

CREATING HOPE IN CONFLICT:

A HUMANITARIAN
GRAND CHALLENGE

HOW DO GREAT IDEAS SCALE? LEARNING FROM SCALING SUCCESSSES IN HUMANITARIAN INNOVATION

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EXECUTIVE SUMMARY

OVERVIEW

Scaling innovations in the humanitarian sector is notoriously difficult, and existing research highlights the many barriers and challenges to scaling humanitarian innovations. This study sought to fill an important gap in the literature by identifying and outlining key lessons from humanitarian innovations that have successfully scaled.

The research focused on five case studies of innovations that have, each in their own way, fostered new ways of working within the humanitarian sector. We explore the drivers of their success, the strategies deployed by innovators, and the lessons learned along the way. In doing so, we offer learning points for donors and innovators seeking to scale innovations in the humanitarian sector and to foster a more supportive ecosystem for scaling innovation.

The research was commissioned and funded by Creating Hope in Conflict: A Humanitarian Grand Challenge, but focused on identifying lessons learned from innovations beyond its portfolio. The five case studies include:

1. [Cash Learning Partnership \(CaLP\)](#), a member network organisation that promotes the use of cash and voucher assistance in the humanitarian sector
2. [Humanitarian OpenStreetMap Team \(HOT\)](#), a global team of volunteer crisis mappers who use OpenStreetMap to provide information that is used to inform disaster response
3. Micronutrient Powders, called 'Sprinkles', developed to combat childhood malnutrition
4. Telemedicine, an online platform through which doctors can access medical advice from a network of specialists, scaled within [Médecins Sans Frontières \(MSF\)](#), and
5. [Wave](#), a mobile money business using smartphone technology.

These case studies were selected because each has helped to transform established ways of working, whether within one organisation or across the wider sector. They also work across different areas, including health, cash transfers, mobile money, nutrition, and access to information.

Each case study was constructed through two key informant interviews and a review of relevant documents, including published reports, blogs, podcasts, and news articles. In one case study, only one interview was possible, supplemented by a review of additional documents.



KEY FINDINGS

Findings emerged around five key themes:



The innovators: all case studies include determination, persistence and commitment by the founders and early team in the face of both failure and resistance. Some made significant personal sacrifices, including working on the innovation without pay for a long period of time. Also important was that most founders either had experience of scaling an innovation or were mentored by people who had. Some also had significant personal experience of the problem they were trying to address, which was foundational in shaping their solution. Most also had relatively easy access to international humanitarian organisations and were able to share their ideas with key actors who would become users, funders, or distributors.



The innovation: there was a clear and demonstrable need for each of the innovations, coupled with demand from end-users. Innovators invested in understanding and demonstrating this demand. At the same time, demand needs to be considered from multiple angles, and the case studies show how demand from potential end-users can be impeded or accelerated by gatekeepers. In one case, for example, there was demand from potential users but resistance from headquarters that had to be overcome.



Context: several contextual factors contributed to scaling success. Timing and wider trends were important in four of the five cases. In at least three, the spread of the internet, uptake of mobile phone usage and increased use of social media platforms played a key role in scaling success. In another case, the convergence of need, opportunity and people willing to drive change in the aftermath of the 2004 Indian Ocean tsunami helped propel the innovation forwards.



People and partnerships: in every case, scaling has depended on identifying the right 'home' for the innovation and/or empowering the right people to drive it forwards. This may not be the same as the original innovator or founding team. Strategies deployed here have included distributing responsibility across a wider network and supporting local entities in scaling locations to take ownership of the innovation.



Managing and resourcing scaling: innovators emphasised the limitations of planning their scaling process – their journeys were rocky and unpredictable. All had access to and an audience with decision-makers, either for resources or for potential uptake of the innovation. Access to financial resources was critical to support scaling in each case, and interviewees have developed systems focused on sourcing funds. Yet, the quality and terms of funding are important: unpredictable and short-term funding makes it hard to retain key staff, and flexibility is crucial given the limitations to planning.

While determination and persistence were key factors in each scaling journey, we can view them as necessary, but not sufficient. All innovators in these five case studies were from and based in the global north; they had access to decision-makers and funders and were able to get an audience in international organisations to showcase their ideas. The same opportunities are clearly not available to everyone with a potentially transformative idea. The humanitarian innovation ecosystem reflects the humanitarian system itself: it is highly unequal, with power and funding still concentrated in the global north, and innovators from the global south face greater barriers to scaling an innovation.

RECOMMENDATIONS

The report makes the following recommendations, discussed in more detail in the final section:

To funders:



Provide more tailored support to local innovators,¹ including:

Ear-marking funding that only targets innovations that have been developed and are run by individuals or organisations in the global south.

Partnering with local networks to create awareness about such funding opportunities.

Providing support to local innovators that apply for funding by providing feedback on how they can strengthen their applications.



Provide flexible and longer-term funding: donors should provide funding with the aim of promoting learning that can inform the innovation which can eventually lead to scale.



Facilitate mentoring and networking opportunities: donors should leverage their own expertise and connections to facilitate mentorship and networking opportunities for innovators, helping them to access tailored advice, build connections, and showcase their successes to relevant stakeholders.



Promote experience sharing among innovators: the funding sector should foster a culture that encourages innovators to share their successes, challenges, and failures.



Support sustainability of innovations: donors can support innovators by connecting them to actors in other arenas such as the private sector.

To innovators:



Invest in evidence: innovators often put more emphasis on implementation and rely on anecdotal evidence to highlight the impact of their innovation. When innovators do provide evidence, it is usually donor driven, mainly through end line evaluations. Innovators should develop mechanisms from the ideation phase that generate evidence on impact, successes, failures, and learnings, to inform the innovation and promote uptake.



Engage in experience sharing among innovators: the humanitarian system is competitive and so innovators are not forthcoming with information particularly on their failures. Innovators should create platforms that share information and learning on their scaling journeys.



Develop business models for sustainability: all the innovators we spoke to are highly dependent on grant funding which is fraught with challenges. Innovators need to start looking elsewhere for more sustainable funding sources. One source could be the private sector; however, innovators need to build a commercial business case that goes beyond corporate social responsibility, and to prove to the private sector that profit can be generated from their partnership. Alternatively, innovators could trial various business models such as cross subsidisation, pay-per-use and consumer subscription² in an effort to identify a model(s) that can provide sustainability especially during periods without grant funding.

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ABBREVIATIONS AND ACRONYMS

ALNAP	Active Learning Network for Accountability and Performance
CIHR	Canadian Institutes of Health Research
Elrha	Enhancing Learning & Research for Humanitarian Assistance
HOT	Humanitarian OpenStreetMap Teams
INGO	International Non-governmental Organisation
MSF	Médecins Sans Frontières
Telco	Telephone company
USD	United States Dollars
USSD	Unstructured Supplementary Service Data

I. INTRODUCTION

I.1. OVERVIEW

Much has been written about the challenges of scaling humanitarian innovation, from inadequate planning for scalability in the early stages of innovation development, to a lack of appropriate or adequate funding, to the stifling of innovation by underlying incentive structures that maintain the status quo within the humanitarian sector. Evidence of these multifaceted challenges is plentiful, and it is widely accepted that few humanitarian innovations have scaled.³

Instead of reiterating the challenges, this paper explores what can be learned from five scaling success stories. We focused on innovations that have, in different ways, catalysed new ways of working - whether within one organisation or across a sector. By speaking directly with the founders and innovators, we sought to glean contributing factors and lessons learnt that can be used by innovators and funders alike to improve support for humanitarian innovators looking to scale.

The research was commissioned by [Creating Hope in Conflict: A Humanitarian Grand Challenge](#). Creating Hope in Conflict is a partnership of the U.S. Agency for International Development (USAID), the UK Foreign, Commonwealth & Development Office (FCDO), the Ministry of Foreign Affairs of the Netherlands and Global Affairs Canada, with support from Grand Challenges Canada. The selection of case studies was not limited to projects within Creating Hope in Conflict's portfolio; however, one of the five selected innovations has received financial support from Creating Hope in Conflict.

Defining 'scale'

For the purposes of this report, we are defining scale, following Elrha, as: *"building on demonstrated successes to ensure that solutions reach their maximum potential, have the greatest possible impact, and lead to widespread change."*⁴ This definition focuses on the change achieved and the extent to which the solution addresses the problem identified, as opposed to setting out a numerical target for scale. It allows for the inclusion of innovations that have had a transformative effect on one organisation, but that have not scaled beyond that organisation.

It is also important to recognize that not every innovation should scale,⁵ and that innovations that do not scale have not necessarily 'failed'. Obrecht and Warner identify four types of innovation outcomes: three successes (adoption, improved solution and consolidated learning and evidence), and one 'bad fail' (innovations that fail without enhancing the learning and knowledge around their given area of practice in the humanitarian system).⁶ This approach recognises the value innovation can contribute beyond scaling, including by generating improved solutions and consolidated learning and evidence.

I.2. BACKGROUND

Despite a proliferation of pilots and early-stage innovations within the humanitarian sector, few innovations have scaled to the extent of substantially changing established ways of working. While conducting semi-structured interviews with leaders in the humanitarian innovation space, McClure and Gray noted that interviewees struggled to identify more than two or three innovations that they felt had truly gone to scale, and repeatedly cited the same small set of success stories.⁷

Drawing on their own experience as an established humanitarian innovation funder, Elrha's 'Too Tough to Scale' report identifies 13 key barriers to scaling innovations in the humanitarian sector across five key areas of challenge. The five challenge areas are that:

1. Too few humanitarian innovations are ready to scale
2. The humanitarian sector has insufficient embedded knowledge and skills for supporting innovations to scale
3. There is a lack of appropriate and adequate funding for scaling innovation in the sector
4. There is insufficient evidence of the impact of humanitarian innovations, and
5. Specific issues within the humanitarian ecosystem make scaling innovation extremely difficult.⁸

ALNAP's 'More Than Just Luck' study identified seven success factors that tend to be present when innovation processes (in general - not specific to scaling) are successful: 1) collaborating with others - effective management of collaborations, 2) generating and integrating evidence, 3) engaging with end-users and gatekeepers, 4) organising an innovation process, 5) resourcing an innovation, 6) managing risk, 7) creating a culture for innovation.⁹ While many of these factors are also reflected, in part, in other documents, they were mainly checklists for innovators to consider and the data on which the checklist content was based was unclear.

As highlighted in GAHI's work, scaling humanitarian innovation is complex, and approaches borrowed from the "*narrow perspective of commercial product innovation*" are often irrelevant.¹⁰ Any approach to scaling humanitarian innovation must recognise the diversity of pathways to scale and the important choices an innovator must make in determining which factors to focus on when scaling. Many frameworks have been created to guide innovators to scale, but few are specific to the humanitarian sector and its challenges.¹¹ Meanwhile, little has been written about scaling by humanitarian innovators who have successfully scaled themselves.¹² Many innovators are writing and publishing about their innovations at a technical level (including innovators we spoke to for this study involved in telemedicine and micronutrients) but (apart from CaLP) are not publishing insights about scaling.

Although evidence around successful scaling is limited, several key elements important to scaling can be identified across the literature on humanitarian and social innovation. The key factors emerging from our document review were:

- **Funding and time:** Scaling requires long-term, continuous and flexible funding; yet there is limited availability of appropriate funding for scaling innovation.¹³ This disincentivizes innovators from scaling an innovation, and instead incentivizes them to continually reinvent their offer to obtain the funding that is available.¹⁴ Moreover, funding from donors is restrictive and requires high levels of accountability.¹⁵ As one innovator highlights, providing unrestricted support is one of the easiest ways to ensure that innovations can scale.¹⁶ Flexible and continuous funding enables teams to take time for and to incorporate learning, and to allow momentum to build and be maintained.¹⁷ The need for continuous and longer-term funding is also linked to a recognition that

truly transformative scaling is a long process, and that sufficient time is essential to drive widespread change.¹⁸

- **Context and timing:** the timing of an innovation, and the relationship between an innovation and its wider context, can be key.¹⁹
- **Support and relationships:** beyond funding, important sources of support for scaling include:
 - **Mentors and investors:** Endeavor Insights found that receiving experience, support, or investment from someone who has led a company that reached scale meant a founder was more likely to reach scale themselves, and faster.²⁰
 - **Team dynamics:** The case studies in 'More Than Just Luck' highlight that "*the initial seeds for many innovation processes were found in coffee shops, conference and workshop lunch breaks or office hallways*" and informal relationships within an innovation team are important. Positive team dynamics (including passion, trust, and dedication of the team) were seen to play a large role in successful innovation processes, including helping to overcome challenges, motivating external stakeholders to invest in the innovation, and fostering champions.²¹
- **Partnership building:** the humanitarian system is decentralised with many interconnected actors. It requires '*networked thinking*', building and working through a network more than the sum of its parts. Within the humanitarian sector new ideas and ways of working can (and often do) foster resistance, as they challenge standard ways of operating. Bringing stakeholders within the system together as a network, around a common vision, helps to overcome resistance and can effect change faster. Fostering system-wide change is complex, and a network approach makes it possible to understand and work at multiple levels.²²
- **Skills and passion of founders/ innovation managers:** a number of documents identified the individual skills, passion, and charisma of the founders as key to scaling success, particularly due to their role in motivating the innovating team, managing collaborations with external stakeholders, and 'translating' across different stakeholder groups e.g. end-users and developers.²³ This is also considered a critical element of scaling within the Social Replication Toolkit, which encourages innovators to consider whether the project owner has previous experience in scaling, and is trusted by stakeholders.²⁴
- **Handing over when needed:** The skills required to scale may be different from those required in the early stages of developing or testing an innovation. Nesta's work on scaling recognises that original innovators who developed and tested the innovation may not be best placed to lead the scaling process because scaling requires a distinct set of skills and competencies, such as people management, technical expertise, relevant connections, business planning and development, and financial management, amongst other things. They highlight that beyond handing the innovation over to a completely different organisation or team, for some organisations scaling may require significant changes in leadership, culture, and structures.²⁵ Management Systems International place a strong emphasis on the benefits of scaling through a neutral third-party or intermediary organisation specifically charged with assisting in the scaling up process.²⁶

2. METHODOLOGY

This study was commissioned by Creating Hope in Conflict: A Humanitarian Grand Challenge with the aim of identifying important lessons learned from previous humanitarian innovation routes to scale, with application to the Creating Hope in Conflict portfolio and the broader humanitarian system. It was a desk-based research study seeking to better understand the key factors that have helped innovations to scale successfully. The research framework, including research questions, can be found in Annex 1.

The research began with a desk review that included 19 papers relevant to scaling innovation, primarily in the humanitarian, social and development sectors. Papers were identified based on the prior knowledge of the research team, supplemented by an online search and suggestions from the Creating Hope in Conflict team. Documents were reviewed according to a structured framework based on the research questions. Emerging findings from the document review were used to inform the development of interview templates.

We adopted a case-study approach to primary data collection. This involved the identification of five case studies of successfully scaled innovations. The choice of case studies was limited by the small number of humanitarian innovations that have scaled, as described above. Twelve possible case studies were identified by the Creating Hope in Conflict team as having had a transformative effect on established ways of working. The research team selected four innovations from this list: telemedicine at MSF, Wave Mobile Money, Humanitarian OpenStreetMap (HOT) and Sprinkles micronutrients. The fifth case study (cash transfers, with a focus on the Cash Learning Partnership (CaLP)) was identified by the research team based on the document review. Our aim was to select case studies of innovations that have scaled in a range of different ways, to provide illustrations of different routes to scale. We sought to include a mixture of innovations that had scaled within an existing humanitarian organisation (MSF), externally to or across existing organisations (HOT, Sprinkles and Wave Mobile Money) and through a network of organisations (CaLP). We also sought to include innovations that fit within different areas of work, taking as a starting point Creating Hope in Conflict's four main thematic areas: safe water and sanitation, energy, life-saving information, and health supplies and services. The five selected case studies focus on a range of issues including health (MSF and Sprinkles), information (HOT), cash and voucher assistance (CaLP) and mobile money (Wave).

Nine interviews were conducted in January and February 2021, including two for each case study.²⁷ Five initial interviewees were identified by the Creating Hope in Conflict team. Each interviewee was then asked to identify a second person relevant to the innovation to interview. All interviews were conducted remotely using Zoom or Skype. Interviews were according to a semi-structured interview template and lasted for one hour. All were audio recorded and transcribed verbatim by the research team.

Interviews were supplemented by a review of background information relevant to each innovation, including reports, blog posts, news reports, journal articles and podcasts and other media. This included some suggested by interviewees and some identified by the research team.

2.1. LIMITATIONS

Due to the timing and scope of this project, only two interviewees were selected for each innovation. We sought to interview people who had been involved in the innovation from the beginning and who had played a central role. We supplemented this with a review of relevant documents on each innovation. However, it is important to note that the case studies still depend significantly on the perspectives of a small number of interviewees. In addition, each of the case studies covers an innovation that operates

across multiple countries and, in most cases, organisations, with long histories. Their innovation journeys are complex and nuanced; each could be the subject of a report in their own right. We have had to simplify this for the purposes of the report.

In our original strategy, we sought to include innovations led by founders from the global south. However, we struggled to identify examples of innovations that have had a large-scale impact on the humanitarian system where the founder did not originate from the global north. This, itself, reflects the dramatic imbalance in power and resources in the humanitarian system, and in the opportunities, resources, and access available to different innovators. In the end, all five case studies were founded by an innovator from the global north.

3. CASE STUDIES



3.1 CASH LEARNING PARTNERSHIP (CALP)

- CaLP is a member network organisation that promotes the use of cash and voucher assistance in the humanitarian sector.
- Since 2005, CaLP has worked to promote the use of cash, including through the generation of evidence, technical support, training, and evidence-based advocacy on the impact of cash-based assistance.
- The use of cash and voucher assistance has grown rapidly, particularly since 2016. In 2019, cash and voucher assistance accounted for 17.9% of total international humanitarian assistance.¹ CaLP itself has grown from a consortium of five to a membership-based network of over 90-member organisations.
- Key factors that have contributed to scaling include funding, collaboration and partnerships which enabled sharing of resources, building an evidence base that challenges the myths and misconceptions on cash and voucher assistance, and continuous sharing of learning on the effectiveness and efficiency of cash and voucher assistance.

HOW THE INNOVATION STARTED AND WHY

In 2004, an earthquake in the Indian Ocean caused a tsunami that directly affected approximately eight countries and catalysed a massive response from the humanitarian sector. One way in which some of the humanitarian actors responded was by providing cash instead of in-kind assistance. This was made possible due to flexible funding which allowed humanitarian organisations, in the words of an interviewee, “to adjust and innovate”.

In 2005, after the response, five major humanitarian agencies²⁸ came together and formed a consortium aimed at promoting experience sharing on the use of cash in humanitarian response. The consortium spearheaded several projects such as the Overseas Development Institute Tsunami Cash Learning Project in 2006 that produced papers, case studies and reports detailing and reviewing the use of cash in the 2004 Tsunami.

DRIVERS OF SCALING

Funding: In the next stage of its evolution, CaLP was formally launched when five agencies secured funding from ECHO in 2009. CaLP focused on developing common standards and monitoring tools, capacity building and promoting the mainstreaming of cash transfer programming. When some of its members stepped back, CaLP approached new members such as Action Against Hunger and Norwegian Refugee Council to expand its reach and influence beyond the food security and livelihood sector.²⁹ In 2010, CaLP was able to secure more funding which enabled the recruitment of staff who were able to engage in contingency planning, offer training, facilitate learning, and support the formation of cash working groups. Since then, CaLP has continued to source funding which has enabled it to conduct activities that have promoted and enabled the scale of cash and voucher assistance.

Evidence base on cash and cash and voucher assistance: Even though cash has been used as a form of assistance since the 19th Century, its use within the humanitarian sector was very limited. There was hesitance among humanitarian actors to use cash due to: fears about irresponsible use by the beneficiaries³⁰ and concerns that it would significantly diminish the role and presence of humanitarian actors.³¹ CaLP worked to counter this by “building the evidence disputing every argument”. Even as the use of cash has increased, the perception that cash and voucher assistance is riskier than other forms of aid remained a barrier to cash and voucher assistance being routinely used – a concern linked to the

growing emphasis from donors on anti-terrorism and money laundering. Thus, among its work themes, CaLP has a focus on risk that explores threats – acknowledging that they exist as with all forms of aid – while also tackling unfounded perceptions and myths on cash and voucher assistance.

CaLP also serves as a hub for the collection of evidence related to cash and voucher assistance from across the humanitarian sector with evaluations and research reports that details the impact of cash and voucher assistance – all of which is shared on their website. The library of resources is used widely by practitioners and is used to inform the development of guidance documents and training resources on cash and cash and voucher assistance. As an interviewee from CaLP stated, *“what becomes important when talking about scale and quality is to be clear that it's not about cash for the sake of it, it's because it's the best option as a response in a particular situation.”*

Collaboration and partnerships: CaLP began as a consortium of five agencies that came together to share knowledge and best practices on the use of cash. In 2015, CaLP opened its membership beyond its original five members; it is now a global network of over 90 organisations engaged in policy, practice and research in humanitarian cash and voucher assistance and financial assistance more broadly. The platform has created a first point of contact for organisations to improve the efficiency and effectiveness of their cash programs through the sharing of evidence, guidance, and experience, and by providing trainings and capacity building. While membership based, CaLP resources are available to all – the aim being to strengthen the use of cash and voucher assistance overall, not just among members. For example, all e-learning is free of charge and training resources can be downloaded and adapted by agencies.

“WHAT BECOMES IMPORTANT WHEN TALKING ABOUT SCALE AND QUALITY IS TO BE CLEAR THAT IT'S NOT ABOUT CASH FOR THE SAKE OF IT, IT'S BECAUSE IT'S THE BEST OPTION AS A RESPONSE IN A PARTICULAR SITUATION.”

3.2 HUMANITARIAN OPENSTREETMAP TEAM (HOT)

- HOT coordinates a global team of volunteer crisis mappers who use OpenStreetMap to provide information that is used to inform disaster response.
- Use of OpenStreetMap to input humanitarian information started with the response to the 2010 Haiti earthquake. The successful use of geographical data in Haiti led to the establishment of HOT with the aim of replicating the model for other responses.
- HOT now has over 323,000 community mappers using the HOT Tasking Manager. Through the Missing Maps project, over 2,455,000km of road have been mapped, and almost 107,000,000 buildings.¹
- Key factors that have contributed to scaling include the demand for the innovation, their access to financial resources, enabling them to start and maintain operations, and their investment in local expertise and ownership.



HOW THE INNOVATION STARTED AND WHY

In January 2010, Haiti suffered a 7.0 magnitude earthquake that destroyed infrastructure such as communication lines, roads and buildings which buried thousands of people under rubble. The humanitarian sector was quick to respond but faced various challenges such as the inability to accurately locate victims as there were no up-to-date post-disaster maps. The World Bank released satellite imagery of Haiti which was then populated by an online community using OpenStreetMap.³² OpenStreetMap, established in 2004, is a free editable map of the world. Digital volunteers, including Haitians in the diaspora,³³ stepped in by inputting data, such as the presence of camps and usable roads, into OpenStreetMap. This information was used as a base map for humanitarian responders.

HOT later developed a tasking manager which is a piece of software that enables global users to input humanitarian data that can be freely and publicly accessible to anyone using OpenStreetMap. Therefore, HOT – through its tasking manager and digital mapping volunteers – coordinates the collection of information that is fed into OpenStreetMap to support humanitarian response. The information can be accessed, free of charge, by anyone. As a HOT interviewee stated, “HOT’s biggest innovation is the humanitarian use of OpenStreetMap”.

DRIVERS OF SCALING

Demand for the innovation: HOT has enabled the provision of mapping data to various humanitarian responses such as Typhoon Haiyan in 2013³⁴ and the Ebola Outbreak in West Africa in 2014. After the successful use of HOT in each disaster - which reinforced its value to humanitarian practitioners - its reputation grew rapidly. As an interviewee from HOT stated, “we solved the problem in a couple of narrow contexts and we didn’t worry about the scaling of it; once the problem was genuinely solved, the people that we helped kept coming back to us. Every time there was a new operational context, operational people kept calling for it. Nobody was willing to try to work with other information because they already knew that it made them more effective, and they wouldn’t dream of trying to work without it”.

Funding: The ability to secure funding enabled HOT to start, scale and sustain its operations. In 2014, HOT won a grant from the Humanitarian Innovation Fund to develop its prototype tasking manager which was completed in 2015. Since 2015, the tasking manager has been refined so data can be provided as quickly and accurately as possible. From 2015, HOT adopted a project-based model by pursuing funding for

projects. Funding was spearheaded by fundraising experts who won funds by being able to tell a “*coherent story*”. As a HOT interviewee stated, “*we have a partnerships director, he was able to tell the story and really draw a great picture, moves in fairly rarefied circles and was able to secure an enormous grant.*” The funding enabled HOT to prove its concept, remain operational, build expertise, and generate impact evidence of open geographical data in stable settings. For the World Bank, for example, HOT undertook a project that mapped flood prone areas in Dar es Salaam, Tanzania, to inform urban planning. These projects enabled HOT to build expertise and generate evidence on the impact of open geographical data beyond humanitarian situations.

Building local expertise: Since 2015, HOT activities have been based on project work for humanitarian and development actors. In 2019, HOT began sourcing funds to enable it to build or enhance local ownership and expertise, so local communities “*can use the data to respond to their own problems, and don't have to rely on an international organisation...*”

“ONCE THE PROBLEM WAS GENUINELY SOLVED, THE PEOPLE THAT WE HELPED KEPT COMING BACK TO US. EVERY TIME THERE WAS A NEW OPERATIONAL CONTEXT, OPERATIONAL PEOPLE KEPT CALLING FOR IT. NOBODY WAS WILLING TO TRY TO WORK WITH OTHER INFORMATION BECAUSE THEY ALREADY KNEW THAT IT MADE THEM MORE EFFECTIVE, AND THEY WOULDN'T DREAM OF TRYING TO WORK WITHOUT IT.”



3.3 SPRINKLES (SICKKIDS CANADA)

- Micronutrient powders called Sprinkles, packaged in small sachets for home-fortification of ready-to-eat foods, were developed to combat childhood iron deficiency and anemia by The Hospital for Sick Children (SickKids), affiliated with the University of Toronto, Canada.
- UNICEF approached the innovator with a nutritional problem that needed solving. UNICEF was willing to take on responsibility for scaling it globally, provided that the innovator could provide evidence in four key areas. Collecting this evidence took eight years.
- Today, micronutrient powders are distributed in approximately 60 countries to more than 15 million children a year, with distribution primarily undertaken by UN agencies.
- Key factors that have contributed to scaling include the demand for the innovation from a large international organisation (UNICEF) from the outset, extensive investment in building an evidence base (itself facilitated by stable funding), and continuous stakeholder involvement.

HOW THE INNOVATION STARTED AND WHY

Iron deficiency is the most common preventable nutritional problem globally.³⁵ To address the problem of micronutrient malnutrition in children, in 1996, UNICEF challenged an expert in paediatric nutrition at The Hospital for Sick Children (SickKids) in Toronto, Canada, to come up with a solution. The hospital was approached by UNICEF due to its legacy of inventing Pablum,³⁶ a processed cereal for infants which was invented in 1931 to improve infant nutrition, and because of the reputation of the researcher.

The SickKids-led team, with support from USAID, the Canadian Institutes of Health Research (CIHR), and private foundations³⁷, developed the concept of Micronutrient Powders, called Sprinkles, for home-fortification of ready-to-eat foods.³⁸

DRIVERS OF SCALING

Demand for the innovation: The innovation was driven from the outset by demand from a large international organisation, with UNICEF challenging an expert in paediatric nutrition to develop a solution to a well-established need. The innovator cultivated this relationship, visiting New York annually to update UNICEF on his progress, and to remind them that, if proven to work, UNICEF would take on responsibility for the scaling process. The innovation also had a very clear value proposition: at the time, more than 500 million people were estimated to be affected by iron-deficiency anaemia,³⁹ and, in the words of the innovator, *“everyone agreed that if there were a simple solution to this problem, that they should support it.”* This helped secure funding and a clear path to scale.

Investing in evidence: When the founder presented his idea to UNICEF, they posed four challenges to him that he would need to demonstrate or solve, for them to take on the idea as an intervention. These were, firstly, to prove that the product worked to prevent iron deficiency; secondly, to show that people would use it; thirdly, to show that the private sector would produce it in a large volume and at a reasonable price; and fourthly, to show that there were distribution models that theoretically would work. The founder and his team spent the next eight years working on these challenges through multiple research projects conducted around the world.

Funding: The extensive research conducted to develop the evidence base for this innovation was possible because of access to stable funding. The founder already worked for a large research hospital, so he could spend much of his time on research. Initial funding came from USAID. After around three years, the founder was approached by the H. J. Heinz Foundation, who were seeking a project to support that was

consistent with the work of their company and foundation. The Heinz Foundation provided significant, stable financial support for research activities: \$500,000 a year for five years, helping to scale up pilot projects in different parts of the world. In addition, the Heinz Company itself provided support and expertise in the evaluation of consumer needs. Additional funders later came on board. Having this funding allowed the project to move forward relatively quickly.

Collaboration and partnerships: The development of a robust body of evidence was an important driver of successful scaling. This research, in turn, depended on successful partnerships with Ministries of Health or universities in various countries around the world. Additionally, throughout the pilot process, the Sprinkles team set up a mix of distribution models including public sector free-distribution, NGO-operated subsidised distribution (where people pay for the sachets at a subsidised cost) and private sector social marketing.⁴⁰ The SickKids team also identified multiple companies around the world who would be willing to make the sachets for low prices and in large volumes, enabling Sprinkles to be manufactured locally.

Handing over for scaling: As planned, once the research team had met the challenges set by UNICEF, they handed over responsibility for scaling. UNICEF took on responsibility for distribution, scaling the innovation globally through their country offices. UNHCR and WFP followed suit by incorporating Sprinkles into their programmes. To ensure successful scaling in countries around the world, UNICEF invested in market research to increase likelihood of success among consumers.

Endorsements and longevity: 10 years after the founder first came up with his idea, the WHO conducted a systematic review of the evidence on micronutrient powders to date, and based on this, formally recommended their use in emergency situations. This recommendation has been crucial for generating uptake in countries around the world. In 2019, micronutrient powders were added to the WHO's list of essential medicines for children, meaning that countries can now pay for them through their health budgets, further contributing to uptake.

TELEMEDICINE IN LOW-RESOURCE SETTINGS

Topic Editors
Richard Wootton and Laurent Bonnardot

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PUBLIC HEALTH

3.4 TELEMEDICINE (MSF)

- Telemedicine supports doctors to access medical advice from a network of specialists, through an online platform.
- The idea was scaled within MSF by an external innovator working together with a small team of MSF staff. The idea initially struggled to gain traction within the organisation due to resistance from internal decision-makers but eventually generated a critical mass and was taken up by the organisation and used worldwide.
- From 2016 telemedicine has been supported by all five Operational Centres of MSF (Paris, Brussels, Geneva, Amsterdam, and Barcelona-Athens) and currently any doctor working for MSF has access to the telemedicine platform.
- Key factors that have contributed to scaling include the commitment and continuity of the founder and early team, access to decision-makers and champions within the organizations, internal support, and an understanding of the culture of MSF, and the timing of the innovation (and associated trends).

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HOW THE INNOVATION STARTED AND WHY

Telemedicine was initially introduced to MSF in 2009 by an independent ear, nose and throat surgeon and emergency doctor. He recognised the importance of providing specialist medical advice to doctors working in remote locations and the potential that a web-based telemedicine system held for large humanitarian medical organisations such as MSF. He approached MSF France with the idea and in 2009 the system was deployed within MSF.

DRIVERS OF SCALING

Commitment and continuity of the founder and early team: From the beginning, it was difficult to convince people within MSF France that telemedicine was going to be useful: a lot of decision makers did not see it as a priority or were actively opposed to it because it represented a change to the standard way of working within the organisation. The innovator, who was external to MSF, began working outside of the MSF offices, though he identified and worked with a small team of MSF staff who supported the vision. To avoid being accused of personal benefit from the innovation, or conflict of interest, he kept the costs of the project to a minimum and worked solely as a volunteer. After gaining some approval from MSF Holland, from 2009 for approximately four years, the external innovator and one MSF staff member trained every physician from MSF Holland to use the telemedicine platform and responded to every request for telemedicine from MSF doctors working in emergency settings. They were on call 365 days a year, 24 hours a day, connecting the MSF doctors with specialists and ensuring each query was responded to. Without this level of commitment and personal sacrifice the project would not have been able to continue in the face of ongoing resistance from some parts of the organisation.

Access to decision-makers: As someone who had never worked for MSF before, an initial task of scaling the innovation within MSF was to gain access to key decision-makers within the organization. The doctor lived in Paris and was able to travel to the MSF offices and speak to a senior member of the Human Resources Team and then with the Medical Director, who were both in support of the idea and acted as gatekeepers to provide access to the organisation. This geographical proximity and level of access and privilege provided the initial impetus to get the project started.

Evidence of effectiveness and demand: In 2010, to avoid 'the opinion debate' between those within MSF who supported the idea and those who opposed it, the doctor began studying for a PhD on the topic of telemedicine within MSF and proposed a pilot project. The idea was to conduct a thorough and scientific assessment of the system to generate evidence of its effectiveness and create consensus across the

organisation. The pilot phase was able to generate evidence of effectiveness and demand for the innovation. This was documented through numerous publications in medical journals and was supported by positive feedback from people using the platform in field locations. The combination of formal written evidence, and word of mouth helped to diminish some of the resistance within the medical departments, and eventually the platform was accepted and used by all the MSF Operational Centres. One interviewee reflected, *“I think you have to show success in terms of cases. Gaining feedback from people who are using it makes a difference. You are not the ambassador of this, the user becomes the ambassador of this. This is what happened, slowly.”*

Internal champions: Throughout the challenges of scaling, a former MSF President provided significant support to the external innovator and helped to push the innovation forward behind the scenes. He had large political influence within MSF and was a visionary but kept his support and involvement in the project ‘in the shadows’ to avoid causing further political challenges for the project. He was particularly helpful in encouraging the innovator to understand and consider the internal politics and working culture of MSF, how people within the organisation think, their language, and to interrogate why many of them found telemedicine a threat. Generating this type of understanding was a key factor in overcoming organisational resistance and seeing the innovation start to scale.

Context and trends: As the project went on, internet access improved in field locations, making it easier for doctors in the field to utilise the telemedicine platform easily and quickly. In addition, specialist doctors started to get smartphones and had constant access to the platform, so they began to respond to cases much faster, making the telemedicine process much more efficient and effective.

“I THINK YOU HAVE TO SHOW SUCCESS IN TERMS OF CASES. GAINING FEEDBACK FROM PEOPLE WHO ARE USING IT MAKES A DIFFERENCE. YOU ARE NOT THE AMBASSADOR OF THIS, THE USER BECOMES THE AMBASSADOR OF THIS.”

3.5 WAVE MOBILE MONEY

- A rapidly growing mobile money business using smartphone technology, offering significantly lower prices than other mobile money products in Africa, now with over a million users.
- The innovation was initially piloted in Ethiopia but had to cease operations, moving to Senegal and Cote d'Ivoire where they have scaled rapidly.
- Wave is currently operating in Senegal and Cote d'Ivoire. They now have a team of 300 people and over a million users in Senegal alone.
- Key factors that have contributed to scaling include the founders' experience and connections, strong evidence of demand, competition and trends, employing the right people, access to financial resources, and a supportive regulatory environment.



HOW THE INNOVATION STARTED AND WHY

Wave was founded in 2016. The innovators wanted to solve the problem of a lack of widespread, cheap mobile money systems by making mobile money cheaper, easier to use and more accessible. Telecommunication industries within some African countries are dominated by large, powerful telephone companies (Telcos) who restrict access for further development of the technology and charge high rates to users. The innovators wanted to build a full stack mobile money solution as a non-Telco so that they could keep rates low, and future entrepreneurs could build on top of their solution.

DRIVERS OF SCALING

Demand, competition, and trends: Demand for the product was critical to their scaling success. In the words of one co-founder: *“The first thing that probably goes without saying is to have a product [...] that people love, that people really wanted. That is the foundation of everything, if you don't have that, it's like fuel for the fire and so that is absolutely critical.”* Beyond this they adopted a considered approach to the competition which they believe also played a significant contribution to the scaling success of Wave, by setting a price point well below their Telco competitors.

A clear and accurate grasp of current trends: *“smartphone penetration and estimates were underestimated for Sub-Saharan Africa, particularly urban areas and that trend was changing much faster than people realised.”* Much of their understanding of current trends was informed by their previous innovation experience in a similar field with Sendwave.

Past innovation experience: The co-founders of Wave had worked together before, both on start-ups funded by the major US seed funding investor Y Combinator, and as co-founders of an international remittance app, Sendwave. Sendwave, founded in 2014, was the first instant, no fee, international remittance app. WorldRemit bought Sendwave in February 2021, in a deal worth more than \$500 million.⁴¹ As a result, the co-founders had gained valuable experience and skills in the practical elements of start-ups that helped them to both start, and scale, Wave. As a result of their experiences prior to both Wave and Sendwave, *“We had plenty of small successes and failures that were teaching us what to do*

and what not to do, both in terms of product design and engineering, as well as in execution on distribution, getting users, focusing on what matters, watching growth curves.” (Wave interviewee)

Through these experiences they had also learnt some key principles of innovation that shaped their determination to grow and scale Wave: *“You have to be willing to fail for a while before you’ll get good enough at it, to have a high chance of success.”* (Wave interviewee)

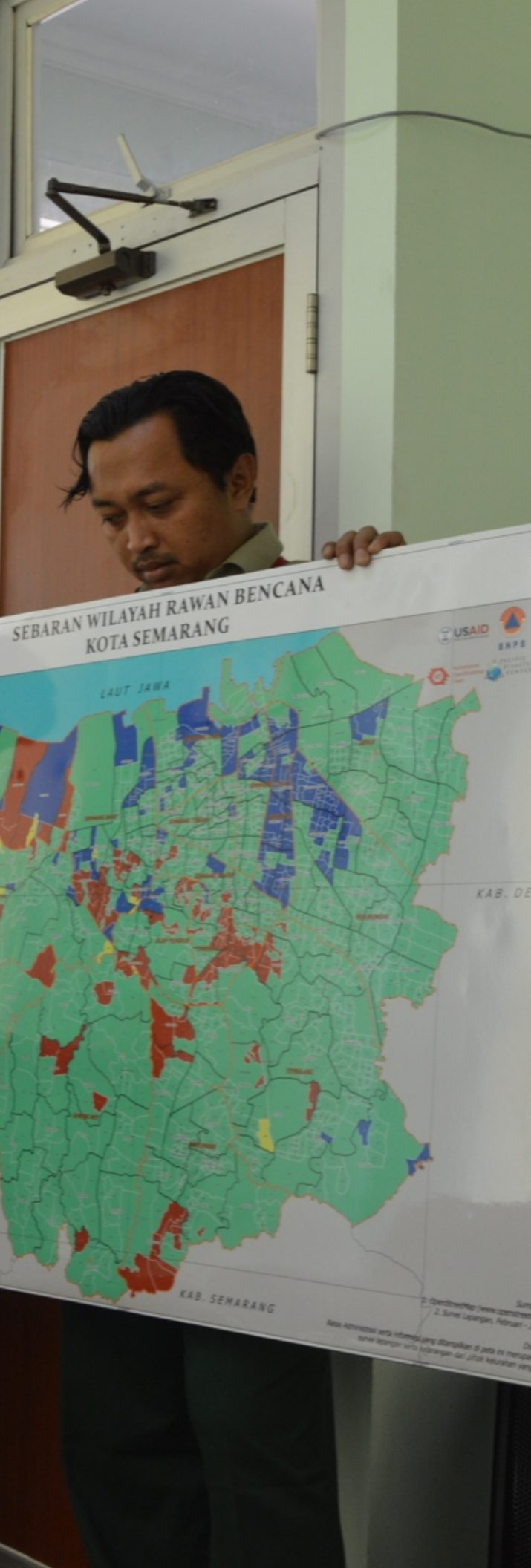
A supportive regulatory environment: From mid-2016 to mid-2017 the two co-founders and a small team of three other people ran a pilot in Ethiopia. They took around six months to complete an exploratory stage to inform the pilot including figuring out how to add agents, what technology exactly they needed for the app, and where the product in Ethiopia was most in demand (the Somali region). They built an app designed around Unstructured Supplementary Service Data (USSD) codes specifically for Ethiopia because many users in the Somali region did not have smartphones. However, once the product started to gain traction, they encountered resistance from both the Ethiopian government (who were fundamentally opposed to the foreign influence of technology within the country) and their competitors which eventually forced them to cease operation in Ethiopia and move on.

The team considered launching in other countries. They looked for somewhere with a solid regulatory framework, a weak mobile money competitive landscape, and a plausible and early market that they could serve with very few agents. They settled on Senegal which had the benefit of a strong central bank that was motivated by financial inclusion and launched Wave there in early 2018.

Mentorship: The pair also had valuable connections with advisors, mentors, and investors with scaling know-how. In 2012 they were accepted by Y Combinator, the start-up incubator, and through this continued to meet regularly with various advisors and through the Y Combinator alumni network, Y Combinator partners. This exposure significantly shaped their approach to starting and scaling Wave. The largest investor in Wave used to run Y Combinator and has been very instrumental in keeping Wave going when times were hard by providing liquidity loans.

Access to financial resources: The co-founders had initially underestimated just how expensive it would be to scale an innovation. For example, establishing a whole new office in Cote d’Ivoire before they had a million users was extremely expensive, but they knew they had to make the investment upfront because it would take a whole team of people to add enough agents to scale. In addition to payroll, Wave also has huge working capital demands to support agent operations, plus there is a regulatory requirement that all cash in the system needs to be backed by deposits in a bank account. When starting Wave, they were able to use Sendwave’s profits as a useful starting point, which may have contributed to scaling success and the speed at which they were able to scale Wave. However, this is less relevant now that Wave has other investors willing to put large amounts of money into the business and it is difficult to be certain of the exact role that Sendwave’s profit played in Wave’s scaling success.

People: Hiring people with the specific skill sets and experience needed to scale the business was seen as being one of the most important factors for successful scaling. For example, when Wave began scaling, they hired someone who had previously managed the scaling of the agent network of Mpesa when it scaled in Kenya from around 1 to 10 million people in a year. His experience was critical when scaling something complex like an agent network. The scaling of the business relied on hiring people in Senegal that were capable and well-connected. Most of the team are from and based in Senegal and Cote d’Ivoire.



4. ANALYSIS

This section highlights key themes emerging from the five case studies and the literature reviewed. Findings are grouped into five themes: points relating to the innovators themselves; points relating to the innovation; contextual factors, including timing and trends; points relating to people and partnerships; and points relating to managing and resourcing the innovation.

4.1. THE INNOVATORS

COMMITMENT OF THE FOUNDERS AND EARLY TEAM

The skills and/or passion of an innovation's founders and project managers are often highlighted as being key to scaling success.⁴² Innovators from all five of the innovations we spoke to consider the approach of the founders or early team involved in the innovation from the start to be critical to its scaling success. This included strong determination, persistence, and commitment by the founders or early team in the face of both failure and resistance throughout the innovation's journey from ideation through to scaling.

Most innovators identified that this determination stemmed from a strong conviction and belief in the innovation, and an enduring vision for the impact it could have. Some made huge personal sacrifices for long periods of time which reflected their commitment to make the vision a reality. For example, individuals involved in the scaling of telemedicine at MSF worked from approximately 2009 to 2013, 365 days a year, to provide remote training on the telemedicine platform to every single doctor going on mission, and to connect every telemedicine request with an appropriate doctor, whatever time of night or day the requests were received. They were never paid for this. This deep commitment to the vision, manifested in doing things 'unscalably laborious', is supported in the literature from Silicon Valley: *"The need to do something unscalably laborious to get started is almost universal."*⁴³

Without such a high level of dedication and personal sacrifice by these two individuals the project would not have continued or succeeded to scale. As a Telemedicine interviewee described: *"For four years we did it for free,*

we woke up in the middle of the night reading the cases [...] if in the next few hours there was no answer, we would write directly to the doctor. Personally, [name] and I, reaching out to every single doctor.”

Another important factor, particularly for MSF and HOT, was that the early team had significant, personal experience with the problem they were trying to solve. For telemedicine, the founder understood the challenges faced by doctors who are trained to work very closely with colleagues, and then find themselves, *“in a crisis area, all of a sudden you are working in isolation of your medical community, and you are working with less... support, and in a more difficult situation.”* HOT founders similarly emphasised the central role of *“...having a relationship with a problem... so, the ideation, as it were, was born out of necessity. And necessity comes from being engaged in a problem that’s real and is impacting people”.*

Interviewees also spoke of the importance of connection and trust between team members as a key to scaling, particularly highlighting that in the uncharted territory of innovation, having partners or team members you trust is an important point of stability. This relational aspect of innovation teams is often overlooked in the literature, but interviews indicate it is a very real element that is necessary to successfully scale an innovation. For telemedicine, for example, the level of trust within the team and a teamwork approach from the pilot phase were highlighted by both interviewees as factors that were important to scaling success: *“in innovation you need to trust your team player and you should never have to question that because this is what will allow you to take further risk and you need to have each other’s back.”*

SCALING SKILL SET

Scaling innovation requires a unique skill set.⁴⁴ Beyond having a vision for scaling, innovators often need technical skills to develop and adapt the innovation, business and financial planning know-how, and social skills to build the required networks, collaborate and build partnerships to scale their innovation. Through the interviews and document review we identified three different strategies adopted by innovators to meet the need for the unique and multifaceted skill set required:

- 1. Building on previous experience of scaling an innovation:** The two co-founders of Wave had worked together on previous innovations. Their prior experience of scaling helped them in different areas, including:
 - Funding – they had cash to invest in scaling Wave from their earlier scaling success
 - Perseverance - despite experiencing regular failures when starting out Wave, they knew that if they continued to persevere it was possible to eventually succeed, as they had with Sendwave
 - Innovation management - Sendwave grew much faster than expected, and as a result the Wave founders realised the importance of planning for growth and took exponential growth curves more seriously when planning the scaling of Wave.
- 2. Entrusting someone else to scale the innovation:** The innovator behind Sprinkles handed his innovation over to be scaled by another organisation. Although this wasn’t an easy process, he recognised that he was not the right person to scale the innovation because he didn’t have the capacity or expertise to scale internationally, and that the distribution and scaling would be better done through an international humanitarian organisation.
- 3. Relying on mentoring and support from people with scaling experience:** The Wave innovators benefited from mentoring through the Y Combinator programme and alumni network. This benefited the innovation not only through the mentoring itself, but also through the connections that it offered

(for example, the former head of Y Combinator is their largest investor), and through adhering to the guidance on how to scale.

ACCESS AND REOURCES TO RESPOND TO INTERNATIONAL HUMANITARIAN ORGANIZATIONS

The ability of an innovator to access international humanitarian organisations and respond to their requests was an important factor across almost all the case studies. Within the humanitarian sector these organisations act as both gatekeepers and funders for a large proportion of humanitarian innovation and so access to them is critical for both early uptake and scaling success.

Two of the innovators we spoke to were approached directly by international humanitarian organisations who had identified a problem and wanted to find a way to solve it. The founder of Sprinkles, for example, reflected, *“This actually all started with UNICEF asking me as an expert in paediatric nutrition, and one other expert, to give UNICEF our advice on what they should do about the problem of iron deficiency.”* HOT, too, was driven by demand from within international organisations; as an interviewee stated, *“the scaling side of this, I guess, really happened when a couple years after Haiti, Doctors without Borders asked me, can you do the same thing?”* Another innovator (telemedicine) was able to approach and negotiate an audience with the appropriate person within MSF.

Being able to access and respond to decision makers and funders’ requests was dependent on various factors:

- **Resources:** After being approached, innovators from Sprinkles and HOT had the necessary resources (including time, financial security, existing connections, ability to travel) to then commit to and embark on the new projects proposed by the humanitarian organisations.
- **Pre-eminence within a relevant field:** the Sprinkles founder was approached by UNICEF in part because of his pre-eminence within the field of child nutrition and his reputation as a researcher.
- **Access to headquarters of INGOs or donors:** The telemedicine innovator approached the MSF Operational Centre in Paris, where he was based. He was able to speak with someone in HR who put him in touch with the Medical Director, whom he then had lunch with and shared his idea. Again, this approach was reliant on the innovator both being in close geographical proximity to MSF France and being able to negotiate access into the MSF office and time with the appropriate people.

These few examples provide a clear indication that the playing field for accessing international humanitarian organisations and being able to respond to their requests is not level. Innovators from the global south may not have such easy access to the headquarters of international organisations or donors, or the resources such as time, financial security, existing connections, or ability to travel, to be able to either access humanitarian organisations or respond to their requests.

4.2. THE INNOVATION

DEMAND AND ACCEPTANCE OF THE INNOVATION

There was consensus across all the case studies that creating demand was an essential element for scaling success. Central to the advice shared by innovators was to focus on developing innovations that solve an important problem. As a HOT interviewee stated, *“The thing to think about is: solve a problem for*

somebody so deeply that you actually change their life, or you change their ability to work. And then they come to you...that's what really happened with the Missing Maps and HOT."

However, demand is not always straightforward. Possible or actual demand from users can be mediated by gatekeepers, for example, in organisations or governments. Innovators we spoke to faced different challenges related to demand and acceptance by different stakeholders.

For innovations that scale through humanitarian organisations, both demand and acceptance from humanitarian organisations is essential. Demand in humanitarian innovation is not always straightforward. Some humanitarian innovation seeks to improve the performance of humanitarian organisations: these instances follow a more standard business model where humanitarian organisations are both the user and buyer. However humanitarian innovations that seek to scale through humanitarian organisations often encounter a separation of user and buyer. Humanitarian organisations, as buyers, may become 'gatekeepers' of innovations, and the genuine demand of affected populations can be eclipsed by other factors, or simply assumed. Operating between the innovators and the ultimate end-users of their innovation, the scaling journey of an innovation is commonly shaped by how well it can generate demand and acceptance from these gatekeepers. For example, telemedicine had strong demand from doctors working on emergency response, but initially struggled to generate acceptance from the medical department within MSF who saw it as a challenge to existing structures.

Demand and acceptance from the government and national players can also be important factors to enable scaling. Wave, for example, had identified demand for their innovation within the Somali population of Ethiopia so that people could send money between Addis Ababa and the Somali region of the country. However, when piloting the idea, the demand from the population was eclipsed by the Ethiopian government's restrictive regulatory environment. In Senegal, the same innovation had a completely different scaling trajectory and now has millions of users.

EVIDENCE

Three case studies in particular - Sprinkles, telemedicine, and CaLP - highlighted the role of research and evidence in generating demand and acceptance. In all of these examples, building the required evidence to generate demand and make scaling possible took a significant amount of time, rigour, commitment, and resources. For Sprinkles, it took eight years of research to generate evidence for the four things UNICEF requested (as described above). The telemedicine innovator studied for a PhD alongside the pilot study to be able to provide rigorous evidence to satisfy the doubts of the management in MSF and generate demand within the organisation. In both cases, the commitment paid off and the substantial evidence generated is considered to have contributed to scaling success. However, the founders had academic backgrounds or capacity and were able to commit the significant amounts of time needed to complete this factor for scaling success, which is unlikely to be possible for all humanitarian innovators.



For CaLP, a key lesson is that evidence in and of itself is not sufficient to drive change in a large, complex system. Central to CaLP's role, particularly in its early days, was not just generating evidence but advocating for cash and keeping pressure on key actors to drive change. As CaLP's Director described in a recent blog, the evidence for cash existed early on, but was not enough to drive change. Rather, this requires *"sustained effort and time, presenting and re-presenting evidence in enough different forums to create pressure, which translates into changed approaches, which turns into critical mass, which turns into political commitment."*⁴⁵

4.3. CONTEXT

TIMING AND TRENDS

Timing and wider trends were important, particularly in the cases of Wave, HOT, Telemedicine and CaLP. Most significant here was the spread of the internet and connectivity across the globe over the past ten years, which was considered by many innovators to have had a significant impact on the ability of their innovations to scale.

For telemedicine, for example, this was particularly related to increased mobile phone usage, and increasing access to the internet for humanitarian workers in remote locations, which made it much easier for doctors on mission for MSF to utilise the telemedicine platform easily and quickly. Another contextual factor was increased use of, and trust in, social media platforms following the Arab Spring: previously people within MSF had not been using the platform, and some medical directors had even been discouraging staff to use the platform and instead requesting that they use email. During the Arab Spring there was an explosion in the use of social networks and social media, and senior staff within MSF realised that whether they provided a telemedicine platform or not, people would be communicating digitally, and it was better and more secure and professional to have an official organisation-wide telemedicine platform than to leave people to use their own social networks. After this there was a marked increase in the use of the platform. Increased smartphone usage also helped: specialist doctors started to get smartphones and had constant access to the platform, so they began to respond to cases much faster. The trend of decreased access to humanitarian conflict zones was also identified as a contextual factor that worked in favour of scaling the innovation.

CaLP recognised the importance of serendipitous timing which galvanised action. They identified the convergence of need, opportunity and people willing to drive a change towards cash-based assistance after the 2004 tsunami in the Indian Ocean as a particularly important moment that catalysed CaLP's creation.

The Wave team also recognised the importance of recent trends in their path to scale, noting for example, that *"smartphone penetration and estimates were underestimated for Sub-Saharan Africa, particularly urban areas and that trend was changing much faster than people realised."* Much of their understanding of current trends was informed by their previous innovation experience in a similar field with Sendwave.

REGULATORY ENVIRONMENT

The Wave team learnt the hard way about the impact different regulatory environments can have on an innovation. When they started to pilot Wave in Ethiopia, they had assumed that if they followed the regulations, they would be fine, but did not have the contextual knowledge to understand at that point that the government was fundamentally opposed to having foreign companies in the financial sector, so they faced frequent challenges. As one interviewee stated, *"our customers being keen in Ethiopia did*

nothing to help the government be keen.” Without the support of the government, they were ultimately unable to continue the innovation.

The strong central bank in Senegal, motivated by financial inclusion, has provided a very different operating environment which has been a key factor in enabling Wave to scale. In the words of one interviewee: *“In Senegal, we learned from our lesson in Ethiopia in terms of wanting to find a place where we would have a rock-solid regulatory framework, and approval. Because having that much uncertainty about whether or not you're allowed to operate was really demoralising.”*

4.4. PEOPLE AND PARTNERSHIPS

ENABLING OWNERSHIP BY PARTNERS OR TEAM MEMBERS IN SCALING LOCATIONS

In at least three cases, enabling ownership by partners or team members in scaling locations has been crucial. This is seen very clearly in the case of HOT, for whom the key contributing factor supporting them to scale has been, in their words, the empowerment of local leadership: *“Scaling has been helped by the fact that power has been handed down to local people who have been able to take ownership and the quality of work that you get out of people who own it is a lot better than the quality of work that you get out of people that you hire and send off to do a work a day job.”*

HOT have moved from an approach of having HOT country offices, to supporting self-sustaining local entities as part of a confederation. As an interviewee described, *“now we have an official policy, no HOT Country offices, full stop. We only will try to create local entities that we can partner with. And we can support them, and they can become self-sustaining. We've now drawn a line under the whole idea of creating an NGO that has branch offices.”* The former HOT office in Tanzania, for example, is now an organisation called Open Map Development Tanzania. They work with Tanzanian NGOs and Government and are able to win large contracts as an independent organisation. This is seen as critical to the scaling and sustainability of the innovation.

The founder of Sprinkles worked with individual companies in Bangladesh, India, and Pakistan to make the product for their research projects. These companies, in later years, were identified by UNICEF as companies that could produce the product for distribution. As one interviewee emphasised, scaling in different locations demanded, *“knowing somebody, developing a trusting relationship with partners, and making sure that those partners felt that they owned the issue and owned the kind of research or the kind of work that we're doing.”* The vast majority of Wave's team are from Senegal and Côte d'Ivoire; an interviewee emphasised that the local team *“were the ones that scaled the business”*.

SCALING THROUGH NETWORKS, OR A NON-PROPRIETAL APPROACH

For three innovations, scaling has been intentionally facilitated either through the development of a network (CaLP) or through a non-propiertorial approach to their product (Sprinkles and HOT). This facilitated engagement, uptake and has helped propel the innovations on their journey to scale.

CaLP, for example, has built an intentionally diverse network involving local and international NGOs, United Nations agencies, the Red Cross/Crescent Movement, donors, specialist social innovation, technology and financial services companies, researchers and academics, and individual practitioners, as a strategic way of creating change. As argued in a recent blog: *“the case for doing things differently must be made with the many interconnected actors that make up the ecosystem.”*⁴⁶

It is largely this networked-based approach, built upon evidence, advocacy, and experience-sharing, that has enabled cash and voucher assistance to overcome the resistance of the humanitarian system and scale so significantly. The openness of the network and their resources has also been an important part of this picture. Their full training resources, for example, are freely accessible online. In the words of an interviewee, *“a very important part of CaLP’s journey is that we’ve not sought to make it an exclusive club.”*

HOT, meanwhile, is founded on an open-source platform and relies on the engagement of volunteers around the world. This model is at the core of the innovation. The map is similar to Wikipedia, and anyone from around the world can submit information. Information in the map is provided by people at the heart of the disaster with local knowledge and up to date information. It is through the ability for anyone to get involved and map their own communities that *“this little thing has turned into a massive runaway monster.”* Additionally, the information is freely available to humanitarian actors who use it.

Sprinkles similarly acted as facilitators, rather than seeking themselves to own and sell the product. In the words of one interviewee, *“We are not a seller of Sprinkles, there was no intellectual property... our role was just to connect, and just to provide technical assistance.”*

MENTORS AND CHAMPIONS

The telemedicine case highlights the critical role played by internal champions or mentors when seeking to scale within a large humanitarian organisation. Throughout the challenges of scaling, one former MSF President provided significant support to the founder and helped to push the innovation forward.

In a very different case, mentors or champions were also crucial for the Wave team. The Wave team had valuable connections with advisors, mentors, and investors with scaling know-how. In 2012 they were accepted by Y Combinator, the start-up incubator, and through this continued to meet regularly with various advisors and through the Y Combinator alumni network, Y Combinator partners. This exposure significantly shaped their approach to starting and scaling Wave. Based on connections they made during this period, the largest investor in Wave used to run Y Combinator. He was very instrumental in keeping Wave going when times were hard by providing liquidity loans.



4.5. MANAGING AND RESOURCING THE SCALING PROCESS

PLANNING

The scaling process is not linear: it might go three steps ahead only to come back to zero. Therefore, it is hard to make definitive plans for scaling because each step might require something different or not turn out as originally envisioned. This is in contrast to the funding opportunities that are available to innovators because they require detailed and concrete plans of one to two years. Yet, when scaling, innovators need time to contextualise the innovation to make sure that it is suitable, and to adapt as they learn.

On starting out, for example, the Wave team had enough experience of start-ups to know that *“the best laid plans don’t survive.”* So, a key lesson from their scaling experience has been to try to get the right balance of planning which has so far tended to be in two- or three-month cycles.

Innovators we spoke to focused more on getting the innovation to work and addressing the challenges it has while scaling rather than devising a fixed scaling process, plan, or strategy. As an interviewee from HOT stated, *“Planning constrains your effort, wastes time and blocks innovation. Instead of planning, rapid execution and iterative feedback loop. You can do this by getting smart people who have a relationship with the problem, involved in the problem, operationally motivated, resource them properly, give them autonomy and provide them with back up on technical knowledge and support and expertise and them at it.”* This approach also allows innovators to learn how to adapt their innovations which they can incorporate into their scaling processes.

FUNDING

Scaling innovation is capital intensive as it typically entails setting up operations and adapting the innovation to different contexts. However, the target market for innovations within the humanitarian sector primarily includes people with limited or no resources. This means that innovators usually have to rely on grant funding or social impact/philanthropic investors.

Grant funding or social/philanthropic architecture is competitive as innovators have to prove that their innovations are the best and deserve the funding. For example, HOT was only able to develop a tasking manager that enables it to coordinate crisis mapping volunteers all over the world through grant funding. Even after its development, it requires frequent updates and tweaking to strengthen its effectiveness and efficiency. But this requires recruitment of highly skilled software developers who are expensive. Since the information provided by HOT to humanitarian organisations is free, HOT relies on grant funding to maintain the tasking manager that enables scaling.

For Sprinkles, having stable funding from USAID and the Heinz Foundation was instrumental in ensuring the team could conduct a sufficient number of trials to demonstrate the efficacy of the intervention in diverse contexts, and to conduct this research in a relatively short period of time.

Innovators were able to secure funding for scaling because they had access to decision makers within or beyond the humanitarian funding sector. For example, HOT has a grant funding team that *“moves in fairly rarefied circles.”* For MSF, the innovator was able to directly approach the Medical Director of MSF France and explain the idea. Most of the innovations that we spoke to are founded by people who originate from the global north who have connections with people within the funding sector. This makes it easier for them to access funding because they are already known and have established relationships with decision makers within the funding sector. Identifying skilled fundraisers has also been crucial in some cases. For example, since inception, HOT has invested in fundraising experts who are able to tell a *“coherent story.”*

This funding enabled the development of the tasking manager and recruitment of staff which has facilitated the opening of HOT branch offices around the world.

Nevertheless, this funding is wrought with challenges which hinder the ability for innovations to scale. First, the funding available is short-term as on average it is usually a maximum of two-years and yet scaling is not linear and so will take longer than this. This interrupts the scaling process as the innovator has to source for more funding in order to continue and by the time they do, their staff has moved on and they have to recruit new people whom they have to spend time and resources onboarding. As a HOT interviewee stated, *“six people who have gone on to find other work because we couldn’t find them stable, secure funding. All six people, we need them again. This is a huge blocker in our scaling journey.”*

Innovators have had to find ways to manage the challenges of short-term funding. CaLP, for example, secures funding from a range of donors and has not invested in a large operational infrastructure, since it works through host agencies that provide a range of core (paid for) services. In recent years, membership fees have provided critical flexible funds which have provided some much-needed resilience to gaps between funding grants.

The second challenge is the nature of the funding as it is usually restrictive and not flexible. Funding proposals usually require one to outline the activities they will undertake that are tied to key performance indicators for the duration of the funding period. And yet, the scaling process might produce results that were not envisioned and would require re-working of the activities or the innovation itself.

Thirdly, grant funding is very competitive and so it is inconsistent as organisations do not always win grant proposals. As a CaLP interviewee stated, *“there was a period where you’ve got loads of staff turnover, just because people are on six-month contracts all the time ... you can’t sustain it’s really hard... having a more consistent funding model would have been great.”*

RECOMMENDATIONS

The report makes the following recommendations, discussed in more detail in the final section:

To funders:



Provide more tailored support to local innovators,⁴⁷ including:

Ear-marking funding that only targets innovations that have been developed and are run by individuals or organisations in the global south.

Partnering with local networks to create awareness about such funding opportunities.

Providing support to local innovators that apply for funding by providing feedback on how they can strengthen their applications.



Provide flexible and longer-term funding: donors should provide funding with the aim of promoting learning that can inform the innovation which can eventually lead to scale.



Facilitate mentoring and networking opportunities: donors should leverage their own expertise and connections to facilitate mentorship and networking opportunities for innovators, helping them to access tailored advice, build connections, and showcase their successes to relevant stakeholders.



Promote experience sharing among innovators: the funding sector should foster a culture that encourages innovators to share their successes, challenges, and failures.



Support sustainability of innovations: donors can support innovators by connecting them to actors in other arenas such as the private sector.

To innovators:



Invest in evidence: innovators often put more emphasis on implementation and rely on anecdotal evidence to highlight the impact of their innovation. When innovators do provide evidence, it is usually donor driven, mainly through end line evaluations. Innovators should develop mechanisms from the ideation phase that generate evidence on impact, successes, failures, and learnings, to inform the innovation and promote uptake.



Engage in experience sharing among innovators: the humanitarian system is competitive and so innovators are not forthcoming with information particularly on their failures. Innovators should create platforms that share information and learning on their scaling journeys.



Develop business models for sustainability: all the innovators we spoke to are highly dependent on grant funding which is fraught with challenges. Innovators need to start looking elsewhere for more sustainable funding sources. One source could be the private sector; however, innovators need to build a commercial business case that goes beyond corporate social responsibility, and to prove to the private sector that profit can be generated from their partnership. Alternatively, innovators could trial various business models such as cross subsidisation, pay-per-use and consumer subscription⁴⁸ in an effort to identify a model(s) that can provide sustainability especially during periods without grant funding.

ANNEX I. RESEARCH FRAMEWORK

Question	Methods
What are some examples of humanitarian innovations that have successfully scaled?	Literature review (c. 15-20 documents) Recommendations from HGC team and other relevant contacts
What are or were the factors that allowed these ideas or innovations to scale successfully?	Interviews (c. 10 interviewees across 5 innovation case studies) Literature review (c. 15-20 documents)
Are there any common characteristics or qualities among these innovations that contributed to their success in uptake?	Interviews (c. 10 interviewees across 5 innovation case studies)
What challenges did these innovations encounter on the path to scale? What strategies were used to address these challenges? What lessons were learned as the innovations were being scaled?	Interviews (c. 10 interviewees across 5 innovation case studies)
How can key actors in the humanitarian sector better support humanitarian innovations to scale?	Literature review (c. 15-20 documents) Interviews (c. 10 interviewees across 5 innovation case studies) Emerging findings meeting (for co-development of recommendations)

ENDNOTES

- ¹ Our definition of a local innovator is someone from the disaster affected area with lived experience.
- ² More information on business models for innovations can be found in, Gray, Ian, Catherine Komuhangi, Dan McClure, and Lydia Tanner. n.d. "Business Models for Innovators Working in Crisis Response and Resilience Building," 68.
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- ⁹ Obrecht, A. and Warner, A.T., 2016.
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- ¹¹ Two notable exceptions here are the HIF's Humanitarian Innovation Guide, and GAHI's scaling framework.
- ¹² Notable exceptions here include blogs on Elrha's Medium page. See, for example, Peachey, K., 2019. 'The Challenges of Assessing Impact When Scaling a Humanitarian Innovation'. Elrha Medium blog. <https://medium.com/elrha/the-challenges-of-assessing-impact-when-scaling-a-humanitarian-project-3bfedd9320d6>.
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- ¹⁸ Peachey, K., 2019. 'Lessons from the Cash Learning Partnership in Driving Large-Scale Change'. Elrha Medium blog; McClure, D. and Gray, I., 2014.; Obrecht, A. 'Separating the "good" Failure from the "Bad": Three Success Criteria for Innovation'. Humanitarian Exchange Magazine 66. 2016.
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- ³⁰ Sarah Bailey, 'What cash transfers tell us about the international humanitarian' Humanitarian Practice Network, available at: communityHPGhttps://odihpn.org/magazine/what-cash-transfers-tell-us-about-the-international-humanitarian-community/; Handa, Sudhanshu, Silvio Daidone, Amber Peterman, Benjamin Davis, Audrey Pereira, and Tia Palermo. n.d. "Myth-Busting? Confronting Six Common Perceptions about Unconditional Cash Transfers as a Poverty Reduction Strategy in Africa," 40.
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⁴⁸ More information on business models for innovations can be found in, Gray, Ian, Catherine Komuhangi, Dan McClure, and Lydia Tanner. n.d. "Business Models for Innovators Working in Crisis Response and Resilience Building," 68.