
This is the published version of the paper.

This version of the publication may differ from the final published version.

Permanent repository link: https://openaccess.city.ac.uk/id/eprint/23629/

Link to published version:

Copyright and reuse: City Research Online aims to make research outputs of City, University of London available to a wider audience. Copyright and Moral Rights remain with the author(s) and/or copyright holders. URLs from City Research Online may be freely distributed and linked to.

City Research Online: http://openaccess.city.ac.uk/ publications@city.ac.uk
On paper, crowdsourced innovation makes a lot of sense: If two heads are better than one, why not 20,000? Surely, some of those outsiders will have fresh solutions to your problem. But in practice, such programs have often not
worked out as well as hoped. More often than not, even the best crowdsourced ideas disappear in a Bermuda Triangle of logistical difficulties, internal politics, and professional insecurity.

A case in point is the crowdsourcing experiment of the VDMA, an industrial association that represents over 3,200 German mechanical engineering companies. VDMA identified six unresolved technical challenges facing its members and initiated an open, global call for solutions. The initiative yielded dozens of feasible ideas for tackling different challenges. Yet in the end, its members adopted none of them. All 3,200 organizations refused to use any solution that was not invented internally.

NASA experienced even stronger reactions when it tried experimenting with external crowdsourced innovation: Some scientists found the initiative to be an affront. After all, they had joined NASA to address interesting challenges themselves.

Even when companies are more open to outside ideas, turning an idea into a marketable solution takes many additional steps, most of which are hard to navigate. One measure of just how hard they are is the failure of Quirky, a startup focused entirely on crowdsourced inventions. It filed for bankruptcy in 2015, partly because the company never developed a system for scaling its inventions into production.

To avoid this kind of slip between invention and implementation, the International Committee of the Red Cross (ICRC) has developed a new approach to crowdsourcing ideas. It designed its Enable Makeathon project not only to generate good ideas of products to help people with disabilities, but also to make sure those ideas reach the market.
So far, it’s gone well. The Enable Makeathon has led to the development of a number of promising startups, including:

- Mobility, a startup that sells a low-cost chair designed to help correct the posture of children with cerebral palsy.
- AskBlee, a sign-language question-answering service for India’s 65 million deaf people.
- Amparo, developers of the Confidence Socket, a new kind of attachment for lower-leg prosthetics that is easier to fit and more comfortable to wear.
- Torch-It, a manufacturer of a virtual cane for the blind that gives them information about the distance and identity of obstacles up to 10 or 11 feet ahead.

To avoid what happened to VDMA, NASA, and Quirky, the ICRC realized that it would need to address internal skepticism about crowdsourced ideas upfront. This meant that the role of the external crowd had to go beyond “the fun part” of simply generating ideas. The inventors would need to participate in the scaling up of the idea.

Every startup veteran knows that the idea is only the beginning. Bringing a product to market requires a number of additional, equally important steps — many of which are not easy for an established organization to take, particularly with a truly groundbreaking product.

This was doubly true in the case of the Red Cross, because it’s a health and humanitarian services NGO, not a manufacturer. ICRC executives realized that although the organization was in a good position to lead a contest for inventions to help the disabled, it did not have the right internal capabilities to further develop those ideas and take them to market. To overcome this obstacle, it
needed to invent a new kind of innovation initiative that not only sparked creative proposals but also turned them into practical products that would reach underserved and often overlooked markets.

To tackle these challenges, the Red Cross collaborated with organizations with a stake in the problem in question to fill the expertise and resource gaps in the innovation chain and to assist participants in getting their products to the market. For example, these partners trained participants in design thinking, how to build a business plan, how to find investors, and most importantly, how to turn their ideas into real-life products by building a route to market through established channels. Likewise, it has collaborated with several incubator programs (e.g., Artilab and Fablabs) to help scale solutions and address unforeseen challenges in the market.

The directors of the Enable Makeathon learned some other important lessons in their first two contests as well:

**Start with a team.** In the first year of the contest, the organizers spent a lot of time helping the individual inventors form development teams. Beginning with the second year, the directors decided to eliminate this step and only allowed inventors with development teams to apply.

**Plan the business.** An innovation has a much greater chance of adoption if it has a solid economic case behind it. Beginning with the second edition, Makeathon organizers encouraged applicants to submit their idea with a business plan that used the Business Model Canvas methodology. The Red Cross also assigned each team an experienced entrepreneur as a business mentor. The mentors helped the teams refine the business models, marketing plans, and cost and revenue projections that had been included in their first-round pitches.
**Meet in person.** Contest winners were brought to a 10-day co-creation and testing camp, where they had a chance to work together on their idea and to meet a group of people who had the disability the team hoped to address. The team would get prospective customers’ feedback on the product. Disabled people would also take the teams on field trips to show them what it’s like to live with a particular kind of disability. Each team met with other stakeholders who had some contact with their chosen community of disabled people, including NGOs, humanitarian workers, and investors. This step helped the teams further strengthen their innovation idea and reduced the likelihood that these stakeholders would feel threatened by the external innovators later on.

**Lower your risks when you can.** To help the winners think in practical terms about the rollout of their solutions, the Red Cross enrolled them in several established incubator programs that help startups scale their solutions. At these camps, teams also received training in special skills such as design thinking that would help them become successful entrepreneurs.

**Pave the route to market.** Red Cross proactively introduced contest winners to key players in their particular industry who could help them go to market. This included potential distributors, industry associations, and local Red Cross subsidiaries that could be interested in stocking the winners’ products.

The numbers suggest that supporting the development of a group of idea winners is a better approach to crowdsourcing innovation than simply winnowing ideas: In the latest session of the Enable Makeathon, the organizers didn’t wade through thousands of entries; Instead, they selected the 16 most promising teams out of 116 applications (11 in Bangalore and five in London).
those 16 teams, 15 were able to develop a practical prototype — an extraordinarily high yield when you consider that venture capitalists see viability in less than one percent (0.7%) of the proposals they review.

Johanna Brunneder is a product manager at TCS. Previously, she was an assistant professor at EDHEC Business School and an academic adviser at the International Committee of the Red Cross. Follow her on Twitter at @JohaBrunneder.

Oguz A. Acar is an associate professor (senior lecturer) at City, University of London’s Cass Business School and a fellow of the Royal Society of Arts. Follow him on Twitter at @oguzaliacar.

Dirk Deichmann is an associate professor at Erasmus University’s Rotterdam School of Management.

Tarun Sarwal is founder and managing partner of Inkludo, a consulting firm that works with startups focused on social impact. He previously worked as an innovation advisor at the International Committee of the Red Cross.

This article is about INNOVATION