



Curtin University

Standards for data quality @ISO/TC211: ISO 19157-1 & ISO 19157-3

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ISO 19157-1 – the project

- Leaders: **Standards Australia** (Dr Ivana Ivánová) and **Swedish Institute for Standardization** (Mr Torsten Svärd)
- Team: around 30 Spatial Data Quality experts, fans or member body representatives
- Timeline:
 - Start – July 2019
 - CD– Dec 2020
 - DIS – Dec 2021,
 - IS – Dec 2022.

← **We are here now**

ISO/CD 19157-1

- CD Ballot initiated on 2 February 2021, consensus reached on 12 April 2021 – result:
 - 22 **approval** (incl. 4 approval with comments)
 - 0 against
 - 14 abstain
 - 1 did not vote
- Comments received on CD:
 - 40 in total: 3 ge, 1 ed/ge, **10 te**, 1 ed/te, 25 ed
 - These were in addition to approx. 300 comments received from the start of the ISO 19157-1 revision project and which were already enacted before CD ballot.
- Work well in progress – expecting EC before ISO/TC211 plenary in Nov-Dec'21.

ISO/CD 19157-1: example comments

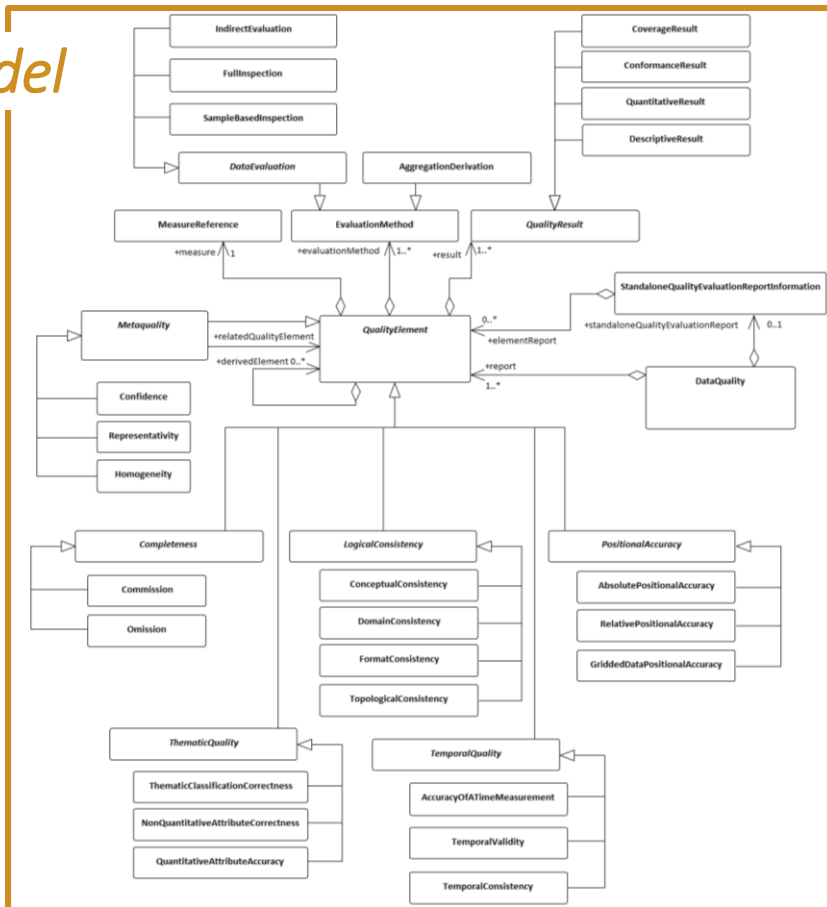
- Some comments require revision of the set of requirements (e.g. NO-031):

<p>Many requirements in the document are textual descriptions of what is already stated by the UML model. For example, requirement 2 describes the attribute “scope” from figure 3, its datatype and multiplicity.</p> <p>Likewise, requirements 4-8 duplicate the data quality element subclass structure from the UML model.</p> <p>This duplication of the UML model leads to a superfluous level of detail for the requirements. Instead, by referring to the UML model, the number of requirements could be reduced.</p>	<p>Remove requirements that duplicate the UML model, and rephrase requirement 1 to claim conformance with the UML model in general:</p> <p>“Data quality shall be described in conformance with the components of data quality and data quality measures as defined by the UML figures in clause 8 and 9 in this document.”</p>
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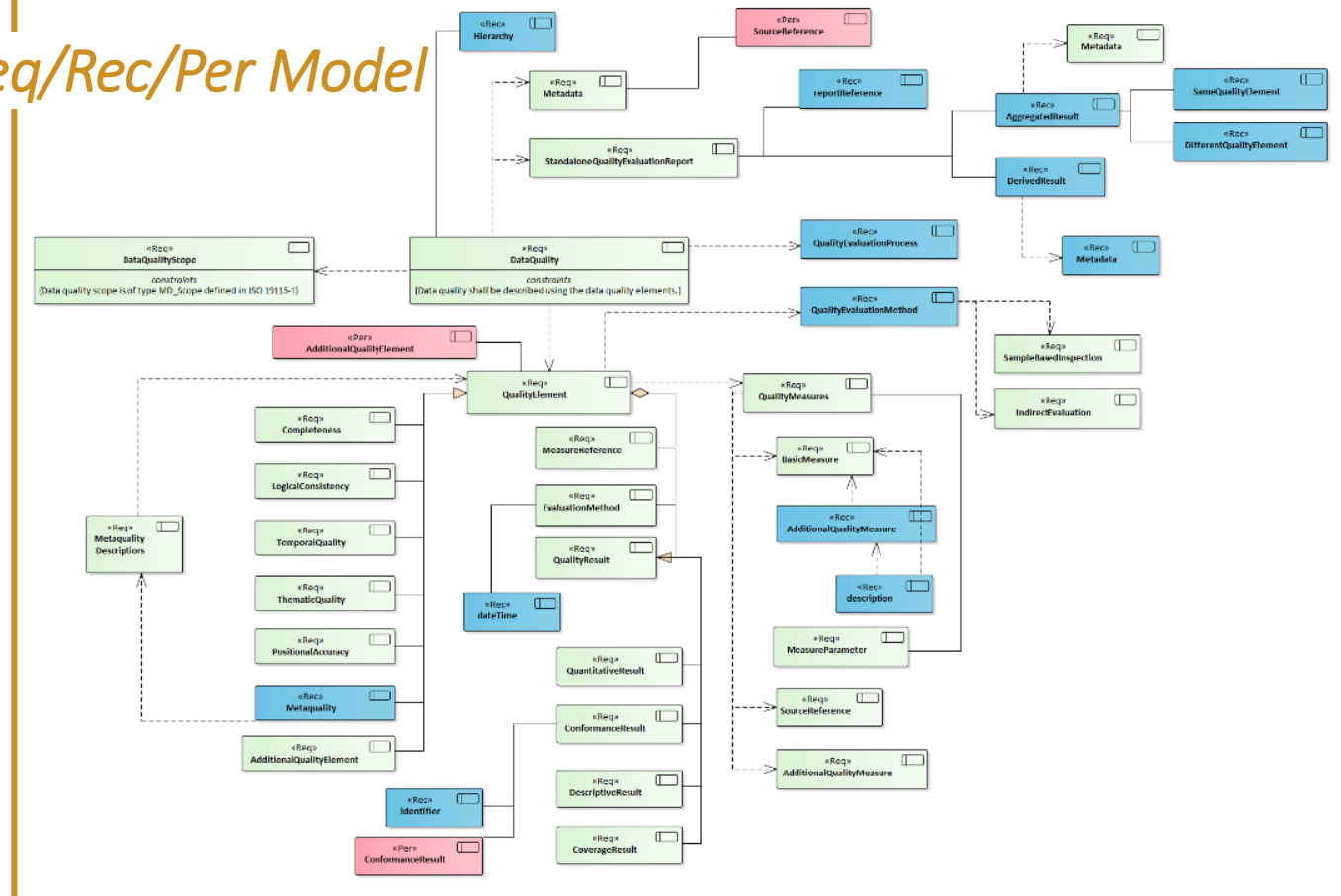
ISO/CD 19157-1: example comments

- Some comments require revision of the set of requirements (e.g. NO-031):

DQ Model



Req/Rec/Per Model



ISO/CD 19157-1: example comments

- GOST R-015 on URIs:

6.2, 6.3	Table 3 Table 4 Table 5 Table 6	General	Links for Requirements are not active Normative Statements and Conformance 404 Page not found :(The requested page could not be found.	
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- We define URIs in the standard and some receive URI automatically
- These are templates only until ISO/TC211 settles on how standard 'resources' will be made available to public

Requirement 20:	https://standards.isotc211.org/19157/1/1/req/content/QualityMeasureRegister
	Data quality measures register shall be defined in compliance with ISO 19135-1:2015.

ISO 19157-1 & ISO 19157-3

- ISO/CD 19157-1 has been approved with Annex D (containing ~80p of tables with data quality measures) taken out and moved to ISO 19157-3
- ISO 19157-3 has been proposed as NWIP to establish a DQ measures register in compliance with current practice for machine-actionable registers.

ISO/AWI 19157-3

- Approved in August 2021 as **ISO/TC211 and OGC Joint Project**

ISO/CD 19157-1	Dr Ivana Ivanova Mr Torsten Svärd	Geographic information -- Data quality -- Part 1: General requirements	30.99	2021-12	Yes	DIS text expected from project leader. IS to publish before 2022-12.
ISO/AWI 19157-3	Dr Ivana Ivanova Mr Torsten Svärd	Geographic information — Data quality — Part 3: Data quality measures register	20.00	2022-08	Yes	CD text expected from project leader. DIS text expected before 2023-08 IS to publish before 2024-08.

- Scope:
 - Establish, maintain and publish register of data quality measures in compliance with ISO 19135-1:2015 & ISO/IEC Directives, Part 1 .
 - Identify and describe components and content structure of a register for data quality measures, and the registration and maintenance procedure.
 - Specify the required machine-readable (XML, Geospatial-API) implementation of the register and the procedure of access and use of the register.

ISO/AWI 19157-3

ISO/CD 19157-1	Dr Ivana Ivanova Mr Torsten Svärd	Geographic information -- Data quality -- Part 1: General requirements	30.99	2021-12	Yes	DIS text expected from project leader. IS to publish before 2022-12.
ISO/AWI 19157-3	Dr Ivana Ivanova Mr Torsten Svärd	Geographic information — Data quality — Part 3: Data quality measures register	20.00	2022-08	Yes	CD text expected from project leader. DIS text expected before 2023-08 IS to publish before 2024-08.

- Awaiting kick-off meeting – priorities:
 - Confirming structure of the measure (as this is part of ISO 19157-1 definition)
 - Deciding on normative vs informative register – deciding factor is frequency of expected update and where the content ‘sits’ (in or out of the standard)
 - Deciding on Registration Authority (or Maintenance Agency): *e.g. OGC might be eligible*
 - Deciding on where to host the register: *e.g. OGC’s Definition Server is a hot candidate*

ISO/AWI 19157-3: a model ISO/TC211 register

v3 – after ISO/TC211 AG2 comments; potentially final

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ISO/TC 211/SC

Date: 2021-10-04

ISO_TC 211

ISO/TC 211/SC /WG AHG 07

Secretariat: SIS

Geographic information — ISO/TC 211 governance for ISO registers

Information géographique — ISO/TC 211 gouvernance pour les registres ISO

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THANK YOU!

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