

Spark review – All in the same boat

This Spark project (funded with 9 k€) was originally submitted as a larger CUCo grant (300 k€), with a consortium of 20 applicants, from all four institutes that are part of the *Alliance*. Two major changes to the project and corresponding consortium after the decision to not fund our CUCo grant application were that our consortium shrank in size and that the focus of the project was shifted. Regarding this latter point, we very much appreciated the feedback from our CUCo grant reviewers that remarked "*that the proposed activities are not specifically geared towards the creation of solutions for clean water, nor are they concrete on how the proposed short-term activities can lead to long-term plans*". As a result, we decided to use the Spark funding to write a *perspective paper* on the (long-term) challenges related to water security and how to deal with these (this approach was inspired by Sutherland *et al.* (*Journal of Ecology* **2013**, 101, 58–67) who released a similar paper on *Identification of 100 fundamental ecological questions*).

During the transition from CUCo to Spark project, our consortium was reduced in size. While the original consortium contained 20 members, the Spark project (*i.e.*, the preparation of the perspective paper) was undertaken by only 8 members (still covering the three universities and an institute: Royal Gezondheidsdienst voor Dieren). This reduction was the result of an inventory amongst all original members on whether they wanted to remain involved to work on the Spark project. While not explicitly asked, the reason for not remaining involved in the consortium by a large part of the team, could be explained by some kind of 'cost-benefit' analysis: possibly not all team members considered that the Spark grant would offer sufficient outcome to justify their time and commitment. In addition, not all team members who supported the original project application might have fully foreseen what was required of them when the project would get (some seed) funding, which could have prompted them to stop their involvement when the Spark grant was actually granted. For the remaining core writing team, the size of 8 did represent a practical size to have efficient project meetings and distribution of tasks (which would evidently be harder in case of a smaller or larger group).

As core team, we had bi-weekly (online) meetings to develop our initial Spark idea of writing the perspective paper. While most members had previously met (also via CUCo-organised events), working together with such a diverse group of researchers, on a regular basis, did require continuous attention; both in terms of 'transdisciplinary' communication, but also in relation to the central topic (of water security) to which each team member has its own perspective. Looking back, the core team managed to do so without specific measures to ensure good communication. Arguably, the regular meetings together with the available minutes of the meetings helped to keep all members up to date and involved. At the time, the fact that most –if not all– of the meetings were online seemed not to be a major hurdle, but with the more recent experience of live, on-campus meetings, it can only be concluded that the latter type of meetings allows for more interactive, productive and creative meetings.

The 9 k€ funding that was granted for our Spark project was mainly used to hire an early-career researcher that could support the project coordinator and other team members in project coordination and management. His supportive role (during his zero-hour appointment from June 2021 until March 2022 at the WUR) was very helpful in organisation of the meetings, handling of the survey questions and results.

A question that was central in the first part of the Spark project was how set up an appropriate survey to use as input for our perspective paper (analogously to the approach by Sutherland *et al.*). Here, we were very much aware that, despite that our team spanned highly diverse disciplines, our network of potential experts to approach for our survey could still be too

narrow, both in disciplines and geographic location. In part we tackled this 'bias' by explicitly categorising the field of discipline of the respondent of the survey, and by focussing our analysis on the Dutch system (partially also as model system, representative of globally occurring water security issues).

During the analysis of the survey answers, we firstly noticed the wide variety of suggested disciplines that were recommended to be necessary to be able to tackle the challenges related to water security. While it did underline the *unusualness* of our research question, it also made it difficult to categorise these disciplines in order to be able to draw conclusions from the survey (while still accounting for any potential bias, as discussed in the previous paragraph). The core team extensively discussed how to group/cluster the results in a practical number of categories, without losing the interdisciplinary nature of the challenge.

Ultimately, the survey, with corresponding analysis by the core team yielded practical solutions that helped to translate the Spark idea into a more practical, better-defined set of activities that allowed us to submit a stronger CUCo application at the end of 2021, and that was fortunately awarded earlier this year.