TWINNING CONTRACT

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Support to the Israeli Central Bureau of Statistics in Improving the Quality of Official Statistics





STUDY VISIT REPORT

on

QUALITY MANAGEMENT AND COORDINATION OF OFFICIAL STATISTICS

Activity A4

Study visit to Statistics Sweden, UK Office of National Statistics and UK Statistics Authority

Date: 14 – 16 November 2016 Final Version





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List of Abbreviations

ESS European Statistical System

EU European Union

GSBPM Generic Statistics Business Process Model

GSS Government Statistical Service

ICBS Israeli Central Bureau of Statistics

NSI National Statistical Institute

NSS National Statistical System (of official statistics)

ONA Other National Authorities

ONS Office of National Statistics (UK)

SCB Statistics Sweden

UKSA UK Statistics Authority

Summary of the study visit

On the first study visit, the Israeli delegation met with Statistics Sweden, the UK Office of National Statistics and the UK Statistics Authority. The study visit served as a necessary step to proceed with the already initiated work related to quality management of official statistics and coordination between the different parts of the statistical system. The main topics covered were legislative and organizational frameworks governing coordination and quality assurance in the National Statistical System, the role of the National Statistical Institute (like the ICBS) as well as work processes and the required resources. The study visit gave the Israeli delegation a wealth of valuable ideas and inspiration for future development of quality management of official statistics in Israel. A brief comparative analysis between Sweden and UK can be found in Table 1 below.

Table 1: A comparative analysis of Quality Management of Official Statistics in Sweden and UK

-	alive analysis of Quality Management of Of	v
Subject	Sweden	UK
Coordination of official Statistics	SCB	UKSA
Who decides what is official Statistics	Government Departments and agencies defined in the Official Statistics Ordinance	By law: All Government Departments and agencies producing Statistics, and non-Crown Bodies accredited by ministers
Accreditation and Stamps	Self-accreditation by producers and annual follow up by SCB (Please note accreditation for Official Statistics) Official Statistics of Sweden	Accredited by UKSA (Please note accreditation for National Statistics a subset of Official Statistics)
Number of producers of Official statistics	27	40
Number of Official Statistics		> 1,000 statistical products
Suusies		Produced by 25 Government Departments and agencies.
Main producer	SCB	ONS
Legal Framework	 Regulation (EC) No 223/2009 of the European Parliament and of the Council Administration Act (1986:223) Government Regulation (2007:515) The ordinance (2016:822) Yearly Appropriation Directions The Official Statistics Act (2001:99) Official Statistics Ordinance (2001:100) 	 Regulation (EC) No 223/2009 of the European Parliament and of the Council Statistics and Registration Service Act 2007
Examples of resources used for quality guidance	 Regulations Define quality and criteria for official statistics Evaluate quality Publish official statistics Guidelines on contents and scope of Official Statistics (see council's Sufficient quality and criteria for official statistics) Guidelines for European Statistics Guidelines for revision of statistics (see council's Preliminary statistics) Guidelines for electronic publishing EFQM ISO 20252 A System for Managing the Quality of Official Statistics - ASPIRE Annual report on Official statistics of Sweden 	 UK Code of Practice for official statistics The UKSA strategy "Better Statistics, Better Decisions ONS Quality Management Strategy ONS Statistical Quality Framework Guidelines for measuring statistical output quality (and guidelines for electronic reporting - Style.ons website) Quality Assurance of Administrative Data (QAAD) regulatory standard Administrative Data Quality Assurance Toolkit Quality assurance in statistical analysis (The Aqua Book) Harmonisation pages in ONS and GSS websites

1. General comments

This study visit report was prepared within the Twinning Project "Support to the Israeli Central Bureau of Statistics (ICBS) in enhancing the Quality of Official Statistics" and organized under component A: Quality Management of Official Statistics and was forth activity in the component.

During the first study visit the Israeli delegation¹ met with staff members from Statistics Sweden (SCB) in Stockholm as well as UK Office of National Statistics (ONS) and the UK Statistics Authority (UKSA) in London. The study visit served as a necessary step to proceed with the already initiated work at ICBS related to quality management of official statistics and coordination between the different parts of the statistical system. The main topics covered were legislative and organizational framework governing coordination and quality assurance in the National Statistical System (NSS), the role of the National Statistical Institute (NSI) as well as work processes and resources used. The study visit gave the Israeli delegation a wealth of valuable ideas and inspiration for future development of quality management of official statistics in Israel.

The staff of Israeli Central Bureau of Statistics (ICBS) would like to express their thanks to all officials and individuals met for the kind support and valuable information which they received before, during and after the stay in Sweden and the United Kingdom which highly facilitated the work.

This views and observations stated in this report are those of the participating staff of ICBS and do not necessarily correspond to the views of EU, Statistics Denmark, SCB, ONS or UKSA.

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¹ For participants please consult Annex x

2. Lessons Learned

2.1 Legislative Framework of Official Statistics

All countries within the European Communities are committed to REGULATION (EC) No 223/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 11 March 2009 – for further details please consult

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:087:0164:0173:en:PDF

The regulation states that **cooperation** and **coordination** should be reinforced between the authorities that contribute to the development, production and dissemination of European statistics and that cooperation and coordination of those authorities should be developed in a more systematic and organized manner.

In the regulation it is also stated that it is necessary to **clarify the respective roles** of the national statistical institutes (NSIs) and other national authorities, and of the Community statistical authority.

In addition it is mentioned in the regulation that **joint structures**, tools and processes could also be established or further developed through **collaborative networks**, involving the NSIs or other national authorities and the Community statistical authority. These collaborative networks between partners of the European Statistical System (ESS) should aim to avoid duplication of work and therefore **increase efficiency** and reduce the response burden on economic operators.

Special attention should be given to the CHAPTER II Statistical Governance more specifically Article 5 and 12:

Article 5 - National statistical institutes and other national authorities

- 1. The national statistical authority designated by each Member State as the body having the responsibility for **coordinating** all activities at national level for the development, production and dissemination of European statistics (the NSI) shall act as the **contact point** for the Commission (Eurostat) on statistical matters. The Member States shall take the necessary measures to ensure the application of this provision.
- 2. The Commission (Eurostat) shall **maintain and publish on its website a list** of NSIs and other national authorities responsible for the development, production and dissemination of European statistics as designated by Member States.

Article 12 - Statistical quality

- 1. To guarantee the quality of results, European statistics shall be developed, produced and disseminated on the basis of uniform standards and of harmonised methods. In this respect, the following quality criteria shall apply:
 - (a) 'relevance', which refers to the degree to which statistics meet current and potential needs of the users;
 - (b) 'accuracy', which refers to the closeness of estimates to the unknown true values;
 - (c) 'timeliness', which refers to the period between the availability of the information and the event or phenomenon it describes;
 - (d) 'punctuality', which refers to the delay between the date of the release of the data and the target date (the date by which the data should have been delivered);
 - (e) 'accessibility' and 'clarity', which refer to the conditions and modalities by which users can obtain, use and interpret data;

- (f) 'comparability', which refers to the measurement of the impact of differences in applied statistical concepts, measurement tools and procedures where statistics are compared between geographical areas, sectorial domains or over time;
- (g) 'coherence', which refers to the adequacy of the data to be reliably combined in different ways and for various uses.

Sweden

Through the National regulation (2016:822) Statistics Sweden has been appointed as the national institution responsible for developing, producing and disseminating official statistics and other government statistics and to coordinate the system of official statistics (The Authority). For further details please see the link below (in Swedish)

https://www.riksdagen.se/sv/dokument-lagar/dokument/svensk-forfattningssamling/forordning-2016822-med-instruktion-for_sfs-2016-822

Since 1994, the Swedish NSS consists of a decentralized system of 27 authorities responsible for statistics (not at ministry level). Decentralization was decided in 1994 in order to respond to changes in statistical demand, and make sure produced statistical information is relevant. By section 2, Official Statistics Ordinance (2001:100), "The statistical authorities shall determine the content and scope of statistics within the statistics area(s) for which they are responsible". Statistics Sweden is under the Ministry of Finance.

The National regulation states that the authority (SCB) should have a *Council of official statistics* ((Rådet för den officiella statistiken). The Council consists of the National Statistician, who is chairman, and twelve other members.

The Council consists of authority chief, who is chairman, and twelve other members. The Council's task is to assist the Authority (SCB) in carrying out their duties under § 2 5-9.

The law allows for private (e.g. telemarketing) companies to be used for data collection. They are obliged to erase all collected data after collection. Statistics Sweden monitors the quality of the data, including by contacting a sample of respondents., checking server security level at the private company etc.

United Kingdom

The operation of the UK's statistical system is governed by the Statistics and Registration Service Act 2007. For further details please see the link below

https://www.statisticsauthority.gov.uk/wp-content/uploads/2015/12/images-statisticsandregistrationserviceact2007_tcm97-18260.pdf

The Act provided for the creation of a new **Statistics Board** – which operates as the UK Statistics Authority – with a statutory responsibility to promote and safeguard the production and publication of official statistics that serve the public good.

Under the Act, the Board was established as a non-ministerial Department, operating at arm's length from Government.

2.2 Official Statistics

Sweden

In Sweden *official statistics* are statistics for public information, planning and research purposes in specified areas produced by appointed public authorities in accordance with the provisions issued by the Government (The Official Statistics Act (2001:100). Official statistics shall be objective and made available, free of charge, to the public. Further, they are to be produced and published in a manner that protects the privacy of individuals. All authorities responsible for official statistics should each year provide an updated description for every product for which they are responsible. Furthermore, the Official Statistics Ordinance states that statistical agencies shall provide documentation and quality declarations for the official statistics, and shall, free of charge, make them available to the public in electronic form over a public network. Statistics Sweden as the coordinating agency may issue more detailed instructions following consultations with all the statistical agencies.

Official statistics that are also published in printed form shall be supplied free-of-charge to county libraries, university libraries, state libraries of higher education and Statistics Sweden's library

When official statistics are published they should be accompanied by the phrase "Official Statistics of Sweden" and/or the symbol shown below



The Guidelines issued by the Council for Official Statistics can be found in: http://www.scb.se/Grupp/OmSCB/Verksamhet/ROS/Dokument/EN/Sufficient-quality-and-criteria.pdf

In short the Criteria for sufficient quality for official statistics in Sweden can be summarized as:

Laws, ordinances and regulations that steer the official statistics

- Relevant laws are known and complied with
- Relevant ordinances are known and complied with.
- Relevant regulations are known and fulfilled
- Current descriptions of the statistics with quality declarations are available according to the template, Quality
 definition and recommendations for quality declarations of official statistics Reports on Statistical
 Coordination (MIS) 2001:1, Statistics Sweden

Contacts with users

- Objectives of the statistics are clearly formulated
- The main users and their main areas of use and future needs are documented
- The planned characteristics of the statistics are based on a dialogue with the main users
- Annual follow-up of the quality of the statistics is conducted with the main users and the follow-up is documented

Planning - Implementation - Follow-up

- · Relevant EU regulations are given and complied with
- · Relevant classifications and standards are given and complied with
- The choice of statistical methods can be motivated based on scientific principles

- Possibilities to use other available sources of data have been studied and documented.
- The collection methods have been chosen with consideration to the possibilities, needs and desires of the data providers
- Provision of data is reasonably distributed among data providers
- The amount of time and costs spent by data providers has been estimated
- Measurement instruments are professionally designed and tested
- The publishing schedule is made available in advance
- Quality studies are done regularly
- The surveys have been planned and conducted to at least obtain the sufficient level of quality, and this has been documented.
- The statistics have been assessed to be of sufficient quality in the follow-up

United Kingdom

The Statistics and Registration Service Act 2007 defines 'official statistics' as all those statistical outputs produced by the UK Statistics Authority's executive office (the Office for National Statistics), by central Government departments and agencies, by the devolved administrations in Northern Ireland, Scotland and Wales, and by other Crown bodies (over 200 bodies in total). This definition goes much wider, therefore, than the portfolio of statistical outputs produced by members of the Government Statistical Service (GSS).

The Act also allows ministers to determine, through secondary legislation, which non-Crown Bodies produce official statistics so that they, too, can be subject to scrutiny and assessment by the Statistics Authority, and be eligible for assessment as 'National Statistics'. This provision is designed to ensure a broad definition of official statistics, as well as flexibility so that the scope of official statistics can be adapted over time to suit changing circumstances.

The term 'official statistics', therefore, includes several categories of statistics produced by public bodies:

- 'National Statistics' these are certified as compliant with the Code of Practice for Official Statistics.
- Statistics produced by the GSS that are not 'National Statistics'
- Statistics produced by Crown Bodies but not under the professional management of the GSS
- Statistics produced by non-Crown Bodies included in secondary legislation

'National Statistics' are a subset of official statistics which have been certified by the UK Statistics Authority as compliant with its Code of Practice for Official Statistics.

Accredited 'National Statistics' are identified by the following quality mark:



The label currently comprises three basic types:

- Legacy 'National Statistics' those statistical products which obtained their designation as 'National Statistics' before April 2008, but not yet formally re-assessed by the UKSA.
- Re-assessed 'National Statistics' any statistical product which has retained its National Statistics status after a formal re-assessment by the UKSA for compliance with the Code of Practice (as part of the Assessment Programme started in 2008).

• New 'National Statistics' – any statistical product proposed by ministers formally assessed and granted accreditation by the UKSA .

2.3 The organizational framework for coordination of official statistics

Sweden

Statistics Sweden

Statistics Sweden tasks include:

- Develop, produce and disseminate government statistics and forecasts in the statistical areas of labour, population and education
- Coordinate deliveries of statistics to international organisations
- Coordinate government national statistical system
- Carry out service exports and commissioned statistics

Statistics Sweden is responsible for the "soft coordination" of the statistics and there is a Council for Official Statistics which shall support the agencies, based on:

- Seminars and courses
- Study trips (EU)
- Conference on Official Statistics
- Annual follow-up
- Working groups for cooperation on methods, respondent burden, other issues
- Regulations
- Guidelines.

Council for Official Statistics

The Council for Official Statistics was established at Statistics Sweden in February 2002 by the Government in order to assist and guide Statistics Sweden in fulfilling their responsibility as laid out by the regulations. The Council handles fundamental issues on the availability, quality and usefulness of the official statistics, as well as issues to ease the response burden. The Council also promotes cooperation among the agencies responsible for official statistics.

The Council for Official Statistics consists of twelve members (excluding the chairman) and meets at least twice a year. The director general of Statistics Sweden is the chairman. There are six permanent members and six rotating members of the council. The rotating members are appointed by the Director General of Statistics Sweden for a three year period after consultation with the authorities responsible for official statistics.

In bullet points, the Council task is to assist Statistics Sweden in the following:

- Encourage cooperation between the statistical agencies
- Provide advice and support to the authorities responsible for statistics in matters of principle concerning the quality of official statistics and issues to facilitate the provision of information.
- Maintain a joint infrastructure for official statistics, by providing
 - one point of entry for official statistics on the Internet a register of the official statistical products of the agencies responsible for statistics (Please consult: http://www.scb.se/en_/Finding-statistics/)
 - o common templates for the product websites, description of statistics and quality information
- Compile an annual publishing plan for all official statistics

The council has appointed four *work groups* which handle issues on (i) giving access to data, (ii) methods and quality issues, (iii) electronic publishing and (iv) the response process and burden. The work groups are led by Statistics Sweden and members include representatives from government agencies responsible for official statistics.

United Kingdom:

The organizational framework for coordination of official statistics in UK is much more complex than in Sweden. The structure is outlined below:

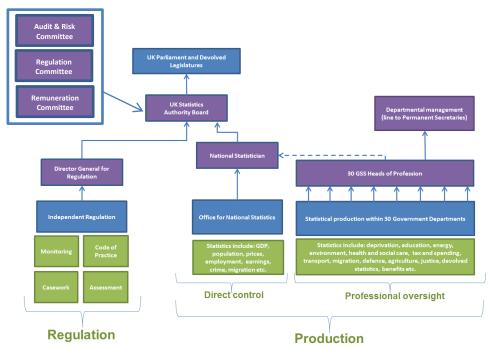


Figure 1: Functions and structure of management of Official Statistics in UK (including England, Northern Ireland, Wales, Scotland)

UK Statistics Authority

The UK Statistics Authority was established under the Statistics and Registration Service Act 2007. The Authority is an independent statutory body. It operates at arm's length from government as a non-ministerial department and reports directly to the UK Parliament, the Scottish Parliament, the National Assembly for Wales and the Northern Ireland Assembly. The work of the Authority is further defined under secondary legislation made under the Act by the UK Parliament or the devolved legislatures.

The Authority has a statutory objective of promoting and safeguarding the production and publication of official statistics that 'serve the public good'. The public good includes:

- Informing the public about social and economic matters;
- Assisting in the development and evaluation of public policy; and
- Regulating quality and publicly challenging the misuse of statistics.

Official statistics are for the benefit of society and the economy as a whole; not only in government policy-making and the evaluation of government performance, but also informing the

direction of economic and commercial activities. Statistics provide valuable data and evidence for analysts, researchers, public and voluntary bodies, enabling the public to hold to account all organizations that spend public money, and informing wider public debate. The Authority wants to see official statistics enabling sound policy decisions, and providing a firm evidence base for decision-making both inside and outside of government. Statutory Objective: "Promote and safeguard the production and publication of official statistics that serve the public good."

The main challenges identified in the GSS are: culture; work in many different departments – mostly in silos; lack of resource and limited specialist in some departments (methodologists/statisticians).

The main functions of UK Statistics Authority are:

- Production of statistics, via the executive office, the Office for National Statistics (ONS).
- Oversight of the wider Government Statistical Service (GSS).
- Production of a Code of Practice for Statistics, and assessment of official statistics against the Code.

Statistics Board

The UK Statistics Authority conducts its business and manages its affairs through its monthly Board meetings. The Board has established a number of committees to help carry out its statutory functions, and to obtain advice on matters within the Statistics Authority's remit.

Committees

The principal sub-committees of the Authority Board are: a Regulation Committee (formerly Assessment Committee), an Audit and Risk Assurance Committee, and a Remuneration Committee. Terms of reference are available from the link below². In addition to these committees, the National Statistician chairs an executive group which manages the day-to-day business of ONS statistical production.

Government Statistical Service (GSS)

The GSS is a cross-government network, spread across a range of public bodies, including components of the devolved administrations and UK government departments. Led by the National Statistician, it includes statisticians, researchers, economists, analysts, operational delivery staff, IT specialists and other supporting roles. The GSS community works together to provide the statistical evidence-base required by decision-makers, publishing around 2,000 sets of statistics each year, and providing professional advice and analysis. ONS has an important role at the heart of the GSS, providing guidance, support, standards and training.

Quality in the GSS is managed through:

- ONS/GSS Quality centre
- GSS quality champions
- Classifications and Harmonisation group

Office for National Statistics (ONS)

The ONS is the UK's National Statistical Institute and largest producer of official statistics. ONS produces statistics on a range of key economic, social and demographic topics. Key services

² Standing Orders (187.6 Kb PDF document)

<u>Audit and Risk Assurance Committee Terms of Reference</u> (166 Kb PDF document)

Regulation Committee Terms of Reference (127.3 Kb PDF document)

include measuring changes in the value of the UK economy (GDP), estimating the size, geographic distribution and characteristics of the population (including statistics from the Census), and providing indicators of price inflation, employment, earnings, crime and migration.

Office for Statistics Regulation (in UKSA)

The Office for Statistics Regulation is the regulatory arm of the Authority. It ensures that statistics are produced and disseminated in the public interest, and meet the highest standards of trustworthiness, quality and value. It acts as guardian of the integrity of the statistical system, mitigating any threats to misuse, and advocating the highest standards. It does so by assessing official statistics for compliance with the Code of Practice for Official Statistics, reporting publicly on system-wide issues and on the way statistics are being used, celebrating when the standards are upheld and challenging publicly when they are not.

The legislation requires strict separation of the functions of production and regulation, where those involved in the production of statistics are not involved in the assessment of statistics against the Code. The Office for Statistics Regulation is led by the Director General for Regulation, who reports directly to the Chair of the Authority, and who operates independently from the National Statistician and all statistical producers and has full decision-making autonomy from ONS. The key arrangements to manage the relationship between the Office for Statistics Regulation and other parts of the UK Statistics Authority, particularly ONS, can be found at 'Relationship with the rest of the Authority'.

Director General for Regulation

The Director General for Regulation is:

- An independent regulator, 'watchdog', provide rigorous critical oversight and assurance.
- Has a separate reporting line to the Board (Not via the National Statistician).
- Raises concerns about quality, comments publicly

National Statistician

Advisory functions

- The National Statistician is to be the Board's principal adviser on the quality of official statistics,
- Good practice in relation to official statistics, and
- The comprehensiveness of official statistics.

ONS Internal Audit unit

Unlike in the case of ICBS, the internal audit unit in the ONS works on statistical subjects reviews.

- Small in-house team of four members of staff
- All are qualified <u>auditors/accountants</u> not statistician's
- Developed a 3 year Audit Strategy 2016/17 2016/2019 which includes annual plan and indicative plan for next two years.
- The audit plan is reviewed on an annual basis and approved by the UK Statistics Authority Audit & Risk Assurance Committee
- Three key roles; Assurance, Advisory and Fraud.
- Reviews of survey or output process are based broadly around the Generic Statistical Business Process model.
- Key statistical outputs reviewed to date include:
 - o Annual Survey of Hours and Earnings
 - o Labour Costs and Food Survey
 - o Annual Business Survey
 - o Crime Statistics

- o International Passenger Survey
- o RPI/CPI
- o Producer Price Index
- o Population and Demography outputs

ONS/GSS Quality Centre

Quality Centre's role is to support ONS and the GSS in meeting the requirements of the UK Code of Practice for Official Statistics in relation to statistical quality and respondent burden.

- Centre of expertise on statistical quality and respondent burden
- Based within Survey Methodology and Statistical Computing division at ONS
- Provide guidance, support and expertise to ONS and the GSS, and share experiences of goodpractice
- Own, monitor and manage a number of quality initiatives under the ONS Quality Management Strategy.

Quality Centre functions include:

- Quality management, assurance & improvement
- Management and monitoring of quality reviews
- Management & support for quality reporting
- Measuring and reporting on respondent burden
- Quality training (ONS and GSS):
 - A basic course ('Quality @ ONS') covering statistical quality which all staff are encouraged to attend. Introduces key principles of quality management, quality assurance and quality control − ½ day course
 - A course specifically for staff involved in the statistical output production process ('QA for statistical outputs'), setting what to do for quality from the beginning of the statistical process through publication − ½ day course
 - o A higher level course for Statistical Analysts ('Quality and Statistics', 1 day)
- Co-ordination functions include:
 - Co-ordination, promotion and communication of a Quality Management Strategy across ONS and twice a year with the ONS Business Group (Internal Audit, Continuous Improvement Zone, Enterprise Architecture, Statistical Training Service, Good Practice Team, Classification and Harmonisation Unit, Digital Publishing and Stakeholder Communications).
 - o Maintenance and co-ordination of the network of quality champions since 2015, with a representative from each division in the GSS.
 - Maintenance of a central database to store desk instructions, descriptions of processes and methodologies, monitoring and promoting the use of this database and assisting standardisation of methods and processes.

GSS (divisional) quality champions

- GSS Quality Champions are designed at the level of Statistical Divisions all over UK. The network was established in 2014
- They are ambassadors for quality, promote the quality Management Strategy (QMS) within business area, quality training, sharing of good practice and local quality reviews of statistical outputs (as soon as guidance material will be available). They could develop division-led quality framework to set additional local quality initiatives.
- They meet twice a year and report to the Quality Centre.
- Currently work on two work-streams:
 - Quality and Data Visualisation
 - Sharing expertise across the GSS

Classifications and Harmonization group

"Harmonisation" is a cross-governmental programme of work covering the whole of the GSS (including devolved administrations). There is a dedicated **Harmonisation Team** in ONS, whose service is free of charge, including a helpdesk and a mailbox for harmonisation queries or advice. They have stakeholders in all major government departments and also some non-government departments such as Market Research Society.

Harmonisation is essentially the "agreement to format and wording of concepts, definitions, questions and output categories used in Official Statistics" with the "aim to facilitate clearer and more robust comparison between data sources and to improve data quality". This is becoming increasingly important as people are analysing and combining a greater variety of data sources (e.g. survey/admin/big).

The Harmonization programme includes:

- Social Surveys
 - o Formal process for developing, maintaining and approving Harmonised Principles
 - o 12 Topic Groups
 - o 13,000 + harmonised variables
- Business Surveys / Administrative Data
 - o Future plans for harmonisation

2.4 The producers of official statistics

Sweden

Altogether twenty-seven government agencies in Sweden are responsible for producing official statistics.

United Kingdom

Altogether 40 UK Government departments, devolved administrations, and agencies including Northern Ireland, Scotland and Wales, and by other Crown bodies are responsible for producing official statistics.

2.5 Work processes and tools for coordination and quality assurance of official statistics

Sweden

Soft coordination

The Swedish soft coordination approach is based on broad consensus. It includes:

- Seminars and courses
- Study trips (EU)
- Conference on Official Statistics
- Annual follow-up
- Regulations (Define quality and criteria for official statistics, Evaluate the quality, Publish official statistics)
- Guidelines (Not binding but agreed by consensus)
 - o Guidelines for decisions on the contents and scope of the Official Statistics
 - o Guidelines for European Statistics (Code of Practice)
 - Guidelines for revision of statistics

o Guidelines for electronic publishing

Statistics Sweden operates with three levels of quality:

- Quality in statistics (Relevance, Accuracy and reliability, Timeliness and punctuality, Coherence and comparability, Accessibility and clarity)
- Quality in processes
- Quality of organization

It may be described as follows:

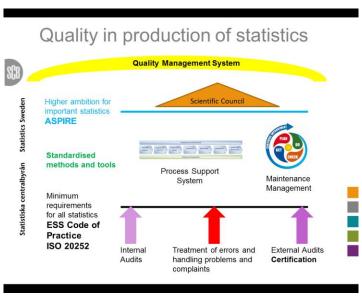


Figure 2: Quality in production of Sweden statistics

Legend: Maintenance management model - A Structured system for product management (FMOD); Process Support System - Based on GSBPM

EFQM

Statistics Sweden is using the framework called the EFQM Excellence Model as support for their operational development. The model is based on a number of criteria that are central to the work to improve the quality of operations: leadership, employees, operational planning, partnerships/resources, processes as well as results. EFQM also functions as support for self evaluations

ISO 20252

In March 2014, Statistics Sweden became certified according to the international standard ISO 20252 for marketing, opinion and social surveys. This confirms that Statistics Sweden fulfils important quality requirements in the production of statistics. Although around 70% of the requirements are covered by the CoP, it covers some areas not covered by the CoP, especially those dealing with bying and selling services: tenders, relations to customers.

ASPIRE- A System for Product Improvement, Review and Evaluation

- Quantitative metrics on quality changes in statistics, annually provided to the Ministry of Finance (since 2011) on 10 major statistics.
- Objective assessments aided by external reviewers, focused on accuracy (Total Survey error)

The statistics yearly assessed with ASPIRE are:

- 1. Labour Force Survey
- 2. Survey of Living Conditions
- 3. Consumer Price Index
- 4. Producer and Import Price Index
- 5. Annual Municipal Accounts
- 6. Foreign Trade of Goods
- 7. Structural Business Statistics
- 8. Business Register
- 9. Total Population Register
- 10. Quarterly GDP

United Kingdom

Governance for statistical quality in UK

- UK Code of Practice for Official Statistics
 - o Specifically principle 4 "Sound methods and assured quality"
- European Statistics Code of Practice
- Better Statistics, Better Decisions Strategy
 - o "deliver high quality statistics, analysis and advice
 - o "<u>Better Statistics, Better Decisions</u>" is the UK Statistics Authority's strategy for the UK statistical system.

UK Code of Practice

Key tool for regulator, published in January 2009, statutory, Official statistics should comply with and National Statistics must comply with by law.

The UK code of practice consists of eight Principles instead of the 15 (or 16) of the EU CoP, but it covers all of them. The eight principles are:

- Meeting user needs
- Impartiality
- Integrity
- Sound methods and assured quality
- Confidentiality
- Proportionate burden
- Resources
- Frankness and accessibility

Three main characteristics of the UK code of practice are:

<u>Focus on users</u> - the Code requires official statistics meets the needs of users; that the statistics are produced, managed and disseminated to high standards are well explained

<u>Observance</u> - bodies that produce <u>National Statistics</u> are required by law to ensure that the Code continues to be observed. For other official statistics, compliance with the Code is *not* a formal requirement

<u>Statutory independent assessment</u> – the UK Code is enforced via independent assessment (see the position of the Office for Statistics Regulation in Figure 5.

The production of statistics at ONS uses the Generic Statistical Business Process Model as its underlying framework. This model describes the end-to-end production of statistics. There are a number of high-level phases, with many detailed sub-processes. The terminology of the GSBPM was adopted by ONS in 2012, and is used as the framework for the production of statistics.

The ONS quality management strategy

A one page Quality Management Strategy replaced in 2013 the previous strategy with a list of management activities planned to achieve commitment to quality, quality governance & leadership, capability management, co-ordination with other quality activities³, co-ordination and communication of quality. The strategy also defines the program of quality initiatives to be undertaken: assurance, control, reporting and improvement, as well as quality management goals.

The ONS statistical quality framework

The one page Statistical Quality Framework

- identifies quality assurance, control, reviews and reporting requirements for statistical outputs
- Sets out initiatives clearly why do them, what they are, who they are for, when they are done all those in a single table:

Table 2: The day-to-day activities in place at an organizational level for quality assurance, quality control, quality reporting and quality improvement in ONS Quality Framework

		Regular Qual	Regular Quality Reviews		Quality Reporting		National
		Methods Review Meeting	DD walkthrough	Assurance checklists	QMI	Dynamic Quality information	Statistics Quality Reviews
Why?	Why is it conducted?	To ensure methods are reviewed, suitable and robust	To ensure QA procedures are reviewed, suitable and robust	To ensure QA checks are followed and to raise issues early	To provide users with quality information to inform their use of statistics	To provide users with quality information specific to a release	To ensure ONS methods are fit for purpose
What?	What is it?	A face-to-face meeting with a methodologist	A meeting between an output manager and their DD	A list of quality assurance checks with identified owners	A report on the ONS website, linked to from Statistical Bulletin(s)	Information on quality included within the statistical bulletin	In-depth methodological review
	What does it cover?	A review of methods which leads to bespoke recommendations	A review of QA checks, which leads to DD sign off	All QA checks carried out in preparation for publication	A description of methods in relation to quality dimensions	The quality information that changes between bulletins	Whether methods are fit for purpose and meet international standards
Who?	Who is involved?	Output manager, Methodologists and Quality Centre	Output managers and their DD	Output managers and their teams. QC support to set up checklists where needed	Output managers and their teams, DD and QC sign off	Output managers and their teams	A lead reviewer (methodologist) with project support from Quality Centre
	Who is it for?	DDs, Output managers and their teams	DDs	Output managers and their teams	Users	Users	Users, output areas and NSEG
Where?	Where does it sit in GSBPM?	Build, Collect, Process, Analyse	Process, Analyse	Process, Analyse	Dissemination	Dissemination	Specify Needs, Design, Build, Collect, Process, Analyse, Disseminate
When?	When is it done?	Every 3 years	Every 3 years	Used in each publication round and updated when processes change	Renewed annually	Included in each statistical bulletin	Quality Centre proposes candidates to be agreed by NSEG

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³ It refers to the Continuous Improvement Zone, a centre of expertise encouraging a culture of continuous improvement and providing support to Lean Six Sigma (LSS) Practitioners and assistance to Divisional Continuous Improvement Champions in the development and delivery of Continuous Improvement Initiatives for their area

The Quality Centre manages 4 types of initiatives in the statistical quality framework:

- Quality Assurance –how to anticipate and avoid problems
 - o <u>Divisional Director (DD) walkthroughs</u> of statistical outputs take place at least once every three years (based on GSBPM).
 - o Guidance on quality assurance practices (issued by the Quality Centre).
 - o A training course "refresher" in quality assurance is offered to output managers.
- Quality Control describes how to respond to observed problems
 - A policy is in place that described how corrections are handled and is owned by the Chief Publishing Officer.
 - A policy is in place that describes how revisions are handled and is owned by the Chief Methodology Officer.
- Quality Improvement describes how to make improvements to statistical quality
 - o All statistical outputs undergo a <u>Regular Quality Review</u> on a 3-yearly cycle.
 - o A programme of National Statistics Quality Reviews is in place to carry out in depth methodological reviews of two statistical outputs per year.
- Quality Reporting describes how to inform users of the quality of the statistics, in three layers:
 - 1. All statistical outputs have Quality and Methodology Information reports (QMI) published.
 - 2. Statistical bulletins include "dynamic" quality information that is specific to the statistical release, for example, standard errors or response rates.
 - 3. Quality summary pages in the website, designed to extend reach of quality information. They includes vital, bespoke information that reduces risk of misusing the data

See below a comparison of the three layers of quality reporting:

Table 3: A comparative table for the three layers of quality reporting in UK

Quality Information Relating to Statistical Bulletins

	Background Info in Bulletins	Quality Summary Beta Page (currently referred	Quality and Methodology Information PDF
	(Stand alone in Statistical Bulletin.)	to as Quality and Methodology Information)	PDF attached to Quality Summary Page.
		(Webpage with QMI PDF attached.)	
Target	All users.	Inquiring Citizens & Data Foragers.	Expert Users.
Aim	Aim – to help users understand data and quality implications for that data in specific releases. Information provided should help users	Aim – to reduce the risk of misuse of data. Information provided should be the most important points in order to reduce the risk of	Aim – to allow users to make informed judgement on suitable potential uses of the data.
	understand how to use the data reported on in the Statistical Bulletin.	misusing the data, particularly for inexperienced users or users with limited time.	Information provided is designed to help users decide on suitable uses for the data. Template designed to meet requirements of the Code of Practice. The content is used as part of the Regular Quality Reviews and UKSA Assessments for Outputs.
Type of	Dynamic information – changes regularly to be	Static information – more general across various	Static information – more general across various
Information	specific to the data reported on for each period. Quality warnings/caveats on specific issues relating to the data reported on in that issue of the Bulletin.	time periods.	time periods.
Length	Concise – fairly high level information.	Concise – high level information – leads into QMI PDF.	More detailed information. Summarised descriptions of methods used to create the output (linking to further detail) and reports against the 5 ESS Dimensions of Quality.
Presentation	Frontloaded <u>critical</u> caveats should be up front in the bulletin content.	Frontloaded – most important points first. Should include quality warnings/caveats on	Specified template. Should include detailed information on strengths
	Should include quality warnings/caveats on specific issues relating to the data reported on in that issue of the Bulletin.	specific issues relating to the most common likely misuses of the data.	and limitations of data.
Links	With Quality Summary Beta Page.	With Background Info and QMI.	With Quality Summary Beta Page.
Further Guidance	Further Guidance to be drafted.	Further information	Further information in templates

Guidelines for Measuring Statistical Output Quality

Recently updated (October 2013), the "Guidelines for measuring statistical output quality" (Version 4.1) are aimed at producers of Official Statistics across the Government Statistical Service (GSS) and aligned to the Generic Statistical Business Process Model. They provide advice and guidance on quality indicators to assist producers of government statistics to report Quality and Methodology Information (see QMI in Table 2). SIMS is used when necessary (ESS reports) but not systematically at the national level.

The guidelines provide a checklist of quality measures and indicators for use when measuring and reporting on the quality of statistical outputs. Emphasis is made on helping users to understand the context in which the data were collected, processed and analyzed, the methods adopted and their limitations; the reliability of the figures, and the way they relate to other available data on the same subject. These guidelines are supplemented with detailed specific guidelines for electronic reporting (see Style.ons website).

More ONS/GSS resources for quality coordination and assurance:

Quality Assurance of Administrative Data (QAAD)

The <u>Quality Assurance of Administrative Data</u> regulatory standard is derived from the Code of Practice and set to confirm the quality assurance arrangements required for statistics compiled using administrative sources. It covers:

- Operational context & administrative data collection
- Communication with data supply partners
- QA principles, standards and checks by data suppliers
- QA investigations & documentation performed by the producer

Administrative Data Quality Assurance Toolkit

The toolkit provides the mechanism used by the UKSA to determine compliance with the QAAD standard. It provides quality assessors with guidance in reviews of producers' actions taken to ensure quality of statistics, namely actions for investigation, management and communication of quality.

Investigation actions – such as:

- Data suppliers' own QA arrangements
- The impact of external audit of the administrative data
- Areas of uncertainty and bias
- Distortive effects of targets and performance management regimes

Management actions – such as:

- Cooperative relationship with suppliers, IT and operational, and policy officials
- Guidance information on data requirements
- QA checks and corroboration against other sources

Communication actions – such as:

- Description of data collection process
- Regular dialogue with suppliers and providers
- Quality guidelines for each set of statistics
- Description of errors and biases and their effects on the statistics
- Communication with users

Quality assurance in statistical analysis

In addition to the governance and resources available around statistical quality, there has been cross-governmental work carried out on developing guidance on quality assurance for analysis. The <u>Aqua Book</u> (March 2015) came primarily as a result of the review of quality assurance of government analytical models, but is relevant for all types of analysis and is not limited to modelling.

The Aqua book principles for analytical quality assurance include:

- Proportionality of response level of QA is proportionate to risk
- Quality assurance should happen throughout development, not at the end
- Verification and validation analysis is error free and appropriate
- Analysis is made with RIGOUR (repeatable, independent, grounded in reality, objective, uncertainty is managed, robust)
- 3 roles and associated responsibilities are set: commissioner, assurer and analyst

Harmonization resources

See among online resources:

- A to Z of Social Harmonised Principles (questions, interview instructions, output categories)
- <u>UK Data Service Variable and Question Bank</u> (enabling re-use of survey variables and questions)
- A "Classifications and Harmonisation" community on the website hosted by the Royal Statistical Society with the support of UKSA (StatsUserNet)
- Harmonisation pages on <u>ONS</u> and <u>GSS</u> websites.

2.6 Branding

Sweden

The NSS statistical authorities are not subject to supervision or peer reviews. They perform quality self-assessments based on EU questionnaires, and they are committed by law to the statistical ordinance and EU statistical law. They send their questionnaire to SCB which analyses them. SCB provides handbooks, guidelines and courses, but is not responsible for competence in the authorities.

Not all statistics produced by statistical authorities are declared official, since they are not always assessed or have quality declarations. Some statistics may be European statistics but not official, if they do not have quality declarations. Each authority decides which part of its budget goes to statistics in general, and to official statistics in particular.

SCB maintains a statistical DB and some authorities published their statistics there. Official statistics are not always harmonized and SCB is not intervening.

There is one site for all official statistics, sometimes with links to other authorities' sites, and no full detailed list of products.

United Kingdom

The Office for Statistics Regulation in the UKSA is responsible for branding official statistics and grants the National Statistics label to UK statistics.

They are the custodians of the National Statistics badge:



The <u>National Statistics</u> designation means that the statistics are *trustworthy*, *high quality* and *valuable*

- Trustworthy they are produced by independent statisticians free from vested interest
- **High quality** they are produced using sound methods and represent the best available estimate
- Valuable they add value to public debate and decision-making
 - o Timeliness statistics aren't valuable if they're late
 - O Coherence statistics aren't valuable if they don't allow users to see a clear picture
 - Accessibility statistics aren't valuable if you can't find them
 - Utility statistics aren't valuable if they're not providing useful insights to users

Branding by the Office for Statistics Regulation is made is based on being visibly separate from statistical production, as illustrated below:

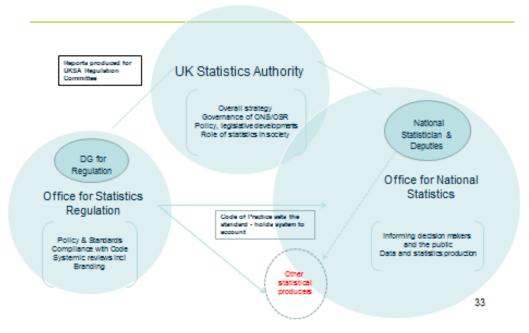


Figure 3: The position of branding in the Office for Statistics Regulation within the UK statistical infrastructure.

The implementation of the branding role of the Office for Statistics Regulation is threefold:

1. Voice:

- Public comment on the use of statistics
- Standing up for statistics
- o Name and shame when problems encountered
- 2. **Brand**: Assessment and accreditation of the <u>National Statistics</u> designation to official Statistics
- 3. **Power to convene** NSS entities and discuss with them how statistics could be enhanced to better serve the public good.

The assessment process for granting the "National Statistics" designation_may be described in five steps:

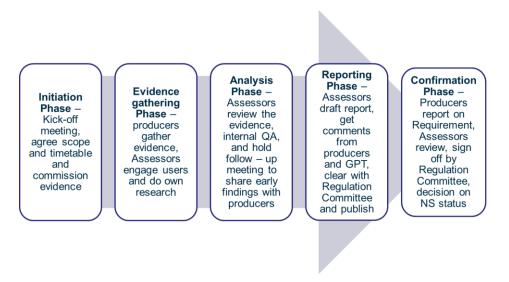


Figure 4: The Assessment process for granting "National Statistics" label in UK (see also https://www.statisticsauthority.gov.uk/monitoring-and-assessment/guidance-about-assessment/)

From UK experience, assessments commonly identify the following areas of improvement:

- Better understand users' needs
- Use more descriptive statistical commentary, "tell the story"
- Quality
 - o Give better quality information with output and
 - Better assess administrative data (QAAD). Take in consideration the suitability of the administrative data for statistics, the impact of data quality on statistics, the nature of the public interest served by the statistics

2.7 Human resources allocated to coordination and quality assurance

Sweden

- 3 full time staff members for coordination
- 5 staff members: experts in quality and methods, organize workshops for SCB and NSS.
- 3 staff members: read all Eurostat papers, responsible for international cooperation, including preparing for the DG what he must know when going abroad.
- 3 external auditors give 3 weeks per person each year. A cycle of two to three years is defined for external audits.

8 staff members from the Methodology Department developed internal audit process and manage the audits. In a year, they audit 30 out of 150 subjects, so that within 3 years, each sub-process (in the GSBPM) must be checked in three different parts of the organization. All audits are available on demand from the website at overview level. In development: a similar process for the NSS. 3 full-time and 8-10 part-time staff auditors are doing the internal audits. They are trained by the Swedish institution for standards.

Central level	Quality group 2 to 3 auditors Process managers (8 staff members)
Department level	Quality coaches (14)
Statistical unit level	Reading guidelines and documenting the quality work performed

It is interesting to notice that Sweden evaluates at 700 the number of full time staff members producing official statistics in Sweden.

United Kingdom

The ONS has three sites: Newport (1,500 staff), Titchfield (800 staff), London (80 staff) The GSS consists of 7,000 staff – economists, IT specialists etc and 1,500 professional statisticians.

Office of Statistical regulation in the UKSA: 20 members in the staff, mainly statisticians, fulfilling three roles: branding, speak-up for statistics ("voice" role) and convening stakeholders (the role defined as the "power to convene" users, producers etc.),

The ONS Internal Audit unit: Four members of staff (auditors and accountants).

3. Conclusions and recommendations

The two EU-countries visited use very different methods for quality assurance and quality coordination of their National Statistical systems. Both make use of quality labels for the statistics produced.

In Sweden, the other statistical authorities (besides SCB) which produce official statistics are National Authorities (not ministries). They are responsible for determining which of the statistics they produce are "Official Statistics", and therefore which are subject to the quality requirements defined by law for official statistics (which includes *mandatory* quality reports published together with the data, and *mandatory* yearly quality self-assessments). The role of Statistics Sweden by law is to maintain a register of official statistics products, formulate an annual program for the production of official statistics in the NSS and compile an annual quality report for the government, based on the self-assessments that producers of official statistics must undergo yearly by law. They also compile *agreed-upon* professional guidelines on all quality management aspects, provide training to the NSS and maintain a web-site from which all official statistics are accessible (with links to products or to subjects in ONA websites).

By UK laws, official statistics consist of all statistics produced by government departments, agencies and crown bodies, and statistics produced by non-government entities which have been accredited by ministries by some legislation. They all are subject to the UK code of practice and to UKSA regulations. However, only those official statistics which go successfully through assessment of their compliance with the code of practice by an independent UKSA body, the Office for Statistics Regulation, may obtain the label "National Statistics" – and retain it until their next assessment. The UK Statistical System consists of the ONS and the GSS, with the head of the ONS professionally overseeing the work of the GSS. The coordination of the GSS is mainly assured by the ONS Quality Centre, the quality champions in the divisions of the different authorities and the Classifications and Harmonization group.

The Sweden model seems more likely than the UK model to be implemented in Israel, both from obvious considerations of available resources and budgets, and since quality assurance by consensus would appear to the members of the Israeli NSS less challenging their current independence. The Sweden model is quite advanced and comprehensive, as may be seen in details in the documentation of the Swedish Annual Report to the government (2015). However, there is also much to learn from the numerous regulations and guidelines which have been developed in the UK, some examples of which have been outlined in this report (e.g. concerning administrative data). Eventually some UK tools and methods could be adapted to the Israeli environment and proposed as best practices to ICBS and the NSS. In parallel, an in-depth study should be carried in order to determine the changes in the Israeli legal framework which are feasible and likely to be implemented in the short and middle run, so that NSS coordination could progress in harmony with changes in legislation.

Annex 1. Programmes

STOCKHOLM - SWEDEN

Place	Time	Activity	Person responsible
Room green B582	09.00-09.30	Introducing to Statistics Sweden and International Consulting Office	Cecilia Westström
Room green B582	09.30-11.30	Statistic System in Sweden	Magnus Häll
	11.30-12.30	Lunch	
Room green B582	12.30-14.15	Council of Official Statistics & Cooperation	Helena Käll
	14.15-14.30	Break	
Room green B582	14.30-16.00	Quality of Statistics	Marie Collin
Room green B582	16.00-16.15	Summary of Day	Cecilia Westström

LONDON - UK

Day of	ne - Tuesday 15 November -
13:30	Arrival and meet and greet with Paul Jackson and Jo Green
13:40	National and European legislative framework and the statutory role of the NSI - Paul Jackson, Nicola Shearman, Paul Wearn
14:30	Organisational framework of the UKSA and the role of the ONS - Paul Jackson, Nicola Shearman
15:00	Coffee
15:15	Access to and exchange of administrative data - Paul Jackson, Nicola Shearman Jason Riches, Paul Wearn
16:00	Data Ethics and Administrative Data Research Network - Simon Whitworth
17:00	Close
D (
Day tw	vo - Wednesday 16 November -
09:30	Branding of official statistics - Ed Humpherson, Mark Pont
10:30	Monitoring and assessment of official statistics - Mark Pont, Penny Babb
11:10	Coffee
11:15 N	NSI audit, current practices and processes - Lisa Winstone, Amanda Smith
12:15	Buffet lunch (kosher)
13:15	Coordination and quality assurance of official statistics (tools, guidance and measurement) - Pete Brodie
15:00	Coffee
15:15	Quality - a working example of how ONS implemented recommendations from their own quality review - Julie Griffiths
16:15	Questions and wrap up - Pete Brodie and Julie Griffiths
17:00	Close

Annex 2. Persons met

ICBS

Office of the National Statistician

Danny Pfeffermann, National Statistician Moshe Pollak, Chief Scientist

Statistical Quality Management Department

Ari Paltiel, Director

Larisa Fleishman, Head of Sector

International Relations and Statistical Coordination Department

Sigalit Mazeh, Director, Deputy Leader for the Twinning Project

Batia Attali, Head of Sector, leader of the Quality component in the Twinning project and RTA counterpart

Twinning Project

Charlotte Nielsen, RTA

Tamar Rand, RTAA

Statistics Sweden

Cecilia Westström,

Magnus Häll, Deputy Director for the Director General's staff

Helena Käll, working at the Secretariat of the National Coordination of the Director General's staff

Marie Collin, work with quality issues in the Department of Research and Development

UK Statistics Authority and ONS

Amanda Smith, Internal Audit

Ed Humpherson, Head of UKSA Regulation

Jason Riches, Legal and International Services

Jo Green, International Relations

Joe Cuddeford

Julie Griffiths, Economic Statistics Business Process and Quality Review

Lisa Winstone, Internal Audit

Mark Pont, Monitoring and Assessment Programme Manager

Nicola Shearman, Legal and International Services

Paul Wearn, Senior Legal Advisor
Penny Babb, Monitoring and Assessment
Pete Brodie, Head of Survey Methodology and Statistical Computing
Simon Whitworth, Administrative Data Research Network

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Annex 3. List of Topics covered at the Study Visit to UK and Sweden

As preparation before the mission a list of questions were prepared by the Twinning Team and mailed to our contact persons in Sweden and UK. The questions were:

- 2. What is the national and European legislative framework governing coordination and quality assurance in the National Statistical System (NSS), and the statutory role of the National Statistical Institute (NSI) in the framework? How important is this legislative framework for the day to day functioning of coordination and quality assurance?
- 3. What is the organisational framework for coordination and quality assurance of official statistics in the NSS? What is the organisational role of the NSI, and are there additional public bodies involved, and what are their specific roles?
- 4. What are the existing work processes for coordination and quality assurance of official statistics in the NSS? (see below for examples of the processes we are interested in)
- 5. What are the resources allocated to coordination and quality assurance in the NSS in general and the NSI in particular: administrative units, staff, budgets, etc? What are the professional qualifications and experience of staff involved in coordination and quality assurance?

Among the issues of interest were:

- How is the "branding" of official statistics carried out, and what are the specific benefits and costs of the process?
- The functions of committees and working groups in maintaining the system;
- Are there routine and special reports and publications regarding coordination and quality in the NSS, and what are the topics;
- NSS-wide audit and self-assessment processes;
- Existence of NSS-wide annual and multiyear work-plans;
- National quality procedures specific to administrative data;
- Bilateral and multilateral agreements on exchanges of data and access to and participation in the design of administrative data bases;
- Procedures for approving, coordinating, and assuring quality in sample surveys conducted outside the NSI.
- Is there cooperation in both production and dissemination of official statistics, or only in one or the other?
- To what extent and with what means is compliance with quality standards and coordination requirements enforced?
- How are the boundaries of the NSS mapped and documented?
- Are there national quality training programs common to the NSS as a whole, and if so who conducts them and who participates?

Annex 4. Links

<u>Sweden</u>

Council for Official Statistics

http://www.scb.se/en_/About-us/Main-Activity/Councils-and-boards/The-Council-for-Official-Statistics/

Guidelines on contents and scope of Official Statistics - Council's <u>Sufficient quality and criteria for official statistics</u>)

Guidelines for revision of statistics – Council's Preliminary statistics

A System for Managing the Quality of Official Statistics - ASPIRE

Annual report (2015) on the Official Statistics System in Sweden

United Kingdom

Quality Management Strategy:

http://www.ons.gov.uk/ons/guide-method/method-quality/quality/guality-strategy/index.html

Email: pete.brodie@ons.gov.uk

General quality queries/advice:

ons.quality.centre@ons.gov.uk

For any queries regarding harmonisation:

harmonisation@ons.gsi.gov.uk or 01329 444 017

GSS Quality Resources:

https://gss.civilservice.gov.uk/statistics/methodology-quality/quality-2/quality-resources/

ONS Quality Pages:

http://www.ons.gov.uk/ons/guide-method/method-quality/quality/index.html

ONS Quality Management Strategy:

http://www.ons.gov.uk/ons/guide-method/method-quality/quality/guality-strategy/index.html

The Aqua Book – Guidance on producing quality analysis for Government:

https://www.gov.uk/government/publications/the-aqua-book-guidance-on-producing-quality-analysis-for-government

Guidelines for measuring statistical quality:

http://www.ons.gov.uk/ons/guide-method/method-quality/quality/guidelines-for-measuring-statistical-quality/index.html

Contact:

ons.quality.centre@ons.gov.uk

Harmonisation Web Pages:

http://www.ons.gov.uk/ons/guide-method/harmonisation/harmonisation-index-page/index.html

National Statistics Harmonisation Group Minutes:

https://gss.civilservice.gov.uk/about/governance-and-structure/national-statistics-harmonisation-group/

Data Markers:

https://gss.civilservice.gov.uk/statistics/a-z-of-policies-and-guidance/guidance-use-data-markers/

Variable and Question Bank:

http://discover.ukdataservice.ac.uk/variables

http://www.youtube.com/watch?v=w9H8U3pvnC0

StatsUserNet Community (Classifications and Harmonisation of Statistics):

http://www.statsusernet.org.uk/home

Contact:

harmonisation@ons.gsi.gov.uk or 01329 444 017

UKSA

Quality assurance of admin data (QAAD):

https://www.statisticsauthority.gov.uk/monitoring-and-assessment/monitoring/administrative-data-and-official-statistics/