Linking communities to mine action:
Innovating in active conflict

Alice Obrecht

The **Humanitarian Innovation Fund (HIF)** supports organisations and individuals to identify, nurture, and share innovative and scalable solutions to the challenges facing effective humanitarian assistance. The HIF is a programme managed by ELRHA. **www.humanitarianinnovation.org**

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Front cover photo: SES deminer testing the equipment prior to clearance. Credit: DDG / Pete Muller, 2016.

Back cover photo: Demining equipment checked by the SES team before departure. Credit: DDG / Pete Muller, 2016.

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HIF-ALNAP case studies on successful innovation

This study is one in a series of 15 case studies, undertaken by ALNAP in partnership with ELRHA's Humanitarian Innovation Fund (HIF), exploring the dynamics of successful innovation processes in humanitarian action. They examine what good practice in humanitarian innovation looks like, what approaches and tools organisations have used to innovate in the humanitarian system, what the barriers to innovation are for individual organisations, and how they can be overcome.

About the case studies

Case study subjects are selected from a pool of recipients of grants from the HIF. The <u>HIF awards grants of between £20,000 and £150,000</u> to support the recognition, invention, development, implementation and diffusion stages of the innovation process. The HIF selects grantees on the basis of a variety of criteria designed to achieve a robust representation of the range of activity in humanitarian innovation.

The case study subjects are chosen to reflect innovation practice in the humanitarian system. They cover information communication technology (ICT) innovations and non-ICT innovations, and they offer a balance between innovations that have reached a diffusion stage and those that have not. They also reflect the wide geographic range of the areas where innovations are being trialled and implemented. (For more information on the methodology and criteria used to select case study subjects, see the forthcoming 'Synthesis report' for the case study series).

About HIF-ALNAP research on successful innovation in humanitarian action

These case studies are part of a broader research partnership between ALNAP and Enhancing Learning and Research for Humanitarian Assistance (ELRHA) that seeks to define and understand what successful innovation looks like in the humanitarian sector. The ultimate aim of this research is to improve humanitarian actors' understanding of how to undertake and support innovative programming in practice. This research partnership builds on ALNAP's long-running work on innovation in the humanitarian system, beginning with its 2009 study, Innovations in International Humanitarian Action, and draws on the experience of the HIF grantees, which offer a realistic picture of how innovation actually happens in humanitarian settings.

Innovation is a relatively new area of work in humanitarian action, yet it is one that has seen exponential growth in terms of research, funding and activity at both policy and programming levels. While the knowledge base around innovation in the humanitarian sector is increasing, there remain a number of key questions for humanitarian organisations that may be seeking to initiate or expand their innovation capacity. The HIF-ALNAP research has focused on three of these:

Primary research questions

What does successful humanitarian innovation look like?

What are the practices organisations can adopt to innovate successfully for humanitarian purposes?

Secondary research question

What are the barriers to innovation in the sector and how can they be mitigated?

The case studies will be used to produce a synthesis document that addresses these three questions. The outputs of this research are aimed at humanitarian organisations interested in using innovative practices to improve their performance, as well as organisations outside the humanitarian sector, such as academic institutions or private companies, seeking to engage in innovation in humanitarian action.

1. About this case study

Organisation	Danish Demining Group (DDG)
Partners	Ukrainian State Emergency Service, CartONG, Geneva International Centre for Humanitarian Demining

Grant	Start date	Grant period	Total budget		Location
Development & Implementation	January 2014	16 months (excluding extensions)	HIF	£149,700	Ukraine, Vietnam (self-funded by DDG)
			DDG	£188,990	

The Mine Action Application (MApps) is a digital portal designed by Danish Demining Group (DDG) to increase access to mine action (MA) information for people living in areas contaminated with mines and other explosive remnants of war (ERWs). The MApps portal provides an online platform for civilians to report and view approximate areas contaminated by ERWs and learn more about mine risk from MA operators. Through this process, MA operators can also improve their knowledge of ERW locations and the mine risk information needs of civilians. MApps also potentially deepens the accountability ERW clearing by supporting MA professionals to update civilians on how they are responding to reports on ERWs. DDG developed and piloted MApps in Vietnam and Ukraine, where DDG worked closely with state authorities, local NGOs, and civilians to design the digital portal, in order to ensure relevance and ownership.

This project is unusual, even for humanitarian innovation, both for DDG's attempt to build long-term sustainability through partnership with national institutions from the outset and because it included the development of an innovation during a conflict (in the Ukraine pilot site). DDG's experiences in this innovation process offer important lessons on the role context plays in successful piloting, on working with governments as part of a diffusion strategy and on trying to improve two-way communication with affected people in conflict. The DDG team exhibited great flexibility and responsiveness to contextual needs, and dedication to relationship-building. All of this enabled it to adapt the platform to the preferences and needs of its different end user groups. However, the flexibility and responsiveness also led to a delayed timeline for the project and to the decision to remove one of the innovation's key defining components as a result of sensitivities in the Ukrainian pilot context.

This case study demonstrates the challenges that lie in engaging in humanitarian programming that is both innovative and responsible when it comes to risk-taking. Taking responsible and risk-aware choices in an innovation process will inevitably involve trade-offs: the DDG innovation process

points to the importance of having well-defined design criteria for an innovation and clear 'exit' points for the innovation process (when to terminate development or implementation activities) in order to manage these trade-offs.

The case study reaffirmed three themes from previous case studies in this series:

- First, innovation processes are most successful when all end users are also its primary beneficiaries – that is, when all those whose behaviour must change to make an innovation work also see themselves as benefiting from the innovation.

- Second, it is important to select the right context for the development and piloting of an innovation. This case study affirms previous findings that developing new innovations in an acute humanitarian crisis setting may be inefficient and counterproductive.

- Finally, humanitarian innovations present certain choices in weighing potential harms and benefits for which there is no clear guidance at the present moment. The MApps team and the DDG country office in Ukraine wrestled with whether the potential for improvement this innovation offered was worth risking DDG's longer-term MA work in Ukraine. While it will not solve the problem entirely, better practices around performance measurement of current programming might help move these discussions towards a more evidence-informed approach.

Timing issues meant it was impossible to fully assess the success of this innovation process, as the platform was launched during the final write-up of the case study, meaning there was insufficient evidence to assess two of the success criteria, **improved solution** and **adoption**. Early **consolidated learning and evidence** have been generated through the project, but this will be enhanced significantly if DDG receives support to carry out an evaluation once implementation has progressed further.

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Photo: SES clearance team's briefing prior to clearance work. Credit: DDG / Pete Muller. 2016.

2. The Problem

People living in conflict and post-conflict settings face many threats, among them the threat of death or severe injury from mines and other unexploded ordnances (UXOs). Humanitarian Mine Action seeks to minimise or eradicate this threat, and clearance of ERWs is one of its core pillars of activity.

While removing ERWs is the best way to address the threat, in many cases this process can be slow or impossible in the medium term as a result of ongoing conflict. For this reason, civilians also require information about the risks ERWs pose so they can develop effective strategies to avoid them. Mine risk education (MRE) is therefore another core pillar of MA and integral to how the MA community works to reduce the risk of injury or death among civilian populations.

The shortcomings of these two pillars – mine clearance and MRE – has been that they use approaches that do not support accountability to ERW-affected people and do not enable civilians to make their own informed choices about avoiding ERWs. Although individual civilians provide MA operators with information on the location of ERWs, they rarely receive responses on whether these reports will be acted on and when. They also cannot access confirmed reports of ERWs made by other civilians. In the opposite direction, MA operators provide educational messages to civilians in order to try to affect their behaviour towards mines and UXOs. However, there is a lack of systematic measures to collect feedback from affected people to understand the usefulness of these messages or to understand how these messages might be effective in changing the behaviour of those who live among ERWs.

To some extent, these challenges have been dealt with in the mine action sector through the development of the 'community liaison' approach over the past 15 years. Community liaisons provide a link between mine clearance specialists and civilians and ensure MRE activities are well tailored to context in order to bring about behaviour change. Community liaisons work through three stages – pre-clearance, during clearance and after clearance – providing information from civilians to clearance specialists on locations of ERWs, and providing updates to civilians on clearance activities and linking civilians to organisations involved in post-clearance rehabilitation work (Wheatley 2005).

 While community liaison has been widely employed in the MA sector, there are limitations to this approach. It is resource-intensive and cannot be used to reach large populations, given its focus on face-to-face interaction. Engaging in face-to-face MRE and community liaison is also increasingly difficult, given the dangers for humanitarian staff working in conflict settings. Conflict-affected people can find it challenging to physically access MRE sessions. Alternatives to the community liaison model, such as telephone hotlines for the reporting of ERWs, present key trade-offs. While they can reach a wider range of individuals and do not rely on physical proximity between civilians and MA operators, telephone hotlines are often one-way only, taking information from civilians on the locations of ERWs and failing to provide any risk education messages or updates on how MA professionals are handling the report.

> 'Mine action has been quite slow to engage with technology generally across the board. There's a lot of web-based resources if you're in the sector and know where to look for it, but it's not necessarily targeted at communities.'
>
> Mine action expert, Mines Advisory Group (MAG).

3. The innovation process

The stages through which successful innovations progress are often unpredictable and dynamic in nature, but there are often similarities. It is therefore useful to understand this innovation process when trying to capture why particular innovations succeed or fail.

There are various models to describe the innovation process, but HIF uses a model based on five stages:

- **Recognition** of a specific problem, challenge or opportunity to be seized
- **Invention** of a creative solution or novel idea that addresses a problem or seizes an opportunity
- **Development** of the innovation by creating practical, actionable plans and guidelines
- **Implementation** of the innovation to produce tangible examples of change, testing it to see how it compares with existing solutions
- **Diffusion** of successful innovations – taking them to scale and promoting their wider adoption

These five steps provide a useful archetype for the innovation process and are used in the HIF case study methodology. But they come with the caveat that innovation is complex and non-linear, and that identifying deviations from this model is just as important as (and possibly more so than) confirming the applicability of the model itself. The HIF-ALNAP case studies will seek to map in greater detail the chronology of these stages and how they overlap and interact for each HIF grantee.

development

recognition

invention

implementation

diffusion
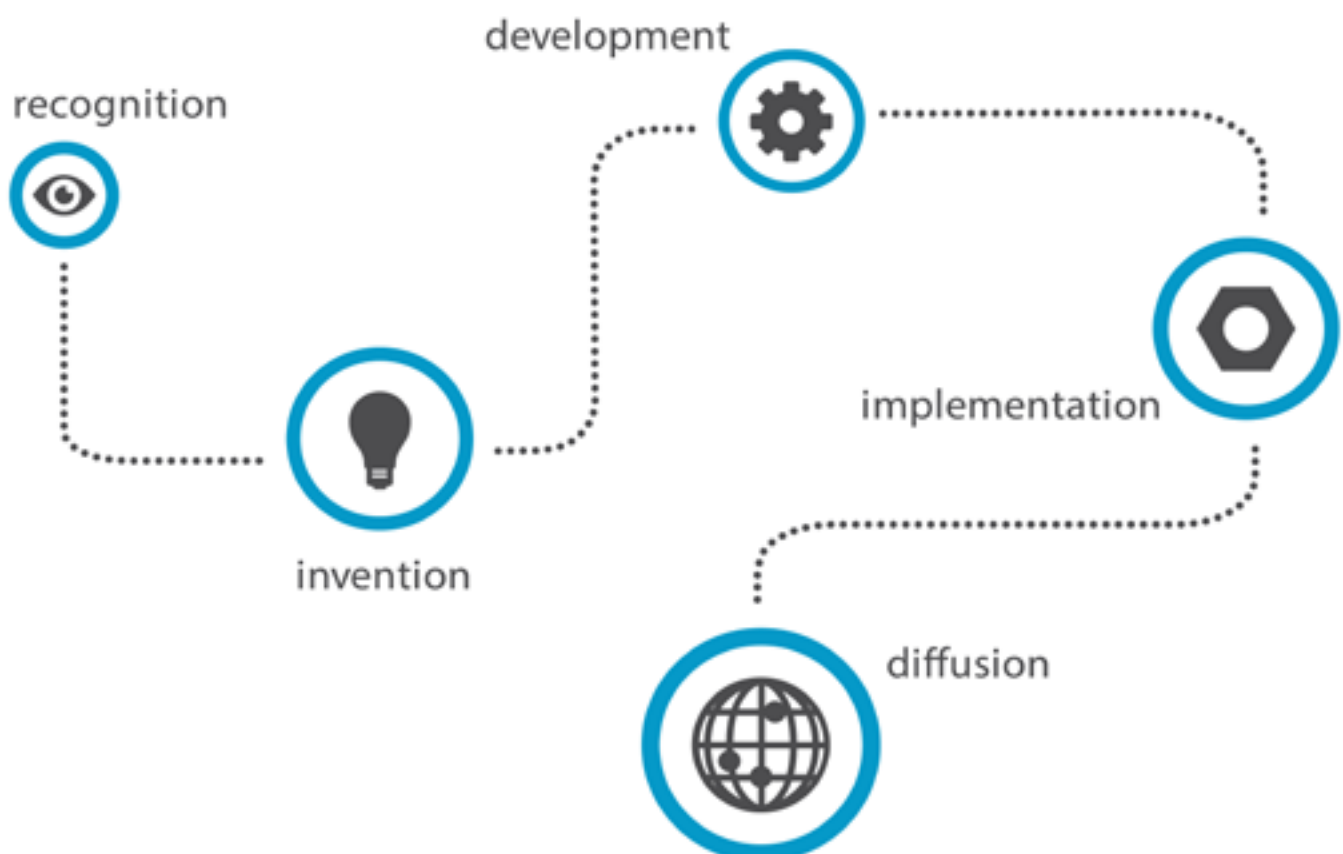
3.1 Recognition

In 2011, Rasmus Stuhr Jacobsen joined the Danish Refugee Council (DRC) as head of DDG. Jacobson was new to the MA sector yet had extensive experience in several humanitarian settings. During field trips, Jacobsen noticed that Humanitarian Mine Action operators communicated with ERW-affected populations differently from the practices used in the broader humanitarian sector, which were typically cast through frameworks of Accountability to Affected Populations (AAP):

> **'Coming from the humanitarian sector moving into mine action, these were some of the issues I brought with me. How do we in mine action work with feedback? How do we work with the broader information management demands around the project when we engage with communities?'**

The DRC at the time was completing an innovation project developing a new SMS-based system for communicating with affected people in Somalia. This was one of the first projects funded by the HIF and one of the pilot case studies for the ALNAP-ELRHA case study research. Based on the positive experiences with the HIF-funded SMS project in Somalia, Jacobsen recognised an opportunity to apply a similar information and communication technology (ICT)-driven product and process in the MA sector, in order to improve the exchange of information between people living in ERW-affected areas and Humanitarian Mine Action operators. Somalia was suggested again as the pilot site for the DDG project, MApps.

Different members of the MApps team returned to recognition activities several times throughout the innovation process. In response to queries from the HIF in December 2013, Tammy Hall, who succeeded Jacobsen as director of DDG, refined and honed the proposal based on a more detailed understanding of the problem context surrounding MA as a specific sector. Later, in 2014/15, when developing the innovation in the specific contexts of Ukraine and Vietnam, the MApps team sought to understand how the general problem of communicating with affected populations played out in each context. This context-specific recognition of the problem enabled it to tailor the ICT package accordingly.
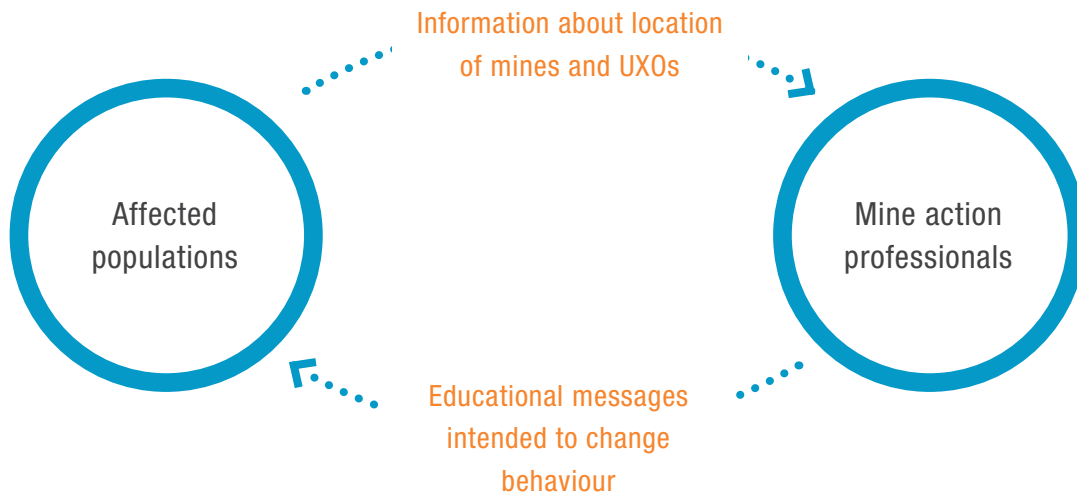
3.2 Invention

In the standard information flows between civilians and MA operators, the former provide the latter with information on suspected contamination sites; MA operators in return provide civilians with advice and educational materials on how to manage risk (Figure 1). The information civilians provide empowers MA operators to understand the full geographical spread of contamination in a given area, but is not accessible at a collective level by affected people. More critically, outside the community liaison model, those responsible for ERW removal often fail to provide feedback on how a report is being actioned and when or whether the UXO or mine will be cleared.

DDG sought to address several of these issues by using digital technology to restructure and expand information flows between affected people and MA operators, providing MA operators with more information on the locations of suspected ERWs and providing affected people with feedback on how reports were being actioned as well as a heat map of general locations of suspected ERWs.

Figure 1: Standard information flows between Humanitarian Mine Action operators and affected populations

Information about location
of mines and UXOs

Affected
populations

Mine action
professionals

Educational messages
intended to change
behaviour

During the invention stage, it is critical to understand existing tools and practices and how the proposed innovation differs from, and adds value within, the existing environment. For the DDG innovation in particular, questions were raised as to whether the proposed portal would duplicate an existing digital service, the Information Management System for Mine Action (IMSMA) run by the **Geneva International Centre for Humanitarian Demining (GICHD)**. IMSMA is a global information management system for the MA sector that maps the confirmed locations of UXOs and mines. Demining actors submit reports of locations to GICHD, which uploads them to a web-based map that is accessible via password protection by MA operators and state bodies. In several countries, national authorities are responsible for managing IMSMA and oversee the submission of reports.

Figure 2: Example of heat map used as basis for publically available MApps platform

The key difference between IMSMA and the MApps platform was that MApps focused on the participation of affected people, and on providing a basis for two-way communication between affected populations and MA operators. IMSMA is accessible only to state actors and Humanitarian Mine Action operators and does not include a public interfacing component. The MApps digital platform developed by DDG, in contrast, would enable civilians to submit reports of suspected ERWs themselves. The MApps platform also aimed to provide a version of a map to the public (with less detail than the information accessible by states and Humanitarian Mine Action operators) and

'So we formalised the idea a little bit, wrote that down in an initial think piece and we circulated it in DDG country offices and asked them 'Is there something there? Can we see this being of benefit? Is it addressing a demand a gap out there that you can recognise and agree to somehow?' And then we took it from there.'

Rasmus Stuhr Jacobsen, Head of DDG (DRC)

deliver targeted MRE messages, and updates on clearance activities taking place in response to reports of contamination.

In this way, the core idea behind MApps was to open up information management in the MA sector to create greater information-sharing between ERW-affected civilians and the Humanitarian Mine Action operators and state actors responsible for protecting them (Figure 1). While the MApps platform was conceived from the perspective of mine action operators, its focus rests on broadening the range and forms of interaction between mine action professionals and affected people.

Jacobsen developed the initial idea with a colleague, Peter-Bastian Halberg, who had been involved in the previous DRC project using SMS systems in Somalia. Whereas the previous Somalia-based SMS for AAP project had originated from field and country teams, in this case the idea was generated at global level. It was therefore important for Jacobsen and Halberg to 'test the water' for the concept by running it by DDG country teams. While the initial response to the proposal was positive, leading to Jacobsen and Halberg slightly revising and submitting the proposal to the HIF, it is unclear whether the right individuals were targeted at country level for feedback, as several adaptations to the initial idea had to be undertaken later.
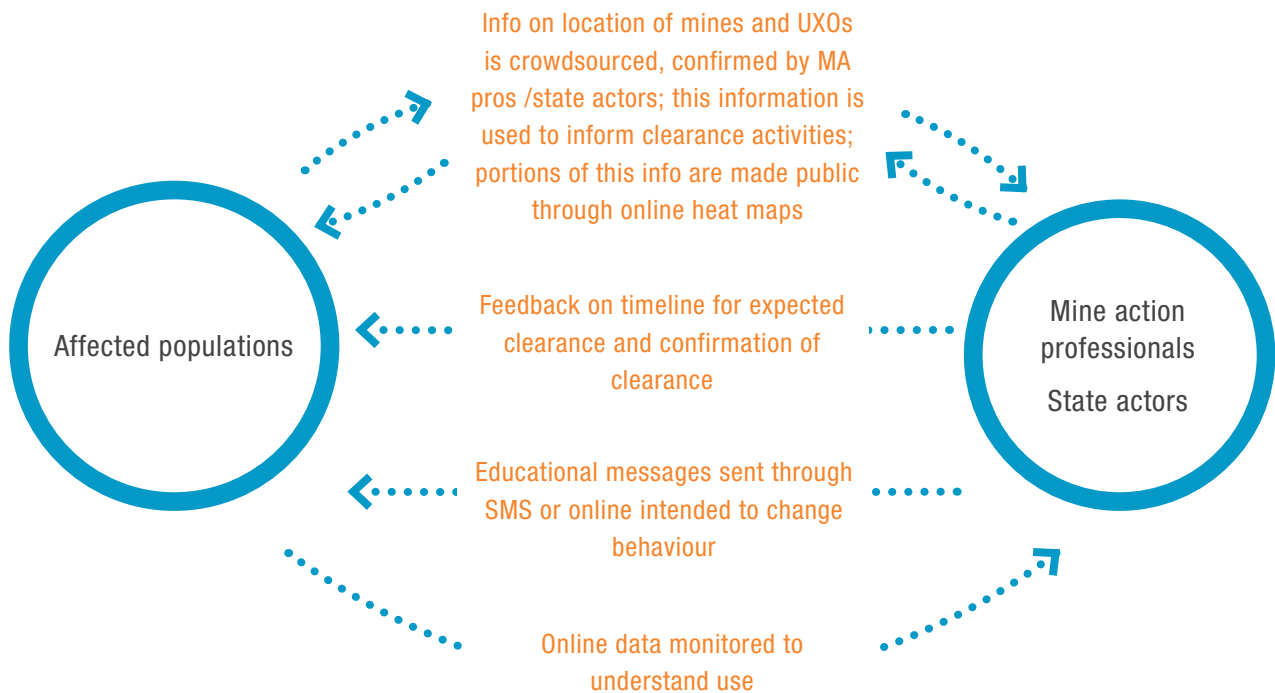
3.3 Development

While the idea for the digital platform was conceived at global headquarters, DDG sought to develop it with user profiles created from baseline assessments carried out in a pilot country. Given the focus on MA, this meant the innovation would be primarily designed and initially piloted in a 'hot' conflict or protracted conflict setting – a feature that is unusual even within the range of humanitarian innovations funded by the HIF.

The DDG team quickly found that developing an ICT-driven innovation in such a context would be even more challenging than expected: after scoping the initial pilot site of Somaliland, DDG found the security issues in the area presented too high a risk for the planned stakeholder consultations. Consulting with end users to seek their preferences on their internet usage and on how they receive information was deemed critical to the success of the project, and therefore a security situation that prevented consultation and focus group discussions from taking place was considered impossible.

To guide pilot country selection, the DDG team identified three types of context in which it commonly operates (see Figure 3): acute crises in which there is 'hot' or active conflict, protracted/

Figure 3: Information flows that would result from the digital platform as originally conceived

Info on location of mines and UXOs is crowdsourced, confirmed by MA pros /state actors; this information is used to inform clearance activities; portions of this info are made public through online heat maps

Affected populations

Mine action professionals

State actors

Feedback on timeline for expected clearance and confirmation of clearance

Educational messages sent through SMS or online intended to change behaviour

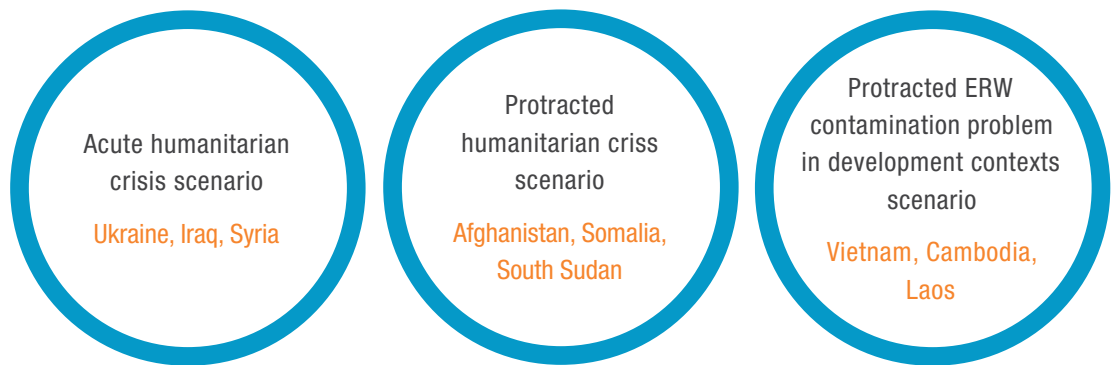Online data monitored to understand use

post-conflict settings and longer-term protracted ERW contamination in development settings. Ideally, the platform would be piloted in one country from each type of context. In discussion with the HIF, DDG decided to move forward by applying the HIF funding to a pilot in Ukraine, which constituted a Type 1 setting, while also self-funding a separate pilot in Vietnam, a Type 3 context. The selection of Ukraine in particular was based primarily on the understanding that Ukraine had high internet connectivity and access. DDG held a preliminary scoping trip to Ukraine in October 2014.

To develop the platform, DDG sought to adapt pre-existing technologies using Ushahidi and SimLab (formerly Frontline SMS). This was a strategic decision taken in order to reduce the time spent on the highly technical development of ICT and to be able to focus much of DDG's human resources on building the structures and relationships for implementation of the platform. Given the significant time investments needed for implementation, this turned out to be a critical decision that enabled successful development of the software. CartONG was contracted to facilitate development of the platform, acting as intermediary between the technical software developers and the DDG team.

'Normally in our other projects it's very easy to define what we're going to deliver. We're going to clear this many UXOs, we're going to deploy this many teams, we're going to do it within this budget, and so on. [In innovation] we're hoping to develop something that makes sense and that we can actually use but it's much more of a fluid process because we hit obstacles and so on and you need to go back and assess whether this makes sense and ask, 'Should we change this then? Are there any other ideas we should put to the table?' So in terms of the process management innovation is very different and takes a lot more time in comparison to a typical project.'

Rune Bech Persson, Programme & Operations Coordinator, DDG.

Figure 4: Classification of country contexts used by DDG to guide its programming and assess sites for pilot innovations

Acute humanitarian crisis scenario

Ukraine, Iraq, Syria

Protracted humanitarian criss scenario

Afghanistan, Somalia, South Sudan

Protracted ERW contamination problem in development contexts scenario

Vietnam, Cambodia, Laos

In October 2014, DDG convened a partners planning meeting with CartONG and GICHD in Geneva to discuss the two country contexts of Vietnam and Ukraine and create a plan for developing the digital platform. Following this, CartONG carried out a baseline assessment in Ukraine with SimLab in December 2014, consisting of focus group discussions and a Knowledge, Attitudes and Practices (KAP) survey. CartONG undertook a stakeholder mapping exercise to identify all relevant stakeholders in the Ukrainian context and identified a range of end users, including those in the government State Emergency Service (SES) and civilians living in mine-affected areas. Civilians were divided into three sub-groups: those who had stayed in the area throughout the conflict, those who had fled and returned to the area and internally displaced persons (IDPs). CartONG supported DDG in creating user profiles based on information collected from the baseline assessment. Development of the software, including the heat map and SMS platform, took place in the summer of 2015, with a working prototype produced within three months.

DDG then consulted stakeholders several times throughout the latter half of 2015 and early 2016 to demonstrate the software and obtain feedback on its usefulness, accessibility and any additional components that should be added. While the basic concept – a digital platform that would facilitate two-way communication between civilians and MA professionals – was non-negotiable, DDG remained flexible to the types of communication channel (SMS, digital app), as well as to adding or dropping various components to the platform based on end user preferences. Three FGDs were carried out with civilians in Sloviansk (original pilot site) and Mariupol (actual pilot site) regions. However, greater priority was given to preferences and inputs from Ukrainian government officials, as they were the intended long-term 'owners' of the final innovation product. DDG staff also held over a dozen meetings with members of the State Emergency Service (SES) at national and local pilot site level. At the same time, DDG carried out a similar process in Vietnam, also working with CartONG.

Throughout 2015, three key challenges arose which blocked progress in the development of the innovation and delayed the timeline for the launch of the platform.

A first challenge lay in the political climate for mine action in Ukraine. There is no ministry or body within the Ukrainian government with an official mandate to oversee MA in the country. During the development period for the MApps portal, the Ukrainian government was in the process of establishing a MA centre and determining which ministry would have key responsibilities for this. While it was presumed that responsibility would fall to SES, lack of political clarity around this process made the outcome highly unstable. DDG reached out to SES first at national level in the

Figure 5: Methodology applied by DDG to develop the MApps platform: 'Our approach is based on consensus within the consortium of stakeholders and relies heavily on the engagement of the target audiences: the affected communities, the local authorities and the mine action community'

Scaling → Dialogue → Consensus → Test → Feedback → Alignment → Test → Scaling
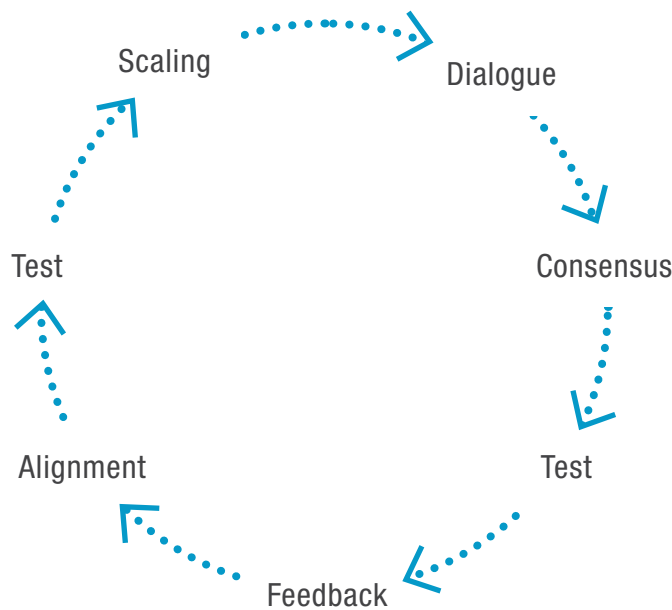
autumn of 2015. While SES expressed interest in the project, it lacked the capacity – primarily in time and staff resources – to fully implement it with DDG as a partner. DDG adapted its strategy twice, first attempting to work with SES at a local level in the first selected pilot site of Sloviansk and then moving the pilot to Mariupol when the Sloviansk SES office also seemed unable to partner on the project.
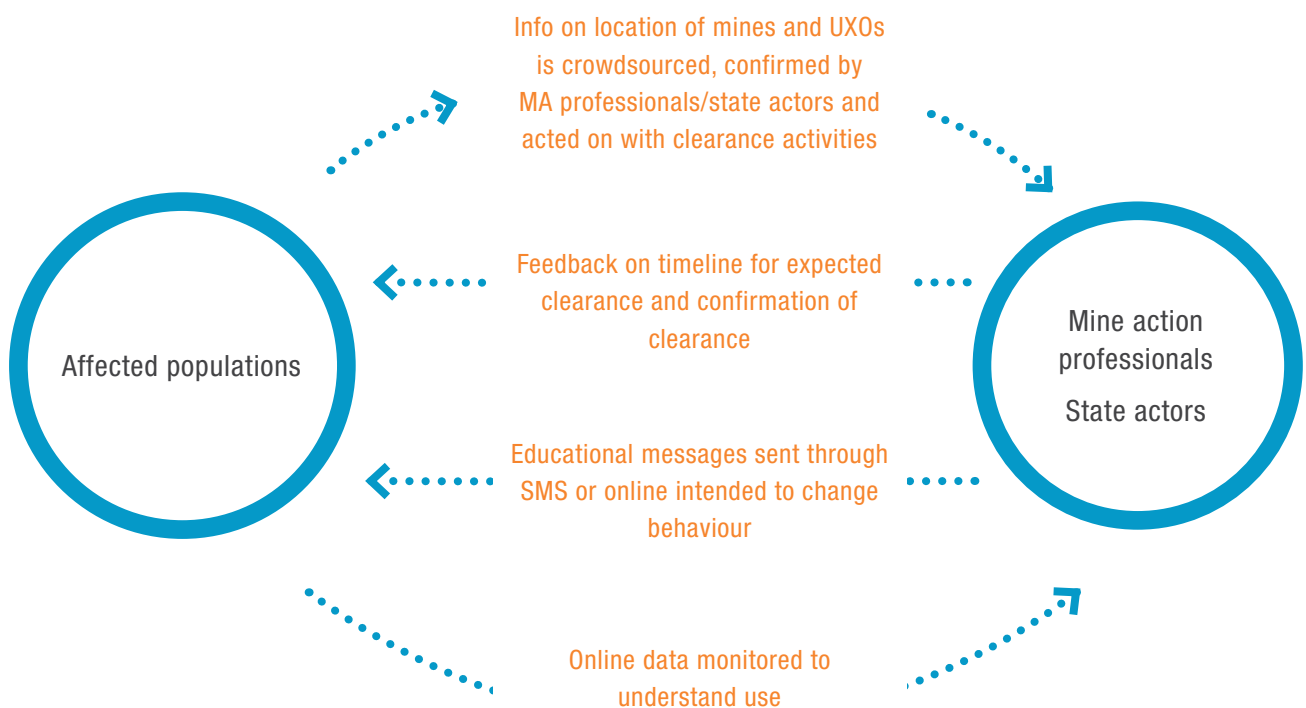
A second challenge lay in the fact that DDG was developing the MApps portal in a consultative manner (see Figure 5), which meant initial discussions with key stakeholders, including SES, were largely abstract, as the portal was being developed based on their initial input. As seen in other innovation processes, having something tangible to show potential end users is highly useful for securing buy-in, yet this was difficult to show prior to consultation, given DDG's desire to design the portal around end user input.

A third challenge lay in the security situation and sensitivities around the reporting and sharing of information on UXO and mine location. The most innovative feature of the MApps project was the public heat map that would enable access by ERW-affected civilians to information on contamination and an overview of where clearance operations were currently underway. This offered a new element of information-sharing that went beyond IMSMA (although IMSMA was also not established in Ukraine). DDG sought to mitigate a number of risks around the heat map, both in Ukraine and in the pilot site in Vietnam. First was the risk that civilians would use the map to seek out ERWs, rather than avoid them, in order to collect them to sell as scrap metal. Second was the risk of civilians assuming that areas not highlighted on the heat map were 'safe' or confirmed to be non-contaminated, when really they were simply areas with no confirmed reports of UXOs or mines.

Finally, in Ukraine in particular, there was the perceived risk in the view of the state actors of reputational damage and loss of control by displaying the geographic scale of contamination. There was also the perceived risk among Ukrainian civilians that the government or anti-state forces could target them for reporting on contamination. In FGDs, civilians in Sloviansk expressed concern that they would face political repercussions for reporting ERWs. This seemed to owe primarily to Sloviansk, the original pilot site, being under partial control by government forces and partial control by separatist forces, in an environment in which allegiances were continually questioned and posed high risks to individuals' safety. This risk was largely mitigated by moving the pilot site to Mariupol, which is a government-controlled area of Ukraine. The choice to move to Mariupol was deemed a useful one, as the area met several characteristics that would make the digital platform useful: part of the region was largely unaffected by the conflict but therefore was host to many IDPs who had fled there; another part was severely affected by conflict and 'the people remaining in the conflict-affected areas close to the contact line have little or no means for attending face-to-face MRE sessions provided elsewhere due to poor or damaged infrastructure and security concerns' (internal reporting document).

The perceived reputational risk posed to the Ukrainian government proved a central issue. For some members of the DDG country team, the heat map component of the digital platform was threatening their longer-term relationship with SES. On the urging of the DDG country team in Ukraine, and against the desires of the global MApps advisors, the heat map component was dropped, significantly changing the information flows the final prototype of the platform achieved (see Figure 6, compared with Figure 3).

Figure 6: Information flows for final prototype launched April 2016

Info on location of mines and UXOs is crowdsourced, confirmed by MA professionals/state actors and acted on with clearance activities

Feedback on timeline for expected clearance and confirmation of clearance

Educational messages sent through SMS or online intended to change behaviour

Online data monitored to understand use

Affected populations

Mine action professionals
State actors

Even after this significant adaptation to the project, the launch of the platform continued to face delays, partly because of several revisions to the platform as requested by SES. These changes were likely an inevitable part of the development process – SES officials in Mariupol were introduced to the software only in summer 2015, and needed time to familiarise themselves with it to understand the potential functionalities they could request.

With the project now stretching to a year beyond its original close date, the innovating team at DDG was encouraged by the HIF to develop potential exit scenarios depending on the level of engagement they would see from SES. One scenario imagined getting an adequate amount of buy-in; the other put forward a plan for closing the pilot should SES be unable to engage properly as a partner. In the end, SES was able to pick up its engagement throughout February and March of 2016, leading to finalisation of the prototype and launch of the digital portal in April.

'When implementing a pilot project in an ongoing humanitarian crisis – where many communities affected by the crisis are in great need of basic services and where the national and international responders work hard to address those needs – one has to both try to engage as many as possible as well as be honest about what our innovation can possibly do and what it may not be able to do. This also becomes a question of ethics as you are in reality asking people to take part in your experiment when they are under very difficult circumstances.'

Karen Kisakeni Sorensen, Global Project Coordinator, Mapps.

In contrast, development activities for the portal in Vietnam proceeded more smoothly, as the operating environment and relationships with local government were 'simpler'. In Vietnam there was also greater recognition of the problem and demand for the innovation by local stakeholders, which sustained their motivation throughout the development phase.

Based on interviews and documentation, this innovation process – and the development phase in particular – reinforces three important themes arising from this broader research programme on humanitarian innovation.

'[It can be] a little bit difficult internally in the organisation to argue why we should do a project like this [in this context]. I think maybe something that HIF should also keep in mind that it is inherently difficult to do innovative projects in active conflicts and in emergencies. Both because the situation changes but also because there will be for all the organisations another focus other than innovation.'

Rune Bech Persson, Programme and Operations Coordinator, Vietnam.

First, as found in other case studies in this series, innovation processes are most successful when all end users of an innovation are also its primary beneficiaries – that is, when all those whose behaviour must change to make an innovation work also see themselves as benefiting from the innovation. In this case, the problem DDG sought to address was largely a problem for MA operators, including governments. In the Vietnam context, where there were no existing tools for two-way communication with affected populations on MA, there was significant buy-in for the innovation from local government. In Ukraine, where there was a pre-existing telephone hotline for reporting ERW locations, the government may have seen

less unique value for a digital platform; it was also primarily concerned with the ongoing and recent conflict affecting the country. It remains to be seen whether affected people see themselves as benefiting from the platform. To a large degree, this may depend on how effectively government bodies in both locations are in providing timely feedback to civilians on their reports of ERWs and how these are being actioned.

A second theme lies in selecting the right context for the development and piloting of an innovation. Several issues common to innovation – the importance of having something tangible to show potential end users, the challenges in managing uncertainty, the need to weigh potential improvements against potential harms – become much more challenging in an emergency setting, particularly in conflict. This case study affirmed previous findings that developing new innovations in acute humanitarian crisis settings may be inefficient and counterproductive. In other cases, developing innovations in acute settings can be problematic because there is little time or patience for working out the 'bugs' or problems in a prototype. In this case, the main challenge lay in trying to build a sustainable innovation in a conflict setting. Sustainability demanded a high degree of participation from the government, yet the acuteness of the crisis and the political sensitivities raised by it being a conflict setting worked strongly against this participation being feasible.

Finally, humanitarian innovations present certain choices in weighing potential harms and benefits for which there is no clear guidance at the present moment. The MApps team and the Ukraine country office wrestled with whether the potential for improvement this innovation offered balanced out the risks posed to DDG's longer-term MA work in Ukraine. While they will not solve the problem entirely, better practices around performance measurement of current programming might help move these discussions towards a more evidence-informed approach. This can allow innovating teams and organisations to more accurately weigh potential costs and benefits when an innovation appears to present certain risks to current programming approaches.

Photo: Maxim Ishuk, SES team member, looking at the suspected hazard areas reported through MApps.

Credit: DDG/ Pete Muller. 2016.

3.4 Implementation

Implementation began with the launch of the digital platform in early April 2016. DDG had originally conceived of a two-phase pilot, with DDG hosting the website for the first phase, making alterations to the site in response to feedback from end users as the site was piloted, and then handing over the site to the SES authority in the second phase. This is the model for implementation being used in the Vietnam pilot site. However, towards the launch date for the Ukrainian site, SES indicated that it could not support or use a site that was hosted externally by a non-governmental body. Changes therefore had to be made in order to enable the platform to be launched on an SES-hosted site. While this creates ownership over the platform by SES from the very beginning of the implementation, the implications of this in terms of making revisions or changes to the platform to fix early bugs or respond to feedback from civilian end users are unclear.

SES has also said it is committed to responding to reports of suspected ERWs submitted by SMS or online. DDG will continue to work with SES to support it on this, but whether this is achieved is now largely out of DDG's control, as the primary responsibility sits with the state authority.

The pilot in Vietnam began its implementation phase during the same time. This version of the platform includes the heat map, as there were fewer sensitivities around sharing this information with civilians. However, DDG is finding that use of the site is not as high as expected, perhaps owing to different levels of comfort with the internet. Many pilot participants still prefer responding to and receiving information through SMS.

3.5 Diffusion

This innovation deals with the management of highly sensitive information that has a direct impact on public health. It is therefore best diffused through centralised authorities: a system like MApps works best when there is one actor who hosts and manages it for an entire geographic region, ideally the relevant state authority. The diffusion plan for DDG is therefore to diffuse the platform internally, through the global coordinator for MApps, to different DDG country offices. At country level, the same strategy used in Vietnam and Ukraine would then be applied: close partnership with state actors and local NGOs and consultation on the platform with ERW-affected civilians, with the aim of handing over to state authorities as the hosts for the platform very early on in the implementation phase. Significant time investments throughout the development phase of the project have positioned this innovation for a fast handover of the portal within country if implementation goes well. However, DDG has not built in significant plans for diffusion of the platform externally and there are no resources currently committed to expanding it internally.

In terms of diffusing learning from the innovation process, the MApps project coordinator disseminated early learning from the project through a video submitted to the World Humanitarian Summit consultation process and an article for the HPN Exchange magazine. Further diffusion plans to the mine action or MRE practitioner communities are currently not planned, as the focus remains on implementation and as evaluation of the platform's longer-term effectiveness will not be able to take place until later in 2016, depending on available funding. DDG is also currently in discussions with GICHD to explore how the IMSMA system can incorporate the DDG platform and expand IMSMA's functionalities for receiving information from civilians.

4. Was this a successful innovation process?

Inherent in all innovation processes is some degree of failure. This presents a challenge to understanding what contributes to a good innovation process: even successful processes will experience difficult pilots or setbacks in design or diffusion. The HIF-ALNAP research on innovation processes therefore distinguishes between a good innovation – an output of an innovation process that leads to measurable gains in effectiveness, quality and efficiency – and a good innovation process. This research defines a successful innovation process through three criteria:

Table 1: Criteria of success for innovation processes

Increased learning and evidence	There is new knowledge generated or an enhanced evidence base around the problem the innovation is intended to address, or around the performance of the innovation itself.
Improved solution	The innovation offers a measurable, comparative improvement in effectiveness, quality, or efficiency over current approaches to the problem addressed by the innovation.
Adoption	The innovation is taken to scale and used by others to improve humanitarian performance.

Through the research process for the case studies, ALNAP and HIF are also seeking to understand how HIF grantees define success in their work, in order to identify unexpected or unacknowledged benefits from engaging in innovation.

The research team used evidence collected for this case study to assess the success of the Linking Communities to Mine Action innovation process against the above three criteria. Timing issues meant it was impossible to fully assess the success of this innovation process, as the platform was launched during the final write-up of the case study, meaning there was insufficient evidence to assess two of the success criteria, improved solution and adoption. While it appears that the aim of creating a sustainable innovation by instilling national ownership was achieved with high success, it is not clear whether the platform itself offers an improved solution to engaging with ERW-affected civilians or whether the digital platform will be relevant to enough response contexts to warrant wide adoption. There are important lessons in this case for piloting in an emergency response setting and building sustainability into innovation processes, and therefore the potential to generate relevant learning from this innovation process is high. However, investments are required to produce a full evaluation of the innovation once implementation has progressed further. Specifically, findings were as follows:

Increased learning and evidence

There has been a strong monitoring and evaluation component to this project, and the MApps team has continually sought to gather information from key stakeholders in order to inform the further design of the online platform. This learning process, combined with the general flexibility of the MApps team, allowed it to make the necessary changes to enable the process to proceed. This included difficult choices, such as removing the heat map component of the platform and the changing of the pilot location.

The MApps team coordinator has also disseminated information targeting the general humanitarian community. However, there are currently no plans to disseminate learning to targeted members of the MA sector, which could offer a significant benefit to learning within the sector. There is also no comparative evidence currently being generated in order to understand how the digital platform complements or outperforms traditional face-to-face methods in MRE, although this could be addressed in an external evaluation of the project. Unfortunately, at the close of the HIF grant, there was a high turn-over of staff in the MApps project, particularly those involved in the Ukraine pilot. This will make DDG's ability to spread institutional learning from the project more challenging—a lesson from this may be to create contingency plans for handling staff turn-over during an innovation process or at the end of a pilot.

Improved solution

This project sought not only to innovate in a conflict setting but also to include national institutions as key partners in order to ensure co-ownership of the final prototype. In terms of humanitarian innovation, the combination of these two elements is exceptional. Innovating in a conflict setting already poses significant challenges, given the increased risk; working closely with national institutions to transfer over ownership of programming is heavily resource-intensive and tends to lie outside the focus of humanitarian organisations. The fact that the platform was launched and hosted by the Ukrainian SES is therefore an achievement in itself.

The question, however, is whether the platform delivers an improvement to how Humanitarian Mine Action operators or government bodies responsible for MA engage with affected people, and the access by affected people to relevant information regarding ERWs and risk. Delays in the project and the timing of this case study meant there was insufficient information to determine whether the digital platform and SMS technology offer an improved solution over current approaches. The MApps team may consider addressing this information gap in a forthcoming evaluation.

Photo: Mine Risk Education session conducted by DRC/DDG staff in Mariupol

Credit: DDG / Pete Muller. 2016.

There are three main ways to think about improvement in the context of this innovation: improvement in knowledge about ERW contamination, improvement in behaviours around ERWs and, weighed against these two, improvement in cost-efficiency of methods and approaches used in MA to tackle knowledge and behaviour. While behaviour change is the desired goal for MA, it is notoriously difficult to measure. The former is easier to measure and DDG is seeking to look at these changes through an evaluation being carried out through April 2016. Ideally, this evaluation should seek to establish comparative evidence between the outputs and outcomes achieved through the platform and those achieved through traditional face-to-face MRE and community liaison interventions.

Table 2: Framework for assessing comparative improvement offered by MApps programme

	Knowledge	Behaviour
ERW-affected people	Are more people being reached by MRE messages? Do the communities at risk have an increased knowledge of the threats mines and ERWs pose? (MApps M&E framework)	Are individuals engaging in less risky behaviour with respect to ERWs? Are there fewer injuries from ERWs as a result?
Humanitarian MA operators and state actors responsible for ERW clearance	Do MA operators and bodies have greater awareness of ERW locations and contamination levels? Is there an increased number of reports and level of interaction between the mines and ERW target group and the MA operators? (MApps M&E framework)	Are MA operators and government bodies more accountable for responding to reports of ERWs – do they respond more quickly and do they communicate more frequently on the status of clearance?

Adoption

It is far too early to assess adoption, though DDG's model for diffusion (working through partnership at country level with national actors) shows promise. However, the breadth of contexts to which this innovation can be applied depends on the prevalence of contexts that meet two necessary factors: there is 1) enough conflict to warrant a need for ERW contamination reporting and risk education yet also 2) sufficient literacy with technology among the civilian population and adequate internet infrastructure. It is unclear how many response contexts fit this profile. Yet, as technologies adapt to enable wider internet access even in conflict or post-conflict zones, the MApps portal may become more widely relevant.

In terms of diffusing learning and evidence, while DDG has necessarily had to focus on achieving milestones in the implementation of the portal, there is a real opportunity for generating unique and relevant evidence from this innovation process that should not be missed as this project moves into further testing and diffusion phases. It is unclear how the high rate of staff turn-over will impact on the organisation's ability to move forward with diffusion or with generating further evidence from the pilots in Ukraine and Vietnam.

5. What are we learning about innovation?

Drawing on research from the humanitarian sector and beyond, including previous case study material, HIF has identified a range of factors generally held to be fundamental to successful innovation processes. An important part of the case study research lies in testing, through the experience of the HIF grantees, the extent to which these propositions hold true in humanitarian settings.

- **Managing relationships and setting common objectives**

  Innovation always involves multiple actors – partners, implementers and end users – all of whom can change over the different stages of an innovation process. Assigning specific time and resources to managing these relationships and ensuring common objectives across the different stakeholders of an innovation will contribute to a successful innovation process.

- **Dividing tasks and responsibilities**

  Given the complexity of many innovation processes, a clear division of tasks and responsibilities between individuals and organisational units is important for developing a successful innovation.

- **Resourcing an innovation**

  Working in innovation requires flexibility to deal with the unknown, and this is particularly so with an innovation in the humanitarian sector. Budgets and resource plans therefore need to be suitably flexible to accommodate several possible outcomes (e.g. the need for further trials) as well as likely deviations from the original plan.

- **Flexibility of process**

  At its heart, managing an innovation process is about creating space for flexibility. Processes featuring flexible timelines, feedback loops for adaptation during the piloting phase and individuals resourced to execute changes in response to emerging results will be more likely to succeed.

- **Assessing and monitoring risk**

  Innovation processes in humanitarian action need to have an appropriate relationship to risk. We expect processes will be more likely to produce improved solutions and achieve uptake when they include an assessment of the different risks that might have an impact on the effectiveness of the innovation, as well as a strategy or plan to monitor and adjust development in light of changes in these risks on an ongoing basis.

- **Drawing on existing practice**

  Knowledge of existing practice and experiences is expected to contribute to more effective innovations through a better understanding of past attempted solutions, an accurate initial understanding of the problem or opportunity addressed by the innovation and an awareness of potential users and their needs.

Findings for these six propositions are presented in the graphics on the next few pages.

Managing relationships and setting common objectives

How this factor worked in this case study

The MApps project lead coordinated the developers and stakeholders in both Ukraine and Vietnam, working to set common objectives with each group separately. One of the key strengths of DDG's approach to managing relationships in this project was its decision to contract a separate organisation to act as the intermediary between DDG and its stakeholders, on the one side, and the technology developers on the other. CartONG, an NGO specialising in geographic information systems (GIS) technology, held the main responsibility for communicating user needs from DDG to the software developers, a process that was highly efficient, with timely turnarounds from the developers back to the MApps project lead. Managing relationships in the Ukrainian context was deemed highly critical to the success of the project and therefore DDG invested significantly in staff time to ensure this was done properly. When stakeholders in Ukraine appeared to deviate from previously established objectives for the project, DDG adopted a flexible approach in order to ensure its needs were being met, even if it led to delays.

Challenges

Coordination with stakeholders in the Ukrainian government was lengthy and involved multiple attempts with different parts of the government. Once key focal points in the government were identified, there were then frequent changes in what they requested and expected from the digital platform. The relationship management process in Ukraine was the primary reason the project took on a much longer timeframe for development and implementation than originally planned.

How this factor related to the performance of the innovation process

The investment in relationship management, in particular with SES, led to a faster implementation period for the innovation as well as strong ownership over the innovation by the government stakeholder from the start of the pilot. While DDG held two FGDs with affected people in Mariupol during development of the platform, fewer resources could be devoted to these than was originally planned, which may be a result of the significant time and attention required to maintain a successful partnership with SES. DDG will monitor how pilot communities in Mariupol use the digital platform and seek further feedback on how well it serves their information needs.

Dividing tasks and responsibilities

How this factor worked in this case study

There was clear division of tasks across the DDG team. DDG typically works with a structure where power is devolved to country level, but in this case the MApps coordinator reported both to the country heads in Ukraine and Vietnam and directly to the global advisor for the MApps project based in Denmark.

Challenges

The reporting line to headquarters was necessary, as the digital platform was part of a global initiative to test the viability of this technology for MA, and this global approach was necessary for further scaling to other countries later on. However, the deviation from standard reporting line practices was confusing for some within the country offices and there were disagreements between global and country headquarters on how to weigh the global priorities of the MApps initiative against the country office's priorities within Ukraine.

How this factor related to the performance of the innovation process

The DDG country head for Ukraine played a significant role in having the heat map component of the MApps project dropped in that pilot, which significantly changed the nature of the innovation. The fact that responsibilities for risk management and mitigation rested at country level had a significant impact on the project. While this is understandable, given that in-country staff will have a better understanding of the context, there should be clearer processes and guidance for weighing risks and supporting in-country staff to work with an innovation team in cases where an innovating team sits at headquarters or comes from outside the in-country organisation.

Resourcing an innovation

How this factor worked in this case study

While primarily funded by the HIF, DDG also sought out additional resources to support this project, as it ended up exceeding original timelines. This included drawing on an internal fund within the DRC that is used to support innovations and other projects that cannot easily secure external grant funding.

Challenges

While the original budget funded by the HIF included a line for 'contingency' funds, this was an extremely low proportion of the overall budget. The DDG team had to find additional resources to fund the salary for the MApps project lead to accommodate the longer timeline; this included applying to the DRC internal fund mentioned above, as well as costing some of this time to projects funded by other donors. It is also relevant to note that the resources of key partners can be quite important and challenging to an innovation process: while DDG continuously resourced the salary for the MApps project lead, resource gaps in the Ukrainian SES often led to disruptions in the partnership and delays in making firm commitments to move the project forward.

How this factor related to the performance of the innovation process

The internal DRC fund was drawn upon to provide small boosts of funding to support the salary costs of the MApps team as the timeline extended further. This appeared to support continuity of the project, a feature that was quite critical to maintaining effective relationships with stakeholders in Ukraine. This points to the importance of humanitarian organisations creating internal central funds for sustaining innovation processes when adequate external funding cannot be secured.

The innovator's perspective

'Where it may become trickier in terms of flexibility is that for this project we had to have a fair amount of co-funding. If that doesn't come from an innovation grant or something that's by nature very flexible, it becomes trickier. DRC, DDG has also spent some own investment money which is also flexible so that's not been the issue but it's when you start to get other donors on board and they see it as a more traditional project with a specified output in terms of number of beneficiaries and so on that you start to have a bit more problems in being more flexible and having justifications for different things.'

Karen Kisakeni Sorensen, Global Project Coordinator, Mapps

Flexibility of process

How this factor worked in this case study

In this innovation process, the team was highly flexible, aiming to adapt to the particular constraints and needs of the context of Ukraine as well as to the preferences and needs of the end users of the digital platform, in particular the Ukrainian government. Funding played a key role in this, enabling the extension of the timeline on several occasions.

Challenges

While DDG felt supported by the HIF in making the changes it needed in order to ensure quality in the innovation process, after a third extension to the timeline of the project it was felt that a milestone or decision point needed to be reached. Approaches such as scenario planning were brought in for the later stages of the project to address this and to explore options for closing the project should the negotiations with SES not progress as desired. Echoing similar challenges in other case studies, DDG's experience in Ukraine points to the difficulties in knowing when to assess an early innovation process as a 'good fail', learn from it and move on, and when to press on.

How this factor related to the performance of the innovation process

When flexible innovation processes meet difficult or unresponsive end users, it can be challenging to understand when to keep investing in these relationships or when to move on. It was unclear whether enforcing this timeline helped push the project to a launch in April or if it risked rushing the project to a less successful end. DDG found scenario planning was 'a good way of clarifying with all partners what's going to happen next and the potential roles. What that did for us is to make us think again, have we done our risk analysis right? That was one good thing and another is we could elaborate more on how we actually move forward on the analysis we've done up until now.' The MApps team's flexibility also appears to have been critical to securing a strong launch of the platform by SES in April. This enabled it to skip one of its planned implementation stages and move directly to a site hosted by a national actor.

The innovator's persepctive

'[In terms of what contributes to success], flexibility is the first word that springs to mind. Obviously that goes to your human resourcing in your organisation, it also goes in terms of the funding obviously. Then I think for us so far, even though we haven't been able to implement, this thing about re-evaluating and reassessing the whole time, I think that has been really useful. I think our project methodology has been very useful for us and then I think if you think about it in terms of how we've developed the innovation products, then again I think keeping it agile and light in terms of don't start building the silver bullet from the beginning, like big large-scale very comprehensive IT development projects. I think it's better to get initial results and initial experiences that can document and give some evidence as to how you should build your system.'

Karen Kisakeni Sorensen, Global Project Coordinator, Mapps

Assessing and monitoring risk

How this factor worked in this case study

The MApps team identified risks from the outset; it did not develop mitigation strategies, however, and did not use a structured risk monitoring process. Instead, risk analysis and mitigation was an ongoing part of the project itself, mainly because of the need to constantly engage with the risks of the political context in Ukraine. Risk management in this case study was therefore more of a core component of the project itself. However, this approach made it difficult to identify appropriate trade-offs or alternative mitigation strategies in the moment, which may have made it more challenging for the MApps team to take a step back and assess the innovation process more strategically. Carrying out scenario planning and analysis, an action requested by the HIF later in the grant extension period, was important for identifying concrete options for risk mitigation and exit strategy and was viewed as useful by the MApps team.

Challenges

Given the nature of the innovation (information-sharing with affected people) and the context in which it was being developed and tested (conflict), the risk profile for this innovation process was more complex than it was for others. There were risks to the well-being of the innovation's end users, in particular civilians (over perceived potential harms in reporting information on ERWs to the government), risks to the success of the innovation and risks to the timeliness and cost-efficiency of the project, all of which required monitoring and weighing. These decisions were not easy ones: weighing the potential benefits of the innovation against the potential harm it could cause more broadly to DDG's reputation and its relationships in-country was challenging. In addition different DDG staff had different views on what the right balance would look like.

How this factor related to the performance of the innovation process

Several interviewees within and outside DDG for this case study raised the issue of risk management as a key factor when innovating in a conflict setting. Many felt there should be a focused reflection on the added value of an innovation in a conflict setting prior to the start of the project to guide prioritisation and risk mitigation. While risks to stakeholders in the project and risks to the success of the innovation were well identified and monitored, mitigation efforts to address these were typically prioritised over mitigating risks to the timeline or cost of the project, resulting in timeline and cost running significantly beyond expectations.

The innovator's perspecitve

'I think mine action, like any other sector, should seek to innovate... but with the added dimension of a conflict situation, that becomes much more difficult, and these things can never be implemented as intended. What you need to responsibly do is seek a middle ground to get [innovations] developed while not endangering future activities of the organisation, or mine action activities in the country.'

Ed Crowther, DDG Ukraine Country Head

Drawing on existing practice

How this factor worked in this case study

The initial application to the HIF did not draw strongly on existing practices within MA. When Tammy Hall took on the project as DDG Mine Action Representative, she initiated a round of revisions in order to reflect existing MRE practices. The MApps project team worked with GICHD and with the DDG global MRE advisor to ensure the digital portal's messages on mine risk reflected MRE best practice. Guided by the recommendations from CartONG's baseline assessment, DDG opted to base its digital platform and SMS service on pre-existing products, SMS Frontline and Ushahidi, in order to ensure smooth development of the technical software. More broadly, DDG drew on knowledge of the context and user needs through stakeholder consultation with civilians affected by ERWs in Mariupol and, more predominantly, with SES, which continuously informed its understanding of the problem and led to several tweaks to the project.

Challenges

DDG staff indicated that the organisation itself is not very ICT-driven in its programming, and there was weak existing organisational knowledge of existing technologies and opportunities for ICT use in mine action. This challenge was addressed through the effective partnership with CartONG. CartONG's baseline survey was used to assess existing practices in how affected people access and use information. It indicated that accessing information through the internet was lower than through SMS or television, the latter of which was rated as the primary source of information for respondents. This raises questions as to whether a digital platform, even one that involves an SMS reporting component, will be as complementary to existing practices and as effective as a television programme at reaching affected populations, and whether it will add significant value to pre-existing telephone hotlines and SMS services.

How this factor related to the performance of the innovation process

The MApps team appeared to have strong knowledge of relevant existing practices in MA that were relevant to this innovation. The partnership with CartONG enabled DDG to effectively draw on existing technologies in order to minimise the resources spent on the technical development of the platform. This decision appeared to be critical to the success of the innovation process, given the potential resource risks in technical development activities observed in other case studies.

New factors that were important

Supportive organisational culture for innovation

'[A lot of our innovations] that will eventually go global all have in common that they come from someone in our system thinking, "We need to do something about this." [This depends on staff] having the courage and feeling confident enough to pursue it, having a supervisor who says, "That sounds like a really good idea and if you feel convinced there's something here then give it a go and spend some time pursuing that."'

Rasmus Stuhr Jakobsen, DRC (formerly DDG Director)

Passionate individuals who drive innovation internally

'If you have key persons really interested in innovating and understanding what you can do for innovation, if you have those key people, then it can work well because they can then be the carriers in their organisations, talk about it. If they're passionate about it, they can carry it forward. So it requires a few key people with a certain standing in an organisation to carry innovation through and make them accessible for the rest of the organisation as well.'

Sandra Sudhoff, CartONG

6. Emerging lessons for best practice in innovation

- Innovating in a conflict setting and trying to build in sustainability and end user ownership from the outset takes significant investments of time. This can test donor appetite for flexibility, so it is important to build in realistic expectations up front: for projects seeking longer-term sustainability, 18 months should be considered a minimum, not a maximum, timeframe for the development and piloting of an innovation.

- Clarity on design criteria and approaches to weighing potential harms and benefits can help in making the difficult strategic decisions and trade-offs that innovating teams will face during their process.

- This case study provides further evidence of the finding that early piloting of a prototype in emergency contexts has significant drawbacks. While this does not mean user-centred design or early prototyping in acute crises is impossible, it does indicate that the pilot context needs to be carefully considered for its appropriateness, and the innovation should address a problem or opportunity clearly recognised and prioritised by end users.

- Context bears significant relevance to the design and effectiveness of an innovation; processes that involve adaptation and flexibility to the needs of the local context are more likely to achieve the buy-in that is essential for successful innovation.

- Echoing similar challenges in other case studies, DDG's experience in Ukraine points to the difficulties in knowing when to assess an early innovation process as a 'good fail', learn from it and move on and when to press on. The use of scenario planning and analysis suggested by the HIF for this grant appears to have been helpful in formalising the risk mitigation options facing the MApps team and should be considered for future grantees both in the application process and in interim reporting.

- A high turnover of staff on an innovation project can negatively impact the ability to incorporate learning from the innovation process. Organisations should create contingency plans to mitigate the effects of this turn over.

Other case studies from HIF and ALNAP on innovation

Mapping a response:
Using satellite images to aid humanitarian action

Improving menstrual hygiene in emergencies:
IFRC's MHM Kit

Understanding the performance of emergency
feeding programmes

Using mobile voice technology to improve
the collection of food security data

Improving water quality and quantity in emergencies:
The Inclined Plate Settler water treatment system

A community financing mechanism for disaster risk reduction:
The Bio-rights approach

Words of Relief: Translators without Borders' local language
translation for emergencies

Supporting disabled people in emergencies: Motivation's
appropriate and affordable wheelchairs

Innovations in international humanitarian action:
ALNAP's 8th Review of Humanitarian Action

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