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DESA
Statistics Division

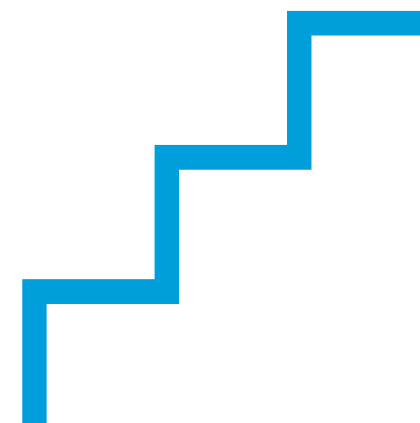
Session 3: Quality assurance of administrative and other (new) data sources

3.1 Introduction of topic and the work of the EG-NQAF Subgroup on administrative and other data sources

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Workshop on the Implementation of a National Quality Assurance Framework for Official
Statistics in Countries of the Latin American and Caribbean Region

Bogota, Colombia, 22-24 November 2023



UN NQAF and Quality assurance of statistics based on administrative and other sources

1. Motivation and constraints (reminder)
2. Why, what, how – overview
3. Work of the Subgroup on admin and other data sources
4. Examples of relevant guidelines and tools
5. Mapping to UN NQAF
6. Identification of important and criteria and steps when using administrative and other data for official statistics NQAF
7. Steps linked to NQAF

1. Motivation and typical constraints

- NQAF source/input data terms
 - Statistical data (created for statistics)
 - Administrative data (for administrative purposes)
 - Other data (commercial and private purposes)
- Advantages when using administrative data and other data
 - Cost-effectiveness
 - Reduced respondent burden
 - Improved timeliness (in particular for other data), relevance (disaggregated data, linkage, new phenomena), accuracy (no sampling error)
- Administrative data and data from other sources are not created for official statistics
- Challenges
 - Completeness (coverage and representativeness),
 - Especially for other data sources veracity (accuracy and truthfulness) and volatility

2. Use of administrative and other data for official statistics

WHY	WHAT	HOW
<ul style="list-style-type: none"> • Relevant statistics • Cost-effectiveness • Reduced respondent burden <p>Other possible quality gains</p> <ul style="list-style-type: none"> • Accuracy • Timeliness • Disaggregation/Granularity 	<p>Producing statistics based on administrative or other data sources, including linking several sources</p>	<p>Legal access, Ethics and Confidentiality Selection of sources Cooperation agreements with data holders Quality reports Guidelines Quality assessment Metadata Processing: Linking, editing, archiving</p> <p>A list of quality dimensions for input data can support cooperation agreements and be a basis for quality reports</p>

3. Work of the EG-NQAF Subgroup on administrative and other data sources

- The Subgroup was established by the Expert Group on National Quality Assurance Frameworks (EG-NQAF) at its meeting on 15 June 2023.
- **Objective and outputs**: Provide practical and concise guidance and best practices for statistical agencies in assuring the quality of official statistics when administrative data sources, 'other' data sources or multiple data sources are used for the production of official statistics.
 - The main output should be practical and concise, and
 - Complementing existing materials (the Manual, the Checklist and Roadmap).
 - One additional output would be an inventory of best practices and relevant materials.

Work Phase 1:

- a) Review existing country practices and guidelines etc.
- b) Identify the quality principles, requirements, elements to be assured and indicators that are critical or of special importance for the above objective based on existing practices and mapping exercise.
- c) Analyze how those quality principles, requirements, elements to be assured and indicators are reflected in the existing UN NQAF.

Work Phase 2:

- d) Develop guidance on how to implement these critical and / or additional requirements, elements to be assured and indicators within the overall implementation of the NQAF considering different options such as a) their integration into the existing NQAF, b) the development of an additional module for input data and c) the development of a separate toolkit.
- e) Consider how to measure and communicate quality (in terms of quality indicators) when administrative data sources, 'other' data sources or multiple data sources are used for the production of official statistics.
- f) Consider links to related work such as quality aspects of the use of machine learning in the production of official statistics.

4. Examples of practices, guidelines and tools

Officially shared during 2022 global consultation

1. Netherlands, Kindom of the: [Netherlands_45-Checklist-quality-evaluation-administrative-data-sources-2009.pdf](#)
2. Australia: [Australia_Quality Management of Statistical Outputs Produced From Administrative Data.pdf](#)
3. United Kingdom: [UK_Quality-Assurance-of-Administrative-Data.pdf](#);
[UK_Quality Assurance Toolkit updated Feb19_2.pdf](#)
<https://best-practice-and-impact.github.io/admin-data-quality-stats/departments.html#Introduction>
4. Italy: [Italy_Guidelines for the quality of statistical processes that use administrative data.pdf](#)
5. United Arab Emirates: [UAE_Manual of Statistical Quality Standards and Procedures for Administrative.pdf](#)
6. Canada: Available at <https://www.statcan.gc.ca/en/data-quality-toolkit#a4> (11 pages)
7. Oman: [Oman_ben_Quality of Administrative Records.pdf](#)
8. Norway: [Norway_PM2022-08.pdf](#)
9. Poland: [Poland_Tools, metrics and quality reporting of administrative data sources.docx](#)

Other

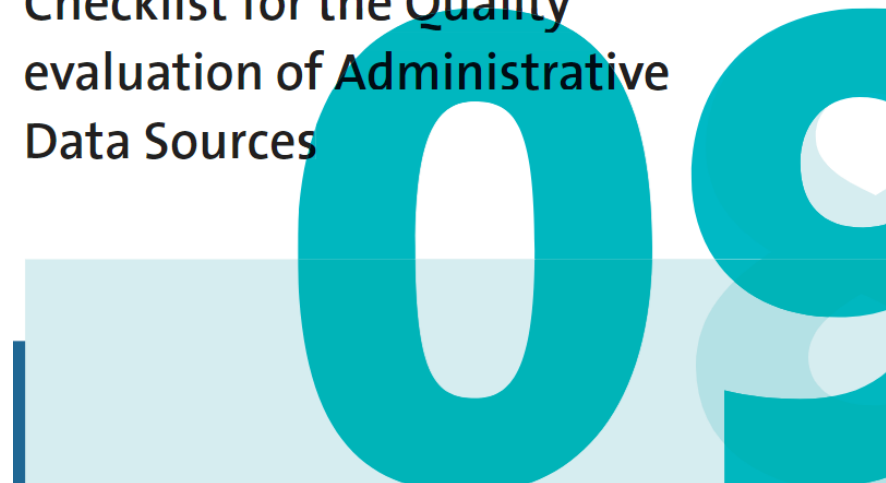
1. BLUE-Enterprise and Trade Statistics (BLUE-ETS): [BLUE-ETS_WP4_Del2.pdf](#)
2. UNECE - Guidelines for Assessing the Quality of Administrative Sources for Use in Censuses: [ECECESSTAT20214_WEB - UNECE 2021 Guidelines.pdf](#)
3. ESSnet KOMUSO Quality in Multisource Statistics - Work Package 1 Checklist for Evaluating the Quality of Input Data: [Other 03. essnet_wp1_report_final_version4 \(KOMUSO\).pdf](#)
4. Collaborative on Administrative Data - Toolkit for Quality Assessment of Administrative Data for Official Statistics
[Other 04.a Toolkit for Quality Assessment of Admin Data for Official Statistics.pdf](#)
[Other 04.b Questionnaire for assessing quality of admin data.xlsx](#)
5. Data Quality Assessment Tool for Administrative Data, Iwig, W., et al., 2013: [Other 05.a US DataQualityAssessmentTool.pdf](#)
6. ESSnet (use of admin and accounts data), WP6, Quality Indicators when using Administrative Data in Statistical Outputs: https://cross-legacy.ec.europa.eu/system/files/SGA%202011_Deliverable_6.1.pdf
7. Guidelines for Quality Assessment of Administrative Data, National Institute of Statistics of Rwanda, 2018: [Other 07. Guidelines for Quality Assessment of admin. data-R.docx](#)
8. Checklist used by Colombia: [Other 08. GPD-051-PDT-001-f-001_Documento Revisión Calidad Mayo2023.xlsx](#)
9. Self-assessment tool for admin data used by ILO (an adaptation for labour statistics of the CECRA questionnaire recommended by the Working Group on Administrative Records in the framework of the Statistical Conference of the Americas (SCA) and coordinated by ECLAC): a) [Other 09.a SAQUAR Users Guide_EN \(Ver.2\).docx](#) b) [Other 09.b Questionnaire SAQUAR_EN \(Ver.2\).docx](#);
10. A Framework for Data Quality, USA, 2020, [Other 10. FCSM.20.04_A Framework for Data Quality.pdf](#)
11. Revised Version of the Quality Guidelines for the Acquisition and Usage of Big Data, ESSnet, 2020, [Other 11. WP3 Deliverable K3 Revised Version of the Quality Guideline.pdf](#)

Example 1: Quality criteria for administrative data

Statistics Netherlands 2009

- Quality criteria linked to **Source**: Supplier, Relevance, Privacy and security, Delivery, Procedures
- Quality criteria linked to **Metadata**: Clarity, Comparability, Unique keys, Data treatment (by supplier)
- Quality criteria linked to **Data**: Technical checks, Coverage, Linkability, Non-response, Measurement, Processing, Sensitivity

Checklist for the Quality
evaluation of Administrative
Data Sources



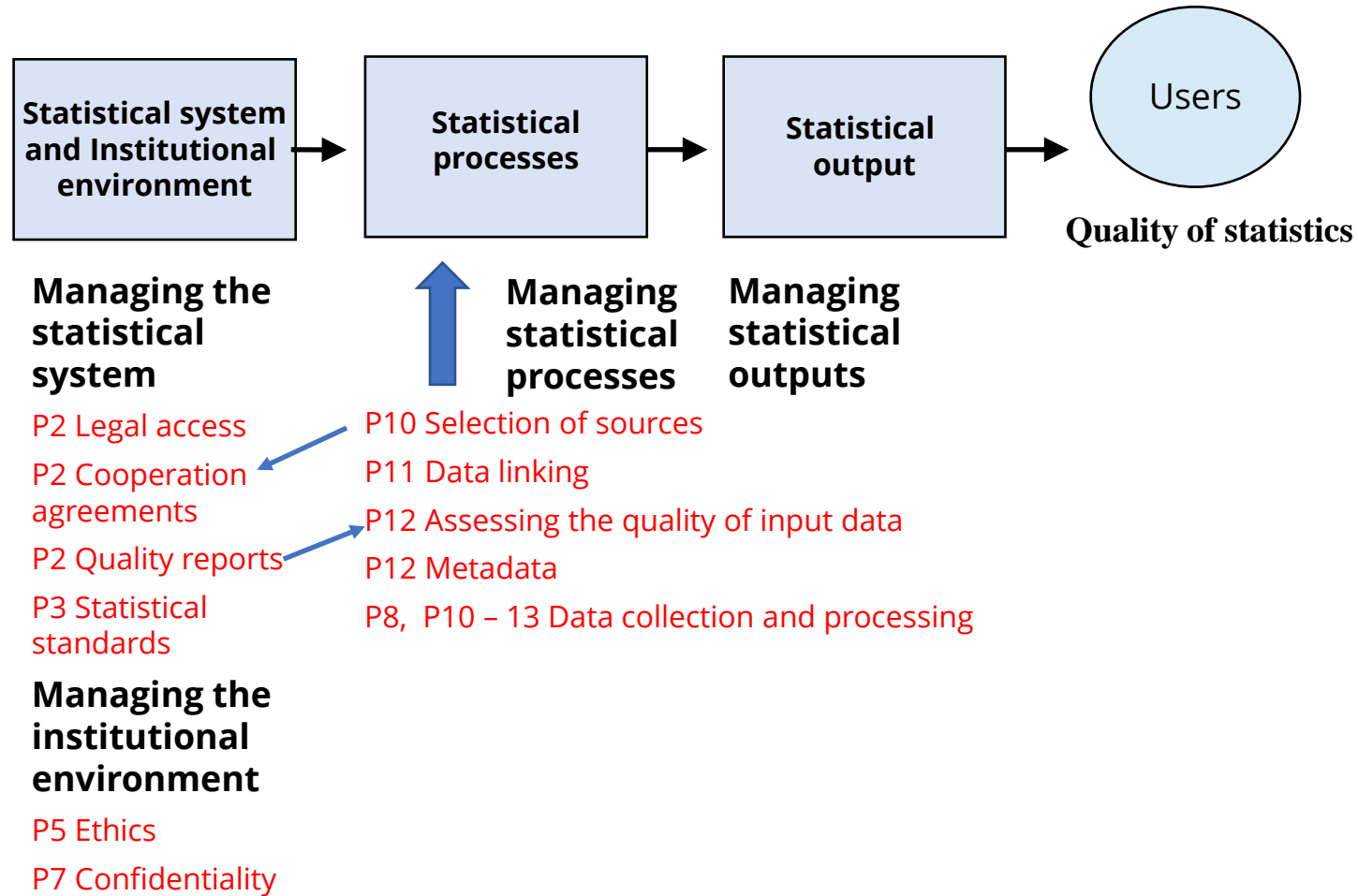
[45-Checklist-quality-evaluation-administrative-data-sources-2009.pdf](#)

5. Mapping of practices and guidelines to UN NQAF

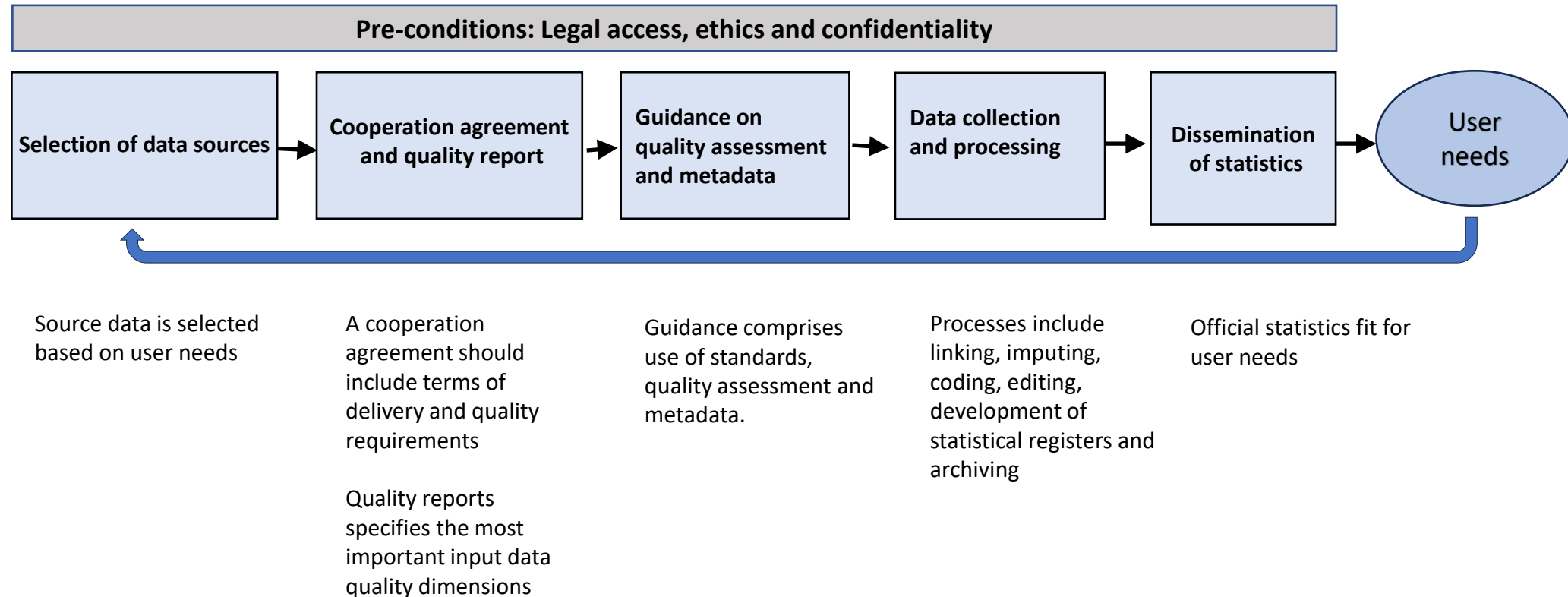
Source	"Hyperdimension"	Principle / Dimension	Requirements / elements to be assured/ indicators	UN NQAF Principle	Req.	Other Pri	Other Req.
	Framework						
NLD2009	Source	3. Privacy and security	3.1 Legal provision -Basis for existence of data source	2	2.4		2.5
NLD2009	Source	4. Delivery	4.2 Arrangements -Are the terms of delivery documented? - Frequency of delivery	2	2.5	12	12.3
NLD2009	Source		4.3 Punctuality -How punctual can the data source be delivered? - Rate at which exceptions are reported -Rate at which data is stored by data source keeper	2	2.5	12	12.3
NLD2009	Source		4.4 Format -Formats in which the data can be delivered	2	2.5	12	12.3
NLD2009	Source		4.5 Selection -What data can be delivered? - Does this comply with the requirements of NSI?	2	2.5	10	10.3
NLD2009	Source	5. Procedures	5.1 Data collection -Familiarity with the way the data is collected	2	2.5	12	12.5
NLD2009	Source		5.2 Planned changes -Familiarity with planned changes of data source -Ways to communicate changes to NSI	2	2.5	12	12.5
NLD2009	Source		5.3 Feedback -Contact data source keeper in case of trouble? - In which cases and why?	2	2.7	12	12.3
NLD2009	Source		5.4 Fall-back scenario -Dependency risk of NSI delivered according to arrangements made - Emergency measures when data source is not delivered according to arrangements made	2	2.7	12	12.3

The most relevant UN NQAF principles on source data

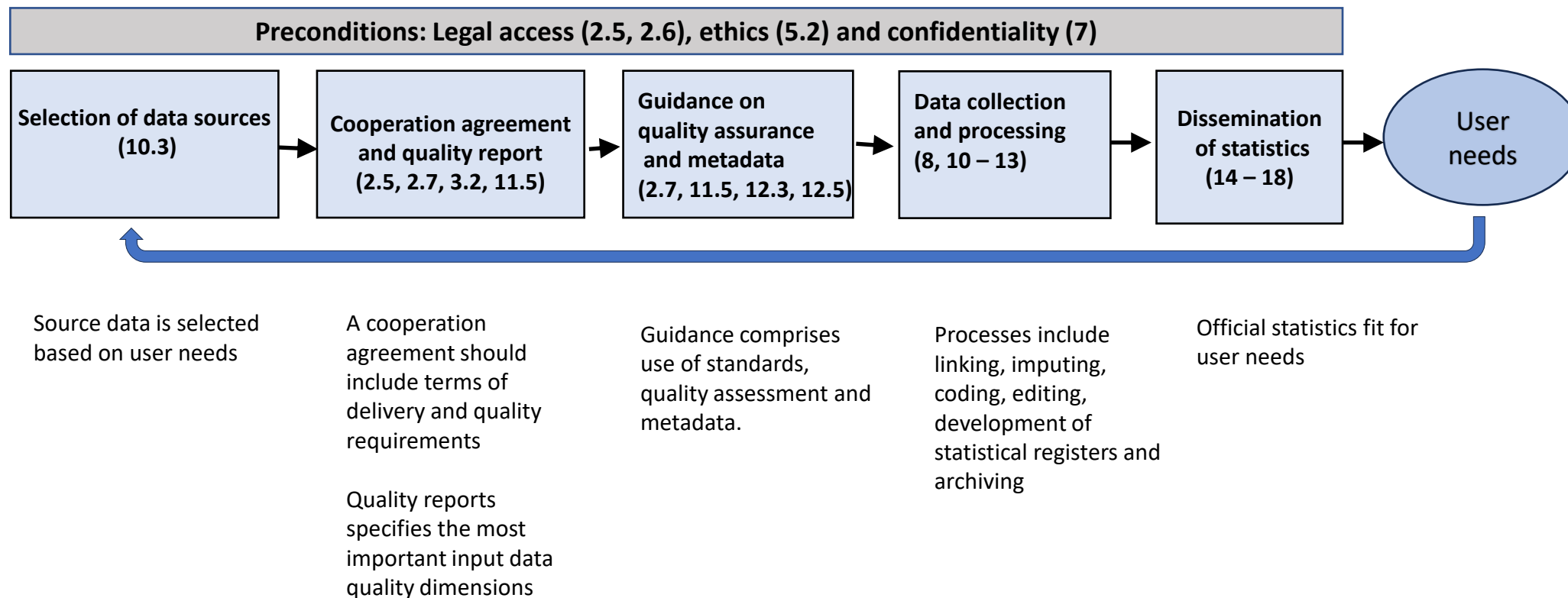
NQAF covers factors contributing to the quality of produced statistics, including practices on handling quality of administrative and other data



6. Identification of important and criteria and steps when using administrative and other data for official statistics



6. Identification of important and criteria and steps when using administrative and other data for official statistics → and their link to UN NQAF





Thank you.