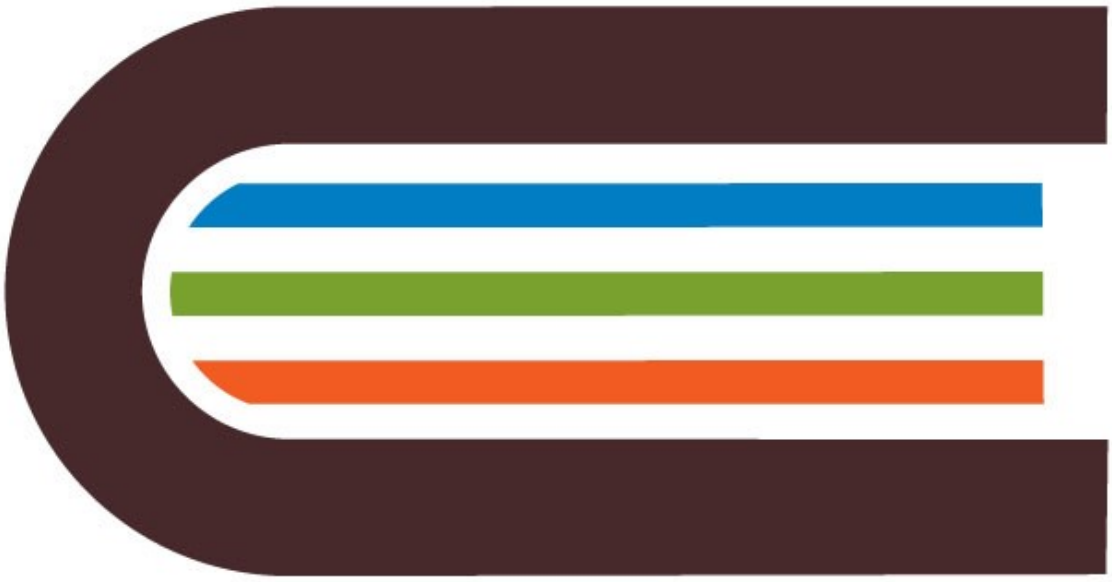
Metadata 2015

STATISTICS DENMARK

PART 2 HOW TO COMPLETE A QUALITY DECLARATION



STATISTICS DENMARK

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Figure overview

1. Introduction to quality declarations in Statistics Denmark

In short, a quality declaration must contain what the users need to know in order to be able to use the statistics we publish. This means, that the quality declaration must contain background information on the statistic and its content and information about what the statistic covers in relation to population, units, geography and time. The quality declaration must also include information on the quality of the statistics in terms of accuracy, reliability and comparability and a number of other things, as you can see in the list in section 3.

All releases in Statistics Denmark are followed by an (updated) quality declaration.

Rules of thumb

1. Write short and easy-to-understand sentences. Have a high school student graduate as audience.
2. Say one thing at a time.
3. Use simple words. Explain the difficult words.
4. Avoid long compound words.
5. Write short.
6. Be specific.

1.1 Classification of fields

Eurostat has prepared an overall classification of quality concepts – SIMS, which stands for Single Integrated Metadata Structure. SIMS is used as the basis for the new quality declarations in Statistics Denmark. SIMS contains many fields in which we can prefill some, while there are others that we don't need to fill in. DST-specific front page fields are defined. They summarize information about content as well as information on six different quality aspects. The overall model is shown in Figure **1**:

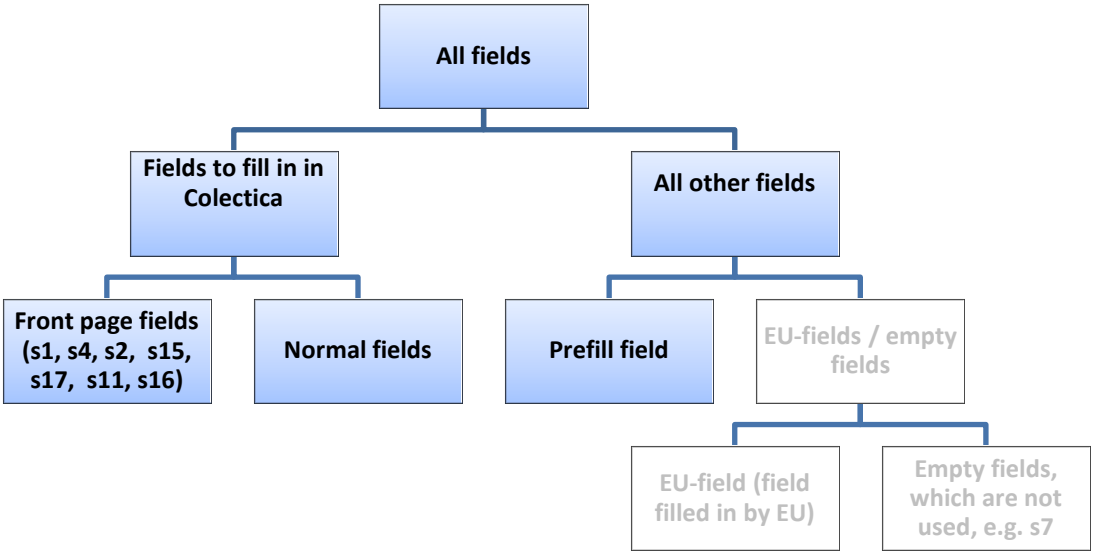

Figure 1: Classification of fields in Statistics Denmark's version of SIMS

2. Quality declaration: phases and content

You can find a detailed description to every field in the quality declaration in section 4 and in section 5.

The quality declaration follows Statistics Denmark's process model (see Appendix B).

You do not have to follow the process model step by step. Quality declarations can be completed gradually by jumping back and forth in the model. The introduction of the process model in Colectica should be seen as a help to be able to relate the different fields to any point in the workflow that has taken place/would take place in connection with the preparation of statistics.

3. The fields in the quality declaration

Front page fields will appear on a cover page on Statistics Denmark's webpage, www.dst.dk. The front page fields will be the first the user reads and therefore it is essential that these front page fields are formulated with extra care. Always keep in mind the readers of the quality declaration. The front page fields are highlighted with gray in the table below.

U (User) and **P** (Producer) is EU-designations. Fields marked with **P** should typically only contain a single number. Fields marked with **U** are for the users and therefore the number must be explained in the descriptive text.

DST no.	Field (SIMS)	GSBPM	SIMS ID
General information			
9	Contact		s1
9.02	Contact organisation unit		s1.2
9.03	Contact name		s1.3
9.06	Contact email address		s1.6
9.07	Contact phone number		s1.7
2.15	Comment		s22
1. Needs			
4.01	User needs	1.1	s14.1
2	Statistical presentation	1.6	s4
1	Introduction	1.6	s2
2.13	Legal acts and other agreements	1.5	s7.1
2.01	Data description	1.6	s4.1
8.09	Confidentiality - policy	1.6	s8.1
2. Design			
2.27	Reference area	2.1	s4.7
2.08	Time coverage	2.1	s4.8
2.09	Base period	2.1	s4.9
2.1	Unit of measure	2.1	s5
2.11	Reference period	2.1	s6
2.12	Frequency of dissemination	2.1	s10
2.02	Classification system	2.2	s4.2
2.04	Statistical concepts and definitions	2.2	s4.4
2.05	Statistical unit	2.2	s4.5
2.06	Statistical population	2.2	s4.6
3.01	Source data	2.2	s21.1
3.02	Frequency of data collection	2.3	s21.2
3.03	Data collection	2.3	s21.3
2.03	Sector coverage	2.4	s4.3
3	Statistical processing	2	s21
3.04	Data validation	2.5	s21.4
3.05	Data compilation	2.5	s21.5
3.06	Adjustment	2.5	s21.6

6. Analysis			
5.06	Quality assessment	6.2	s13.2
5	Accuracy and reliability	6.3	s15
5.01	Overall accuracy	6.3	s15.1
5.02	Sampling error (QPI/A1 for U)	6.2	s15.2
	Sampling error for producers (QPI/A1 for P)	6.2	s15.2.1
5.03	Non-sampling error	6.2	s15.3
	Coverage error	6.2	s15.3.1
	Over-coverage rate (QPI/A2 for P)	6.2	s15.3.1.1
	Common units – proportion (QPI/A3 for P)	6.2	s15.3.1.2
	Measurement error	6.2	s15.3.2
	Non response error	6.2	s15.3.3
	Unit non-response rate (QPI/A4 for P)	6.2	s15.3.3.1
	Item non-response rate (QPI/A5 for P)	6.2	s15.3.3.2
	Processing error	6.2	s15.3.4
	Model assumption error	6.2	s15.3.5
7.01	Comparability - geographical	6.2	s17.1
7.02	Comparability over time (QPI/CC2 for U)	6.2	s17.2
5.08	Data revision practice (QPI/A6 for U)	6.2	s20.2
	Data revision average size (QPI/A6 for P)	6.2	s20.2.1
	Imputation rate (QPI/A7 for P)	6.2	s21.5.1
7	Comparability	6.3	s17
7.03	Coherence - cross domain	6.3	s18.1
	Coherence - sub annual and annual statistics	6.3	s18.1.1
	Coherence - National Accounts	6.3	s18.1.2
7.04	Coherence - internal	6.3	s18.2
8.1	Confidentiality - data treatment	6.4	s8.2
7. Dissemination			
8	Accessibility and clarity	7.2	s11
8.04	News release	7.2	s11.1
8.05	Publications	7.2	s11.2
8.06	On-line database	7.2	s11.3
8.07	Micro-data access	7.4	s11.4
8.08	Other	7.2	s11.5
8.11	Documentation on methodology	7.4	s12.1
4.03	Data completeness rate (QPI/R1 for U)	7.2	s14.3
6	Timeliness and punctuality	7.3	s16
6.01	Timeliness and time lag - final results (QPI/TP1 and TP2 for U)	7.3	s16.1
	Punctuality (QPI/TP3 for U)	7.3	s16.2
9. Evaluation			
2.14	Cost and burden	8.1	s19
4	Relevance	8.2	s14
4.02	User satisfaction	8.2	s14.2

4. General information

DST No.	SIMS ID	SIMS field	Field type	DST guidelines	GSBPM process
9	**S.1**	**Contact**	**Front page field**	Make a brief description of the location and contact information according to the following template: "The administrative placement of these statistics is in the division of <divisionname>. The person responsible is <person's name >, tel. <+45 39 17 xx xx>, e-mail: <xxx@dst.dk>".	-
	S.1.1	Contact organisation	Prefill	Statistics Denmark.	-
9.02	S.1.2	Contact organisation unit	Normal field	Insert name of division and department.	-
9.03	S.1.3	Contact name	Normal field	Insert the name of the person responsible of these statistics. Note that there must be only one name, and it must be the responsible of these statistics. It doesn't have to be the person who completes the quality declaration.	-
	S.1.4	Contact person function	Prefill	Responsible for these statistics.	-
	S.1.5	Contact mail address	Prefill	Sejrøgade 11, 2100 Copenhagen.	-
9.06	S.1.6	Contact email address	Normal field	Insert the email address of the person responsible for these statistics or possibly a common mailbox. Note that you can only insert one email address.	-
9.07	S.1.7	Contact phone number	Normal field	Insert the telephone number of the responsible of these statistics with the format "+45 39 17 xx xx".	-
	S.1.8	Contact fax number	Prefill	+45 39 17 39 99	-
	S.13	Quality management	Prefill	"Statistics Denmark follows the recommendations on organization and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Steering Committee for Quality and a central quality assurance function have been established to continuously carry through control of products and processes."	-
2.15	S.22	Comment	Normal field	Insert a link to a specific page for these statistics, if one exists (e.g. dst.dk/detail). Otherwise, it should read "Other information can be obtained from Statistics Denmark".	-

5. Phases

Phase 1: Needs

DST no.	SIMS ID	SIMS field	Field type	DST guidelines	GSBPM process
4.01	S.14.1	User needs	Normal field	Describe the various users, preferably with an indication of their importance, and enter their use of these statistics. Please describe possible uncovered user needs, explain why they are not covered, and whether there may be plans to respond to these needs in the future.	1.1
2	**S.4**	**Statistical presentation**	**Front page field**	Front page text. Briefly describe the content of these statistics including how the statistics is disseminated. Note: this is front page field that immediately follows the introduction at dst.dk	1.6
1	**S.2**	**Introduction**	**Front page field**	Front page text to SIMS fields s.4.1-4.9, s.5, s.6, s.10, s.7.1, s.19, s.22. In a summary form, describe these statistics purpose and history.	1.6
	S.7	Institutional mandate	Empty field	Description is placed in SIMS field 7.1 'Legal acts and other agreements'.	1.5
2.13	S.7.1	Legal acts and other agreements	Normal field	Authority warrant: Refer to the specific clause in Law on Statistics Denmark, e.g. § 6. In case of doubt, contact the Management Secretariat. If there is no authority warrant based on Law on Statistics Denmark, you must report the relevant background for the collection, e.g. that data is derived from other public authorities, other actors or that participation in the survey is voluntary and therefore does not require an authority warrant. EU regulation: indicate the current EU legal act with EFT reference, date and title. This information appears in the "current EU legal acts", which is available on the intranet. You must report, if these statistics are not based on an EU regulation.	1.5
	S.7.2	Data sharing	EU-field	To be completed by Eurostat	1.5
	S.8	Confidentiality	Empty field		1.5
	S.9	Frequency of dissemination	Empty field	NOTE: Frequency of dissemination is described in SIMS field 9.3 'User access'.	1.6

	s.9.3	User access	Prefill	Statistics are always published at 9:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published. Theme publications etc. may be published at other times of the day. The National Statistician can decide that such publications may be released before their official publication time, e.g. to the media and other stakeholders.	1.6
2.01	S.4.1	Data description	Normal field	Describe the most important characteristics of these statistics in an easy and comprehensible way with reference to the most important disseminated data and indicators. The more detailed description of the characteristics and units is placed in SIMS field s.4.4 'Concepts and definitions'. Note that this field is very much similar to SIMS field 4 'Statistical presentation'. However, SIMS field s.4 'Statistical presentation' is a front page field. A high degree of repetition is entirely appropriate (and in fact probably unavoidable).	1.6
8.09	S.8.1	Confidentiality - policy	Normal field	Describe the data confidentiality policy. Usually it will be adequate to refer to DST's data confidentiality policy (only in Danish): http://www.dst.dk/ext/292786082/0/formid/Datafortrolighedspolitik-i-Danmarks-Statistik--pdf Please describe which part of the data confidentiality policy that is relevant to these statistics. Note: the content of SIMS field s.8.1 'Confidentiality – policy' focuses on general policy elements, whereas the content of SIMS field 8.2 'Confidentiality - data treatment' in the analysis phase contains details about the specific application of confidentiality rules for these statistics.	1.6

DST no.	SIMS ID	SIMS field	Field type	DST guidelines	GSBPM process
2.27	S.4.7	Reference area	Normal field	Specify which geographical areas these statistics covers, typically simply stated "Denmark".	2.1
2.08	S.4.8	Time coverage	Normal field	Describe the start and possibly the end of the current release of these statistics, e.g. "These statistics covers the time period from year 2000 and onwards. “Note: Only describe the current time series. Older time-series are entered in the SIMS field s.17.2 ‘Comparability over time’. If necessary insert a reference to this SIMS field.	2.1
2.09	S.4.9	Base period	Normal field	For statistics published as an index, set the base period. Explain how important this choice is for the published figures. If there is no published index simply write "Not relevant for these statistics". An exception is statistics, where values are stated in constant prices. Indicate here, that fixed-price calculations are made as well as the year that is used as the base.	2.1
2.1	S.5	Unit of measure	Normal field	Please specify which measurement unit(s) is used in the release of the statistics. E.g. rate, persons, DKK. If measured in magnitude - add this, e.g. 1000 persons or mio. DKK.	2.1
2.11	S.6	Reference period	Normal field	Enter the reference time, i.e. the time or the time period for which the content of the statistic refers to. The reference times are often coinciding for those populations and variables that will be used for the calculation of specific statistical concepts - but they do not have to be. Different reference times can be included, which can lead to systematic errors (e.g. companies can report monthly figures instead of reporting 4- or 5- week periods). Describe the impact of possibly different reference periods.	2.1
2.12	S.10	Frequency of dissemination	Normal field	Provide the release frequency, e.g. monthly, quarterly, or yearly.	2.1
2.02	S.4.2	Classification system	Normal field	Insert names of standard classifications (international and national, including customized Statistics Denmark classifications) and link to detailed descriptions.	2.2

2.04	S.4.4	Statistical concepts and definitions	Normal field	Add specific concepts and describe them (for the given statistics). In particular describe deviations from international standards.	2.2
2.05	S.4.5	Statistical unit	Normal field	Specify statistical units (the base foundation of the statistics), e.g. a legal entity, place of work, person or household. These units may be different from the units data is gathered for.	2.2
2.06	S.4.6	Statistical population	Normal field	Describe the main population that is used as a basis for the statistics. Note, that differences between the target population and the frame population are treated under phase 6, Analysis (in particular, see the penetration and SIMS fields s.15.3.1 'Coverage error' and s.15.3.5 'Model assumptions error'). (If 'researcher protection' is a subject, refer to www.dst.dk, where the user can find "Note on research protection" under documentation/method papers in CPR Statistics Denmark, 2008).	2.2
3.01	S.21.1	Source data	Normal field	Explain where the data comes from, e.g. from administrative or a sample. Refer both to external and internal sources. Internal sources: refer to the corresponding quality declaration or to the most important if there are several quality declarations attached. If sample surveys are used, provide key information such as gross- and net sample size and sample type, e.g. simple random sampling or stratified selection. Through the use of administrative sources describe these (the source, mainly purposes).	2.2
3.02	S.21.2	Frequency of data collection	Normal field	Describe the frequency with which data is collected, e.g. monthly, quarterly or annually. If this frequency is not the same as publishing frequency, this must be mentioned.	2.3
3.03	S.21.3	Data collection	Normal field	Briefly describe the methods used for data collection, e.g. telephone interview, paper questionnaire, web questionnaire and system-to-system reporting or registers. When a questionnaire is used, refer to schemas, manuals and other available documentation - preferably with a direct link.	2.3
2.03	S.4.3	Sector coverage	Normal field	Insert the most important sectors the statistics includes (e.g. "construction" or "retail sector").	2.4
3	**S.21**	**Statistical processing**	**Front page field**	Front page text to SIMS fields s.21.1-s.21.6. Write a short summary of the fields relating to statistical processing. In terms of: sources, frequency of collection, collection method, data validation, data processing, correction and seasonal correction.	2.6

3.04	S.21.4	Data validation	Normal field	Explain the quality and error correction routines performed by the processing of basic information, and explain what significance this has for the published figures. If there is an analysis of the effect of the data editing, write it here. The extent of imputation as a result of non-respons is treated separately in SIMS field 15.3.3 'Non response error' in phase 6. Analysis. Though it could be mentioned here in more general terms. Note that validation also may include comparison of process data with the previous census, e.g. if there is the same level of 'Non response error' as last.	2.5
3.05	S.21.5	Data compilation	Normal field	Describe the processes data undergoes from the collection to publication, typically imputation, correction for non-response error, weighting and estimation. Put emphasis on how these processes affect the published figures, and apply a fairly detailed level. E.g. should the choice of imputation method be described like correction for non-response error and the choice of the calibration must be described. Note that debugging and error correction is placed in SIMS field s.21.4 'Data validation'.	2.5
3.06	S.21.6	Adjustment	Normal field	Describe adjustments, such as quality adjustments for the price index and how these adjustments affect the published figures. If seasonal adjustment is carried out mention this and please refer to further detailed description in the SIMS field s.21.6.1 'Seasonal adjustment'. If no other adjustment is carried put, write: "No adjustment of data is carried out in addition to what is already described in SIMS field s.21.4 'Data validation' and in SIMS field s.21.5 'Data compilation'.	2.5
	S.21.6.1	Seasonal adjustment	Normal field	Specify whether seasonally adjustment is carried out, and explain the method used, e.g. if there are pre adjustments for calendar effects and the method used. If any adjustments, emphasis must be on the consequence on the published figures, including suitability for seasonal adjustment, the purpose of seasonal adjustment and how stable the series are. If there are analyses of the quality of seasonal adjustment, refer to these. Additionally refer to 'Introduction to seasonal adjustment' at www.dst.dk under Documentation/Methodology papers (only in Danish): http://www.dst.dk/~/media/Kontorer/13-Forskning-og-Metode/saesonkorrektion-pdf.pdf Note: in the case of monthly or quarterly series, seasonal adjustment is not carried out, describes why. For other series simply write "Not relevant for these statistics".	2.5
	S.20	Data revision	Empty field		2.6
	S.20.1	Data revision - policy	Prefill	Statistics Denmark revises published figures in accordance with the Revision Policy for Statistics Denmark. The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.	2.6

Phase 6: Analysis

The fields under SIMS field 15 (*accuracy and reliability*) relates to the technical quality of the statistics. There are a total of 14 fields at four different levels, which may cause uncertainty about where to write things. Generally there will be some repetitions, e.g. this means you are going to write variations of the same several times but with different level of detail. The following table gives an overview of the hierarchical structure:

15 Accuracy and reliability
- 15.1 Overall accuracy
- 15.2 Sampling error (QPI/A1 for U)
  - 15.2.1 Sampling error for producers (QPI/A1 for P)*
- 15.3 Non-sampling error
  - 15.3.1 Coverage error
    - 15.3.1.1 Over-coverage rate (QPI/A2 for P)*
    - 15.3.1.2 Common units – proportion (QPI/A3 for P)*
  - 15.3.2 Measurement error
  - 15.3.3 Non response error
    - 15.3.3.1 Unit non-response rate (QPI/A4 for P)*
    - 15.3.3.2 Item non-response rate (QPI/A5 for P)*
  - 15.3.4 Processing error
  - 15.3.5 Model assumption error

Fields must be filled in, so you start at the most detailed level, and then work your way upwards. Thus, the first (the top) SIMS field 15 is a front page field to the quality declaration. Therefore, the field must be filled that it can be read independently and at the same time, with relatively few words gives a description of the uncertainty on main figures of the statistics from a user point of view. The front page field should be filled in at the end as a kind of summary or conclusion on the other fields.

SIMS field 15.1 provides, in principle, the same information as field 15, but here we are not talking about a front page field, and therefore it is not so limited in terms of space. The total uncertainty (SIMS field 15.1) can be divided into random uncertainty (SIMS field 15.2) and non-sampling error (SIMS field 15.3). Therefore, these fields should be completed first.

At the bottom of the hierarchy, five of the fields are marked with an asterisk (*). These are pure QPI-fields (QPI stands for *Quality and Performance Indicator*). You should start by calculating those. Where the field is purely a QPI-field, it must in principle simply contain the calculated values, while above fields contains an in depth text. If there are special circumstances associated with the calculation of a QPI, you should describe this in the QPI-field.

For the pure QPI-fields, it is specified that the indicator is geared towards "P", while in the above fields the indicators are aiming at "U". It stands for respectively Producer (think Eurostat) and User (users). As a general rule, P-fields are used for the preparation of quality reports to Eurostat, while U-fields are used for dissemination of quality declarations on our own website.

The order, in which the fields are filled in, is particularly apparent in the following cases: QPI A4 (unit non-response - rate) and QPI A5 (item non-response - rate) are calculated and placed in the fields SIMS field 15.3.3.2 and SIMS field 15.3.3.1, where an overall assessment of non-response error is described in SIMS field 15.3.3. Here, it is not meaningful to fill SIMS field 15.3.3 until you have calculated the QPI's in the two sub-fields.

In a similar way, QPI A1 (sampling error) in SIMS field 15.2.1 must be calculated before you (with words rather than figures) formulate a comprehensive assessment in SIMS field 15.2.

Note: For register-based studies, it is not meaningful to fill in SIMS field 15.2 and SIMS field 15.2.1 about sampling error with anything other than "Not relevant for these statistics". SIMS field 15.1 and SIMS field 15.3 will substantively look alike, but SIMS field 15.3 will be more technical oriented.

DST No.	SIMS ID	SIMS field	Field type	DST guidelines	GSBPM process
	S.13.1	Quality assurance	Prefill	”Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Steering Committee for Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.”	6.2
5.06	S.13.2	Quality assessment	Normal field	Quality assessment must give a true and fair picture of the overall quality of the statistics. If there has been a quality measurement of the statistics, the overall conclusion must be described. The overall assessment must describe the main strengths and weaknesses in the quality of the statistics. This field must be the fullest description of the quality of the statistics. The following SIMS field s.15 ‘Accuracy and reliability’ can be considered as a summary of this SIMS field.	6.2
5	**S.15**	**Accuracy and reliability**	**Front page field**	Front page text to SIMS fields s.15.1-15.3 and s.13.2. Describe the statistical accuracy and reliability. Put special emphasis on the meaning of uncertainty for users when using the figures. Accuracy is how close the estimated value is believed to be compared to the true value (bias and uncertainty). Reliability focuses on how much trust can be given to the published figures, e.g. with a view on how likely they are to be revised.	6.3
5.01	S.15.1	Overall accuracy	Normal field	Specify a concrete assessment of the magnitude of the total uncertainty and its importance. The assessment can be an interval and based on both specific figures and professional assessments. Specify also whether there is justification for believing that one generally under- or overestimate the figures, and/or whether there are other quality problems or systematic errors. For samples, it is not enough merely to indicate the uncertainty arising from sampling error. Both registers and samples have a wide range of sources of	6.3

				uncertainty, which can be quantified, or which can be described. You can find good inspiration to fill in this section by making a quality measurement of the statistics. It is typically the weakest link in the quality assessment, which determines the overall assessment.	
5.02	S.15.2	Sampling error (QPI/A1 for U)	Normal field	For sample surveys set the uncertainty on the main variables. In the case of continuous variables, calculate it as the coefficient of variance, which indicates the relationship between the standard error and the mean, in other words, the relative error. In the case of categorical variables, for example, unemployed or not unemployed, uncertainty is measured as plus/minus (+/-) distance around the mean with a 95-percent confidence interval. Describe what the order of sampling uncertainty is if the statistics are published on the subgroups. If the study is based on register information, simply state that the sampling uncertainty is zero, since it is a census. See also QPI-description of A1 (U). Note that it is a user-oriented field (U), and therefore the indications of sampling uncertainty must be accompanied by an explanation. Note: if we are talking about a census (i.e. a sample, where all units are selected, but not a register based statistics), then the sampling error is zero. But if there is non-response error, there will still be a standard error on the estimates (uncertainty is no longer zero). In "ordinary" samples, this extra uncertainty usually can't be separated from the "pure" sampling error, since weighting from the response to population takes place directly and not in two steps via (gross) samples. In a sense, it will still be correct to indicate a sample error of zero, and then report the uncertainty due to non-response in the non-sampling error fields (SIMS field s. 15.3 'Non-sampling' and specially SIMS field s. 15.3.5 'Model assumption error').	6.2
	S.15.2.1	Sampling error for producers (QPI/A1 for P)	Normal field	See QPI-description of A1 (P). Specify the sampling error on the main variable without a further description.	6.2

5.03	S.15.3	Non-sampling	Normal field	A summary of systematic errors (non-sampling error) that is described in the sections: SIMS field 15.3.1 'Coverage error' (QPI A2 and QPI A3) SIMS field 15.3.2 'Measurement error' SIMS field 15.3.3 'Non response error' (QPI A4 and QPI A5) SIMS field 15.3.4 'Processing error' SIMS field 15.3.5 'Model assumption error' The focus must be on a user-oriented description of the systematic errors – that is the errors that are not related to the sample (the random error). There should also be a description of actions to reduce these errors, e.g. actions to reduce coverage error and non-response error.	6.2
	S.15.3.1	Coverage error	Normal field	Describe as concretely as possible, how well the statistics cover the target population, and the efforts being made to ensure good coverage. Also describe what the consequences of an inadequate coverage are for the statistics - in other words, whether it will have a tendency to overestimate or underestimate the actual level (positive or negative bias).	6.2
	S.15.3.1.1	Over-coverage rate (QPI/A2 for P)	Normal field	See QPI description A2 (P). The part of the frame population, which does not belong to the target population. It can be calculated weighted or without weight, and it should be indicated what has been done.	6.2
	S.15.3.1.2	Common units – proportion (QPI/A3 for P)	Normal field	See QPI description A3 (P). Relevant for censuses that use multiple data sources, e.g. a combination of administrative data and data collected. Indicator for common units is calculated as the relative proportion of the objects that are covered by both (all) data sources.	6.2
	S.15.3.2	Measurement error	Normal field	Measurement errors can, among other things, occur as a result of a big burden, sensitive questions, uncertain memory, technically complex questions or a long questionnaire. Typically it will lead to underestimation. In the worst case, a 0-reporting is made which can be hard to catch in data editing. Enter the estimated measurement errors at the most important variables. If there is no reason to assume that there are measurement errors, specify why – e.g. by comparing with other known statistics or specific follow-up studies.	6.2

	S.15.3.3	Non response error	Normal field	A summary of the calculations made in the SIMS fields regarding unit non-response rate (QPI A4) and item non-response rate (QPI A5). Specially describe variables, where the non-response error is significantly larger than the general level in the study, since it may indicate the hard questions, where one might also expect a larger measurement error. Assess also whether there is bias due to the non-response error - if mainly high or low values will not be reported. Finally attempt to give an assessment of the reason for the non-response error and explain how non response error are handled accordingly, e.g. how correction for bias due to non-response error is attempted using calibration according to register variables. Note that there also may be non-response errors in registers – therefore the SIMS fields are not only relevant for sample-based statistics.	6.2
	S.15.3.3.1	Unit non-response rate (QPI/A4 for P)	Normal field	See QPI description A4 (P) about 'Unit non-response rate': blank or useless objects in relation to the frame population. This is not a user-oriented field, so it should be sufficient to indicate how the calculation is made. Either weighted or without weight - where appropriate, with an indication of the weight. It is desirable, that the SIMS field only contains results and short technical calculation comments. Assessments of consequences and measures to reduce unit non-response rate should be SIMS field 15.3.3 'Non response error'.	6.2
	S.15.3.3.2	Item non-response rate (QPI/A5 for P)	Normal field	See QPI description A5 (P) about 'Item non-response rate' regarding the variable: Blank/useless in relation to the frame population. The item non-response rate may be calculated weighted or without weight. If calculated without weight, it should be done before data editing and imputation. This is not a user-oriented field, so it should be sufficient to indicate the extent to which the calculation is made. Either weighted or without weight - where appropriate, with an indication of the weight. It is desirable, that the SIMS field only contains results and short technical calculation comments. Assessments of impacts and	6.2

				measures to reduction should be described in SIMS field 15.3.3 'Non-response error'.	
	S.15.3.4	Processing error	Normal field	If you have discovered errors in the process, describes this or these here. Usually, there are no errors and thus nothing to report, and therefore generally write "nothing to report". If serious errors are discovered, that could give rise to a description in this field, then it will often be considered to bring a revised publication where the error, for good reason, is no longer present, and therefore not to be described here.	6.2
	S.15.3.5	Model assumption error	Normal field	The production of statistics is often based on one or more model assumptions. Model assumptions have a subjective character, and are determined by professional assessments and not traditional rules for e.g. weighting for sample probabilities. If the statistics are based on model assumptions, explains these and the consequences. A (simple) model assumption may be that you pool surveys from three years when estimating a particular year – it is based on a modeling assumption that the three years are the same. A more complex example of how issues such as-over coverage and under-coverage are treated in the estimation is e.g. if you define units that turns out to be part of over coverage to be unit non-response, then we assume that the over coverage and under coverage have the same extent. Other examples of model assumptions are estimating with the use of auxiliary variables (e.g. turnover) - in particular including estimation based on a cut-off sample.	6.2
7.01	S.17.1	Comparability - geographical	Normal field	Specify the extent to which the statistics can be compared with statistics published by other countries or regions. If any problems they must be described. You must explain any discrepancies between the applied process/method and applicable EU regulations or international standards in this area.	6.2
	S.17.1.1	Asymmetry for mirror flows statistics coefficient (QPI/CC1)	EU field	Calculated by Eurostat.	6.2

7.02	S.17.2	Comparability over time (QPI/CC2 for U)	Normal field	Describe the extent to which the statistics are comparable over time. Note that the SIMS field S. 4.8 'Time period' must contain the description of the current time series. Other older time series, including descriptions of comparability, are outlined in this field.	6.2
	S.17.2.1	Length of comparable time series for producers (QPI/CC2 for P)	EU field	Calculated by Eurostat.	6.2
5.08	S.20.2	Data revision practice (QPI/A6 for U)	Normal field	Describe the procedure for regular and extraordinary revisions as well as practical reasons for revisions (new data, new methods etc.). Specify and describe the average size of revisions as described under QPI A6 (U), and describe the qualitative importance of the size and orientation of the revisions. If revisions are done continuously in subsequent publications, you must specify how far back the figures are revised. Note: SIMS field s. 20.1 'Data revision - policy' contains a prefilled text on general revision policy.	6.2
	S.20.2.1	Data revision average size (QPI/A6 for P)	Normal field	See QPI description A6 (P). The size of the revision of a key variable is calculated as the average over a number of periods of the absolute difference of the revisions. It can either be specified as the average revision or the relative average revision.	6.2
	S.21.5.1	Imputation rate (QPI/A7 for P)	Normal field	See QPI description A7 (P). The proportion of observations that have a key variable imputed. It can be calculated weighted or without weight, and it should be specified what has been done.	6.2
7	**S.17**	**Comparability**	**Front page field**	Front page text to SIMS fields s.17.1-s.17.2, s.18.1-s.18.2. Briefly describe the comparability of these statistics. Time aspect as seen from a user (perspective) is important. E.g. if there are breaks in the time series, the users must be informed about this. Another important aspect is the possibility of being able to compare to figures from other countries.	6.3
	S.18	Coherence	Empty field		6.3

7.03	S.18.1	Coherence - cross domain	Normal field	Specify the extent to which the related statistics differ, e.g. regarding units, population variables, statistical objectives and reference times. Uniform assessment methods are important for comparability with other statistics. Specify whether the statistics follows Danish or international standards and whether deviations may or may not justify the lack of context. Report if there are no other Danish statistics on the subject.	6.3
	S.18.1.1	Coherence - sub annual and annual statistics	Normal field	Describe the comparability of statistics with multiple release frequencies, e.g. the extent to which the statistics for the four quarters in one calendar year can be compared with the annual statistics.	6.3
	S.18.1.2	Coherence - National Accounts	Normal field	Enter difference to the corresponding accounts in the national accounts.	6.3
7.04	S.18.2	Coherence - internal	Normal field	Describe to what extent there is internal consistency in the data set. This can e.g. be relevant if data originate from different sources.	6.3
8.1	S.8.2	Confidentiality - data treatment	Normal field	Describe what measures are used in relation to confidentiality, e.g. if data cells is completely omitted or merged with others.	6.4

Phase 7: Dissemination

DST No.	SIMS ID	SIMS field	Field type	DST guidelines	GSBPM process
	S.3	Metadata update	EU-field		7.1
	S.3.1	Metadata last certified	EU-field		7.1
	S.3.2	Metadata last posted	EU-field		7.1
	S.3.3	Metadata last update	EU-field		7.1
8	**S.11**	**Accessibility and clarity**	**Front page field**	Front page text to SIMS fields s.11.1-s.11.5. This field must contain the most important information from SIMS field 11.1 'News release', SIMS field 11.2 'Publications' SIMS field 11.3 'On-line database', SIMS field 11.4 'Microdata access' and SIMS field 11.5 'Other'. Describe the most important publications, including StatBank. If these statistics have a website (a topic page) - also refer to it. It may also be relevant to write that there is an opportunity to buy more detailed data or even get access to microdata via Statistics Denmark researcher system.	7.2
8.04	S.11.1	News release	Normal field	Enter the link to the news article, preferably in the form of a link to the fixed topic page where the news is directly accessible. Alternatively, insert link directly to the news, which requires the field is changed at each release. If there is no published news, the following text is inserted: "there is no separate news-release for these statistics".	7.2
8.05	S.11.2	Publications	Normal field	Insert links to all major announcements, where the statistics are presented, such as ten-year history, yearbook or themed articles. Briefly describe the content and specify publishing and update frequency. The link may point to a solid theme page, where the publications are directly accessible. Alternatively, insert links directly to the publications, which requires the field is changed at each release. Note: News articles must not be inserted here but in SIMS field s.	7.2

				11.1. 'News release'.	
8.06	S.11.3	On-line database	Normal field	Insert links to the main matrices in Statbank. If there is a summary page with links add this.	7.2
8.07	S.11.4	Micro-data access	Normal field	Describe whether and how microdata is made available (e.g. for researchers). Rules of anonymization for microdata must be shortly described.	7.4
8.08	S.11.5	Other	Normal field	Describe restrictions to access to data sets, including the pricing policy, requirements for the registration of access to data, confidentiality, etc. In addition, describe the supplies to Eurostat and other international organisations (IMF, OECD etc.), which are not described under SIMS field s. 7.1 (Legal acts and other agreements). Internal supplies of data is also described here, e.g. National Accounts or Customer Center.	7.2
	S.12	Accessibility of documentation	Empty field		7.4
8.11	S.12.1	Documentation on methodology	Normal field	Give references to other public available documentation of the product, e.g. method descriptions.	7.4
	S.12.1.1	Metadata completeness rate (QPI/AC3 for P)	EU-field		7.4
	S.12.2	Quality documentation	Prefill	Reports from quality evaluation of products and processes will be available in detail for selected statistics and in summary reports for the Steering Committee for Quality.	7.4
4.03	S.14.3	Data completeness rate (QPI/R1 for U)	Normal field	View QPI description R1 (U). Describe to which extent data, that are published, meets the requirements of regulations and guidelines. Include an assessment of the completeness of national publications (e.g. is there industries that cannot be published?) and EU deliveries.	7.2
	S.14.3.1	Data completeness rate for producers (QPI/R1 for P)	EU-field	View QPI description R1 (P). EU is responsible for the preparation of this QPI, but it should be made in DST if data are available. The proportion of data cells are provided to the EU in relation to	7.2

				the desired.	
	S.9.1	Release calendar	Prefill	The publication date appears in the release calendar. The date is confirmed in the weeks before.	7.3
	S.9.2	Release calendar access	Prefill	The Release Calendar can be accessed on our English website: Release Calendar.	7.5
6	**S.16**	**Timeliness and punctuality**	**Front page field**	Front page text to SIMS fields s.16.1-s.16.2. This includes the time from the end of the reference period for publishing (publishing or production time for the statistics) and the typical relationship between planned and actual release (high punctuality means little or no delays).	7.3
6.01	S.16.1	Timeliness and time lag - final results (QPI/TP1 og TP2 for U)	Normal field	With a focus on users specify the length of the period between the reference period and published statistics, both for preliminary and final figures. Very long production times must be justified, and any measures to reduce the production time are described. Summarised, it is not just a single release that is described. For monthly and quarterly counts there should be data for at least one year (preferably two). For yearly counts, it is appropriate to indicate the release times for at least 5 years back. View QPI-descriptions of TP1 and TP2 geared towards users (U).	7.3
	S.16.1.1	Time lag - first results (QPI/TP1 for P)	Empty field	Blank field which may be used later. This field is currently not part of the ESMS-reporting.	7.3
	S.16.1.2	Time lag - final results (QPI/TP2 for P)	Empty field	Blank field which may be used later. This field is currently not part of the ESMS-reporting.	7.3
	S.16.2	Punctuality (QPI/TP3 for U)	Normal field	For years, quarterly or monthly statistics describe punctuality compared to planned publication, both for preliminary and final figures. More specifically describes the proportion (in percentage) of the publications in which the announced release time is respected. Reasons for delays must be explained, and measures to prevent future delays are also described. If data is delivered to Eurostat, this field should also include a description of the extent to which deadlines are respected.	7.3

				Moreover, see the QPI-description of TP3.	
	S.16.2.1	Punctuality for producers (QPI/TP3 for P)	EU-field		7.3

Phase 8: Evaluation

DST No.	SIMS ID	SIMS field	Field type	DST guidelines	GSBPM process
	S.11.3.1	Data tables – consultations (QPI/AC1 for P)	EU-field		8.1
	S.11.5.1	Metadata - consultations (QPI/AC2 for P)	EU-field		8.1
2.14	S.19	Cost and burden	Normal field	Enter information about cost and burden. For many business statistics: Insert key figures from the AMVAB report, which is available on the intranet (Organization → Corporate alerts). For register based statistics: "The statistics are registers based. Therefore, there is no direct reporting of cost and burden. Data is collected by… ". Insert here the main data suppliers. In addition to the burden on data providers please indicate which actions are being made to reduce this. Including whether the information is collected at the necessary level of detail, as well as on alternative data sources to be considered, including, in particular, administrative registers.	8.1
4	**S.14**	**Relevance**	**Front page field**	Front page text to SIMS fields s.14.1-14.3. Describe the statistic relevance. This is a summary of SIMS field s.14.1 'User needs', SIMS field s.14.2 'User satisfaction' and SIMS field s.14.3 'Data completeness'.	8.2
4.02	S.14.2	User satisfaction	Normal field	Describe the different types of feedback from users, including user satisfaction surveys and contact committees. Also describe how often knowledge about user satisfaction is collected.	8.2

4. QPI – Quality and Performance Indicators

Eurostat has in ESS Quality and Performance Indicators (QPI) listed **16 quantitative quality** indicators divided into five main groups:

- Relevance: R1
- Accuracy: A1 – A7
- Timeliness and Punctuality:TP1 – TP3
- Coherence and Comparability: CC1 – CC2
- Accessibility and Clarity: AC1 – AC3

Of the **16 quality indicators** are:

- Eurostat is responsible for the preparation of 7 (R1, TP3, CC1 – CC2, AC1 – AC3).
- Statistics Denmark is responsible for the preparation of the remaining 9 (A1 – A7, TP1 – TP2).

All 16 indicators must be entered in the common metadata tool (Colectica). The indicators that Statistics Denmark is responsible for must be completed. Of the indicators Eurostat is responsible for, the data to R1, CC2 and TP3 must be easily available, and therefore these can be done and kept in Statistics Denmark while data for the other (CC1 and AC1 - AC3) can be drawn from EU.

In the guide "ESS Quality and performance Indicators 2014" more of the individual indicators are included twice with the addition:

- U (User)
- P (Producer)

E.g. the sampling uncertainty is declared under SIMS ID = 15.2 (U) and SIMS ID = 15.2.1 (P).

The relevant SIMS fields where the quality indicators must be entered, shall be treated as follows:

- **P-fields** must be filled with the calculated indicator. The purpose of this field is primarily for international reports, where only the raw numbers must be specified.
- **U-fields** must be filled with the calculated indicators and comments on this. The purpose of this field is primarily quality declarations, i.e. they must be read by a wider audience.

In the guideline "ESS Quality and performance Indicators 2014" for each QPI U and P Statistics Denmark guidelines is mentioned.

Definitions and descriptions of each indicator can be found in the guideline "ESS Quality and performance Indicators 2014".

The quality indicators typically assume access to data describing the processes the data material has undergone (process data). If there are not available today, it would be a god idea in the future to design systems, so they will be available.

Appendix A. Examples on filled front page fields

Example: Retail Trade Index.

S.1 Administrative information (general information)

The administrative placement of these statistics is in the division of Short Term Statistics. The person responsible is Søren Kühl Andersen, tel. +45 39 17 35 61, e-mail: ska@dst.dk

S.2 Introduction (Phase 1: Needs)

In a summary form, describe the statistics purpose and history.

The Retail Trade Index shows the development in turnover within the retail trade sector. These statistics are published monthly and are primarily used as short term indicator for private consumption as well as the general business cycle movement.

S.4 Content (Phase 1: Needs)

Briefly describe the content of these statistics including how these statistics are disseminated.

Retail trade indices are published for 43 industries and for three main commodity groups: food and other everyday commodities, clothing etc., and other commodities. Furthermore special industry aggregates are produced for Eurostat. Value as well as volume indices are produced. The volume indices only for the main commodity groups and the indices for Eurostat. These statistics are based on survey data from all large retail trade enterprises and a sample of the remaining retail trade enterprises. Seasonal adjustment is performed on the main commodity groups and the total.

S.21 Statistical processing (Phase 2: Design)

Write a short summary of the fields relating to statistical processing. In terms of: sources, frequency of collection, collection method, data validation, data processing, correction and seasonal correction.

Turnover figures are collected each month from a sample of 3.500 retail trade enterprises, reporting the figures either by web or by dial-in. The submitted data is error checked by a number of measures, e.g. by comparing the turnover growth in similar enterprises. Survey data is grossed up in part by including information from administrative sources on the VAT turnover in the previous quarter for the entire population. From the estimated turnover indices on industry level as well as commodity group and total level are calculated. The total and the commodity group indices are seasonal adjusted.

S.14 Relevance (Phase 8: Evaluation)

Describe the statistic relevance. This is a summary of SIMS field s.14.1 'User needs' and SIMS field s.14.2 'User satisfaction'.

Many users who monitor the current business trends have interest in the published statistics of retail trade. The statistics is in demand from trade associations, bank and finance sector, politicians, public and private institutions, researchers, enterprises, news media and Eurostat. The statistics provide input to the quarterly national accounts statistics. The users view the retail he retail trade index as an important short term indicator, and it often gets a lot of attention in the media and amongst other professional users.

S.15 Accuracy and reliability (Phase 6: Analysis)

Describe the statistical accuracy and reliability. Put special emphasis on the meaning of uncertainty for users when using the figures.

Accuracy is how close the estimated value is believed to be compared to the true value (bias and uncertainty). Reliability focuses on how much trust can be given to the published figures, e.g. with a view on how likely they are to be revised.

The overall accuracy of the total index is that the error is less than 1 pct. On commodity group level, the accuracy of the group food and other everyday commodities is about the same, whereas for clothing etc. the error can be up to 3 pct. and for other consumer goods up to 2 pct.
The accuracy of the monthly growth rate is very high. For the total index the error is less than 0.2 pct., while it can be a little higher on commodity group level.

S.17 Comparability (Phase 6: Analysis)

Briefly describe the comparability of these statistics. Time aspect as seen from a user (perspective) is important. E.g. if there are breaks in the time series, the users must be informed about this. Another important aspect is the possibility of being able to compare to figures from other countries.

The statistics has been compiled since 1939, but the statistics is not suited for long term time series analysis, because of structural changes in the retail trade sector. The sample design and the calculation methods have been adjusted several times, latest in May 2012, where the time series back to 2000 where backcasted using new methods.

S.11 Accessibility and clarity (Phase 7: Dissemination)

This field must contain the most important information from SIMS field 11.1 'News release', SIMS field 11.2 'Publications' SIMS field 11.3 'On-line database', SIMS field 11.4 'Microdata access' and SIMS field 11.5 'Other'.

Describe the most important publications, including StatBank. If these statistics have a website (a topic page) - also refer to it. It may also be relevant to write that there is an opportunity to buy more detailed data or even get access to microdata via Statistics Denmark researcher system.

New figures are published in a monthly news article News from Statistics Denmark, and all figures can be found in StatBank. The retail trade index also has a subject page.

S.16 Timeliness and punctuality (Phase 7: Dissemination)

Front page field for "Time", explaining statistical release times and punctuality.
This includes the time from the end of the reference period for publishing (publishing or production time for the statistics) and the typical relationship between planned and actual release (high punctuality means little or no delays).

Indices on the main commodity groups are published already 20-22 days after the end of the month. This is rather quick for a survey based statistics such as this. One month later the indices on the most detailed industry level is published.

The punctuality is high, with delays happening very rarely.

Appendix B. Statistic Denmarks Process Model (GSBPM)