Sprints - Lessons learned from HLG projects

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Introduction

The idea of holding sprint sessions to develop standards for official statistics is fairly new, but already it seems to have a lot of promise. This approach can considerably reduce development time (and probably cost – but hard data on this are not really available). This note sets out the experiences and lessons learned from the five sprint sessions held to date, in the context of projects overseen by the High-Level Group on the Modernisation of Statistical Production and Services (HLG). It also makes recommendations for the conduct of future sprint sessions in the context of statistical standards development.

What is a sprint?

The idea of sprints comes from the "Agile" approach to software development. A sprint is generally defined as "a 'timeboxed' effort", restricted to a specific duration, normally between one week and one month, with the goal of delivering a pre-determined output. This means that in the official statistical community, a sprint can be explained as being something like a very intense and focused workshop.

During a sprint, participants break down the task to be accomplished into small components, each of which can be resolved in one or two hours by a small group of two to five people. This means that sprints involve a lot of parallel working, and that one person can not be involved in everything. The aim is to build on the best ideas and experiences of all participants to reach an outcome that is "owned" by all. This outcome is seldom exactly the one envisaged at the start of the sprint, as ideas should evolve through the sprint process, however, it should be at least as useful, and probably better as a result.

Logistics

Duration

The first two HLG sprints (in Slovenia and the Republic of Korea) were two weeks long, whereas the other three (Netherlands, Canada and Italy) have been completed within a week. Both types met their goals. Some participants to the two-week sprints felt that they were rather slow to get going, so for later sprints much of the introductory material was covered in pre-sprint web conferences. This meant that the participants felt they were starting the real work from day one. Some participants, particularly those with family responsibilities, also felt that two weeks is rather a long time to be away from home.

Changing to one-week sprints did, however, put more burden on the sprint team, requiring much more pre-sprint and post-sprint work to compensate for the more limited time available during the sprint itself.

The optimal duration of a sprint therefore depends to a large extent on the newness of the topic, the prior level of understanding of the sprint process by participants, and the familiarity of the sprint master with the topic and the issues to be discussed.

Venue and facilities

The ideal set-up is to have the exclusive use of at least three rooms for the whole duration of the sprint. To save time, it is preferable that these rooms are located close to each other. At least one of the rooms should be large enough to comfortably accommodate the whole group seated at desks, which should preferably be organised in a U shape, facing a screen for presentations. All rooms should be equipped with whiteboards, flip-charts and writing materials, and ideally it should be possible to stick posters and flip-chart sheets on the walls. Plenty of stationery, particularly paper, pens and post-it notes should be available. WiFi Internet access is important, along with easy access to an on-line collaboration space, e.g. a wiki. Participants should bring their own laptops / tablets. Finally, to save time, it is helpful if coffee and lunch facilities are available close by.

Travel and accommodation

For the HLG sprints held so far, the vast majority of participants have paid their own travel costs. In just a handful of cases, where people were considered essential and there was no other way for them to attend, project funding has been made available to subsidise their costs.

From a practical point of view, it is very useful if all participants stay in the same hotel during the sprint. This helps build the team spirit, and facilitates discussions in the evenings and over breakfast. It is helpful if the hotel has a public seating area where people can work in small groups. It is very helpful if someone from the host organisation can help to make local arrangements and advise on practical matters such as travel between the airport, the hotel and the sprint venue, including where and how to buy tickets for public transport.

People

Selecting the participants

Ideally a sprint should have 10-15 participants. If there are more, it is difficult to maintain a sprint atmosphere and to get people to work as a single group. Normally there should be no more than two participants per organisation, to ensure that as many organisations as possible can be represented. Participants should come from a range of backgrounds, and, between them, should have all the necessary skills and experience to produce the output. For HLG sprints, participants have been mainly at the “expert level”, and have included methodologists, IT specialists, metadata experts, business / information architects and external experts, depending on the topic.

Ideally there should also be representatives of “the business”, i.e. subject matter statisticians. In practice it has proven difficult to achieve this, as organisations are more interested in spending money to send “specialists” as participants. Two possible solutions are to try to select “specialists” who have previously worked in statistical subject-matter areas, and to ask the host organisation to make subject-matter people available for consultations if necessary.

Selection of participants for HLG sprints has typically been a mixture of nominations from interested organisations, with targeted follow-up by organisers to ensure key people and skills are present.

Building the team

In most cases, sprint participants already know a few of their fellow “sprinters”, but it has never been the case that everyone knows everyone else beforehand. For this reason, it is important for the sprint facilitators to try to create a team spirit as soon as possible. This should start already in the pre-sprint web conferences, where participants should introduce themselves, and ideally use a web-cam.

Encouraging participants to meet for dinner the evening before the sprint starts can be a useful way of helping them get to know each other in a less formal environment before the real work starts. Ensuring a good mix of people in the small teams for the first few rounds of tasks within the sprint can also help.

One important sprint rule is that there is no hierarchy within the sprint, all participants are equal, and all views are valid. This can be a challenge if an organisation sends two participants, one of which works for the other.

A particular challenge is how to incorporate the representatives of the host organisation in the sprint team. Ideally, for the duration of the sprint, they should consider themselves out of the office, in a similar way to being at a meeting in another location, rather than just a regular day at work. They should realise that being a sprint participant is a full time commitment, and they shouldn’t try to do their regular job as well during this period, and should advise managers and colleagues accordingly. They should also try to join the group in the evenings if possible.

Sprint facilitators

From experience during the HLG sprints, it is essential to have two sprint facilitators. One should take the role of being “sprint master”, whilst the other should take on more of a support and documentation role. However, both should be capable of steering group discussions towards agreements and solutions, resolving conflicts, and stopping people deviating from the sprint goals. It is therefore essential that the facilitators should project confidence and authority, and be able to manage the group. They should also be constantly aware of group dynamics and try to identify and resolve any potential problems before they escalate.

On the other hand, it is the sprint group that decides the priorities and contents of the outputs, and takes ownership of the working processes to reach its goals. The facilitators should therefore be careful that they are not steering the contents and imposing their views. In this respect, it is helpful if the sprint facilitators are not experts in the topic, although some background knowledge is useful to be able to follow the conversations and issues. Some training in facilitation techniques or significant practical experience in delivering inter-active training courses is useful for this role. The facilitators need to have a sound understanding of the project goals.

Documenting progress, decisions and outcomes is very important. The sprint should normally result in a paper or report of some kind, and it is much easier to start putting this together, at least in outline, during the sprint, than to try to write it from scratch afterwards. To facilitate this, participants should be encouraged to write up the conclusions of their discussions and post them in a common work space such as a wiki, for others to comment, and for the facilitators to incorporate them into the overall documentation.

The facilitators should both have cameras, and should make sure that they take photos of all whiteboard or flip-chart diagrams, as these may be useful later to illustrate key points in the documentation.

Before the sprint

Planning a sprint typically takes around three months, with the work becoming more intensive as the sprint approaches. The first steps are to secure top management support for the proposed sprint, choose a sprint-master, find a location and determine the budget. After these pre-requisites are in place, a call for participation should be launched and circulated to key people (managers and potential participants) in the target organisations. This call for participation should make it clear that it may be necessary to limit numbers, and should explain what a sprint is, and how it is different from a traditional workshop or seminar. It is often necessary to state clearly that papers and PowerPoint presentations are not required!

In preparation for the first sprint on a particular topic, the sprint master or organising team should consult key stakeholders about their expectations for the scope and outcomes of the sprint. This consultation should include a range of levels, from top managers to experts, and a wide range of organisations, not just those expected to send participants to the sprint. The summary of this consultation process provides a clear view of the expectations of the statistical community, which is a very useful starting point for pre-sprint discussions with participants.

The sprint master should also use the pre-sprint period to research the topic. The aim is not to become an expert, but to have enough knowledge to be able to create the first inputs for the sprint team. It is easier for the team to start with something other than a blank page, even if the final output is something completely different.

At least three pre-sprint web conferences are essential, both to help the participants to get to know each other, and to cover all the basics about how a sprint works. It is helpful if participants outline their backgrounds, ideas and expectations for the sprint, so that some degree of consensus can be reached before they physically meet.

During the sprint

Most HLG sprints have been opened or addressed by the head of the host organisation. Active interest from this level can help to inspire participants. Towards the end of each sprint, a presentation is usually given to the staff of the host organisation. This serves several purposes, but mainly helps the participants to focus on how to communicate their work, and explain it to people outside the sprint group.

After any introductory material, the first task of the sprint team is to create a work plan covering the duration of the sprint. During the sprint, it is essential to monitor progress against the work plan, and towards the expected outcomes. A short plenary session first thing every morning is useful. This can review what has been done, and what remains, and to decide on the priorities for that day. A useful addition to this session is the idea of “soapbox” presentations. These are opportunities for participants to present briefly (i.e. in 2-3 minutes maximum) any issues they think are important. “Soapboxes” are often a good opportunity to share ideas from informal discussions the previous evening.

Participants then break into small groups to discuss and resolve the priority issues. These groups are usually self-selected, but some mixing of participants by the facilitators can be useful to ensure the same people are not always working together, and to ensure the group dynamics are maintained. Small group discussions should typically last between one and two hours, and have a clear deadline. The facilitators should check each group periodically to see if the deadline will be met. The small groups briefly report their outputs in plenary sessions. Typically about 70-80% of time is spent in small groups and 20-30% in plenary sessions.

If a group wants more time, or is struggling to resolve a particular issue, several options are possible:

- Give them a little more time – if it looks like agreement is close and possible
- Discuss the issue in plenary – but only if this would not take too long, e.g. short presentations of two views, then a vote
- Change one or two people in the group – to bring in fresh ideas
- “Park” the issue – leave it to one side for a while if it is not urgent, come back to it later with fresh minds.

During a sprint, participants tend to get very involved and enthusiastic, wanting to share their views and ideas. For this reason, sometimes in small groups, but always in plenary sessions, it is useful to have a clear way of asking for the floor. In HLG sprints, participants are given different coloured objects. They hold up one colour if they want to speak, another if they think the speaker is going into too much detail, and a third if they think the discussion is going off-topic.

Finally, a good tradition that has developed at HLG sprints is to ask all participants to bring snacks from their home countries for coffee breaks. This creates a non-work topic of conversation, which helps people get to know each other better.

After the Sprint

The main task in the immediate aftermath of a sprint session is to transform the sprint outputs into the final versions of the sprint documents. During a sprint, there is only really time to capture ideas and outlines, but these need to be expanded and made understandable for a wider audience. Normally at least a week is needed for this, usually involving the facilitators and some participants (particularly the Anglophones!).

Another important consideration, which should ideally be planned beforehand, is how to capitalise on the momentum developed during the sprint. A new (and hopefully strong) network of experts has been created, and can be used to further the wider aims of the project. The precise follow-up actions will depend on the nature and stage of the project. In HLG projects, the approach of linking the idea of sprints with short-term virtual task teams that meet frequently over a given period to make further progress, has been successful.

It is also useful to take stock at this point about the organisation of the sprint. What worked, and what should be done differently in future?

Conclusion

Sprints have proved very valuable in the context of the HLG projects. The Generic Statistical Information Model (GSIM) Development Project was completed within a year, which is less than half of the time taken for comparable initiatives using more traditional methods. There is a cost, both in money and time, but feedback from chief statisticians so far is that the value of the outputs more than outweighs the costs.

Whilst sprints are probably not the best approach in all situations, their value in the development process for international statistical standards seems to be confirmed.