



**UNIVERSITÉ
DE GENÈVE**

GENEVA SCHOOL OF ECONOMICS
AND MANAGEMENT

Research Report

INITIATIVES WITH IMPACT:

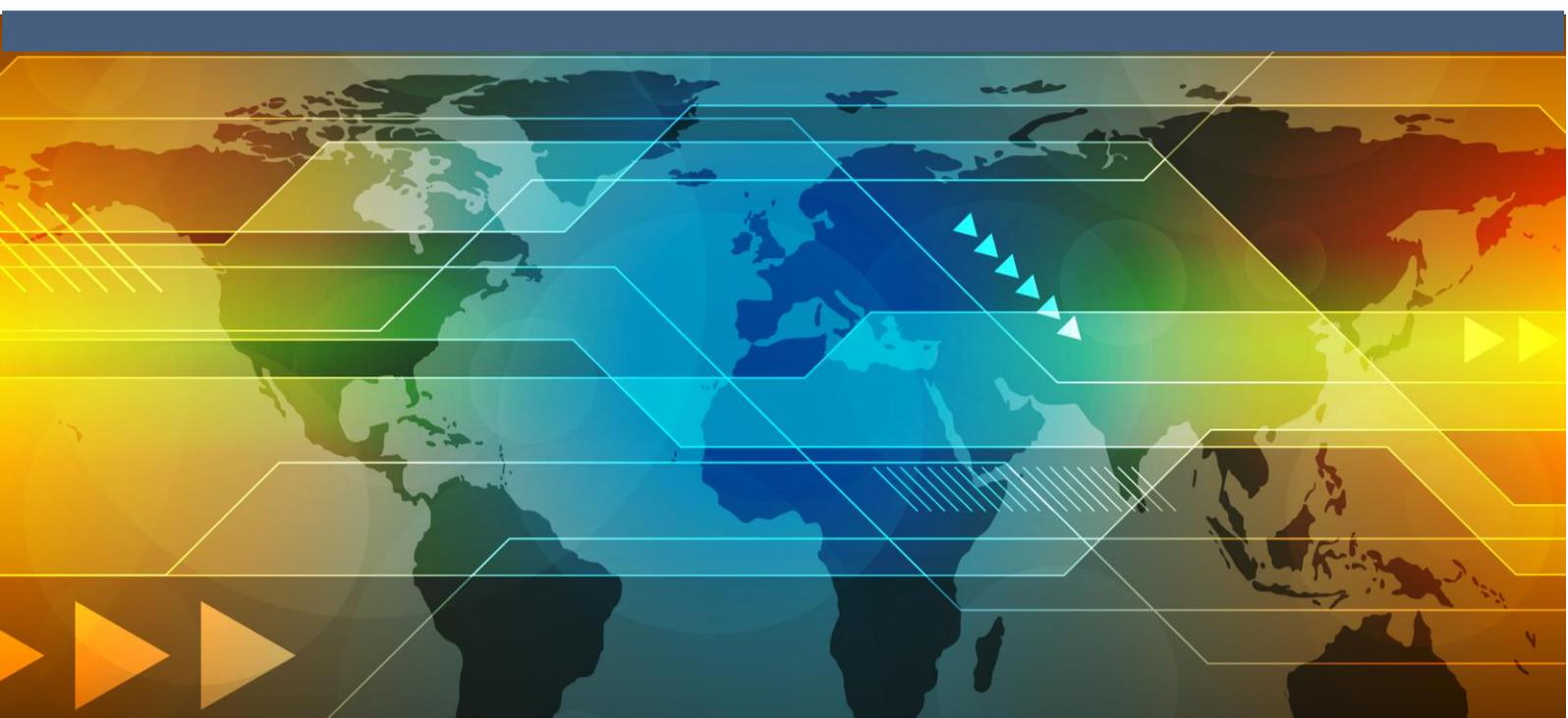
Unleashing bottom-up innovation in International Organizations

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October 2018

With cases from:





Contents

Why Intrapreneurship?	2
What Impact Does Intrapreneurship Deliver?	4
What Differentiates Innovative Initiatives?	6
How Does Intrapreneurship Thrive in IOs?	8
How Can Intrapreneurship Be Championed in IOs?	10
From Innovation to Transformation	12
The Case Studies	13
Baidu Recycle	13
Phones Against Corruption	16
Instant Network Schools	19
H ₂ Grow	22
e-Cash Smart Cards	25
SheTrades	27
Business Facilitation Program	31
MADE51	34
U-Report	37
Building Blocks	40





Why Intrapreneurship?

2018 marks a convergence of ideas at the UN. The signals from the top are clear – innovation needs to happen now and it needs to happen within and across international organizations (IOs). The voice of the public and media is clear – organizations need to transform to become more relevant. And the challenge is clear – a thorough understanding of beneficiaries' needs paired with digital technology has the potential to address the grand challenges of the world, but also bears threats for organizations as well as for the most vulnerable members of society.

In response to this, many IOs have come up with new ideas for how to spur innovation. The most powerful ones, however, are often not those designed at head offices, but innovations coming from the field, close to beneficiaries' needs. Many intrapreneurial initiatives, entrepreneurial projects originating from within the organization, have been developed, but harnessing all the innovative ideas coming from the field and dispersing that knowledge among the country offices is a task that organizations were not always designed to undertake. From recognizing how to structure innovation internally to determining what initiatives to pursue, challenges appear at every step of the journey.

Intrapreneurship:
Entrepreneurial creativity and
innovation within large,
established organizations

While the importance of intrapreneurship as a source of innovation is acknowledged in the for-profit context, IOs, such as the United Nations, are only starting to explore the power of intrapreneurship as a driver of social innovation. Many notable commercial innovations (Post-its, the Computer Mouse, Nespresso capsules) but also a number of social innovations have originated through intrapreneurial activity. There are several powerful examples of bottom-up efforts in IOs that had significant impact on the organization, and some of them will be featured in this report. Innovation is certainly a buzzword in IOs these days, but relatively little is known about the key drivers that affect how intrapreneurial activity emerges and scales social innovation within complex, hierarchical, and often slow moving IOs. This study offers some insights how intrapreneurial initiatives come to fruition in IOs by looking at existing case studies and sharing key take-aways from people already propelling forward these ideas in their organizations.

Today, IOs face an uncertain future if they are not able to renew and reinvent their organizational models to better address the world's challenges. Several waves of reform have tried to induce a more entrepreneurial spirit. Most recently, the enormous task to implement the Sustainable Development Goals (SDGs) globally provided an action call for IO reform. To effectively transform our world, IOs must first understand their own current limitations, then build new capabilities and processes to overcome those barriers. Just as the 17 SDGs were developed in a collaborative bottom-up effort that included business and other stakeholders, IOs can only succeed in playing a significant role in this changing world if they manage to tap into pockets of knowledge both in the field and outside their organizations. The challenges IOs face to embrace intrapreneurship in today's complex and connected world and the potential impact of this innovation on the lives of IOs' beneficiaries as well as on the organizations themselves are the inspiration for this report. The aim of this research is to share best practices and to call for collaboration among and across IOs to spur intrapreneurship for social innovation.



The following insights and 10 case studies highlight social innovation driven by intrapreneurship within IOs. This research focuses on the innovative initiative: while IOs differ widely in structure and mandate, all IOs design and develop work streams and projects (“initiatives”) which provide a comparable unit of analysis. Multiple factors influence the degree to which these initiatives impact their organizations and beneficiaries. While “success” can be defined differently depending on the organization and the context, this report defines a successful initiative as one that emerged bottom up, one that is scaling to more than one location, and one that is delivering impact. A successful innovative initiative seeks to transform the way a product, process, or policy affects beneficiaries or the organization itself.

This report defines a successful initiative as one that:

1. Emerged bottom up
 2. Is in the scaling phase
 3. Is delivering impact
-

This comparison of initiatives and the factors that enable them to succeed provides a useful starting point for analyzing intrapreneur-driven innovation within IOs. The perspectives of over 40 individuals collected in detailed interviews and workshop discussions have enhanced these findings and provided a rich context for learning from shared experiences.

Research Methodology

The 57 innovative initiatives that form the backbone of the database are based on both secondary and primary data including 25 semi-structured interviews with innovation leaders across 12 different IOs and experts in IO innovation. Two workshops with 20 participants from 13 IOs helped to further refine key insights. The report analyzes 10 case studies in detail. These cases vary across geographic target region, initiative type, and type of technology used. They were selected based on meeting three main criteria: 1) originated from a field staff or a field office; 2) in scaling phase; and 3) deliver impact either to end beneficiaries or to the organization itself. By analyzing the journey these initiatives followed, this study provides a wide lens for understanding the various ways innovation plays out among different types of IOs.

Innovative initiatives explored in this research together cover nearly all 17 SDGs. Most initiatives have two or three focal goals; for example, the International Trade Center (ITC)’s SheTrades initiative targets women’s equal participation and opportunity in trade (#5, Gender Equality) through a platform that seeks to create additional jobs and drive economic growth throughout the globe (#8, Decent Work Growth). Figure 1 below shows the distribution of priorities across the 57 initiatives sampled.

Figure 1: Innovation Spans Nearly All SDGs



UNIGE Database

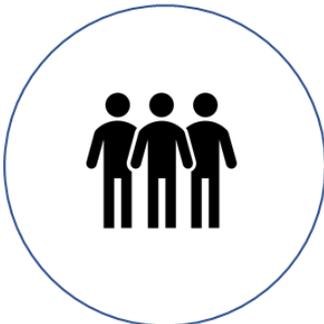
What Impact Does Intrapreneurship Deliver?

Impact is a critical component of successful initiatives. However, it is multi-faceted and difficult to measure. Research for this report identified three key types of impact that IOs deliver: social impact, internal impact, and mission impact. Some initiatives touch on all three forms; some just one. But for each, the bottom-up problem identification and human focused solution development has significant advantages.

Figure 2: Three Types of Impact Delivered by Intrapreneurs

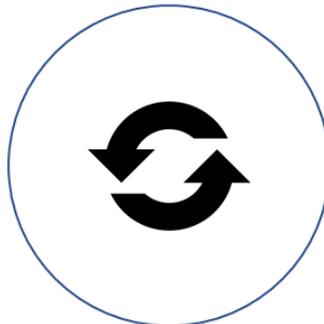
SOCIAL IMPACT

Changing people's lives



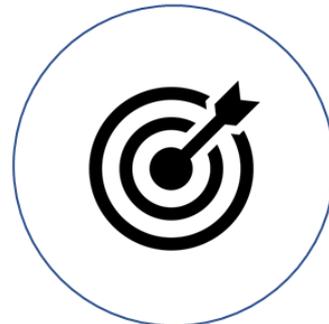
INTERNAL IMPACT

Changing the way we do things



MISSION IMPACT

Changing what we do





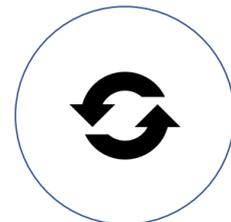
Social Impact – “changing beneficiaries’ lives” - refers to impact on IO beneficiaries across the globe. It reflects the direct benefits of intrapreneurship as a demand-driven activity, addressing real needs identified in the field. Bottom-up intrapreneurship creates powerful solutions that drive maximum impact on the way beneficiaries go about their daily tasks and build resilience in themselves and their communities. This impact is measured in metrics such as reach, increase in yield, higher admission rates to schools, increased production, or greater speed and efficiency in aid delivery, to name a few. For example, the International Organization for Migration’s (IOM) e-Cash Smart Cards project, which digitizes a cash payment system for migrants to purchase their own goods, has reached 19,300 migrant households in two years of operations. The traditional goods procurement system had only reached 3,000 migrant households in the same regions. The tool has simplified the way these households pay for goods and sped up the process of aid delivery.

SOCIAL IMPACT
Changing people’s lives



Internal Impact - “changing the way we do things”- refers to impact on the core processes of the IO itself. The ability of these initiatives to change processes within the organizations shows that intrapreneurship can be a means to renew and rejuvenate from within, provided IOs can nurture and structure the innovation well. By creating an environment which not only fosters but prioritizes and rewards the upward percolation of innovation, IOs will see a fundamental change in the mindset, necessary skillsets, communication, and internal structures. Internal knowledge sharing and increased transparency will have ripple effects on how other projects or parts of the organization are run. For example, The United Nation’s Children’s Fund’s (UNICEF) U-Report, which deploys an SMS and digital media based system to educate, inform, and spark discussion among youth, has been used to gather real-time data on various topics important in certain regions. The data received is now changing the way that UNICEF prioritizes its projects and resources. For example, U-Report data regarding female menstrual hygiene in Pakistan revealed that girls were not aware of what was happening during their first cycle. This data prompted UNICEF to prioritize resources for developing an AI bot that would allow sensitive and anonymous communication with girls in their local language. This innovative solution to a problem discovered through a bottom-up initiative enables UNICEF to use data as a way to better understand where to allocate resources and guide local government.

INTERNAL IMPACT
Changing the way we do things



Mission Impact - “changing what we do” - refers to impact on the core mandate of the IO. This research found that initiatives that are closely aligned with the core values, vision, and mission of the organization are often seen as more valuable to the IO in helping achieve its aims. But sometimes innovations develop in novel and unexpected ways and go beyond the traditional mission of the IO. These initiatives have the potential to transform the IO fundamentally. For example, the World Food Program’s (WFP) Building Blocks initiative is making WFP’s cash transfers more secure, more collaborative, traceable, and cheaper using Blockchain technology. But WFP’s mission is to eradicate hunger and poverty globally. So how does

MISSION IMPACT
Changing what we do





implementing Blockchain for payments match this mission? WFP is stretching its mission of delivering food to vulnerable communities by broadening its platform and acting now on a greater scale to comprehensively address the resilience needs of people in the field without shying away from the potential of new technology to aid in its mission.

What Differentiates Innovative Initiatives?

Innovative initiatives share a common goal to drive impact, yet they differ widely in scope, style, purpose, and implementation depending on factors such as the organizational mandate, beneficiary type, project owner, and resources used. The following model aims to characterize initiatives based upon two key variables: scale and type of technology. Scaling status refers to whether the project has been successfully multiplied to another context (i.e. the project is not location-specific). “Scaling” initiatives are being actively implemented in another region or country beyond the pilot; “Scaled” initiatives are already successfully operating in three or more locations. Technology type refers to the primary type of technology involved in the initiative. No technology type is superior or inferior to the others; each plays a unique role depending on the solution.

Figure 3: Innovative Initiative Model

■ = observation (57 initiatives); yellow boxes = case examples in this report

	PILOT	SCALING	SCALED
LOW TECH: Hardware, energy, fund, physical space	Box 1 	Box 2 (Ex: H2Grow) 	Box 3 (Ex: Instant Network Schools)
MID TECH: Mobile applications, SMS systems, online platforms	Box 4 	Box 5 (Ex: e-Cash Smart Cards, Phones Against Corruption, Baidu Recycle, SheTrades) 	Box 6 (Ex: MADE51, Business Facilitation Unit)
HIGH TECH: Blockchain, artificial intelligence	Box 7 	Box 8 (Ex: Building Blocks) 	Box 9 (Ex: U-Report)

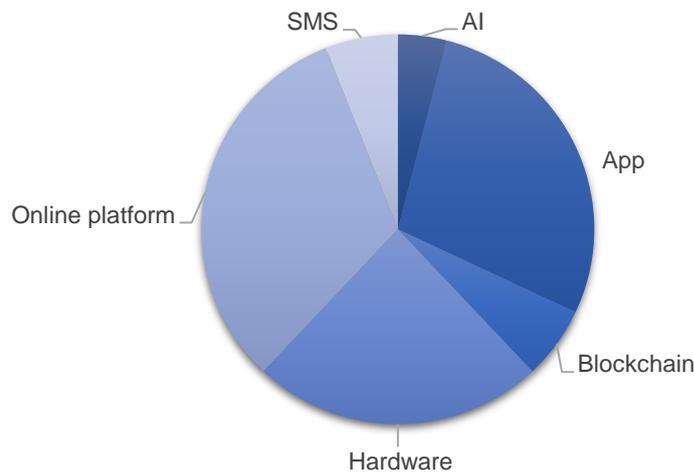
UNIGE Database

We have organized all 57 initiatives from our database into the above framework. While the database contains project examples in all nine boxes, the case studies in this report focus on initiatives that have completed successful pilot stages and are in the process of scaling or have already scaled (yellow). In general, many high-tech innovations in this study are still young

initiatives and have not yet scaled so it is difficult to determine their impact at this stage. However, we provide in-depth insights into two such recent innovations, demonstrating that successful initiatives can move dynamically through the boxes in this model over time: UNICEF's SMS and digital media platform U-Report, which has recently added an artificial intelligence component (Box 9), and WFP's Building Blocks, which has recently completed a successful pilot and is now in the process of scaling. The remaining 8 cases in this report represent both low and mid tech solutions. For example, WFP's H2Grow uses hydroponic technology to create farms that produce food in areas where soil based growth is impossible either due to space or lack of water (Box 2). UNCTAD's collection of online tools for simplifying business registration, Business Facilitation Program, has been implemented in 35 countries (Box 6).

IOs run a diverse array of initiatives across the technological spectrum, from using artificial intelligence to predict conflict and population movement to using SMS-based communication platforms for encouraging gender equality and sharing ideas. See below for a distribution of the tech types used in the research sample (Figure 4). For example, IOM's e-Cash Smart Card project uses an encrypted identification card that streamlines cash accounts and data gathering for migrants. However, the implementation of the project went beyond the design of this tech; the actual innovation revolved around the transition from providing physical goods to migrants to providing cash for migrants to be able to purchase their own goods. The implementation of the project required significant dialogue and training with shop owners and migrants to ensure feasibility.

Figure 4: Primary Tech Involved in Innovative Initiatives



UNIGE Database

How Does Intrapreneurship Thrive in IOs?

Intrapreneurship does not happen on its own. It needs to be nurtured, incentivized, adapted to, and finally, given room to flourish. It is a learning process that takes time and dedication. While all IOs are different there are certain takeaways that apply across the board.

High tech does not equal innovation.

“The most difficult part is understanding the needs of the user and how to leverage, whether it is a technology, or a process, or a product, to meet those needs. And that has a lot more to do with the design and the conceptualization of the solution.”
(Mima Stojanovic, ICRC)

Technology by itself will not solve problems and does not equate to innovation. According to innovators, tech is often the easiest part of the solution design: the harder and more critical parts are realizing the needs and tendencies of end users and achieving impact targets. While technology type is a useful way to characterize innovative initiatives, it is in itself not a measure of success or level of impact.

Driving innovation from within is not easy, especially from within large, slow-moving, bureaucratic organizations such as the IOs. These organizations tend to be innovation-

averse, like the immune system of the body that rejects novel and unknown inputs. So, what needs to be done to pass through the organizational immune system and plant the seeds for innovation?

Our research found that initiatives that scale and deliver impact share common variables on two distinct levels: 1) the initiative level; and 2) the organization level. The combination of factors from these two groups results in successful initiatives.

Figure 5: Factors that Lead to Initiative Success

Initiative Level



- Applicable in many locations
- Defined goals from start
- Diverse partners
- Linked to IOs mandate
- Simple with visible impact
- Strong project owner
- User-driven, human-centered

Organization Level



- Adequate financing
- Alignment to strategic objective
- Culture of trust and transparency
- Dedicated team or staff time
- Executive and key stakeholder buy-in for innovation



For example, UNHCR’s Instant Network Schools was developed within UNHCR’s Innovation Unit, a devoted team with the resources, training and experience to understand how to best design and scale the project; UNHCR has a strong innovation culture which has been fostered over the past years (*organization-level factors – culture, dedicated staff time*). Instant Network Schools is the result of a partnership with the Vodafone Foundation, a company with clear and ambitious plans for impact through the project (*initiative-level factors – partners, clear goals from start*). The detailed cases that conclude this report each manifest slightly different initiative-level and organization-level success factors, but together they showcase and confirm that the existence of the aforementioned variables are the most likely to correspond to success.

Building sustainable partnerships is essential to acquire the necessary knowledge, resources, talent, and tools for developing innovative initiatives.

“The space between the entities is as important as the entities themselves, and it’s really the whole ecosystem, in a local context, as well as in a broader context, that makes collaboration possible.” (Kali Taylor, SDG Lab)

Most organizations have found that partnerships are critical to driving innovation. That no one organization can do it alone. Yet the default across many organizations is not to partner. After all, making partnerships work is difficult despite the many advantages. The biggest benefit of partnering comes from the knowledge sharing enabled through working together not just with the private sector but with other organizations. The idea behind intrapreneurial innovation is to let people experiment, create pilots, and succeed or fail – but what really creates value is allowing people to do this all while learning from both scenarios and sharing experiences across the ecosystem.

The number of partners per initiative across sampled organizations range from single-partner initiatives to multi-partner initiatives. Partners include a wide range of stakeholders with various roles: to provide the authorizing environment, to provide funding, to assist in design, to assist in implementation, or to operate the initiative in parallel. Partners include government ministries, non-profits, foundations, private companies, startups, and other IOs. Often one stakeholder will play more than one role. For example, the United Nations Development Program’s (UNDP) Baidu Recycle Project is an initiative leveraging the Public-Private-Partnership model that helps Chinese citizens safely dispose of recyclable waste in return for cash. Baidu, the “Google of China,” had a vision to contribute to social impact, but did not exactly know how. The initiative combined the technical expertise and resources of Baidu, the network and social know-how of UNDP, and the authorization and policy level input from the Global Environment Facility and the Chinese Ministry of Environment Protection.

Figure 6: Partnership Structures across Initiatives





Amidst the current innovation buzz, IOs cannot forget to prioritize an ethical analysis of every initiative. Data protection and client protection are key parts of innovation ethics: gathering and using data ethically. IOs are working on linking innovation with the principles of “do no harm.” A pressing priority for successful innovation is that it sustainably transforms work processes and work culture rather than just creating a series of quick wins. For example, IOM is a leader on data protection, hosting workshops on data protection for IOs, and publishing a comprehensive manual on data protection. IOM’s cautious approach to institutional innovation stems from a commitment not to unwillingly harm staff or beneficiaries through new projects. On the initiative level, UNDP’s Phones Against Corruption program, which collects anonymous SMS alerts of corruption in Papua New Guinea, purposefully requires and protects anonymity through a two-step encryption system.

Innovation ethics must not be forgotten.

How Can Intrapreneurship Be Championed in IOs?

Innovators within IOs are asking to learn, to be challenged, to be heard, and to be connected.

Resource reallocation is a must win battle for intrapreneurship to succeed.

“The challenge is to meet that increased demand for work in a much more agile way, in a much more effective and responsive way, when we are a typical big bureaucratic organization that spends a significant amount of its budget on administration.” (Greg Vines, ILO)

Disruptive innovations and incremental innovations require different structures and incentives.

“The most interesting innovation had almost been killed by the management, to the point that we had to protect it - because it really challenged our strategy and organization... under the direct leadership of our CEO we decided to create a parallel structure to protect the innovation.” (Thierry Agagliate, Terre des hommes foundation)

There is a need for IOs to share knowledge both on processes and organizational strategy, but beyond a simple dissemination of knowledge, IOs must be challenged on how they interpret and execute innovation. Discussions around innovation tend towards buzzwords rather than digging deep into addressing challenges. It is critical that discussions on how to innovate within IOs include not only staff dedicated to innovation, but also field staff (who have the closest ear and eye to the needs of IO beneficiaries) as well as decision makers (who need to support and incentivize innovation for it to translate into culture change). Innovators also recognize a need to be better connected with startups and private sector companies that have often already designed solutions that IOs could emulate.

Organizations across the board are shifting their resources to focus on becoming further end-user driven despite acknowledging that innovation is expensive and not all initiatives will succeed. The consensus is that this shift needs to be led from the top but pushed from the bottom. The result is a fundamental change not only in resource allocation, but



Successful innovations are usually linked to a project “Champion.” What do these champions look like?

Hila Cohen is the International Business Development Lead at the WFP Innovation Accelerator. A former hi-tech corporate lawyer, Hila now works with WFP teams to bring initiatives from the ideation phase to scale. Her vision at the accelerator is to see, “what is needed to create a concept that could work and have impact on a larger, more sustainable scale.” Regarding the challenges of innovating within the IOs, she says: “When you want to start to infuse an innovation culture, the question is - how do you use the existing infrastructure that you have which is quite different to private sector entities, including venture capital firms?”

Successful innovations are usually linked to a project “Champion.” What do these champions look like?

Benjamin Kumpf leads the Innovation Facility of the UN Development Programme (UNDP) in New York. He manages UNDP’s Innovation Fund, a pooled funding vehicle created to support and scale innovations that address challenges related to poverty, governance, climate change and gender equality across the globe. Benjamin advises internal and external clients on innovation and on achieving impact at scale. Benjamin has worked on social change, innovation and development in Rwanda, Nepal, India, Germany, France, Jordan and the United States. He believes that, “Innovation, especially in the development and public sectors, is foremost a process of testing hypothesis. It’s about a diverse team that is able to pursue goals related to social change, to environmental protection with an open mind: to challenge their initial idea, test their assumptions and iterate as needed – based on the feedback from real end-users and other data, ideally coming in in real-time.”

also in the cultural fabric and incentive system of the organization - allowing intrapreneurs and innovators time to work on their ideas.

For example, following a change in management four years ago, ITC’s executive team strongly pushed a culture of innovation and provided an Innovation Lab office space at Geneva HQ. While there are no full time “innovation staff” and the lab is volunteer-driven, management has allowed staff to devote a certain percentage of hours to thinking creatively about projects inside and outside the office. The innovation lab has about 15 members and is gaining momentum and relevance within the organization through trainings, workshops, and events that recognize and reward intrapreneurial activity.

Alignment of innovative initiatives to the organization’s mission is critical, as is alignment with the goals of the executives and teams that the innovators are trying to work with; however, the work of innovators is also to challenge the status quo. It often seeks to transform the organization and not just fit it. While both incremental and disruptive innovation are important, it is the (often accidental) disruptive innovation that makes the greatest change to the organization. The two require different structures in the organization. Certain IOs are moving away from defining innovation in thematic buckets and towards a general innovation model including incremental innovation while also leaving a part of the organization to work on radical ideas. For example, UNHCR’s Instant Network Schools initiative provides power, internet, and tablets to improve education in refugee camps. UNHCR has many such projects that are scaling globally and having tremendous impact within a specific area. However, UNHCR is also working on Project Jetson, a disruptive artificial intelligence platform that aims to predict population movements and help preempt crises rather than just remedy them after the fact. This type



of disruptive initiative has the potential to change the way UNHCR and other IOs operate – repositioning them from reactive organizations to proactive organizations that can anticipate needs before they arise.

From Innovation to Transformation

The goal of innovation is transformation: to fundamentally change people’s behaviors or systems through a new way of delivering a product, process, or policy. This research analyzed intrapreneur-led innovations that are scaling and delivering impact, exhibiting disruptive nature or the potential to disrupt. Spanning nearly all SDGs and using diverse types of technology, initiatives in this research deliver three distinct types of impact: social (on beneficiaries), internal (on organizational processes), and mission (on core mandate).

We found that these initiatives are best grouped by the level of technology used in the innovation and the level of scale that they have achieved. This can tell us not only at which stage of the journey the initiative is, but show us how similar initiatives have been structured, developed, and scaled - allowing for a deeper level of shared learnings. Another key take-away is that there are two levels of success-factors that need to be implemented for creating impactful initiatives. On the initiative level, the actual innovation needs to be scalable, user-driven, with a clear project champion and defined output goals. While on the organizational level, we need executive buy-in, a culture of trust, and a dedicated team. A strategic combination of factors along with multiple iterations are instrumental to developing the space to grow new ideas. On both levels, we also saw the benefit and added value of diverse partnerships, for knowledge sharing as well as for development, implementation, and scale.

Successful bottom-up innovation works in large part due to the collaboration of intrapreneurs with and dissemination of ideas between colleagues and partners. Innovators are constantly learning, testing, failing, and trying again, and so cannot remain in a bubble but must push themselves to learn outside their own boundaries. The challenge this research presents to innovators is to share knowledge and dare each other to think more creatively and design solutions more effectively. To succeed in doing this, IOs must be empowered at all levels of the organization to make fundamental changes in the way resources are allocated - ensuring user-driven innovation is prioritized over the administrative status quo. IOs must dedicate time to developing both incremental and disruptive innovation strategies, constantly designing improved solutions while simultaneously providing space to start with a clean slate and try out bold ideas. The cases below present 10 examples where IOs have successfully addressed these challenges, resulting in impact not only in their organizations, but across the globe. They show us that transformation is possible.

About the Research

The research was conducted by the i2i Hub at the University of Geneva. i2i hosts regular workshops and round tables on the topic of bottom-up social innovation with the aim to share knowledge, build awareness, and propel the IOs along their innovation journeys. Would love to hear from you.

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The Case Studies

Baidu Recycle

Name: Baidu Recycle

Organization: United Nations Development Program (UNDP)

Year launched: 2014

Countries: China

Users: over 11,000 electronic items recycled

UNDP China, like most other UNDP offices in 2014, was in a period of significant transition as the global organization attempted to move away from financing projects through traditional donor funding. The new aim was to become the development partner of choice for governments to share costs and create impact. Driven partially by the funding crisis affecting most international organizations as well as the realization that partnerships offered a more effective way of designing and delivering development solutions, UNDP was tasked with finding partners who could do more than just contribute money.

In preparation to this shift the UNDP China Office established a nimble innovation task force, which included former Communications Officer Louise Xi Li. The team looked at ways to iterate the new method of designing and implementing programs through innovation and partnerships. The big task the team had at hand was to find solutions to one of China's big risks: growing electronic waste. Domestic and foreign waste was flooding China, and although China had over 100 government-certified factories for electronic waste disposal, it was still very hard for citizens to find regulated and formal collectors to help bring electronic waste to those certified disposal factories. There was a strong black market of workshops where workers extracted valuable metal from the waste, causing serious health risks and harming the environment.

UNDP China had been running a project funded by the Global Environment Facility, largely focusing on the electronic waste problem from a policy level. The innovation team quickly realized that policy changes were not enough, that users on the ground needed a different way to understand how they could dispose e-waste responsibly. Understanding the user better brought the innovation team (i-team) two key insights: technology can simplify the user journey while a responsible private sector partner could help in finding this solution and at the same time symbolize a change in corporate attitudes. As such, Baidu shared UNDP's vision for contributing to economic development and was excited to design incentives that actually helped citizens recycle.

Baidu and UNDP designed and iterated with users an app that allowed customers to take photos of their waste, get an estimate on how much they could receive for it, and sell it to door-to-door collectors who would pay directly for the waste and take it to a government-certified disposal factory. The app was designed to motivate customer behavior so that even if people did not see the health and environmental value of recycling waste, they would still have the monetary incentive to dispose of it safely.



Baidu Transaction Flow Chart



The partnership was a very new experience for UNDP China. “Back then, we didn’t think of anything like that, we thought we were just doing our work,” Louise acknowledges. “But looking back, it’s really the process of starting everything from scratch. At UNDP China, we have never taken the lead in creating an internet application in any previous experience, but through leveraging innovative private sector partnerships like Baidu, we were able to pull it together.” Naming the prototype “Baidu Recycle,” UNDP brought the idea to innovation workshops to gain insights from drawing boards and a wide array of expertise. It later received seed funding from UNDP’s global innovation facility.

In its initial two years, Baidu Recycle helped recycle over 11,000 computers, phones, televisions, and other electronic waste safely in Beijing and Tianjin. The project later offered the service in all major cities in China (22 cities), as it grew in popularity, with hundreds of thousands of searches for the Baidu Recycle app every month. There was also attention from other UNDP country offices and partners who had heard of the Chinese experience and were thinking about adapting a similar model to their local contexts including Ghana, Mexico, and the Maldives. While each context was vastly different, the electronic waste problem was shared.



Baidu Recycle's app, as seen on CCTV

Throughout the process, UNDP’s management was very supportive of the intrapreneurial venture, casting vision that enabled staff like Louise to take risks to innovate within new partnership structures, which was critical to the success of the initiative. UNDP China nurtured an innovative culture, with one or two staff from each team meeting twice a month to discuss their projects and help each other work through the snags. While Louise acknowledged that every new idea faces issues, her team had few challenges from the UNDP side in pursuing innovative initiatives, including launching and scaling Baidu Recycle.

However, the initiative had to work through other stakeholder challenges. First, a culture challenge for customers: Chinese citizens did not necessarily want strangers to come to their homes to pick up recyclable goods – many saw this as an invasion of privacy. Second, the current government’s heavy subsidizing of waste factories was key to their existence, since the factories were not self-sustaining from recycling and dismantling. For Baidu Recycle to truly succeed, a viable business model would need to overtake the system that relied on subsidies.

A more serious obstacle, however, was on the partnership side. After two years of initial funding, Baidu’s management, while agreeing Baidu Recycle was an initiative with impact, decided to deprioritize this initiative in 2017. At the time of this case the UNDP team was deciding whether to transition the solution to another tech company or the government in order to continue operating. What the project achieved in the initial stage was impressive for a non-profit model. However, to move to the next level, it needed a viable business model, or be incorporated by the government as the technical platform for government management of e-waste through an official channel. It could also be taken over by a competitor in the commercial market, as several similar products had sprung up on China’s market in the recent years. If these options fell through, UNDP was



prepared to take ownership of the project, but this was a bit outside of their experience. “We’re an IO. It’s very difficult for us to have a fully equipped team managing an internet product full time,” Louise explained.

Louise and the team felt that Baidu Recycle, beyond reaching Chinese cities with an important environmental and health solution, also demonstrated the impact of a culture of innovation to internal audiences. “The ‘innovation journey’ helped to show the high potential of innovation to team members - not just show off the app itself.” It allowed her team to show that innovation was more than a buzzword, but about finding the energy and knowledge for the solution outside the office, tailoring it to the end users and mobilizing new types of partnerships to co-create it. “In building up the innovation culture in the office: if you’re just talking about it, you’re just saying the big words, no one will see the concrete tangible results. But once this became the flagship project... people see the value of doing innovation. So now everyone is talking about how to incorporate innovation into their work. It’s a big shift from asking why, to how.” Building on the lessons learned from Baidu Recycle, the team is now exploring how to bring the overall innovation work to the next level, providing a solution exchange between China and other developing countries. UNDP China plans to expand as the digital innovation hub for Asia Pacific, providing an integrated access to innovative development knowledge and experience across the region.

Key success factors: strong project champion and dedicated, growing team; UNDP management support for an intrapreneurial culture; partnership to fill tech expertise gap; co-designing solution with the end users

Key challenge: inability to shift the project from a non-profit model to a viable business model

Summary	Tech		Scale	Partners	Impact	Success Factors	
App that enables door-to-door pick up and payment for electronic waste	MID TECH	Primary tech used: App	SCALING	Private sector, government	SOCIAL INTERNAL	Initiative: Diverse partners, strong project owner	Organizational: Dedicated staff time, executive buy-in



Phones Against Corruption

Name: Phones Against Corruption

Organization: United Nations Development Program (UNDP)

Year launched: 2014

Countries: Papua New Guinea

Users: nearly 5,000 complaints received

In late 2014, Dr. Ken Ngangan was appointed as the new head for Papua New Guinea's (PNG) Department of Finance (DoF). Wanting to create a more transparent environment for dealing with issues, he had a suggestion box placed near the entrance of the office for people to drop grievances and suggestions into.

However, after three months there was no complaint found. This was partly due to PNG's supportive and communal culture –the 'wantok system' (literally "one talk") – that bound the community together as a social security system, where people extend help to each other in times of need. Thus no one wanted to appear as if they were reporting on a friend. On the other extreme, the 'wantok' system provided an environment for people to do unlawful activities under the table and receive kickbacks. Many government departments and agencies were rife with corruption related cases and allegations, including the DoF. An intervention was desperately needed within DoF to act. Something that would empower staff to come forward without fear of retribution and report cases of corruption, hence serve as a preventative measure to insure transparency and accountability to the public service and management of public funds.

Conscious of this system and the need to find a way to address PNG's entrenched corruption levels, DoF and UNDP's PNG Office jointly explored innovative approaches for a contextually feasible system to receive and process complaints. At that time, UNDP PNG was already running a program with the DoF called the "Provincial Capacity Building and Enhancement Program." The program aimed at strengthening the public finance management, accountability and reporting at the sub-national level of government. By 2018, the project was running in its third phase and was funded by the Australian Government.

Within the project, a team of three, consisting of both UNDP and DoF staff decided to explore the "Phones Against Corruption" idea – to create an anonymous SMS text-based system for citizens to report an act of corruption. This idea was sensible, smart and low-cost given the proliferation of mobile phones and mobile penetration in PNG. When Digicel entered the mobile market in PNG in 2006, the telecom company led an aggressive campaign and dramatically increased access and coverage of mobile phone users to more than 3 million people. This meant that the SMS-based approach would enable more participation than an internet-based application which still had low access rates and coverage compared to mobile phone.

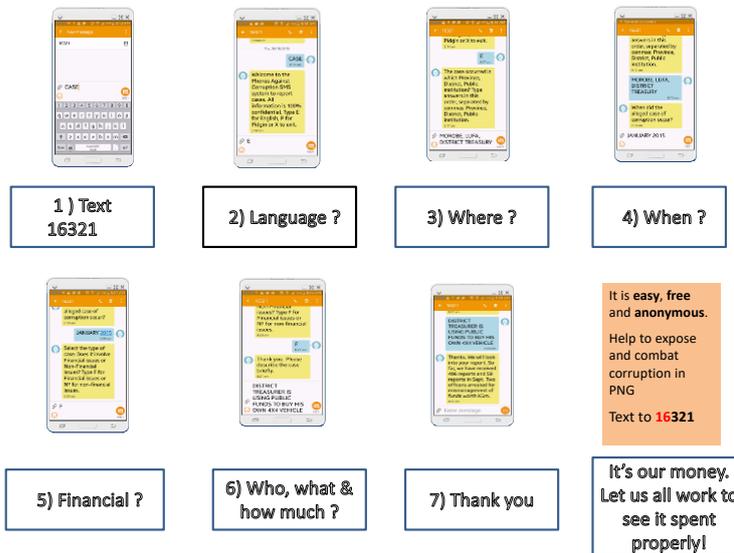
The Phones Against Corruption project engaged a telecommunication and a technology partner. How the system worked was as follows: a concerned citizen would send an SMS regarding a corruption incident, it went straight to the telecommunications company. The SMS was then accessed and encrypted by the technology company and then sent on as an encrypted case number to DoF. This meant complete anonymity for the sender. It worked on any mobile phone type, even very basic ones. The service was available in both English and *Tok Pisin* (PNG's local language) and free-of-charge to the user. The SMS system was automated providing a series of



questions for the user to fill-in - required information to assist with generating evidence for the case - and then concluded with the number of cases handled to date.

Immediately following the launch of the project, it generated high numbers of complaints starting with 110 SMS in 2014, which more than doubled in 2015. Today, there are 500 complaints yearly on average and over time the numbers have dropped.

DoF kept faith in the project and supported it, although there was little initial donor provision. Phones Against Corruption also received support from its larger program: the Capacity Building and Enhancement Project unit. PNG Government covered all administrative costs, and Government of Australia's DFAT supported for advocacy and awareness costs, such as flyers, billboards, and workshops. In late 2016, the DoF entered the project in a UNDP regional competition for "Anti-Corruption for Peaceful and Inclusive Societies" co-hosted by



How Phones Against Corruption works

DFAT. From over 50 proposals

submitted, 23 proposals were shortlisted and invited to present in Bangkok, of which 8 finalists were invited to pitch for the projects in Singapore. PNG's Phones Against Corruption proposal was among one of the winners and was offered \$200,000 in funding to expand the project to other government departments.

With the additional funding, the DoF engaged an IT consultant to design an in-house database to organize the in-coming SMS data. When the cases were received, DoF quickly scrutinized the cases and made a determination. Depending on the nature and threshold of the severity, heavier cases were handled by the DoF internal audit unit and lighter cases were sent on to the respective internal audits of the government department or agency concerned.

In the initial phase, the project faced challenges with the initial technology partner. In early 2017, the program had to be temporarily switched off because of compatibility issues between the telecommunications partner based in PNG and the technology partner based in Australia. Subsequently, the project switched to a new technology partner based in Fiji after redeveloping the reporting platform.

While the project was proving successful in drawing anonymous complaints, it had its limitations. By mid-2018, it did not have a feedback loop to provide a status update of cases individual senders reported. In addition, due to the anonymity of the complains, it was difficult to have witnesses during prosecution or trials that led to corruption cases being dismissed for lack of substantive physical evidence.



Despite the limitations, the DoF partially attributed PNG’s improvement in the Transparency International’s corruption perception index to Phones Against Corruption. From 2014-2017, PNG’s rank moved up by 10 points and its overall score by 4 points on the corruption perception index that estimates the level of corruption of participating countries. Outcomes translated in attitudinal change against corruption were hard to measure at this stage, but the DoF was confident that Phones Against Corruption had influenced some positive strides in the fight against corruption.

At the time of this case, UNDP and DoF were trying to scale-up the project to include an additional 43 government agencies within PNG. Certain departments such as Education were planning to use the tool to monitor the 13,000 institutions it oversaw in the country on matters relating misuse of resources or bad teacher behavior. The DoF was optimistic that this phase would generate more traction and momentum on the fight against corruption in PNG.

“Phones Against Corruption is a preventative measure to ensure public funds are used for the purposes intended and smooth flow of goods and services,” said Mr Tom Tiki, the DoF officer leading the project. He explained, “good lessons were learned from its initial phase and we are improving as we progress and scale-up to the include other government agencies.” While expanding on the limitations and resources necessary to keep the project going, he added, “It’s going to be very resource intensive and challenges with resources, as always but we are committed to the cause.”



Key success factors: strong partnership that existed before this project; strong project owner within DoF; technology solution that was fast, cheap, and simple

Key challenge: Phones Against Corruption is limited in its use as a detective solution for corruption as it struggles to effectively prosecute in courts due to anonymous nature of texts



Summary	Tech	Scale	Partners	Impact	Success Factors
SMS system that allows anonymous collection of corruption complaints	MID TECH Primary tech used: SMS	SCALING	Government, public sector	SOCIAL INTERNAL	Initiative: Simple, strong project owner Organizational: Culture of trust, dedicated staff time



Instant Network Schools

Name: Instant Network Schools

Organization: United Nations Refugee Agency (UNHCR)

Year launched: 2014

Countries: Kenya, Uganda, Tanzania, DRC and South Sudan

Users: 62,500 refugee youth

Vodafone Foundation had a passion for mobile learning. The massive telecommunications provider had created a “digital school in a box” concept with tablets that could be pre-loaded with any kind of curriculum for all subjects. The tablets worked on Vodafone’s mobile network without incurring any charges to the user. However, the Foundation realized quickly that they had the right technical expertise to develop and scale this technical solution, but were lacking the right networks and a clear understanding of the user needs.

The former deputy commissioner of the United Nations Refugee Agency (UNHCR) met with Vodafone Foundation in 2013 and was thrilled to discover a technical solution that would solve a long-standing problem in the refugee camps where UNHCR worked. UNHCR staff had been exploring how to offer digital education, but had not found the right partner. The idea was quickly pitched to UNHCR’s Innovation team who brought it from idea into the development phase using their own experience.



Refugee youth study on pre-loaded tablets

UNHCR and Vodafone decided to launch the product, Instant Network Schools, in the Dadaab refugee camp in Kenya in May 2014. The Instant Network Schools (INS) opened in 13 refugee schools. In just a short period of time, teachers observed increased confidence in the use of Information and Communication technology (ICT) and an increased understanding of and exposure to the outside world. Driven partially by these

strong initial results from the Dadaab schools and partially by the Foundation’s ambitious scaling goal, UNHCR expanded quickly. By mid-2018, the program was operating in 64 schools across refugee camps in DRC, Kenya, South Sudan, Tanzania, and Uganda. Only three full time staff managed the process.

That said, each country had a slightly different context and set of needs. While Vodafone provided 100% of the funding, UNHCR managed the program expansion and adaptation. One of the most critical parts of Instant Network Schools was the curriculum pre-loaded onto the tablets provided to classrooms. Depending on the country context, governments could play a very active role in controlling what students learn. UNHCR worked to ensure that refugees were provided with content that fit local regulations while allowing them to learn broadly and think independently.



School in a box filled with tablets and connectivity



The partnership made great tech solutions scale to thousands due to the continued support of Vodafone Foundation, and yet UNHCR's Innovation unit acknowledged that managing expectations with private sector players could be difficult at times. The partnership required a great deal of flexibility and transparency on both sides.

One area of common expectation mismanagement was the impact measurement of the program. UNHCR had been working with the Vodafone Foundation to understand the difference between outcomes and outputs. While measures like 'classroom size' were an important indicator of how many students used the program and theoretically how much attention each student received (outputs of the program), it was not the best indicator for measuring the quality of education (program outcome). The outcomes were what really needed to be measured to show if the program was having the desired impact. The differences in these types of indicators were nuanced, and as the Innovation Lead at UNHCR described, it is easy to fall into the trap of measuring things that are easy to measure – rather than measuring what really matters.

Chris Earney, Head of the UNHCR Innovation unit, explained that the quick scaling of Instant Network Schools should not be seen as a strong indicator that it was successful – yet. "It's in a lot of places quickly, but that doesn't really mean anything," Chris acknowledged. "The whole conversation around scale... everyone means different things when they talk about scale." Benefits to moving more slowly could mean that the program has time to fix any problems that arise before moving to a new location. Benefits to scaling quickly included enabling more refugees to have access to education more quickly. And the definition of scale could change completely if Instant Network Schools expanded to include populations beyond refugees.

As Instant Network Schools moved forward, there were outstanding questions on who would maintain the program long term, and whether it could be replicated or moved to an open-source model for easier multiplication. Chris also stressed that the cultural elements of the program required more focus: "We've been fetishizing the technology, and then missing everything else." The slick tablets and centralized Wi-Fi made mobile learning possible even in hard-to-reach areas, but developing the right curriculum, training the right teachers, and helping students understand how to use the tech well were even more important pieces of the program.

By mid 2018, Instant Network Schools had moved out of UNHCR's Innovation unit and into the Education unit, to be run fully by the staff there. The program continued to explore new strategies around connected learning and new partners who are interested in joining the effort, such as Google. "It's now hardwired into the programming of our organization," Chris explains about UNHCR's search for strong partnerships. The right partners can carry these innovative ideas throughout the world.



Key success factors: strong technical and funding partner with a drive to deliver real impact; embedded innovation unit with experience in working on and handing over ideas

Key challenge: managing partner expectations around what constitutes as impact

Summary	Tech		Scale	Partners	Impact	Success Factors	
Wifi and tablets pre-loaded with educational content for refugee schooling	LOW TECH	Primary tech used: Hardware	SCALED	Private sector	SOCIAL	Initiative: Defined goals, linked to mandate	Organizational: Alignment to strategy, dedicated team



H₂Grow

Name: H₂Grow

Organization: WFP (World Food Programme)

Year launched: 2016

Countries: Peru, Algeria, Chad, Jordan; Kenya, Sudan, and Namibia in pipeline

Users: Peru - 2,000 vulnerable people; Algeria – 3,000 refugees

In May 2016, fresh fruit and vegetables were hard to come by in the slums of Peru. Space was limited for personal gardens and the vegetables bought in local stores were often either too expensive or contaminated by chemical growing agents in the soil. To address this issue, the World Food Programme (WFP) Country Office in Peru, in collaboration with the slums' populations, developed the idea to use hydroponics for growing fresh food. The Country Office in Peru approached the WFP Innovation Accelerator to ask if they could pilot hydroponic growing to improve the access to fresh food for the slum population outside of Lima. Hydroponic growing is a soilless cultivation technique, which saves up to 90% of water compared to traditional agriculture, and can be grown anywhere (such as in urban dense locations, in refugee camps or even deserts).

The WFP Innovation Accelerator agreed to the idea and invited key innovators from the Peruvian office to participate in an innovation bootcamp. As Hila Cohen, International Business Development Lead at WFP's Innovation Accelerator described, "We wanted to see the potential to create a successful concept and to have impact on a larger, more sustainable scale." Once the initiative went through the Accelerator's one-week, intensive bootcamp and a first version of the hydroponic model was designed, Nina Schroeder, then a project manager with the WFP Innovation Accelerator (now New Ventures Manager and Hydroponic Innovation Lead), was sent to Peru to test it, and develop a proof of concept. Nina worked with the local office for more than a year, implementing a human-centered design focused on understanding the users' needs and requirements.

The initial idea was to equip poor families in the slums with the know-how to grow their own hydroponic gardens in limited space with locally available materials such as wooden pallets or plastic containers. These gardens could be created on roofs or entry-ways of small flats. WFP intended for the gardens to be fully sustainable to empower families to be self-reliant. The model projected that a family would be able to pay off the initial investment for the hydroponics equipment within three months of growing, as the gardens would produce enough food to be able to feed the family and take some to market.

Information about the hydroponics initiative, termed H₂Grow, was disseminated to other WFP country offices. In November 2016, a Sahrawi refugee living in Algeria named Taleb Brahim read about the hydroponics concept and realized that this could work in the desert. Taleb was an agricultural engineer who had lived in the refugee camp since he was eight years old: it was an isolated place that struggled to feed its livestock who played a crucial role in the ecosystem of the camp (both as sources of food as well as trade).

Together with WFP's Algerian country office team, Taleb was invited to the WFP Innovation Accelerator, where Nina and WFP's local partners worked with Taleb to ideate and design the



proof of concept for Algeria. WFP started off by bringing a high-tech hydroponic growing container to the camp to test it and understand the local context. After initial testing, they found that the container could grow local barley fodder to feed the goats in just seven days from seed to harvest. However, the team had to find a way to move from the costly high-tech container to a sustainable solution that would work in the long run for Taleb's community. The team had to find a way to keep it sustainable in the long run for Taleb's community.

With Taleb's help and other refugees in the community, WFP and local partner OXFAM built a localized version of this container. Replacing expensive imported materials with locally available material and expertise, the local team brought the price down to a fraction of the costs. The local container produced slightly less barley per day, but the cost savings made it a tremendously better option.



Figure 1: Taleb, a local Sahrawi engineer, helps a mother in Dakhia camp understand how to use the hydroponics unit.

This first local version was completed in March, and by Dec 2017, there were 50 different size and style replicas of this local unit throughout the camp, including versions where four families together took care of one unit, which produced enough fodder for all their goats. WFP, Oxfam, and experts from Fraunhofer Institute helped Taleb and the team to bring the initiative to scale: in total, an average of 2,000 kg of fodder were produced per day

across existing high-tech and low-tech units, as well as household kits, reaching a total of 2,600 people. "We could see the huge impact after a short while," Nina says. Milk production from goats fed with H₂Grow fodder increased by over 200% compared to the goats eating the traditional fodder of mainly leftovers and garbage, while meat quality and quantity also improved considerably. Refugees were also able generate additional income by selling surplus fodder.

WFP then took this localized model to Sudanese refugees living in the Sahel region of Chad, where harsh conditions and climate change were causing the dry season to extend longer each year. The project was also replicated in South Darfur and refugee camps in Northern Kenya, where the focus was on vegetables rather than livestock fodder. In each case, Nina and her team brought in hands on support to continuously push the local project. Another major success factor was developing a scaling methodology based on the local users' needs. "You can have an innovation in mind, but if you bring something that doesn't solve a local problem and you don't localize or adapt it, it won't work," Hila explains. "Each time the project expands, localizes and adapts."



But WFP found that explaining the benefits and potential of an innovation to a local community was not always easy. Particularly in protracted crisis situations where, for example, refugees were living for 10-20 or more years in extremely dire contexts and many organizations had proposed short-term solutions, there was a certain skepticism towards new projects. For example, initially Sudanese refugees in Chad did not believe anything could grow in their region. Nina and Taleb arrived from Algeria to help the refugees understand and own the project before trying to implement it. Seeing the photos of results from Algeria and hearing from Taleb, a fellow refugee, was pivotal to the Sudanese refugees accepting and adopting H2Grow. Nina explained, "It was a very powerful moment. As an idea, it was refugee to refugee. WFP was facilitating, but it really comes down to listening to the ideas coming from the ground and making it happen."

Key success factor: Involving people in the field (ex. refugees, vulnerable communities, country offices) and spending time on field directly to develop solutions

Key Challenges: Access to inputs, getting initial idea buy-in on the ground and ensuring a continuous, sustainable model

Summary	Tech		Scale	Partners	Impact	Success Factors	
Hydroponic growing technology that enables food to be produced in the desert	LOW TECH	Primary tech used: Hydroponics	SCALING	Non profit, academia	SOCIAL	Initiative: Strong project owner, user driven	Organizational: Adequate financing, executive buy-in



a unique Android app that was provided to each vendor. Migrants took their cards to vendors directly, checked their e-cash balance, and the vendor debited the value of the good purchased. IOM received the purchasing data directly and followed up with the vendor to repay the balance. No currency was handled.

Calling the project a short-term alternative to avoid raising any alarm at a system overhaul, Hassan informed his manager of the basics and began working promptly to customize the platform for IOM's migrants. "In the process, if someone wants to ask a question, they can ask," was the attitude – the pilot results would prove the project's superior efficiency. Funding from another work stream was allocated to the cash assistance project (Hassan didn't request additional funding) – the beginning of a massive shift within IOM Turkey to cash based assistance. The project began to pick up, and additional funds started to be reallocated to the cash based assistance team. After only five days of training, IOM Turkey's cash team was able to start managing all technical and operational processes end to end with round the clock technical support from over 30 staff from RedRose.

Already in the first two years of existence, the e-cash smart cards reduced delivery lag time in Turkey from an average of three months to just three weeks. The new system allowed IOM to reach migrants in new provinces where before there were no IOM offices or even staff. Turkey's Cash team estimated that when fully scaled throughout Turkey, the smart cards could reach over 20,000 households; already the initiative had scaled to 17,400 households – an enormous jump over IOM's initial 3,000 households receiving traditional support. The e-cash smart cards also made transactions much more transparent and reduced the inaccuracies around reporting financial results. The cards also helped track migrants' movements more accurately, enabling IOM to understand how to better serve them and define their needs as they move.



Figure 2: Vendor in IOM's cash system

Even with these extraordinary results, the cash team struggled to convince other departments that this digitized cash-based assistance, rather than traditional physical delivery methods, were more efficient. Insufficient institutional structures and an "old guard" mentality kept teams from being willing to learn this technological route to efficient aid delivery. What was needed was "institutional willingness, mindset shift and capacity to run parallel delivery models with the mindset of efficiency," Hassan believes.

There were also some operational issues with IOM CBA projects. Repaying vendors could take up to a month, so although vendors were eager for additional business, they had to trust that they would be repaid. The system built on trust did not work as well in Iraq, where the e-cash smart card assistance mechanism was invited to expand in 2017/18 and move the entire in kind assistance model to cash-based assistance for the livelihoods component of the



Community Revitalization Project. As some locations were newly liberated from ISIS, smaller vendors were unable to accept late payments and only larger vendors agreed to work with IOM's system.

The Iraq CBA project was still young at the time of this case but had successfully transitioned and delivered assistance. The team was hopeful that the delayed repayment challenge could be overcome through linking to alternative payment modalities such as mobile money and hawala. With additional funding in Iraq, the opportunity for scale was there and cash based assistance could easily surpass initial targets with the potential for other departments to transition too. And all from just three staff, some data collectors, and a cabinet – no warehouse or trucks needed. Abdullah, technically developing the program's rollout in Iraq, was confident in the initiative's success: "Any program manager who experiences this will ask for it."



Key success factors: project champion from design phase to implementation phase; flexible line management that allowed for innovative thinking; strong partner

Key challenge: lack of organization-wide buy-in for an alternative procurement strategy which is necessary for scaling to other IOM offices and regions



Summary	Tech		Scale	Partners	Impact	Success Factors	
Encrypted ID card that links to app allowing migrants to track and purchase goods	MID TECH	Primary tech used: App	SCALING	Non profit	SOCIAL INTERNAL	Initiative: Simple, strong project owner	Organizational: Alignment to strategic objectives



SheTrades

Name: SheTrades

Organization: International Trade Center (ITC)

Year launched: 2015

Countries: Global

Users: 15,000 women entrepreneurs

The International Trade Center's mission is to work towards creating trade impact for good. However, half of the population in 2018 had a much more difficult time winning the business bids and getting the jobs that created this trade impact. ITC's Women and Trade program was launched to help companies and governments increase the share of products procured from this half of the population – women entrepreneurs.

Corporations increasingly caught the vision for prioritizing women-led bids, and began to approach ITC for help in sourcing products from women-owned companies. While some large companies had already begun to stack supply chains with small female-led businesses, many did not know how to develop inclusive trade programs that targeted these businesses. In 2015, ITC's Women and Trade held a stakeholders consultation to explore whether an initiative could be launched that brought together a network of women entrepreneurs with trade and investment support organisations, governments, and the private sector. The goal was to jointly create an ecosystem of solutions to increase the participation of women in trade.

The initiative started as a research paper, but quickly transitioned into the beginning of a movement for women's economic empowerment. Simultaneously, ITC was developing its Innovation Lab, a flexible, volunteer-based group of ITC staff who were given office space, time, and resources to develop innovative ideas. ITC management was very supportive of nurturing such a culture and allowing staff to think outside the box. "It was quite an organic process in how it started," explains Anna Mori, SheTrades Program Officer. At the time, the small team within the Women and Trade program, led by Vanessa Erogbogbo, did not yet know what a large-scale initiative they were about to launch, but they did agree that new ways of working were essential to making real impact on beneficiaries in emerging markets. "We wanted to go beyond traditional support and services," Anna acknowledged. As a way to branch out and try a new product, Anna and the team reached out to contacts at Google Brazil to create a prototype of an application that would enable women business owners to interact with each other and with corporations to facilitate selling their products to markets.

ITC then launched a one-week global application for IT developers to crowdsource the best ideas to take the initiative to the next level. ITC received 200 applications, and announced the winner, a Kenyan IT firm.

The development phase started with a tiny budget – only \$3,000 – but soon picked up both in budget and in scope. The initiative was also given a name during this phase in a staff meeting and SheTrades was official. It took a while for SheTrades to develop the proper platform and find the right IT supplier, but eventually the platform took shape.



At the time of this case, SheTrades' online platform and mobile application provided women with e-training, connected them to potential supply chain links, and shared information about upcoming training and events. Streamlining women's experience with the app was an important task for



A business owner connects to the SheTrades platform

SheTrades, making it as user friendly as possible so that it was a real asset to business owners. The application was also an important data gathering tool for ITC, making it easy to track the women they are trying to reach and better understand their needs.

The platform had three types of registered users: sellers (women entrepreneurs and business owners), buyers (companies), and verifiers (contacts who vouch for the buyers and sellers' legitimacy).

SheTrades' online platform was just one facet of the initiative. The key to the program's success, explained Anna, was the vision: "We tried to put together an ecosystem of integrated solutions for women entrepreneurs." However, an ecosystem was inherently

more difficult to measure than a typical development project, and this new approach required a lot of time, testing, and explanation before all donors saw the value in the initiative. Similarly, even though ITC management had been extremely supportive of the initiative from the early days, it took time for all staff to catch on to this ecosystem vision.

SheTrades provided a platform for stakeholders to work together across this ecosystem. In terms of global support, SheTrades worked to create an enabling ecosystem for women to thrive by promoting equitable policies (e.g. working towards the creation of an eventual standard for the International Organization for Standardization on the definition of a Women Business Enterprise; Trade Impact Group work plan and implementation of the Buenos Aires Declaration on Trade and Women's Economic Empowerment; and the EQUALS Global Partnership on Bridging the Gender-Digital Divide). ITC also provided online training and mentoring for women entrepreneurs. SheTrades also worked to build the capacity of local institutions, including trade promotion organizations, and incorporated government priorities to ensure long term sustainability of ITC's support.

As of summer 2018, SheTrades was present in 25 countries, including a regional hub in Dubai that supported women in the Middle East and North Africa. Several countries have adapted SheTrades to their local context through the creation of national chapters.

SheTrades used integrated solutions to address the complex and wide-ranging challenges that women entrepreneurs and women-owned businesses face to trade. SheTrades created a framework for interventions which allowed for collaboration with partners who provide their expertise to achieve greater impact and scale. Some of the initiative's core private sector partners included eBay, Maersk, UPS, and Barclays Bank.



At SheTrades’ annual event in June 2018, Anna observed that women entrepreneurs were beginning to take a more active approach to building their own business ecosystems. By mid-2018, SheTrades was on track to reach its ambitious three million mark and continually improving the elements of their service delivery. The online platform is set to receive a makeover by the end of 2018, facilitating potential business deals directly on the platform by enabling companies to post floating tenders on the platform and collect bids from women entrepreneurs.

Key success factors: diverse partners engaged to support the initiative; direct alignment to mandate; supportive organizational structure that provided resources for project

Key challenge: effectively measuring impact

Summary	Tech		Scale	Partners	Impact	Success Factors	
Ecosystem that connects women entrepreneurs to market	MID TECH	Tech used: Online platform & app	SCALED	Private sector, government	SOCIAL INTERNAL	Initiative: Diverse partners, linked to mandate	Organizational: Dedicated staff time and resources



Business Facilitation Program

Name: Business Facilitation Program

Organization: United Nations Conference on Trade and Development (UNCTAD)

Year launched: 2002

Countries: 35 countries across all regions

Users: 35 governments

The coordinator of the business facilitation unit, Frank Grozel's interest in informal businesses stemmed from years devoted to understanding and improving the microfinance sector. In the 1990's, he launched UNCTAD's microfinance department. Soon after, he helped to launch the MIX Market, an online platform that organized the world's microfinance data, which was later sold to the World Bank. Frank was also instrumental in launching BlueOrchard, an impact investment firm that primarily invested in microfinance banks. BlueOrchard started as a microfinance fund within UNCTAD and, by 2018, had disbursed over \$3 billion to microfinance banks and spawned several other very successful independent investment firms.

With this history of successful intrapreneurial initiatives, in 2002 Frank turned to addressing the regulatory burdens faced by many of these microfinance clients. During his time working with microfinance organizations, he realized that small businesses had difficulty registering for various formal accounts (paying tax, registering their business, etc.) Rules for formalizing these small businesses were not well thought out, not well written, not well applied, and not well known. "People worship regulations," Frank admitted; "The more senseless, the more they worship it."

Each of the problems with formalizing businesses had to be tackled separately. Frank first addressed the problem of poor application: government officials did not always know what processes existed and how complex it actually was to formally set up a business. His goal was to document existing processes, recommend simplifications, and then create an online tool that clearly laid out the steps for both government officials and small businesses to understand and follow.

Working within a fairly small organization (UNCTAD had about 400 staff), Frank began independently, liaising directly with government officials to test the software. He had acquired \$300,000 in funding from the World Bank for working on MIX. With part of these funds, he hired software engineers to prototype eRegulations, the first online software tool that would ultimately comprise the suite of business registration simplification tools known as the Business Facilitation Program.

Colombia was the first government to test the program, but Frank stressed that approaching high-level ministers did not work for this kind of project. The Business Facilitation Program approached mid-level management involved in the actual administration of government duties. His goal was to help government officials do their jobs better so that citizens understood that the government was on their side. The Program's work was also to "valorize the work of the public servant," as one staff member explained.

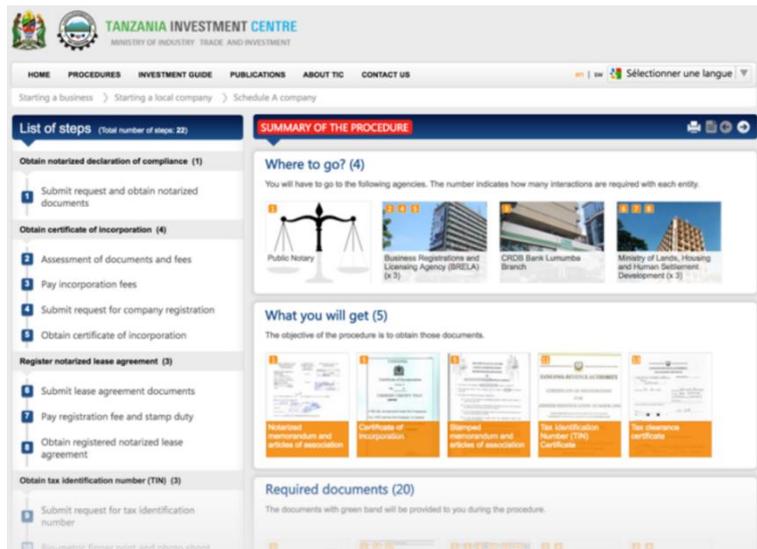


Figure 3: Sample interface of eRegulations in Tanzania

For several months, the program worked with Colombia to document and simplify registration requirements. Each new country required 3-6 months to launch: at the time of this case, there were three tools as part of the Program, addressing each major problem to business registration. eRegulations was a content management system that allowed users to view and understand registration rules for their country, and even live chat with representatives. eSimplifications offered 10 principles of

simplification to guide government officials in creating effective policies. And eRegistrations allowed businesses to directly register online through an interactive guide offering step by step assistance and information on how much each part of the process cost.

The Business Facilitation Program was unique in that it had never touched core UNCTAD funding. Frank was a successful fundraiser within UNCTAD and had always been able to find external sources of funding for his innovations. The program, however, went even beyond reliance on external funding. Governments bought the software directly, and the program was fully sustainable. By mid-2018, it was operational in 35 countries across Africa, Asia, Europe, and South America, with nearly 3,000 procedures documented online. It represented an 80% reduction in business registration steps, forms, and documents.

The program scaled effectively and funded its own growth – eliminating many of the internal challenges that arise with funding within a bureaucratic management system. However, the 2018 team of 50 global staff faced problems with traditional mentalities both within UNCTAD and governments that distracted them from finding the real problems. It took serious persistence to keep driving the program forward, zeroing in simply on poorly organized registration rules.

Misunderstanding the concept of “innovation” itself was linked to this tendency to overcomplicate problems according to Frank. He saw innovation as something that was really quite simple to understand and implement. He believed one needed to find the heart of the problem, and just solve it. “The right things are very simple,” he explained. “You want to just cook eggs, but if you have 50,000 people cooking eggs and billions of dollars, of course nothing will be done... before cooking eggs, we have to think about the idea of cooking eggs, let’s do meetings about cooking eggs, and why don’t we innovate and do something else?! And at the end there will be nothing – no eggs.” Via the Business Facilitation Program, Frank had attempted to actually just cook those eggs – document, simplify, and streamline regulations – and in doing so had significantly eased the registration process for thousands of small businesses.



Key success factors: true intrapreneur and project champion; external funding and a sustainable model that required \$0 from the organization

Key challenge: overcoming the mentality to overcomplicate and over exaggerate the real problem

Summary	Tech	Scale	Partners	Impact	Success Factors	
Set of online tools used to streamline business registration and regulations	MID TECH	Primary tech used: Online platform	SCALED	Public sector	SOCIAL MISSION	Initiative: Simple, strong project owner Organizational: Dedicated team, executive buy-in



MADE51

Name: MADE51

Organization: United Nations Refugee Agency (UNHCR)

Year launched: 2016

Countries: Afghanistan, Burkina Faso, Egypt, Lebanon, Jordan, Kenya, Malaysia, Pakistan, Rwanda, Tanzania, Thailand

Users: 996 refugee artisans

Tech used: website, network of social enterprises and refugee artisans

“How can we get our products to the market?” Whether in a refugee women’s center in an urban area, or in a remote camp, the question remains the same. For many individuals who trained as artisans, and come from generations of tradition creating crafts, being forced to flee their homes meant they also lost their livelihoods as artisans. Though their skills remain with them, most refugee artisans don’t have the support needed to re-start their work or a viable market in which to sell their products.

Recognizing the importance of access to economic opportunities for refugees and internally displaced people, the United Nations Refugee Agency (UNHCR) was exploring ways to support the ethical and sustainable inclusion of refugees in global value chains. Betsy Lippman, Chief of Section at the UNHCR, proposed investigating the potential of the artisanal sector. Lippman spent years working in refugee camps around the world and saw first-hand the untapped talent and ambition of refugee artisans who, though they were forced to flee their homes, carried with them their skills, traditions and culture.

Initial scoping of the sector led to a pilot project in 2015 in Burkina Faso, designed to link Tuareg refugees from northern Mali who specialize in leather and metal work with sales opportunities outside the two camps where they are based. UNHCR kick-started the initiative with an assessment of the market viability of their jewelry and home decor, and then provided direct support in product development and sales. Though the products piqued buyer interest, it was quickly apparent that UNHCR needed strategic partners with industry knowledge and expertise to scale the idea from a pilot and to a sustainable business model.

To lead this effort, UNHCR brought in Heidi Christ, an artisan value chain expert with extensive experience in social enterprise development. Christ envisioned a global approach in which UNHCR would act as a convener and facilitator to connect refugee artisans with global markets under the auspice of a brand, MADE51.

In this model, UNHCR brought together NGOs, IOs, and for-profit companies. By working in partnership, UNHCR was able to focus on their mandate to protect refugees and promote refugee livelihoods while ‘Strategic Partners’ used their comparative advantage in design, marketing, business management, fair trade, social entrepreneurship, logistics and beyond to help develop and deliver high-quality refugee-made products under the MADE51 label. In getting these products into global markets, MADE51 was able to promote livelihoods, but also to demonstrate the positive impact refugees could have for host countries’ balance-of-trade and to amplify the message that refugees were talented contributors.



“The model is about pieces coming together,” Christ explained, “...it’s about each Strategic Partner being responsible for one piece.” The companies that engaged with MADE51 to provide technical expertise largely provided their time and services pro bono. Though MADE51 applied a rigorous selection process for partners, they benefited from the ability to aligning themselves with UNHCR’s strong brand—and the opportunity to act as joint collaborators on something that felt profoundly engaging and meaningful. Though managing a broad array of partners could be a challenge, the return on investment was tangible for MADE51.

In every country where MADE51 was working with refugee artisans, they also connected with local social enterprises already established in the artisan sector. These organizations worked directly with refugee artisans to develop unique product lines that could complement their product range, and then incorporated them into their established collection and marketing channels. Both non-profit and for-profit, each involved enterprise shared UNHCR’s mission to deliver social impact while utilizing a business lens.

While MADE51 was new to UNHCR, investments in programming around crafts was not. MADE51 built on existing UNHCR programming: 43 UNHCR projects throughout the world involved crafts activities but they were mostly psychosocial in focus, helping refugees process their experiences through craft. These projects helped to form strong groups of women who worked together in a safe space. However, they were not designed to help refugees actually earn an income through their handiwork.

In the first year, MADE51 grew organically, moving forward with implementation in a few camps while UNHCR and Strategic Partners refined the model. Focus was placed on responding to demand from UNHCR regional and country offices—and from refugees themselves—for artisan-sector livelihoods support. In this way, MADE51 gained enough momentum to start convincing management that the project deserved support, funding, and visibility.



Figure 4 : An example of MADE51’s unique product lines : traditional metal and leather hammered bowls created by Malian refugees in Burkina Faso, with support from partner Afrika Tiss.

A unique challenge the team faced was around UNHCR’s funding cycle. Funding was annual and project based. Funding was injected at the start of the year, reevaluated at the end, and then either continued or cut. Due to budget constraints, the funding was often delayed or cut. MADE51’s initiatives required seed funding: initial investment that set up a long-term sustainable system. Channeling this kind of funding through partner organizations rather than directly through UNHCR, without a set project cycle, represented a new way to think.



While the MADE51 model will get products to market, the initiative will not be considered a success unless refugees are actually making an income on their craft. Christ was clear that this is a vital part of the initiative, “the ability to scale an innovative idea isn’t enough: for MADE51 to be meaningful it has to deliver an impact that improves the wellbeing and livelihoods of refugees and host communities.”

Christ expected that it would take 2 to 3 years for MADE51 to become sustainable as the profit from goods sold covered the expense of training artisans, working out bottlenecks in production and bringing goods to market. At the time of this case already, however, the initiative was meeting a real demand, and UNHCR field staff were committed to brokering the right kind of partnerships to reach as many refugee artisans as possible. The initiative had already developed 12 distinct product lines, sourcing products through partner enterprises from nearly 1,000 refugee artisans. By the end of 2018, UNHCR expected 6450 refugee artisans to be added to the artisan value chain, with benefits from their livelihoods impacting over 32,000 dependents.

MADE51 was not just reaching artisans, but it was carving out a new space of support within UNHCR. “It has a lot of ripple effects through the organization,” Christ explained. Ten new private sector companies joined MADE51 as global Strategic Partners, nine of these were first-time supporters of UNHCR. With increased visibility, the initiative had the potential to create new donors and open up new partnerships for other new initiatives within UNHCR.

Key success factors: strong demand driven from field; diverse partners all focused on social impact

Key challenge: ensuring the project actually generates income for refugees and isn’t just one more great idea without measurable impact

Summary	Tech		Scale	Partners	Impact	Success Factors	
Network of social enterprises connecting refugee artisans to market	LOW TECH	Primary tech used: None used	SCALED	Private sector, non profit	INTERNAL	Initiative: Diverse partners, user driven	Organizational: Dedicated team



U-Report

Name: U-Report

Organization: United Nations Children's Fund (UNICEF)

Year launched: 2011

Countries: Piloted in Uganda; deployed in 54 countries globally

Users: 6 million people globally

The U-Report journey started in 2007, with the creation of RapidSMS, an open-source SMS platform that supported data collection and youth engagement activities at UNICEF. RapidSMS was developed with an idea to reach communities in the most marginalized and remote areas by means of basic mobile phones. RapidSMS was designed to be customized for the challenges of governments, multilateral, international- and non-government organizations, and development practitioners: working effectively regardless of geographical remoteness of constituents, limited infrastructure (roads, electricity), and slow data collection (due to paper-based records, slow courier systems, etc.)².

UNICEF Uganda country office developed RapidSMS for monitoring and data collection in their areas of work, such as health, nutrition and WASH sectors (water, sanitation and hygiene). It was launched in early 2011, under the leadership of the Ugandan country office Representative as a tool for young people to be heard on issues that mattered most to them and their community. The Uganda country office identified challenges such as the lack of channels to engage and hear young people's opinions and recognized the rise in the usage of mobile phones which had an increasing penetration rate in the country. It was recognized as a powerful tool to reach young people who were traditionally not engaged or heard. The country office hired a former IT and digital media consultant, who would go on to become the first U-Report manager, to create a mobile-based application that could communicate directly with youth on important topics.

Using the UNICEF supported RapidSMS, the manager and his small team created the tool now called U-Report. This new tool aimed to give an opportunity to every young person in Uganda to participate in the decisions that affected them and take an active role in the development of the country, leading to transparency and accountability at the grassroots level. Over this period the country office developed partnerships with the government, NGOs, youth organizations, and the parliament and local NGOs.

With the inception of U-Report in Uganda, young people took part in polls and started giving feedback to government on their policies and programs. Responses received by SMS on U-Report were analyzed in real time. The data was mapped at the local level and compiled nationally and results were displayed on a public website by age, gender and location. U-Reporters were made anonymous in order to protect young people when sharing sensitive information. The first pilot involved understanding why youth were not satisfied with a new program deployed by the government. Using U-Report, UNICEF found out that young people wanted easier regulations to access government funds. The poll results were shared with the government by UNICEF and as a

² <https://www.rapidsms.org/about/>



result the government listened to the young people, or U-Reporters, and improved the program. This marked a turning point for the tool and after the proof of concept, the U-Report team began scaling up the tool in the country to reach more people and increase the potential for impact.

In 2012, the technical capabilities were added and developed by the U-Report team. New tools were added in the system - such as partner dashboards and programming manual flows. After the initial pilot in Uganda reached 200,000 people, U-Report started scaling in other neighboring countries, reaching Zambia and Burundi in 2012. Zambia country office sent an engineer to Uganda to work closely with the U-Report team to set up the system and U-Report strategy for Zambia. During the process Zambia office also desired a need for one-on-one interaction with young people using U-Report. This culminated into the development of U-Partners (or Case Pro) – a dashboard enabling partners to respond to individual messages coming in from young people from any channel.

At the time of this case, U-Partners, the Peer helpline of 21st century, allowed for confidential reporting that enables and empowers young people to speak out and report, ask questions and seek information they may otherwise be too embarrassed or afraid to seek. For example in Mozambique more than 130,000 adolescents were counseled and referred to health providers in Mozambique in 2017 on a variety of issues, such as HIV/AIDS prevention, sexual and reproductive health, early marriage or violence against children daily. U-Reporters also provided their feedback on their treatment at health centers, which UNICEF shared with the Ministry of Health to amplify their voices and address their challenges.

In 2016, the tool reached 3 million people globally and as of September 2018, U-Report reached almost 6 million young people and was being implemented in 54 countries, with more countries scheduled to launch. The size of U-Report both in terms of beneficiaries involved and country offices utilizing the platform had doubled from 2015 - 2018. The platform continued to grow daily, with on average one person signing up to U-Report every 30 seconds. In developing countries, SMS still remained the channel of delivery used most (65%), but digital channels gained traction, as U-Report expanded to Facebook messenger, Viber, Telegram, LINE and WhatsApp. In each country where U-Report scaled, the tool was deployed for a specific purpose and contextualized to that environment. Each UNICEF country office generated their own funding to implement U-Report, and on average each office employed one full time staff who worked on the initiative.

“One million voices are more powerful than 1000 voices,” explained one U-Report Global Coordinator. For example, in 2015, UNICEF polled young Liberians with the question: “Do U agree that sex 4 grades is a problem in our schools?” The report showed that 86% of young respondents from all regions of the West African state replied “yes” – a staggering result that led to coverage in TIME Magazine.³ “The kind of accountability that we’re used to here in America simply doesn’t exist,” says Sheldon Yett, UNICEF’s Liberia representative. “Teachers have a high status in Liberia’s close-knit communities, where children are not taught to speak up.” UNICEF’s use of U-Report was aimed to give those children a voice.

In another example, UNICEF sent a poll to girls in Pakistan in 2015 asking if they knew what was happening when they started menstruating, and if they knew of the government’s menstrual

³ Zebede, Michal and Shiza Shahid, ‘Liberia’s ‘Sex4Grades’ Epidemic is Ruining Children’s Lives,’ *TIME*, April 5, 2016. <http://time.com/4282516/liberias-sex4grades-epidemic/>



hygiene facilities. The responses, showing a clear lack of knowledge on the topic, were mapped by age and location and shared with local partners in order to increase access to information. Based on this poll, UNICEF created a Bot called ‘Chutki’ that answered girls’ questions on issues regarding the menstrual cycle in real-time. The Chutki bot then scaled up from Pakistan to Nigeria, Indonesia, Cote d’Ivoire and Tanzania. At this point, U-Report also expanded partnerships beyond local telecom companies to private sector companies (such as Facebook, Viber, WhatsApp) and NGOs.

The U-Report Global Team confronted challenges embedding the tool internally within all projects. Internally, UNICEF saw the impact of this tool at two levels. At the country level, prioritization and reach increased significantly. The importance of top country management also became apparent. As the Global team explained, “If there is not enough support and need from the country office management, there will be delays and challenges scaling the tool locally.” One of 6 key areas in UNICEF’s strategic plan now focuses on innovation (with a dual focus on increasing efficiency and reaching more people, cheaper). Organizationally, there is vast support and a shift to innovation becoming a priority at UNICEF HQ. In September 2018, UNICEF along with world leaders launched Generation Unlimited, a new partnership to get every young person into quality education, training or employment by 2030. Generation Unlimited will tackle the global education and training crisis currently holding back millions of young people and threatening progress and stability and U-Report will support the implementation and roll-out of the new youth agenda.

In 2018, plans for U-Report included building out the technology back-end to allow for faster data analytics and more robust scaling opportunities. Using Artificial Intelligence, U-Report also offered U-Report Bots, which learned about its users and what they needed to know and interacted with them in private on sensitive issues. The U-Report Bots were locally adaptable and related to young people and communities to answer their questions intelligently and sensitively. It was a ‘smart’ approach to respond to queries via SMS and digital channels on issues such as children’s rights, disaster risk reduction, health care, immunizations, nutrition, access to safe water and sanitation services, basic education and protection. U-Report bots had the ability to answer 10 times more U-Report questions at a much lower cost as more U-Reporters became digital. This technological shift allowed U-Report to dramatically increase its reach and impact on youth around the world.

Key success factors: localized country focus; support from global HQ team; dedicated team

Key challenge: Global data analytics complicated significantly by pace of growth and differences in country projects.

Summary	Tech	Scale	Partners	Impact	Success Factors
SMS-based youth engagement and education platform	HIGH TECH Tech used: SMS, AI	SCALED	Private sector, non profit	SOCIAL INTERNAL	Initiative: Applicable in many locations Organizational: Dedicated team, executive buy-in



Building Blocks

Name: Building Blocks

Organization: WFP (World Food Programme)

Year launched: 2016

Countries: Jordan, Pakistan

Users: 100,000+ refugees and vulnerable individuals

The mission of the World Food Programme (WFP) is to fight hunger worldwide, providing food assistance where it is most urgently needed - during and after conflicts and natural disasters - and changes lives for millions through sustainable development. In 2017, cash transfers represented an increasing share of WFP's total humanitarian assistance (31 percent in 2017), and included assistance distributed as physical banknotes, e-money, mobile money, vouchers or debit cards. In 2017 alone, WFP transferred US\$ 1.4 billion to almost 20 million people in over 60 countries, empowering them to meet their essential needs. Cash assistance and emerging digital opportunities empowered vulnerable households to meet their essential needs according to their priorities.

However, challenges continued to exist around issues of potential financial risk in certain contexts, instability of banks and telecommunications providers in conflict situations or insecure states, transfer fees and customer privacy. WFP staff observing these issues in the field recognized the need for a neutral platform that would tackle some of these challenges.

In the summer of 2016, a finance officer named Houman Haddad attended one of the WFP Innovation Accelerator's "bootcamps" with the purpose of testing his idea to use blockchain technology as a way to improve how WFP's transferred cash. At this bootcamp, Houman talked with everybody in the room to voice opinions on whether blockchain could be beneficial. WFP's Innovation Accelerator, launched in 2015 with strong support from WFP management, hosted regular five-day workshops, culminating in a "pitch night," to bring in staff from around the globe to propose innovative solutions to WFP's most difficult challenges. Teams vied for the chance to win WFP funding, mentorship, staff time and resources as an official work stream in one of WFP's divisions.

After the project successfully completed the bootcamp in January 2017, WFP started to work full time on planning and implementing the Building Blocks pilot. The team traveled to Pakistan as the first pilot location for transferring money via blockchain, hoping to prove the concept and confirm basic assumptions around blockchain's effectiveness in managing cash transactions. They piloted successfully with 100 people before deciding to test it in another location to confirm that the technology was easily transferrable.

The second pilot location was in the Azraq refugee camp in Jordan where the Building Blocks team began implementation with 10,500 Syrian refugees. The cash was transferred through a blockchain-backed system for distributing and recording cash transactions, integrated with iris-scanning technology already employed by WFP. Each refugee had their own unique biometric identification and when the transfer was made the refugee's identification was confirmed via an iris scan to enable the secure transfer. This new cash transfer set-up was not a cryptocurrency

transaction, but rather a debit from a “virtual wallet” using blockchain, which functioned as a ledger of distributed transactions. The refugee’s experience remained the same, but the backend technology was more secure and cost effective.



Figure 5: A Syrian refugee has her iris scanned to receive her cash based transaction.

By 2018, Building Blocks, though it had only recently transitioned out of the pilot phase, had already delivered significant impact for WFP’s operations. Providing more than a million USD worth of CBT through 100,000 transactions, Building Blocks reduced local banking fees by more than 90%, transferring cash through a virtual wallet. The initiative avoided the financial risks associated with depositing money up-front to local financial institutions. Building Blocks also

protected the sensitive data of refugee families by bypassing banks to make cash transfers. These benefits prompted WFP to set a goal of scaling up to reach all 500,000 of its Syrian refugees in Jordan (106,000 have effectively received food assistance via the blockchain as of September).

By mid-2018, WFP was exploring how blockchain technology might be used in other WFP workstreams such as supply chain operations and digital identity management. The technology was seen to have the potential to broaden the contributions WFP was making to the Syrian families. WFP also planned to begin using Building Blocks to work more closely with other agencies, hoping that the blockchain platform could become a shared, inter-agency platform of trust that allowed for simpler, more secure transactions to people in need.

Key success factors: Internal structures that nurture innovation, applicable in every context where CBT are used

Key challenge: Bringing a large solution to scale while incorporating a variety of stakeholders

Summary	Tech	Scale	Partners	Impact	Success Factors	
Blockchain technology to provide cash based transfers to refugees	HIGH TECH Tech used: Blockchain	SCALING	Private sector, government	SOCIAL MISSION	Initiative: Applicable in many locations	Organizational: Dedicated staff time and resources



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