ALNAP

ASSESSING THE PROMISE OF INNOVATION FOR IMPROVING HUMANITARIAN PERFORMANCE

A 10-YEAR REVIEW FOR THE STATE OF THE HUMANITARIAN SYSTEM REPORT

ALNAP is a global network of humanitarian organisations, including UN agencies, members of the Red Cross/Red Crescent Movement, NGOs, donors, academics, networks and consultants dedicated to learning how to improve the response to humanitarian crises.

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The views contained in this report do not necessarily reflect those of ALNAP Members.

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1 Introduction

While each *The State of the Humanitarian System* (SOHS) report since the 2012 edition has looked at innovation in the humanitarian system, the three- or four-year study periods used by the SOHS reports are too short to allow for a more considered exploration of the trajectory, trends and impacts of innovation practices in the system. To attempt to capture and reflect these more accurately, the 2022 edition dedicated additional resource to this complementary piece of research examining humanitarian innovation and its impact in more depth over the period 2011–2021.

In 2011, innovation was being widely embraced as a potential answer to many of the humanitarian system's performance challenges. Organisations argued that investing in innovation systems similar to those in the private and development sectors would deliver greater efficiency and effectiveness and transform the way the humanitarian system operated.

The profile of humanitarian innovation has grown since then.[1] Millions of dollars have been invested in thousands of innovations, hundreds of organisations and tens of funds. This report explores the contribution of these innovations to the performance of the humanitarian system through three questions:

1. Over the past decade, what key trends and events have shaped humanitarian innovation?
2. What types of impact do humanitarian innovation funders aim for, and how do they measure impact?
3. What is the evidence that investments in humanitarian innovation have led to improvements in humanitarian action?

We begin with a brief description of the data and literature that we used. In Section 3, we explore the key events and trends that shaped humanitarian innovation over the last decade, with a particular focus on the study period of 2018–2021. In Section 4 we unpick innovation funding: who gets funded, what innovations have been supported, where, why, and how is funding and support provided. Section 5 outlines the different ways in which innovation has contributed to humanitarian performance. A brief discussion at the end explores the implications of the trends and outcomes that have been identified.

> **Millions of dollars have been invested in thousands of innovations, hundreds of organisations and tens of funds.**

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1   In 2022, Elrha launched a global prioritisation exercise that aimed to track funding flows for research and innovation. The global mapping report finds that the volume of research and innovation outputs has increased gradually since 2017. See (Issa et al., 2022) www.alnap.org/help-library/who-funds-what-humanitarian-research-and-innova¬tion-funding-flows-analysis

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2 Methodology

Overview

The methodology included four components.

Desk review

The research began with a desk review of 45 papers that highlighted the major events and trends that have shaped humanitarian innovation in the past decade. We identified papers through online research using combinations of key terms: 'humanitarian innovation' and 'impact'; and 'humanitarian innovation' and 'evidence' or 'measure'. We used a snowball search to include footnotes and bibliographies from key papers. Data from an additional 15 evaluations identified in the SOHS evaluation review was then added into the analysis. The documents were reviewed using a structured framework based on the research questions.

Interviews

We conducted in-depth interviews with eight innovation funds and the leaders of an additional six innovation initiatives based inside UN agencies and NGOs. Interviews were conducted using a semi-structured interview template and lasted approximately one hour. All interviews were audio recorded and transcribed verbatim by the research team.

Review of funder data

Eight innovation funders generously shared their data on the innovations they have funded, including grant details and monitoring and evaluation data. We augmented their data using desk-based searches of publicly available information on the grantees. We constructed a database of 540 innovations with 13 data points:

1.   Innovator
2.   Country of the grant implementation
3.   Sector
4.   Type of grant
5.   Type of innovation
6.   Year funding ended
7.   Award amount
8.   Status of the project
9.   Duration of the project
10.   Whether the project exists today
11.   Whether the project expanded into other contexts
12.   The types of monitoring evidence gathered
13.   Type of evaluation (including evaluation reports)

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Advisory group and case studies

The eight innovation funders formed an advisory group to give feedback and input on the report. They identified case studies to explore the emerging themes in more depth. Interviews were conducted with funders and innovators to explore: what the innovation does; how the innovator tried to measure success/impact; what the evidence showed; and lessons learnt for other innovators. Interviews were conducted using a semi-structured interview template and lasted approximately one hour. All interviews were audio recorded and transcribed verbatim by the research team. The interviews were supplemented by additional documents including reports from the innovators, innovation websites and online/journal articles.

Limitations

There were three principal limitations in this study. The first was that the findings in the report have a strong emphasis on innovation funding from the global north, where most funders are based. Similarly, the majority of publicly available documents and research were published by people from Europe and North America.

The second limitation was that there were significant gaps in the datasets, particularly in information about whether funded innovations still exist, whether they had been adopted in new contexts, and their impact. Efforts to develop datasets that allow funders to track the impact of their initiatives are still nascent.

The third, related limitation was that there were few documents or resources that provided any analysis of the collective impact of innovation initiatives within the humanitarian sector. We hope that this report helps to fill that gap.

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Interviews were conducted with funders and innovators to explore: what the innovation does; how the innovator tried to measure success/ impact; what the evidence showed; and lessons learnt for other innovators.

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3 Events and trends

Getting started

The term 'humanitarian innovation' gained prominence in the sector in 2009 with the publication of an ALNAP report entitled 'Innovations in International Humanitarian Action'. The paper argued that the sector had focused on maintaining usual practices, policies and norms in learning and accountability by concentrating on incremental improvements.[2] It used evidence from five innovation case studies to suggest that the humanitarian sector could break out of this mould by prioritising innovation and risk-taking in policy and practice.

In subsequent years, donors began to express more interest in innovation. At USAID, the 2012 Annual Program Statement issued an 'invitation to the business community' to develop public–private partnerships that would address strategic priorities including food insecurity, climate change and global health.[3] In the UK, the 2012 Humanitarian Emergency Response Review (HERR) appealed to the (then) Department for International Development (DFID) and the wider sector to transform its approach to humanitarian response through innovation, resulting in a series of commitments.[4]

At the same time, a number of innovation initiatives had gained prominence through major humanitarian responses. In particular, innovations in cash and voucher assistance (CVA) and digital data collection were adopted during the responses to the Haiti earthquake (2010), Cyclone Haiyan (2013), and the Nepal earthquake (2015). For example, in 2013, CVA constituted 40% of humanitarian response during the response to Cyclone Haiyan,[5] although this figure fell in subsequent emergencies.

From these beginnings, investments in innovation slowly increased. In our review of documents and interviews, four key themes stood out as shaping the development and application of innovation in the humanitarian space:

1. The development of the 'ecosystem' approach/model.
2. Investment in capacities.
3. A focus on technology to drive organisational improvement and competitive advantage.
4. Responsibility and ethics.

> In our review of documents and interviews, four key themes stood out as shaping the development and application of innovation in the humanitarian space.

2   (Ramalingam, et al., 2009) www.alnap.org/help-library/innovations-in-international-humanitarian-action-alnaps-8th-review-of-humanitarian

3   (USAID, 2020) www.alnap.org/help-library/global-development-alliance-annual-program-statement-partnership-opportunities

4   (DFID, 2012) www.alnap.org/help-library/promoting-innovation-and-evidence-based-approaches-to-building-resilience-and-0

5   (Brown, 2015) www.alnap.org/help-library/humanitarian-exchange-63-special-feature-the-typhoon-haiyan-response

Development of an innovation ecosystem

ALNAP's early research on humanitarian innovation focused on the ways individual agencies could develop their own internal innovation capacities.[6] However, by 2014 people were recognising the value of an innovation 'ecosystem': a network of different types of funding and support initiatives that could collectively drive a more agile system. This was crystallised by three factors:

1. A recognition that piloted innovations were stalling and needed to be supported to scale.[7]
2. A decision in late 2014 to make innovation one of the four main streams of the World Humanitarian Summit (WHS), which bought innovation thinkers into closer proximity to the central policy processes of the humanitarian system.
3. Research that articulated the role of an innovation ecosystem for the sector.[8]

> A wide variety of events, research, funding and initiatives were launched between 2009 and 2016, all focused on promoting humanitarian innovation.

A wide variety of events, research, funding and initiatives were launched between 2009 and 2016, all focused on promoting humanitarian innovation. Notable initiatives included Elrha's Humanitarian Innovation Fund (HIF, established in 2011);[9] the Humanitarian Evidence and Innovation Programme (HEIP, established in 2013);[10] the 2014 and 2015 OXHIP conferences; the Global Alliance for Humanitarian Innovation (GAHI); the Global Humanitarian Lab (GHL); and the Global Innovation Exchange (GIE). Together, these initiatives signified the emergence of a nascent innovation ecosystem that convened organisations at different levels, provided funding and support for innovators, and facilitated connections with different parts of the sector.

Similar types of initiatives were also developed at country level in a number of humanitarian settings. For example, UNICEF opened its first lab in Kosovo while World Vision launched a Nepal Innovation Lab in Kathmandu in the aftermath of the Nepal earthquake. Today, Uganda hosts several local and international innovation initiatives that support

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6   (Ramalingam, et al., 2009) www.alnap.org/help-library/innovations-in-international-humanitarian-action-alnaps-8th-review-of-humanitarian

7   (McClure and Gray, 2015) www.alnap.org/help-library/scaling-innovations-missing-middle

8   (Ramalingam et al., 2015) www.alnap.org/help-library/strengthening-the-humanitarian-innovation-ecosystem

9   (Bessant et al., 2014) www.alnap.org/help-library/innovation-management-innovation-ecosystems-and-humanitarian-innovation

10   A seven-year £48 million programme aimed at improving research and development (R&D) activities in the humanitarian system and the need for innovation to identify and help overcome the methodological and operational barriers to delivering humanitarian interventions and programming in fragile and conflict-affected contexts. Innovations that have been funded by HEIP through the HIF include the World Food Programme's (WFP) Mobile Vulnerability Analysis and Mapping (mVAM) innovation, which assists WFP in collecting information through SMS, live telephone calls and Interactive Voice Response, contributing to its food insecurity response in humanitarian contexts. HEIP has also funded five innovations through the Humanitarian Education Accelerator (HEA).

innovators working in the humanitarian sector as well as on development and technology initiatives more broadly. The significant number of projects funded in Uganda (see Chapter 4) was in part due to this network of initiatives, which has fostered an environment for testing new ideas.

Unfortunately, the enthusiasm for innovation initiatives began to wane in the years after the World Humanitarian Summit, with some initiatives closing down, including the GHL, GAHI and the Australian DFAT's Innovation Exchange.

Investment in capacities

The desire to build an innovation ecosystem was partly a recognition that funding alone was insufficient to address the challenges of scaling successful pilots. Many innovation initiatives therefore invested in innovation support for mentoring, technical support, brokering partnerships and helping innovators identify sustainable financing models.

Broadly speaking, two models emerged for providing this support. In the first, innovation units or labs were established within many major UN agencies (including WFP, UNICEF and UNHCR) and in several large NGOs, including MSF and IRC (Airbel Labs). These focused on building innovative capacity within these organisations. This gave them space to experiment, often using funding and monitoring frameworks that were much more flexible than those used for traditional aid programmes. However, in many cases it also meant that the innovations were kept at arm's length from core programmes. Few of these units had the capacities and networks to scale innovations and this siloing arguably exacerbated challenges in getting the innovations adopted more widely.

The second model was to invest in hubs that were resource centres for 'new ways of working' and that could service multiple actors in the system. These hubs were seen as a way of fostering innovative initiatives by local innovators as well as within large NGO headquarters. For example, the Nepal Innovation Lab was established in 2015 in collaboration with World Vision as a space for local innovators to develop and test ideas to address local problems. Innovations such as Field Sight – a remote mobile-based technology used in data collection – were developed at this lab with support from UNOPS in 2016. This capacity is explored in Chapter 4.

Alongside investments in capacities, there was also a trend towards an ever tighter focus in funding calls in order to make progress against specific challenges. The HIF and Humanitarian Grand Challenge (HGC), for example, supported funding calls in historically under-financed programme areas such as gender based violence and communicating with communities.[11] This trend has produced more investment for some sectors and themes – such as mobile technology and education – than for others.

> **The desire to build an innovation ecosystem was partly a recognition that funding alone was insufficient to address the challenges of scaling successful pilots.**

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11   (Daar et al., 2018) www.alnap.org/help-library/grand-challenges-for-humanitarian-aid

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A focus on technology to drive organisational improvement

Many of the innovation activities initiated by humanitarian organisations themselves focused on how new technology could increase their organisational reach and efficiency. Common technologies included smartphone apps, remote sensing platforms, satellite imagery analysis, drones, digital data collection and analytics (see Box 1), experiments with blockchain technology and the use of biometrics to register and track beneficiary assistance through iris scans and fingerprinting. Agencies began using SMS, social media and chat bots for rapid needs assessments, complaints mechanisms and to communicate with affected people.[12] These digital solutions helped make data collection faster and more reliable but posed new risks around consent and data protection.

Many of the new technologies focused on making cash transfers safer and more transparent. For example, in response to the influx of refugees in Uganda, mobile network operators MTN and Airtel partnered with INGOs including Danish Church Aid, Mercy Corps and the International Rescue Committee to deliver digital cash to refugees.[13] Similarly, the WFP implemented the Building Blocks project from 2018 to administer vouchers using blockchain technology to more than 100,000 Syrian refugees in Jordan.[14] The platform provided a record of every transaction made, which eased reconciliation processes, reduced third party costs and saved $40,000 in transaction fees per month.[15]

The search for technological solutions was accompanied by a search for alternative business, funding and partnership models.[16] The partnership between the WFP and MasterCard was a prominent example, built on using digital innovation to change the way WFP delivered cash assistance.[17]

> **Many innovation activities focused on how technology could increase organisational reach and efficiency.**

Responsible innovation

The final theme identified in our research was responsible innovation. From the outset, many humanitarians were concerned about how to ensure innovation initiatives were conducted ethically and in ways that minimised risks. The 2015 OXHIP conference developed a set of Draft Principles for Ethical Innovation that were discussed during the WHS process, and these were used as a foundation for future work on ethics, including Elrha's

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12   See for example U-Report which has been adopted by UNICEF in 68 countries. www.unicef.org/innovation/U-Report

13   (Heaslip et al., 2019) www.alnap.org/help-library/innovations-in-humanitarian-supply-chains-the-case-of-cash-transfer-programmes

14   (Coppi and Fast, 2019) www.alnap.org/help-library/blockchain-and-distributed-ledger-technologies-in-the-humanitarian-sector

15   Ibid.

16   (Sandvik, 2017) www.alnap.org/help-library/now-is-the-time-to-deliver-looking-for-humanitarian-innovation%E2%80%99s-theory-of-change

17   www.wfp.org/partners/mastercard

Humanitarian Innovation Guide[18] and Ethics Toolkit.[19] Several publications also highlighted the different types of ethical challenges that arise in innovation processes, including a set of blogs published by the DEPP labs.[20] The work on ethics has covered a broad range of issues, including:

- partnerships with local innovators and concerns about passing on financial and other risks
- appropriate financial models and ethical concerns with private sector partnerships
- risks associated with experimenting during humanitarian operations
- risks associated with technology and personal data.

Hard lessons were learned during several high-profile failures in data protection.

The emphasis on collaboration with private sector actors also raised concerns about conflicts of interest and led to discussions about the need to regulate non-traditional actors' engagement with humanitarian delivery. Some innovation initiatives, such as MSF's Manson Unit, decided that they would only work with private sector organisations through their corporate and social responsibility initiatives. Others, such as Innovation Norway, argued that working with the private sector on a pro-bono basis only limits impact,[21] and they published frameworks for collaboration with private sector actors.[22]

Hard lessons were learned during several high-profile failures. These included the RedRose data breach, in which personal data from recipients of humanitarian aid was downloaded,[23] and criticism of the WFP's partnership with CIA-linked software firm Palantir.[24] These led to a range of academic (and other) publications specifically focused on digital risks and principles, and remains a live topic for humanitarians today.

Interviews with funders in 2022 suggested that future trends for innovation funding would include funding more local solutions, brokering partnerships between humanitarian and other actors, and investing in systems innovations.

18   higuide.elrha.org/ethics/

19   (Krishnaraj et al., 2021) www.alnap.org/toolkit-ethics-for-humanitarian-innovation

20   (Sandvik, 2019) www.alnap.org/help-library/starting-the-ethical-journey-reflections-on-ethical-issues-experienced-by-depp-labs

21   (Olsen and Archer, 2020) www.alnap.org/help-library/humanitarian-organisation%E2%80%99s-use-of-pro-bono-services-in-innovation-projects

22   www.innovasjonnorge.no/no/subsites/hipnorway/tools-and-resources/

23   (Cornish, 2017) www.alnap.org/help-library/new-security-concerns-raised-for-redrose-digital-payment-systems-0

24   (Raymond, et al., 2019). www.alnap.org/help-library/opinion-the-wfp-and-palantir-controversy-should-be-a-wake-up-call-for-humanitarian-0

> **Repeated SOHS editions noted increased investment and activity in innovation while flagging that widespread impacts were yet to be seen.**

4 Areas of humanitarian innovation

Over the last decade, repeated SOHS editions noted increased investment and activity in innovation while flagging that widespread impacts were yet to be seen. The research for this study identified four areas of innovation activity (see Figure 1). Within their organisations, humanitarians support innovations that improve operations or directly support programmes. Outside of these organisations there are a growing number of local and non-traditional humanitarian innovation actors, as well as more traditional humanitarian organisations providing innovations to other humanitarian organisations (H2H). The boundaries between these distinctions can be blurry, and some innovations will be combinations of multiple areas. Nevertheless, this chapter explores these four areas of innovation and how they contribute to the overall performance of the humanitarian system.

❚ *Figure 1: Areas of innovation*

- Operational innovations
- Programme and enabling innovations
- Local and non-traditional actor innovations
- H2H innovations

'Innovation contributes in the obvious way, which is providing new solutions and more effective ways of delivering aid, hopefully improving outcomes for people affected by crisis. Providing better water filters, better cookstoves, better ways of supporting survivors of sexual violence; those kinds of things. And, obviously, in rare cases, providing radical innovations, like changing the humanitarian supply chain.'

Innovation funder

Operational innovations

When evaluations note the contribution of innovation to an agency's performance, they are often describing the adoption of digital innovations for the purpose of advancing that agency's operating capacity.

Operational innovations are generally implemented in larger agencies and funded through core funds and overheads. They include the adoption

of technologies such as project management information systems (PMIS) and digital supply chain solutions. These have moved many humanitarian organisations away from inefficient uses of spreadsheets and paper-based systems towards improved processes for managing and using data.

An example of an early operational innovation was the development of Helios, a logistics tracking system developed by Oxfam with support from the Fritz Institute. The system was designed to make humanitarian supply chains more efficient, and was trialled by a number of organisations to support their logistics operations. Another early example was World Vision's PMIS, Horizon, a global database to manage all of its projects. Many humanitarian agencies have implemented similar PMIS, logistics, finance and HR innovations. These have created efficiency gains that can be tracked through benefits-tracking methods, but have not been reported in the public domain.

These innovations were most powerful when they linked 'back-end' operations to frontline humanitarian work. The WFP, for example, developed blockchain technology to make its voucher-based cash transfers more efficient, transparent and secure, with the aim of improving collaboration across the humanitarian system.[25] The Building Blocks project used blockchain technology to build a full, in-house record of every transaction that occurs at each retailer. In 2018, the WFP reported that the project was able to manage over $11 million in entitlements and hundreds of thousands of transactions. The technology has eased the reconciliation process, and the WFP reports a reduction in 98% of financial transaction fees through using purely digital wallets.[26]

An evaluation of the WFP's use of technology 2016–2021 reported it had invested considerably in digital technologies to support the planning, design, targeting, implementation, monitoring, management and security of its operations. It included 91 corporate solutions and systems used for executing operations, managing finances and administration, managing staff, and facilitating partnerships, among other functions. The evaluation concluded that the use of digital technologies and data 'improves the efficiency of operations through savings in staff time thanks to the automation of routine tasks, simplified and less error prone distribution of assistance enabled by digital registration, improved supply chain management and reductions in monitoring costs, among other things'.[27]

However, despite improvements, many organisations still face significant challenges in collating and using their data. A 2019 evaluation of information management approaches at UNHCR described how it had adopted several innovative technologies for data collection, processing,

In 2018 the WFP reported a reduction of

98%

of financial transaction fees through using purely digital wallets.

25   (Coppi and Fast, 2019) www.alnap.org/help-library/blockchain-and-distributed-ledger-tech-nologies-in-the-humanitarian-sector

26   (Zambrano et al., 2018) www.alnap.org/help-library/connecting-refugees-to-aid-through-blockchain-enabled-id-management-world-food

27   (Vinick, 2022) www.alnap.org/help-library/strategic-evaluation-of-wfps-use-of-technolo-gy-in-constrained-environments

analytics and visualisation. However, it found that the organisation had a largely distributed approach with multiple systems for financial, human resources and operational data. The evaluation concluded that 'UNHCR is data rich, but the organization does not fully optimise this data by bringing together the different types collected to perform deeper analysis at either the operational level or at the organizational level.' Anecdotal evidence suggests that many organisations suffer from similar challenges.

Overall, data-driven innovations have been found to improve organisational efficiency, but require agencies to put in place appropriate processes to optimise the use of data and avoid wasted effort.

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Box 1: Digital data gathering (DDG)

Almost imperceptibly, digital data gathering has become standard practice in the humanitarian sector. It is used in numerous technical sectors and for monitoring and evaluation (M&E) processes across the humanitarian sector, creating significant efficiency gains for humanitarian assessments, accountability, research, evaluation and project monitoring.

Processes that used to be based upon paper and pens, spreadsheets and innumerable hours of labour have gone through a digital transformation. Errors have been reduced, targeting has improved, and hours spent writing, sorting, inputting, re-entering and analysing data have been consigned to history or dramatically cut. All of this has improved efficiency and effectiveness across the humanitarian sector.[28]

Scaling DDG

DDG was enabled by the advent of handheld personal digital assistants (PDAs) in the late 1990s. These PDAs were first deployed in a significant way in the Asian Tsunami Response in 2005. They were clunky and had limited interoperability; data usually needed to be uploaded from PDAs into .csv files over a cable.

There was a continuing growth in the use of such devices with associated software through the late 2000s. At the time the more digitally conscious humanitarians raised concerns about how many devices frontline staff would need to carry for each of their different tasks. People envisioned multiple PDAs dangling from toolbelts. However, even as humanitarian workers were grappling with this issue, solutions were being developed to the problems of PDA interoperability, resilience and cost.

28   Ibid.

Smartphones

Smartphones that could run numerous applications opened up the possibility of humanitarian workers using one piece of hardware for multiple DDG apps. The high cost and poor durability of early smartphones meant they weren't immediately adopted, but after the first Android phone was released in 2008 it was only a matter of time before mobile phones and tablets reduced in price. The race was on for the first phone or tablet that cost less than US$50. It wasn't too long before this price point was hit. In many ways this solved the second question of durability. At US$50 per device, phones and tablets became replaceable, if not repairable. It was now within the grasp of many humanitarian agencies to implement DDG at scale.

Free open-source software

The cost of DDG was determined not only by the price of the hardware, but also by the price and ease of use of the software. The creation of Open Data Kit (ODK) open-source software for DDG helped remove this cost. Initially a sabbatical project, ODK was later hosted by the University of Washington and became a networked community-supported platform that other providers used to support humanitarian agencies. Whether large established outfits such as Kobo Toolbox or smaller entities, such as SMAP, there was a growth in H2H organisations providing and using DDG software services based on ODK.

Connectivity, interoperability and accessibility

The efficient use of DDG requires connectivity between devices so that data can be transferred, collated and analysed. Over the 2010s connectivity solutions were emerging, with improved mobile connectivity in many countries, the deployment of emergency Wi-Fi networks for emergency response in others, and the widespread use of technologies such as Bluetooth to connect mobile devices to each other and to computers. The advent of the Cloud also unshackled data from single, physical servers, enabling the uploading of data more efficiently and cost effectively.

Around 2013, JSON APIs became more commonly used as a move away from locked-down interfaces towards more flexible and open interfaces that were easier to create and change. This enabled the much easier connection of different software systems. There was no longer a significant technological challenge in exchanging datasets between different systems. This enabled different data captured on different software platforms to flow. The data pipes were now connected in a way that was flexible, and was not costly to change. The last major technological piece of the jigsaw was in place to allow DDG to be used at scale.

> **There was no longer a significant technological challenge in exchanging datasets between different systems.**

It wasn't all about the technology

While technology was important, the alignment of user and gatekeeper incentives were the key drivers that allowed DDG to scale in the sector:

1. *DDG built on existing systems and processes.*[29]
   DDG, particularly in the field of M&E, was the digitisation of existing assessment, research and M&E processes. Enumerators, researchers and M&E staff still spent the majority of their time on the fundamental design, data collection and analysis processes. Only tiny proportions of their time were needed for digitising those processes and methods. The innovation was therefore easily adoptable, and was not threatening for the vast majority of its users.

2. *Gatekeepers and those with power gained from DDG.*
   While those in positions of power in humanitarian agencies were interested in the efficiency gains of DDG, its speed was even more persuasive. Humanitarian responses were traditionally data deserts, and the ability to get assessment data quickly created the ability not only to make better operational decisions, but also to put together more accurate and evidence-based proposals, and get them out of the door to donors quickly.

> **The ability to get assessment data quickly created the ability not only to make better operational decisions, but also to put together more accurate and evidence-based proposals, and get them out of the door to donors quickly.**

Programme and enabling innovations

The second area of humanitarian innovation (Figure 1) includes programme innovations that address a challenge in a particular humanitarian sector, as well as those that are sector-agnostic.

There are hundreds of examples of **programme innovations**. In nutrition, for example, the community-based management of acute malnutrition (CMAM) has been scaled to improve the management of acute malnutrition. In education, a number of edtech solutions, such as Can't Wait to Learn, have enabled children who aren't accessing formal education due to displacement, violence and conflict to learn to read, write and count through games.

Within the dataset collected for this study there was a particularly wide array of examples of sector innovations contributing to safer and more appropriate water, sanitation and health (WASH) solutions. Funders have invested in research and analysis to understand the gaps and priorities in the WASH sector and then targeted funding at solutions that help address these problems. These included urban waste management, simpler access to potable water and improving latrine design.

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29   Read more about this at Understanding the Existing Ecosystem, one of the Digital Development Principles.

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Sector innovations are often most easily adopted because they are updates on older ways of working and can be absorbed into organisations' existing ways of working and accessing funding, i.e. through sector-based project grants.[30]

Enabling innovations are similar, but they are sector-agnostic. They often provide the potential for a significant step change in how humanitarian programmes are delivered. Cash provides the strongest evidence for how an enabling innovation can contribute to the effectiveness of humanitarian operations. Evidence on cash and voucher assistance (CVA)[31] finds that it reduces operational costs, stimulates local markets and provides aid recipients with the flexibility to purchase the goods and services they need.[32] The evidence of cash's impact has seen humanitarian actors consolidate commitments to increase the use of CVA, including through the Grand Bargain commitments and the promotion of regional and country cash working groups.[33] Today, CVA constitutes 20% of humanitarian aid, up from 8% in 2015.[34] Cash spending looks set to increase further, with donors and INGOs committing to increase their delivery of aid through cash in the coming years.

The approaches used for Communicating with Communities (CwC) over the last two decades also illustrate the role that can be played by enabling innovations in products, services and processes. These CwC approaches began with the development of complaints boxes in the early 2000s, and progressed to a wide variety of radio, SMS, mobile-based and social media applications to improve engagement. Recent innovations in this area include UNHCR's Refugees Consultation Forum in Sudan,[35] and technologies designed to speed up the time taken to respond to feedback. When implemented with the right organisational processes, innovations in CwC can increase the speed of communication and improve feedback loops.

> **Evidence on cash and voucher assistance finds that it reduces operational costs, stimulates local markets and provides aid recipients with the flexibility to purchase the goods and services they need.**

30   The Global Prioritisation Exercise analysis of financial flows indicates that the majority of R&I activities are funded as part of the bigger humanitarian envelope as part of a humanitarian project cycle. The sectors with most innovation initiatives/outputs were logistics, disaster management and Health. See (Issa et al., 2022) www.alnap.org/help-library/who-funds-what-humanitarian-research-and-innovation-funding-flows-analysis

31   CVA incorporates: unconditional cash transfers; conditional cash transfers that include requirements on how the cash is spent; vouchers that can be exchanged for goods or money; and cash for work which is payment in lieu of a service rendered by the aid recipients.

32   (Mikulak, 2018) www.alnap.org/help-library/cost-effectiveness-in-humanitarian-work-cash-based-programming

33   According to CaLP, there is one global CWG, six regional CWGs and 49 country CWGs.

34   (Jodar et al. 2020). www.alnap.org/help-library/the-state-of-the-world%E2%80%99s-cash-2020

35   (Baker and Elawad, 2018) www.alnap.org/help-library/independent-evaluation-of-the-unhcr-south-sudanese-refugee-response-in-white-nile-state

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Over a similar time period, innovations in vouchers and biometric cards have reduced error and fraud in cash, voucher, food and non-food items distributions, have drastically reduced the time that people affected by crisis spend queuing for assistance, and have made people's access to their entitlements much more secure.

Overall, evaluations of programme and enabling innovations have shown that they can improve the quality, dignity and effectiveness of individual humanitarian programmes. However, there is little research to show the extent to which these innovations have influenced performance at scale.

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Evaluations of H2H organisations show that they can provide traditional agencies with new capabilities and address humanitarian needs that had previously been largely ignored.

H2H innovations

A third main area of innovation is the 'humanitarian to humanitarian' (H2H) innovations being developed and delivered by humanitarian organisations providing services to other humanitarian agencies. The emergence of the H2H Network[36] is a reflection of the role of these innovative small organisations. Examples include: Translators Without Borders,[37] which is aiming to improve the use of language in CwC; ACAPS, which provides shared context analysis; and Ground Truth Solutions, which streamlines community feedback.

As an example, the Translators Without Borders platform connects humanitarian agencies with language professionals to make health, humanitarian response and human rights information available in local languages. The platform was first piloted in 2011 in Nairobi with a focus on providing language and translation services and coordination. It was then deployed in the West Africa Ebola outbreak in 2012 and the Nepal Earthquake in 2015, where it began to collect data on the information gap created when humanitarians rely only on world languages. It now provides language services through a community of over 100,000 linguists in 148 countries.[38]

There have been only a small number of evaluations of the performance of H2H organisations. These show that they can provide traditional agencies with new capabilities and address humanitarian needs that had previously been largely ignored.

> **Box 2: Challenges for H2H innovations**
>
> Innovations that benefit multiple different actors are harder to scale, and the H2H innovations faced particular challenges:

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36   https://h2hnetwork.org/

37   Translators Without Borders is now known as Clear Global: https://clearglobal.org/

38   Ibid.

> Interviews conducted for the SOHS highlighted the role of small local entrepreneurs in food and WASH supply chains from Bangladesh to Ethiopia.

- Many were focused on **enabling innovations that were not aligned to a specific sector.** It is a challenge to access regular humanitarian funding for innovations that are not sector-specific and this has led to a number of high-profile closures of impactful H2H innovations including Frontline SMS and Disberse.

- H2H innovations often addressed **problems not currently addressed in mainstream humanitarian action.** Translators Without Borders,[39] for example, invested significant time, energy and financial resources in demonstrating the common-sense case that communicating with people in their local languages improves the effectiveness of humanitarian operations. They continue to advocate to their partners and donors to build funding for language translation into their normal programme budgets. Because the humanitarian system is already chronically underfunded, absorbing new needs and challenges requires a Herculean effort and an awful lot of luck. This is a significant reason behind the lack of truly transformative innovations scaling within the sector.

- The H2H organisations themselves often trialled **business model innovations** - such as Translators Without Borders' subscription model - that were unusual and often untried in the sector. Again, the sector's prime funding model of grants is extremely resistant to business model innovations that can flourish.

Local innovations and non-traditional actors

Finally, there are lots of examples of businesses, social enterprises, CSOs and universities that have traditionally worked in the development sector, social impact sector or private sector, but are seeding and delivering innovations for humanitarian action. These **innovations from non-traditional and local actors** include scalable technologies such as Dimagi, Ushahidi and Mpesa as well as smaller-scale entrepreneurial activities, from refugees in Syria and Kakuma Camp, Kenya, addressing problems in supply chains to local innovators addressing natural hazards risks through the bottle-net lifejacket in the Philippines.

Individual entrepreneurs contributed to the efficiency and timeliness of humanitarian operations globally. Interviews conducted for the SOHS highlighted the role of small local entrepreneurs in food and WASH supply chains from Bangladesh to Ethiopia. The role of refugee innovators was also highlighted in an important 2015 paper that told the story of how refugees have innovated to help meet the needs of humanitarian agencies, for example by responding to the increasing demand for food from the WFP.[40]

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39   Ibid.

40   (Betts, et al. 2015) www.alnap.org/help-library/refugee-innovation-humanitarian-innovation-that-starts-with-communities

More recently, the DEPP Labs supported over 100 innovators from Bangladesh, Kenya, Jordan and the Philippines to develop prototype innovations that would address the needs of people affected by crisis. This cohort included a team in the Philippines that developed a simple personal floating device, made out of local waste materials, which could be used during regular flooding. Two years on, the team continues to distribute the personal flotation devices and reports that their product has considerably reduced plastic waste in the community and created job opportunities for women. A second team, a farmers' cooperative from Marsabit in Northern Kenya, developed a nutritious food brick that can be stored for long periods to sustain livestock during droughts.

On a larger scale, there are also several **start-up innovations** in this area. For example, Lumkani is a social enterprise with the aim of reducing the loss of life and property caused by slum fires across the world. Their system responds by identifying fires, alerting people through an alarm and SMS system, and enabling people to 'reduce the loss of lives and property by fighting the fire collectively as a community and removing valuable possessions and family/friends from harm's way earlier in the incidence.'[41] It piloted the innovation in several countries before receiving innovation funding to apply it to informal settlements in humanitarian contexts.

A similar example is the Ushahidi platform, an open-source crisis map developed in response to incidents of violence in the post-electoral period in 2007 in Kenya. The map was developed by a start-up launched during the violence. It collated all available data, including text messages, online reports and social media posts, and a cohort of international volunteers converted the data into an accessible crisis map. The tool was later used by humanitarians in the Haiti response. It provided quick access to information while humanitarian agencies were still struggling to source information, although it was also criticised for issues around coordination, data, technology, accuracy and credibility, exposure and privacy. The Humanitarian OpenStreetMap Team (described in Chapter 5) addressed some of these mapping challenges and have since secured funding from Audacious.[42] This is a part of a wider trend of non-traditional donors funding innovations that struggle to attract the interest of traditional donors.

Local innovations and those supported by non-traditional donors have the potential to transform how the sector works, by prioritising new types of challenges and introducing completely new models of aid delivery. However, so far they have tended to be small in scale and have had limited interaction with the formal system.

> **Local innovations and those supported by non-traditional donors have the potential to transform how the sector works.**

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41   Kantar (2020) Endline evaluation of the Lumkani service in informal settlements in Capetown South Africa. Not published. p.43

42   www.audaciousproject.org/grantees/humanitarian-openstreetmap-team

5 Funder data

This section outlines the What, Where, Who and How of humanitarian innovation funding. It draws on an original dataset collated from eight humanitarian innovation funders (see Box 3) who supported 540 innovations between 2012 and 2021. It outlines the types of funding, where funds were spent, and what is known about the success and learning that emerged from the innovation projects.

> A variety of innovation-specific funding mechanisms have launched over the last decade.

Types of innovation funding

Chapter 3 explored different areas of innovation and touched on three different types of funding that have supported these innovation areas:

- Many of the largest organisations – including WFP, UNHCR, ICRC and MSF – have **internal innovation funding**, which their teams can access to develop ideas. For example, MSF-Stockholm and the Manson Unit have used this for health innovations, from developing a predictive algorithm for the incidence of malaria in South Sudan to using storytelling for case identification in Nigeria.[43] Similarly, UNHCR has funded a mixture of sector and operational innovations at the country-office level, from refugee food festivals to new methodologies for integrating qualitative monitoring indicators.[44]

- A variety of **innovation-specific funding mechanisms** have launched over the last decade. Most of these are based in the US or Europe, although several have developed branches in other countries. The majority of these funds target programmatic innovations in specific sectors. These funding mechanisms are explored in this chapter.

- Finally, there has been a rise in **non-traditional funders** engaging in humanitarian innovation in recent years. Private sector partners have provided bilateral support for innovation within the large humanitarian agencies. Examples include the WFP and Mastercard Foundation collaboration on cash programming, and the IKEA Foundation's partnership with UNHCR. Others have supported local or non-traditional innovators addressing problems that are not normally seen as core to humanitarian operations. This now accounts for the greatest component of spending on humanitarian research and innovation.[45]

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43   Key Informant Interview.

44   (Tanner and Mwenda, 2020) www.alnap.org/help-library/evaluation-of-un-hcr%E2%80%99s-innovation-fund

45   (Issa et al., 2022) www.alnap.org/help-library/who-funds-what-humanitarian-research-and-in-novation-funding-flows-analysis

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Box 3: Funders included in this study

This chapter looks at the portfolios of eight different innovation-specific funding mechanisms serving the humanitarian sector.

ADRRN Tokyo Innovation Hub (ATIH) was established in 2017 by the Asia Disaster Reduction and Response Network (ADRRN) to promote innovative activities within its member NGOs and institutionalise innovation within the network.

Creating Hope in Conflict: A Humanitarian Grand Challenge is a partnership including the US Agency for International Development (USAID), the UK Foreign, Commonwealth & Development Office (FCDO), the Ministry of Foreign Affairs in the Netherlands and Global Affairs Canada, with support from Grand Challenges Canada. It supports innovations in four areas: healthcare, energy, lifesaving information and water and sanitation.

The **Disaster and Emergencies Preparedness Programme (DEPP) Labs** supported locally led innovations in strengthening disaster preparedness. The programme received a two-year (2017–2019) £10 million grant from UK Aid, which supported projects in agribusiness, pharmaceutical solutions, tech platforms for disaster management, low-cost housing, early warning devices and disaster education tools in Bangladesh, Jordan, Kenya and the Philippines.

The Innovation Working Group within the **Dutch Relief Alliance (DRA)** aims to stimulate innovation and continuous learning across Dutch organisational structures through funding, mentoring, joint responses and shared learning.

Humanitarian Education Accelerator (part of Education Cannot Wait) aims to provide evidence on how to scale innovative education programmes in emergencies. It offers mentorship, access to investors and funding for evaluations.

The **GSMA Mobile 4 Humanitarian (M4H)** fund was launched in 2017 and is supported by the FCDO, the GSMA and its members. It aims to promote innovation in the use of mobile technology to address humanitarian challenges.

Elrha's **Humanitarian Innovation Fund (HIF)** is an independent, grant-making programme open to the entire humanitarian community. It provides funds and support to innovations at every stage of the innovation process in six focus areas.

The **Response Innovation Lab** is a collaboration between World Vision, Save the Children, Oxfam and Civic to build innovation labs in countries with large humanitarian operations in order to solve complex, on-the-ground humanitarian problems.

Use of innovation funding

In order to understand more about the trends and focuses of humanitarian innovation, we looked at the types of innovation funding and support that had been provided by eight innovation funds between 2012 and 2021 (see Box 3). They awarded grants to 540 humanitarian innovations at different points of the innovation life-cycle:

- problem recognition – research to understand a problem
- prototype – a simple version of an innovation that can be tested
- pilot – testing in the real world with a larger group of people
- scaling – implementing in a way that reflects its maximum appropriate reach.

Ten findings emerged from our analysis on how this funding was used:

1. The funders invested in a wide range of innovations, including drones to support search and rescue in the Philippines, faecal sludge management systems for urban emergencies, and providing anti-gender-based violence (GBV) training to armed non-state actors. **Of the innovations, 23% were technologies,** 34% were other products, 18% were processes, 5% were research, 1% were case studies, and a further 20% were categorised as 'other.'

2. **Most funding was sector-specific.** The funds supported innovations in 43 different sectors or focus areas, most of which reflected problem classifications used in the humanitarian cluster system or by implementing organisations. Six of the eight funders had defined specific thematic focus areas. WASH was a focus area for two of the funders, and accounted for 16% of all the innovations. The second largest segment was health, which accounted for a further 6% of the dataset. The least funded sectors included mental and psychosocial health and sexual and reproductive health, which each accounted for fewer than 1% of innovations. There were relatively few cross-cutting or interdisciplinary innovations. The largest exception was those addressing disability and old age inclusion (3%).

3. The last two SOHS studies reported that the humanitarian system struggles to keep people safe, and to achieve better access or coverage. However, few of the innovations addressed the underlying issues that drive a reduction in coverage and access, nor did they address protection needs, and **there were few innovations focused on cross-sectoral or political solutions.** That said, reducing GBV has become a significant focus of the HIF's work, with innovations such as Make Music Matter (see Box 4). Given the increasing emphasis on

The least funded sectors included mental and psychosocial health and sexual and reproductive health, which each accounted for fewer than 1% of innovations.

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systems change (see Chapter 3) it is possible that future innovation funding will target more of these types of ideas, but current innovation funding mechanisms are not set up to address political challenges or organisational reform.

4. **Funding was concentrated in a small number of specific geographies.** Of the 540 innovations, 42% were based in Africa, with the vast majority of these (87%) in East Africa. East, South and Southeast Asia accounted for 22% of all innovations, and the Middle East for 10%.[46] A significant percentage of funding was awarded to global and multi-country programmes ($18 million across 84 projects).

5. **Most innovations were tested in relatively easier operational contexts,** including Uganda (16%), Kenya (7%), the Philippines (10%) and Jordan (4%). Only 6% of the projects were tested in level 3 emergencies. Testing in easier operational contexts reduced financial and reputational risks as well as the risk of failure (or of not learning). It also meant organisations did not test new projects with the most vulnerable communities. However it is important that tested innovations are also taken to more complex humanitarian environments, where the needs are often greatest.

6. **Most funding was for prototyping (35%) or piloting (46%) innovations.**[47] The majority of prototype innovations were implemented in the Philippines, Kenya, Jordan and Bangladesh as part of the DEPP Labs projects. Pilot stage innovations were distributed globally. Of the grants awarded, 7% were for research. Only 9% of the grants were for scaling, while another 4% were for 'diffusion' – small grants to help spread the word about the results of a pilot. A decrease in the number of innovations funded would be expected across a typical innovation 'funnel' from prototype to pilot to scale. However, the number of innovations trying to scale would be healthier if it were greater than 10% of the funnel.

7. **Most funding was spent by international organisations.** Of the grants, 36% were implemented by national and local NGOs or community-based organisations, and 56% were implemented by international institutions, most frequently INGOs (8% were not specified). National/local level organisations were most likely to be funded for small scale prototyping grants; only two of the scaling grants were implemented by national/local organisations.

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46   Within **Africa**, the majority of innovations were implemented in countries with the largest humanitarian programmes - Uganda, Kenya, Somalia, DRC Congo and Ethiopia - although South Sudan was notably absent. In the **Middle East**, Jordan accounted for 23% of the innovations, followed by Syria (16%) and Pakistan (15%). Only two innovations were implemented in Israel and three in Palestine, despite the high levels of aid spending there. And in **Asia**, the majority of innovations were implemented in the Philippines (41%), Bangladesh (20%), Indonesia (12%) and India (10%).

47   Stage was specified for 470 grants.

Of the 540 innovations, 42% were based in Africa, with the vast majority of these (87%) in East Africa.

8. **Grants were small.** The majority of innovators received between $10k and $100k. Only one funder awarded grants of over $900k and just three innovators received a single grant of over $1m. The largest single grant of $2 million from these funders is dwarfed by the level of funding from non-traditional funders, such as MacArthur Foundation's $100m 100& Change Challenge grant, which was awarded to IRC and Sesame Street Works for their Early Childhood Development innovation.[48]

9. **Only two funders awarded multiple grants to the same organisations over time,** allowing them to prototype and pilot their ideas in multiple contexts on their journey towards scaling.

10. **The monitoring, evaluation and learning (MEL) approaches taken varied according to the sector, the stage of the innovation and the competencies of the innovation team.** The funders emphasised the use of theories of change, log frames and end-of-project reports to monitor progress and outputs; essentially the same tools that are used in normal programming. Several funders also used process tools tailored to the innovation process, such as pivot diaries, which track how an innovation changed over time in response to user feedback, operational challenges or other data. These tools also recorded the assumptions that had been made and where they proved to be accurate.
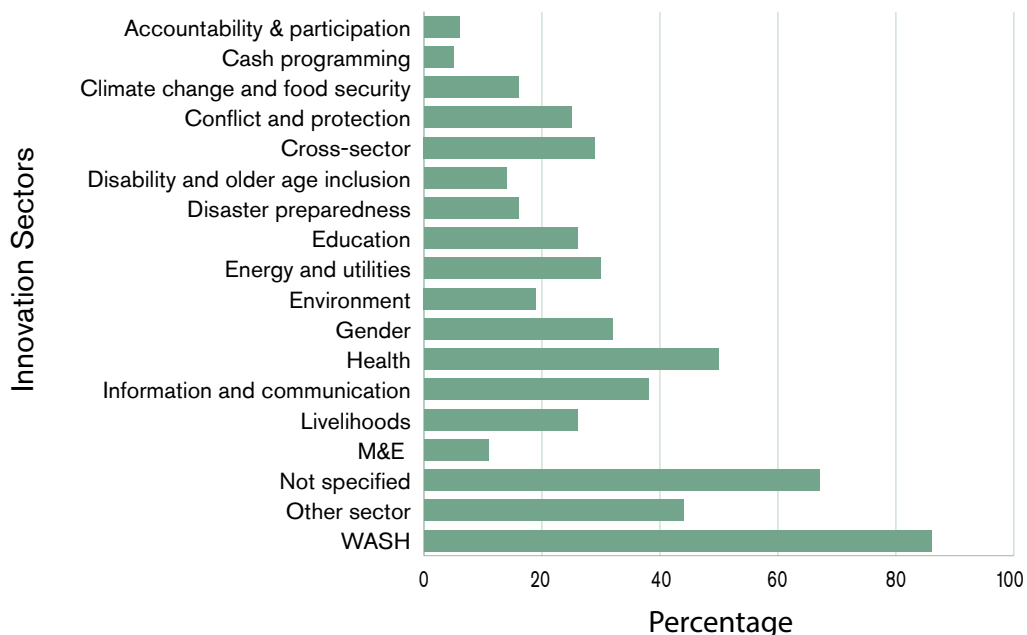

Figure 2: Sectors of projects in the portfolio

48   (Moore and de Filippo, 2017) www.alnap.org/help-library/bit-partners-win-100-million-grant-from-macarthur-foundation
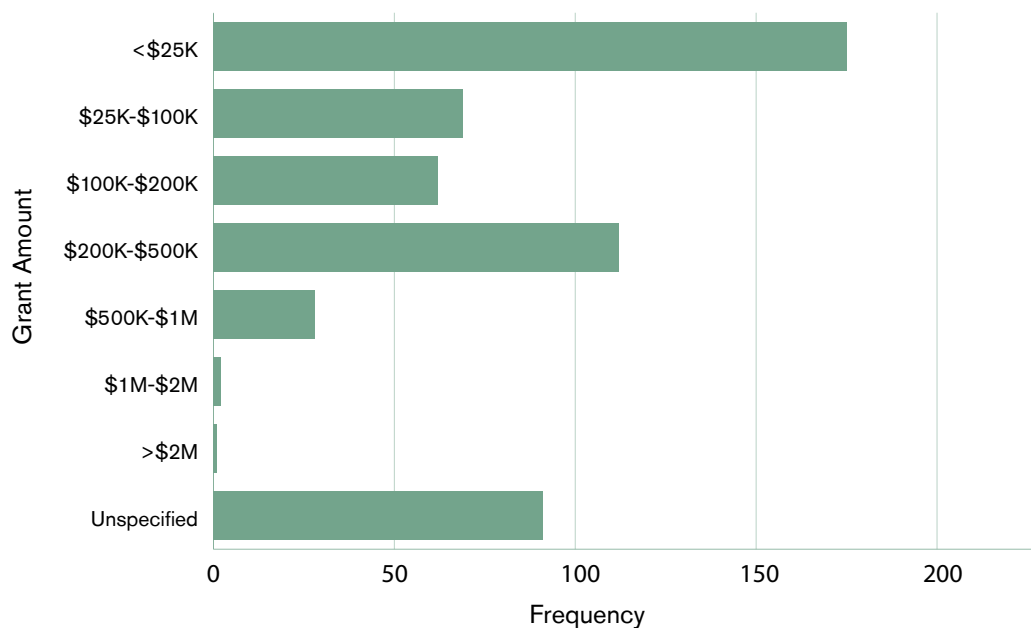
Figure 3: Amount of funding awarded to projects in the portfolio

Box 4: The Make Music Matter innovation

Make Music Matter (MMM) is an example of an innovation that has received scaling funding. MMM brings together people who have survived conflict-associated trauma, particularly sexual violence, to write and record songs about their experiences and emotions, guided by a music producer. A psychologist assists the survivors in processing their emotions while the songs are produced. The songs are then performed at community concerts and distributed through local radio stations and other streaming platforms. The music made by the survivors gives family, friends and community members a better understanding of their experiences and helps to address the stigma associated with their trauma.

With support from Panzi Hospital, MMM adapted the Harvard Trauma Questionnaire and the Hopkins Symptom Checklist into their own tool, which is administered by a psychologist before and after the production of songs to gauge changes in anxiety, depression, stress and post-traumatic stress disorder (PTSD). The results of the tools provide indications of the improvement made by the programme in the participants' mental health. In May 2020, MMM also commissioned Cambridge University to assess whether the innovation's programme - Healing in Harmony (HiH) - improved the mental health of women exposed to conflict-related trauma and sexual violence in DRC. The study was conducted in Mulamba DRC, with 167 women using a step-wedge design. A series of research tools were used to measure anxiety, depression and PTSD. The researchers concluded that 'the HiH programme was associated with significant improvement in women's

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mental health that was sustained up to six months post-completion of the programme despite instability in the region and evidence of continued experience of conflict-related trauma during the study.'

The project has now been implemented in Rwanda, DRC, Türkiye (Gaziantep), Guinea (Conakry), South Africa (Pietermaritzburg), Uganda (Gulu), Peru (Trujillo) and Canada.

Contribution of innovation funding to performance

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A particular challenge for demonstrating effectiveness is the difficulty of comparing the effects of humanitarian interventions with control groups.

A 2016 paper from ALNAP-HIF identified three ways that innovative practices can help improve performance.[49]

The first is through consolidated learning and evidence. Most funders had focused their MEL efforts on this type of **learning**. For example, end-of-project innovation reports focused on what the grantee had learned about the innovation itself and about barriers to adoption. Funders also asked grantees to explain how the innovation was adapted as a result of their learning. Several of the funds, such as HIF and the M4H programme, had collated lessons from funding rounds into research papers or other products that were published and disseminated.

The second way innovation can improve performance is through improved solutions for humanitarian action. As in the broader humanitarian sector, a particular challenge for demonstrating effectiveness is the difficulty of comparing the effects of humanitarian interventions with control groups in a way that is technically sound and ethical. This is compounded by the lack of baseline data available for most sectors. There are ways around this with 'natural' experiments, but these take a lot of planning and strong technical capacity. One of the funders intended to use randomised control trials with its cohort of scaling grantees but ended up concluding that they would be unworkable.[50]

Moreover, most funders did not collate evaluation data across their grants. We were able to identify publicly available evaluation information for only 21% of the innovation grants. Of these, 38% had an independent external evaluation. The evaluation questions most often focused on how the innovation was contributing to improved quality of aid, to increasing inclusion of vulnerable groups, or to ensuring aid recipients are treated with dignity. The majority of evaluations used qualitative methodologies based on the perceptions of implementing staff and (to a lesser extent) aid recipients. Several included context mapping exercises and three projects had implemented randomised control trials.

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49   (Obrecht and Warner, 2016) www.alnap.org/help-library/more-than-just-luck-innovation-in-humanitarian-action

50   Randomised control trials were implemented for three of the 540 innovations.

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The third way that innovation can improve performances is through wide adoption of an improved solution. Few of the funders had resources or processes to track what happened after their funding ended. However, by drawing on available data and tracing innovations through publicly available information we were able to identify that 34% of the projects still exist today, of which 11% had expanded into new contexts. The gaps in the data on grant dates makes it difficult to draw conclusions about how this figure changes over time. Therefore, while there are many examples of the kinds of impact individual innovations can and do have, it is very difficult with today's data to assess innovation's collective contribution to humanitarian effectiveness. All innovation funders agreed that it is a priority to address the lack of information about the contribution of innovation, but cited the following challenges:

▪ Good evidence requires different things at different stages. There was no consensus about the right MEL approaches and there was a disconnect between traditional MEL tools and the types of impact generated by innovation programmes.

▪ The time lag from prototyping to impact, combined with the diversity of many of the innovation portfolios, means that many innovations were at stages at which it wasn't realistic to document outcomes (i.e. research, prototyping or initial pilots). Funders say it can often take five or more years for innovations to be in a position to report on outcomes.

▪ It was difficult to stay in touch with most grantees (other than start-ups) because of staff turnover and changing priorities. In general, insufficient resources were dedicated to tracking innovations and funders did not recognise early enough how much capacity would be needed to do it consistently. Several said they had struggled to strike the right balance between requesting the data that they needed and overburdening innovators with reporting requirements.

▪ There were few benchmarks in the sector against which to assess change.

> **"**
>
> **Few of the funders had resources or processes to track what happened after their funding ended.**

Box 5: The Hala Systems Innovation

Sentry is another innovation from the portfolio that received scaling funding. It was developed by Hala Systems in partnership with the Syria Civil Defence as an airstrike early warning system in response to the aerial bombardment in Syria. The system was operationalised in northwest Syria in August 2016 in the hope that early warnings of potential attacks could enable people to seek shelter, thereby saving lives. Hospitals also receive warnings so that they can better prepare for casualties. The warnings are sent through social media platforms such as Twitter, Facebook and Telegram, through connected devices such as sirens and lights, and to radio stations.

Measuring the impact of innovations in crisis settings is difficult, because of the ethical problems of creating control tests. The Sentry project has relied on comparing the numbers of casualties and deaths to historical data as well as developing theoretical hypotheses about the potential scale of deaths had the system not been in place. Hala Systems has also commissioned several evaluations to explore civilians' experiences using the system. The latest evaluation, published in 2020, was based on 3,033 survey responses and explored perceptions of the system as well as the perceived impact of Sentry on those who had used it in terms of avoiding death and injury, and reducing stress and fear. The report revealed 'that under half of respondents believe the system relieves their worries about airstrikes "somewhat", with around 20% believing they help "significantly". A large majority of respondents believe that Sentry has helped reduce the number of people who die or are injured from airstrikes and reduces the worry and emotional distress of community members. The report also revealed that the most common action after receiving a warning from the system is staying at home in a fortified room.'

Through funding, Sentry scaled within Syria including in Aleppo, Hama, Idleb and Lattakia.

6 Conclusions: The scorecard on humanitarian innovation

Transforming the sector requires innovations to scale, through the cumulative effects of thousands of individual changes or the individual impact of a small breakthrough innovations.

This paper has outlined the journey of innovation over the last decade, from its launch as a series of initiatives to address inefficiency in the humanitarian system to its current incarnation as a loose network of diverse funds, initiatives and individuals. These initiatives have supported a variety of different innovations, a few of which **have already achieved scale**. Some of the highest profile of these include cash and voucher programming and digital data gathering (which both scaled via a range of products, services and processes), and community-based management of acute malnutrition (CMAM) and Sprinkles (which were both individual innovations).

> "
>
> **The stories of these innovations illustrate that there are different pathways to scaling in the humanitarian sector.**

Pathways to scaling

The stories of these innovations illustrate that there are **different pathways to scaling in the humanitarian sector.** Innovations may be championed by individual organisations or by donors, consortiums, membership organisations or H2H organisations. Their pathways depends on lots of factors, including:

- the types of operational barriers that must be overcome
- how easy it is to adapt the innovation to different contexts
- whether the problem the innovation addresses is one that is widely recognised by humanitarian organisations and donors
- the types of financial models that are available.[51]

Sprinkles is an example of an innovation that **scaled through an individual organisation**.[52] UNICEF tasked a research team at The Hospital for Sick Children in Canada (SickKids) to develop a solution to childhood anaemia.[53] With support from others, the SickKids team developed the concept of the Sprinkles Micronutrient Powders for home-fortification of ready-to-eat foods.[54] The team spent eight years developing evidence that Sprinkles would address four challenges posed by UNICEF:

51   (McClure et al., 2018) www.alnap.org/help-library/humanitarian-innovation-untangling-the-many-paths-to-scale

52   (Humanitarian Grand Challenge, 2021) www.alnap.org/help-library/how-do-great-ideas-scale-learning-from-scaling-successes-in-humanitarian-innovation

53   The hospital was approached by UNICEF due to its legacy of inventing Pablum – a processed cereal for infants which was invented in 1931 to improve infant nutrition. See (Schauer and Zlotkin, 2003) www.alnap.org/help-library/home-fortification-with-micronutrient-sprinkles-%E2%80%93-a-new-approach-for-the-prevention-and

54   (Canadiana Connection, 2012) www.alnap.org/help-library/history-of-pablum

that it would prevent iron deficiency; that people would use it; that the private sector would produce it in a large volume and at a reasonable price; and that there were workable distribution models. Once the research team had met these challenges, they handed over responsibility for scaling to UNICEF, which distributed Sprinkles through 60 of its country offices to over 15 million children each year. It was also adopted by other agencies including UNHCR and the WFP, and in 2019 was endorsed by the WHO.

Other innovations scaled **through H2H organisations**. The Humanitarian OpenStreetMaps Team (HOT)[55] emerged in response to the 2010 Haiti earthquake, when digital volunteers including Haitians in the diaspora made use of OpenStreetMaps – a free online editable map – to input data for humanitarian organisations responding to the crisis. After the earthquake, a number of crisis mappers continued to advocate for mapping data, leading to HOT being established in 2013. HOT developed a task manager that enables people from around the world to input humanitarian data, which is freely and publicly accessible to anyone using OpenStreetMaps. Its contributions to several large-scale disasters including Typhoon Haiyan in 2013 and the Ebola Outbreak in West Africa in 2014 generated demand for it among individual humanitarians. Today, over 323,000 community mappers have used the HOT Tasking Manager and through the Missing Maps project they have mapped over 2,455,000km of roads and almost 107,000,000 buildings.

Yet, **despite some successes, overall the system has been slow to change or to adopt innovations, even those with proven track records**, CVA being a primary example. Despite repeated evidence of the effectiveness, efficiency and enhanced dignity of CVA in many contexts, and despite increases in CVA year on year, it still comprises a smaller proportion of overall humanitarian assistance than could be reasonably expected. By one estimate, CVA would amount to 37–43% of the share of total IHA if it were used as a default.[56] At present, it amounts only to 20%, i.e. it is at 50% of where it could/should be in terms of scale, indicating that even a 'successful' scale story is not achieving its full potential because the system is slow at scaling effective ways of working. Why? The most recent *State of the World's Cash* report noted that agency mandate and self-interest continued to be a barrier to putting in place the mechanisms and ways of working that would lead to a higher proportion of humanitarian aid being delivered as CVA.[57]

> **Despite some successes, overall the system has been slow to change or to adopt innovations, even those with proven track records.**

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55   (Humanitarian Grand Challenge, 2021) www.alnap.org/help-library/how-do-great-ideas-scale-learning-from-scaling-successes-in-humanitarian-innovation

56   (Steets et al., 2016) www.alnap.org/help-library/drivers-and-inhibitors-of-change-in-the-humanitarian-system-a-political-economy

57   (Jodar et al., 2020) www.alnap.org/help-library/the-state-of-the-world%E2%80%99s-cash-2020

Structural issues

Structural issues in the humanitarian sector are the first major barrier to scaling innovation. However, humanitarian funding flows through a few large agencies[58] and there are **few incentives that encourage large agencies to adopt new innovations while there are strong incentives to avoid risks or reduced 'value for money'.** The incentive structure therefore results in a low tolerance of failure and resistance to ideas 'not invented here'.

Many of those involved in promoting investments in innovation in the run up to the WHS hoped that it would help address the major shortfalls in humanitarian spending by **fostering new financing models,** including from private sector partners, or by making innovations financially 'sustainable'. However, there have been few examples of this happening and the majority of humanitarian innovators still look to traditional humanitarian funding mechanisms. Innovations that were adaptations of current aid ways of working, such as CMAM or Sprinkles, have scaled because they easily slot into traditional funding mechanisms. However, those that are addressing problems that are not currently prioritised by humanitarian donors – such as communicating with communities in their own languages – have had slow journeys to scale that required significant advocacy efforts. Moreover, many of the innovations that were sector-agnostic struggled to find a sustainable business model, with some closing despite having a significant impact, such as Frontline SMS.

> "
> there are few incentives that encourage large agencies to adopt new innovations while there are strong incentives to avoid risks or reduced 'value for money'.

Baseline and comparative data

A particular challenge to overcoming this inertia is the **difficulty of comparing the effects of humanitarian interventions with control groups in a way that is technically sound and ethical.** This is compounded by the lack of baseline data that would allow humanitarians to compare the effectiveness of innovations with more traditional approaches in most sectors. Several of the innovations that have scaled, such as CMAM and CVA, were enabled because it was possible to develop relatively simple metrics to compare them to existing humanitarian practices in ways that demonstrated their effectiveness. For most humanitarian sectors however – for example, protection and accountability/communications – the factors influencing outcomes are complex and there is insufficient evidence of the impact of current practice to develop measurable baseline metrics.

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58   In 2021, UN agencies received two-thirds of all direct international contributions to humanitarian assistance. (Obrecht and Swithern, 2022) www.alnap.org/2022-the-state-of-the-humanitarian-system-sohs-%E2%80%93-full-report

Organisational capabilities

In addition to these challenges, there are a few examples of **'ambidextrous' organisations**, which have demonstrated the capability to deliver standard programmes while simultaneously adopting and implementing innovations at scale. One example of an agency striving for ambidexterity is IFRC, which has committed to move to 50% CVA by 2025. However, for most organisations, innovation initiatives are developed at the margins, often in labs, units or external entities. Transforming the system requires more organisations that have the core capabilities to both deliver their standard programmes and implement innovations at a significant level.

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> **Transforming the system requires more organisations that have the core capabilities to both deliver their standard programmes and implement innovations at a significant level.**

Financing

The lack of innovation financing also plays a role. **Investments in humanitarian research and development are low in comparison to other sectors and industries.** Estimates in 2015 found the sector was investing less in research and development than the paper industry (0.17%) or basic metal industry (0.34%).[59] Although there is no current data on total R&D spending in the sector, those interviewed emphasised the paucity of funding.

The eight funds included in this study represent the majority of intermediate funds focused exclusively on the humanitarian sector. **Their total investments represented less than $80 million over ten years** (see Chapter 4). Given that funding for UN humanitarian appeals reached over $20 billion in 2021, this represents an extraordinarily small fraction of funds. The majority of grantees received between $10k and $100k through these funds and just three innovators received over $1m. As one funder said, 'without the funding to have impact at scale, innovators are left tinkering at the edges.'

By way of comparison, the Global Innovation Fund, which supports development innovations, provides Test and Transition funds of up to $2.3 million and Scale funds of up to $15 million. Increased or alternative funding is needed to produce more significant impacts on humanitarian performance. In recent years, a small number of non-traditional and development funders have begun investing in individual grantees. For example, a handful of innovations have received grants of $20 million to $100 million from the MacArthur Foundation, the Gates Foundation and Audacious.

59   (World Humanitarian Summit, 2015) www.alnap.org/the-humanitarian-rd-imperative-how-other-sectors-overcame-impediments-to-innovation

Conclusion: The impact of innovation on performance

This paper has explored how innovation has contributed to humanitarian performance over the past decade. It has highlighted that **understanding the impacts of innovation is difficult,** due to the general challenges in humanitarian monitoring, evaluation and learning as well as the fact that the 'tail' for innovation's impact tends to be much longer than the timeframes used to evaluate humanitarian grant funding. Of the innovations explored in Chapter 4, **evidence of impact was available for 16%** and most funders had no data on the outcomes of innovations after their grants had ended. The academic literature does not fill this gap and in general focuses quite narrowly on technologies such as cash and blockchain. This means that while we have documented examples of the kinds of impact innovation can have, it is very difficult to measure innovation's collective contribution to humanitarian effectiveness.

We have also shown that there are **many barriers to scaling innovations,** including misaligned incentives, a reliance on traditional funding mechanisms, insufficient funding and organisational capabilities. Yet despite these barriers, our research found that at least 31% of the innovations funded in the last decade and included in this study are still active. Considering the challenges, this should be seen as an achievement and is comparable to the success rate seen in the private sector.[60] We can't yet fully capture the collective impact of these humanitarian innovations. But imagine what they could be achieving with the financing and organisational investments levels that are seen in other industries.

Introduction

Methodology

Events and trends

Areas of humanitarian innovation

Funder data

Conclusions

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60   (Osterwalder et al., 2020) www.alnap.org/help-library/the-invincible-company

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