Statistics Netherlands

Memorandum

Quality management at Statistics Netherlands, 2014

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summary This document describes briefly the components of the quality management system of Statistics Netherlands as well all activities regarding quality management.

keywords Quality, quality management, quality management system

1. Introduction

This note is intended to support the peer reviewers. It gives a brief overview of quality and quality management at Statistics Netherlands (SN).
The confidence of our users in figures with the brand *CBS* is very high. Naturally, we want to nourish this trust in our statistics. Trust in official statistics is one of the fundamentals of a democratic society, just like freedom of speech. These kinds of elements are needed to feed decision-makers with reliable information ('fact-based governance'). Statistics Netherlands' basic principle in this regard is that there should be '*No discussion about the quality of the data, only about what they signify*.'
Quality management at SN focuses on guiding and informing statisticians. It is based on two principles:

1. Everyone is responsible for their own quality,
2. Employees of SN are reliable professionals.

In this respect, the Quality Guidelines are the main tool for SN. They comprise all legislation and other rules about statistical processes and products, and provide a basis for the organisation of design, production and quality management.

2. Organisation supports quality

- Quality management supports statistical production. The way the production is organised also supports the high quality standards of SN. The production process is set up in accordance with the business architecture, software architecture, IT architecture, and a standard set of statistical methods and tools.
- Some parts of the production process are centralised in generic services to improve professionalism. SN distinguishes Data Collection services, Data Storage services, Data Output services, Communication Services (press releases etc.) and Quality services. These generic services are carried out in dedicated organisational units:
- Quality Management and Auditing (DKA)
- Process development, IT and Methodology (PIM)
    - Methodology
    - Process development
    - CIO office, IT development and maintenance, IT infrastructure
    - Project management services
- Data service centre (SDI)
- Data output services (BCO)
- Communication services (BCO)
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3. Processes and products

Two categories

SN distinguishes two categories of statistics:

A. Key statistics (18)
B. Other statistics

Category A comprises products which are very important for the image and reputation of the institute. Special attention is given to guarantee the quality of category A.

Pre-set quality

Product quality should be known and set at the design phase of the production process. In every run, the production process should be able to produce a statistical product in accordance with these pre-set quality and other specifications, at predictable costs

4. Tools supporting quality

Quality Guidelines: our main tool

The general framework for quality management at SN is set by the Quality Guidelines. These guidelines are structured in accordance with the Object-oriented Quality and Risk Management model (OQRM[1]). This means that standards are set at three levels, i.e. object, one or more attributes of each object, and one or more requirements for each attribute. Objects are for example agreements, statistical output, and processes.

The Quality Guidelines contribute to:

– achievement of Statistics Netherlands' mission;

[1] http://www.oqrm.org/English/

- achievement of Statistics Netherlands' core values: reliability, relevance, consistency and timeliness. Statistics Netherlands also takes due care with regard to privacy and confidentiality;
- conformity with legislation;
- the confidence of all stakeholders in Statistics Netherlands and its products;
- stakeholder satisfaction with the products of Statistics Netherlands;
- the image and reputation of Statistics Netherlands;
- the transparency of Statistics Netherlands.

Moreover, the Quality Guidelines:

- serve as input and explanatory notes for an audit framework;
- serve as input and explanatory notes in setting the self-assessment questions;
- provide a framework for statistical process redesign and amendment;
- ensure conformity with existing lower-level frameworks.

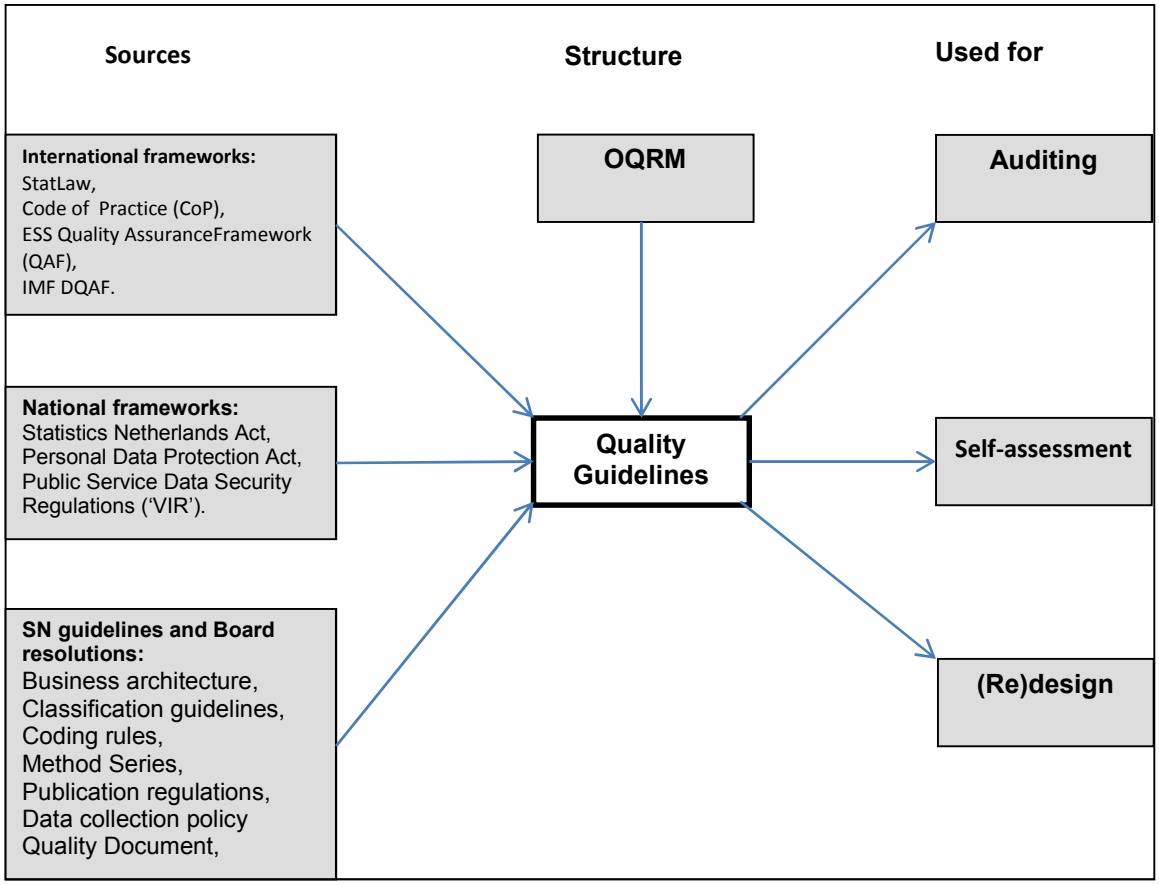
Standards in the Quality Guidelines are subdivided into three levels of importance. These levels are elaborated in Section 7.2 of the Quality Guidelines 2014. All standards that refer to the CoP and the ESS QAF are at level 1 or 2.

Statistical audits

At SN different tools are in place to inspect processes. Our 18 most important statistical processes are subject to statistical audits on a regular basis. An audit team evaluates these processes every three years on a rolling basis. Ten audits a year are planned, and around 0.6 of a full-time equivalent is spent on each audit.
The audits are managed by a central department: Quality Management and Auditing. The auditors themselves are all internal statisticians and methodologists. An audit team consists of one audit team leader, two auditors from statistical departments, and one auditor from the methodological department. Four out of six audit team leaders have an external postgraduate degree in auditing. The 60 audit team members have all followed an internal three-day auditing course. Audits are directly reported to our director-general. The results of the audits are used by process owners to plan improvement actions.
The director-general can also order an audit on other processes on an ad hoc basis or in the case of an emergency.
The total annual costs are equivalent to around 6.5 full-time equivalents.

Self-assessment

All statistical processes are subject to self-assessment: yearly for category A statistics and three-yearly for category B statistics. The self-assessment questionnaire is also based on the Quality Guidelines. The purpose of the self-assessment is to identify points for improvement. Process owners compile action plans based on the results of the self-assessment.
The total annual costs are equivalent to 0.5 of a full time equivalent.



- Figure 1 Relationship between sources, structure and goals of the Quality Guidelines

Process descriptions

Each statistical process maintains a Quality Document. As of 2014, this Quality Document consists of:

- a front page including an action plan to be signed by de process owner and department manager;
- a written and a graphical process description;
- an overview of the information systems used in the process;
- a documentation overview: titles and links
- agreements with data users and data suppliers;
- a completed self-assessment questionnaire.

The Quality Document is regularly updated: yearly for category A statistics and three-yearly for category B statistics. The update process is planned and monitored by two coordinators.
The total annual costs are equivalent to 2.5 full time equivalents.

5. Tools at institutional level

Quality Declaration

SN publishes a Quality Declaration on its website, stating which international and national frameworks it endorses (Cop, QAF, etc.). The Quality Policy and the Confidentiality Policy are integrated in the Quality Declaration.

Risk assessments

Every four to five years, the Board of Management of SN discusses risks and risk policies in a special meeting, followed by three or four special sessions to set out the risk profile and related policies. The risk profile and risk policies are updated yearly and the status of measures is reported quarterly by each division.
The annual costs are very limited: equivalent to 0.1 of a full time equivalent at the most.

Quality reporting

All statistical information should also include an indication of the quality of the information. At present, this is not always detailed enough, and sometimes even absent. However, based on the standard quality reporting framework of Eurostat, these reports will be available in the future. At the moment, there is a discussion within the organisation about the quality level we want to deliver, and how to make it operational. Users do not always know what they want. And there are different kinds of users. Often they are satisfied with every quality SN delivers because they trust the brand *SN*. This means that SN has a responsibility to keep trust in statistics as high as it is today.
Quality reporting is incorporated in day-to-day work, and SN does not estimate the annual costs involved.

Internet quality.

A special group of five senior employees, the so-called 'gadfly group', investigates basis the website of SN on an non-regular. Their main task is to act as external users without taking the internal organisation into consideration, and thus to improve the usability of the statistical information. Many output tables and press releases are not user oriented, but directly related to the internal production process. They also report on errors or vague product descriptions. Individual findings are reported directly to the subject matter departments. They report a yearly summary of findings to the Chief Statistical Officer and the Board of Directors.
The annual costs of this group is equivalent to 0.1 of a full time equivalent.

International cooperation

Statistical information with the brand SN receives a high level of respect in the Netherlands. To help keep it this way, SN appreciates quality activities at the European level like the Code of Practice and the Quality Assurance Framework. At the national level it supports the institutional embedding and perception of SN as a trusted partner.
The annual costs of international cooperation directly related to quality work is equivalent to 0.1 of a full time equivalent.

Internal reviews

Most departments at SN have some review process of their output. An example of a very structured review process can be found in the methodology department. On average, the department publishes 150 internal papers and 50 external papers yearly. Every internal or external paper written by a methodologist is reviewed by a senior methodologist and by a manager. The senior methodologist reviews the technical aspects of the methodology developed in the paper, and how it is applied to the statistical problem at hand, and the manager looks into the wider aspects such formulation, in order to improve the degree of acceptance by statistical users.

Generic services

- To improve professionalism, some parts of the production process are centralised in generic services. SN distinguishes Data Collection services, Data Storage services, Data Output services, Communication Services (press releases etc.) and Quality Management and Auditing. These generic services are performed in dedicated organisational units.

Architecture

- The production is set up in accordance with the business architecture and IT architecture.

Method series

- A standard set of statistical methods and tools has been established and implemented. This set is published on the website.

Other tools

- In addition to the above-mentioned tools, other tools are also in place. For example, user satisfaction surveys, employee satisfaction surveys, and peer reviews are carried out on a regular basis. The annual costs of these other activities, including general quality management, are about equivalent to 2.5 full time equivalents.