

Humanitarian innovation



humanitarian
innovation fund

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JOHN BESSANT
Managing Innovation



Humanitarian innovation

A powerful metaphor often used in the context of innovation is that it relates to survival but in the context of humanitarian aid it takes on a very literal meaning. Crises, whether natural or man-made, require rapid problem solving if agencies and aid workers are to avoid the huge negative impacts of such disasters. For this reason the issue of ‘innovation management’ is one of central importance in the sector. How can the humanitarian sector best organize to enable innovation and what are the roles for key actors – donors, agencies, and most importantly ‘users’?

The idea of humanitarian innovation (HI) is not new. Back in 1867 Henry Dunant proposed the idea of a supportive infrastructure, asking *‘...would it not be possible, in time of peace and quiet, to form relief societies for the purpose of having care given to the wounded in wartime by zealous, devoted and thoroughly qualified volunteers?’* His idea led to the founding of the International Federation of Red Cross and Red Crescent Societies and through agencies like these, the humanitarian sector has developed.

These days, sadly, it’s a huge field. Each year, according to the UN, the number of people affected by a combination of natural disasters, wars and conflicts runs at over 150 million, and the number of people needing assistance as a result has more than doubled over the last decade.’ And many of these emergencies are also protracted – the problem is not one of quick fixes but of helping over the long term to deal with a chronic problem.

So there’s plenty of need for innovation; the good news is that there are wonderful examples of successful innovation in this space. Within the sector HI is usually discussed in the context of five major challenges: food supply; nutrition; WASH (water, sanitation and hygiene); shelter and healthcare. Examples of HI range widely under these categories - from badges that clearly identify humanitarian volunteers in battle to satellite imagery for crisis management; from cash- based programming to the invention of Plumpy’Nut peanut paste to treat malnourished children.

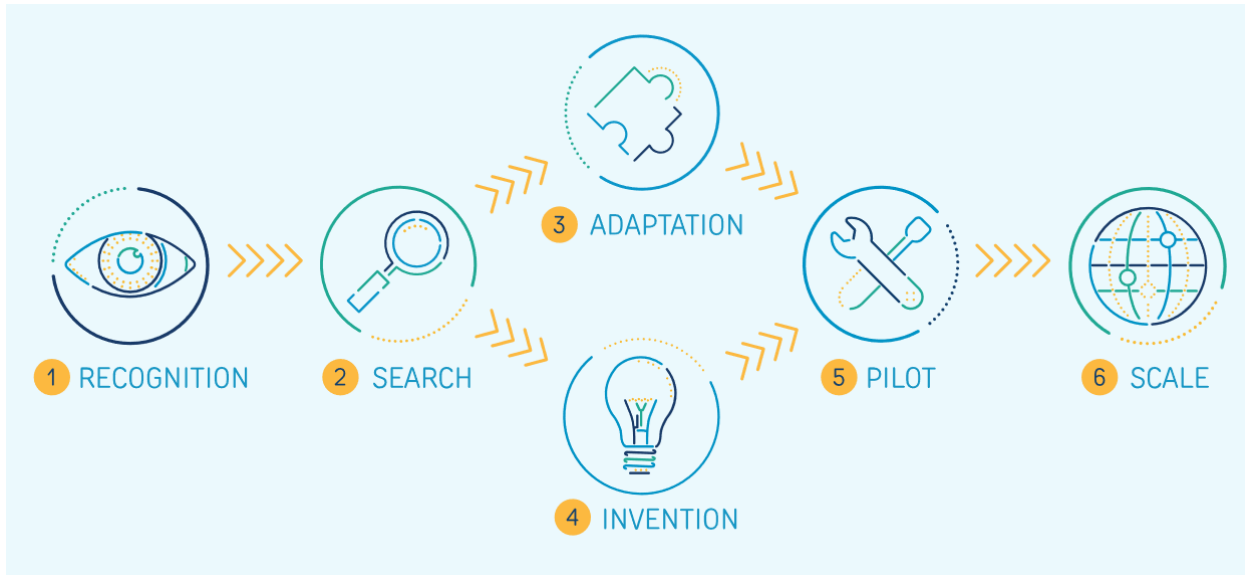
But until recently most HI activity took place in a responsive mode, often on an ad-hoc basis. The focus was on the innovations themselves rather than looking for an underlying process which could be mobilised to generate a steady stream of solutions and enable learning between projects . Part of the problem is in the nature of HI – by its nature it is crisis-driven. There is an apparent paradox in trying to take a systematic routines-based approach (as might be the case in the commercial world) when the challenges are unexpected, and uncertainty is high.

A key turning point was a study carried out in 2009 in the humanitarian sector which developed a HI definition and framework, drawing on a series of case studies and building on relevant literature. Since then there has been an explosion of activity looking to establish a shared model for the process and to build capacity around being able to make innovation a more controllable and manageable process.

A systematic approach

Decades of ‘mainstream’ innovation research has highlighted that innovation is a process and not an event, comprising structures, procedures and policies to make it happen. And in recent years we’ve seen the emergence of an International Standard around innovation management which captures and codifies this learning.

Work on distilling experience in the HI sector has led to the development of a process model which helps act *‘...as a map that will help you to identify where you are on your innovation journey, what milestones you need to reach, and what tools or approaches you can use to navigate the different stages....’* The model proposed by the Humanitarian Innovation Fund and widely adopted consists of 6 core stages; (it is reproduced in figure 1 below).



- Recognition – Recognition of a specific problem or opportunity. This stage involves identifying a problem or opportunity to respond to, collecting and assessing readily available knowledge on the issue and context, diagnosing root causes and properly framing the challenge.
- Search – Search for existing solutions to the problem. This stage involves looking for solutions that might already exist in the context, in the wider humanitarian sector and in other sectors or industries.
- Adaptation – Adaptation of a solution from elsewhere that requires significant rethinking of certain elements. This stage involves identifying the changes that are required to adapt an existing solution to a new context.
- Invention – Invention of a solution through the generation of new ideas. This stage involves working with users and primary beneficiaries (whether crisis-

affected populations or humanitarian workers) to design a solution and develop a prototype.

- Pilot – Testing a potential solution to learn whether and how it works in a complex real-world environment. This stage consists of three workstreams: implementing your innovation, developing learning and evidence, and providing support and logistics.
- Scale – Scaling the impact of an innovation to better match the size of the social problem it seeks to address. This stage involves building in the complexity required for a sustainable innovation and distilling this complexity to make it replicable.

Success and failure

Having established a core map for the process the next valuable step in learning to manage innovation is to discover what influences success when moving through this process? What lessons can we take from experience about how best to organize and manage the journey?

One contribution to this emerging understanding comes from a retrospective study of cases. Taking a sample of 24 projects funded by HIF between 2010 and 2016 Alice Obrecht and Alexandra Warner looked at key factors associated with success or failure, mapped on to the above process model. As the title of the report suggests, successful innovation was *'more than just luck'*.

Each case was mapped against the framework model of the innovation process (recognition, ideation, development, implementation and diffusion) originally proposed in the ALNAP report (Ramalingam et al., 2010). Interviews were carried out with key individuals responsible, with end-users and other stakeholders. Table 1 gives outline

details of these case studies.

Table 1: Case studies of humanitarian innovation

Title	Innovation Type	Organisation	Description
Listening to Haitians	Product innovation	Haiti Red Cross & IFRC	An interactive communication platform using SMS and Interactive Voice Response (IVR) technology
Words of relief	Process innovation	Translators without Borders	Offers local language translation services to non-governmental organizations, UN agencies and other actors during humanitarian response.
Emergency wheelchairs	Product innovation	Motivation	A wheelchair and training package for use in emergency response contexts.
Improving water quality	Product innovation	Université Laval	A water treatment system that increases the supply of water in an emergency, at a significantly reduced cost.
Open aerial map	Product/process innovation	OpenStreetMap Team (HOT))	Creates and provides maps to support humanitarian organizations in their response to conflict or natural disasters.
Improving menstrual hygiene management	Product innovation	International Federation of the Red Cross	Menstrual hygiene management (MHM) kits that are culturally appropriate and effective relief items for emergencies, complemented by improvement and scale-up of training and participatory hygiene promotion tools related to MHM
Urban DRR in Gaza	Process innovation	Catholic Relief Services	An approach to disaster risk reduction (DRR) for complex humanitarian emergencies that occur in urban, conflict-prone areas with non-state actors.
SMS Feedback in Somalia	Process innovation	Danish Refugee Council	A mobile phone-based feedback mechanism that helps enhance two-way communication and accountability in contexts of remote management.
The Humanitarian Genome Project	Product innovation	University of Groningen	An open source application allowing humanitarian workers to quickly access the results and findings of relevant evaluation reports.
Community-based Mgmt. of Acute Malnutrition	Product innovation	Save the Children UK	The Community-based Management of Acute Malnutrition (CMAM) Report is a technology-based product innovation designed to facilitate more reliable reporting of data.
Vulnerability Analysis & Maps (mVAM)	Product innovation	World Food Programme	A programme that integrates mobile technology, including SMS, Interactive Voice Response (IVR) and live calls, into established food security monitoring systems.
Bio-rights	Process innovation	Wetlands Int'l. & CARE Netherlands	A financial incentive mechanism that unites community and ecosystem based Disaster Risk Reduction measures.
Humanitarian eXchange Language	Process innovation	UN Office for the Coordination of Humanitarian Affairs (OCHA)	A data standard designed to help the sharing and consolidation of data to improve coordination across agencies responding in a humanitarian crisis.
Linking communities to mine action	Process innovation	Danish Demining Group	A two-way communication web portal and parallel SMS service to improve information provision and exchange about mines and other explosive remnants of war between affected communities and the humanitarian actors.

Speed evidence	Product innovation	World vision	A platform that will enable a continuous near real-time feedback loop between affected communities and responders after a disaster, with the aim of increasing the situational awareness of both.
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Influences on success – learning from the cases

Taking the process approach and focusing on key stages within it helped identify a number of key issues. For example the ‘recognition’ stage is often taken as a given since HI is essentially about responding to urgent need signals. But the risk is that the system quickly jumps from perception of the problem to either applying existing solutions (adaptation) or generating new ones within a bounded frame.

In particular the HI sector is often rather insular in operation with solutions being sought from within a narrow and bounded search space. The potential for ‘recombinant’ innovation and for drawing on a wider suite of technologies from other sectors is significant but unrealized. The research identifies the challenge around in fostering appropriate relationships and creating a space and a capability to allow HI actors to gain experiences from outside of the HI field. For example in several cases success was linked to the ability to take models already proven outside the sector (3D printing as a platform, mobilizing an open source community around design, translation or mapping) and adapt them.

A second challenge relates to engaging end-users in the early stages of the innovation (in ideation or design). The researchers found the problem was compounded by the difficulty of accessing user needs from a population which may have been traumatised by recent events, and may lack skills and language with which to articulate their needs in coherent fashion. appear to remain a significant problem for HI.

Another area at the ‘front end’ of innovation relates to th dominance of need pull; as the researchers point out *“the balance is skewed with relatively little ‘knowledge push’ type activity such as R&D, horizon scanning or other ‘search and discovery’ activities”*. There are also barriers to entry for external ideas and experience; *“low investment in partnership and a resistance to outsiders seen to be unfamiliar with humanitarian contexts”*.

Communication between different stakeholders is another important theme in

innovation. It was clear that there was considerable potential value in the prior experience held by field workers but this was often poorly connected to the front-end of innovation. When such insights are clearly communicated they can help develop rapid and novel solutions. *'Translators without borders'* (TWB) is a case in point, the concept emerging out of the frustration and difficulties experienced first-hand in communicating and acquiring information because of local language barriers. User innovation – in this case coming from frustrations amongst the front line experienced personnel - led to prototyping and later effective solutions.

Although there is scope for adopting practices used outside the HI sector to support innovation there is also a need to adapt and contextualise. In particular the strong emphasis placed on lean and agile approaches which require fast failure and early test/learn cycles may not be appropriate in contexts where the 'market' consists of vulnerable people. Emergency settings do not lend themselves to an approach where prototypes may not work and it is difficult to pilot any new products; under crisis conditions there is a strong bias towards staying with 'tried and tested' solutions.

By definition, innovation involves a degree of risk-taking: it is a process where outcomes are highly uncertain, and many factors outside the control of the innovating team can affect success. Innovation processes in humanitarian action need an appropriate relationship to risk, one that maximises the potential benefits of risk-taking while minimising the potential costs to the project and protecting against any losses or harm to pilot participants. In practice this concentrates attention on finding 'safe spaces'; for experimentation (for example in some of the 'Innovation Labs' being set up by key agencies).

Surprisingly, given the strong ethical concerns about risk to vulnerable users the level of risk anticipation in many HI projects was low. Innovating teams that did not undertake strong risk assessments often faced delays and setbacks that could have been mitigated through a better approach to risk early on. But having formal risk assessments and monitoring practices in place was less important than maintaining a responsive and open attitude towards identifying new risks and responding to them when appropriate. It seemed more important that innovation processes were agile enough to respond to risks

as they arose.

In several case studies, some of the most significant hurdles faced by innovating teams lay within their own organisations, particularly with senior leadership. As part of the wider research for the study ALNAP sought out input from grantees with track records of repeated innovation to understand what they had done to encourage innovation in their organisation. Some cited the non-hierarchical nature of their organisation as key to enabling innovative ideas to take root and blossom into full innovations.

[You can find the full report here](#)

[And an interview with Abi Taylor of the Humanitarian Innovation Fund here](#)

[And this is a link to the Innovation Support guide](#) developed by the HIF with a wide range of tools and advice for innovators working in this space.