# Maturity Model on Quality Culture in Official Statistics

Prepared by the Subgroup on Quality Culture

of the United Nations Expert Group on National Quality Assurance Frameworks (EG-NQAF)

*Draft as of 23 April 2024*

## Part 1: Introduction

1. Official statistics play a critical role in informing decision-making. Their fitness for purpose directly impacts the effectiveness of the design and implementation of government policies and programmes. A strong quality culture encompasses a shared commitment to deliver high-quality statistical products and services to users. This commitment applies to everyone in a statistical agency or statistical unit and throughout the national statistical system who is involved in the production and dissemination of official statistics and guides their actions and decision-making processes. Without a well-established quality culture, the risk of producing data and statistics not fit for its intended use will increase and eventually undermine the trust in official statistics and the national statistical system. A commitment to quality assurance and a quality culture for official statistics is also important for the cooperation with other countries and regional and international organizations, as it ensures that collaborations are effective, enables international comparisons and provides the foundations for monitoring, assessing, and steering global development.
2. A maturity model is a framework that organizations use to assess and improve their processes and overall performance in a particular area. Such model helps organizations to understand their current state and to set goals for improvement. This document introduces a maturity model to assess the quality culture in national statistical agencies, which includes the national statistical office (NSO) and other producers of official statistics. Some proposed indicators of the maturity model concern quality culture in the national statistical system (NSS). The maturity model provides a generic roadmap for the improvement of quality culture. Statistical agencies may focus on and prioritize efforts on the most critical aspects based on their circumstances. It also provides a common language for communication within the NSS, hereby supporting and fostering collaborations among different organizations.
3. This maturity model for a quality culture in official statistics was developed by the Subgroup on Quality Culture (hereinafter referred to as Subgroup) of the United Nations Expert Group on National Quality Assurance Frameworks (EG-NQAF). The Subgroup was established by the EG-NQAF in June 2023. The Expert Group and its Subgroup consists of experts on quality assurance from Member States and international and regional organizations.[[1]](#footnote-2) This draft is based on some initial research, responses to an initial survey among the members of the Expert Group, feedback received from countries during a workshop and an expert group meeting and an iterative discussion process within the Subgroup on Quality Culture. One challenge encountered during this work has been the absence of well documented national practices and experiences. Therefore, respondents to the global consultation are requested to share any experiences and best practices in fostering (and measuring) a quality culture for official statistics. We also welcome volunteers to test the maturity model (see end of document).

## Part 2: Definition of quality culture

1. **Quality culture for official statistics can be defined as the shared values, beliefs, behaviours, and practices related to quality assurance within a statistical agency (or unit) of the national statistical system that shape and characterize the work environment and individual workplace. It is a shared commitment focused on customer needs while continuously striving for improvement and innovation, hereby ensuring the confidence of users into official statistics**.

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## Part 3: Key Characteristics, levels of maturity and their measurement[[2]](#footnote-3)

1. In this document, six key characteristics are identified that reflect and support the implementation of a quality culture in national statistical agencies:

* Key characteristic 1: Awareness and Innovation
* Key characteristic 2: Communication Management and Channels
* Key characteristic 3: Data Governance
* Key characteristic 4: Quality Assurance Monitoring and Error Handling
* Key characteristic 5: High-level Commitment
* Key characteristic 6: Employees Commitment

1. The proposed maturity model features four levels for each key characteristic.[[3]](#footnote-4) The subsequent section provides concise definitions of each level. Each key characteristic is evaluated individually, with proposed indicators (measures) included in part 3.2. Statistical agencies may focus and prioritize efforts on the most critical aspects based on their circumstances. The overall maturity can be calculated as a simple average of the level achieved across the six key characteristics.[[4]](#footnote-5)

## Part 3.1 Levels of maturity and their measurement

1. Four levels are proposed to measure quality culture. The levels indicate the extent to which a statistical agency integrates a quality culture aimed at producing high-quality official statistics into its the shared values and commitments. The four maturity levels are as follows:

* Level 1 (Emerging): This level represents the foundational stage where the statistical agency has established a rudimentary and emerging quality assurance culture for official statistics. The staff has an initial awareness and understanding of the importance of quality management and there are basic efforts to establish a quality culture.
* Level 2 (Consolidating): At this level, the statistical agency transitions from a basic understanding of quality to a more structured and consolidated approach with an established quality assurance framework. Standardized procedures for data collection, processing, and dissemination are implemented to ensure consistency. Quality policies and objectives are clearly defined and communicated. Training programs are more comprehensive, and staff members understand their roles and responsibilities in relation to quality management. Basic quality assurance tools and techniques are implemented to ensure data accuracy and reliability.
* Level 3 (Embedding): This level indicates a culture of continuous quality improvement and entails actively promoting best practices to other stakeholders involved in the production of official statistics. A systematic approach to quality management is implemented, ensuring quality assurance is integrated and embedded into the regular workflow. A knowledge transfer and management system foster a supportive environment where quality is valued. All major producers of official statistics have implemented Level 1 and Level 2 measures.
* Level 4 (All-encompassing): At this level, a statistical agency has fully integrated a quality culture into its operation (in an all-encompassing way). This commitment is evident in the actions of both staff and management. Well established processes, financial and human resources and infrastructure support the continuous development and refinement of the quality culture. There is a comprehensive and mature system in place to monitor and improve quality. As a result, there is very high trust of users in official statistics.

1. A maturity model on quality culture requires the identification of indicators that allow to determine the level of quality culture present within a statistical agency. The shared values and beliefs that constitute a quality culture may be difficult or impossible to observe directly. Their measurement must rely on the observation of certain practices and behaviours or the conduct of surveys, interviews, focus group discussions, self-assessments, or behavioural tests.[[5]](#footnote-6) The measures suggested in the maturity model below can be used to construct such assessments.

## Part 3.2 Key characteristics and maturity model[[6]](#footnote-7)

**Key characteristic 1: Awareness and Innovation**

There is a shared understanding of the importance of quality among all levels of the staff involved in the production and dissemination of official statistics. Additionally, fostering a culture of systematic innovation is essential for continuous improvement of the quality of official statistics, including the use of new data sources, process refinement and tailoring outputs to user needs. The use of technology and new methods and tools supports and drives innovations.

Measures:

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| Level 1 | 1) Most staff working in the production and dissemination of official statistics (more than 50 per cent), with senior staff taking the lead, have completed a basic training on statistical quality assurance. |
|  | 2) All staff working in the production and dissemination of official statistics use basic validation tools and procedures, such as basic comparison tables and tools to identify outliers, inconsistencies, and missing data points. |
|  | 3) There is basic documentation of the production and dissemination processes, including validation, for all major statistics. |
| Level 2 | 4) Most staff working in the production and dissemination of official statistics (more than 75 per cent), with senior staff taking the lead, have completed a basic and refresher training or workshop on statistical quality assurance. |
|  | 5) Most staff working in the production and dissemination of official statistics (more than 75 per cent) use basic tools of quality assessment such as quality indicators, quality reports and user surveys. |
|  | 6) All staff working in the production and dissemination of official statistics use common software tools and IT packages, such as Excel, R and other open-source or commercial tools, in their work. |
| Level 3 | 7) All staff working in the production and dissemination of official statistics have completed a mandatory e-learning course and knowledge test on statistical quality assurance. |
|  | 8) Staff identify quality issues and propose measures to improve the quality of statistics. |
|  | 9) All staff working in the production and dissemination of official statistics participated in advanced workshops focusing on current challenges and new topics of quality assurance such as process automation, data validation, data linkage, anonymization, use of AI etc. |
|  | 10) Staff participate in internal knowledge-sharing activities to identify and implement innovative methods and tools for the production and dissemination of official statistics. |
|  | 11) Staff use advanced IT tools and infrastructure, such as advanced statistical software or cloud-based infrastructure, for the production and dissemination of official statistics. |
| Level 4 | 12) Staff participate in external workshops, research, and knowledge-sharing activities to identify and implement innovative methods and tools for the production and dissemination of official statistics. |
|  | 13) There is an actively used online platform that provides an inventory of knowledge on statistical quality assurance, statistical recommendations, guidelines, methods, and tools, designed for use by all staff working at statistical agencies of the national statistical system. |
|  | 14) Staff participate in periodic self-assessments, peer-reviews, and benchmarking exercises. |
|  | 15) There is an innovation unit or lab that drives the implementation of innovative methods and tools for the production and dissemination of official statistics. |
|  | 16) A staff survey indicates a very high level of awareness and commitment to quality assurance, user orientation and innovation. |

Measures beyond individual statistical agencies / for the national statistical system

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| Level 3 | 17) All major producers of official statistics have implemented level 1 and level 2 measures. |
| Level 4 | 18) The national statistical system is perceived as innovative and as maintaining the high quality of its statistical outputs. |

**Key characteristic 2: Communication Management and Channels**

Effective communication among all staff and with users is a fundamental characteristic of a quality culture. It requires clarity, openness, and transparency in both the internal and external channels (mechanisms) for communicating data quality, quality issues and improvements. This fosters the fitness-for-purpose of official statistics and continuous collaboration for improvements. External users and stakeholders are policy makers, the private sector, civil society, the public at large as well as international and regional organizations, but also data providers. Internal users and stakeholders are the staff in the national statistical system, working in the production and dissemination of official statistics.

Measures:

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| Level 1 | 1) There is a public statement regarding the statistical agency’s commitment to high-quality statistics. |
|  | 2) Staff involved in the production and dissemination of official statistics regularly respond to user requests and inquiries. |
|  | 3) Internal discussion of quality issues takes place within specific teams or units. |
| Level 2 | 4) Quality policies, objectives and visions which can be, for example, contained in development and transformation plans are clearly documented and communicated to all staff. |
|  | 5) Staff members provide metadata for the statistics under their responsibility and ensure that it is up to date. |
|  | 6) Statistics are presented and disseminated in an inclusive, accessible, and self-explanatory way. |
|  | 7) Staff and management inform external stakeholders about the statistical agency’s quality policies, rules, and procedures through appropriate communication channels, ensuring that stakeholders are well-informed. |
| Level 3 | 8) There are informal and formal internal communication mechanisms such as meetings, workshops, and online forums to discuss quality challenges openly within a “safe” environment. |
|  | 9) Statistics are presented and disseminated in a clear and self-explanatory way through traditional and novel communication channels. Novel communication channels are used when it improves communication. |
|  | 10) Staff and management regularly engage with external stakeholders through workshops, conferences, and other communication channels (or mechanisms) to obtain their feedback on their needs and quality issues. |
|  | 11) All rules and regulations governing the production of official statistics are publicly available. |
|  | 12) Users are informed about data quality so that they can judge whether the statistical information is appropriate for its particular use. |
| Level 4 | 13) Staff establish regular communication with users and data providers to improve the quality of official statistics. |
|  | 14) Staff establish partnerships and initiatives with users and data providers to improve the quality of official statistics. |
|  | 15) There is a platform for knowledge management and communication. It is open to all statistical agencies and allows sharing of tools, methods, and best practices. |
|  | 16) There is an ongoing and transparent communication with stakeholders regarding quality achievements, challenges, and strategies. |

Measures beyond individual statistical agencies / for the national statistical system

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| Level 3 | 17) All major producers of official statistics have implemented level 1 and level 2 measures. |
| Level 4 | 18) Identified quality champions actively promote quality culture within and across statistical agencies. |

**Key characteristic 3: Data Governance**

Data governance is the foundation of building trust in statistical agencies, ensuring the confidentiality and security of official statistics, and is based on a common vision that high quality (fit for use) data generates public value. It involves the establishment of policies, standards, rules, and measures for data access, use and reuse and the authority and control over data production, management, and transformation with the goal of increasing the value of data assets and mitigating data-related risks. It also requires staff’s commitment and compliance to safeguarding sensitive data. This commitment requires regular mandatory training and clear roles and responsibilities of every staff member. There is transparency about data governance and mechanisms to respond to and address public concerns.

Measures:

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| Level 1 | 1) All new staff members sign a declaration indicating their commitment to protecting confidentiality in accordance with established policies and procedures. |
|  | 2) There are basic procedures to ensure data confidentiality in statistical production and dissemination. |
| Level 2 | 3) Standardized practices, policies and tools are implemented to ensure data confidentiality and data security while allowing required data sharing within the statistical agency. |
|  | 4) The metadata contained in data dictionaries and the metadata related to the procedures for data collection, processing, analysis, and dissemination at statistical agency, including on the use of administrative records are documented and published. |
|  | 5) Staff members working in the production and dissemination of official statistics must complete a mandatory training on data confidentiality and data security. |
|  | 6) A staff survey indicates that staff members have basic awareness and understanding of established data governance mechanisms. |
| Level 3 | 7) All management and staff members working in the production and dissemination of official statistics should attend refresher and special training sessions on confidentiality and security practices once a year. |
|  | 8) The policies, infrastructure and processes for data governance are subject to regular reviews such as internal and external audits and peer reviews, conducted at least annually, in respect to the implementation of best practices. |
|  | 9) Data governance is responsive to user needs and especially considers public policy needs. |
|  | 10) The impact and risks of the use of artificial intelligence and new methods in statistical production are assessed and evaluated against its benefits including ethical considerations. |
|  | 11) Disclosure control measures are implemented, validated and subject to regular reviews. |
| Level 4 | 12) The data systems are continuously monitored for potential security vulnerabilities and action plans are developed and implemented for continuous improvement. |
|  | 13) Data confidentiality principles are integrated into all aspects of the statistical production process and are reflected in staff performance evaluation and promotion criteria. |
|  | 14) Compliance with ethical principles is assessed to ensure a proper use of new technologies in statistics production. |

Measures beyond individual statistical agencies / for the national statistical system

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| Level 3 | 15) All major producers of official statistics have implemented level 1 and level 2 measures. |
| Level 4 | 16) Regular meetings among data providers within the NSS are conducted at least once per year to share best practices regarding data governance and to coordinate processes of access to data for statistical purposes. |

**Key characteristic 4: Quality Assurance Monitoring and Error Handling**

Regular quality evaluation and reporting will improve the staff member’s awareness of quality assurance and thereby strengthen the quality culture within the organization. The establishment of key measures offers valuable insights into the effectiveness of quality improvement initiatives. A strong quality culture emphasizes the use of standard tools for quality reporting and the importance of openly documenting and communicating errors, as well as their underlying causes. This transparent approach fosters a cooperative and collaborative environment where continuous error handling and the enhancement of the quality of official statistics become integral part of the organizational culture, ultimately educating staff, and reinforcing the commitment to maintaining high-quality standards.

Measures:

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| Level 1 | 1) Reference metadata is published for all key statistics. |
|  | 2) Standard quality indicators are established for all key statistics. |
|  | 3) All statistics undergo basic data validation before release. |
| Level 2 | 4) Producer oriented quality reports informing about the most important sources of errors are available for all key statistics and updated with every data release. |
|  | 5) All statistics undergo extensive data validation procedures before release. |
|  | 6) Staff promptly reports any errors to management. |
|  | 7) Users are promptly informed about any errors and their reasons. |
|  | 8) Users can report quality concerns through clear and simple channels. |
|  | 9) Regular quality assessments (such as after each reporting cycle) identify possible improvement actions. |
| Level 3 | 10) Metadata and quality reports follow a standard format. |
|  | 11) Data revisions are thoroughly documented and explained to users. |
|  | 12) Staff point out possible quality issues and inform about and document possible errors in a no-blame environment for collective learning and improvement. |
|  | 13) There is a policy for error management which is publicly available. |
|  | 14) Management and staff take responsibility for the implementation and further development of quality assurance throughout the data lifecycle starting at data collection/data acquisition/data entry. |
| Level 4 | 15) Revision studies are conducted and made public. |
|  | 16) Self-assessments are regularly conducted. |
|  | 17) The GSBPM is implemented for all statistics. |
|  | 18) Voluntary audits, peer review and certification are performed, and users are informed about the key results. |

Measures beyond individual statistical agencies / for the national statistical system

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| Level 3 | 19) All major producers of official statistics have implemented level 1 and level 2 measures. |
| Level 4 | 20) User satisfaction surveys document the high trust of users into official statistics. |

**Key characteristic 5: High-level Commitment**

High-level commitment in a quality assurance culture is a cornerstone trait that shapes the entire organization's approach to quality. When leaders actively advocate for and prioritize quality assurance, they stress the importance of quality assurance throughout the organization. By implementing policies and measures to embrace the values of quality assurance, leaders promote the responsibility for maintaining and improving quality standards within the organization. The high-level leadership typically consists of the head and deputy heads of the national statistical agency or unit and the subsequent director level, as applicable.

Measures:

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| --- | --- |
| Level 1 | 1) A declaration or statement on the commitment to quality is publicly available and included in the national strategy for the development of official statistics. |
|  | 2) Senior management actively engages with key users. |
| Level 2 | 3) Senior management regularly expresses its commitment to data quality and continuous improvement at public and internal meetings and events. |
|  | 4) Senior management reviews and participates in the launch of major statistical outputs. |
|  | 5) Senior management discusses quality challenges and supports improvement efforts. |
| Level 3 | 6) Quality management is institutionalized and properly resourced and includes a quality manager position, focal point, circle, or similar instrument (see key characteristic 6 regarding the commitment of all staff to quality assurance). |
|  | 7) Efforts for quality improvements of staff are encouraged and recognized. |
|  | 8) Senior management promotes and monitors the adoption and compliance with international statistical standards and classifications including on quality management. |
|  | 9) The technical independence of the statistical agencies or units is guaranteed by law. |
|  | 10) Senior management is directly involved in the development and implementation of improvement plans and actions. |
|  | 11) Quality assurance is a main and constant priority of the statistical agency and is well resourced within the context of the overall availability of resources. |
|  | 12) Quality management for official statistics is established by law. |
| Level 4 | 13) The head and deputy heads of the national statistical agency are by law responsible of the quality of official statistics. |
|  | 14) Staff survey indicates high level of leadership commitment to data quality. |
|  | 15) Staff is encouraged to participate in regional and international conferences and workshops. |
|  | 16) The statistical agency participates in peer-reviews and external audits. |
|  | 17) Quality assurance is an integral component of business planning, with senior management responsible for ensuring adequate resource allocation to maintain quality standards. |

Measures beyond individual statistical agencies / for the national statistical system

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| Level 3 | 18) All major producers of official statistics have implemented level 1 and level 2 measures. |
| Level 4 | 19) The head of the national statistical office is designated by law as responsible for the coordination of the national statistical system. |

**Key characteristic 6: Employees Commitment**

Employee commitment is a pivotal characteristic of a quality culture within the organization. It is fostered through a sense of responsibility and accountability, where employees collectively share the duty to uphold the value of high-quality official statistics. This commitment is further strengthened by a culture of collaboration, where departments and teams work together across functions to establish and maintain quality assurance standards.

Measures:

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| --- | --- |
| Level 1 | 1) All staff working in the production and dissemination of official statistics take basic trainings on the quality assurance requirements, concepts, frameworks, and tools for official statistics. |
|  | 2) A designated unit or team promptly responds to user inquiries and requests and technical experts promptly provide their inputs as required. |
| Level 2 | 3) All staff understand that quality assurance is a responsibility of everyone and take responsibility for the implementation of quality principles and procedures. |
|  | 4) Staff provide suggestions for quality improvement actions. |
|  | 5) Staff work together to discuss and resolve quality issues. |
|  | 6) Staff demonstrate interest in the use of new tools and technologies to achieve quality improvement. |
| Level 3 | 7) Staff take pride in producing high-quality statistics. |
|  | 8) Staff have a good understanding of user needs based on their engagement and exchange with users. |
|  | 9) Staff take responsibility to follow international and national standards, classifications and guidelines in the production and dissemination of official statistics. |
|  | 10) Staff take pride in being involved in quality improvement projects or initiatives and are eager to adopt new methods, technologies, and tools. |
| Level 4 | 11) Staff seek to improve their knowledge on innovative methods and tools, for example, by participating in workshops, seminars and training activities or self-study. |
|  | 12) Staff contribute to research on official statistics and provide training and lectures to junior statisticians. |
|  | 13) Staff are aware of the shared values and ethical principles of statistics as reflected in the Declaration on Professional Ethics of the International Statistical Institute. |
|  | 14) Staff develop novel ideas for the improvement of official statistics. |

Measures beyond individual statistical agencies / for the national statistical system

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| Level 3 | 15) All major producers of official statistics have implemented level 1 and level 2 measures. |
| Level 4 | 16) Staff at statistical agencies are known for providing high quality statistics. |

**Annex: Considerations for the implementation of a quality culture maturity assessment**

The maturity model allows assessing a quality culture achieved at a statistical agency or statistical unit involved in the production of official statistics. The model is generic and recognizes key values and behaviors that a national statistical office (NSO) and/or national statistical system (NSS) may need to demonstrate to promote a quality culture. An overall result will be obtained from evaluating all six key characteristics and their indicators (measures). It is also feasible to focus on specific key characteristics considered a priority for the statistical agency and the NSS, depending on the specific context. It is suggested to develop a scoring system to support the assessment and identify priority areas for action, for example, with each indicator being rated from 0 (representing the absence of a practice) to 5 (representing the highest score).

The objective of the assessment is to design and implement an action plan to improve the aspects that require strengthening. This plan or roadmap should be followed up and revised depending on the results achieved.

Here are some recommendations for the implementation of the assessment:

1. Establish a lead team at the NSO to oversee the assessment process. This team will facilitate the coordination among all stakeholders involved in the assessment.
2. It is recommended to initiate the assessment with a focus on the NSO and expand the scope to the NSS in a second phase.
3. Identify and engage key stakeholders within the NSO and the NSS, ensuring representation from the staff, line, middle, and top management. This approach facilitates reaching agreements on the achievement of a maturity level for each of the six characteristics while minimizing possible biases due to subjectivity.
4. To conduct the assessment, it is recommended to organize meetings with the key stakeholders that represent different teams and perspectives from the NSO and the NSS. During the review of each key characteristic and its associated indicators, it is important to identify the evidence supporting the assessment.
5. The results should be consolidated and shared with the top management for review, validation, and suggestions. Based on this feedback, a tailored action plan should be designed and implemented. The plan should consider activities, schedule, people responsible and resources. During the planning process, it is necessary to prioritize characteristics and aspects to be improved.
6. It is necessary to monitor the implementation of the action plan and ensure follow-up on its results.

*Countries that are interested in testing the maturity model and to contribute to the development of an assessment methodology and tool are requested to contact Yuxi Zhang at* [*yuxi.zhang@un.org*](mailto:yuxi.zhang@un.org)*.*

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**Global Consultation on a draft Maturity Model on Quality Culture in Official Statistics**

Please respond to the following questions by 4 June 2024

[\*Mandatory question / response]

Name:\*

Organization:\*

Country:\*

Email:\*

***Please provide your response below the respective question***

1. Please provide any comments or suggestions on Part 1: Introduction (paras. 1-3)
2. Please provide any comments or suggestions on Part 2: Definition (para. 4)
3. Please provide any comments or suggestions on Part 3: Key Characteristics (paras. 5-6)
4. Please provide any comments or suggestions on Part 3.1: Level of maturity and their measurement (paras. 7-8)
5. Please provide any comments or suggestions on Part 3.2: Key characteristic 1
6. Please provide any comments or suggestions on Part 3.2: Key characteristic 2
7. Please provide any comments or suggestions on Part 3.2: Key characteristic 3
8. Please provide any comments or suggestions on Part 3.2: Key characteristic 4
9. Please provide any comments or suggestions on Part 3.2: Key characteristic 5
10. Please provide any comments or suggestions on Part 3.2: Key characteristic 6
11. Please provide any comments or suggestions on Annex
12. Please indicate whether you are interested in testing the draft Maturity Model (YES/NO):
13. Please let us know any suggestions on how to improve this draft Maturity Model\*
14. Please let us know any other comments that you may have, or if you have any specific practices or experiences that you can share.\*

1. See <https://unstats.un.org/unsd/methodology/dataquality/about/>. The terms of reference of the Subgroup are available here: <https://unstats.un.org/wiki/display/EGNQAFSQC/EG-NQAF+Subgroup+on+Quality+Culture>. [↑](#footnote-ref-2)
2. The final version of this maturity model is expected to include a glossary of terms that will provide definitions of important terms used in describing the key characteristics and indicators of this maturity model. [↑](#footnote-ref-3)
3. Many maturity models use five levels, but four levels were found to be sufficient and more practical for the maturity model on quality culture considering that those levels had to be defined for each key characteristic and given the challenges of measuring quality culture. [↑](#footnote-ref-4)
4. If a statistical agency reaches maturity level 2 across the first three key characteristics and level 3 across the other three key characteristics, then the average level would be (2+2+2+3+3+3) / 6 = 2.5, which when rounded would be level 3 (Embedding). [↑](#footnote-ref-5)
5. It is acknowledged that certain practices and behaviours such as taking a training course may be the result of a requirement and not the result of an individual choice. Also, the responses to surveys or during interviews may be influenced by what the respondent beliefs is expected in their response. However, the existence of requirements and of beliefs about what is expected are also part of, and the result of a quality culture. [↑](#footnote-ref-6)
6. Some indicators (measures) proposed in the maturity model repeat across different key characteristics as they are relevant from different perspectives. [↑](#footnote-ref-7)