



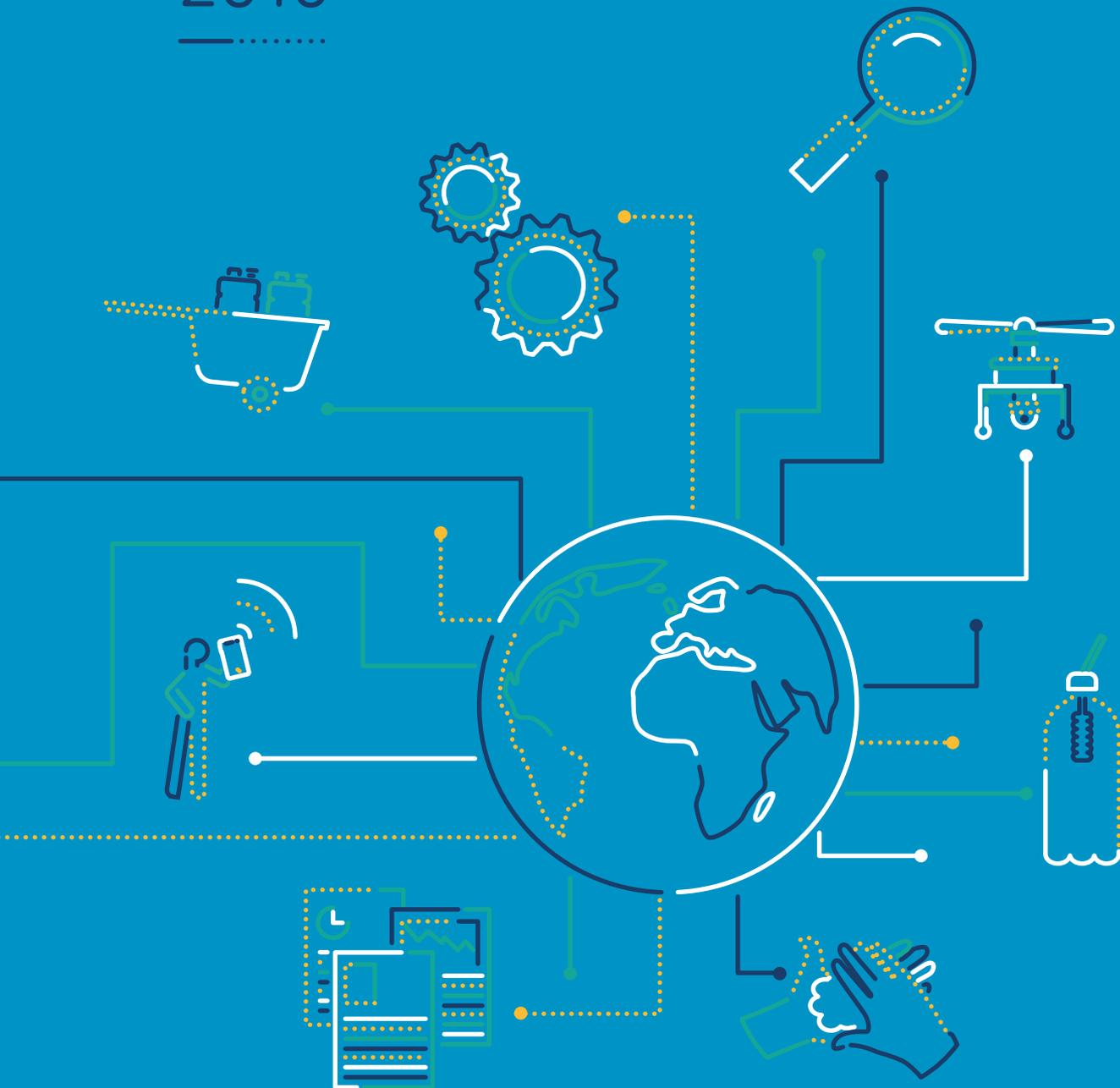
Humanitarian  
innovation fund

| **elrha**

# PROGRESS REPORT

2016

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The HIF 2016 Progress Report covers the period September 2015 to September 2016.

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# FOREWORDS



**Ben Ramalingam**  
Chair, HIF Board

The focus on humanitarian innovation reached unprecedented levels in 2016, and I was delighted to see the catalytic role played by the HIF and Elrha at the World Humanitarian Summit in Istanbul. Underpinned by the increasing breadth and depth of our work, on display in this report, we are helping to set the global agenda for strengthening the innovation ecosystem.

Our core grants continue to support a diverse portfolio of new creative solutions to humanitarian challenges, and we have also been pushing the boundaries in new challenge areas – nowhere more so than in our ongoing work to apply human-centred design to tackle gender-based violence.

And the HIF continues to experiment with new ways of enabling innovation. As well as our ongoing work on directed, problem-driven innovation, and our collaboration with ALNAP on research-based case studies and insights, we have also launched an exciting new programme on scaling humanitarian innovations.

The HIF is now moving into a different phase in its evolution. A dynamic start up in 2011, it has become an acknowledged leader in the humanitarian innovation space just a few short years later. This is the result of a considerable collective effort which is a great credit to everyone involved.

The next few years will no doubt see the HIF continue to consolidate and strengthen its position. I would very much hope that the HIF can play a central role in the transformation of the sector called for in Istanbul – to be more creative and flexible, more grounded in and attuned to context, more collaborative and responsive.

That such changes are essential is clearer than ever, in a world where humanitarian challenges continue to grow in size, scale and complexity. It is equally clear that such changes will not come about through business as usual: innovation urgently needs to become a central part of the humanitarian imperative for the future.

To make this happen, the HIF will need to work not just as a grant-maker but also as a facilitator, enabler, and inspirer of humanitarian innovation. It will not always be easy, but based on the work showcased here, I am convinced we are up to the job.



**Jessica Camburn**  
Director, Elrha

2016 has been a year of significant progress at the HIF; we have seen our portfolio of work broaden and deepen, and the collective impact of our learning influence global policy at the World Humanitarian Summit. However, none of these achievements would have been possible without the input of time and guidance from our global network of experts. They are perhaps the HIF's biggest asset and what makes our work truly unique.

I would therefore like to use this short message to express our gratitude to the wider HIF family. In particular, I would like to thank the HIF Board for their vision and direction over the years, which has proven to be invaluable in keeping our work at the forefront of innovation thinking and practice, and our Funding Committee who have the difficult responsibility of reviewing hundreds of applications each year and selecting the most promising innovations.

We are also incredibly lucky to benefit from the dedicated input of two expert technical working groups for our WASH and gender-based violence thematic areas of work, along with the large pool of technical reviewers who help us fund quality and truly innovative projects from the outset. Thank you.

Last, but not least, I would like to say thank you to the outgoing HIF Programme Manager, Kim Scriven, who moved on from the HIF in October 2016. Under Kim's leadership, the HIF grew from our early days piloting innovation grant funding, into the multi-dimensional and globally influential programme it is today. Kim will be sorely missed by all involved, but he is not lost to the community and I am sure his work on humanitarian innovation will continue.

I am delighted to end this message by introducing our new HIF Programme Manager, Dr Anna Skeels, who took over the reins of the HIF at the close of 2016. We are excited for the next phase of the programme's work under her leadership, and we look forward to sharing our continued progress!

# INTRODUCTION

## INNOVATION FROM THE GROUND UP



Kim Scriven

Outgoing HIF Programme Manager

**Successful innovation is a process, not an isolated activity or event.**

For many in the growing community of humanitarians working on innovation, this will appear a truism, fundamental to the understanding of innovation itself. Yet as new technology and interest in innovation escalates, it is important to reaffirm this point, and, in turn, to ensure that innovation efforts are engaged in wider processes of system change.

This has been something that the HIF has sought to do from its inception: to understand that innovation management requires an appreciation of the innovation cycle, and to recognise that such processes are themselves embedded within and linked to wider dynamics in the system. This set of beliefs has structured our funding and decision making, and has fundamentally shaped how we approach innovation.

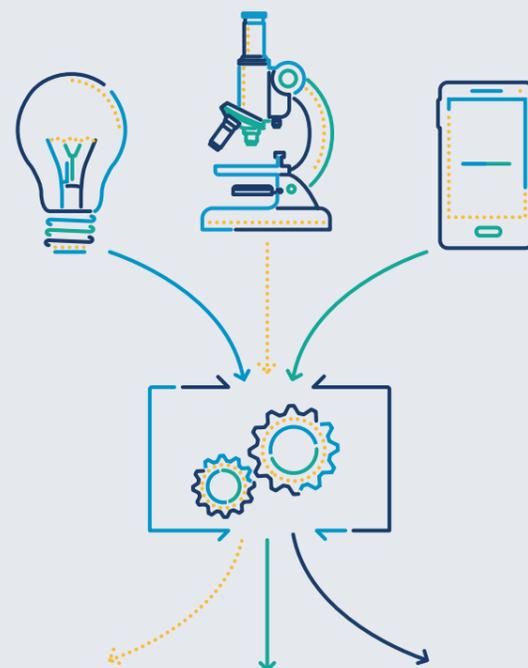
Initially, this was based on our understanding of the humanitarian system, as well as empirical evidence from outside the sector. This contributed to the conception of the five stages of innovation that we still use today (see page 8), as well as modes of categorisation and tools to support the process. In addition to this, as the work of Elrha and the HIF evolves, we're increasingly able to draw on our own experiences and those of the projects we support.

## LEARNING FROM THE EXPERIENCE OF INNOVATORS

From the outset, we have invested in structured research and learning, notably through our longstanding partnership with ALNAP. The latest phase of this partnership came to fruition in 2016, with the publication of the synthesis report, **'More than just luck: Innovation in humanitarian action'**,<sup>1</sup> which analysed 15 projects from the HIF's development and implementation portfolio.

*"The ability to remain flexible, reactive and open minded are our most important takeaways from this project. HIF's funding model has proven invaluable, allowing us to update plans and keep them relevant."*

Motivation



<sup>1</sup> Obrecht, A. and Warner, A.T. (2016) 'More than just luck: Innovation in humanitarian action'. HIF/ALNAP Study. London: ALNAP/ODI. Available at: [elrha.org/hif-project-case-studies](http://elrha.org/hif-project-case-studies)

This work helps us more clearly define what success looks like for innovation projects: be it consolidated learning and evidence, an improved solution for humanitarian action, or the wide adoption of an improved solution. The report found that when innovation processes are successful, the following factors tend to be present and are understood by innovating teams and external stakeholders as contributing to success:

- Strong collaborations within and beyond the core team
- An emphasis on generating and using evidence
- A commitment to engaging with end users and gatekeepers
- The structuring of efforts around an overarching management process
- Access to suitable resourcing for an innovation
- An appreciation and ability to manage risk

These lessons are invaluable for the HIF in helping to shape and improve our work, as well as for innovators seeking to give their ideas the best chance of success. But given that many of these success factors also speak more broadly to the features of successful institutions, we need to think about how learning at the project level interfaces with wider efforts at improving the humanitarian system.

## FROM PROJECT-LEVEL INNOVATION, TO SYSTEMIC CHANGE

The World Humanitarian Summit (WHS), which took place in May 2016, was billed as a once-in-a-generation opportunity to reform the humanitarian system, with innovation as one of its key themes. While many of us were disappointed that its focus on innovation receded and its ambition was not fully realised, change is rarely delivered in a recognisable moment, as much as we might wish it. Rather, it is the outcome of sustained efforts by those invested in reform. What then, can our experiences of helping to support small instances of change teach us about the broader dynamics of adaptation and transformation?

The first place to look would be our work on scale (see page 32). This new initiative recognises the potential of specific projects to have a transformative impact on the sector. But to achieve such changes represents a particular challenge in the humanitarian system and a new type of innovation management challenge for the HIF. It requires a strong focus on the further development of the innovation, and strategic engagement with the actors and institutions who will determine its use, underpinned by an appreciation of the political economy impacting on its uptake.

As the HIF and a number of other innovation-focused initiatives have matured, attention has begun to turn to the broader system for innovation, and the nature of the relationships that bind

it together. Notably, we have seen a proliferation of platforms and mechanisms for collaborative innovation. The WHS process has led to the creation of the Global Alliance for Humanitarian Innovation (GAHI), while the last year has seen the creation of the Global Humanitarian Lab and the Response Innovation Lab, and a quickening pace of work at the Start Network.

All these efforts should be welcomed; they demonstrate the continued desire of those working in the system to push for change, and recognise that this will require new forms of collaboration. Perhaps, then, what the experience of the WHS shows us is the need for such efforts to focus as much on the processes through which they engage different actors as on the ultimate goals.

There is much that can be learned from efforts to push forward project-level innovations – learning that Elrha has been working hard to capture and share.

As we enter a new phase in the evolution of the humanitarian innovation ecosystem, these insights can provide a valuable starting point to shape our efforts at collaborative and inclusive renewal.



# WHAT IS THE HUMANITARIAN INNOVATION FUND?

Our vision is a humanitarian system that is capable of innovating and adapting to meet the needs of today and tomorrow.

Elrha's Humanitarian Innovation Fund (HIF) supports organisations and individuals to identify, nurture, and share innovative and scalable solutions to the challenges facing effective humanitarian assistance.

We seek to stimulate humanitarian innovation practice in three main ways:

Providing funding and advisory support for innovations at different stages of their evolution, and developing challenge-led initiatives to direct innovation in strategic areas of concern.

Capturing and sharing lessons learned in order to improve the research and evidence base for innovation, and the humanitarian system's ability to innovate.

Building and supporting partnerships between humanitarian agencies, universities, private sector organisations, governments and affected populations.

## HOW WE SUPPORT INNOVATION

The HIF provides funding and innovation management support across four initiatives:

### Core Grants

Supported by the UK Department for International Development (DFID) and the Swedish International Development Cooperation Agency (SIDA)

Based on our conception of five stages in the innovation process, our core grants support innovative ideas across the humanitarian sector, with three funding streams for early-stage innovation, development and implementation, and diffusion. See page 8

### Water, Sanitation and Hygiene (WASH)

Supported by the UK Department for International Development (DFID)

Limited access to clean water and poor sanitation are critical drivers for the spread of diarrhoeal diseases, constituting a major challenge during periods of crisis. This initiative aims to combine creative problem-solving with rigorous testing and evidence-building to improve WASH interventions. See page 27

### Gender-Based Violence (GBV)

Supported by the Swedish International Development Cooperation Agency (SIDA)

Gender-based violence in humanitarian settings is a life-threatening issue that undermines dignity and causes immense suffering. This initiative aims to create and stimulate innovative approaches to tackling GBV, using targeted resources and partnership brokering. See page 22

### Accelerating the Journey to Scale

Supported by the Netherlands Ministry of Foreign Affairs (MFA)

Through this new area of work, launched in April 2016, we are seeking to better understand and support the process of scaling innovations which have the potential to bring about transformational change in the humanitarian system, and help millions of people across the globe who are affected by crises and disasters each year. See page 32



## WHAT DO WE MEAN BY HUMANITARIAN INNOVATION?

Humanitarian innovation is an iterative process that identifies, adjusts and diffuses ideas for improving humanitarian action.<sup>1</sup>

To better understand this concept, we can break down the term into its two constituent parts.

The HIF is guided by a definition of 'humanitarian aid' developed by Development Initiatives' Global Humanitarian Assistance project:

*“Humanitarian aid’ is aid and action designed to save lives, alleviate suffering, and maintain and protect human dignity during and in the aftermath of emergencies.”*

The definition provides some useful examples of traditional responses to humanitarian crises:

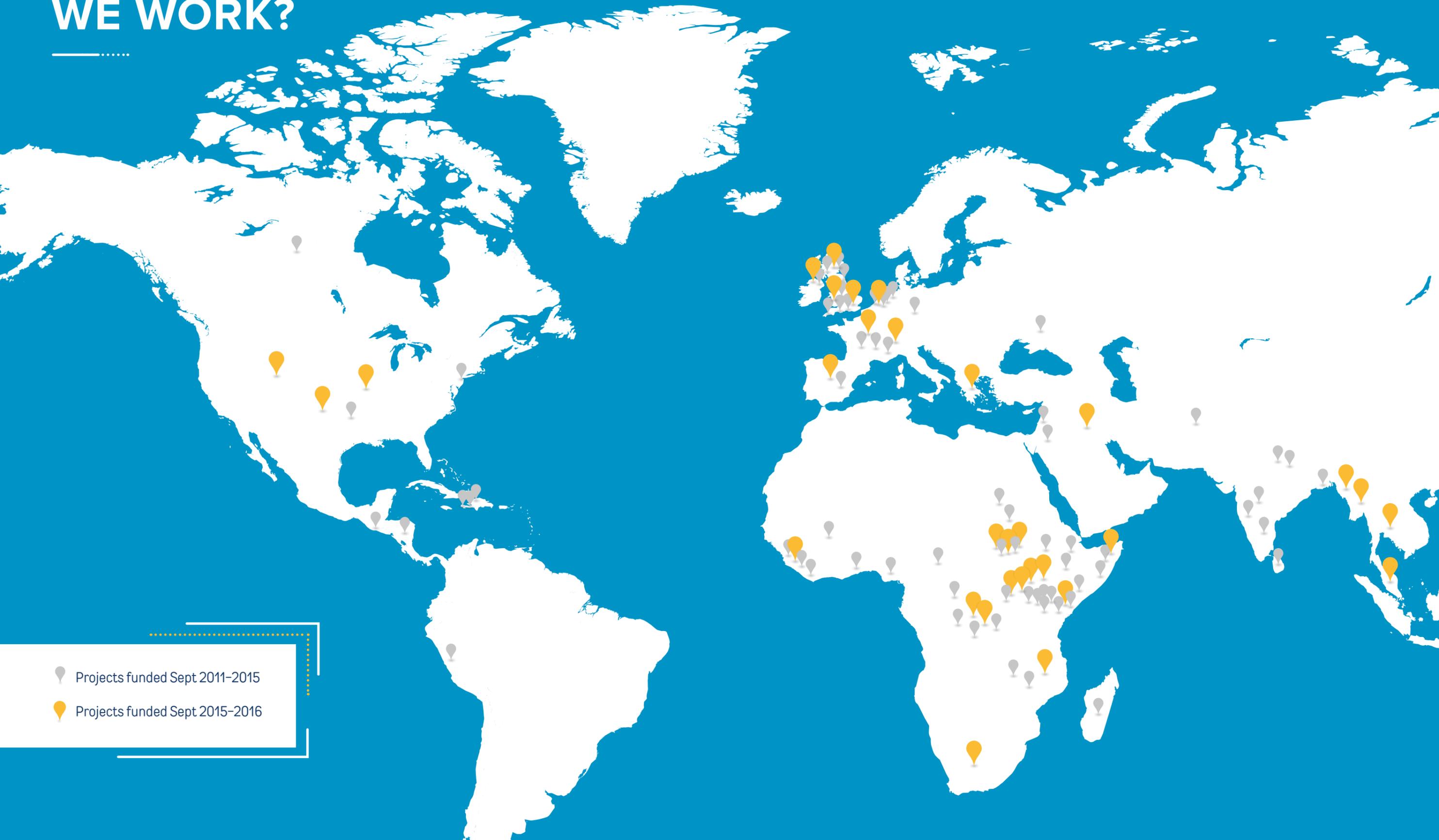
- Material relief assistance and services (shelter, water, medicines etc.) Emergency food aid (short-term distribution and supplementary feeding programmes).
- Relief coordination, protection and support services (coordination, logistics and communications).
- Reconstruction relief and rehabilitation (repairing pre-existing infrastructure as opposed to longer-term activities designed to improve the level of infrastructure).
- Disaster prevention and preparedness (disaster risk reduction, early warning systems, contingency stocks and planning).

Innovation is the process of creative problem-solving. In other words, it is about individuals and organisations working together to find new solutions to existing and emerging problems. But there are three key features which distinguish it from standard programming or organisational learning processes:

- It is doing something differently to what's been done before in the sector – innovation seeks to develop new products, processes, positions or paradigms, or to adapt an existing product or process to a new context.
- It is seeking improvement for the sector – innovation seeks to increase the efficiency, effectiveness, quality and impact of humanitarian programming.
- It is iterative (and non-linear) – innovation seeks to explore unknown pathways, and as such, it is a dynamic process that relies on continuous learning and readjustment.

<sup>1</sup> Our approach to innovation has been largely informed by ALNAP's 2009 report, 'Innovations in international humanitarian action', which was one of the first major pieces on humanitarian innovation and spurred initial funding from DFID to establish the HIF. More recently, a 2016 HIF-ALNAP publication, 'More than just luck', sought to better define and understand what successful innovation looks like in the humanitarian sector.

# WHERE DO WE WORK?



📍 Projects funded Sept 2011–2015

📍 Projects funded Sept 2015–2016

# CORE GRANTS

Supported by the UK Department for International Development (DFID) and the Swedish International Development Cooperation Agency (SIDA)

For innovation managers to improve their effectiveness, they need a roadmap. We manage our core grants programme based on the HIF's five-stage model of the innovation process.

It is important to note that while these five stages provide a useful way of conceiving the distinct activities involved, in reality innovation is non-linear and these 'stages' often overlap and repeat throughout the innovation process.



## RECOGNITION

Improving understanding of a specific problem, challenge or opportunity.



## INVENTION

Invention of a novel idea or adaptation of an existing idea that addresses a recognised problem, challenge or opportunity.



## DEVELOPMENT

Development of an innovation by creating practical, actionable plans and guidelines.



## IMPLEMENTATION

Implementation of an innovation to produce real examples of change, and testing the innovation to see how it compares with existing solutions.



## DIFFUSION

Diffusion of successful innovations, taking them to scale and leading to wider adoption outside the original setting.

## EARLY-STAGE INNOVATION (ESI)

Applications are welcome all year round for grants of up to £50,000

## DEVELOPMENT & IMPLEMENTATION PHASE (DIP)

We issue two calls a year for grants of up to £150,000

Projects that have previously received a DIP grant can apply for a further grant of up to £50,000

## IN 2015-16 WE HAVE FUNDED

**8** Early-Stage Innovation projects

**4** Development and Implementation Phase projects

**2** Diffusion projects



Development of a MUAC bracelet to address malnutrition.  
Credit: Action Against Hunger

# FEATURED CORE GRANT PROJECTS, 2015-16

## RESEARCHING REFUGEE-RUN MICROFINANCE

### Lead organisation:

Young African Refugees for Integral Development (YARID)

### Partners:

Refugee Communities; University of Oxford;  
Paper Airplanes Project

### Location:

Uganda

### Grant value:

£19,499

### What is the humanitarian need?

Refugees in urban areas are not provided with material assistance and so they often become entrepreneurs.

This requires access to capital, but microfinance institutions rarely target them as customers.

### What is the innovative solution?

Without easy access to capital, there are examples of urban refugees developing their own innovative micro-savings and lending groups within their communities. This project seeks to develop a better understanding of how these refugee-run microfinance groups operate, how they interact (if at all) with outside capital providers, and what their main challenges are, in order to develop a microfinance model that could be applied more widely.

### What are the expected outcomes?

The project will map existing initiatives, provide evidence-driven recommendations for microfinance programmes, and develop a model that builds on these examples, with the eventual aim of piloting a 'bottom-up' microfinance programme at a later stage.



## SMS UP: IMPROVING REFUGEES' ACCESS TO INFORMATION

### Lead organisation:

Urban Refugees

### Partners:

Twilio

### Location:

Malaysia

### Grant value:

£19,645

### What is the humanitarian need?

Many refugees in developing countries do not have access to the internet on their mobile phones. Consequently, they are often reliant on top-down communications from UN agencies and other humanitarian organisations for vital information.

### What is the innovative solution?

SMS Up is a group messaging service for SMS that enables refugees to share critical information among themselves, self-organise, and find support from within the community. Unlike WhatsApp and other similar services, access to the internet is not required, and users pay only for a single text message when sending to a group.

### What are the expected outcomes?

The technology is already functional, but the results of a small pilot study – supported by Twilio – will inform work to address potential security and privacy issues, and language or cultural barriers to access. The project will also produce and translate SMS Up manuals, and develop terms of use and a consent process.



## OPTIDIAG: IMPROVING THE DIAGNOSIS OF CHILD UNDERNUTRITION

**Lead organisation:**  
Action Contre La Faim

**Partners:**  
Duke University, USA; AgroParisTech, France;  
Institute of Tropical Medicine of Antwerp, Belgium

**Location:** France  
**Grant value:** £150,000

### What is the humanitarian need?

In humanitarian emergencies, accurate diagnosis of severe acute malnutrition (SAM) is vital for identifying children who are at the highest risk of life-threatening acute and chronic complications. There is an urgent need for new tools to improve the accuracy and sensitivity of SAM diagnosis in humanitarian settings.

### What is the innovative solution?

This project aims to develop novel diagnostic and screening tools relying on the assessment of emerging biological markers of undernutrition, as a complement or an alternative to physical examinations for the identification, classification and management of malnourished children.

### What are the expected outcomes?

The project will improve understanding of the possibility for misdiagnosis of SAM based on mid-upper arm circumference (MUAC) or weight for height z-score (WHZ) criteria, and the identification of high-risk groups within SAM-affected children. It is also hoped that it will generate new algorithms for the assessment and classification of malnourished children.

## MICROBIALSLUDGEQUALITY: FIELD TEST FOR FAECAL SLUDGE MONITORING

### Lead organisation:

University of Natural Resources and Life Sciences, Vienna

### Partners:

Austrian Red Cross; Waste; Butyl Products Ltd

### Location:

Malawi; Kenya

### Grant value:

£149,918

### What is the humanitarian need?

In an urban emergency, faecal sludge treatment plants offer an effective way to reduce the spread of water borne diseases. Successfully treated sludge can turn faecal matter, a health risk, into organic fertiliser, a valuable commodity. But there is no easy way to analyse faecal sludge, monitor sludge treatment plants, and evaluate the safety of treated faecal sludge.

### What is the innovative solution?

The aim of this project is to combine proven technologies from different suppliers into a functional and flexible field testing kit for the microbial quality control of faecal sludge and the monitoring of sludge treatment plants.

### What are the expected outcomes?

In the laboratory stage, a prototype kit will be developed and tested against proven laboratory methods and equipment. After the lab work is finished, the kit will undergo field testing by a partner organisation during a three-month trial in Malawi to establish whether low-tech faecal sludge treatment could be applied in emergency situations.



## OPENAERIALMAP

### Lead organisation:

Humanitarian OpenStreetMap

### Partners:

Australian Department of Foreign Affairs and Trade

### Location:

United States

### Grant value:

£49,969

### What is the humanitarian need?

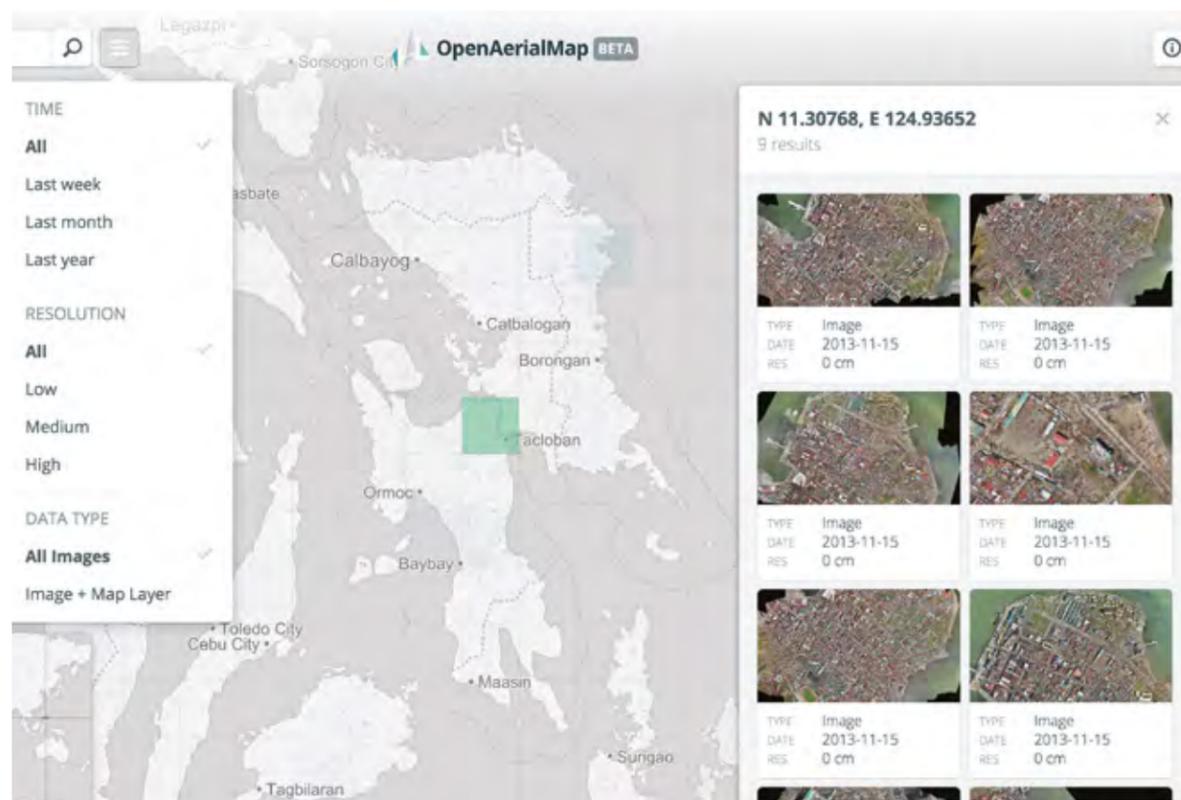
With decreasing costs, more and more geographic imagery is being generated from satellites, unmanned aerial vehicles (UAVs) and other aircraft for use in emergency response. However, it is often difficult for aid workers to determine what imagery is available and where to access it.

### What is the innovative solution?

OpenAerialMap is a free, easy-to-browse web catalogue where all stakeholders can share, find and use open aerial imagery whether it comes from an aircraft, balloon, drone or satellite. This enables emergency responders to save critical time locating imagery after a sudden-onset disaster, leading to more effective decision making during humanitarian crises.

### What are the expected outcomes?

After receiving a previous grant from the HIF, this phase of the project aims to boost awareness and adoption of OpenAerialMap by imagery providers, disaster managers and humanitarian organisations, demonstrating the benefits of openly licensed imagery through success stories.



Khadija Abdulla of State University Zanzibar (SUZA) launching a drone as part of ShadowView's OpenDroneMap project. Credit: ShadowView

## MORE CORE GRANT PROJECTS, 2015-16

### Capturing Feedback for Effective Humanitarian Programming

Oxfam GB | ESI | £20,000

Despite the existence of formal feedback and complaints systems for affected populations, little has been done to capture informal feedback. This project will use existing ICT solutions, including qualitative data capture and audio recording, to encourage immediate capture of informal feedback.



### Developing an Improved Test for Bacterial Water Contamination

WaterScope | ESI | £19,714

WaterScope aims to encourage a bottom-up approach to water testing, through use of their low-cost 3D-printed microscope. Data from testing will be uploaded to a central database, allowing for real-time mapping and review.



### Autonomous UXO Identification Platform

University of California Davis | ESI | £20,000

This project aims to improve humanitarian de-mining efforts by developing an autonomous unexploded ordnance (UXO) identification platform that will combine high-resolution, ground-penetrating radar with aerial drone technology to enable sensitive, efficient identification.



### Mobile Pictographs for Disaster Communication

Sahana Software Foundation | ESI | £19,742

Sahana Software Foundation seeks to investigate potential for the use of a pictograph-based disaster communication system for populations with low levels of literacy. The project will develop a dictionary and guide to semantics for pictographic disaster communication for initial testing.



### OpenDroneMap

ShadowView | DIP | £120,196

This innovation aims to allow humanitarian users to process UAV imagery and push those products to other platforms and projects for crowdsourcing, including OpenAerialMap, OpenStreetMap and Missing Maps.



### The \$1 Open Water Filter

FairCap | DIP | £88,340

This project is focused on developing a low-cost antibacterial water filter that can be screwed onto standard plastic bottles, providing clean drinking water and reducing gastrointestinal disease in emergency relief situations, refugee camps and poor urban and rural areas.



### Healthsites: Global Health Facility Mapping

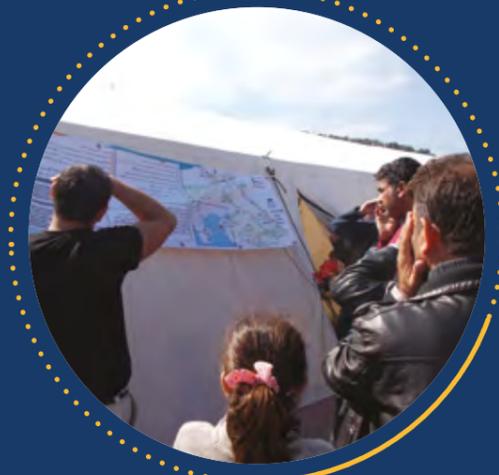
Healthsite.io | ESI | £20,000

This project plans to map and consolidate health site data in Sierra Leone, Rwanda and South Africa, and to share learning in order to demonstrate that, through replication of this process, accurate and up-to-date health site data can be established in all countries.

### Words of Relief Service Package

Translators Without Borders | Diffusion | £49,229

Words of Relief is a global translation and localisation service to improve communications between affected populations and emergency responders. Having developed this service with a previous grant from the HIF, this phase of the project seeks to market the service to potential partners and funders.



### Crisis Response Innovation Lab

World Vision | ESI | £50,000

The Crisis Response Innovation Lab (CRIL) aims to enable innovation during emergency response by deploying front-end labs with strategic support. The proposed project will enable the invention of CRIL, going from an idea to a 'lab' ready to pilot in March 2017.



# DIRECTED INNOVATION: UP TO THE CHALLENGE



Ian McClelland

HIF Outreach and Engagement Adviser

There are different ways to support and encourage innovation. At the HIF we are constantly reviewing and adjusting our approach based on new learning about the innovation process and the challenges faced by the humanitarian sector.

In 2013 we established a 'directed' funding initiative for water, sanitation and hygiene (WASH), to complement the 'non-directed' approach of our core grants. A review of our WASH initiative helped to inform our learning in this area and provided recommendations for further development. We expanded upon this in 2014 with the launch of our Gender-Based Violence (GBV) initiative.

Our first 'Gap Analysis' report was published in July 2013, identifying 12 priority areas in the WASH sector that could benefit from new solutions. Some of these gaps translated into technical challenges with clear specifications; some were most likely to be solved through new partnerships and collaborations; and some were more complex, requiring further in-depth research before a potential mechanism for generating solutions could be identified.

While closed calls, targeted partnerships or advocacy for policy change may sometimes be the best routes for innovation, the approach of our 'directed' initiatives most frequently falls into the following three pathways.

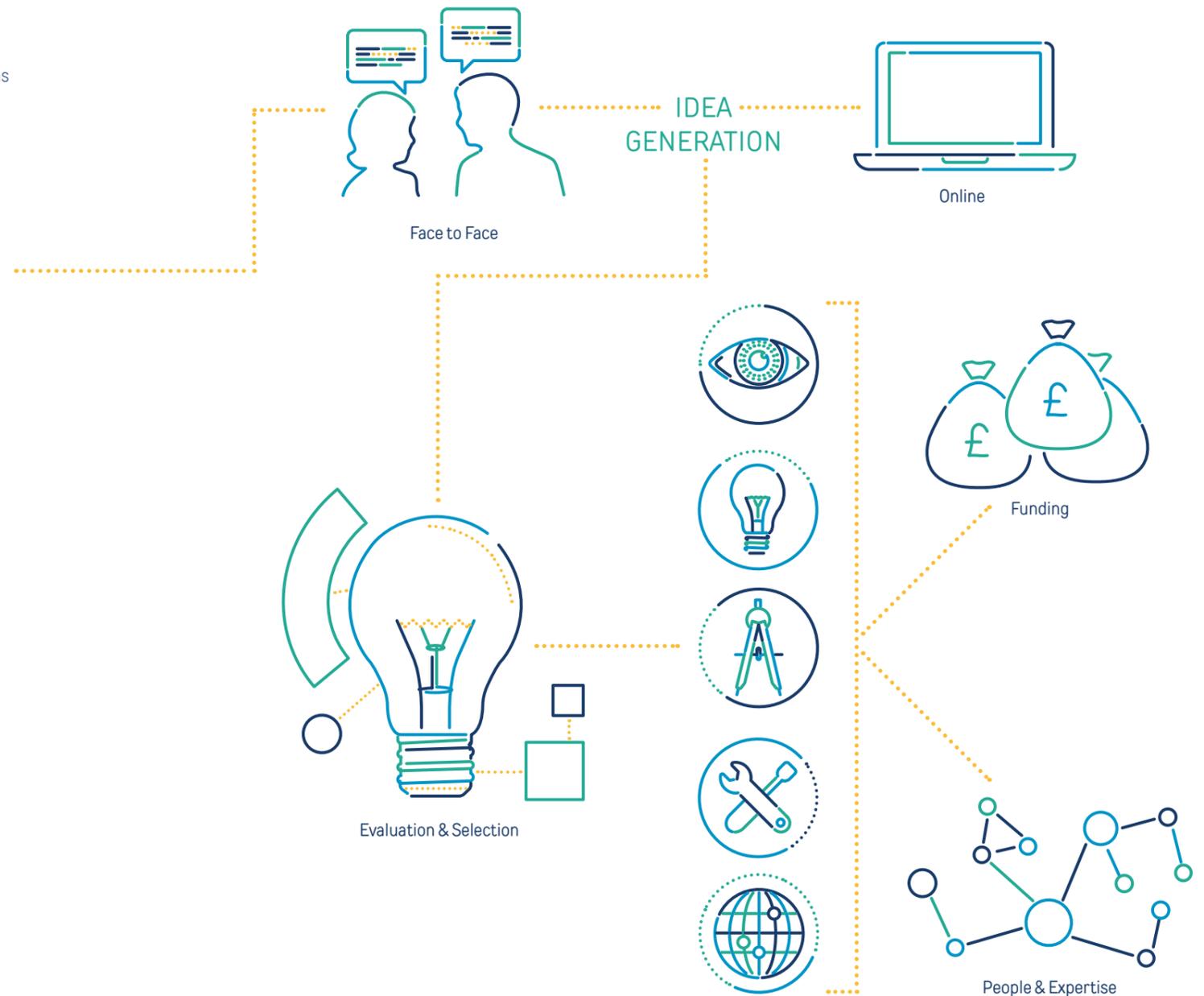


## OPEN INNOVATION

The first phase of the WASH initiative saw the launch of several 'open innovation' challenges, inviting proposals addressing specific criteria.

Our 'Space Saving Jerry Can' challenge responded to a clear need for a jerry can that can be easily stored and distributed during a crisis, and keeps water free from possible contamination. And in 2016, our 'Innovating Incinerators' challenge delivered a successful set of designs for a simple, efficient and durable incinerator that is safe to operate and affordable in low-middle income countries.

However, this 'open' approach has not always been suitable or effective for two key reasons: first, the process has not actively encouraged collaboration, which can prove vital for innovation; second, the challenge specifications have encouraged only small variations to an existing product, resulting in something more akin to a procurement process rather than an innovation process.



## ACCELERATED INNOVATION

Our ‘accelerated innovation’ approach seeks to address more complex challenges through collaboration and new partnerships.

We think hard about the incentives for organisations and individuals to work with us and with each other. For NGOs, it might be funding to develop a project; for actors outside the sector, it might be the chance to make a positive impact; for start-ups, it might be the opportunity to build their profile and develop their networks. Our challenges are designed to ensure both experts and non-experts understand the complexities of a particular problem and what’s involved in the innovation process.

Although each process is different depending on the type of challenge and the desired output, they often share common elements. A problem is defined and we request a short proposal outlining a potential solution. We then draw up a shortlist of promising projects and bring them together for a workshop.

For every challenge, we identify a number of expert mentors or advisors who can bring a different set of skills, experiences and perspectives in order to help the teams develop their ideas. Reaching out beyond the humanitarian sector, we work with design-thinkers, programmers, business experts and an array of other specialists to help the teams develop and refine their proposals.

We’ve learned that the right mix of participants and a clear understanding of the problem are vital. When our challenge events have brought together people from a variety of backgrounds with a strong knowledge of the problem concerned, we have been able to encourage different thinking and novel ideas. More homogenous groups with a weaker understanding of the problem have benefited from further discussions on the framing of problems and definitions of key terms. We’ve also learned that partnership brokering, where appropriate, is best encouraged in the early stages of the process, so that those with the decision-making power on new collaborations or project proposals are actively involved.

## PROBLEM EXPLORATION

We’ve learned a lot about the challenges facing humanitarian practitioners from our gap analysis research on WASH and GBV. But we’ve also learned that developing a thorough understanding of the core problems, in order to provide a platform for solutions, frequently requires further in-depth research. Areas for ‘deep dive’ analysis of a problem might include:

- causes and symptoms;
- current research and development efforts related to the problem, and potential solution providers;
- potential solutions in periphery industries and sectors (eg development);
- previous attempted solutions, including information on what has worked but failed to diffuse, and reasons for technical failures in the past;
- potential design brief and specifications.

This in-depth analysis then provides a stronger basis for deciding whether an ‘open innovation’ or ‘accelerated innovation’ approach is more suited to the challenge, and for developing the specifics of a given mechanism.



# GENDER-BASED VIOLENCE

Supported by the Swedish International Development Cooperation Agency (SIDA)



Claire Dusonchet  
Innovation Management Adviser

Gender-based violence (GBV) is a life-threatening issue. It undermines dignity, causes immense physical and mental distress, and threatens safety, equality and development around the world.

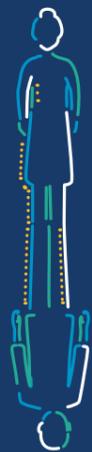
During conflicts and natural disasters, existing social support structures and violence prevention mechanisms often break down, making the risk of GBV particularly acute. Despite this, the issue of GBV in emergencies has too often been overlooked by the humanitarian sector as a whole.

A great deal has already been achieved: increasing interest from humanitarians, political momentum, a plethora of tools and standards, and in some contexts the integration and mainstreaming of GBV programming. But many significant challenges remain.

In 2015 the HIF launched an ambitious initiative to stimulate innovative approaches to GBV programming in emergencies by brokering new partnerships and targeting resources at specific challenges.

*“This Gap Analysis brought together researchers and designers in the effort to identify and define Innovation Challenges in the humanitarian GBV sector. The ambition for this report is that it continues to inspire and engage new actors from across sectors to collaborate in overcoming enduring GBV challenges.”*

GBV Gap Analysis, p.111



## GENDER-BASED VIOLENCE INTERVENTIONS: OPPORTUNITIES FOR INNOVATION

### GAP ANALYSIS

In September 2016, we launched the first ever gap analysis of specific challenges in gender-based violence (GBV) humanitarian programming through the lens of humanitarian innovation.

[elrha.org/gbv-gap-analysis](http://elrha.org/gbv-gap-analysis)

## OPPORTUNITIES FOR INNOVATION

In September 2016 we published the first ever gap analysis of specific challenges in GBV humanitarian programming.<sup>1</sup> The complexity of GBV issues in humanitarian settings defies easy solutions, and there can be no single method to address the diversity of challenges involved. But approaching these challenges through the lens of innovation offers the potential to inspire action and generate new ideas, technologies and relationships.

## USING CHALLENGES TO STIMULATE MORE EFFECTIVE SOLUTIONS

The report aims to offer a new perspective on enduring problems related to GBV, and to engage a broader audience of problem-solvers from the humanitarian sector and beyond. Drawing from rigorous desk-based research, expert interviews, practitioner surveys and case study analysis, the report presents four tangible and actionable challenge areas for innovation:

1. Improving monitoring and evaluation
2. Increasing availability and quality of GBV expertise
3. Improving GBV coordination and prioritisation
4. Adapting standards for practical use in a variety of contexts

## ONE PIECE OF THE BIGGER PICTURE

The findings of the report will enable us, along with our GBV Advisory Board, to make informed decisions about future innovation challenges and funding for GBV in emergencies, while making best use of limited resources.

Although we recognise there is a need for longer-term investment in this area, we hope this report will make a strong case for people to come together to explore and develop new practices and new partnerships in order to eliminate GBV in emergencies.

## NEW COLLABORATIONS

Last year we held a workshop bringing together GBV practitioners with human-centred designers to investigate the application of design thinking and behavioural science to GBV programming. We have since identified five early-stage partnerships comprising of GBV experts and designers that have been awarded seed-funding in 2016.

<sup>1</sup> Small Arms Survey, (2016) ‘Gender Based Violence Interventions: Opportunities for Innovation’. Humanitarian Innovation Fund Gap Analysis. Elrha: Cardiff. Available at: [elrha.org/gbv-gap-analysis](http://elrha.org/gbv-gap-analysis)

# GBV SEED-FUNDED PROJECTS

## SUPPORTING REFUGEE-SURVIVORS OF GBV WITH A COMMUNICATION DISABILITY



**Lead organisation:**  
Manchester Metropolitan University

**Partners:**  
UNHCR Rwanda; Communicability Global;  
Institute for Human-centred Design

**Location:**  
Rwanda

UNHCR and other humanitarian agencies in Rwanda have identified an urgent need to increase awareness among front-line workers of the challenges faced by refugees with communication disabilities in reporting GBV, accessing legal redress and receiving support. This project seeks to develop a consortium of organisations to work together to better understand these challenges.

*“A great deal of evidence exposes the increased risk to SGBV of people with disabilities across the globe, most acutely in forced displacement...Prevention and response programmes often fail to cater for the specific needs of people with disabilities.”* Manchester Metropolitan University

## FOSTERING ENTREPRENEURSHIP AMONG SOMALI SURVIVOR AND AT-RISK WOMEN

**Lead organisation:**  
Mensch

**Partners:**  
IIDA Women’s Development Organization;  
International Rescue Committee;  
Benadir University; Iftiin Foundation

**Location:**  
Somalia

Most GBV interventions focus on psychological, medical and legal support for survivors, but do not challenge the power imbalances that are embedded in Somalia’s culture. This project seeks to challenge social norms and systemic inequalities through the use of entrepreneurship training, micro-grants and business mentorships to enable economic independence for women.



*“Over the course of the project, we developed a number of principles that proved essential in working on this complex subject...Collaborate with partners, prepare thoroughly, be humble and nurture creative confidence.”* Mensch

## ENGAGING ARMED NON-STATE ACTORS ON GBV

**Lead organisation:**  
Geneva Call

**Partners:**  
Mensch; Promundo; Danielle Spencer (independent);  
Rama Mani (independent); Swedish Red Cross;  
Sante fe Institute

**Location:**  
Various

In the recent ‘Report of the Secretary-General on conflict-related sexual violence’, 35 of the 45 listed perpetrators are armed and non-state actors (ANSAs). However, few initiatives in conflict settings systematically engage potential perpetrators, and even less is done to ensure ANSAs know of and have the capacity to implement their obligations under international humanitarian law. This project looked to develop innovative new methods and incentives to encourage ANSAs to comply with international norms on GBV.

*“We are now looking forward to operationalising [our] ideas and testing them in the field. We are confident that they have the potential to contribute to reducing GBV cases by ANSAs in their areas of influence or control.”* Geneva Call



## ADDRESSING GBV THROUGH REFUGEE-LED INNOVATION



**Lead organisation:**  
Rethink Relief (MIT D-lab)

**Partners:**  
Caritas, Gulu; Oxfam America;  
UNHCR Innovation; ITU, Pakistan

**Location:**  
Uganda; South Sudan

The lack of involvement of local stakeholders in GBV programming is an oft-cited problem, which provides an opportunity to address GBV from a new entry point. This project seeks to bring together a group of GBV experts, designers and humanitarian workers to develop a customisable GBV-focused curriculum that engages refugees in the design process, and a plan for the roll-out of a pilot program that uses this curriculum as a means of preventing and reducing GBV.

*“We are excited by the strong core team that has emerged to move the project forward, and the enthusiasm from all partners to continue our work together on this very important topic.”* Rethink Relief

## USING MOBILE TECHNOLOGY TO ADDRESS GBV AMONG ADOLESCENT SYRIAN REFUGEES

**Lead organisation:**  
Women and Health Alliance International (WAHA)

**Partners:**  
Relief Society for Syrian Refugees; Gobe Group; Beth Israel Deaconess Medical Center at Harvard Medical School; London School of Hygiene and Tropical Medicine; University of New South Wales

**Location:**  
Turkey

Turkey is hosting more than two million refugees, mostly women and children, who are at increased risk of GBV, particularly early marriage and sexual exploitation. This project seeks to conduct research to develop and test an innovative SMS-based tool to disseminate information about GBV risks and available resources for adolescents and youth in Izmir, Turkey.



*“The project demonstrated success in understanding GBV risks among the study population...and feasibility of using an SMS messaging tool to inform the community about GBV risks and safe and danger zones.”* WAHA

### THE GBV ADVISORY BOARD

The following members were active during the 2016 reporting period (September 2015 to September 2016).



**Elizabeth Cafferty**  
Gender Adviser, World Humanitarian Summit



**Sandee Pyne**  
Chief Executive Officer, Community Partners International (CPI)



**April Pham**  
Senior Gender Capacity Advisor (GenCap), InterAgency Standing Committee based at UNHCR



**Roy Ahn**  
ScD Principal Research Scientist NORC at the University of Chicago



**Sarah Cornish**  
Senior Technical Advisor, Women’s Protection and Empowerment, International Rescue Committee



**Danielle Spencer**  
Independent



**Erin Kenny**  
Gender-Based Violence Specialist, UNFPA



**Benjamin Kumpf**  
Policy Specialist for Innovation, Bureau for Policy and Programme Support, UNDP

# WATER, SANITATION AND HYGINE



**Cecilie Hestbaek**  
Innovation Management Adviser

Diarrhoeal and respiratory infections are among the biggest causes of mortality in emergency settings. But there remains a significant gap between the level of assistance needed and the operational reality on the ground.

In 2013 we published our ‘Gap Analysis’ report which identified seven key areas in the water, sanitation and hygiene (WASH) sector that might benefit from an innovation-led approach. In 2016 we sought to dig deeper into this initial analysis, publishing a series of ‘Problem Exploration’ reports exploring these key areas in greater depth. Working closely with research and design company, Science Practice, and in consultation with our WASH Technical Working Group, we are using this research to further refine and launch a new phase of challenges.



The effects of poor surface water drainage.  
Credit: Save the Children UK.

## INNOVATING INCINERATORS

In the acute stages of humanitarian emergencies there is a rapid demand for health facilities and therefore medical waste incinerators. Small-scale incinerators are often constructed from oil drums and other easily-available materials, but these are usually inefficient and perform poorly. The design and build of more durable incinerators is constrained by a lack of trained staff and appropriate materials. This challenge sought designs for a simple, efficient and durable incinerator that is safe to operate and affordable in low and middle-income countries.

### AFYA INCINERATOR

#### Organisation:

National Center for Scientific Research, Athens

#### Location: Grant value:

Greece £5,000

Dr George Vekinis at the National Center for Scientific Research developed two potential options: a compact, low-cost and energy-efficient version of the simple drum incinerator, which can either be constructed rapidly on site using readily-available materials, or pre-constructed and transported to be assembled on site; and a semi-permanent or permanent two-chamber incinerator, which can be constructed using materials generally available in low and middle-income countries and requires only moderate construction skills.



## SURFACE WATER DRAINAGE IN EMERGENCIES CHALLENGE

In camp settings, poor surface water drainage can pose health risks by encouraging the spread of vector-borne diseases such as malaria or cholera as well as making it difficult for people to make their way through the camp. This year we ran challenges for two key related themes: to develop tools and guidance to support field practitioners in camps who are making difficult decisions about storm water, flooding risks, blockages, and other hazards; and to develop and test new technologies for improving surface water drainage.

### GOING WITH THE FLOW: MOBILE WASH TRAINING

#### Lead organisation:

Loughborough University

#### Partners:

Oxfam; Médecins Sans Frontières; TearFund; UNHCR; UNICEF (TBC)

#### Location: Grant value:

Global £39,629

Training humanitarian professionals on surface water drainage has to balance their limited time with the need to consider a wide variety of geographical and institutional contexts, including climate, topology and the responsibilities of those managing camps. This project aims to run an initial interactive online training course that can also be accessed via mobile devices. In turn, this will generate questions, case studies and technical solutions that will be used to further develop the curriculum.

### SUSTAINABLE FLOOD RESILIENCE IN REFUGEE CAMPS

#### Lead organisation:

Coventry University

#### Partners:

Board of Relief and Humanitarian Affairs, Dohuk Governorate; UNHCR, Iraq; French Red Cross, Iraq (TBC); Lemon Tree Trust, Middle East Branch

#### Location: Grant value:

Iraq £150,000

Refugee camps are conceived as temporary settlements, and drainage is often a low priority. A lack of planning to address issues around flooding and greywater management when refugee camps are built, leads to challenges for governance, policy, ethics, human rights, safety and security. This project will design, install and monitor the effectiveness of sustainable drainage systems (SuDS) in a camp context with the ultimate goal of coupling WASH objectives with a flood resilience strategy that contributes to camp greening.

## HANDWASHING CHALLENGE

In a humanitarian crisis, increasing the number of people who wash their hands using soap has proven to be one of the most critical and effective interventions to reduce infectious diseases. But there are a number of obstacles to widespread good practice. This challenge aimed to address low uptake and impact of handwashing practices, inviting proposals addressing three challenge themes: #lovecleanhands (behaviour change); #reimaginesoap (developing soap alternatives); and #betterwashfacilities (improving infrastructure).

### SURPRISE SOAP: LOCALLY PRODUCED SOAP FOR CHILDREN

#### Lead organisation:

Save the Children UK

#### Partners:

London School of Hygiene and Tropical Medicine; Field Ready

#### Location: Grant value:

Myanmar £197,563

This project aims to encourage behaviour change in children, incentivising them to wash their hands with soap by making it fun. Through a multistage design and testing approach, the project will produce a novel soap product with a small toy hidden in the centre of a bar that can only be reached as the soap is used. It will support creative designs that are tailored to local preferences in shape, colour and size, and keep up with trends in children's toys. Initial trials are planned to take place in Myanmar.



### PUPPET FILM AND ACTIVITIES FOR MOTHERS AND CHILDREN

#### Lead organisation:

No Strings International

#### Partners:

Catholic Relief Service

#### Location:

South Sudan

#### Grant value:

£116,801

Too often, behaviour change initiatives in humanitarian emergencies fail to use the community's voice to improve the resonance and durability of communications. No Strings International is using a methodology that gives communities ownership of solutions. They have made a film to introduce handwashing behaviour change messages to IDP camp communities, which they will then use as the basis for a series of workshops with local partners, using puppet tools to enable communities to apply meaning to the film's key messages.



### PROMOTION AND PRACTICE HANDWASHING KIT

#### Lead organisation:

Oxfam

#### Partners:

Dunster House Ltd

#### Location:

Democratic Republic of Congo

#### Grant value:

£198,570

Too often a lack of quickly-assembled, readily-available components for communal handwashing facilities means that these stations are not ready to install alongside latrines – a key failure of sanitation and hygiene response in emergencies. With this project, Oxfam aims to develop a robust, user-friendly, self-contained kit that can be easily set up in the immediate aftermath of a disaster. The kit is intended to be replicable by local manufacturers, providing added benefits to the local economy.



### TIGER TOILETS: SUSTAINABLE SANITATION FOR HUMANITARIAN RESPONSE

**Lead organisation:**

Oxfam

**Partners:**

Loughborough University; University of Public Health, Yangon

**Location:**

Myanmar

**Grant value:**

£150,000



Providing environmentally and economically sustainable sanitation for people living in camps is a huge challenge. The pit latrine is the most common solution, but this requires frequent emptying and the disposal of faecal sludge. By contrast, the Tiger Worm Toilet (TWT) uses composting worms to digest faecal waste and turn it into organic fertiliser, providing an affordable, compact, low-maintenance and safe alternative. TWT technology has already been proven at household level in rural and urban settings, but this will be the first rigorous trial in a humanitarian setting.

### INCLINED PLATE SETTLER JUBA DEPLOYMENT



**Lead organisation:**

Université Laval

**Location:**

South Sudan

**Partners:**

Oxfam (with Aquaplus Ltd and RedR-India)

**Grant value:**

£56,568

The 'inclined plate settler' is a water treatment unit which uses principles of plate settling to improve performance, and utilises a collapsible design to reduce setup times and transportation costs. Université Laval, a previous recipient of both Invention and Development grants, received funding in late 2015 to deploy this new innovation in Juba, South Sudan. The project was suspended for a period in 2016 due to the deteriorating security situation, but has since recommenced. On completion of testing, the final results will be disseminated in a peer-reviewed publication.

### NEW PUBLICATIONS



Download the WASH Gap Analysis and our 'Problem Exploration' reports at [www.elrha.org/wash-innovation-research](http://www.elrha.org/wash-innovation-research)

### WASH TECHNICAL WORKING GROUP

The following members were active during the 2016 reporting period (September 2015 to September 2016).



**Andy Bastable (Chair)**  
Head of Water and Sanitation  
Oxfam



**William Carter**  
Senior Officer (WatSan/EH)  
IFRC and Red Crescent  
Societies, Geneva



**Jennifer Lamb**  
WASH Technical Advisor  
Oxfam



**Brian Reed**  
Lecturer, Water, Engineering  
and Development Centre,  
Loughborough University



**Richard Bauer**  
Senior WASH Adviser  
Norwegian Refugee Council



**Brian Clarke**  
Senior Visiting Fellow  
Centre for Environmental Health  
Engineering, University of Surrey



**Daniele Lantagne**  
Assistant Professor  
Tufts University



**Jessica Tribbe**  
Innovation Project Consultant  
Water and Sanitation, UNICEF



**Murray Burt**  
Global Senior WASH Officer  
UNHCR



**Chris Cormency**  
Chief of WASH and Education  
Center UNICEF



**Peter Maes**  
Coordinator  
Water, Hygiene and Sanitation  
Unit, Médecins Sans Frontières



**Sian White**  
Researcher  
London School of Hygiene  
and Tropical Medicine



**Mark Buttle**  
Emergency WASH Advisor  
Save the Children



**Caetano Dorea**  
Assistant Professor  
Civil Engineering,  
Université Laval



**Joos Van Den Noortgate**  
Coordinator  
Water, Hygiene and Sanitation  
Unit, Médecins Sans Frontières



**Tom White**  
Humanitarian Advisor  
DFID



**Sandy Cairncross**  
Professor of Environmental Health  
London School of Hygiene and  
Tropical Medicine



**Peter Harvey**  
Chief  
Water, Sanitation and Education  
Centre, UNICEF



**Dominique Porteaud**  
Cluster Coordinator  
UNICEF



**Tom Wildman**  
Global Advisor for Water,  
Sanitation and Hygiene,  
OFDA

# ACCELERATING THE JOURNEY TO SCALE

Supported by the Netherlands Ministry of Foreign Affairs (MFA)



**Claire Dusonchet**

Innovation Management Adviser

In 2016 we launched an exciting new funding initiative to find three promising humanitarian innovations and work with them to accelerate their efforts to take their innovations to scale.

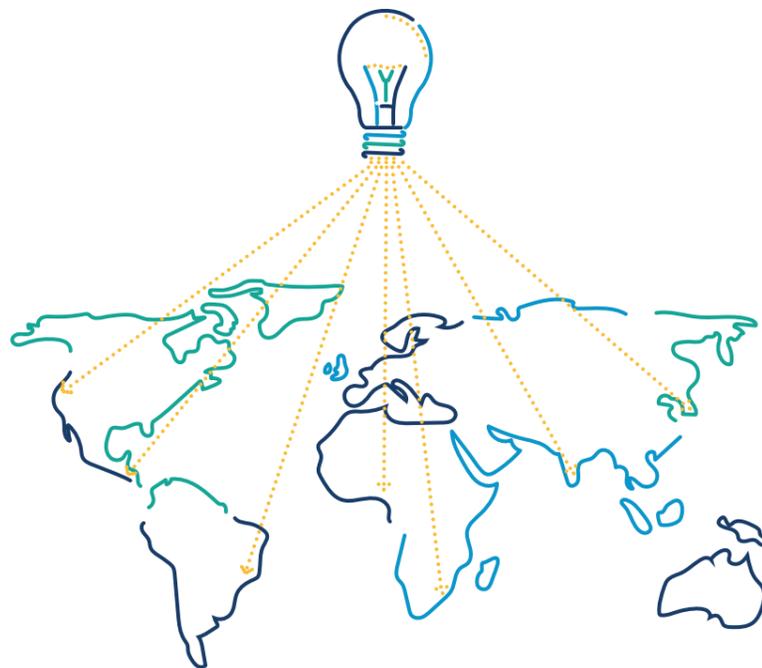
What do we mean by 'scale'? For us, it means building on demonstrated successes to ensure that solutions reach their full potential, have the greatest possible impact, and lead to widespread change. With regards to humanitarian emergencies, this means saving lives and reducing the suffering of people caught up in crises and disasters, and contributing to a sustainable humanitarian system with affected people at its heart.

## A NEW CHALLENGE

Taking an innovation to scale represents a particular challenge in the humanitarian system, and introduces a range of complexities not found in early-stage pilots.

At the HIF we believe that, apart from additional resources, success will require a focused strategy and tailored support for the unique challenges faced in each innovation's journey.

Furthermore, we are seeking to gather practical evidence around the journey to scale, building knowledge of the specific barriers and challenges encountered by the projects we fund. Central to this is the collaborative multi-stakeholder approach that underpins Elrha's work, which we hope will lead to both the acceleration of the innovations, and a wider understanding of what is needed to bring about an agile and capable humanitarian system in the future.



## IDENTIFYING READY-TO-SCALE INNOVATIONS

In April 2016 we launched a call for proposals. In order to accommodate the unique aspects of this initiative, we developed a tailored selection process based around four key criteria:

### Impact

The innovation has the potential to transform the humanitarian system

### Approach

The strategy demonstrates a strong grasp of the challenges associated with building a sustainable solution

### Feasibility

The innovation does more than address an important need – it is valid (based on logic and fact) and can be reasonably expected to work at scale

### Team composition

The team includes a committed core capacity, as well as partners and networks needed to enable growth

## ENGAGING EARLY

After receiving initial proposals, we shortlisted nine project teams and invited them to a three-day innovation retreat to help them consolidate their scaling strategies and prepare their final applications for funding.

In advance of the retreat we carried out remote consultations with each team, which identified five key areas for support:

- Monitoring and evaluation
- Humanitarian-to-humanitarian selling
- Revenue models
- Legal aspects of innovation
- Partnering

The agenda for the retreat was framed around these areas, including sessions on business model development, scaling assessment maps and deep-dive coaching sessions with relevant experts. Time was also set aside for proposal development with advisory support from the wider HIF-Elrha team.

Taking three days out was a significant commitment for the teams and a substantial investment by the HIF. But feedback from participants was very positive and it proved beneficial for both their innovation efforts and learning as a whole, and the development and quality of their proposals.

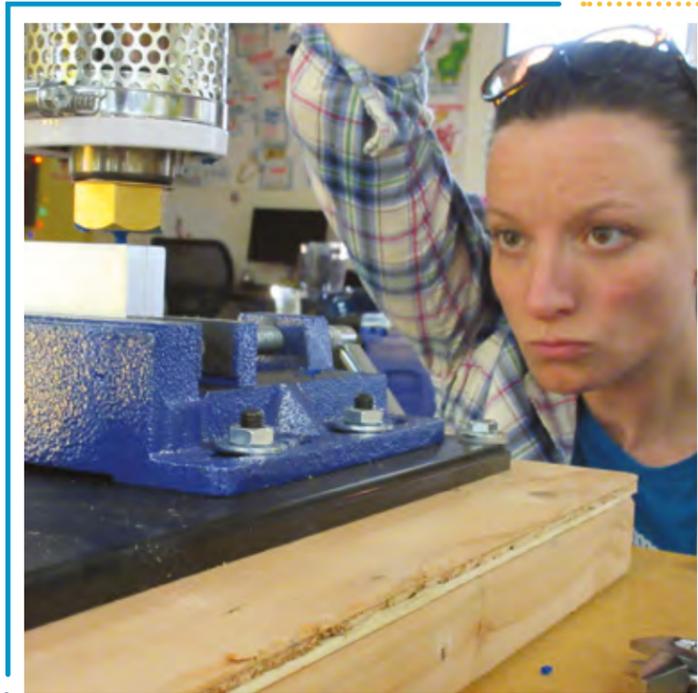
## THREE PROJECTS AWARDED

After an in-depth review of the final proposals, the Scale Funding Committee – comprising of representatives from both the HIF Funding Committee and the HIF Board – selected three projects.

The winners have the potential to make a significant difference to the lives of people affected by crises, while representing a tremendous opportunity to bring about widespread and sustained transformative change in the longer-term. In addition, each of these three projects is deeply rooted in the empowerment of local people affected by crises.

Each team faces a different scaling challenge: deploying new technology in different contexts, establishing methods of replicating programmes, and pioneering new markets. Whichever route to scale is chosen, the HIF will help these innovations grow, and we believe that the combination of these three projects will contribute greatly towards the body of knowledge on scaling humanitarian innovations.

## JOURNEY TO SCALE WINNERS



### MANUFACTURING HUMANITARIAN SUPPLIES IN THE FIELD

**Organisation:**  
Field Ready  
**Location:**  
Various

Field Ready works with local communities to identify product requirements and manufacture critical items at the point of need using design and manufacturing technology, such as 3D printers. Field Ready’s projected pathway to scale involves an initial ‘scale up’ investment to increase the number of deployments, building on previous success in Haiti and Nepal. With more deployments to generate core costs, the next phase will ‘scale out’ capabilities by developing distributed manufacturing techniques, including easy-to-use small manufacturing kits that are funded, licensed or sold to produce larger and larger quantities of Field Ready-certified supplies.

### HEALING IN HARMONY

**Organisation:**  
Panzi Foundation

**Location:**  
Democratic Republic of Congo (DRC)

This project aims to heal traumatised individuals and populations through writing, recording and professionally producing songs about their experiences, transforming pain to power. The first phase of Panzi’s pathway to scale is to refine and develop the methodology of their solidarity-based affiliate partnership approach, and to generate further evidence to support its replication in different contexts. In the second phase, Panzi hope to scale up this project to dozens of health centres and institutions throughout the DRC, and to be ready to test their methodology and model in sites outside of the DRC.



### WORDS OF RELIEF

**Organisation:**  
Translators Without Borders

**Location:**  
Various

This project aims to enable local communities to better communicate with relief workers, so they can provide and receive information on the challenges they face. Translators Without Borders’ pathway to scale involves developing the platform to meet emerging needs (such as on-the-ground interpretation and voice capabilities), developing new and more effective outlets for disseminating vital information directly to affected populations, promoting increased use of the platform across a broader spectrum of humanitarian NGOs, and implementing a new business model to ensure the long-term sustainability of its services.

### NEXT STEPS

In January 2017 the three winners will each be awarded a £400,000 grant. In addition to funding, we will provide a flexible support package, including tailored assistance and mentoring, as well as opportunities to exchange learning between the teams.

We will continue to manage and oversee the initiative, ensuring tailored and coordinated support is provided to grantees and learnings are captured and shared widely. We will work with external experts on critical areas, such as monitoring and evaluation and business models, to ensure the highest-quality outputs.

Beyond the three projects we are funding, we hope to engage everyone interested in this area of work in continued efforts to foster collaboration and share learning.



# Q&A WITH GOAL

## INTEGRATING SOCIAL ENTERPRISES INTO EMERGENCY FAECAL SLUDGE MANAGEMENT

GOAL was funded between 2014 and 2016 with a grant of £162,219.

Rapid-onset urban emergencies are frequently characterised by inadequate sanitation, as large numbers of people take shelter in relatively small areas.

This project sought to develop a 'waste transfer station' to enable the easy and safe disposal of waste from bag or container-based sanitation systems in the early stages of an emergency. An initial prototype revealed issues around the size and weight of the product. This led to a re-design and development of a more appropriate product which was tested in the informal settlements of Nairobi in 2016. The project also explored the potential for a gradual handover of WASH service provision from humanitarian agencies to social enterprises in the later stages of an emergency response.

We interviewed Alan Reade, Regional WASH Advisor for GOAL.

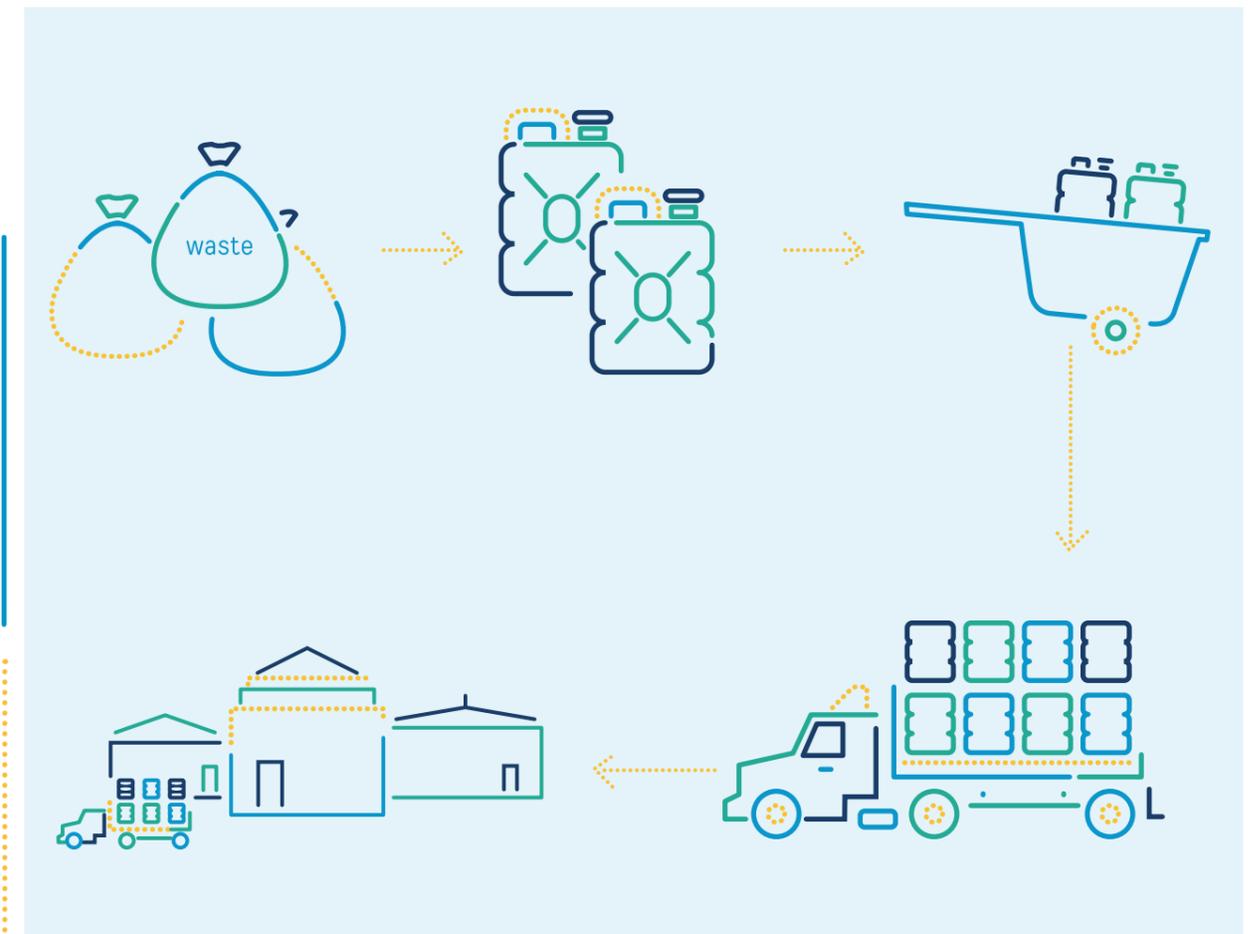


## 1. CAN YOU DESCRIBE WHAT YOUR PROJECT AIMED TO DO AND WHY IT IS INNOVATIVE?

This project aimed to achieve two things: first, to develop a new container, or waste transfer station (WTS), that enables waste collected in plastic bags or other bag technologies to be easily and safely disposed of in the early stages of an emergency; second, to explore the potential synergies between a humanitarian responder, such as GOAL, and a social enterprise, such as Sanergy.

We wanted to explore whether it was possible, and practical, for an NGO to set up a response, but in such a way so that a social enterprise could take it on once the initial humanitarian phase has ended. Could it then be transitioned to the social enterprise community?

Many social enterprises work in sanitation in urban environments using containers as opposed to pit latrines; however, they don't work in humanitarian contexts. This project presented an opportunity to marry the expertise of humanitarian responders and social enterprises to see if an off-the-shelf sanitation solution to an urban disaster was possible.





## 2. DID YOU ACHIEVE WHAT YOU SET OUT TO?

With regards to the first part of the project – developing a viable waste transfer station – yes we did. We first convened an expert stakeholder group that included representatives from both humanitarian organisations and social enterprises. They helped us think through crucial details such as the size of the container – should it be wheelbarrow size or something much bigger like a standard container? – identifying that the transfer station would need to be easily transported on the back of a single cab pick-up truck.

The first WTS functional prototype was completed and tested in August 2015. The unit performed well in the context of Sanergy's logistics stream by creating labour and transport efficiency. It also proved to be a preferable method for storing, transporting and dumping the waste by community members, collection staff, and waste processing staff.

With regards to the second part of the project, we did achieve what we set out to, in terms of scoping out the potential of such a partnership system, but our findings didn't meet our expectations and hopes. Through our stakeholder group and through modelling and contingency planning, we realised that, at least in this instance, our model of an NGO-social enterprise partnership wasn't going to work.

We found that social enterprises can lack the flexibility to deploy operational staff in new contexts and the flexible finances required to invest in a scenario where there are lots of uncertainties. For an outside social enterprise to take over waste management services requires a long-term investment, but camps established in the wake of natural disasters only last up to three years on average. This isn't long enough for a transition model to be viable, unless the social enterprise is already established in the designated country and easily able to transfer resources.

In response to these findings, we mutually agreed to end our partnership with Sanergy, and we have since explored a possible partnership with Sanivation, a social enterprise with specific technology and experience relating to sanitation in camp settings.

## 3. CAN YOU GIVE A SPECIFIC EXAMPLE IN PRACTICE OF HOW THE WASTE TRANSFER STATION HAS IMPROVED HUMANITARIAN INTERVENTION?

Early discussions with Sanivation indicate there may be an opportunity to test the waste transfer stations in a camp setting if they are selected for UNHCR pilot testing. This would take place in either Kenya or Ethiopia.

Fabrication of the first prototype was completed in Nairobi while the second prototype was fabricated in the USA and tested in Nairobi in February 2016. The findings concluded that there were clear positive advantages to using the WTS, resulting in savings in both time and labour. Cost analysis predicts an 18% saving in operational and capital expenditure over a five-year timeframe. The findings go on to recommend further refinements, based on the feedback from the testing team, and continuous observation.



## 4. IF SOMEONE WANTED TO CARRY OUT RESEARCH OR A PROJECT SIMILAR TO YOURS, WHAT WOULD BE YOUR ADVICE?

It's important to have frank conversations from the beginning of such a partnership project about the operational and strategic positions of each organisation. The legal agreement should clearly reflect what each partner wants and expects from the project to ensure that expectations are met and all potential challenges and risks are identified before work begins.



Container based sanitation solutions.  
All photos courtesy of GOAL.

# OUR EVIDENCE AND RESEARCH AGENDA:

## PROGRESS AND OPPORTUNITIES



Dr Josiah Kaplan  
Senior Research Adviser

The last year has seen important developments in the HIF's emerging evidence and research agenda, driven by a deepening relationship between the team at Elrha, our grantees, and our key learning partners. Together, we are working to strengthen monitoring, evaluation, accountability and learning (MEAL) efforts across the entire HIF portfolio, while also enabling new research into underexplored aspects of innovation in humanitarian contexts.

Two parallel approaches define this agenda. First, we have expanded our capacity over the last year to offer more hands-on MEAL support to individual grantees. Second, working with individual grantees presents the HIF with a unique opportunity to reflect on the challenges faced in different projects, and to use new learning to improve innovation management in the humanitarian context.

## STRENGTHENING MEAL ACROSS OUR PORTFOLIO

The wide diversity of projects across our portfolio defies any one-size-fits-all solution: established methodologies and good practice guidelines need to be constantly translated for the distinct requirements and capacity constraints of each project. As the HIF has embarked on exciting new initiatives focused on gender-based violence and scaling up proven innovations, it is critical that our efforts to encourage high-quality MEAL results keep pace with a growing portfolio.

In helping to meet this demand, Elrha has been extremely fortunate to have access to a growing pool of MEAL and innovation research advisers. During the Handwashing Challenge and our Journey to Scale innovation retreat, for instance, applicants and grantees

benefited from direct input and personal guidance from some of the world's leading experts on monitoring and evaluation, and innovation research, in humanitarian contexts.

As part of our commitment to expand the HIF's level of MEAL support into 2017, we are excited to announce our new strategic research collaboration with the Institute of Development Studies (IDS) at Sussex University. The IDS team, led by Evangelia Bordou, Ian Gray and Kevin Hernandez, bring wide-ranging, multi-disciplinary academic research expertise and operational MEAL experience. Working directly with new and existing grantees, they will enable us to greatly expand our MEAL support offer across the entire portfolio, helping to bring greater rigour to the programme.

## DEVELOPING OUR RESEARCH AGENDA

In seeking to generate robust evidence on humanitarian innovation, our community of practice faces a range of formidable challenges unique to crisis settings. These include extreme impediments to accessing field data, frequent lack of quality baseline data, differing expectations of research quality, timelines and outputs between researchers and humanitarians, and – critically – heightened ethical risks arising from work with vulnerable populations.

Methodologically, measuring impact in humanitarian innovation is extremely complex, as the non-linear nature of innovation processes, and the complex, rapidly-changing humanitarian environment, collide to make attribution of causality (the degree to which a particular innovation is responsible for bringing about an observable change, isolated from the many other conditions and actions) notoriously challenging.

Other major gaps persist in our broader understanding of humanitarian innovation. Current debates and research routinely overlook the role of affected communities in humanitarian innovation. And at the other end of the spectrum, more research is needed to explore the wider 'ecosystem' and questions of resourcing, accountability and engagement between humanitarian and non-traditional innovation partners.

Furthermore, there is a need for new guidance on the ethics of humanitarian innovation. Some of the most difficult, and often uncomfortable, questions we face remain under-explored, including the risks posed to humanitarian principles and affected populations by new technologies, issues of unintended inclusion and exclusion during innovation processes, and the mixed motives of political economies driving the diffusion of certain new product innovations in the humanitarian market.

## EMERGING ANSWERS

Last year, we noted the opportunity for the HIF to help answer this set of formidable, but fascinating, questions. A year later, we are pleased to announce important strides forward in our emerging research agenda.

In early 2016 we published an important new study on 'what works' in humanitarian innovation, **'More than just luck: Innovation in humanitarian action'**.<sup>1</sup> This report and two forthcoming pieces on monitoring and evaluating humanitarian innovation represent major contributions towards advancing the state-of-the-art in humanitarian innovation management.

From our thematic initiatives we have produced a new gap analysis, in collaboration with the Small Arms Survey, on opportunities for innovation around gender-based violence (GBV) interventions.<sup>2</sup> Looking ahead in 2017, our WASH initiative has just begun two large research projects: a study on use of latrine lighting for safer sanitation, and a comparative analysis of water filters.

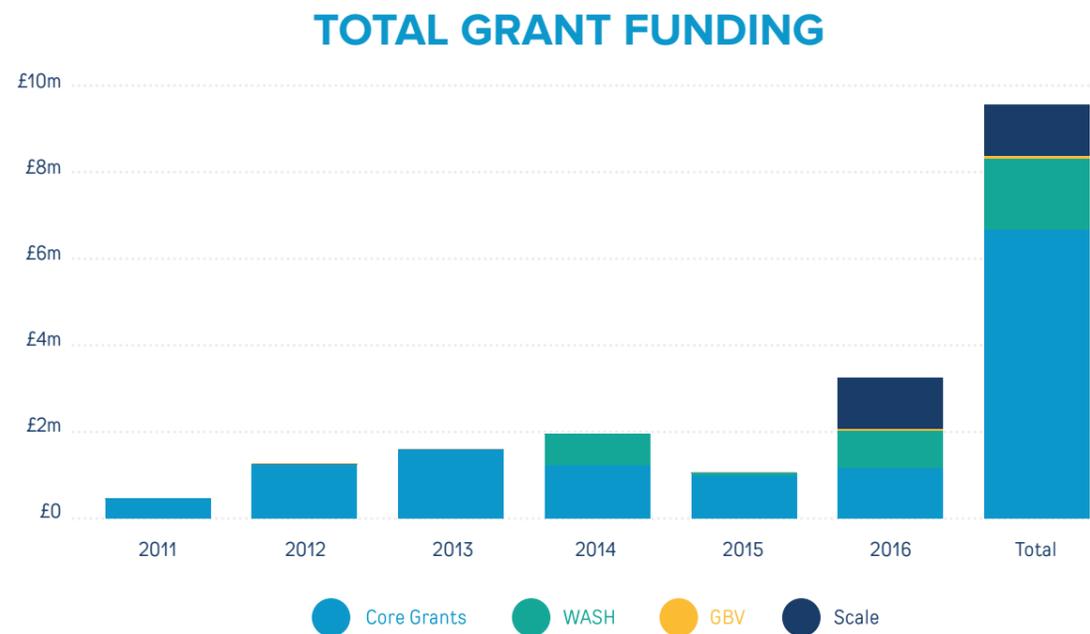
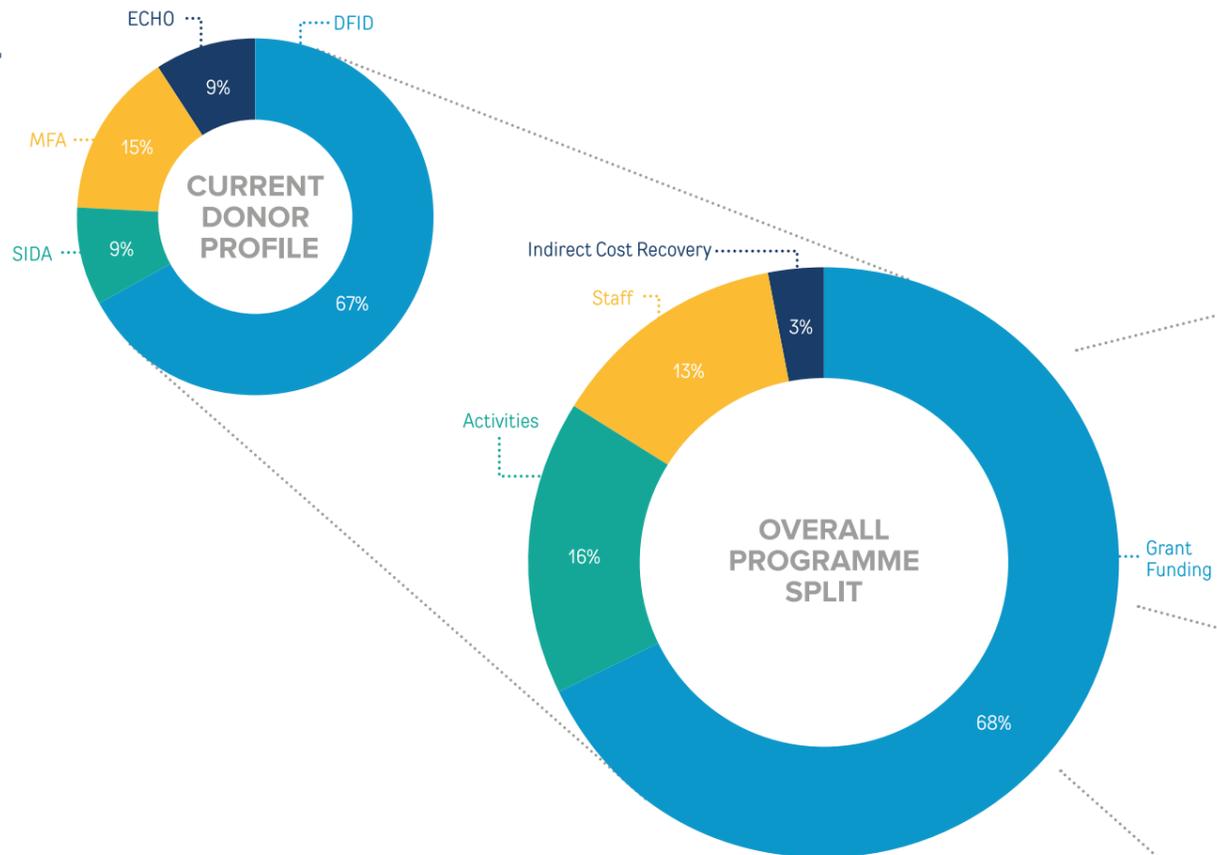
The HIF will also be carrying out an independent evaluation, providing an invaluable opportunity for our own reflection, learning and improvement. We hope it will also provide insights for the rest of the humanitarian innovation community into our approach in addressing the complexity of innovation – providing new understanding for future evaluations in the innovation-management space.

Finally, Elrha is poised to better leverage synergies across our organisation to both support, and draw lessons from, our work in innovation grant-making. Already, complimentary work on GBV in humanitarian contexts by Elrha's Research for Health in Humanitarian Crises (R2HC) programme is proving a point of co-learning and development with the HIF's GBV initiative. And Elrha's new initiative, the Global Prioritisation Exercise for Research and Innovation, will contribute to a clearer articulation of priorities for future investments in humanitarian innovation, informed by, and in turn helping to support, the HIF's own growing portfolio.

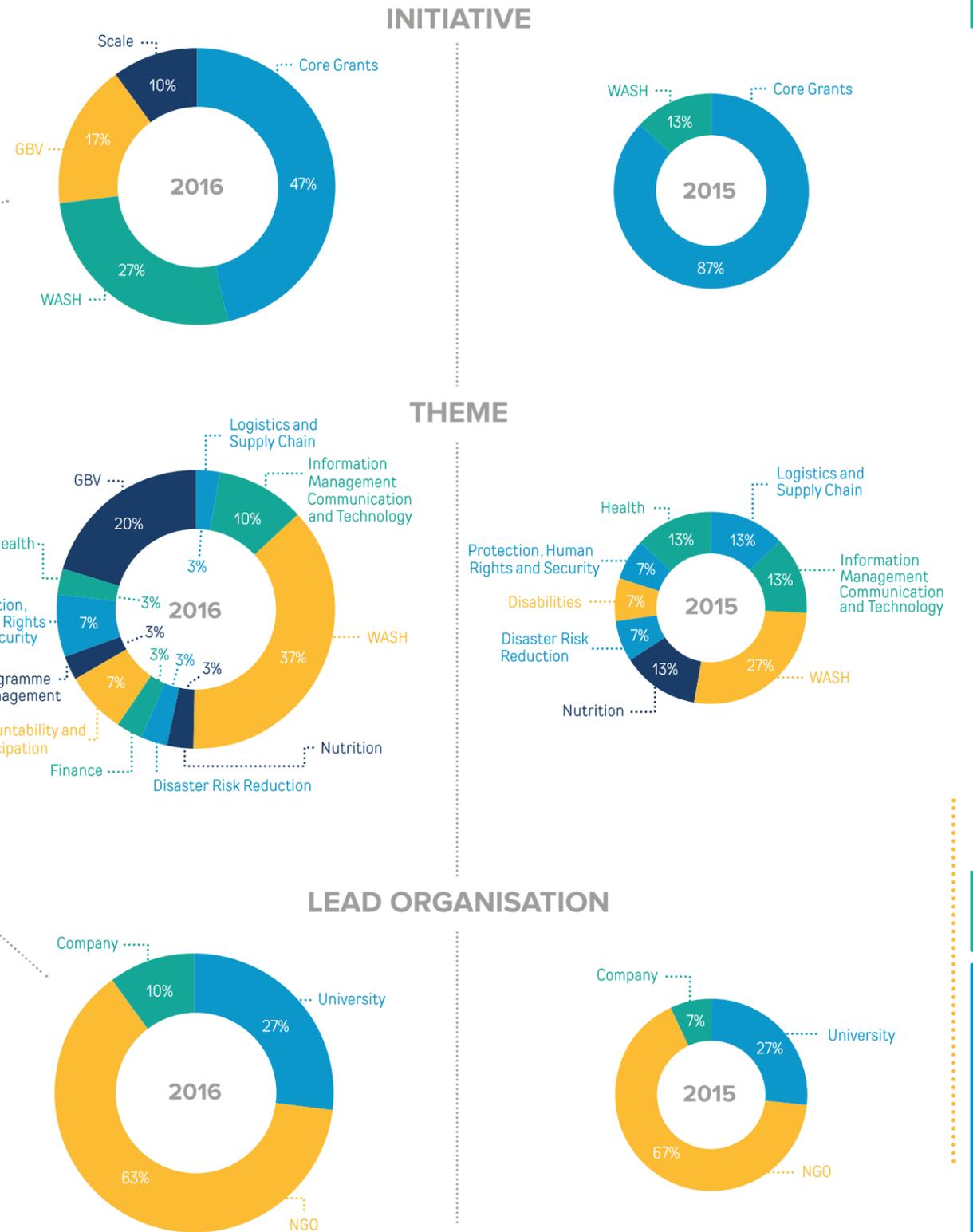
<sup>1</sup> Obrecht, A. and Warner, A.T. (2016) 'More than just luck: Innovation in humanitarian action'. HIF/ALNAP Study. London: ALNAP/ODI. Available at: [elrha.org/hif-project-case-studies](http://elrha.org/hif-project-case-studies)

<sup>2</sup> Small Arms Survey (2016) 'Gender-Based Violence Interventions: Opportunities for Innovation'. Humanitarian Innovation Fund Gap Analysis. Elrha: Cardiff. Available at: [elrha.org/gbv-gap-analysis](http://elrha.org/gbv-gap-analysis)

# HIF IN NUMBERS

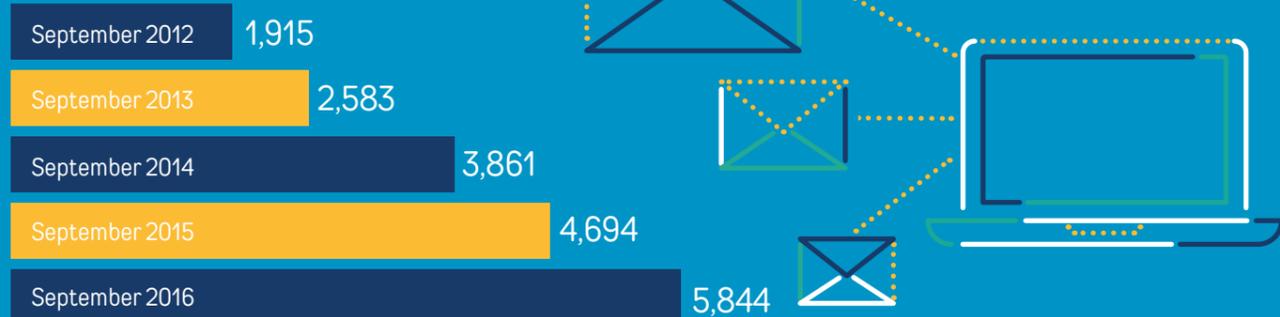


## PERCENTAGE OF PROJECTS

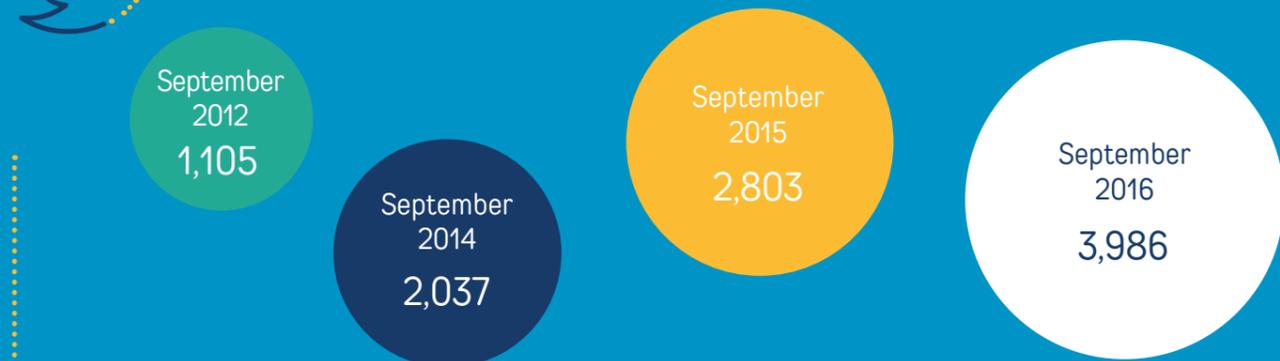


# HIF COMMUNICATIONS

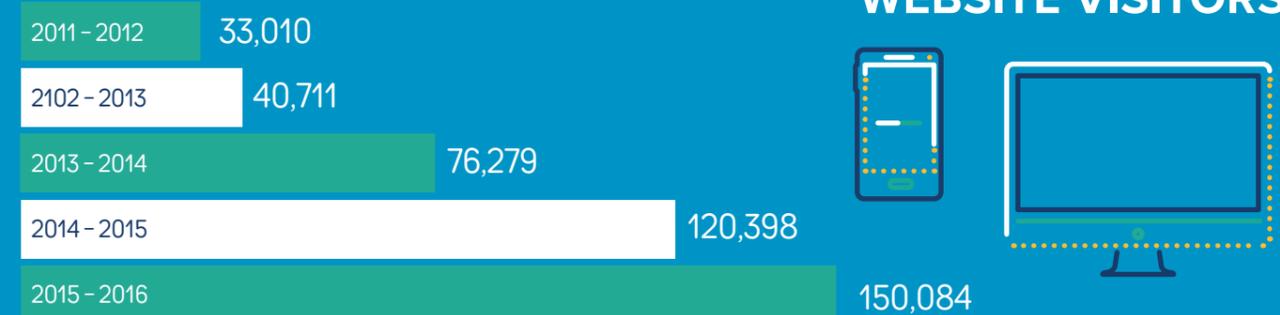
## MAILING LIST SUBSCRIBERS



## TWITTER FOLLOWERS



## WEBSITE VISITORS



# SPOTLIGHT ON HIF



**WORLD HUMANITARIAN SUMMIT**

**World Toilet Day:**  
How the Humanitarian Innovation Fund is Tackling Global WASH Challenges  
November 2015



**theguardian**

**When disaster strikes, it's time to fly in the 3D printers**  
Features grantee Field Ready  
December 2015

**THE NEW YORKER**

**Creating a Map to Navigate the Post-Earthquake Landscape in Ecuador**  
Features grantee OpenStreetMap  
April 2016



**THOMSON REUTERS**

**Armed with drones, aid workers seek faster response to earthquakes, floods**  
Features HIF funded project 'Drones for Good' by Kathmandu Living Labs & UAViators  
May 2016



**SciDevNet**

**View on Migration: Translation tools for refugees**  
Features grantee Translation without Borders and their HIF funded project  
March 2016

**THE HUFFINGTON POST**

**Open Data Platform Lets Aid Groups Respond More Efficiently To Crises**  
Features former grantee UNOCHA's Humanitarian Exchange Language Initiative platform.  
May 2016



**Humanitarian Exchange**

**Special Edition focusing on Humanitarian Innovation**  
Co-authored by outgoing HIF Programme Manager, Kim Scriven  
April 2016



# THE HIF BOARD

The following members were active during the 2016 reporting period (September 2015 to September 2016).



**Andrew Clayton**

Social Development Adviser, Research and Evidence Division, UK Department for International Development

Andrew Clayton is a social development adviser working on agriculture, climate and the environment. He provides specialist social development advice on a wide portfolio of research and innovation programmes and also oversees the management of a number of funded programmes, including the HIF. He has wide experience of managing humanitarian operations in Africa and Asia, both with DFID and NGOs.



**Jim Maltby**

Senior Strategic Analyst, Defence Science and Technology Laboratory, Ministry of Defence

Jim Maltby provides long-term planning, science and technology insights, and strategy and policy advice to senior decision-makers in national security. His interests are in future changes in society and how this is shaped by adoption of technology from a socio-technical systems perspective. He is currently a RSA Fellow and a Fellow of the Institute of Civil Protection and Emergency Management (ICPEM).

**John Bessant**

Professor of Innovation and Entrepreneurship, University of Exeter

Originally a chemical engineer, Professor John Bessant has been active in research, teaching and consultancy in technology and innovation management for over 25 years. He currently holds the Chair in Innovation and Entrepreneurship at Exeter University where he is also Research Director.



**Samir K Doshi**

American Association for the Advancement of Science (AAAS) Science and Technology Policy Fellow, Global Development Lab, US Agency for International Development

Samir Doshi's work for the Digital Development Team and the Higher Education Solutions Network leverages academic-public-private partnerships and information and communications technology to build inclusive, resilient and sustainable solutions to global challenges. He has a background in development economics, systems ecology, engineering, anthropology and governance.



**Anab Jain**

Director and co-founder, Superflux and IoTACADEMY

Anab Jain is a designer, filmmaker and co-founder of Superflux, a foresight, design and technology innovation company. She is also the co-founder of the Internet of Things Academy (IoTA), a civic innovation and advocacy platform, and was recently appointed Professor of Industrial Design at the University of Applied Arts in Vienna. Anab's work has won numerous awards and has been exhibited around the world.



**Robin E Mays**

Research Fellow, Department of Human-Centered Design and Engineering, University of Washington

Robin has over 18 years' experience working in rapid response operations and logistics, and exploring the human and contextual factors that lead to effective humanitarian response. Her current research revolves around understanding contextualised and dynamic meanings of value and effectiveness within humanitarian work; the balance of structure and flexibility in effective rapid response; and the role of decision-making and implications for design of technology.



**Dan McClure**

Innovation Design Practice Lead, ThoughtWorks

Dan McClure has spent 30 years designing and applying innovation practices in both private and public organisations. As a pragmatic hands-on practitioner, he has confronted challenges at all stages of the innovation lifecycle, from initial scrappy entrepreneurship to driving cross-cutting change in global enterprises. He has worked with a range of humanitarian and public good organisations on advancing their use of innovation.



**Ben Ramalingam (Chair)**

Leader, Digital & Technology Research Group, Institute of Development Studies

Ben is a freelance consultant and writer specialising in international development and humanitarian issues. He is the author of 'Aid on the Edge of Chaos: Rethinking International Cooperation in a Complex World', which was published in January 2014. Ben currently holds the honorary position of Senior Research Associate at both the London School of Economics and the Overseas Development Institute, and he is a Visiting Fellow at the Institute of Development Studies, Sussex University.



**Kristin B Sandvik**

Senior Researcher, PRIO; Associate Professor, Department of Criminology and Sociology of Law, University of Oslo

Kristin is a legal anthropologist with a particular interest in the politics of logistics, technology, cyber security and innovation in the humanitarian space. Her doctoral work analysed UNHCR's refugee resettlement practices in Uganda, and she has also written about displaced women's organisations in Colombia. Kristin is the co-founder and previously the director of the Norwegian Centre for Humanitarian Studies.



**Nigel Snoad**

Product Manager – Verily, Alphabet

Nigel is currently helping fight mosquito borne disease through Alphabet's Debug Project. He was previously the product lead for Google's Civic Innovation, Elections and Crisis Response initiatives, providing information and tools to help people make better decisions and collaborate during emergencies. Before joining Google in 2011, Nigel led research and development on humanitarian systems at Microsoft, working on crisis solutions and responses in Afghanistan, Haiti and elsewhere.

# NEXT STEPS FOR THE HIF



Dr Anna Skeels  
HIF Programme Manager

The humanitarian system continues to face numerous strategic and operational challenges and is in urgent need of reform; the 2016 World Humanitarian Summit highlighted the role of innovation in the stimulation of transformational change. Operational since 2011 and firmly established as a pioneer and leader in humanitarian innovation, the HIF is well-placed to contribute to this global agenda.

## BUILDING ON OUR SUCCESS

We recognise humanitarian innovation as a complex challenge, requiring more than just financial resources to succeed – and this recognition will continue to inform how we work in 2017 and beyond. We will build on our core grants and thematic initiatives, while also developing our capacity to provide targeted innovation management support. And we will continue to work closely with our donors, partners and stakeholders to engage with and shape the systemic environment for innovation.

During 2017 we will issue two funding calls for the Development and Implementation stages of the innovation process, and continue to develop an open, more flexible facility for early-stage

innovation, covering the Recognition and Invention stages, and for our Diffusion-stage grants. We will also be reviewing our grant-making process to ensure that it is itself innovative and 'fit for purpose'.

Advised by our WASH Technical Working Group, we will proactively and creatively manage innovation in WASH, for example, through our challenge prizes and strategic field-testing of new products and processes. We will also continue working with our GBV Advisory Board to address the four challenge areas identified in the GBV Gap Analysis report, through tailored interventions and support for new and novel partnerships.

## EMBARKING ON OUR 'SECOND CYCLE'

Over the next three-year period we will be making a number of contributions to help shape the systemic environment for innovation. We will capture learning on innovation management in a ground-breaking guide, to be launched in early 2018. We will conduct research on the ethics of innovation in the humanitarian system. We will explore the limits and possibilities of community and user-led innovation. We will develop understanding of how to take promising innovations to scale. And we will support Elrha's new initiative, the Global Prioritisation Exercise, which aims to explore and identify priority gaps and needs for humanitarian research and innovation, and to map global capacity for support.

This next three-year period can also be seen as a 'second cycle' in the HIF's work, expanding beyond our role as a funding mechanism to provide direct support to grantees, reaching out beyond 'traditional' actors to improve access for southern NGOs, and progressing beyond pilot projects to find out what works in the journey to scale.

An external evaluation in 2017 will review and inform the further development of this approach and programme of work. Building, brokering and enhancing partnerships will be an increasingly integral part of our identity, complemented by a growing strand of outreach and engagement work to ensure that the HIF fosters productive links with the wider humanitarian community. Throughout, our shared goal and focus for innovation remains to improve the efficiency and effectiveness of humanitarian response.



Case Manager visiting recipient's house in Peru.  
Credit: MicroJustice4All

Humanitarian innovation Fund (HIF)  
Elrha

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The HIF is funded by

