



International Organization for Standardization
Organisation internationale de normalisation
Международная организация по стандартизации

Call for candidates for the Registration Authority for ISO 19157-3 Geographic information — Data quality — Part 3: Data quality measures register

ISO/TC 211 Geographic information/Geomatics is developing a register for data quality measures. Until now, we have published these in ISO 19157:2013 Geographic information — Data quality, Annex D List of standardized data quality measures.

We are revising ISO 19157, splitting it into ISO 19157-1 Geographic information — Data quality — Part 1: General requirements and ISO 19157-3 Geographic information — Data quality — Part 3: Data quality measures register.

ISO/TC 211 Geographic information/Geomatics invites proposals from qualified organizations interested in serving as Registration Authority for ISO 19157-3 Geographic information — Data quality — Part 3: Data quality measures register.

This document sets out the qualifications and evaluation criteria for the Registration Authority for the data quality measures register as defined in the International Standard ISO 19157-3. This is a combination of general requirements to be an ISO Registration Authority and some requirements specific to this register. Further information about the standard can be made available on request.

Respondents to this Call for Candidates must address the points outlined in Section 7.

The official appointment of the successful candidate agency will require nomination by the voting membership of ISO/TC 211 Geographic information/Geomatics, and final approval by the ISO Technical Management Board.

Submit responses to:

Swedish Institute for Standards

Att: ISO/TC 211 Secretariat

Box 45443

SE-104 31 Stockholm

E-mail: mats.ahlin@sis.se

Electronic responses via e-mail are preferred.

Responses with must be received by 23:59 UTC on 28 October 2022.

1 About ISO and ISO/TC 211

The International Organization for Standardization (ISO) is a non-governmental organization established in 1946 for the purpose of facilitating the international coordination and unification of industry standards. ISO is a network of 165 national standards bodies with its headquarters in Geneva.

For more information: <https://www.iso.org/about-us.html>

Technical Committee (TC) 211 is the ISO committee charged with responsibility for ISO standards in the field of geographical information/geomatics. The draft ISO 19157-3 Geographic information — Data quality — Part 3: Data quality measures register standard is being developed within Working Group 9 Information Management (WG 9) of ISO/TC 211.

For more information: <https://committee.iso.org/home/tc211>.

2 Purpose of the Data quality measures register

The ISO 19157-3 data quality measures register is a collection of records of defining measures used in evaluation of geographic and related non-geographic data quality. The structures and the components of a data quality measure are defined in ISO 19157-1 and instances of these data quality measures will be stored in the data quality measures register. Data quality measures stored in an ISO 19157-3 compliant standard register are expected to facilitate a consistent use of data quality measures throughout various geographic applications across different domains by humans and machines evaluating geographic datasets.

3 Status of the ISO 19157-3 draft standard

The Data quality measures register standard (ISO 19157-3) is expected to be published in August 2024. The standard is in the process of being drafted for committee internal ballot. A public enquiry is expected in August of 2023. This standard requires a Registration Authority (RA) and will not be published until a signed agreement with the chosen RA is in place with ISO. A copy of the latest draft of ISO 19157-3 *Geographic information — Data quality — Part 3: Data quality measures register* can be provided on request from the Secretariat to anyone wishing to respond to this call for RA candidates.

4 Candidate organizations

A candidate organization for the role of Registration Authority for ISO 19157-3 must be a legal entity and can be either a commercial entity, non-commercial entity, or a consortium established as an organization. The RA may not charge fees for services directly related to the process of registration and/or reading the data quality measures.

An RA candidate needs to supply information in writing demonstrating the following:

- proof that it is a legal entity which means that is an organization formed under the laws of a jurisdiction and that it is therefore subject to governance-related rules.
- commitment to serving as the RA for ISO 19157-3 for a period of five years;
- it shall require no financial support from: ISO/TC 211 or ISO/TC 211 secretariat, but members of ISO/TC 211 may provide financial support if so desired
- a sound business plan confirming that the candidate is technically and financially able to carry out the RA Services specified in ISO 19157-3 and the Registration Authority

Agreement (see Attachment B) on an international level for the five period of the Agreement.

- confirmation that it will charge no fees;
- documentation and examples, where relevant, of its experience in the respective community of practice;
- confirmation of whether it intends to delegate part of the Registration Services to Registration Agencies;
- will abide by the requirements in Annex H of the *ISO/IEC Directives, Part 1, Consolidated ISO Supplement, 2021* (see Attachment A); and
- will agree to the terms in the *ISO Registration Authority Template Agreement* (See Attachment B).

The candidate organization selected by the ISO/TC 211 membership must meet these criteria for ISO to approve the appointment and issue the RA contract. A successful candidate should be prepared to begin performing the functions of the Registration Authority in overseeing the establishment and implementation of the data quality measures register around the time of the publication of ISO 19157-3.

5 Appointment process

The selection process of the RA candidate will be transparent and based on reasonable and non-discriminatory conditions. The main criteria for selecting the RA candidate will be evidence of its ability to sustainably implement the tasks and obligations of the RA.

This invitation to apply as an RA candidate will be distributed to all members of ISO/TC 211, who will be encouraged to distribute it further to potential candidates, and publicly posted/announced on ISO/TC 211 web page to ensure a wide notification to potential candidates.

Candidate organizations must submit responses to this Request for Candidates in writing to the ISO/TC211 Secretariat before 25 October 2022.

The response must be accompanied by documentation demonstrating that the candidate organization can fulfil the responsibilities and qualifications specified in this Call for Candidates (see Sections 4 and 7).

The ISO/TC 211 Secretariat will together with the Register Management Group (ISO/TC 211/AG 14), evaluate the responses and recommend an RA candidate to the ISO/TC 211 committee. This recommendation will then be balloted to the ISO/TC 211 committee for 30 days. The ISO/TC 211/AG 14 in conjunction with the proposed RA candidate will respond to any comments received during the ballot within 30 days of the ballot conclusion. If the candidate RA has been approved, the ISO TMB will then be requested to approve the RA candidate and an agreement will then be negotiated with the ISO Central Secretariat.

6 Timeframe for appointment process

2022-08-26 Call for candidates opens

2022-08-29 Call published on TC web

2022-10-28 End of Call

2022-11-14 Decision sent to nominated candidates

2022-11-14 Decision ballot for the TC

2022-12-14 End of Decision ballot

2022-12-19 RA Agreement process initiated with ISO/CS

7 Responsibilities of the Registration Authority for ISO 19157-3

The responsibilities of the Registration Authority for ISO 19157-3 are described in the ISO Directives as “Registration Services”, are defined in the standard and reproduced below.

The ISO 19157-3 Registration Authority shall provide following services:

- Promote, coordinate and supervise the data quality measures register in accordance with the specifications of the ISO 19157-3 International Standard.
- Allocate unique registration items for use within the ISO Data quality measures register.
- Maintain an accurate register of items and their associated technical metadata and administrative metadata.
- Implement, monitor and enforce the policies and procedures governing its operations, the process of item registration and access to the data quality measures register in accordance with ISO 19157-3 and ISO 19135.
- Implement, monitor and enforce policies and procedures regarding access to the data quality measures register. Every effort shall be made to maintain the confidentiality of administrative data.
- Facilitate the review and resolution of duplicate proposals for the registration of submissions.
- Provide documentation of the use and administration of the data quality measures register.
- Compile and maintain statistical data on data quality measures register-related operations.
- Provide regular reports to ISO/TC211 Registration Management Group and on ISO/TC211 plenary on data quality measures register operations.

Specific technical requirements on provided services include:

- A human friendly access and search capability.
- A machine-readable and machine-actionable access.
- A way of retrieving definitions of data quality measures published at the server (instead of downloading large or complex documents in varying formats).
- Ability to reference data quality measures in the register and their components via URI/IRI or URN.
- Ability to retrieve machine readable versions of data quality measures with at least the following formats supported: XML, Linked Data (RDF, TTL), JSON and JSON-LD, and plain and formatted text.
- Ability to interact with the register content via API.
- Flexible capability to cross-link between data quality measures in the register and those in external registers (e.g. W3C Data Quality Vocabulary).
- Ability to modify available content by addition of new measures, supersession of existing measures with new measures, retirement of existing measures, and invalidation (not deprecation) of existing measures.

- Ability to have varied level of authorised access.
- A human friendly access and administration functionality.

Further to this, the data quality measures register should:

- Support the FAIR (Findable, Accessible, Interoperable and Reusable) principles by providing essential human-readable and machine-actionable data and metadata.
- Allow people to set-up and run their own measures registers (e.g. with extended and/or domain specific measures) and link to ISO 19157-3 data quality measures.
- Allow data offered by the register to be cryptographically signed so others can verify integrity/authenticity of the authoritative data.

Expected data volume, updates, and traffic:

- Data volume: The initial collection of measures is expected to contain around 100 records and a few hundred in total.
- Updates: Updates to register each year, including new records and changes to existing records, is expected to be a fraction of the total number of records.
- Traffic: Yearly traffic (number of record retrievals and views) is expected to be around 10,000 monthly.

8 Attachments

Attachment A *Annex H of the ISO/IEC Directives Part 1, Consolidated ISO Supplement 2021*

Attachment B ISO Registration Authority Template Agreement