5</sup>.

DI defines the civic technology ecosystem as the space and networks between civil society actors, the private sector and government who use technologies to improve civic life, especially in social and economic development, participation in public decision making and government service delivery. The

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<sup>2</sup> “Cambodia's 2019 Social Media & Digital Statistics” by Chloe Ang, Geeks in Cambodia, 16 July 2019.

<sup>3</sup> “Start-Up Kingdom: Cambodia's Vibrant Tech Start-Up Ecosystem in 2018” by Bora Kem, Jolyda Sou, Zoe Ng, and Penhleak Chan, 1 January 2019, Page 8.

<sup>4</sup> Development Innovations Year 6 Extension Concept.

<sup>5</sup> Development Innovations Year Six/FY 18-19 Work Plan.

technologies may be developed by CSOs, social enterprises, for-profit companies or the government itself<sup>6</sup>.

### ***Consolidated Results and Learning Assessment***

As the program comes to a close, DI seeks to capture the stories of change, impact of programming decisions, performance against objectives, key results and lessons learned. It contracted a results and learning (R&L) assessment team to analyze DI program resources and documents, grantee and local partner reports and external evaluations/reviews. Furthermore, it asked the team to conduct interviews with DI's YI-6 partners, grantees and clients, as well as external actors in the tech and innovation ecosystem. The assessment has been intended as a qualitative, anecdotal review; as such, the reviewers hope its conclusions and recommendations will be considered within that framework.

## **ASSESSMENT METHODOLOGY AND LIMITATIONS**

### ***Methodology***

The assessment team consisted of two consultants: Inta Plostins, a Digital Specialist with DAI's Center for Digital Acceleration, who provides digital advisory services across DAI's international development project portfolio, and Laurie Pierce, a governance and civil society engagement consultant with experience in Cambodia and the surrounding region. The assessment comprised two phases over a six-week period. The first phase included a comprehensive review of program documents, reports and related literature to familiarize the reviewers with the program's evolution, primary actors, activities and results (Annex A). Phase 2 consisted of 47 key informant interviews, including current DI and DAI staff, CSO and private sector partners, selected individual beneficiaries, technical service providers (TSPs) and key sector stakeholders. Annex B contains a complete interviewee list. In addition, the assessment team attended the DI Expo 2019, the project's final event, which deepened its knowledge of sector trends and specific tech solutions.

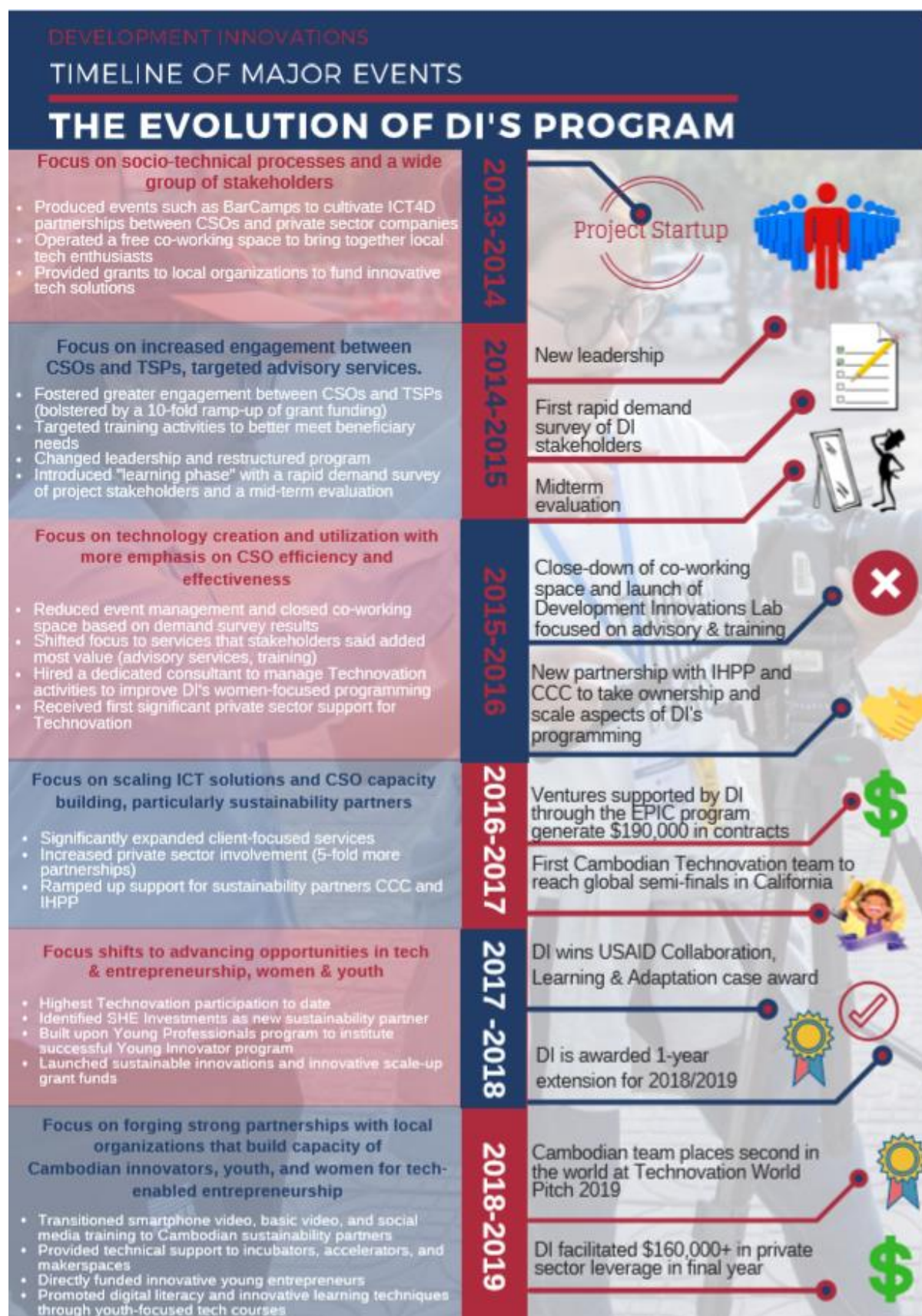
### ***Limitations***

The assessment's most significant limitations were time and travel constraints. The two reviewers started at different times, meaning that some interviews did not contain both perspectives. In addition, some key former staff were unavailable and beneficiary access was limited due to time and geography. Finally, the evidence contained herein is largely anecdotal. While some data exist to support these anecdotes, the impact is not quantitatively modelled or otherwise calculated.

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<sup>6</sup> Adapted from "Guide to Civic Tech and Ecosystem mapping", Olivia Arena and Crystal Li, June 2018, Urban Institute; and Stacy Donohue, Investment Partner, Omidyar Network, September 2017, via Forbes Magazine website and Quora.

# DI'S EVOLUTION





## OVERALL FINDINGS

Based on document reviews and key stakeholder interviews, the assessment team obtained high level insights about DI's role within and impact on the broader Cambodian civic technology ecosystem. The assessment team observes that DI became a more responsive, effective and targeted program at each iteration. Similarly, its results and outcomes seemed increasingly more relevant and enduring. The reviewers conclude that DI has achieved its original goal of “fostering an ecosystem of tech-enabled civil society organizations (CSOs) and Cambodian suppliers of technology solutions to help civil society use information and communication technologies (ICTs) to improve their programming, reach and impact”<sup>7</sup>.

These findings below describe DI's adaptive approach to spur innovation and build ICT capacity within Cambodia's civil society and tech entrepreneur community, DI's influence on behavior change within that community and the evolving nature of DI's role within the Cambodian civic technology ecosystem<sup>8</sup>. Each finding is underpinned by success factors, many of which are lessons learned that DI later applied to the overarching program and subsequent activities, and related challenges.

### **A. Adaptive management improved focus and activity quality over program's life.**

Since its inception, DI has been on an evolutionary journey that few other development programs can claim. A comparison between each year's work plans and the program's current focus demonstrates a commitment to adaptive management, pushing DI to learn, redefine itself and increase its impact over time. From DI's first days until the present, technology in search of development applications has given way to development problems for which technological solutions are appropriate. This has led to more sustainable outcomes and, thus, greater impact<sup>9</sup>.

From the beginning, DI has been a safe space in which to explore, fail and learn. In fact, the program has learned more from its failures than its successes. For example, DI staff and partners took the lessons from early activities without an end user focus and applied human-centered design (HCD) to the next activity round, with much more positive results. Applied learning has led to more targeted objectives and offerings, resulting in more realistic activities and time frames and fewer modifications<sup>10</sup>.

As the program has become more specific, it has developed higher quality interventions and obtained improved outcomes. HCD, MEL (monitoring, evaluation and learning) and integrated solutions are now the program's norms. Earlier dichotomies between CSOs and TSPs have transformed into CSO-TSP partnership<sup>11</sup>. Adaptive management has inspired DI staff, partners and service providers to get the most from each investment. As a result of the program's successful application of collaborating, learning and adapting (CLA) principles, USAID selected DI as one of the CLA Case Competition award winners for 2017<sup>12</sup>.

**AI. DI's integrated service offerings improved over time, delivering far greater impact to partners than funding alone.** DI's integrated service offerings (grants, training, coaching, communications, etc.) have become more finely tuned over time, leading to more enduring adoption and behavior change. Integrated service offerings are partner services that accompany grant funding. These include special skills training, coaching linked to training topics, networking and convening

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<sup>7</sup> Development Innovations Year 6 Extension document.

<sup>8</sup> For the purposes of this review, the assessment team will use the term civic technology ecosystem.

<sup>9</sup> “Development Innovations Results and Learning Review”, Laurie Pierce and Karim Bin-Humam, June 2018, Page 10, USAID.

<sup>10</sup> Ibid, Page 10.

<sup>11</sup> Ibid, Page 11.

<sup>12</sup> Ibid, Page 11.

events, and strategic communications support such as partner publicity, optimal social media use and storytelling. Partners received different integrated assistance packages based on individual activity objectives, organizational needs and staff capacity levels.

Evidence demonstrates that organizations receiving integrated assistance packages alongside grant funding had higher quality and more sustainable results than those organizations receiving funding alone. For example, early DI partner Cambodian Center for Independent Media (CCIM) received a grant to develop the Citizen News Wire mobile application but chose not to access associated DI services during the design phase. Theoretically, this application was intended for local citizen journalists (CJ) to upload story content and photographs, which CCIM staff in Phnom Penh could immediately access. However, its design did not take into consideration CJ familiarity with and strong preference for Facebook, nor connectivity concerns in remote communities. A recent interview with CCIM revealed that the application as developed under DI in 2015 and 2016 is no longer in use because it did not serve the needs of its user base. In contrast, SHE Investments' most recent DI support included funding for upgrades to the *Ngeay Ngeay* small business registration and information portal, further training, coaching, communications promotion and facilitation with DI's networks. As a result, SHE's initiatives, from the portal to its recent international engagements, have continued to flourish.

In Year 6, DI's comprehensive support enabled organizations to take the next step in growth by ensuring that each partner staff level received training, coaching and follow-up advisory services. Multiple partners indicated that DI's assistance "came at the right time", reflecting DI's responsiveness to the tech community's needs and ground realities. For instance, DI's assistance to Impact Hub Phnom Penh (IHPP) – funding and technical assistance for the Entrepreneurship Program for ICT Change (EPIC) early stage start-up incubator and accelerator – accorded them credibility and legitimacy that yielded many new partnerships. Since then, IHPP has attracted funding from numerous donors, including United Nations (UN) agencies, Smart Axiata and the US embassy for a range of entrepreneurship services. It has also replicated DI's convener model, hosting Malaysia's Global Innovation Centre and the ASEAN Centre for Entrepreneurship start-up workshop in September 2019. IHPP's most recent accolade came in October 2019, when it won the "Best Accelerator and Incubator Program in Cambodia" category at the Association of Southeast Asian Nations (ASEAN) Rice Bowl Start-up Awards, the Southeast Asia division of the Global Start-up Awards.

One of EPIC's breakout stars was Edemy, which has gone from beneficiary to DI partner to successful entrepreneur, garnering major contracts with Cambodian government and the private sector. DI has provided Edemy with a suite of assistance, including grant funding, video and social media training, coaching and access to DI networks. During their most recent DI-funded initiative, the *Tesdopi* application that teaches effective science, technology, engineering and mathematics (STEM) subject learning to students preparing for the high school completion exam, Edemy leveraged DI's integrated support to promote a student competition on Facebook. The competition announcements went viral, achieving 1.3 million in reach on Cambodia's favorite social media platform.

***"By working with DI, we have produced media strategic plan, expanded our team, used our media equipment more effectively and created more innovation idea to help us reach our mission and goal in environmental education."– Young Eco-Ambassador***

**A2. The DI team's responsive and respectful attitudes helped cultivate true partnerships with grantees.** Over the program's life span, DI staff continuously improved their partner engagement, with partners saying that they felt respected and served. In particular, Year 6 partners reported their appreciation of DI's hands-on approach, citing co-design with, openness from and responsiveness of DI staff. Even after formal assistance ended, DI staff continued to engage and advise partners on many technological and programmatic issues.

One of DI's boldest programmatic innovations rested squarely on DI staff's reputation for meaningful partner engagement. Historically, funding models in Cambodia have favored traditional institutional hierarchies over leaner, flatter organizations that are increasingly important start-up and innovation sector actors. Youth Innovate Cambodia (YIC) was a departure from standard grant making targeting formalized organizations. Under YIC, DI created its own "incubator" through a challenge program that aimed to transform innovative ideas from Cambodian individuals, some of whom were former participants on other DI initiatives, into real activities and solutions. Because many who participated were young and had no resources to test their ideas, they needed intensive business guidance and encouragement to allow their creativity to flourish. DI staff ran YIC and provided the training, coaching and advisory services the budding entrepreneurs sought, devoting extra time to ensure YIC participants felt supported. One particular idea, E-Lab – which produces videos on how to perform science experiments in familiar surroundings without expensive equipment and came out of the 2018 Technovation cohort – has interested the Ministry of Education, Youth and Sport (MoEYS) to promote them on its Facebook page.

### **Success Factors/Applied Lessons Learned**

1. *DI approached its partners as colleagues, in the spirit of collaboration.* From its earliest days, DI has cultivated and valued its relationships with organizations across the civic technology ecosystem. In particular, the program's management has engendered a respectful, empathetic "treat others as you would wish to be treated" culture. As a result, almost all interviewees mentioned the appreciation and warmth they felt towards DI staff for the way the latter interacted with them. Edemy reported that the absence of hierarchy made raising obstacles and jointly identifying solutions seamless. Saturday Kids/Raintree (SK/R) extolled DI staff for their interest in and excitement for their ideas. Energy Lab cited the DI engagement model as "refreshing", imploring other programs to take the same approach. Several partners mentioned the attention and follow-up they received from DI staff post-training and coaching. The Cooperation Committee for Cambodia (CCC) disclosed that its partner relationship with DI continued long after funding had ended, citing DI's active participation on CCC's MEL and tech sector working groups.
2. *Co-design during activity development led to much more effective activities.* Early program initiatives with PACT, CCIM and The Lake Clinic (TLC) suffered from a lack of collaborative activity development, leading to late stage course corrections or an absence of revisions altogether. In Year 6, DI engaged partners from the earliest activity development stages, resulting in timely, relevant and targeted efforts that generated near term outcomes, such as almost immediate revenue increases to SHE Investments' incubator and accelerator beneficiaries. In addition, DI staff respected partners' ideas by suggesting enhancements to their proposed activities to increase reach and impact rather than imposing alternative agendas, enabling greater partner ownership of the activity and its results.
3. *DI refined the awardee selection process over time by encouraging more partner investment in proposed activities, resulting in higher commitment and motivation.* Co-investment of all types of partner resources generally resulted in more impactful activities. Because they had an increased in-kind, financial and emotional stake, partners took greater initiative and their ensuing activities were more successful. While this was a hallmark of Years 1 through 5, it was intensified in Year 6. ArrowDot (Product Innovation Program), IT Academy STEP (Sisters of Code) and Mekong Strategic Partners (MSP - SmartScale) all made significant organizational investments in their activities and yielded strong results for their beneficiaries.
4. *Strategic communications support was transformative in different ways: content, outreach, human resources and capacity development combined to produce powerful multiplier effects for DI partners.* Learning and incorporating ICT, social media and communications into the

assistance package improved activities and created a PR presence most organizations had never possessed. DI partner Young Eco-Ambassador (YEA) told the assessment team that before working with DI they had not been aware of the power of a communications function. Now they incorporate it into every aspect of their work. Transparency International Cambodia (TI), MEDIA One and the Advocacy and Policy Institute (API) all reported similar experiences.

DI's strategic communications support advanced partners' advocacy and marketing efforts as well, particularly through social media. Social media enabled partners to become better known, engage locally with supporters and beneficiaries and attract more funding. For instance, sustainability partner Vicheastan Bamreu Neak Krubkrong Kangea Aphiwat (VBNK) improved their portal's quality and saw interest for their trainings grow immediately after DI support. DI's social media training helped Edemy increase their exposure to high level education sector stakeholders.

Many partners cited DI's excellent strategic communications training materials, but the greatest appreciation was for the DI staff's follow-up and counselling when they encountered problems with training content and application.

***“Since (DI’s social media training), we have adopted social media as the way to communicate with young people. Now social media has become (our) main integrating tool to educate youth. Every program we design somehow uses social media for impact.” – Transparency International Cambodia***

5. *Cambodian contextualization and an approach of practicality over theory translated into more enduring training retention and mentor relationships.* Initially, a lack of Cambodia-centric content impeded DI activities, such as IHPP's difficulties when pairing foreign English-speaking EPIC mentors with young Cambodian entrepreneurs possessing limited English language capabilities. However, as DI progressed, the program ensured that the Khmer language was mainstreamed into activities. In Year 6, SK/R's Coding Cats initiative took Cambodian contextualization to new heights by translating the global block-based coding platform Scratch into Khmer and using recognizable Cambodian examples in their training.
6. *Targeting youth as information and tech disseminators increased trust amongst activity beneficiaries, thereby expanding activity reach.* Many young Cambodians possess or have access to and regularly use smartphones, even in remote areas. Their families depend on them to understand and explain technology at home and to friends. TI found that youth-to-youth training and dissemination through social media resulted in a three-fold network expansion in just six months<sup>13</sup>. In Year 6, Edemy incorporated a student ambassador component into *Tesdopi's* design and release, resulting in a 60% increase in actual installations over their initial target. Similarly, IT Academy STEP's Sisters of Code (SoC) graduates became ambassadors for subsequent SoC cohorts, yielding more applicants than the original activity.
7. *DI activities struck a balance between quantity and quality (numbers of people and the right people), championing inclusivity while keeping results standards high.* In earlier years, DI resisted the urge to expand participant numbers for its in-house trainings, focusing on quality over quantity. This meant capping the participant numbers at 10 or less and devoting significant time practicing the skills taught during the course to reinforce their uptake. The focus on quality also extends to DI staff themselves: the program boasts a highly responsive and knowledgeable team while maintaining an appropriate level of human resources. In Year 6, partners emulated DI's balance between quantity and quality. SHE's incubators and accelerators prioritized smaller groups and intensive facilitator support rather than

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<sup>13</sup> Ibid, Page 22.

increased participant numbers per group, enabling SHE to maintain training quality. Edemy, recognizing that its DI-funded effective STEM learning workshops were too unwieldy at 150 students, reduced the participant totals to between 50 and 100. The result was better focus and more effective content retention.

8. *DI incorporated real-time feedback, improving the quality of the program and its activities as they unfolded.* As mentioned above, DI's objectives evolved over the program's life in response to its learnings, activity outcomes and ecosystem changes. Some DI partners adopted the same approach. SK/R's Coding Cats program remains the epitome of this model, conducting a weekly feedback review with its trainers and applying the lessons to each subsequent training session.

## Challenges

1. *Long grant development and approval timelines were often at odds with the speed of technology changes, possibly reducing activity reach and impact.* Over time, DI has deliberately reduced the grant application paperwork burden. Specifically, it has decreased the total required documents and accelerated the decision process. This has worked favorably for CSOs, many of which reported that DI's grant approval process time span seemed reasonable. However, the small grant process has been problematic for many Year 6 social enterprise and private sector partner activities. In spite of improvements, processing delays persisted, exacerbated by the program's imminent closure. Reduced activity time horizons constrained implementation, as was the case for CamConscious Tourism. Its Impact Explorer app development was interrupted for six months due to grant approval process delays.
2. *Although the intensive co-design process has improved activity effectiveness and impact, some shortcomings remain.* In early 2019, DI handed over its highly successful social media training to VBNK. However, VBNK's point-of-contact was its interim director, who did not engage its most experienced social media-savvy personnel in the co-design. The consequence was an underfunded, one-size-fits-all training offering that required significant modification and additional resources, delaying roll-out and sustainability. Additionally, sometimes communications became crossed. Year 6 partner Wedu mentioned that DI staff undertook their activity's MEL function directly rather than Wedu conducting their own MEL, as was typical. Despite having discussed roles and responsibilities during co-design, Wedu was still unclear on this, showing the constant need to confirm and verify actions.

### **B. DI catalyzed behavior change amongst partners, beneficiaries and the public sector.**

Over time, DI has demonstrated different ways of working with its partners, beneficiaries and other stakeholders. As a result, each passing year has brought new stories of uptake, replication and, most importantly, adaptation across the civic technology ecosystem.

**B1. Partners modelled and institutionalized DI practices.** Partners told the reviewers that they had become much more flexible during activity implementation, seizing windows of opportunity and/or adapting initiatives when situations dictated. Many partner organizations modelled DI practices internally, such as establishing dedicated communications and ICT units. This helped mainstream technology into their institutional policies and incorporated ICT tools into activity designs, resulting in more successful outcomes. For instance, YEA had no communications function prior to DI support. Thereafter, they established a social media team that has grown to three, with plans to add two more members soon. TI drew on its DI experiences to design Tech Pioneers, mobilizing female and youth bloggers through social media to create social impact.

Some sustainability partners have taken DI-created trainings and further adapted their structure and content. VBNK and CCC have segmented training criteria and content to respond to their clients'

differential needs. API's improved in-house training capacities have led to better follow-up with its clients and constituencies in advancing advocacy efforts.

***“IHPP is replicating DI’s model. We have also become conveners.” – Impact Hub Phnom Penh***

**B2. The national government has begun replicating and adapting many of DI’s processes.** Some government ministries and departments are exploring DI’s model for their own replication and adaptation. The Ministry of Posts and Telecommunications (MPTC) is testing revised versions of DI’s grants process and reports using USAID’s grants manuals and a combination of grant types for its Capacity Building, Research and Development (CBRD) Fund. In addition, the National Institute for Posts, Telecommunications and ICT (NIPTICT) is adapting DI’s small and medium enterprise (SME) mentorship approach. MoEYS is considering a Coding Cats curriculum pilot in schools and possibly teacher training colleges (TTCs). MoEYS is also contemplating SoC expansion into additional schools next year. Digital literacy will become part of MoEYS’s 2019-23 Education Strategic Plan, based in part on the experience with Technovation.

**B3. DI has facilitated changes in the mindset of organizations throughout the civic technology ecosystem.** DI facilitation has driven an evolution in CSO and TSP relations from lack of mutual understanding to a shared vision, enabling tech businesses and civil society to engage one another better. Some businesses, such as Bikay and Saturday Kids, have altered their business models to cater to their civil society partners’ social objectives. DI introduced a business mindset to Cambodian CSOs and social enterprises by integrating them into private sector/tech sector-oriented programs like accelerators and incubators. Through such initiatives, DI has helped these organizations improve their offerings and, in some cases, their business processes, making them more efficient in achieving their missions.

Some Year 6 partners cited changed perceptions of women and girls in tech as a result of DI-funded activities. IT Academy STEP and Technovation both saw a mindset change amongst staff and parents, respectively. IT Academy STEP reported an attitude shift amongst its male staff and students towards women teachers and girls attending tech courses after the SoC program. Similarly, Technovation is normalizing the idea that Cambodian women belong in tech by creating adult and peer role models, such as the regional ambassador and Cambodian finalists in the Technovation World Pitch. According to several Technovation mentees, mentors and parents, this inspired even more girls to join Technovation<sup>14</sup>.

***“I am what I am because of Technovation.” – Mentor on Technovation and Wedu and trainer on Coding Cats***

## **Success Factors/Applied Lessons Learned**

1. *DI’s support of an integrated business and technological skills training approach enabled partners to avoid mistakes and delays during product and solution development.* Year 6 DI partners have adopted a much more holistic approach to capacity building and awareness raising than earlier awardees. These partners are reinforcing what DI experience and affiliation have taught them and transferring the knowledge to a new generation. ArrowDot, Technovation, Saturday Kids/Raintree, Wedu and Chea Jofeh all reported that, besides technical capabilities, their beneficiaries gained confidence and strategic business skills through DI-funded activities.

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<sup>14</sup> “Technovation Cambodia Impact Assessment”, Inta Plostins, October 2019, Development Innovations for USAID.

2. *DI fostered a collaborative relationship and understanding between CSOs and TSPs, helping ensure higher quality tech solutions.* In the program's early days, some TSPs struggled to understand civil society's needs, thus affecting their ability to develop appropriate tech solutions. Prior to DI's shift to intensive activity co-design, early CSO partners like API felt that there was insufficient technical support during the activity design phase, partly due to a lack of clarity over CSO-TSP roles. Relatedly, responsibilities between CSOs and TSPs on user engagement and testing improved in the program's later years when DI applied these lessons learned.

However, those CSOs with prior TSP relationships or with ICT staff in-house had better experiences and results. For example, World Education (WE) already had a positive relationship with TSP CamMob prior to approaching DI for funding. As part of their grant to develop the Technology for Education Systems Transformation (TEST) mobile application, CamMob accompanied WE in multiple field-based user testing rounds. This shared responsibility reinforced their joint commitment to the tool's development and increased user interest in and commitment to deploy it. CamMob also had a dedicated and responsive WE point of contact, ensuring that earlier phases' learnings were applied and modified as needed during later stages<sup>15</sup>. Likewise, CamConscious Tourism and Bikay capitalized on their prior working relationship to collaborate on the DI-funded Impact Explorer app development. Each mentioned that trust and honesty eased identifying and solving problems together.

3. *Partners applied their new tech knowledge to other initiatives addressing society's issues, even if DI-funded solutions did not continue.* Although not all DI-funded activities were sustained after support ended, some CSOs are now applying their newfound technological, communications and business knowledge to other social challenges. Committing to mainstream ICT into its projects, API is using its DI-supported smartphone capabilities to conduct online citizen satisfaction surveys and institutional capacity assessments. KYA is using its social media and smartphone skills to develop a platform that gives young people access to jobs and related information. The initiative has led them to form a new partnership with a TSP and a business development organization, which they attribute to DI's influence.
4. *DI modelled CLA at both program and activity levels, enabling course correction before problems adversely affected performance.* As the program evolved, DI staff began to conduct regular reflection and lessons learned sessions of their funded activities. Team members examined BarCamps, Technovation and similar initiatives to discover how future projects could be improved. Semi-annual strategy review sessions enabled the DI team to take a critical look at the program's direction and its project portfolio's efficacy. DI management empowered staff to make changes if activities were veering off-course.

DI partners adopted the practice into their own activities. For example, Raintree held weekly Coding Cats trainers' meetings to reinforce activity objectives and tweak the curriculum, contributing to better activity targeting during implementation. Other organizations - such as PACT, CamMob and Children in Families (CIF) - reflected and learned from their first DI engagements and built early assessment and adaptation into their second activity cycles. Anticipating future obstacles, they made design stage course corrections, when they were easier to undertake, rather than in the implementation stage, which would have required more time and bureaucracy<sup>16</sup>.

## Challenges

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<sup>15</sup> Ibid.

<sup>16</sup> "Development Innovations Results and Learning Review", Laurie Pierce and Karim Bin-Humam, June 2018, Page 22, USAID.

1. *Partners, especially CSOs, still misunderstand DI's role.* As a program, DI was designed to convene, facilitate, and build capacity of local civic tech sector actors, rather than build and develop ICT tools in-house for its partners. In some extreme cases, early DI partners did not understand its role as a facilitator. Two CSOs interviewed last year were disappointed that DI provided only “programmatically support” and not “technical support”<sup>17</sup> – implying product development or coding support – when creating their applications. Other longstanding CSO partners expected DI to provide training on specific emerging technologies, though this was never part of DI’s mandate. Five CSOs interviewed for this assessment asked how they could continue to access DI funding, even after being told that the program was ending in November 2019. It is noteworthy that Year 6 non-CSO partners did not share the same misperceptions.
2. *Mentorship efforts were inconsistent throughout the program's life.* Mentors have played a critical part in DI activities since the program’s early days. From Technovation and IHPP’s EPIC initiative to Wvedu and MSP’s SmartScale, mentors have featured prominently and guided beneficiaries along their respective education and entrepreneurship journeys. However, mentorship is still a new concept in Cambodia – there is no popular consensus on what a good mentor-mentee relationship should be. Some mentees view mentors as teachers, expecting them to give instructions and assign tasks. Other mentees take a more passive role, assuming that mentors will do the hard work for them. Mentors themselves can sometimes become overwhelmed with mentorship time pressures, especially if they have not fully understood the required commitment level.

Specific challenges for DI partners included:

- Attracting and retaining mentors, with some DI partners questioning mentor commitment levels.
- Inconsistent or poor mentor preparation, perhaps due to the absence of defined mentor objectives to guide them.
- No meaningful mentor-mentee communication and guidance due to a lack of clarity on roles and responsibilities and a disinclination to be proactive.
- Mentor-mentee skills mismatch – on occasion, the mentor did not possess the skills that the mentee wanted to develop.
- Foreign mentors did not always understand critical nuances of the Cambodian business or civil society contexts. The effects of their lack of understanding were more pronounced among younger mentees.

As seen on DI, agreed expectations, clear roles and responsibilities, and taking initiative predicted mentorship success. Seasoned and well-trained mentors set goals, expectations and engagement rules with their mentees. In return, mentees who understood their own needs, grasped the mentor’s role, and displayed a proactive approach to mentor engagement obtained the greatest benefits.

IHPP applied EPIC’s mentorship lessons to later initiatives. For instance, former EPIC mentees have returned as mentors on later IHPP programs, reinforcing the shared experience, language and understanding of mentor and mentee. For its online SmartStart platform, a university student entrepreneurship course, IHPP features successful Cambodian entrepreneurs as role models. SHE Investments beneficiaries – all female Cambodian entrepreneurs – have also enjoyed a positive mentorship experience. Sixty-five percent of SHE incubator and accelerator FGD participants said that their mentors were useful in helping them gain critical business skills.

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<sup>17</sup> Ibid, Page 19.



3. *Even after developing sustainability plans for DI assistance, some partners struggled to maintain their ICT solutions.* Some DI CSO partners were unable to sustain their initiatives beyond DI's assistance. While the reasons varied by partner and initiative, four are prominent:
  - *Lack of HCD application at the design phase and/or lack of adaption as problems emerged or technology changed.* As mentioned above, CCIM developed the Citizen News Wire mobile application using DI grant funds in 2015. This app relied on local CJs to upload news items and photos to the app, to be accessed by CCIM's staff. However, CCIM neglected important contextual factors about its target user group during the design process. CJs were already comfortable using Facebook as their primary means of communication – they did not need a new tech solution. In addition, the Citizen News Wire app was not compatible with a Khmer keyboard and required extensive bandwidth for photos and videos, even though most CJs lived in low connectivity areas. While 56 CJs were trained in the tool, and it received 400 reports, the Citizen News Wire app was only in use for a short time due to these constraints.
  - *Pilots have time limits.* With DI support, MEDIA One customized the mobile data collection platform CommCare, replacing the paper-based data collection forms. As a pilot with a specific goal of digitizing forms, the activity was not considered to be sustainable in the usual sense. However, MEDIA One continued using CommCare beyond the DI grant's life, thus improving the organization's MEL function through digital data collection.
  - *Solutions were not institutionalized within the organization and/or outlived their purpose.* In 2015, DI supported API to develop the Seva Khum mobile application, which enabled citizens to access information about local authority public services and fees in one place. API also received free connectivity for Seva Khum from internet service provider EZECOM. The latter ceased their support when the activity ended. API continued to request funding to sustain Seva Khum under other activity proposals but was unsuccessful in securing additional assistance.
  - *Solutions lack funding.* Following the successful pilot and expansion of WE's TEST and TESTX apps to 50 schools, MoEYS adopted it for further roll-out within the wider public school system. However, TEST runs on tablets, which become outdated or inoperable due to their limited life span. It remains uncertain if MoEYS can obtain the budget allocation necessary to fund new tablets and replace old ones, limiting the potential for TEST and TESTX's scale-up through MoEYS (though some NGOs do continue using both apps in public schools with donor funds).

***C. DI assistance, networks and convening power conferred and increased credibility to partners' reputations and profiles, attracting the attention, support and respect of government ministries, international donors and the private sector.***

DI continues to play a central role in fostering Cambodia's budding civic technology ecosystem by positioning itself as the country's primary civic technology nexus, linking civil society to the local tech sector. This attracted major private sector players, the public sector and other donors<sup>18</sup>. In large part, DI's power has laid in the ability to bring together key local tech community players and create new connections between civil society and tech firms. By facilitating networking and creating previously non-existent links, DI's convening power has helped catalyze the civic technology ecosystem. DI's networking events, iterative communications strategy, partnership facilitation and technical service offerings exposed and convened diverse stakeholders physically and virtually<sup>19</sup>.

**CI. DI's ability to bring together disparate actors simultaneously widened and tightened Cambodia's civic technology ecosystem.** DI plays many roles in the civic

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<sup>18</sup> "Development Innovations Results and Learning Review", Laurie Pierce and Karim Bin-Humam, June 2018, Page 4-5, USAID.

<sup>19</sup> Ibid, page 4-5.

technology ecosystem in support of its partners and their programming. One of these is as a convener of disparate organizations for mutual benefit, brokering connections and facilitating relationships through its many networking events<sup>20</sup>. Despite the relatively small size of Cambodia's tech sector, several interviewees noted that they met people or organizations through DI events or activities that became part of their larger professional networks or with whom they later worked. In 2018, TSP CamMob reported meeting civil society actors, with whom they produced digital tools addressing educational and water and sanitation challenges, at DI get-togethers. SHE and TI also met their TSP collaborators at DI events<sup>21</sup>.

Particularly towards the program's end, DI also created a web of program activities that reinforced and played off one another, from which many of the same people or organizations received assistance. For example, in Year 6, DI pursued a private sector engagement strategy and leveraged significant private sector financial resources to enable investor-led services for Cambodian start-ups. One such initiative involved local investment firm MSP, major mobile network operator Smart Axiata and Swiss-based start-up competition SeedStars to form the SmartScale accelerator, a three-month program for Cambodian post-incubation stage start-ups. At least two of the participant start-ups – Ol's Bongpheak and CamConscious Tourism – were previous DI grantees. Thus, DI's facilitation helped widen the ecosystem by bringing in new players, such as MSP and SeedStars, while also demonstrating how the ecosystem grew more tightly connected.

Other examples abound. After completing the DI-supported, IHPP-implemented EPIC incubator in 2016-7, DI grantee Edemy built the learning platform *Ngeay Ngeay* in 2017 for another DI partner, SHE. Edemy attributed their ability to work together and understand one another to each having received DI support. Social enterprise E-Lab emerged from the DI-supported Technovation tech entrepreneurship challenge, then received YIC (see page 11) assistance from DI the following year. There was even significant crossover between mentorship programs: one person reported serving as a mentor for Technovation, Wedu and Coding Cats in the same year, while mentees mentioned participating in multiple DI-supported programs. In sum, DI cultivated a strong network of people and companies with extensive DI contact, showing that DI has played a critical convener and facilitator role in Cambodia's civic technology ecosystem.

**C2. DI confers credibility onto its partners in the eyes of the public sector, major private sector players and international donors.** Because DI is so highly respected within Cambodia, the cumulative effect of its role at Cambodia's civic technology ecosystem nexus is its ability to confer credibility onto its partners and beneficiaries. The following section discusses how different public sector and private sector actors – as well as international donors – have embraced DI partners in part because of their engagement with DI.

*C2a. Public sector engagement unlocked activities' spread.* Cambodian public sector entities – particularly MoEYS and the MPTC – have become key supporters of DI initiatives and individual activities or grantees over DI's lifetime, particularly in its later years. For example, DI has introduced some of its partners to MPTC's CBRD Fund, founded in 2017 to provide grants that build local tech capacity. MPTC has said that they intend to fund DI partners or activities through the CBRD Fund as long as they fit within the fund's objectives, seeing the CBRD Fund as a possible sustainability mechanism to continue DI's work. This is a major endorsement. The CBRD Fund is also modelling its workflow on DI and grants procedures on USAID, which is discussed in detail on page 24.

MoEYS has collaborated extensively with several DI grantees after their DI involvement began; they have also adopted several tech products developed with DI funding. MoEYS's involvement with

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<sup>20</sup> Ibid, page 14.

<sup>21</sup> Ibid, page 14.

Technovation is an instructive example. After viewing the Technovation National Pitch event<sup>22</sup> in 2016, the Minister of Education, Youth and Sport himself signed a letter of cooperation in 2017 that allowed Technovation Cambodia to expand to public schools<sup>23</sup>. Ten public schools saw their students participate in that year, followed by 18 schools in 2018 and 13 in 2019. At the organizational level, MoEYS deepened the government’s commitment to Technovation by appointing the Institute of Technology of Cambodia (ITC) – a public university – to help manage Technovation in 2019 and beyond. As of September 2019, the Ministry of Economy and Finance (MoEF) has approved a budget allocation for MoEYS to expand Technovation to two new provinces in 2020. MoEYS invested in Technovation after DI demonstrated its ability to succeed in Cambodia.

A further discussion of the multiplier effects around the public sector’s collaboration with and support of DI partners can be found on page 24.

*C2b. DI successfully engaged the private sector because its value proposition aligned with their business strategies, as well as with USAID’s global private sector engagement strategy.*

In line with USAID’s Private Sector Engagement strategy, DI had successfully engaged with major private sector actors – like Smart Axiata, MyTeb, and EZECOM – in its programming by aligning DI’s service offerings with their corporate interests. These companies found new corporate social responsibility (CSR) investment channels by providing financial support to popular initiatives supported by DI, creating local goodwill for their firms<sup>24</sup>. These firms also benefit from their association with DI and USAID’s brands, as EZECOM and MyTeb shared with the April 2018 review team.<sup>25</sup> As of October 2019, the CSR page of EZECOM’s website specifically references its partnership with DI: “We have been providing free internet to support educational projects through our own initiatives and with our partners such as Development Innovations and Friends International.”

From a longer-term perspective, DI’s initiatives create value for these firms by nurturing a thriving local tech sector, which equals more service providers, more suppliers and more investment opportunities. For example, IHPP credits its DI partnership with opening the door to securing new private sector sponsorships from Toyota and Smart Axiata (see pages 19 and 29 about the Smart Axiata-IHPP relationship). DI’s objective of supporting emerging innovators also resonated with the longer-term goal of these firms to develop a pipeline of tech talent in Cambodia. However, it is also notable that these firms continued to support DI’s efforts because they saw DI’s programs as bringing real value to the ecosystem – its activities and partners were seen to work well and be of high quality.

Technovation is a classic example that ties all these strands together. Through DI’s initial facilitation of private sector relationships, Smart Axiata and MyTeb have become prominent private sector sponsors of Technovation and other social innovation and civic technology ecosystem initiatives<sup>26</sup>. Technovation’s sponsorships (the majority of which are from the private sector) have steadily increased over the years, from \$3,200 in 2016 to \$20,000 in 2019. Because Technovation is the premier tech entrepreneurship challenge for girls in Cambodia, it benefited private sector partners from a CSR/goodwill perspective. Moreover, from a strategic business development standpoint, growing young tech talent in Cambodia is in the long-term business interest of Technovation’s private sector sponsors.

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<sup>22</sup> The Technovation National Pitch is the culmination of the 12-week Technovation program in which each team presents its mobile application and business plan in front of a live audience.

<sup>23</sup> “Technovation Cambodia Impact Assessment”, Inta Plostins, October 2019, Development Innovations for USAID, Page 15.

<sup>24</sup> “Development Innovations Results and Learning Review”, Laurie Pierce and Karim Bin-Humam, June 2018, Page 39, USAID.

<sup>25</sup> Ibid, page 25.

<sup>26</sup> Ibid, page 14.

As a major supporter of DI's activities and partners and as a key player in Cambodia's tech sector, Smart Axiata provides an interesting case study. Its CSR strategy closely aligns with DI's objectives, with a focus on education and tech innovation. Directly with or through DI, Smart Axiata has:

- Sponsored Technovation, as outlined above.
- Funded the SmartScale powered by Seedstars accelerator for early stage start-ups.

Smart Axiata has also cultivated fruitful partnerships with several current or former DI partners:

- Saturday Kids and Raintree – Smart Axiata funded the development of Tiny Coding Cats, which modifies the Coding Cats curriculum for a younger cohort of 8-12 year olds.
- IHPP – Smart Axiata has engaged IHPP to manage at least two different initiatives, including SmartStart (an incubator for university students) and SmartSpark (an entrepreneur development program with a focus on Sustainable Development Goals 8, 9, or 11).

Smart Axiata is clearly a force in Cambodia's tech industry as well as an ardent DI supporter. In an August 2019 interview, Jonathan Yap of Smart Axiata shared that DI is one of their important partners who they have jointly collaborated on a couple of programs over the years because they have the same vision of developing the local tech ecosystem as well as creating sustainable long-term programs for Cambodia.

DI's private sector engagement strategy has also secured co-investment from private sector technology actors. DI has successfully shown tech companies in Cambodia that their business interests and the nation's development objectives are mutually beneficial<sup>27</sup>.

***“EPIC built (our) brand. It boosted our image because DI and USAID have such a high position in Cambodia. By being selected, it gave us credibility with potential clients, who see us as a social enterprise. DI and USAID posted our videos on their social media and it helped us.” - Edemy***

*C2c. International donors and other development institutions are collaborating with DI partners to build on DI's successes. DI's partners have gone on to receive donor funding from sources as varied as the United Nations Development Programme (UNDP), the United Nations Children's Fund (UNICEF), the Economic and Social Commission for Asia and the Pacific (ESCAP), Deutsche Welle (DW), Terres des Hommes (TdH), the British embassy and others. This is in addition to new USAID funding, as outlined in the following section. Several interviewees attributed their ability to win new donor funding to their DI connection. For example, KYA explicitly linked its from the French media outlet CFI to its post-DI enhanced social media presence. CFI specifically targeted KYA because of its social media when they were searching for a youth-focused partner to produce videos about agriculture in Cambodia. Similarly, IT Academy STEP successfully applied for funding from the British embassy to run another SoC cohort based on DI's and MoEYS' recommendations. Acknowledging the value that DI brought in funding the first SoC cohort, IT Academy STEP's final grant report states “we hope the acknowledgment of the project value and impact could help to establish new partnership (sic) and get the necessary funding for this non-profit project.” The international donors' role in sustaining DI partner activities is further discussed on page 31.*

**C3. DI serves as a cross-sectoral bridge for USAID.** In addition to serving as a critical convener within Cambodia's tech ecosystem, DI functioned as a cross-sectoral bridge for other USAID programs and technical offices and served as a model for DG integration across multiple sectors. With its integrated assistance package, DI regularly built the capacity of partners that also worked with other USAID programs, amplifying their impact. For example, DI and the Winrock-led Supporting Forests and Biodiversity Project jointly supported the Cambodian NGO MEDIA One with its *Lokta Prey Lang* campaign. With a grant and accompanying technical support from DI, MEDIA

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<sup>27</sup> Ibid, page 5.

One successfully launched a youth-oriented social media campaign aimed at creating more awareness of and appreciation for Cambodia's natural heritage. Other examples include:

- The PACT-led WE Act program's collaboration with DI partner SHE Investments to scale specific mentoring initiatives.
- A fish powder entrepreneur under the Save the Children-led NOURISH program going through the DI-supported SHE Investments accelerator.
- DI partner TLC seeking technical inputs from University Research Center (URC) in their electronic medical records system digitization for Tonle Sap's floating clinics.

## Success Factors/Applied Lessons Learned

1. *Social media reinforces DI's convening power.* In addition to DI's physical convening power in the form of events and networking, DI has helped partners gain visibility through its social media presence (particularly Facebook and to a lesser extent Youtube). Taking advantage of its strategic position in the civic technology ecosystem to become a trusted and highly regarded local source of information, DI successfully marketed its social media channels as a definitive source of information for organizations who want to use technology to increase their social impact in Cambodia. It also leveraged the powerful branding of USAID and private sector players like Smart Axiata and EZECOM. DI uses its social media channels to bring greater attention to its beneficiaries by highlighting its partners and their accomplishments on an almost daily basis, versus focusing on meetings and launches<sup>28</sup>. Several partners told the assessment team that when DI publicizes their work on its Facebook page, it helps build their visibility and win the trust of stakeholders. The effect of DI's social media presence and training is further discussed on pages 21-22 and 23-24.
2. *Keeping a pulse on the local tech ecosystem and maintaining strong relationships with key players.* Critically, DI took the time to understand the broader Cambodian tech ecosystem, as well as the narrower civic technology community. On a more formal basis, DI conducted several tech landscape assessments across the country. This included reports such as *The Tech Innovation Sector of Phnom Penh: Landscape Scoping and Narrative of Change 2013-8* (written by Penhleak Chan, who oversaw Coding Cats at Raintree) and *Landscape of ICT and Innovation Services in Siem Reap and Battambang Provinces*. DI also undertook regular learning sessions with its partners to better understand their technology needs, knowledge gaps and opinions of DI programming, generally every 18 months. More informally, DI kept a consistent pulse on Phnom Penh's rapidly evolving tech scene. This speaks to how well the DI staff were networked within the ecosystem itself; they could quickly pick up on trends as well as emerging players. For example, DI ultimately selected MSP in 2018 to manage SmartScale because the DI team understood that they were best placed to provide direct support to start-ups, and that access to and close engagement with emerging tech start-ups was in MSP's interests.

## Challenges

1. *The lack of early activity level partner cross-fertilization meant missed opportunities for realizing synergies between initiatives.* As outlined earlier, many DI partners and beneficiaries became involved in multiple DI project activities. Eventually, this led to significant activity and individual beneficiary cross-over. However, DI did not intentionally introduce its partners and beneficiaries to one another during their initial DI collaboration. This could have further amplified activity and beneficiary impacts earlier in the program's life, leading to several missed opportunities. For example, ArrowDot and IT Academy STEP are currently working together on IoT and robotics bootcamps funded by the British embassy in Cambodia. DI

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<sup>28</sup> Ibid, page 14, 25.

could easily have funded this type of initiative, considering DI's strong relationships with both groups.

## MULTIPLIER EFFECTS AND UNEXPECTED OUTCOMES

Over the program's life, DI has generated multiplier effects and unexpected outcomes never anticipated during activity development. By making USAID investments go further and creating greater impact than originally designed, these results showcase the "value for money" that DI has brought to the Cambodian people and USG. The following section examines the factors that contributed to these unintended consequences.

### A. Multiplier Effects

**AI. DI's social media and smartphone video training resulted in an exponential increase in activity reach.** The impact of DI's smartphone video and social media trainings on the Cambodian media landscape is unprecedented. DI essentially helped unlock a new communication method for Cambodian civil society, allowing them to reach thousands of people more quickly and less expensively than ever before. This was particularly important for building youth engagement, since young people are avid social media users and are difficult to engage using traditional advocacy techniques. With its practical tips and tricks optimized for a Cambodian audience (in terms of language and available technology), DI has changed the way that CSOs popularize their mission, run campaigns and tell stories in the digital age. In sum, DI's social media and smartphone video training helped civil society actors become better communicators, develop and execute communication strategies and provided an accessible gateway to using data and analytics in driving informed decision-making and programming.

By the measure of increased followers and video views on social media, DI partners have clearly benefited. For example, TI reported that its Facebook page had 7,000 followers before taking any DI social media-related trainings; as a result of DI's trainings, it currently has 83,000 - more than a 1000% increase. Social media has now become TI's primary tool for youth engagement. DI has also helped move advocacy and NGO campaigns online. For instance, DI built MEDIA One's capacity on its *Lokta Prey Lang* social media campaign to promote the Prey Lang forest's preservation. MEDIA One was surprised by the extent of young people's engagement on a very sensitive topic and how quickly their campaign received Facebook likes (thousands in just a few weeks). To MEDIA One, social media represents a way to share information that had not been easily accessible before. Similarly, API learned how to use Facebook more effectively to recruit interested young people for their work. As a result, thousands of people viewed a volunteer posting online and over 500 youth applied for just 50 volunteer positions on a UNDP-funded youth advocacy project.

In particular, creating compelling stories and visual content using just a smartphone has been a lasting DI impact. One of the biggest effects reported by SHE Investments was the videos' influence on themselves and their entrepreneurs. Not only do their entrepreneurs grow their businesses, reputations and incomes but, according to SHE Investments, several began to pay themselves salaries because they saw their own work's value for the first time. SHE also benefited as an organization. The videos helped create a pipeline of entrepreneurs that recognized SHE and wanted to work with them. It has also changed their business model – they have incorporated video tutorials into their blended learning approach.

### Social Media and Smartphone Video Training: Not Just a Supplementary Service

In 2017, DI partnered with KYA to promote its youth advocacy and grassroots initiatives through an improved online presence. Working with DI trainers and social media experts, KYA built their social media and video production capacities. DI staff provided post-training video coaching support, supplemented with smartphone video training. KYA staff lauded DI's trainings and explained how they directly applied the lessons. Immediately after the social media training, KYA achieved a 400% increase in its Facebook video views and a 10-fold increase in its Facebook likes. Moreover, KYA grew its beneficiary reach by 230% through enhanced online engagement.

Interestingly, there is even anecdotal evidence that DI's trainings have led to changes in staff profiles and hiring practices at Cambodian NGOs. As mentioned on page 12, YEA reported creating a media team only after taking DI's smartphone video training in 2018. In less than two years, the team has grown to three people - one full-time and two part-time. Soon YEA intends to hire a videographer and editor for a team of five. In this way, DI has helped change the perception of valuable skills for NGOs to possess in-house.

Through extensive training of trainers (TOT) throughout Cambodia – including tailoring for their own specific target audiences – DI's trainings have reached far more beneficiaries than DI alone could have reached. At least six organizations reported delivering DI trainings to other groups or other people, spreading its teachings even further. YEA worked closely with the DI lead trainer to shorten the three-day smartphone video training to 1.5 or two days, which was more appropriate to its time-constrained youth constituency. TI reports now incorporating social media training into all its youth programming, while KYA includes social media and smartphone video training in almost 100% of its new project designs. One of its trainers even taught the smartphone video and social media trainings in Nepal, making DI's impact international. The wide spread of DI's trainings has multiplied its effects, especially among young people.

**A2. DI's strategic deployment of youth in its tech initiatives has elevated the role of young people in Cambodian civil society.** Youth played a critical role within the DI program and across DI partners, becoming highly respected for their ability to engage large numbers of people through technology and social media. This relates to the multiplier effect above, but it extends beyond it as well. Over DI's lifespan, youth have helped spread information about DI-supported tech tools to their own networks. In addition, student ambassadors have unlocked wider student interest in DI's partners and activities. The DI program also recognized the role that young people can play in empowering civil society, creating a cadre of tech-literate youth in Cambodia through the YI and YP programs while focusing Year 6 programming on youth entrepreneurship and skills development. The cumulative effect has been an increased recognition of young people in Cambodia's civil society.

*A2a. Sharing information about DI-developed tech tools.* As noted in the previous section, young people were typically responsible for implementing the DI's social media training lessons learned at their home organizations. This proved highly effective in expanding their advocacy efforts. For example, in April 2018, TI found that youth-to-youth training and dissemination through social media outreach resulted in a three-fold expansion of their network in just six months<sup>29</sup>. In addition, API learned to target youth as the best tech disseminators. Youth were crucial to getting the Seva Khum application, which linked people to public service information, into regular citizens' hands and resulted in improved relations between young people and government. In fact, API said that their efforts to connect youth and government through tech meant improved relations between the two, particularly because government officials trusted youth when it came to tech solutions. DI's use of youth tech promoters has led to a wider reach of DI-supported tech tools and social media than had adults had been the disseminators<sup>30</sup>.

<sup>29</sup> Ibid, page 23.

<sup>30</sup> Ibid, page 22-23.

*A2b. Elevating student ambassadors and peer role models.* Student ambassadors and peer role models have also had far reaching effects beyond the DI's life. As mentioned on page 11, Edemy quickly recognized that its student ambassadors across Cambodia played an important role in increasing the *Tesdopi* app usage and adoption, promoting nationwide high school level STEM education. Without any traditional advertising, their Kampong Cham student ambassadors rallied (via Facebook) 120 people to attend a workshop that they then facilitated. The student ambassadors continue to work with Edemy staff to improve the app and popularize it among their peer group. For SoC and Technovation, peer role model development in Cambodia is challenging deeply held stereotypes about women in tech. For example, IT Academy STEP notes that principals of participating SoC schools had reported an increased interest in coding among the general student population (not only among SoC students themselves). SoC is also contemplating a student ambassador program where previous SoC graduates would discuss their experiences as female coding students and help run other schools' coding events. Similarly, the significant local media attention given to Technovation Cambodia also creates peer role models for girls across the country, particularly the two teams who participated in the 2017 and 2019 Technovation World Pitch in California. According to several mentees, mentors and parents, this inspired even more girls to join Technovation<sup>31</sup>.

*A2c. Developing young peer leaders on the DI project.* Over the program's life, DI's staff have inspired a new generation of young, tech-savvy people. The DI team has won awards, been prominent Technovation mentors and served as youth role models (see Annex C). Many partners regard them as civic technology influencers, particularly in capacity building, strategic communications and networking. To build the next generation of young civic technology leaders, DI initiated two notable programs: the YP program and later the YI program. The YP program was an important milestone for the Cambodian civic technology community because, for the first time, it placed young tech talent into partner CSOs to assist them with their overall activities' ICT components. Based on the YPs' experience, DI created the YI program, embedding young tech leaders into the DI program itself. The YIs' outputs helped DI become more efficient in reporting and communications, providing the program and wider CSO community with useful research products. YPs' and YIs' association with DI has given them practical experience and qualifications but they also have obtained a valuable association with DI, marking them from other young people in tech and marking them as emerging tech sector leaders<sup>32</sup>. DI's ability to mold young professionals who understand and can lead on core tech principles such as HCD and user research will impact the Cambodian tech sector for a long time to come.

**A3. DI's social media promotion of partners and beneficiaries vastly increased their profiles and exposure.** As noted above, working with DI confers credibility onto DI's partners. In particular, its powerful and dynamic social media presence has helped its partners gain much greater visibility. Its multiple social media channels – including Facebook, Youtube and Twitter – frequently showcase partner activities and accomplishments<sup>33</sup>. Facebook is critically important to this mission. On a near daily basis, the DI team designs, generates and publishes Facebook posts and videos in Khmer and English to its 46,000+ followers (as of October 2019), which generates an average monthly reach of 150,000. The DI team uses highly sophisticated social media analytics to drive future content in real time<sup>34</sup>. This creates a multiplier effect because of the number of people that DI can reach with a single Facebook post. To demonstrate DI's reach, a video about smartphone videography training that DI created and posted to its Facebook page has been viewed almost

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<sup>31</sup> "Technovation Cambodia Impact Assessment", Inta Plostins, October 2019, Development Innovations for USAID, Page 15.

<sup>32</sup> "Development Innovations Results and Learning Review", Laurie Pierce and Karim Bin-Humam, June 2018, Page 32-33, USAID.

<sup>33</sup> Ibid, page 25.

<sup>34</sup> "Technovation Cambodia Impact Assessment", Inta Plostins, October 2019, Development Innovations for USAID, Page 14.



250,000 times and shared over 800 times in less than four months, reinforcing the continued interest in Khmer language training materials. In terms of specific DI beneficiaries, a DI Facebook page video named “*Nearyldols: Awesome Entrepreneur: Moeurn Sokmean*” – about a woman who attended a SHE Investments accelerator to grow her Phnom Penh restaurant *Meatophum* – was viewed over 39,000 times and shared almost 100 times in less than two weeks. Besides this particular entrepreneur and her business’s greatly increased visibility, it also builds SHE Investments’ credibility within its peer group and among other influential people and organizations following DI’s page.

Several interviewees in April 2018 and August 2019 confirmed that DI social media channels’ promotion helped them augment their own visibility and credibility by increasing their broader public exposure<sup>35</sup>. In particular, partner Innovative Support to Emergencies, Diseases and Disasters (InSTEDD) credited DI with building its *Trey Visay* career counselling app’s profile on its Facebook page - important because its target audience is especially active on social media. This allowed InSTEDD to focus on building its relationship with MoEYS and to create and refine app content. Similarly, ArrowDot noted that DI’s network played an important role in promoting its brand, which quickly became more well-known after its association with DI began. A key DI multiplier effect has been its use of 21st century strategic communications approaches in promoting collaboration<sup>36</sup>.

**A3. The public sector’s engagement, endorsement and involvement unlocked activity spread.** Cambodian public sector endorsement – particularly MoEYS and MPTC – has unlocked a vast network of schools, teachers and students and validated DI partner activities. DI’s Year 6 digital literacy and digital skills development work fits the RGC’s goal of building 21<sup>st</sup> century skills. For example, Technovation has received backing from MPTC’s ICT Policy Department specifically because Technovation addresses several of its policy objectives: developing Cambodia’s technology sector, increasing the ICT skilled labor force and addressing Cambodia’s digital gender divide. Because DI’s and the RGC’s goals were aligned, and because specific RGC ministries trusted DI’s and its partners’ work as discussed earlier, DI’s impact was greatly amplified.

MoEYS has scaled DI initiatives to public schools nationwide. For example, MoEYS has introduced Technovation to public schools in two provinces over the past three years (see page 17-18) and intends to introduce Technovation to two more in 2020. For IT Academy STEP, MoEYS specifically requested that SoC bring in two public schools and then opened doors with principals and parents. At MoEYS’s request, IT Academy STEP twinned its instructors with public school teachers to help build their skills; the Minister himself even attended one session. MoEYS is now looking to fund SoC’s expansion to 5-10 schools, including in the provinces, and MPTC to NIPTICT’s Tech Innovation Center once it opens. In addition, MoEYS has expressed interest in piloting Coding Cats in Cambodian public schools. This shows that DI’s impact has extended beyond the program and propelled its partners forward by creating pathways with the government.

Several DI-supported tech tools have also been handed over to or adopted by MoEYS. For example, InSTEDD reported handing over the *Trey Visay* career counselling app to MoEYS and trained their staff in how to update the content. It has since been scaled to over 50 schools. The WE-developed TEST app now rests with MoEYS (although now static), while E-Lab is actively in discussions with MoEYS about gaining their official endorsement on Facebook. Not only is the public sector working with DI’s partners, they are also helping to spread DI-developed tech tools throughout the country.

At a policy level, the RGC is experimenting with potential adaptations of DI’s models and activities, which, if and when enacted, will improve millions of Cambodians’ lives. For example, according to MoEYS, Technovation’s success also helped prompt the inclusion of digital education in the

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<sup>35</sup> “Development Innovations Results and Learning Review”, Laurie Pierce and Karim Bin-Humam, June 2018, Page 26, USAID.

<sup>36</sup> Ibid, page 25.

forthcoming Education Strategic Plan 2019-2023, MoEYS's foundational strategy for the next four years<sup>37</sup>. DI has also inspired the government from an operational/process perspective. As mentioned on page 17, when the CBRD Fund launched in 2017, MPTC consulted with DI about its grants process and is now testing a modified version of a USAID grants manual (tailored to the Cambodian public sector) and DI workflows to administer the fund. They have also adopted a DI-like co-creation process in approaching potential partners and developing grant concepts before award. This shows how DI's engagement is resonating beyond the Cambodian civil society and tech sectors to government policy and operations, with potentially far reaching effects.

### A. Unexpected Outcomes

#### **B1. DI-funded initiatives developed the soft skills of partner staff and beneficiaries.**

Although never a direct DI activity objective, some partner staff and beneficiaries reported that DI activities had facilitated their soft skills development, including leadership, critical thinking, increased confidence, teamwork, better time management and improved communication skills. Technovation mentees and their parents reported that their newly gained soft skills surprised and delighted them. When participants were asked in August 2019 to identify the most important skills that they gained, 100% of girls and more than 90% of parents and mentors mentioned the soft skills outlined above. Almost all respondents mentioned them before coding or technology-related skills, implying that Technovation's greater value is its soft skills development<sup>38</sup>.

Other examples abound. SoC girls revealed that they were much more able to problem solve after the course ended. In addition, the academy's managing director related how SoC girls gave the Minister of Education, Youth and Sport a coding lesson during his SoC visit, signaling an increased confidence in their newly acquired abilities. Likewise, Coding Cats participants reported increased critical thinking and problem-solving skills. In fact, MoEYS was so impressed with the Coding Cats training results that it is exploring the "life skills building through coding" approach for Grades K through 12.

#### **Coding Cats: Transforming Education by Coding to Learn**

With DI support, Year 6 partners Saturday Kids and Raintree (SK/R) introduced an exciting, ground-breaking initiative called Coding Cats, aimed at teenagers. Ostensibly promoted as a coding course, SK/R developed an approach and curriculum that emphasized learning through problem solving and adaptation. Students were taught that it was acceptable, even fun, to fail at an initial task, and then continue learning. Students who found certain coding problems difficult were re-oriented to different problem sets. Teachers learned a new pedagogy and enhanced their skills. Whole families participated in the graduation ceremony and watched their children and grandchildren code in front of a 300-person audience. At September's DI Expo 2019, a MoEYS official commended Coding Cats' adaptive educational model. The ministry is considering how to expand the Coding Cats approach to other public schools and to TTCs.

#### **B2. DI activity results provided proof of concept for alternative learning methods.**

Cambodia relies on traditional educational approaches, such as memorization, rather than focusing on soft skills development. However, three DI activities have proven that transformative learning models for the Cambodian context exist: Technovation, Coding Cats and Edemy's *Tesdopi*. As noted on page 24, Technovation's success contributed to digital education's inclusion in MoEYS' Education Strategic Plan 2019-2023. Technovation looks likely to enjoy a symbiotic relationship with Cambodian educational policy because of its strong results in

<sup>37</sup> "Technovation Cambodia Impact Assessment", Inta Plostins, October 2019, Development Innovations for USAID, Page 15.

<sup>38</sup> "Technovation Cambodia Impact Assessment", Inta Plostins, October 2019, Development Innovations for USAID.

cultivating leadership and critical thinking skills: in September 2019, MoEYS received a \$30,000 budget allocation from MoEF for Technovation’s 2020 provincial expansion.

Technovation was not the only DI-funded initiative to enjoy proof of concept. Coding Cats modelled a new pedagogy that focused on ‘coding to learn’, i.e. developing the creative thinking skills that coding requires, as validated in June 2019 FGDs. As mentioned earlier, MoEYS is reviewing the Coding Cats’ curriculum for possible scaling in the Cambodian school system. Furthermore, MoEYS has expressed an interest in adapting Coding Cats for its TTCs so teachers are equipped with more educational techniques from the start of their careers.

**“(I am) most proud of when the (Coding Cats participants) said ‘it’s not that hard.’ It really clicked for them and it was great.” – Trainer on Coding Cats**

Edemy’s *Tesdopi* provided a different learning approach. Rather than focusing on trainer- and mentor-led educational techniques, they applied HCD principles to *Tesdopi*’s structure and content. The Edemy team met with students face-to-face throughout the country to understand their learning behaviors. Edemy then revised *Tesdopi* to reflect the students’ preferred educative pathways. As a result, *Tesdopi* downloads exceeded Edemy’s target by 60% and the *Tesdopi* Facebook page, which includes the weekly *Tesdopi* STEM Champion challenge, reached more than 1.3 million people and received 80,000 *Tesdopi* video views. Edemy is evaluating *Tesdopi* before presenting their results to MoEYS.

**B3. DI’s CSO and private sector partners influenced each other in unexpected and beneficial ways.** As mentioned above, DI facilitated partnerships between CSOs and businesses to address Cambodia’s development challenges. By working together, some CSOs developed a more business-like approach while the businesses, particularly TSPs, altered their business models to include more socially oriented projects. On the civil society side, DI CSO partner Open Institute (OI) developed Bongpheak, a portal for low skilled and unskilled workers designed to counter human trafficking. Seeking investment to keep Bongpheak sustainable, OI joined the DI-funded, MSP-implemented SmartScale program. The program connected OI to private sector mentors and venture capitalists, who introduced OI to a business approach and strategic analytical tools they had never encountered. As of September 2019, OI and a potential investor were negotiating a mutually beneficial investment structure.

An equal and opposite effect has occurred with businesses, particularly TSPs: companies that became involved in DI-funded activities reported pursuing more civil society clients. The technology company CamMob first encountered DI in 2014 at networking events that aimed to sensitize TSPs to civil society’s goals and needs. Through DI, CamMob participated in DI design thinking workshops and partnered with WE on the TEST and TESTX apps. As a result of the partnership, CamMob sought more civil society work, collaborating with Watershed to improve rural sanitation and with the International Labour Organisation (ILO) on a job survey application for Cambodia, Vietnam, and Laos. As referenced earlier, TSP Bikay had a similar experience with DI partner CamConscious Tourism, with whom they developed the Impact Explorer community-based tourism app. Like CamMob, Bikay has altered its business model to focus more on social development and government clients.

**B4. DI partners are attracting international recognition.** As the program progressed, some DI partners’ successes began to attract international actors’ and networks’ attention. These partners reported that their DI association played a significant role in raising their profiles and opening doors in other countries. With DI’s help, SHE is launching a new TOT blended learning platform on *Ngeay Ngeay* in November 2019, combining e-learning, toolkits and video tutorials. In an unforeseen development, female SME organizations in Myanmar became aware of the curriculum and have invited SHE to deliver the TOT to their clients in 2020 – SHE’s first international endeavor.

IHPP revealed that their association with DI has led to international recognition. As mentioned above, IHPP held an entrepreneur platform exchange funded by USAID’s WE Act project in September 2019 with special guests Malaysian Global Innovation Centre and the ASEAN Centre for Entrepreneurship. The gathering shared experiences and best practices between the two ASEAN nations and included MoEYS, the Ministry of Commerce, MoEF, MPTC, the Ministry of Manpower and the Ministry of Planning. In addition, Frontier Incubators, a regional incubation platform, selected both IHPP and SHE to attend its Asia-Pacific ‘incubator of incubators’ in Singapore. Eighteen incubators from the region participated, coached by 12 of the world’s best incubators and followed by nine months of personalized mentorship.

DI’s support to People in Need (PIN) helped to develop, launch and refine the *Tepmachcha* flood early warning system for Cambodia. It has become an integral part of PIN’s platform with 24 devices already functioning throughout 16 provinces in Cambodia. *Tepmachcha* has more than 80,000 subscribers covering approximately 355,000 people. Subscribers and their families often tell their neighbors and nearby villages when a warning has been received, making it probable that *Tepmachcha* has an indirect reach of 1.5 million people. DI partner and PIN’s TSP ArrowDot are constructing an additional 35 units for placement in other at-risk sites around the country. The system has been so successful that PIN reports the US Department of State is looking at possible replication in Laos and the wider region.

***“With funding from DI, PIN engaged Bespokh to make some interesting changes to the original Tepmachcha design. After showing off Tepmachcha at the 2018 Cambodia Science and Engineering Festival, PIN got an inquiry from a private sector donor interested in funding air quality monitoring hardware for Phnom Penh.” - Made in Cambodia report, DAI, 2018***

In addition to institutional engagement on the international stage, DI staff, partners, and beneficiaries have been recognized outside Cambodia for their leadership abilities and technical skills. In early October, the Obama Foundation Leaders – Asia Pacific program selected Raintree co-founder Zoe Ng and Teach for Cambodia (a Raintree partner who facilitated Coding Cats’ entry into state schools) CEO Monirath Siv to represent Cambodia. The 200-strong cohort will participate in a year-long initiative to inspire, empower and connect young leaders to tackle the most pressing challenges facing their respective countries. See Annex C for a comprehensive list of awards, scholarships, and international recognition for DI staff, partners, and beneficiaries.

## SUSTAINABILITY

DI’s iterative learning and adaptation led to its consistent evolution. By Year 5, DI realized a sustainability focus would ensure that CSO, entrepreneur and technology partner gains had the greatest chance of enduring. In response, DI proposed scaling proven ICT solutions, delivering high quality in-demand ICT services (both fee-based and free) to build Cambodian capacity, and capacitating sustainability partners to deliver many DI services after the project closes<sup>39</sup>. At the strategic level, DI needed to carefully identify the right sustainability partners to maintain its high-quality service offerings. The selected organizations had to be able to replicate DI’s overall approach, understand the nature of DI’s role, have the capacity to adapt DI’s model in future (including financial and human resources) and act as a neutral party committed to development outcomes<sup>40</sup>. In Years 4 and 5, DI identified four key partners that would carry on its legacy: Cooperation Committee for Cambodia (CCC), SHE Investments (SHE), Impact Hub Phnom Penh (IHPP) and Vicheasthan Badosbondal Neakropkrong Kangea (VBNK).

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<sup>39</sup> “Development Innovations: Year Five/FY17-18 Workplan”, DAI Global, August 2017, USAID.

<sup>40</sup> “Development Innovations Results and Learning Review”, Laurie Pierce and Karim Bin-Humam, June 2018, USAID.

## A. SUSTAINABILITY PARTNERS

**A1. CCC.** After co-locating with DI for a year and DI's hands-on training and capacity building, CCC assumed the basic video training after a phased handover from DI in Year 5. Initially, CCC struggled to find (and retain) the right staff members to market the fee-based service to its members and other potential clients. However, adapting to the service's increasing demand, CCC committed to continue training delivery to serve more CSO members.

Over the past year, demand for more courses has increased, but CCC's capacity is limited. CCC reported that they organize one or two video trainings per month. In response to member organizations' needs, CCC has expanded the video training to include script, documentary, and advocacy writing. However, despite these tweaks, CCC's own 2018 Member Satisfaction Survey shows the video training ranks lowest in members' first preference for CCC training courses (out of 16 offerings), rising to fourth as a second preference and joint first as a third preference. The reviewers speculate that prohibitive video equipment costs disincentivize many Cambodian CSOs from taking this course. In response, CCC has begun to introduce the smartphone video training to its membership, which has greater applicability and will likely lead to greater uptake.

In addition, the video training that DI handed over to CCC still is not independently sustainable. Though some participant organizations purchase the training service for their own partners, the labor costs associated with trainers remain high. Fortunately, the labor expense is spread across CCC's budget because trainers often deliver more than one course. Even combined with CCC's other training offerings, video training will be a breakeven proposition.

Basic video training on its own is unlikely to become a standalone income stream for CCC unless it is scaled dramatically – a prospect that seems unlikely in the near term, even with more business-minded marketing staff. DI thinks that CCC's value to civil society is as a flexible service provider focused on their members. If they place too much emphasis on income generation targets, they may neglect service delivery for underserved groups.

**A2. SHE Investments.** Over the years, SHE has enjoyed enormous growth and success stemming from its fruitful partnership with DI: a 500 times more effective social media strategy, a tenfold expansion of female-headed businesses promotion through smartphone video training, the *Ngeay Ngeay* portal's expansion, and stronger relationships with the Ministry of Commerce and private sector companies. As of June 2019, 49 female entrepreneurs had graduated from SHE's two DI-funded incubator and accelerator programs. The impacts were almost immediate: graduates reported a \$338,301 total monthly revenue increase and 46 new jobs created.

SHE transitioned from a DI awardee to a sustainability partner in Year 6, with DI's assistance catalyzing its move from a start-up to an established organization. DI's integrated assistance was key: SHE received video production support, social media and smartphone video training delivery to staff and beneficiaries, coaching, HCD training and quarterly reflection sessions. The credibility SHE gained through DI and USAID helped them to bring another 50 businesses into the portfolio. In addition, the Ministry of Commerce and the Ministry of Women's Affairs gave SHE much more public support, attending launches and graduation events. SHE handled this rapid growth well, allowing them to scale and sustain.

SHE's future plans to generate income include:

- **Building on existing private sector relationships.** SHE's relationship with Banjhi, an accounting software firm, led to the development of a customized bookkeeping app enabling MSMEs to capture revenue and expenses and separate commercial and family finances. This app will generate small subscription fees in the future.

- **Developing a blended learning TOT initiative as a fee-paying income stream** (see page 26) in Cambodia, Myanmar, and beyond.
- **Delivering incubator and accelerator services for a microfinance institution (MFI)** in Phnom Penh and the provinces, as part of a three-year partnership.
- **Accepting longer-term investments from select strategic partners**, such as their new three-year partnership with the Dutch Good Growth Fund (DGGF). DGGF's commitment to assuming risk while enabling activity scaling for impact businesses and ecosystem builders has allowed to SHE to add three provincial teams.

DI and USAID support gave SHE a foundation for sustainable growth that enabled them to work with other large organizations and institutions. Given SHE's multiple revenue streams and interest from a range of actors, its sustainability prospects appear very promising. Even with DI's closure, SHE has enough advisory support from groups like Frontier Incubators, USAID (through PACT's WE Act project) and others to navigate any difficulties well. At present, SHE reports increasing demand for their business consultation services and accelerator and incubator services, as well as provincial expansion plans in late 2019<sup>41</sup>.

**A3. IHPP.** In Year 4, DI invested in IHPP's 12-month EPIC incubator program, focused on helping high potential, early stage social impact start-ups wanting to use ICT within their businesses. The two-stage program began with 11 participants, reducing to the five most viable businesses in Phase 2. In that phase, the participants received mentoring, coaching and assistance to create bespoke roadmaps for their businesses' growth<sup>42</sup>. Two start-up ventures – Edemy and My Dream Home, an eco-brick producer - demonstrated significant growth, reporting over \$200,000 in contract revenues as of October 2018.

DI's assistance came at the critical time for IHPP: DI's support to EPIC allowed it to become a recognized incubator in Cambodia's tech ecosystem, giving IHPP increased visibility and credibility in the sector<sup>43</sup>. IHPP now run "IHPP Online", developed in collaboration with the University of Northumbria and offering Khmer language start-up courses. More than 800 people have taken them, starting in February 2019. IHPP is exploring models to make the platform self-sustaining, possibly by offering online coaching sessions for a fee. They are also examining the demand for change maker and personal development programs. In September 2019, IHPP converted their co-working space to a meeting and training venue, reinforcing the tighter focus they have developed since their first DI engagement.

Since Year 5, IHPP has cultivated a relationship with Smart Axiata, considering themselves a key service provider to the tech giant. This includes managing SmartSpark, a three-month socially oriented entrepreneur development program, and SmartStart, an online accredited university entrepreneurship course taught at tertiary institutions. In addition to Smart Axiata, IHPP is receiving funding from some embassies and the USAID WE Act program. They are eyeing larger opportunities including MoEF, which has a \$5 million entrepreneurship fund and subsequent possible \$12 million. They hope that various ecosystem events, such as the entrepreneur platform exchange referred to earlier, will burnish their credentials with MoEF and other ministries. IHPP are also pitching their mentor programs to the ministry for scaling.

DI sees IHPP's value proposition in support to early and growth stage entrepreneurship initiatives, incubators and youth engagement activities. If IHPP wants to grow its service menu successfully, DI recommends hiring staff with the right profiles to expand IHPP sustainably and enabling them to deliver high quality, focused services.

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<sup>41</sup> "Development Innovations Quarterly Report April 2019-June 2019", DAI Global, July 2019, USAID.

<sup>42</sup> "Development Innovations: Year Five/FY17-18 Workplan", DAI Global, August 2017, USAID.

<sup>43</sup> "Development Innovations Annual Report October 2017-September 2018", DAI Global, October 2018, USAID.

**“DI funding helped us pilot our programs and contributed to building our credibility and trust from our next key strategic partners.” – Impact Hub Phnom Penh**

**A4. VBNK.** In Year 5, DI transitioned its popular social media training program to VBNK based on an assessment of their interest, internal resources and capacity, and their target groups’ demand. As of June 2019 and in partnership with USAID’s Cambodia Civil Society Strengthening program (CCSS), VBNK delivered six social media training courses in five provinces, training 42 CSO staff members<sup>44</sup>. Pre- and post-tests show that the course has helped participants develop their skills and demand is high.

In preparation for the transition, DI provided VBNK with an orientation, intensive coaching, analytics and advisory services. Although VBNK is a capacity building organization with a strong reputation of excellence, they reported that they were surprised at the quality level DI delivered. In particular, DI’s hands-on assistance improved VBNK’s public communications; they saw immediate growth in their reach and views, particularly in online registration.

To further augment their long-tenured staff of seasoned professionals, VBNK hired recent ITC graduates before taking over the social media training. At DI’s encouragement, VBNK also incorporated the smartphone video training course curriculum, recognizing the two courses’ symbiotic nature for prospective clients.

As indicated above, VBNK has innovated the course structure and content. Assessments revealed that participants require more course segmentation based on their digital literacy levels. In response, VBNK has added basic and advanced social media courses (developed without DI support), while their intermediate level social media course is based on DI content. They have translated the added basic and advanced level course materials into Khmer to promote inclusivity and reach more people.

VBNK see potential social media training growth areas and will engage USAID, the Swedish government’s Spider program and other bi-lateral donors with a media and communications mandate. Serving only civil society at present, VBNK may also sell their training services to the private sector and government while still offering *pro-bono* training to those that cannot. The private television broadcaster PNN, the Ministry of Women and Youth, the Ministry of Information and the Ministry of Health have all approached VBNK with an interest in and willingness to pay for their services, but VBNK’s capacity limitations have compelled them to postpone engagement. CSOs and social enterprises have also indicated they would pay VBNK for future training and advisory services, even as far as Ratanakiri.

VBNK’s commitment to capacity building and inclusivity are of a high standard. They have ventured, at considerable difficulty and expense, to Cambodia’s most remote regions to serve CSOs that would not ordinarily receive any assistance and cannot easily afford fee-based services. DI agrees that their value is in serving the underserved and lauds their efforts to also run fee-based courses. As advised in the partnership’s design, DI recommends VBNK continue to recruit trainers who remain at the forefront of technological changes and trends to ensure the courses stay relevant and maintain a high quality.

## **B. Sustainability Streams**

DI partners and beneficiaries are exploring, experimenting with, or have already implemented several techniques to maintain their programs or initiatives beyond DI funding. These are outlined below.

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<sup>44</sup> “Development Innovations Quarterly Report April 2019-June 2019”, DAI Global, July 2019, USAID.

**B1. Selling services (i.e. fee-for-service, subscriptions, or consulting fees).** Several organizations are exploring the possibility of charging for their services. As noted above, DI sustainability partner VBNK hopes to charge major corporations and government entities for the social media training, while continuing to provide free CSO trainings. Meanwhile, SHE will charge TOT service consulting fees to train other organizations' staff. They also hope to generate a management fee from placing women in investor incubators.

**B2. Selling products.** Other organizations are selling their products for a profit. Three ArrowDot-trained companies are currently developing business plans to bring their hardware products to market. Interestingly, at least two DI partners are implementing “freemium” models when selling their products. For example, OI is currently allowing businesses to post one job per month for free on Bongpheak, then requiring payment for each subsequent job. Edemy plans to charge a monthly \$3-\$5 fee for *Tesdopi* Premium (in addition to free services through the regular *Tesdopi* app). This will be a more integrated learning pathway for teachers and students, with more learning resources and competency tests to enhance the *Tesdopi* experience.

**B3. Private sector investment.** In some cases, DI grantees are partnering with the local private sector to continue funding their innovations. As mentioned on page 28, SHE has developed a three-year partnership with a large MFI in Cambodia to deliver incubators and accelerators, first in Phnom Penh and later in the provinces. They view this as a more secure road to sustainability than relying on donor funding. Through its SmartScale participation, OI found a private funder who wants to invest in the Bongpheak job employment platform through a unique profit-sharing structure. Some of Cambodia's biggest private companies have also funded numerous DI initiatives during and after their DI support. Please see pages 18-19 for more information about Smart Axiata's extensive funding and support of DI partners.

**B4. Support and/or adoption by RGC ministries.** Some DI partners have chosen to work closely with RGC ministries to maintain their interventions' sustainability. In some cases, individual ministries have entirely taken over and now 'own' specific DI-supported tech tools. According to InSTEDD, this includes *Trey Visay* career counselling app, which MoEYS now wholly runs and maintains. In other cases, government entities now fund DI activities. For example, Technovation received its first public sector funding via the MPTC-led CBRD Fund in 2019 and expects to receive funding from CBRD Fund for Technovation operating expenses and MoEYS (via MoEF) for provincial expansion in 2020.

**B5. New donor funding.** Several DI partners are actively pursuing – and have received – new donor funding to maintain their tech products, in part because of their collaboration with DI. Key donors include UNDP, UNICEF, ESCAP, DW, TdH, the British Embassy in Cambodia, and others (page 19).

## RECOMMENDATIONS

### IMPROVING ACTIVITY DESIGNS AND THE CO-DESIGN PHASE

Early activity design phase collaboration enables programs and their prospective partners to build bonds of trust, respect and ownership of upcoming initiatives, giving them a stronger foundation for success. Cultivating and involving partners early ensures that they understand activity objectives and their relevant expertise is optimized. From partner selection to co-design to sustainability considerations, DI possesses rich design experience and applied lessons. DI has learned, adapted and innovated program development in many ways to ensure that activities obtain ever improving outcomes and enduring impacts. ***Future DI-like programs in other countries and other Cambodia programs should consider:***



- **Building a rapid activity co-design process into every future program.** A respectful and collaborative co-design process enhances or tweaks partner ideas based on local context and/or knowledge of previous successful and unsuccessful interventions or digital tools. Intensive co-design need not be time-consuming. Partners will feel valued for their ideas and much more willing raise concerns quickly with program staff, thus saving time that would be lost on poorly conceived activity designs and reluctance to communicate. Such a process reinforces trust between program and partner staff and contributes to better, more sustainable outcomes. Future programs must also ensure that the most relevant partner staff are involved in the co-design process. This will have the best chance to predict unforeseen circumstances or consequences and capture potential activity level opportunities.
- **Encouraging more partner investment in proposed activities.** Demonstrated organizational commitment to a proposed solution or digital tool should be a critical element in funding decisions. With co-investment as a proxy for organizational commitment, this may include proposed partner activity contributions, including in-kind. It could consist of well-developed use cases and sustainability plans process or other proof that partners will not drop the solution once funding ends.
- **Applying HCD principles throughout all activity stages.** The co-design stage enables program staff to sensitize partners to HCD principles. CSOs and TSPs both will benefit from a shared base understanding of HCD, online engagement and other methodologies, and how they relate to civil society activities. This may include:

  - Encouraging and incentivizing partners to attend HCD trainings early on.
  - Ensuring that TSP scopes of work clarify which party or parties are responsible for user research, testing and feedback.
  - Remaining actively involved with a partner's TSP selection criteria development, especially for partners who may have little previous TSP experience. However, CSOs must lead selection criteria development and take responsibility for the TSP selection and ensuing relationship.
  - Promoting selection criteria that demonstrate TSPs' dedication to research, design and test activities, not only to writing code or meeting technical specifications. Selection criteria should also reflect TSP understanding of the time necessary to balance a thorough research-design-testing process with the speed of change in civic technology activities.
  - Ensuring partners and/or TSPs conduct user research, including which platforms and digital tools people already use and other context-specific factors like connectivity, smartphone availability, etc.
  - Ensuring that numerous partner organization staff know about the solution and conduct target audience and other stakeholder awareness raising to increase buy-in and use.
- **Striking a balance between quantity (numbers) and quality (appropriateness) for trainings,** tweaking the ratio as needed. For instance, DI learned that training uptake for its specific target population was strongest with at most 10 course participants, resisting the pressure to increase numbers. In another country or for a different target population in Cambodia, that trainer-to-trainee ratio may be higher or lower while the appropriate delivery methods might vary.
- **Targeting youth as information and tech disseminators,** thus increasing activity beneficiaries' trust and expanding activity reach. In countries with large youth populations, including Cambodia, young people have an opportunity to become digital change agents because they tend to understand technology better than their parents and grandparents. The greatest challenge to similar programs is ensuring that young people remain safe online as they promote solutions placing them at the forefront of the civic technology ecosystem.

- **Tailoring all program content to the local context and local language.** This helps ensure that the most relevant information reaches the greatest number of people. A large majority of DI's most impactful activities took place in Khmer and were contextualized to civil society and the civic technology ecosystem. One exception would be initiatives linked to an international standard or platform, like Technovation Global's requirement to pitch in English.
- **Considering different manifestations of sustainability.** As mentioned above, some activities are unsustainable for valid reasons. Program management and staff should determine which ones qualify. However, in these cases, it may be possible to develop a sustainability plan proxy by helping partners identify how they could apply acquired skills and knowledge to future initiatives – akin to a CLA plan.

***Future DI-like programs in other countries should consider:***

- **Engaging relevant government ministries and departments, where interests align.** This could include any partner activities under development where the host government could benefit from solutions, tools or services. Incorporating their input prior to project implementation is important, optimizing valuable time and resources and ensuring maximum government buy-in and support.

**STREAMLINING FUNDING PROCESSES AND MECHANISMS FOR PARTNERS**

In the ICT sector, speed is of the essence because technology changes and evolves so quickly. Delays result in “missing the moment” and the opportunities these carry. The slow speed and extensive requirements of grant-making mechanisms should not constrain donor-funded programs and activities from seizing narrow tech sector windows of opportunity. DI's early years revealed the incompatibility between the current grant process and the speed of change in the business community and technology sector. This was exacerbated in Year 6 when DI further increased its private sector partner engagement. To address this, DI has been reducing documentation, accelerating decision making and streamlining its grant funding and management process. DI has contracted a business process consultant well-versed in USAID regulations and DAI procedures to conduct an internal review. ***Future DI-like programs in other countries and other Cambodia programs should consider:***

- **Minimizing bureaucracy and regulatory obstacles while emphasizing agility and responsiveness in grants management.** It may be that a cooperative agreement is not the best overall contracting mechanism. USAID should consider other options that enable implementers to move rapidly while delivering value for money.
- **Simplifying fixed award amount (FAA) grant milestones and deliverables,** so that paperwork does not take priority over thoughtful implementation and strong MEL for partners.
- **Exploring alternative funding mechanisms for smaller activities,** such as an Office of Transition Initiatives (OTI)-style technical assistance pool, large sub-contracts or “micro” purchase orders. An OTI-style technical assistance pool includes short term technical assistance (STTA) consultancies and direct distribution of goods and services (DDGS). The former may be particularly useful if partners do not possess in-house ICT capabilities and require an embedded external consultant. The DDGS instrument could be employed when the same goods or services are required across many partner activities, thereby minimizing procurement delays and delivering program-wide economies of scale. Future programs can leverage private sector partners through subcontracts to meet large companies' needs,

aligning timelines and staffing structures with budgets and deliverables that incentivize private sector demand structures. Similarly, a challenge fund like DI's YIC, which issued small purchase orders, can engage new non-traditional partners like small sole traders and informal networks - increasingly important tech sector change agents worldwide.

## **PROVIDING MORE TAILORED INTEGRATED ASSISTANCE TO PARTNERS**

Over the program's life, DI has demonstrated that an integrated full-service offering - tailored to partner needs and underpinned by a right-sized staff with in-demand skill sets - improves activity outcomes and accelerates partner capacity development. In particular, DI has learned that mentorship, whether directly with partners or embedded in partner initiatives with beneficiaries, requires a tailored approach that considers individual activity objectives and mentee needs. By targeting support in this way, future programs will ensure that financial and human resources achieve maximum efficacy and impact. ***Future DI-like programs in other countries and other Cambodia programs should consider:***

- **Offering an individualized integrated service suite that complements grant funding, based on individual partner needs.** This includes training, coaching, mentorship, technical advisory services, strategic communications, networking and convening. Mentorship and coaching supplement digital tools development. Technical assistance and training reinforce a whole-of-solution approach, benefitting many organizations. Leveraging social media platforms such as Facebook can exponentially extend mentorship, coaching and advisory services and unlock strategic communications' power. Programs should consider encouraging partners to mentor other organizations in the civic technology community, unleashing a multiplier effect to new groups and locations.
- **Coupling entrepreneurship training with digital skills training for an integrated skills development package.** As DI has shown, this approach's by-product is improved soft skills, including increased confidence, better communication skills and enhanced teamworking abilities, giving beneficiaries a broader growth foundation.
- **Segmenting partners by capacity and skill level to target appropriate support.** Different types of CSOs and actors possess differing capacity levels. For example, a five-person Banteay Meanchey-based CSO has different needs and abilities than 50-person Phnom Penh-based national CSO. Donor-funded support should recognize and respect these differing skill levels and provide customized support. This includes all types of assistance, such as training, incubators, accelerators and scale initiatives.
- **Selecting and customizing mentorship recruitment, retention and coordination** based upon each activity's type, thematic focus and context. These include:
  - Formulating and conveying specific objectives for each mentorship initiative.
  - Conducting mentor recruitment, selection, and training with a focus on quality and commitment, including:
    - Better mentor vetting based on objectives and mentee group needs;
    - Expected timing and frequency of mentor-mentee engagement;
    - Clarity on mentor and mentee roles;
    - Mentor-mentee rules of engagement.
  - Matching mentors and mentees based upon topical area, skills sought (mentee) and relevance of skills/background/experience (mentor).
  - Incorporating an integrated suite of incentives to keep mentor motivation and retention high.
- **Hiring an appropriate number of capable staff across all areas of the program,** to maintain overall program quality. This is especially true for training and technical advisory

services, where the right trainers and coaches – those with a practical, applied approach focusing on quality and relevance, followed up with consistent partner engagement – are essential. Organizations should draft precise work scopes and employ rigorous selection criteria to ensure the strongest candidates are selected. In addition, similar programs should aim to recruit young people because they are technologically savvy and can extend program reach. This will help create a pipeline of young people interested in the civil society-technology nexus, while generally building their capacities and influence with a range of stakeholders.

## **OPTIMIZING COMMUNICATIONS WITHIN PROGRAMS AND ACTIVITIES:**

One of DI's greatest success factors has been its ability to leverage its team's strategic communications skills to amplify program objectives and promote partner initiatives. Underpinned by a cross-cutting strategic communications plan, DI raised the program's and its partners' accomplishments to national and international attention, expanding impact exponentially. Future civic technology programs should build a solid strategic communications foundation with capable staff, a detailed outreach plan and a commitment to communications capacity building with partners. ***Future DI-like programs in other countries and other Cambodia programs should consider:***

- **Recruiting a well-staffed strategic communications and/or social media team** that can build a strong program presence and train partners in strategic communications and/or social media. DI has proven that strategic communications is transformative to programs, partners and initiatives. Having the relevant strategic communications skills in-house will enable future programs to provide customized training and capacity building support to partners. As a result, partner organizations will be able to tell their stories using the latest tools and mediums, helping to promote their messages and, in turn, advocate more widely.
- **Developing a program-wide strategic communications plan**, prioritizing online platforms already popular among respective countries' target populations. Social media should have a place within the plan, especially in sharing partner information and knowledge and publicizing events. Ideally, the strategic communications plan should foster organic linkages with various civic technology ecosystem actors.
- **Building in strategic communications support to partners** but linking specific assistance types and levels to partner capacity and sustainability considerations. Furthermore, future programs should publicize partner technological solutions and digital tools on their social media channels and websites, widening exposure and attracting youth's attention, reinforcing their role as tech ambassadors.

## **FOSTERING RELATIONSHIPS AND MANAGING PERCEPTIONS AND EXPECTATIONS OF CIVIC TECHNOLOGY PROGRAMS**

Pre-award partner engagement is a time to set common expectations and align priorities. It can be used to communicate the exact nature of a civic technology program's role in civil society and detail the benefits of participating in non-grant service offerings like training and coaching. Throughout the program's life, DI has conducted popular grant and partnership information outreach. These events have represented an excellent opportunity to reinforce DI's civic technology ecosystem role and the value of integrated services. DI also helped to build collaborative relationships between civil society and TSPs, both at the ecosystem level and within the context of specific activities. In many cases, the CSO-TSP connections that DI facilitated have endured as long-term relationships beyond an activity's life. ***Future DI-like programs in other countries and other Cambodia programs should consider:***

- **Providing a comprehensive orientation to partners:**
  - Describing clearly the program's mission and offering;

- Setting expectations of the program’s primary role and value beyond funding;
  - Highlighting the need (or requirement) to participate in integrated service offerings.
- **Fostering collaborative relationships between CSOs, social enterprises and TSPs** to ensure optimal design, deployment and use of civic technology solutions. This can take place at networking and convener events, as well as facilitating personal introductions at the activity level.
  - **Reiterating program goals, roles and responsibilities with current and potential partners** at every opportunity and addressing misconceptions as these arise. Though misconceptions may linger, it is the best chance of embedding the program’s purpose into the ecosystem’s consciousness. This will be particularly important if a program changes significantly over its life, which will require a more proactive socialization with current and potential partners.

## CHAMPIONING A COLLABORATIVE, ADAPTIVE LEARNING CULTURE

Programs committed to MEL and adaptation at each life cycle stage produce higher quality, more enduring results. DI has been allowed to test, learn and pivot and has become more effective because of it. In modelling CLA by acting upon real-time feedback, DI has also reinforced an iterative learning culture with its partners throughout the civic technology ecosystem. As noted above, many have institutionalized the behavior, making them more entrepreneurial despite a longstanding resistance to change in civil society. ***Future DI-like programs in other countries and other Cambodia programs should consider:***

- **Enshrining CLA culture at the program design and implementation stage** by allowing partners to take educated risks and make frequent course corrections based on learning and research. DI has demonstrated how consistent adaptation can improve program objectives and activity outcomes. Building reflection and/or lessons learned sessions into program and activity designs reinforces best practice and promotes CLA culture within the civic technology ecosystem. Future programs will be more effective and impactful by adopting this approach at the earliest stages.
- **Investing heavily in rapid or design research**, ensuring that the research cycle is iterative over a program's life and reflects the changing sector landscape. DI commissioned many studies, assessments and reviews throughout the program’s life. These research findings informed subsequent program shifts and improved activity designs. By using research as a vital tool, new programs can capitalize on sector changes to design and implement more appropriate interventions.
- **Holding regular program level reflection, lessons learned and strategic review sessions** to allow program teams the freedom to pilot and test new ideas. Through these forums, DI created a safe space in which staff could introspect, brainstorm and develop alternative ways of advancing Cambodia’s civic technology ecosystem. Furthermore, DI obtained regular partner feedback through annual surveys and quarterly reflection forums, supplemented by FGDs. Future civic technology programs that emulate this model will be more responsive and innovative. Annual partner surveys of technology needs, knowledge gaps and feedback on program initiatives will inform each year’s work plan and facilitate effective use of CLA processes. Quarterly reflection meetings and other means will elicit lessons for future application and reinforce a collaborative learning and adaptation culture.

## CULTIVATING, EXPANDING AND SOLIDIFYING THE CIVIC TECHNOLOGY ECOSYSTEM

From the start, DI recognized the importance of the civic technology ecosystem to identify technological solutions for Cambodia's most pressing development issues. Over time, DI consolidated its partner and other stakeholder base to make the ecosystem bigger and stronger. As DI closes, it leaves behind a vibrant civic technology ecosystem with a range of players and champions, from CSOs to private sector companies to government ministries. ***Future DI-like programs in other countries and other Cambodia programs should consider:***

- **Investing time in understanding the local tech ecosystem and the existing civil society/tech nexus.** Bringing real value to a country-specific civic technology community requires a deep comprehension of the local civil society and tech sectors. This includes understanding individual CSO actors and their digital capacity as well as individual tech companies and their previous NGO sector exposure and work. With this knowledge, programs can pinpoint real opportunities to facilitate and create change. Because technology evolves so quickly, as do tech companies and start-ups, keeping a pulse on the sector is critical to identifying windows of opportunity.
- **Pulling in the private sector, public sector or other development actors, where interests align.** A key DI lesson learned was the ability to identify and leverage major public, private, or international institutions' interests to create strategic partnerships at the activity level. This allowed DI to amplify its impact several times over. Future programs should endeavor to recognize and then capitalize on mutual interests.
- **Linking partners and initiatives to each other,** creating a wider yet more interconnected civic technology ecosystem. This means developing a joint talent pipeline with the civil society, business, investment and technology communities. In addition, future initiatives should look to create a community of its partners, both past and present, linking them to one another while keeping them connected to the program itself. This requires staying in touch with partners beyond the grant period and cultivating interactions between past and current partners and beneficiaries.
- **Promoting existing civic technology networking events and encouraging other organizations to host them.** For instance, the cadre of organizations that want to become "legacy mentors" to others represents a possible opening to convene. Networking events need not be expensive, especially if the organizations hosting them can leverage private sector partnerships in exchange for branding.

## CONCLUSION

The assessment team is indebted to the many institutions and individuals that made this endeavor possible. Firstly, the team thanks DI Chief of Party Kate Heusler, Senior Innovation Program Manager Sotheavy At, and Operations Manager Foard Copeland for their leadership, warm welcome, the many meetings with the team over the weeks and their input and guidance throughout this assignment. The team members also thank former MEL Specialist Lydet Pidor and Innovation Program Assistant Sreylen Chea for their assistance in compiling the documentation and arranging the interview schedule. In addition, the team acknowledges the help it received from DI project staff and the friendship we felt from each of you. The reviewers convey their deep appreciation for each organization and individual interviewed. We felt welcomed everywhere and are grateful for your candor. Finally, the team thanks USAID for its interest in and support for the results and learning assessment.

## Annex A – List of Documents Reviewed

1. DI Annual Report 2017-10-01 to 2018-09-30
2. DI Quarterly Report 2018-10-01 to 2018-12-31
3. DI Quarterly Report 2019-01-01 to 2019-03-31
4. DI Quarterly Report 2019-04-01 to 2019-06-30
5. DI Results and Learning Assessment Report 2018-06
6. DI Year Six/FY18-19 Work Plan
7. DI Funded Projects in Year Six
8. DI Success Stories on Sustainability 2019-02
9. Progress of Year Six Planned Activities Report 2019-05-07
10. Impact Survey in Summary, Cambodia ICT Camp 2018
11. Made in Cambodia Report 2018
12. Tech Innovation Sector of Phnom Penh: Landscape Scoping and Narrative of Change 2013-2018
13. Key Actors in the Tech Innovation Sector Map 2018-06
14. The Lab@DI Services Transition Plan 2018-08
15. List of Beneficiary Projects – Youth Innovate Cambodia
16. List of Trainee Product Prototypes – ArrowDot
17. Recruitment Plan and Selection Criteria – Chea Jofeh
18. First Monitoring Report – Danmission (Preahrokar Forest Community Network) 2019-06-01
19. Milestone 2 Progress Report – Chea Jofeh
20. Mid-Cycle Evaluation Report – WEDU (Mentoring and Leadership for Women in Tech in Cambodia) 2019-05-01
21. Report of Cohort I Training Program – Saturday People and Raintree (Coding Cats)
22. Final Evaluation Report – Edemy (Tesdopi) 2019-08-21
23. Final Evaluation Report – IT Academy STEP (Sisters Of Code) 2019-06
24. Final Evaluation Report – WEDU (Mentoring and Leadership for Women in Tech in Cambodia) 2019-07-10
25. Grantee Final Report – ArrowDot 2019-06-21
26. Grantee Final Report – Bikay 2019-06-21
27. Grantee Final Report – Danmission 2019-06-10
28. Grantee Final Report – Edemy 2019-08-21
29. Grantee Final Report – Energy Lab 2019-06-15
30. Grantee Final Report – InSTEDD 2019-06-24
31. Grantee Final Report – IT Academy STEP 2019-06-28
32. Grantee Final Report – Saturday Kids and Raintree (Coding Cats) 2019-07-08
33. Grantee Final Report Appendix – Saturday Kids and Raintree (Coding Cats) 2019-07-08
34. Grantee Quarterly Report – SHE Investments 2018-11-09
35. Grantee Quarterly Report – SHE Investments 2019-01-11
36. Grantee Quarterly Report – SHE Investments 2019-04-08
37. Beneficiary Final Report – Youth Innovate Cambodia (Digital Noodle) 2019-06-14
38. Beneficiary Final Report – Youth Innovate Cambodia (e-Khmer Law Registry) 2019-06-14
39. Beneficiary Final Report – Youth Innovate Cambodia (Why Get Marriage at the Young Age) 2019-06-14
40. Beneficiary Final Report – Youth Innovate Cambodia (You and Law) 2019-06-14
41. Project Beneficiary Interview Notes (Gov Huykeang) – WEDU 2019-06-12
42. Project Beneficiary Interview Notes (Sok Sreymom) – WEDU 2019-06-12
43. Project Beneficiary Interview Notes (Unknown) – WEDU 2019-06-14
44. Project Beneficiary Interview Notes (Prum Saknakosnak) – WEDU 2019-06-18
45. Project Beneficiary Interview Notes (Sngoun Chantrea) – WEDU 2019-06-21
46. Project Beneficiary Interview Notes (Unknown) – WEDU 2019-06-21
47. Project Beneficiary Interview Notes (Sai Kimsan) – WEDU 2019-06-23

48. Project Beneficiary Interview Notes (Mok Monita) – WEDU 2019-06-24
49. Project Beneficiary Interview Notes (Ham Solaroo) – SHE 2019-03-10
50. Project Beneficiary Interview Notes (Hok Sreymom) – SHE 2019-03-20
51. Project Beneficiary Interview Notes (Chheang Nyrita) – SHE 2019-04-05
52. Project Beneficiary Interview Notes (Som Sreymom) – SHE 2019-04-05
53. Project Beneficiary Interview Notes (Rov Sovannangkeara) – SHE 2019-04-08
54. Project Beneficiary Interview Notes (Chang Sok Hung) – SHE 2019-04-09
55. Project Beneficiary Interview Notes (Eng Chanthea) – SHE 2019-04-09
56. Project Beneficiary Interview Notes (Chheang Hayyana) – SHE 2019-04-10
57. Project Beneficiary Interview Notes (Neou Thearith) – SHE 2019-04-11
58. Project Beneficiary Interview Notes (Var Chacheng) – SHE 2019-04-12
59. Project Beneficiary Interview Notes (Ny Souta) – SHE 2019-04-22
60. Project Beneficiary Interview Notes (Moeurn Sokmean) – SHE 2019-05-06
61. Project Beneficiary Interview Notes (Pha Doung Coconut) – SHE 2019-05-07
62. Project Beneficiary Interview Notes (Kourn Chenda) – SHE 2019-05-08
63. Project Beneficiary Interview Notes (Hun Reaksmey) – SHE 2019-05-07
64. Project Beneficiary Interview Notes (Keo Kanitha) – SHE 2019-05-08
65. Project Beneficiary Interview Notes (Seo Sothea) – SHE 2019-05-10
66. Focus Group Discussion Notes – ArrowDot (PIP) 2019-06-23
67. Focus Group Discussion Notes – Edemy (Tesdaopi) 2019-06-18
68. Focus Group Discussion Notes – Energy Lab 2019-06-29
69. Focus Group Discussion Notes – IT Academy STEP (Sisters of Code) 2019-06-09
70. Focus Group Discussion Notes – IT Academy STEP (Sisters of Code) 2019-06-15
71. Focus Group Discussion Notes – Saturday Kids and Raintree (Coding Cats) 2019-06-30
72. Focus Group Discussion Notes – Youth Innovate Cambodia 2019-07-11



## Annex B – List of Interviewees

### Current and Former DI and DAI/Bethesda Staff

No.	Name
1	Kate Heuisler
2	Navy Toeu
3	Gecheang Chea
4	Pounlok Sour
5	Lydet Pidor
6	Vannarith Chheng
7	Kimly Por
8	Chansidavuth Prak
9	Sothany Sin
10	Chandy Mao
11	Samnang Oung
12	Sophay Uch
13	Sotheavy At
14	Muyteang Tan
15	Sreylen Chea
16	Foard Copeland
17	Sopha Chy
18	ChavAn Chin
19	Leanghort Sok
20	Simeng Tim
21	Walter Weaver
22	Julie Browning

### DI Partners and Beneficiaries

No.	Name
1	Tchissole Carvalho, WEDU
2	Sangva Lim, ArrowDot
3	Natalija Rodionova, IT Academy STEP
4	Celia Boyd, SHE Investments
5	Leo Jofeh, Chea Jofeh
6	Saroeun Soeung, CCC
7	Ernst Jurgensen, Danmission
8	Bridget McIntosh, Energy Lab
9	Try Thy, Open Development Cambodia
10	Meas Sak Pheng, Edemy
11	Bora Kem and Jolyda Sou, Mekong Strategic Partners
12	James Happell, People in Need
13	Melanie Mossard, Impact Hub Phnom Penh
14	John Tan, Saturday Kids and Penhleak Chan, Raintree
15	Rottana Ly, Institute of Technology Cambodia
16	Angie Conroy and Angkiaroth Srieng, VBNK
17	Javier Sola, Open Institute
18	Jitka Markova, CamConscious Tourism and Kamaroudin Sos, Bikay

19	Sokuntevy Chhy, YIC, Technovation and WEDU Beneficiary
20	Chantra Be, NIPTICT
21	Sovachhara Hour, e-Lab
22	Solyda Sim, Sisters of Code Beneficiary
23	Voneat Pen, Coding Cats, Technovation and WEDU Mentor
24	Vathana Sann, Ministry of Education, Youth and Sport
25	Channe Suy Lan and Phalyka Sok, InSTEDD
26	Pisey Pech and Sreyros Keo, Transparency International Cambodia
27	EZECOM
28	Sereyrath Aing, Young Eco-Ambassadors
29	Narin Hak, Cambodian Center for Independent Media
30	Latt Ky, formerly Adhoc
31	Sodany Tan, Ministry of Post and Telecommunications
32	Tan Kim Heng, Khmer Youth Association
33	Kulteng, Media One
34	Dara Kim, World Education
35	Barmey Phan Phorp, Advocacy and Policy Institute
36	Sam Oi Um, Children in Families
37	Bruce Kay and Serey Chan, USAID/Cambodia

## Annex C – List of awards, scholarships, and international recognition for DI staff, partners, and beneficiaries

Awards for individuals						
Year	Name	Position	Organizational Affiliation	Award / Scholarship	Category	Status
2017	Sopheakmonkol Sok	Co-founder and CEO	Codingate Co.,Ltd.	ASEAN Rice Bowl Startup Awards 2017	Founder of the Year	Winner
2018	Heang Oumouy	Projects Manager	Cam Solution	Technovation's Regional Ambassador of the Year Award in San Francisco	Regional Ambassador of the Year Award	Winner
2018	Penhleak Chan	Commercial and Community Manager	Raintree	Cambodian Women in Tech Award 2018	Cambodian Woman ICT for Community Award	Winner
2018	Fat Si Em	Transport Planning and Optimization Manager,	Cellcard	Cambodian Women in Tech Award 2018	Cambodian Woman ICT Engineer Award	Winner
2018	Long Leakhena	Co-founder	Jonaak Delivery	Cambodian Women in Tech Award 2018	Cambodian Woman ICT Entrepreneur Award	Winner
2018	Youk Chhang	Executive Director	Documentation Center of Cambodia (DC-Cam)	2018 Ramon Magsaysay Award		Winner
2018	Sopheap Chak	Executive Director	Cambodian Center for Human Rights (Cambodia)	Franco-German Prize for Human Rights and the Rule of Law	Human Rights and the Rule of Law	Winner
2019	Sokuntevy Chhy	Co-founder and CEO	E-Lab	Cambodian Women in Tech Award 2019	Girl Innovator Award Winner	Winner
2019	Sovan Srun	Co-founder and CEO	Sovan Srun	Top Female Entrepreneur Award by Total 2019	Start-up Award	Winner
2019	Sopheap Chak	Executive Director	Cambodian Center for	Women of the Future Awards	Community Spirits	Shortlisted

			Human Rights (Cambodia)	Southeast Asia 2019	and Public Service	
2019	Heang Oumouy	Projects Manager	Cam Solution	Cambodian Women in Tech Award 2019	Community Award	Winner
2019	Pong Limsan	Founder and CEO	First Womentech Asia	Cambodian Women in Tech Award 2019	Cambodian Woman ICT Entrepreneur Award	Winner
2019	Seng Sokheng	Co-founder and CEO	<a href="http://Wapatoa.com">Wapatoa.com</a>	Cambodian Women in Tech Award 2019	Creative Digital Content Award	Winner
2019	Sotheavy At	Senior Innovation Program Manager	Development Innovations	Women of the Future Awards Southeast Asia Shortlist 2019	Media and Communications	Shortlisted
2020	Natalja Rodionova	Managing Director	IT Academy STEP Cambodia	Women of the Future Awards Southeast Asia Shortlist 2020	Mentor	Shortlisted
2020	Lida Loem	Co-founder and Head of Programs	SHE Investments	Women of the Future Awards Southeast Asia Shortlist 2020	Mentor	Shortlisted
2020	Sotheavy At	Senior Innovation Program Manager	Development Innovations	Women of the Future Awards Southeast Asia Shortlist 2020	Media and Communications	Shortlisted
<b>Awards for organizations / companies</b>						
2015	Aide et Action Cambodia		Aide et Action Cambodia	Cambodia ICT Awards 2015	The Best Performance in Corporate Social Responsibility (CSR)	Winner
2015	Khmer Smart Keyboard		ALiEN DEV - KRUY Vanna	Cambodia ICT Awards 2015	2nd Place	Winner
2015	Edemy		Edemy	Regional Mekong Business Challenge 2015	Business Competition	Winner
2016	Action IEC/TosFund		Action IEC	Cambodia ICT Awards 2016	3rd Place	Winner
2017	Cafe Robot		ArrowDOT	Cambodia ICT Awards 2017	Research and Development	Winner
2019	BLOC		BLOC	Cambodia Rice Bowl Start-Up Awards	Best Newcomer	Winner

2019	ArrowDot		ArrowDot	Cambodia Rice Bowl Start-Up Awards	Best IoT Startup	Winner
2019	Mekong Strategic Partners		Mekong Strategic Partners	Cambodia Rice Bowl Start-Up Awards	Investor of the Year	Winner
2019	Impact Hub Phnom Penh		Impact Hub Phnom Penh	Cambodia Rice Bowl Start-Up Awards	Best Accelerator or Incubator Program	Winner
2019	Buyloy		Buyloy	Cambodia Rice Bowl Start-Up Awards	People Choice	Winner
2019	Muuve		Muuve	Cambodia ICT Awards 2019	Tech Startup	Winner
2019	Tesdopi		Edemy	Cambodia ICT Awards 2019	Social Innovation	Winner
2019	BookMeBus		BookMeBus	Cambodia ICT Awards 2016	1st Place 2016	Winner
2019	Smart Farm Assistance		Smart Farm Assistance	Barcamp ASEAN Student Showcase 2019	1st Place Winner	Winner
2019	E-Lab		E-Lab	Barcamp ASEAN Student Showcase 2019	2nd Place Winner	Winner
2019	Tesdopi		Edemy	Top Startupper Award by Total 2019	Start-up Award	Winner
<b>Scholarships</b>						
2015	Rottana Ly	Lecturer and Incubation Program Coordinator at Department of Information and Communication Engineering	Institute of Technology of Cambodia	Erasmus Mundus Scholarship	University of Paul Sabatier, Toulouse III - Master of Science in Software Development	Awardee
2018	Sokuntevy Chhy	Scholar	Technovation	Kirirom Institute of Technology Scholarships	Kirirom Institute of Technology - Software Engineering	Awardee

2019	Lydet Pidor	Chevening Scholar	Development Innovations	Chevening Scholarship	University of London, Birkbeck College, School of Business, Economics and Informatics - Master of Science in Business Innovation with Entrepreneurship	Awardee
2019	Rottana Ly	Lecturer and Incubation Program Coordinator at Department of Information and Communication Engineering	Institute of Technology of Cambodia	French Government Scholarship	University of Grenoble Alpes - Doctorate Degree in Computer Science (Computer Vision and Machine Learning)	Awardee
2019	Chansocheata Poom	NZS 2019 Scholar	Development Innovations	New Zealand Scholarships 2019	Victoria University of Wellington - Master's Degree, Innovation and Commercialisation	Awardee
<b>Other international recognition</b>						
2017	Chandy Mao	Innovation Project Coordinator	Development Innovations	2017 USAID Global DRG Photo Contest	Photography	Third Place Winner
2018	Sovan Srun	Co-founder and CEO	Edemy	Australia-ASEAN Emerging Leaders Program		Awardee
2019	Chav An Chin	Communications Specialist	Development Innovations	Young Southeast Asian Leaders Initiative	YSEALI Academic Fellowships	Awardee
2019	Muyteang Tan	Young Innovator	Development Innovations	The Ship for Southeast Asian and Japanese Youth Program		Awardee
2019	Pheng Meas Sak	Co-founder and COO	Edemy	Young Southeast Asian Leaders Initiative	YSEALI Summit 2019	Awardee

2019	Monirath Siv	CEO & Founder	Teach for Cambodia	Obama Foundation Leaders: Asia Pacific Program		Awardee
2019	Zoe Ng	Co-Founder	Raintree	Obama Foundation Leaders: Asia Pacific Program		Awardee