

# A New Process for Assessing the Quality of an Output Makes Better Quality Statistics

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## Abstract

There is a requirement under the UK Code of Practice for Official Statistics to ensure official statistics are produced to a level of quality that meets users' needs and to seek to achieve continuous improvement in statistical processes by undertaking regular reviews. In January 2015 the Quality Centre rolled out a new process for assessing the quality of an output within the Office for National Statistics (ONS). This new process is called a 'Regular Quality Review (RQR)' and replaces the use of a self assessment tool to carry out quality reviews. The decision to develop a new process was made based on feedback from statistical output managers during a user engagement exercise. The RQR process reduces the burden on the data producer, as instead of completing a large self assessment tool they discuss their output in the context of the five quality dimensions and the Generic Statistical Business Process Model with a methodologist. The process also results in recommendations tailored to improving the quality of the statistical output. To date 40 RQRs have been successfully completed. Customers feel the new process is proportionate and the recommendations useful. Quality Centre monitors recommendations and ensure they are implemented. In this paper, we describe the new process, present feedback from business areas, discuss the common themes around recommendations and show how outputs have improved as a result of the RQRs.

**Keywords** - Improvements, reviews, assessments

## 1. Introduction

The Office for National Statistics (ONS) is required to regularly review the quality of official statistics under the UK Code of Practice for Official Statistics (UK Statistics Authority, 2009) and the European Statistics Code of Practice (Eurostat, 2011).

In 2013, ONS rolled out the use of the Quality, Methods and Harmonisation Tool (QMHT) to carry out quality reviews of all statistical outputs on an annual basis. This is a self-assessment

tool that asked questions about the output across all stages of the Generic Statistical Business Process Model<sup>1</sup> and produced recommendations.

Once QMHT had been in use for a year, Quality Centre held focus groups with some statistical producers to establish whether it was meeting their needs. It was highlighted that QMHT took a very long time to complete and it generated a large number of recommendations that were not always relevant to the statistical output. Quality Centre responded to the feedback and worked to develop a new approach to reviewing statistical outputs, which is known as the ‘Regular Quality Review’ (RQR).

The main finding from the focus groups was that producers of statistical outputs would like the opportunity to discuss their output with a methodologist. The RQR has therefore been built around this principle.

## **2. RQR Process**

An RQR consists of a facilitated meeting, lasting between 1.5 and 2 hours, between the producer of a statistical output, the Divisional Director, a senior methodologist and a representative from Quality Centre. Quality Centre sets up the meeting and collates existing documentation; Quality and Methodology Information (QMI) reports, Value Engineering information<sup>2</sup> (Sharp, 2014), desk instructions, quality assurance walkthroughs, survey questionnaires, statistical bulletin and UK Statistics Authority assessments. This information is used to initiate a discussion of the methods and quality, led by the senior methodologist.

ONS has an existing quality initiative designed to ensure that effective quality assurance procedures are in place. This is termed the ‘quality assurance (QA)’ or ‘Divisional Director (DD)’ walkthrough. Quality Centre incorporated the DD walkthrough into the RQR. This means that there are two components to the RQR; the methods review carried out by the senior methodologist and the DD walkthrough.

As the meeting is based on existing documentation and sharing knowledge the burden placed on the output manager is minimised.

A set of bespoke recommendations are made by the senior methodologist for that statistical output, which addresses one of the main concerns raised regarding the use of QMHT. The

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<sup>1</sup> <http://www1.unece.org/stat/platform/display/GSBPM/GSBPM+v5.0>

<sup>2</sup> Value Engineering takes place annually at ONS to assess the level of risk associated with ten different dimensions of statistical outputs including systems, processes and methods.

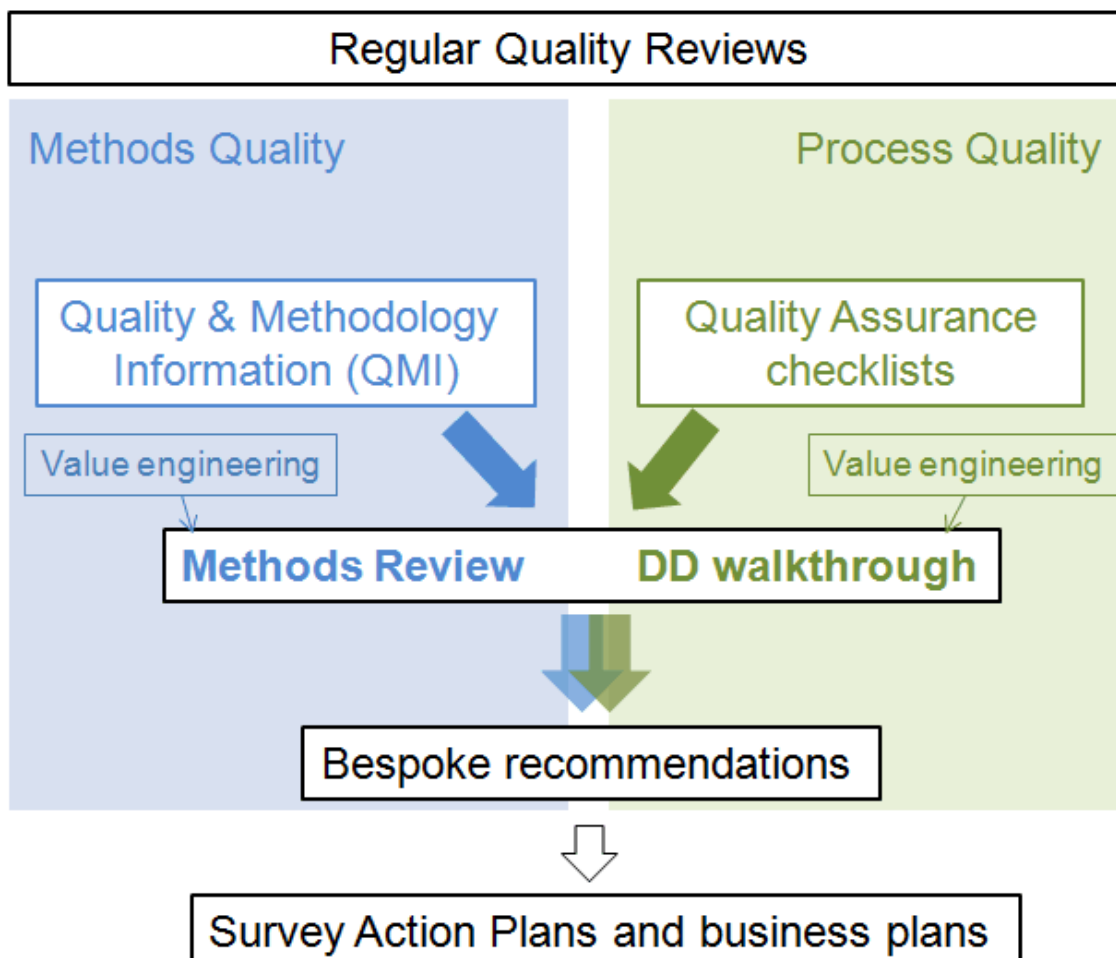
recommendations then feed into business plans or Survey Action Plans, which are used by some surveys to monitor any risks or issues.

### 3. Progress

Once we had designed the review process, it was piloted on 3 statistical outputs before being launched in November 2015, and by April 2016 we have completed 50 additional reviews. We recognised the need for a slow start to ensure that the process was working as we had anticipated and to give some extra time and flexibility to smooth out any problems.

Statistical producers and Divisional Directors have contacted Quality Centre to express their support for this process and have found sitting down with a methodologist extremely useful. Quality Centre has contacted all Divisional Directors to obtain feedback, which was all favourable of this new process.

**Figure 1. An overview of the Regular Quality Review and how it links with existing initiatives**



#### **4. Recommendations**

One of the main features of the RQR is that it will provide bespoke recommendations for a statistical output which addresses statistical producers concern about QMHT, and a 3 yearly review cycle provides time between reviews for recommendations to be addressed.

We have a role in Quality Centre to monitor recommendations following RQRs. The recommendations themselves are owned by the relevant statistical output area, however Quality Centre will return periodically to check progress. Where recommendations require methodological support and advice, Quality Centre will help to facilitate this and will help to get the required work onto the relevant business plans. In addition, our role in Quality Centre is to ensure that recommendations are prioritised appropriately and that the description of recommendations as low, medium or high priority is applied consistently.

The common themes around recommendations are methodological work, varying from reviewing the sample, questionnaire, validation etc, or work for the statistical producer and team to conduct such as updating the QMI. The recommendations range from high priority, for example to review discontinuity or targets, to a low priority, for example to investigate whether Excel processing can be automated. All recommendations will improve the quality of the statistic.

A number of recommendations have been implemented to date. There are a number of recommendations currently in progress, and these tend to be longer term projects. In some cases recommendations haven't been taken forward, but this is usually due to resource or financial constraints.

#### **5. Relevance for Others**

Over the last 18 months Quality Centre has presented RQRs at a number of seminars across ONS and the Government Statistical Service (GSS). It offers a relatively light-touch approach to reviewing a statistical output which appeals to statistical producers. For the GSS it is expected that where senior methodologists are not available, a senior statistician could carry out the review or support could be sought from the Methodology Advisory Service<sup>3</sup>. The Department for Business, Innovation and Skills (BIS) recently attended an ONS RQR

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<sup>3</sup> <https://gss.civilservice.gov.uk/courses-and-events/statistical-training-unit/methodology-advisory-service/>

meeting as an observer. ONS and BIS have discussed how the RQR process could be implemented within BIS.

## **6. Next steps**

The next steps for this project are:

- Continue to roll out RQRs across ONS
- Further refine and improve the process through feedback from statistical producers and the methodologists involved
- Continue to monitor recommendations and implementation
- Further communicate the RQR process across the GSS and wider
- Assist with the implementation of RQRs across the GSS where required.

## **7. Conclusion**

This new RQR process has been developed at ONS in response to the requirements of the UK Code of Practice for Official Statistics. The Quality, Methods and Harmonisation Tool previously used for conducting reviews at ONS was not meeting the needs of statistical output managers.

This process offers a ‘light-touch’ methodological review and complements the existing quality initiatives in place at ONS. It is a flexible model that can be used by official statistics producers to improve the quality of a statistic; guidance has been developed for carrying out this approach in other statistical institutes and in other government departments.

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