

**HUMANITARIAN INNOVATION FUND****WASH Grant Final Report**

<b>Organisation Name</b>	Real Relief ApS
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<b>Project Title</b>	<b>Magic Towel, Phase 1</b>
<b>Partner(s)</b>	LSHTM, John Stevens RCA, Danish Refugee Council, KET Lab
<b>Problem Addressed / Thematic Focus</b>	Access to hand washing facilities in humanitarian emergencies are limited or non-existent. As a result people affected by the emergency will not wash their hands or at least not often enough. This has the effect that diseases related to hand hygiene increase dramatically. Magic Towel™ offers easy distribution as the product is light weight, low volume and durable. With Magic towel you may wash your hands anywhere, any time and with minimal water and no soap consumption. Even with contaminated water sources.
<b>Location</b>	Denmark, UK, India
<b>Start Date</b>	1 <sup>st</sup> June 2017
<b>End Date</b>	31 <sup>st</sup> May 2018
<b>Total Funding</b>	£52,531
<b>Total Spent</b>	£51,994

<b>Reporting Period</b>	<b>Phase 1: June 2017 – May 2018</b>
<b>Type of Innovation</b>	<b>WASH -</b>
<b>Project Impact Summary</b>	The Magic Towel provides an alternative to large-scale soap distribution. It will be beneficial to emergency responders as it will be easier (smaller and lighter) to distribute and last longer than soap, negating the need for frequent distributions. The Magic Towel will reduce water wastage associated with hand washing and reduce drainage problems that are often seen around hand washing facilities. The Magic Towel will be



	<p>beneficial to those effected by emergencies as it can easily be carried by users all the time, making hand cleaning more convenient.</p> <p>Phase 1 that has now been concluded has established proof of concept in the laboratory. This means we have proven in a clinical trial involving 16 volunteers that, when used for handwashing, Magic Towel™ provides better bacterial removal than soap and water.</p>
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## PROJECT ACTIVITIES AND OUTPUTS

Please go to **Appendix 1** and attach the final workplan, showing all work that was actually completed.

### 1. With reference to the final workplan, what have been the key achievements of the project?

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## INNOVATION OUTCOMES

We have performed two rounds of laboratory tests each involving 16 volunteers, where handwashing with different versions of Magic Towel™ was compared against handwashing with soap and water. We used the WHO guidelines for handwashing in both cases. In the first test the initial Magic Towel prototype showed some promising results but was not more efficacious than soap. For the second round of testing we revised the form and material to produce 3 new prototypes. All three were better at removing bacteria from artificially contaminated hands than soap and water. The results are statistical significant. Particularly one of the 3 Magic Towel™ versions performed outstandingly, to the extent that all 16 volunteers managed to get as clean or cleaner hands by using Magic Towel™.

### 2. Has the project demonstrated the success of the innovation? (Please choose only one answer.)

- Completely successful
- Significantly successful
- Partially successful
- Completely unsuccessful

### 2b. Please select the successes that your project have achieved:

(You may choose more than one)

- There is real evidence that the project achieved the planned outcome(s)
  - There were perceived contributions or improvements to the planned outcome(s)
  - Learning was achieved within the project cycle
  - 'Lessons learned' were gathered and circulated to humanitarian stakeholders and actors
  - The completion of this project has led to another innovation
  - Other (please comment) \_\_\_\_\_
-



**2c. Please select the challenges your project has encountered:**

*(You may choose more than one)*

- The project did not complete its planned activities
- There is no real evidence that the project achieved the planned outcome(s)
- There were few perceived contributions or improvements to the planned outcome(s)
- Learning was not achieved within the project cycle
- 'Lessons learned' were not circulated to humanitarian stakeholders and actors
- Other *(please comment)*

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**2d. If there is any evidence for the successful performance of the innovation, please describe it further:**

Laboratory test results proved that Magic Towel™ under the given circumstances are better than soap and water for handwashing. A scientific report is being prepared and will be shared as widely as possible.

**3. Please show the components of the project which contributed the most to any successes:**

*(where 1 = most influence 3 = least influence)*

Component	1	2	3	N/A
Design and placement of the innovation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The methodology or approach to collecting evidence	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Context	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
The availability of resources and capacities (financial, human, technical etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Success in identifying and responding to different project and innovation risks	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Strength of relationships and collaborations within the team and with other stakeholders	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The process was flexible and responsive to emerging results	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ability to draw on experience and expertise of existing practice, codes and standards	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



4. Please show the components of the project which contributed the most to any unsuccessful elements of the project

Component	Yes- contributed to failures
Weaknesses in the design and placement of the innovation	<input type="checkbox"/>
The methodology or approach to collecting evidence	<input type="checkbox"/>
Context	<input type="checkbox"/>
A lack of access to resources and capacities (financial, human, technical etc.)	<input type="checkbox"/>
Difficulty in identifying and responding to different risks	<input checked="" type="checkbox"/>
Lack of good relationships and collaboration within the team and with other stakeholders	<input type="checkbox"/>
Having a process that was not flexible or responsive to emerging results	<input type="checkbox"/>
No ability to draw on experience and expertise of existing practice, codes and standards	<input type="checkbox"/>
Other:	<input type="checkbox"/>
Other:	<input type="checkbox"/>

5. What are the top three, key lessons learnt relating to the innovation? *This should relate to the innovation or the sector in which it operates, rather than project implementation.*

1. Communicating across cultures and by distance can be complex. The tests were performed in a lab in India and the first trial showed (based on video recordings that we had insisted on to monitor quality) that even though we had developed a very detailed test protocol, it could still be interpreted in ways that were slightly different from the intention.
2. The relationships between the partners on this grant have been key to the project's success to date. Each partner has brought unique expertise which together has made navigating any hurdles along the design and testing process relatively easy.
3. This is only phase 1 and therefore experiences that relates to praxis in the WASH sector is limited if not non-existing. This will be the subject of phase 2

6. Do the final outcomes support the initial rationale for the innovation?

- Yes, completely
- Yes, significantly
- Partially



No, not at all

*Please describe further:*

**7. How has your understanding of the innovation changed through the project period?**

Some experience has been gained on how the product should be used and what the potential challenges are for its uptake and use. Much of this insight was generated from the design workshop.

**8. Did the innovation lead to any unexpected outcomes or results? How were these identified and managed?**

It was realized that the immediate active component of the towel is not so much the anti-microbial treatment, but the fabric. We realized this after evaluating the results of the first laboratory test which showed that the pathogens were not being adequately transferred onto the Magic Towel material in order to be killed. To address this we changed the fabric to a type that was better at removing germs from surfaces.

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**METHODOLOGY**

**9. Was the methodology successful in producing credible evidence on the performance of the innovation?**

- Yes, completely
- Yes, significantly
- Partially
- No, not at all

*Please describe further:*

We have tested the Magic Towel™'s efficacy as a handwashing tool under specific criteria which are aligned to EU standards for assessing soap alternative products. Further tests related to realistic usage could still be relevant and necessary.

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**PARTNERSHIPS AND COLLABORATION**

**10. How and why did the partnership change during the course of the project?**



We had to change the laboratory as the original planned cooperation lab cancelled their involvement after project start.

**11. Are there plans to continue your partnership, either while scaling up this innovation or on other projects?**

- Yes, with this innovation
- Yes, with another project
- Maybe
- No

*Please describe further:*

The partnership between Real Relief, LSHTM, DRC and RCA will continue in phase 2 of this project. Potentially KET lab could also be drawn into a follow-on to the project.

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**DISSEMINATION**

**12. Please describe any steps taken to disseminate the outcomes of the project.**

A scientific report is being prepared. This will be published as soon as it is available, which will happen in the next couple of weeks. We will offer to present the scientific work done at relevant conferences in the WASH sector. Blogposts about the results are also planned

**13. Has the project received any third party coverage during the project (from news media, third party blogs, researchers or academics etc.)?**

Magic Towel™ and the idea behind the product has been discussed and explained to many stakeholders in the WASH sector, sparking a lot of interest. Other academics at LSHTM are now considering testing it as a face cleaning tool to aid in the control of Trachoma. The product recently made it into the finals of the Danish Design Award.

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**SCALE UP AND DIFFUSION – WHAT NEXT?**

**14. Is the project or innovation to be replicated or scaled up?**

- Yes, we will scale up in the same or similar context
- Yes, we will scale up within our organisation (including running more pilots or trials)
- Yes, we will replicate the innovation/project in another context or country
- Yes, the innovation/project will be replicated or scaled up by another organisation or stakeholder
- Yes, other
- No

If you answered yes to question 14, please answer 14b:

**14b. What model are you pursuing to scale up or sustain your innovation?**



- Applying for more donor funding
- Selling the innovation or patent
- Cost recovery (for example, selling your service or being paid as a consultant to implement the innovation)
- Innovation to be taken up by organisation or government as standard and included in standard planning and core funding by them
- Other \_\_\_\_\_

*Please describe further:*

**15. If the project or innovation could be replicated or scaled up, please list the three most important issues or actions that will need to be considered:**

*(where 1 = most important and 3 = least important)*

Suggestion/issue	1	2	3
1 User acceptance	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2 Behaviour change around handwashing in general	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



### Appendix 1. Final Workplan

Below is a table that is the same as the workplan that you submitted with your original application. There are **three ways** to respond to this section.

1. If there have been no changes at all through the project you may cut and paste your original workplan here.
2. If there have been changes to the project but these changes **were previously reported to the HIF** in an *Agreement Amendment* form, please adjust your original workplan so that these changes are recorded in it here.
3. If there have been changes which were **not previously reported to the HIF**, please **also** fill in Table 2 (which is on the next page). In particular, please make sure to explain any budget various greater than 15% in Table 2.

**Please paste your final workplan in here >**

*The workplan is attached as an excel sheet.*

Expected Results	Main Planned activities	Implementation period													Responsible party / person	Amount			
		Months														2013		2014...	
		1	2	3	4	5	6	7	8	9	10	...	...	HIF		Others	HIF	Others	






**Table 2: Changes to Workplan**

For every change in the final workplan that is different to your original worktable AND that has not already been reported to the HIF, please add a record in this table. Changes can include alterations to the methodology, project process or innovation design, for example.

Change (as referenced in workplan above)	Reason for change	Overall impact of change
1.		
2.		
3.		
4.		