

CONFERENCE OF EUROPEAN STATISTICIANS

For discussion and
recommendations

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Agenda

MODERNISING INTERNATIONAL STATISTICAL ACTIVITIES

Prepared by the Secretariat

*This paper outlines recent innovations in working practices under the High-Level Group for the Modernisation of Statistical Production and Services, and raises the potential to extend these practices to other areas of work. **The Bureau is invited to discuss the ideas presented.***

I. BACKGROUND

1. The High-level Group for the Modernisation of Statistical Production and Services (HLG) was created in 2010 by the Bureau of the Conference of European Statisticians. It comprises the heads of selected national and international statistical organizations, and has a mandate to reflect on and guide strategic developments in the ways in which official statistics are produced.

2. At the end of each year HLG, together with representatives of up to 30 expert groups, decides the key priority activities for the next year, and decides how these will be addressed. The two highest priority topics are generally framed as international collaboration projects, with a timetable of one calendar year. To meet this strict deadline, it has been necessary to introduce a number of innovative working methods. These are outlined in this paper, and the potential to extend them to other areas of international statistical work is considered.

II. NEW WORKING METHODS

3. The urgency of the requirements of the HLG, and the international statistical community, meant that new approaches were needed for activities related to statistical modernisation. At the same time, many statistical organisations have found themselves under increasing financial constraints, increasing the need for efficient processes, as well as the level of justification required for expenses such as international travel.

4. To resolve these demands and constraints, it has been necessary to look at best practices from other professions and standard-setting bodies outside official statistics, as well as to investigate the potential of new technology.

A. New approaches to project management

5. Approaches to project management differ widely amongst statistical organisations, however, many are based to a greater or lesser extent on the PRINCE (PRojects IN

Controlled Environments) approach, first developed in the late 1980's. This process-driven project management method is based on ideas of planning and control to deliver a pre-defined outcome. It has been successfully deployed in relatively stable environments with a common culture, typically within one organisation. This approach has, however, been subject to criticism for inflexibility in rapidly changing environments, and being difficult to apply outside of "Anglo-Saxon" cultures.

6. In the software development industry, alternative approaches are gaining popularity. Perhaps the most widespread is the "Agile" approach¹. This approach, launched in 2001, aims to be more flexible to adapt to changes in requirements during the project life-cycle. It focuses on outputs, user needs and trust rather than processes and controls.

7. Taking this approach even further is the idea of "Extreme Project Management"². This is designed to deal with situations that are rapidly evolving, and where there is a high degree of uncertainty about what the project outcomes should be. An often quoted metaphor concerns firing a gun: Traditional project management approaches spend a lot of time aiming, trying to judge and correct for factors such as wind speed etc., before firing and hoping to hit the target. Extreme project management is described as firing the gun, then re-directing the bullet in flight, because the target is moving in unpredictable ways.

8. **Experience so far in projects and other activities overseen by the HLG suggests that an approach somewhere between "Agile" and "Extreme" delivers the best results.** It is necessary to have a general vision of the desired outcomes, but to be flexible about the details, taking into account the changing priorities and availability of resources in participating organisations. In this way the results may not always be exactly what was expected at the outset, but should hopefully be much closer to what is actually needed at the time they are delivered.

B. Sprints

9. **The idea of sprints comes from the "Agile" approach to project management.** A sprint is generally defined as "a time-boxed 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.

10. 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 cannot 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.

¹ See: http://en.wikipedia.org/wiki/Agile_software_development

² See: <http://www.projectconnections.com/articles/070901-decarlo.html>

11. **Since 2012, a number of sprints have been organised within the HLG projects³.** They have proved very useful, particularly when it is necessary to deliver complex outputs that require sustained concentration. For example, it is clear that the use of three sprints during the development of the Generic Statistical Information Model (GSIM) allowed this work to be completed within a year, rather than the 3-4 year timetables for developing comparable standards in the past.

12. Whilst the initial sprints within HLG projects were face-to-face meetings of one or two weeks duration, during 2014 the concept of “virtual sprints” has been tested. These consist of daily web conferences, typically around two hours long, to agree priorities, work allocation and to review results, followed by off-line work by individuals and small teams. This approach may not seem to be as efficient as face-to-face sprints for complex modelling or software development tasks, but does seem effective for developing guidelines and similar outputs.

13. **The key to successful sprints is to keep the team fairly small** – about 12 people seems optimum, and to ensure that these people are the right ones for the task, with the support and trust of their organisations. The sprint facilitator role is also crucial. Ideally this should be someone with a basic knowledge of the subject matter, but who does not hold strong views, or seek to influence the content of the outcome.

C. Web conferences

14. Whilst telephone conferences have been used for international collaboration activities for the last 20 years or more, they have certain limitations. They usually involve a lengthy and expensive international telephone call, participants can only hear each other, so miss out on the additional communication via facial expressions and body language, and it can sometimes be difficult to ensure a common understanding of complex issues through voice-only communication.

15. Web conferencing can overcome these problems. The most widely-known system is Skype, which allows video and audio connections between multiple people. However, Skype is mostly used for one-to-one conversations, often for social purposes. It does not support video connections between multiple locations particularly well. A number of alternative products are available for more business-oriented use. **The UNECE uses a system called Webex⁴, but others with similar functionality are available.**

16. The advantages of web conferences are the following:

- Flexibility – it is possible to join web conferences from any location with an Internet connection, using desk-top or lap-top computers, tablets, smart-phones and other mobile devices
- Cost – participation is generally free for participants, making it easier for people to join outside of normal working hours, from home, or whilst travelling

³ For more detailed information on how these sprints were organised, and lessons learned, please see the paper at: <http://www1.unece.org/stat/platform/display/hlgbas/Sprints++Lessons+learned+from+HLG+projects>

⁴ http://www.webex.com/index_cmr.html

- Video – participants can use web-cams so that they can see others and be seen themselves. This seems to help participants get to know each other much quicker than audio-only communication
- Screen sharing – All participants can see the same thing, a PowerPoint presentation, a document or a diagram. This facilitates common understanding, and can be used as a tool for joint, live drafting of key outputs such as definitions.

17. **UNECE groups first started experimenting with web conferencing in 2010.** At first, quality of connection was an issue, there can still be some issues of poor audio quality, particularly over low-bandwidth wireless Internet connections. But quality is gradually improving, to the extent that web conferences have now almost completely replaced telephone conferences for the groups and activities overseen by the HLG. In a typical week this now means around 8-10 web conferences take place for HLG-related activities.

D. Wikis

18. For the last 20 years, the main method for exchanging written information between participants in international collaboration activities has been e-mail. The problems with this approach are that it is easy to end up with multiple long chains of correspondence, which do not always reach all participants, and from which it is often difficult to extract the latest information. The development of interactive, collaborative web-based platforms, such as wikis, has helped to overcome these problems.

19. **The UNECE has been using wikis as a collaboration tool for over 5 years⁵.** They provide a communication channel in which information can be open to the public, or restricted to a specific group. Editor access can be given to group members, so that they can share ideas and documents. Wikis have proved to be particularly useful for creating knowledge bases, sharing results, communication within projects, and for joint drafting of manuals, guidelines and papers.

E. The “Good enough” principle

20. **A key feature of the work under the HLG has been to aim for outputs that are “good enough”, or fit for purpose, rather than perfect.** This has been a key element in the drive to produce outputs in a more timely way. Under this principle, outputs should be worked on, only until they are fit for use. It is recognised that outputs can always be improved, but that the best way to do this is to release them when they reach a reasonable stage of maturity, and start to collect feedback and experiences from implementation and use that could be used to inform future revisions.

21. This approach has been difficult to accept for some experts working in areas where the focus has previously been on creating outputs that are as close to perfect as possible (typically over much longer time frames), but is gradually gaining support. It can be seen as similar to the tension between the accuracy and timeliness dimensions of quality for data outputs, where the recent trend has been to focus most on improving timeliness.

⁵ <http://www1.unece.org/stat/platform/dashboard.action>

III. APPLICATION TO OTHER STATISTICAL ACTIVITIES

22. The introduction of the working methods outlined above has significantly increased the efficiency of international collaboration activities in the area of statistical modernisation. This can be seen as a pilot area, where the subject-matter particularly lends itself to innovations in working methods. The successes so far have led to interest from other areas. Several initiatives outside the overview of the HLG are starting to use sprints and wikis in particular.

23. There is, therefore, clear potential to spread these efficiency gains to other types of international statistical collaboration activities.

24. For this to be effective, there are a number of pre-conditions that need to be in place:

- At the expert level, those directly involved in the activities need to understand that the focus is on timeliness rather than perfection.
- Their managers need to realise that it is more efficient all around if the experts can work in short, focused bursts of activity. This avoids the problems of trying to remember previous conversations and their outcomes, which are all too common in processes that rely on experts only meeting one or two times per year.
- Top managers need to relinquish some of the control associated with traditional project management. They need to accept that project plans can be broad, flexible and output focused, rather than detailed and process-oriented. They need to set clear boundaries, review progress and provide guidance from time to time, but apart from that, they need to trust the experts, and ensure that they are sufficiently free from other responsibilities to be able to deliver the required outputs.

IV. IMPLICATIONS FOR OTHER CES ACTIVITIES

25. The wider application of the new working methods outlined in this paper could be considered as a revolution in the nature of collaboration within the official statistics community. It therefore follows that some of the governance arrangements for the activities affected may need to be reviewed.

26. In the context of modernisation activities, several organisations have started to use outputs even before they were finalised. When there is such a demand for rapid delivery and implementation of results, the current procedures for endorsement of certain types of outputs by relevant bodies may need to change.

27. There have been several cases in the area of modernisation where a need for action has been identified, a task team has been convened, and an output has been delivered in less than three months. Appropriate governance arrangements need to be established if activities in other areas of official statistics start to follow the same approach.

V. POINTS FOR DISCUSSION

28. The Bureau is invited to discuss the following points:

- The extent to which the new working methods outlined in this paper have delivered suitable results for the HLG activities.
- The possible extension of these new working methods, to other areas of international statistical cooperation, through pilot cases.

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