

Utilising international collaboration to assist Statistics New Zealand in delivering on its modernisation program

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Abstract.

In 2011 the New Zealand Government invested in Statistics New Zealand's Statistics 2020 Te Kāpehu Whetū business transformation (modernisation) programme. This organisation-wide programme of change aims to deliver more value from official statistics and the Official Statistics System, ensure the longer-term sustainability of our national statistics office, and the on-going reliability and relevance of the statistics it produces. Just prior to the Government's funding of Te Kāpehu Whetū, a number of National Statistical Offices Chief Executives, including that of Statistics New Zealand, had agreed to collaborative development of a number of projects across the end-to-end statistical production process. Statistics New Zealand has led some of these projects and been participants in others. This paper discusses our learnings and experiences to date, along with challenges of aligning 'local' requirements with those of the wider international community, and finally some discussion of the justification of costs and benefits.

Keywords: National Statistical Office, modernisation, end-to-end statistical production

1. Introduction

The formation of the "Statistical Network" (SN) evolved from discussions by an informal group of countries who responded with interest to a paper presented to CSTAT by the Australian Statistician. There was a perceived gap in the practical implementation of much of the good thinking being undertaken at the higher levels – the idea was to form a group that shared developments to support the industrialisation of statistics, with a strong delivery focus. In June 2010, an informal CSTAT group of Chief Statisticians / Director Generals from 6 countries agreed to sponsor the collaborative development of Statistical Network projects. These projects were identified as important opportunities to promote collaboration to achieve mutual benefits across all participating National Statistical Institutes (NSIs). Recently an additional member country was added, so the SN now comprises of Australia, Sweden, Norway, UK, Canada, Italy & New Zealand.

The Statistical Network's purpose is '*Working together with pace and passion to better meet our societies' information needs while driving down costs*'. This will include knowledge sharing, recognising and harnessing opportunities to work together to achieve mutual benefits, as well as project engagements to achieve very tangible and practical outcomes.

This paper examines how the work of the SN aligns with Statistics New Zealand's (Statistics NZ) strategic direction, our experiences and the benefits we see from involvement in the SN.

2. Statistics 2020 - Te Kāpehu Whetū

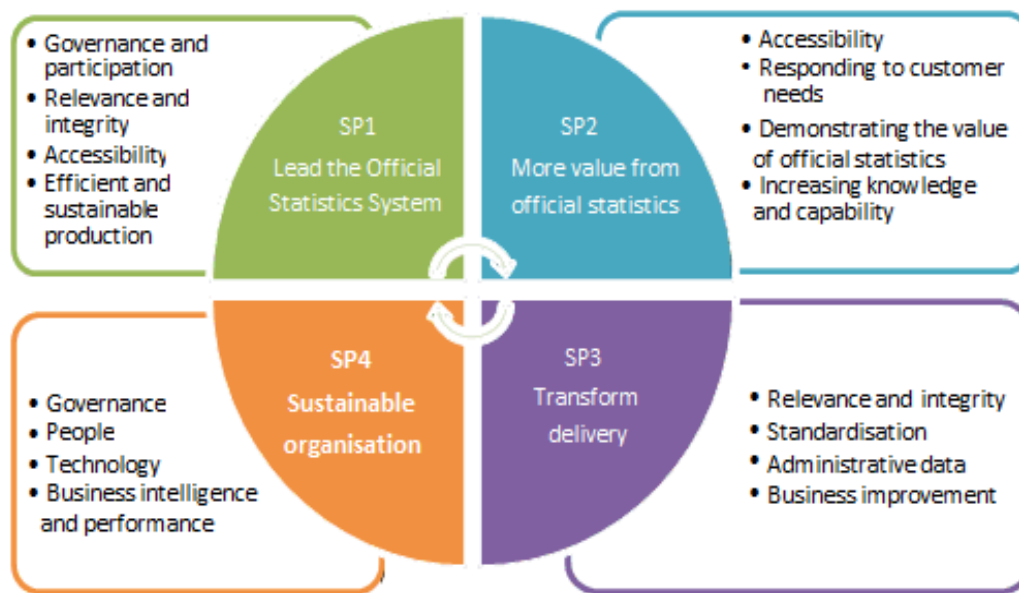
In late 2010, Statistics NZ successfully made a business case to the NZ Government to invest in a 10 year programme of work, Statistics 2020 - Te Kāpehu Whetū (Stats 2020). The purpose of this programme is to create a more efficient and sustainable way of working by addressing a number of key issues facing the organisation, that fall into two broad categories:

- a. The existing risk, through legacy systems, to the on-going supply and reliability of some of New Zealand’s most important economic and social statistics.
- b. The on-going supply of statistics that is at risk due to a perception of declining value for money.

Additional funding of NZ\$138 million over a 10 year period was obtained for operating costs (equivalent to around NZ\$14 million per year), with an additional NZ\$12.7 million for capital expenditure.

The Stats 2020 business plan clearly establishes that to remain a relevant organisation we need to change. This change is based around four strategic priorities (Leadership, Value, Transformation and Sustainability), and focuses on efficiency, system first thinking and looking outwards; as shown in the following figure

Figure 1: Strategic Priorities



Stats 2020 is an organisational change programme and this paper discusses how we are leveraging both the development of our future organisation to assist the broader NSO community and also the benefits we are receiving through international collaboration.

3. Project Based Experiences

Over the life of the SN, Statistics NZ has been involved in many of the SN projects. It has lead the Statistical Network Innovation in Dissemination (SNID) project, along with two work streams of the Generalised Statistical Information Model (GSIM) developmental work. For this paper we have focussed on our SNID & GSIM experiences.

SNID Experiences

The Statistical Network Innovation in Dissemination (SNID) was one of the first projects established within the SN program. The SNID project team comprises of representatives from Statistics Canada, Statistics Italy (iStat), the Australian Bureau of Statistics and Statistics NZ. The project has been led by Statistics NZ, but has six sub-projects lead by various members of the SNID project team. The sub-projects have focussed on search engine optimisation, standardised discovery metadata, enabling infrastructure, machine-to-machine data services, accessibility and statistical communication (innovation data content & visualisation). The learnings to date include:

- a. Having a committed Steering Committee that has a clear vision of the project's outcomes is essential.
- b. Having shared strategic alignment of the project with the goals of the sponsoring agencies makes things a lot easier, including securing dedicated resources.
- c. Work streams comprising of specialist practitioners network together to share information, these are facilitated by the stream leads who in turn report back to the SNID steering committee.
- d. Early agreement to terminology is important so that there are no misunderstandings of scope, expectations etc. leads to good communication.
- e. A shared platform, such as OECD.Stat, while not essential, does provide the opportunity for future innovation.
- f. A shared platform also means that there are pooled expert resources to share knowledge; the SNID project has delivered and shared resources for search engine optimisation, storytelling and policy development.
- g. Recognising the strengths of the various participating agencies and sharing the load; in the SNID project Statistics Canada have a dedicated usability lab, iStat are experts with SDMX, ABS with enabling infrastructure (around .Stat), and Statistics NZ with the machine to machine services.
- h. Momentum needs to be maintained through the life of the project. This can be assisted through establishing short-term and longer-term goals or deliverables.
- i. Ideally face-to-face meetings where possible.
- j. Given the distributed nature of the project team, a good collaboration tool is essential – LotusLive and multipoint telephone conference facilities are being used within the SN project team.

GSIM Experiences

Creating a strong information management environment and culture is seen as an important element of the Stats 2020 programme. At the outset of Stats 2020, the organisation decided to settle on the SDMX (Standard for Data & Metadata eXchange) and DDI (Data Documentation Initiative) standards for the exchange of information that needs to be re-used or 'flow' between systems where it provides benefit to do so.

The SN Steering Committee and governing HLG (High Level Group) group also realised the need for a sound information management basis for which to underpin any shared infrastructure, and so started the Generalised Statistical Information Model (GSIM) project. Statistics NZ has made a significant contribution to the GSIM work from the outset, and more recently has taken the lead in two of the streams of work. The conclusion of this work was the release of GSIM v1.0 in December 2012.

We see GSIM providing long-term benefits and providing a confirmation of our short-term direction. With this in mind, Statistics NZ has started to prioritise its 'at risk' legacy systems and gained a greater appreciation of the timing of redevelopments / investments.

The first identified need was for a metadata collection and visualisation tool, with a sound standards based underlying model. In following the organisational goal to buy ahead of build, we went to market to

see what solutions were in existence. As we went to market GSIM v1.0 was in development, meaning that we could not expect alignment with GSIM. However, given our on-going relationship with the vendor, the vendor's keenness to maintain a standard's based model, and our input into GSIM v1.0 has meant that the solution is well aligned with GSIM v1.0 and will be further developed towards this.

In collaboration with other members of the SN, we are now moving onto other parts of our information management platform implementation (eg. classification management) which is being informed by GSIM and make use of the forthcoming 'plug and play' developments.

It is worth noting that the approach taken to GSIM was one of the keys to its success. The idea of two face-to-face 'sprints' (short bursts of work activity with all disciplines in one location) to kick off and then complete the work with a focused period of work by distance in between the two has proven to be very successful in the delivery of GSIM v1.0.

4. Challenges

Throughout the projects there have been a number of challenges. The key challenges faced thus far have been around the following broad areas:

- a. Ensuring that the Government Statisticians, the SN and project team are aligned in their thinking, scope and objectives.
- b. Establishing a strong commitment from sponsors / senior management for their areas involved with various projects.
- c. Competing priorities, both in terms of resources but also specifications.
- d. The risk of onerous reporting requirements.
- e. Planning and identifying tangible deliverables.
- f. Time zones, given the countries involved some-one has to participate in the teleconference during the middle of the night.

The SN Steering Committee has spent some time trying to ensure that these challenges are addressed as projects move forward; for example, choosing a project management 'lite' approach as opposed to a full-blown Prince2 model.

5. Strategic Alignment – Costs & Benefits

Like all SN participants, Statistics NZ is funding its contributions to the SN through its appropriation from Government. To be able to show prudent utilisation of funding, Statistics NZ has had to be sure that the work of the SN is closely aligned to its strategic goals and the organisational work program. The SN Steering Committee is very aware of this need for all contributing agencies when setting the SN work program. Statistics NZ has been fortunate in that the Stats 2020 work program has meant that we can take part in the SN in a very active manner.

At an organisational level, the costs for Statistics NZ's participation in the SN have related to the following broad categories:

- a. For SN Steering Committee members: attending monthly teleconference meetings, providing input into strategic documents, project plans etc., and attending an annual face-to-face meeting (usually linked to something like ISI).
- b. For the SN project leaders: the usual (light-touch) suite of project management documents, incl. reporting to the monthly SN Steering Committee meeting and forward work program, and the negotiation of resourcing.

- c. For the SN project teams: regular team meetings, project delivery.
- d. To participate in some of the 'sprints' international travel funding has had to be found.

At an organisational level we see the benefits of participating within the SN program as including:

- a. Access to the intellectual horse-power of seven NSOs - working together is greater than the seven individual NSOs trying to solve the same problem.
- b. Timing - the pooling of international expertise that are focussed on the same issues at the same time; has proven more powerful than the traditional approach of one NSO looking at the problem and then the next NSO looking at the same problem six months later etc.
- c. A shared understanding that delivery is for all members; as opposed to an agency developing a tool and then offering it bilaterally on a 'user beware' basis.
- d. Direct savings; for example, the sharing of specification documents has resulted in a direct cost saving amongst NSOs.
- e. The limited size of the SN means that each participating agency feels they have a voice that can be and needs to be heard, which means that the overall program of work fits our organisational goals.
- f. The international acceptance of the GSIM model has meant that we have been able to leverage this standard through our negotiation with vendors to deliver an information management product that other NSOs will be able to utilise.

6. Conclusion

Statistics NZ sees strong alignment of the goals of the SN and its own strategic priorities. We also see good benefits from participating in the network with tangible returns. As the SN work progresses we aim to share the outcomes with the wider NSO community (as has been the case with GSIM).

Statistics NZ looks forward to the forthcoming year of SN collaboration around 'plug & play', Innovation in Dissemination (SNID), Data Collection, Administrative Data Quality Measures and GSIM implementation. We are also interested in discussing with all interested parties opportunities to refine and strengthen the existing model.