



UKJR4 Blockchain Pilot

SUMMARY OF LEARNINGS

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Lessons from the UKJR4 Blockchain Pilot in the Ukraine Joint Response of the Dutch Relief Alliance

Participating Organisations: Dorcas Aid International, Terre des Hommes, SOS Kinderdorpen.

This Lessons document is intended as a contribution to knowledge in the humanitarian sector, and provides useful lessons for other organisations intending to carry out their own pilots.

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DISBERSE

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This learning note is based on the direct experience of the pilot, and feedback from the individuals who took part in it (a complete list of individual interviews is given in Appendix A). Disberse thanks all the participants, both individuals and organisations, for their cooperation; and particularly Dorcas Aid International for leading the pilot. Disberse is committed to documenting and sharing the lessons learned from its pilots, with the support of its partners. This document can be distributed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International license.

Background

Disberse is a for-profit social enterprise that is building a new financial institution for the aid industry, with the Disberse platform built on the Ethereum blockchain. Client transactions are managed and recorded by smart contracts on the Ethereum testnet, while the funds on the platform are not cryptocurrency, but electronic money (e-money) issued by Disberse against fiat currency deposited by the client.

At the end of 2017 Disberse received authorisation to operate as an electronic money institution from the Financial Conduct Authority of the United Kingdom. In 2018 Disberse has carried out a series of pilots with NGO partners, initially involving members of the Start Network of 42 NGOs, working to address systemic challenges that the world is facing in delivering humanitarian assistance to people affected by crises.

The Disberse pilot strategy is to increase the complexity and scale of each successive pilot. After participating in an early pilot, the Dutch NGO Dorcas Aid International decided that they wanted to build on that experience with a multi-organisation and multi-country pilot as part of the Dutch Relief Alliance's (DRA) Ukraine Joint Response, established to address the needs of displaced populations in eastern Ukraine.

Dorcas is the lead agency, working with fellow DRA members Terre des Hommes Netherlands and SOS Kinderdorpen.¹ The pilot was incorporated into the ongoing UKJR4 project with the approval of the DRA. The goal of the pilot was to contribute to the innovation agenda of the DRA and towards more efficient and transparent flows of humanitarian funding from donor to field operations.

¹ A fourth NGO – Cordaid – is part of the Joint Response but did not take part in this pilot.

The Pilot

A Demonstration was given for all participants on 4th September 2018, followed by a question and answer session. A Dummy Run was planned for 11th September, but due to downtime on the Disberse demo server, this was replaced by a 45 minute Q&A session. Disberse then prepared and distributed a detailed guide to the pilot process and a step-by-step instruction manual to all participants, outlining the responsibilities of each office at each step of the pilot and providing instructions on how to use the platform during the pilot. Each of the participating offices filled out onboarding forms in order to meet regulatory requirements; the Ukraine offices also filled out domestic paperwork necessary to receive foreign donations. Before and during the pilot, Disberse provided online support via email, with Disberse staff answering questions directly from participants.

The Pilot began on 18 September. In advance of the Pilot, Dorcas deposited €30,000 into a Disberse segregated Euro bank account, and Disberse then issued Dorcas with €30,000 in electronic money to their account on the platform. Each of the participating offices created their own accounts on the platform, secured by two-factor authentication (password and pin code), and then carried out the following steps:

- John Wolff of Dorcas Aid International sent funds to the following accounts through the platform: €10,000 to Dorcas in Ukraine, €10,000 to SOS Kinderdorpen in the Netherlands, and €10,000 to Terre des Hommes in the Netherlands.
- Ferenc Katko of Dorcas in Ukraine redeemed €10,000 with Disberse.
- Chantal Stad of SOS Kinderdorpen Netherlands sent €10,000 to SOS Kinderdorpen in Ukraine through the platform. Antonina Dyakonuk of SOS Kinderdorpen Ukraine redeemed €10,000 with Disberse.
- Paul Wolters of Terre des Hommes Netherlands sent €10,000 to Terre des Hommes in Switzerland through the platform.

Pilot Analysis

The benefits of the pilot can be broken down into a number of categories. The primary benefits (i.e. benefits to individual participants) were shown in:

1. Increased efficiency through time savings;
2. Increased efficiency through cost reduction;
3. Increased transparency of funding flows;
4. Opportunity to test new financial technology.

The secondary benefits (i.e. benefits to the sector) were shown in:

5. Demonstrating innovative approaches to fund management;
6. Providing input for further development of the Disberse platform;
7. Building trust between DRA members and Disberse.

This section will explore the primary benefits as reported by the participants.

1. Time savings

The main benefit noted by participants was the speed of the transfer, which was faster than their normal processes for all participating organisations. One international office said that they usually sent transfers on Friday, which were received in Ukraine by the middle of the following Monday; another of the international offices suggested that transfers to the Ukraine normally took five working days. At least one organisation makes its transfers under special conditions negotiated with their bank.

One of the Ukraine offices stated that it usually took a minimum of 2 weeks between making a request for transfer and receiving funds in their bank account. This was exceptional, and was due to internal administrative procedures, many of which are

necessary to meet accounting requirements. While Disberse cannot eliminate such delays, they could be mitigated by bringing them into the platform and (where possible) automating them.

When Disberse attempted to develop a baseline for comparison, all of the respondents had to investigate how long transfers normally took using their usual banking partners. Head offices do not usually keep track of the time it takes for transfers to arrive; they instruct their bank to make the transfer but do not actively track it thereafter. Bringing transactions into the Disberse platform enabled organisations to track each transaction precisely.

It is worth noting that none of the stakeholders in a multi-organisation funding chain such as this has a complete overview of all transfers, since the transactions records are maintained by banks and the accounts are kept within the individual organisations in the chain. By bringing the funding chain into the Disberse platform, it was possible for all stakeholders to have an overview of all transfers, thus creating the potential for better coordination.

Due to the the exceptional nature of the pilot, it was impossible to build a precise baseline for comparison. However we estimate that the pilot saved a minimum of 3 working days across all transactions against a “business as usual” scenario. These gains were created by moving the intermediate steps between Dorcas in the Netherlands and the recipient organisations in Ukraine from the existing banking system onto the Disberse platform.

2. Cost Reduction

Cost reduction was also identified as a benefit by some participants. In the “business as usual” scenario, however, each of the participating organisations had different transfer paths, with different administrative procedures for making payments and different costs borne at different stages. As a result no single participant had an overview of transaction costs across all of their offices, and of course none of the participants had an overview for all three organisations.

This represents an opportunity for a platform like Disberse to build that overview for all participants and their donors, and to specifically identify cost savings at each step in the chain. However the lack of certainty described above meant that it was difficult to

calculate the precise difference in cost between the Disberse pilot and business as usual. In addition the Disberse pilot was a one-off, whereas ongoing integration of the Disberse platform would identify more opportunities for savings.

Taking the above factors into account, we estimate that a minimum of €20 total was saved across all transactions involved against a “business as usual” scenario. however we note that “business as usual” varied significantly depending on the organisation and the donor, as well as conditions specific to the country; in this case, Ukraine has a number of characteristics that are not found in other operational locations, particularly with regards to regulatory constraints and banking infrastructure.

3. Transparency

Only one of the participants specifically identified the transparency of the platform as important, and the only feedback we received on the visibility of the funding chain was that it was “useful not essential”. This may be because the participants performed one-off transactions and did not revisit the platform afterwards to track their transfers. The transparency of the platform can however be a strong added value for funding bodies such as the DRA, since it enables funding to be easily traced from the donor to implementing organisations in the field, including local partner organisations. This becomes particularly useful when the funding chains are more complicated, as was the case with this Pilot.

4. Testing New Technology

A majority of the participants stated that one of their main reasons for participating in the pilot was to test the technology involved. The pilot met their expectations fully in this regard, with most expressing surprise at how simple it was to use the platform. The pilot therefore facilitated further experiments with new technology inside these organisations by providing a low-risk learning experience for participants.

Lessons Learned

The Pilot Experience

Involvement in the pilot came through Dorcas; the Netherlands offices of the other two organisations were informed about the pilot by Dorcas, and then in turn informed their offices in Ukraine. (The Switzerland office of TDh was informed about the pilot at a later stage by the Ukraine office; this was part of the reason why their involvement needed further clarification.) Having a single organisation, such as Dorcas, coordinating the initial stages of a multi-organisation pilot was essential for the success of the pilot.

Most of the participants were interested in trying something new, although some were concerned about the extra work involved. However some of the participants – particularly in the Ukraine offices – did not understand what the platform was or what the pilot involved. When the practical implications of moving funds through the platform became clear (see section on Workflow Changes), one organisation realised that they would need to seek approval at a higher management level; this slowed down their participation in the pilot, although in the end they were able to complete.

As a result, one participant felt that the pilot happened too quickly, and that participants should be given more time to prepare. Another suggestion was that organisations should have a introductory webinar before they agree to participate in a pilot, in order to understand exactly what they are agreeing to. Another participant suggested that Disberse should build trust by providing informational material (e.g. brochures) to explain the Disberse organisation, in the same way that banks do.

The majority of participants had no experience of blockchain technology, and so did not have any specific expectations. Of the participants that had heard about blockchain, their expectations were lightly positive – around transparency and efficiency – and lightly negative – with regards to security.

Most of the participants felt that the preparation they received was sufficient. However one Ukraine participant did not feel that the process was clear to them (although they felt that everything became clear during the pilot itself) while two other participants felt that there may have been too much preparation (e.g. too much time taken on the webinar). However these contrasting experiences reflected more the capacities and communications of the participating organisations than the pilot itself.

The process guidelines and instruction manual were generally found to be very clear, simple and useful – although they can always be improved – enabling participants who had missed the webinar to understand what was expected from them. While the process itself was simple, some participants cited the real-time support provided by Disberse when questions arose. This meant that all of the participants reported that they found the pilot itself straightforward.

Two participants noted that the pilot only involved a one-off transaction, and it was difficult to know how well the platform would work for an entire project, let alone an entire organisation; while it would make large numbers of transactions easier to track, it would also present challenges in visualising such complicated data.

Workflow Changes

Almost all of the participants working at head offices reported needing to adapt their workflows and/or internal processes in order to facilitate the pilot. The country offices that were receiving the funds needed less adaptation, except for filling out new versions of the foreign donations form required under Ukraine's currency control regulations.

The biggest adaptation for all three organisations was suspending their usual requirement for dual signatures. Usually NGOs require one person to prepare the transfer and one person to sign it off. At the time of the pilot the Disberse platform did not have dual signature capability (although this will be available in the beta version), requiring participating organisations to temporarily suspend this requirement.

The next biggest adaptation was around the industry practice of tendering for third-party service providers such as Disberse. Many organisations require a tender process, although not usually for banking services. As Disberse had helped Dorcas to develop the pilot, and no other organisations provide this service, the consortium was prepared to suspend this requirement also.

For two of the participating organisations, a third process was also adapted. One of the organisations transfers funds every month or two months, as a security measure; another organisation transfers funds only at the request of the country office, to meet

their cash flow requirements. In all cases the organisations were making an exceptional transfer in order to participate in the pilot.

One of the participating organisations had a policy to negotiate with donors during the contracting phase to ensure that donor funds are not flagged, in order to give them maximum flexibility. Because the funds being transferred for the pilot were flagged for a specific project, they needed to justify the pilot internally in order to derogate this policy.

Finally, Ukraine has some of the most restrictive banking regulations and currency controls in the world, which initially made Disberse nervous. However it was relatively simple for the receiving offices to fill out an additional form to specify that they would be receiving funds from Disberse, and there no further problems were encountered.

These changes – and especially those that “broke” organisation policy - were allowed on the basis that it was a one-off pilot that could be justified in an audit through the support of the donor and the participation of other NGOs. A full project would have to go through more approvals, and internal systems would need to be adapted.

The Critical Role of Trust

Trust is critical to the success of these pilots. They involve entrusting public funds to a third party, and they also require organisations to alter their usual processes in order to participate. The pilots themselves do not deliver significant value for the participating organisations, but are intended as a proof of concept for future work, and as a contribution to knowledge in the humanitarian community.

As a result trust is not automatically granted. Disberse experienced a particular setback when their demo server went down just before the dummy run. This made participants less confident, but they were reassured by the way in which Disberse handled the situation and continued to answer the questions. Disberse real-time support was cited repeatedly by participants as a source of confidence; when one finance head (who had not been involved in the preparation) had questions, they contacted Disberse directly, and were reassured by the responses to move forward.

Generating trust within an organisation can be difficult, especially where multiple units within the organisation may need to approve, or where the relationships between different offices are complicated. In particular senior management – and particularly finance directors – need to be convinced. One way in which Disberse achieves this is by holding funds in a segregated bank account; client funds in these accounts can only be used to issue electronic money on the platform, and cannot be used by Disberse for any other purpose.

Disberse was unknown to all the participating organisations except Dorcas (who had participated in a previous pilot), but participants identified several different reasons why they trusted Disberse:

- Dorcas, a trusted partner in the consortium, provided the introduction (for HQ offices);
- they were introduced to the pilot by their international office (for Ukraine offices);
- other organisations from the consortium were involved (providing peer validation);
- Disberse has FCA authorisation, with a corresponding regulatory assurance;
- the Disberse platform itself appeared professional, with useful support material;
- Disberse quickly and clearly provided answers to participant questions;
- Dorcas had already carried out a pilot with Disberse;
- Disberse had a track record with e.g. the Start Network;
- Dorcas was taking all the risks because it was their distribution!

Next steps

All of the participants expressed their interest in participating in future development of the service, although the Ukraine offices pointed out that it would depend on what their head offices decided to do. Disberse will follow up with each participant to establish their level of interest and explore how their organisations can test the platform, either internally or with partners.

From Disberse's perspective, the time savings were adequate but the cost reduction did not demonstrate significant value. To some extent this was due to the specific conditions of the Ukraine response, but it also demonstrates the variety and complexity of funding flows across different responses. Disberse continues to believe that more value can be unlocked by applying new financial technology to standardise these flows.

The difficulty of establishing baseline metrics was clear in this pilot. In previous pilots, simultaneous transfers have been used to measure the "business as usual" scenario against the Disberse platform, and this will be a priority in future pilots. The specific conditions applying in Ukraine will be incorporated into Disberse's knowledge base and shared with other organisations.

Several changes were suggested for future pilots; in addition those in text above, an after-action webinar could be held to help participants understand transparency implications. Several features were identified as priorities for development of the platform, including: dual signature capability, automated report generation, and interoperability with existing financial management software.

Appendix A: Interviewees

Organisation	Office	Name	Position
Dorcas	Netherlands	John Wolff	Finance Director
	Ukraine	Ferenc Katko	Country Director
Terre des Hommes	Netherlands	Paul Wolters	Humanitarian Coordinator
	Switzerland	Mirela Le Dortz	Financial Controller
	Ukraine	Ionut Raita	Country Director
		Natalia Chicu	Finance Manager
SOS Kinderdorpen	Netherlands	Chantal Stad	Finance
	Ukraine	Natalia Konstantinova	Chief Finance Officer
		Antonina Dyakonuk	Chief Accountant
		Oleksandr Okrugin	IT