

Running a Funding Sandpit in a Digital Environment

A Case Study

Introduction

This case study outlines the approach used in the SAQN Online Collaboration Building Workshop, held 2 - 13 November 2020. A brief background to the event is followed by a discussion of the most successful aspects of the event and the key learning points to improve the format in future.

Key Points

- An experienced, skilled facilitator can develop an effective process and foster a productive, collaborative community online.
- To harness the benefits of an online workshop, ensure that the schedule is accessible to those with caring responsibilities and build in regular screen breaks.
- Online platforms should be chosen carefully, with time and activities that allow participants to learn how to use them included in the schedule.
- Emphasising collaboration, not competition enables the process to build a community as well as encouraging constructive peer feedback, both of which benefit the process and the outcomes.
- Making attendance expectations very clear at the start avoids poor attendance.
- The value of mentors in the process can be enhanced by including them in the process early, allowing participants to become familiar with them, and ensuring they understand their role throughout.
- Communicating very clearly with participants and keeping information and instructions as simple as possible is hugely beneficial.

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Background

The STFC Air Quality Network (SAQN) aims to bring together industry, policy and research to address air quality challenges, using the untapped potential of the Science and Technology Facilities Council (STFC). Part of the network's remit is to distribute Scoping Study funds, using "sandpit-style" workshops to encourage new collaborations and innovative projects which make use of the STFC's capabilities.

The initial plan was to use a traditional "[sandpit format](#)" (titled a Collaboration Building Workshop due to some negative connotations of sandpits), holding a two-day residential event in Birmingham. The shorter length of workshop (instead of the traditional 5 day approach) being suited to the small size of funding pots available (up to six awards of maximum £8,000 each). We had engaged a professional facilitator to plan and run the event in 2020, which was scheduled for June.

As the COVID-19 pandemic swept the world, it became clear that holding a face to face workshop would not be possible. After initially postponing the event to November, the SAQN Management Group made the decision to convert the workshop to an online event, and to change the format to be spread over two weeks. While there were challenges to overcome in holding the workshop online, there were also potential advantages over a face to face event, and we aimed to maximise these in our planning.

The timetable and structure of the workshop can be seen in [Annex 1](#), where it is included in the Information Sheet published on the SAQN website.

Keys to Success

High quality facilitator

Having an experienced, professional facilitator for the workshop was critical to its success, and the role played by Christine Bell, ([Centre for Facilitation](#)) was valued very highly by participants, mentors and SAQN staff. The facilitator always required participants to turn their cameras on to show that they were 'in the room' when she wanted their attention, which was very effective. One participant reflected in the final session that in other online events they would be checking their emails or be distracted by other things, but with this workshop they really felt that they were 'in the room' and focussed on the tasks.

It was also balanced by requests for people to turn off their cameras regularly in order to have some reflection time and to step away from the screen. This was very valuable, as it allowed people to have some time when they were not 'on display', and even doing this for a few minutes every so often was extremely effective. The facilitator also enabled the participants to relax and enjoy the event by sharing inconsequential details (such as what drink or snack she had) and inviting others to do the same. This gave the group permission

to talk to each other and share some light conversation, which eased the way into deeper conversations and helped to humanise the process.

The design process of the workshop was greatly enhanced by close communication between the facilitator and Network Manager, who also provided administrative support throughout the workshop. The iterative process meant that the design was a co-creation, making the most of the facilitator's experience and skill, but also factoring in the aims of the network in developing collaborations, funding projects with big long term ambitions and supporting Early Career Researchers. Unlike other sandpits experienced by SAQN members, the facilitator had an excellent rapport with the group and this was reflected in the feedback collected.

In a post-workshop feedback form, respondents were asked to rate the facilitator on a scale of 1 to 5 (with 5 being 'Excellent' and 1 being 'Poor'), and responses were overwhelmingly positive. 20% rated the facilitator at 4, while 80% gave the maximum rating of 5. Comments included:

"Amazing, really engaging and effective, can't fault it one bit! Wish more events were run like this."

"They did a great job. Very engaging"

"A challenging role excellently fulfilled!"

Accessible timetable

One of the disadvantages of a face to face sandpit is that some people may not be able to commit to overnight stays, for example those with caring responsibilities, and are thus excluded from the funding. An online sandpit offered us the opportunity to respect the participants' home lives, and to make the event more inclusive.

Rather than replicate the original two-day format online, it was decided to spread the sessions out over the course of two weeks. The overall time commitment was designed to be the same as it would have been at an in person event.

There were a total of four scheduled sessions (known as 'Lab time') involving the whole group, with other tasks to be done in between these sessions (known as 'Cafe time'). Each Lab session took place between 10am - 3pm and they were never longer than three hours to avoid participants spending too much time in front of the screen. There were usually two or three days between Lab times, allowing participants to complete their Cafe time task without needing to work in evenings or weekends.

The feedback form asked participants whether they would have attended the workshop if it had been residential. 27% said they would not have been able to attend, demonstrating that participation was wider than for an in person event. One participant gave verbal feedback that they had been able to fit the work around their family life and other teaching commitments.

The group also noted that they felt their networking and interactions were even better than in person. When asked what they liked about the workshop, one participant said *“getting to know lots of people and making real meaningful connections more so than you would in a normal conference environment.”* Another commented that, *“The format was brilliant, and in many ways actually better than an in-person workshop as it gave time for us to step away from the ideas and let them slowly develop.”* This also reflects the benefits of having the workshop over a period of two weeks, rather than the intense, potentially pressurised environment of a two day workshop.

Use of online platforms

The main platforms used for the workshop were Zoom and Mural. Both worked well, particularly as Zoom was very familiar to most participants. [Mural](#) was used as a virtual conference room, allowing the participants to use a virtual space with notional tables and chairs, so that people could quickly see which group they were in, and also use this space to keep notes of their discussions. The main advantage was that Mural offered a large canvas on which several different activities could be outlined, but allowed people to zoom in and out to see the detail of the activity. This was not intuitive to users to begin with, but was preferable to having a multi-page document or multiple website links to move between. Another reason for choosing Mural was the ‘Privacy mode’, which allowed participants to write on the Mural without others seeing. This was particularly useful when ideas were first asked for as it could be done without worrying that others were judging the emerging articulations, and giving feedback on each others’ project pitches, which could be done ‘in the moment’ without distracting the project teams.

The joining instructions sent to participants included tasks to be completed before the start of the workshop, including updating to the latest version of Zoom and adding some information to a ‘practice’ Mural to become familiar with the technology.

Positive group dynamic

There is a risk with sandpit events that they can be very competitive. While this may have some advantages in terms of driving innovation, it can also lead to negative pressure and a poor experience for participants. One of the goals of the workshop was to create lasting collaborations, so an emphasis was placed on getting to know the other group members and exploring how best to collaborate. Many participants reported in their feedback that they had developed new collaborations, and some also commented that the process had not felt competitive, which they felt was an advantage.

When asked what they liked about the workshop, the most commonly used words were ‘collaborative’, ‘inclusive’, ‘engaging’, ‘creative’ and ‘network’. This was also reflected in the responses given at the end of the second Lab time session. Participants were asked to post 3 words in the Zoom chat to describe how they felt about that day’s session. The word cloud below shows the most frequently used words by size.



In participants' reflections on what they learned from the workshop, the most common responses were: that they had improved their knowledge and skills in developing a collaborative project; gained new contacts; discovered new online tools and ways to collaborate virtually; learned more about STFC. These comments align with the SAQN's stated aims of building a broad, multidisciplinary network, increasing awareness of STFC's capabilities and initiating lasting collaborations.

Funding awarded

The primary goal of the workshop was to develop ideas for project proposals which could be funded by the SAQN. This goal was achieved, as six project proposals were pitched to the mentors and all six were funded by SAQN. Participants noted that having a small amount of money available helped to focus their discussions and provide a tangible outcome at the end.

The projects were pitched to a panel of mentors on the final day of the workshop. Five of the projects were awarded funding on the day of the pitches, while one project was given the opportunity to update their proposal with feedback from the panel, and was awarded funding at a later date. The funding panel commented positively on the quality of the proposals, presentations and the spirit of collaboration amongst the teams.

While it is too early to say what the lasting impact of these projects will be, SAQN will support all the project teams to explore future funding and development opportunities for their research beyond the life of these initial Scoping Studies. Already they are starting to have impacts, if only small; the technology developed in one of these initial studies will go on to be used in another scoping study from the next phase of funding.

Key learning points

Improving digital platform use

Mural worked well, largely due to the time spent preparing in advance, and the facilitator's experience and skill in using it. It was not intuitive for users to begin with, and although a practice task was set in the pre-work, the most useful training for participants was real-time Q&A provided at the end of the first session. A scheduled 'Launch session' a week before the workshop would be more effective in training participants, as they can be set a task in Mural, and can get support in real time if they are struggling.

Some participants commented that it was confusing to have multiple Murals during the workshop, as there were many different links. It would not be possible to contain all the information on one Mural, but a main 'hub' Mural could be used instead, which would contain links to all other Murals and resources needed in the workshop, reducing the number of links used.

Some participants requested to share their own screens for their pitch presentation, instead of placing them on Mural as requested. This slowed down the event and also enabled them to use more than the three slides stipulated. Presentations should only be permitted via Mural, so that no one other than the facilitator needs to share their screen. Participants should also be given plenty of warning that they may not edit their slides once the presentations have started, so that the 'privacy mode' on Mural can be used to best effect and so that teams presenting later in the process do not have an unfair advantage of additional preparation time.

Participant attendance

A disadvantage of holding workshops online is that non-attendance is more likely than an in-person event. A small number of participants did not attend the first workshop, and sent no apology or explanation, and some participants announced that they could not attend some sessions once the workshop had started. Although the application form required participants to confirm that they were available for all sessions, this needed to be emphasised more. This can be highlighted more clearly in the application documentation, and a launch event is also a good platform to remind participants. A stipulation could be added to the funding, making 100% attendance a requirement or an administrative fee charged for non attendance.

Additional support for mentors

A team of mentors supported the participants by acting as 'critical friends' during the workshop. Their input was valued highly by the participants, who welcomed feedback from senior scientists in their field. However, too little time was allocated to briefing the mentors in advance of the workshop, leading them to feel unprepared. There was also little time for them to get to know the participants, and so uptake of support outside of the formal timetabled sessions during the proposal writing stage (Cafe #3) was low. Engaging with mentors earlier in the planning process and scheduling a briefing session is important to allow mentors to give the best support possible to the participants. Ensuring that mentors are involved in the early stages of the workshop will also help participants feel more confident in asking for advice and support.

Reduce pressure on facilitators

The online format put more pressure on the facilitators as it took place over a fortnight and, although the time commitment for the lab sessions was equivalent to a residential event, the intensity and pressure to think ahead to the next session was constant over the two week period. This could be improved by planning a schedule of communications to the participants in advance, and having all documents (including emails) drafted in advance of the workshop. It would also be beneficial to have a facilitator to support the mentors by leading on communications with them and answering questions, leaving the lead facilitator free to focus on other aspects of the workshop.

Pre-event support

In order to communicate clearly with participants, a workshop handbook could be created and circulated to participants two weeks before the workshop. The handbook would include core information about the event, funding information, all links for calendar events and Mural. If created as an online document (eg. Google Doc), the handbook could be updated in real time with any additional links or information that needs to be disseminated during the course of the workshop.

The launch event detailed in [Improving digital platform use](#) would also serve as an introduction to the workshop, with the opportunity to meet the facilitators, mentors and participants, and to answer any questions regarding funding or other aspects of the workshop. This would take place a week before the workshop.

Annex 1: Information Sheet

Collaboration Building Workshop

2-13 November 2020

The SAQN will run an online Collaboration Building Workshop, with the aim of connecting network members with STFC researchers and funding new research ideas.

The online format will involve a mixture of scheduled sessions and unscheduled activities that participants can organise around their other commitments. Scheduled sessions will take place between 10:00 and 15:00 to enable participation for those with caring commitments.

Purpose

To offer a space for exploration of new research ideas and the application of STFC capabilities to air quality challenges, and to foster new collaborations that can develop further project ideas and apply for funding. We want to encourage participants to think innovatively about challenges and solutions in air quality.

We will be addressing the following question:

“How might we respond collaboratively to societal air quality challenges using Science and Technology Facilities Council capabilities to explore the potential of new research ideas?”

The work may be informed by the outputs from the [Network Launch Meeting](#) where the following air quality challenges were identified

- Ammonia – Challenges and Opportunities
- Sensors and Miniaturisation
- Machine Learning
- Indoor Air Quality Monitoring
- Integrating Data
- Behaviour Change
- Health Effects Monitoring and Data

We may also be informed by the May event on [Air Quality and COVID-19](#).

Who is it for?

Attendance at the workshop is open to all SAQN network members, including STFC staff, academics, those from industry and policy. There will be a competitive application process.

Applications will be assessed against the criteria by the SAQN Leadership Management Group. The workshop will be particularly suited to Early Career Researchers.

We are looking for:

- people enthusiastic and able to communicate across disciplines and bring a range of perspectives
- a diversity of professional backgrounds
- participants who will be able to attend the whole event.

The SAQN will select a group of applicants based on:

- a good balance of STFC specialists and air quality experts and
- a range of career stages (early career researchers are particularly encouraged to apply).

SAQN is keen to attract the best potential researchers from a diverse population.

What will I get out of it?

- Develop your professional network outside of your own institution
- Participate in a supported, professionally facilitated process to develop new collaborations and ideas
- Benefit from input and feedback from peers and mentors
- Gain experience in developing funding proposals and pitches
- Potential to be a PI on a grant
- Learn more about innovative online meeting techniques to inform future online collaborations

Funding Opportunity

The SAQN is able to award grants of up to £8k to Scoping Study proposals that fit the funding criteria. Proposals that do not meet these criteria will not be eligible for funding, but the network will endeavour to signpost these projects to alternative funding sources.

Funding will be awarded during the workshop itself (up to six awards of max. £8k). Further information about Scoping Studies is available on the [network website](#).

Dates and practical information

Meeting platform: Primarily using Zoom, with other online technologies for capturing discussion points and ideas. It is preferable for participants to use Zoom through the app, rather than through a browser or on Chromebook as this limits functionality.

Collaboration Lab Agenda

Monday 2nd November Lab #1 10.00 – 13.00	Kick Off Session The focus will be on having conversations and getting to know each other whilst exploring the topic.
2-4 November 2 hours	Getting to Know You Challenge Exploring the topic and others in the group Completing interviews and uploading to the shared space
Thursday 5th November Lab #2 10.00-13.00	Challenges and Connections The aim of this session is to think innovatively about challenges and solutions in air quality and continue to foster collaborative connections.
5th to 9th November 2 hours	Sharing of initial “What if” ideas for small scale funding projects – linking to the key themes or going beyond these, commenting and voting on ideas submitted.
Tuesday 10th November Lab #3 12.30 – 15.00	Developing Challenge Ideas In this session you can share the most impactful of the ideas and start to develop thinking on these either in this session or afterwards.
10th to 12th November 4 hours	Idea owners can develop their ideas using the proposal outline and can involve others in the idea development and draft proposals are submitted on Thursday lunchtime.
Friday 13th November Lab #4 10.00 – 12.00 14.00 – 15.00	10.00 All ideas are presented to the whole group and short verbal/written peer feedback given in the morning session 14.00: Feedback Provided and Funding announced, next steps discussed and lab celebration
Lab Time: 12 hours Cafe Time: 8 hours	Lab Time is the dedicated fixed time sessions that you MUST attend for the time indicated in the programme. The cafe time will be a combination of individual activity and collaborative activity in pairs and small groups and you can schedule this to suit your needs but should expect to spend about 8-10 hours on these activities in total.

Cost: The workshop is free to attend for network members.

Timeline:

Workshop attendance applications open:	1 September 2020
Deadline for workshop applications:	30 September 2020
Announcement of successful workshop applications:	9 October 2020
Workshop dates:	2 - 13 November 2020

Apply online for your place at the Collaboration Building Workshop

Collaboration Building Workshop 2021

SAQN hosted a second Collaboration Building Workshop in 2021 (14 - 25 June), using the same format as the first workshop, but with improvements identified through the review process. Here we reflect on the impact these changes had on the process.

Launch event

We began the workshop with a brief 'launch event' one week before the start of the main workshop. This had several benefits:

- Participants were introduced to the facilitators and mentors;
- We started using Mural, allowing participants to get familiar with it and solve any technical issues in real time;
- Participants started to meet each other, having one to one chats in Zoom breakout rooms;
- Sharing the workshop aims and funding criteria at the start reduced the number of questions asked about funding later on in the workshop;
- Participants had the opportunity to try out a new networking platform, 'Wonder', which was then used by many to host their 'cafe time' conversations.

Improved support for mentors

We recognised that mentors needed more support in order to give most value to the participants and to feel more engaged in the process. The two aims of this were to make mentors feel better informed about the process and their roles and to allow participants to become more familiar with mentors so that they felt comfortable asking for their support.

Changes to the mentor programme were:

- A short introductory meeting, outlining the mentor role and giving a broad overview of the process;
- A mentor briefing session one week before the workshop, giving details of the mentors' activities in week one;
- Involving and introducing the mentors to the participants at the launch session;
- Asking the mentors to lead the initial discussion activity in the first session;
- A second mentor briefing session at the start of week two to review project ideas and give clear directions to the mentors for the remaining sessions;
- Appointing a facilitator as 'mentor support', who acted as first point of contact during sessions and sent communications in between sessions;

Our mentors noted that they had appreciated the extra support they were given, and that they themselves benefited from taking part, as they could keep in touch with developments in the field of air quality, make new connections and influence the direction of research.

Improved use of online tools for facilitation

Building on our experience of running online events, we trialled using 'SessionLab', an event planning tool which can have multiple collaborators, and also made use of Google Docs and drive, so that all the workshop materials were accessible by the event team at any time. This had the following benefits:

- Detailed notes on the running of the workshop were available in SessionLab and updated in real time, reducing email traffic and version control issues;
- Notes sections in SessionLab were used to keep details of activities required between sessions (such as texts and timings of emails to participants), meaning that all team members could see and edit messages to participants, while being clear on who was responsible for each action and when it had been completed;
- Relevant documents could be accessed and edited as needed in Google Docs throughout the event, and links to documents placed in the event plan, allowing any of the event team to access information and share it quickly and easily;
- Planning all the activities between workshop sessions reduced the burden on the events team, as no one was having to keep all the information in their head.

Workshop highlights

We thoroughly enjoyed hosting our second workshop, and were delighted with the outcomes. These were some of our highlights:

- We welcomed colleagues from departments of STFC that have not been extensively used in air quality research (ISIS and Central Laser Facility) and were able to fund projects making use of their technology;
- One project was able to make use of sensors developed in a previous SAQN Scoping Study, and is developing a new piece of technology with significant commercialisation potential;
- Having encouraged research into health aspects of air quality, we were pleased to have involvement from medical researchers, including from Public Health England, and that two of our funded projects are exploring issues around toxicology;
- The projects teams that were not funded said they had found it a valuable experience, as they had established new collaborations, had useful feedback and been signposted to other funding sources;
- Feedback from our participants was very positive, with most reporting that they had appreciated the opportunity to collaborate with people beyond their usual network in a friendly and encouraging environment;
- Our workshop format has inspired another air quality network ([TAPAS](#)) to host their own Collaboration Building Workshop based on the same format.

The [SAQN website](#) is kept up to date with all the latest information and contact details for our funded projects.