

# DATA QUALITY MEASURES REGISTER ISO 19157-3

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SDQ CONFERENCE 2025

# AGENDA

ISO 19157-3

ISO 19157-1 Amendment

How the Data Quality Measures register will work

Maintenance process for the Data Quality Measures register

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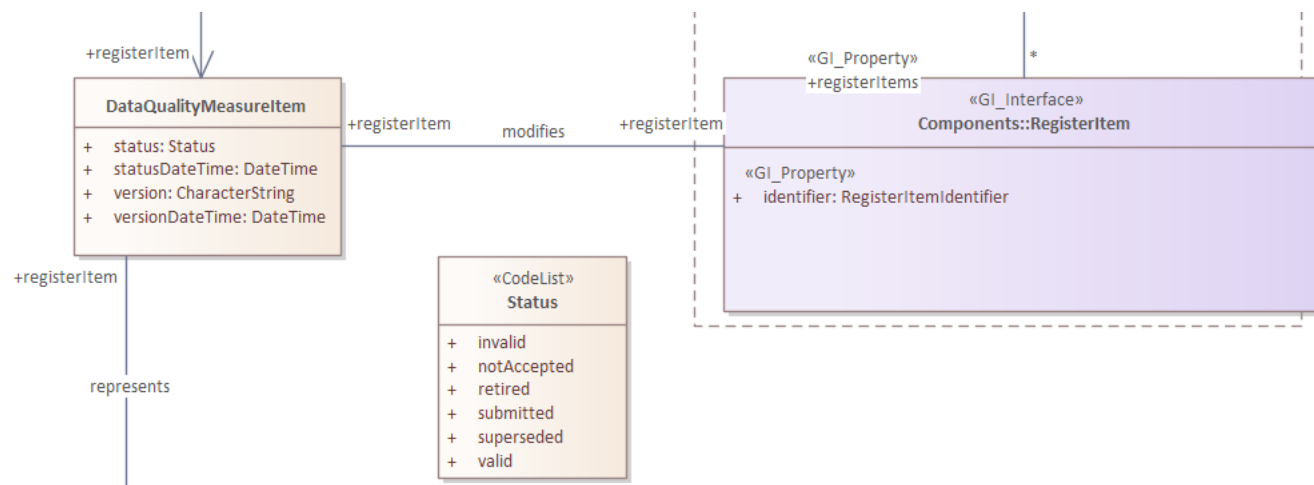
# ISO 19157-3 DATA QUALITY MEASURES REGISTER

ISO 19157-3 defines management and operations of the ISO data quality measures register

Structure of the data quality measure defined in ISO 19157-1

ISO 19157-3 DQM register compliant with ISO 19135, including:

- Status of an item
- Versioning of items
- URI, Uniform Resource Identifier
- ... and other metadata



Date	2025-04-17 10:41:21.090
Version	1.0
title	circular error at 95 % significance level
Basic Measure	2D random variable 95 % probability
Element Name	absolute or external accuracy
Description	MDsd1xy_CE39.4
Measure ID	45
Value Datatype	Measure
status	valid
alternative label	navigation accuracy
has broader	Positional Accuracy
definition	Radius describing a circle, in which the true
is in scheme	ISO19157-3 quality measures
has narrower	MDsd1xy_CE39.4 <a href="https://standards.iso211.org/19157/-3/1/">https://standards.iso211.org/19157/-3/1/</a>

# DATA QUALITY MEASURES

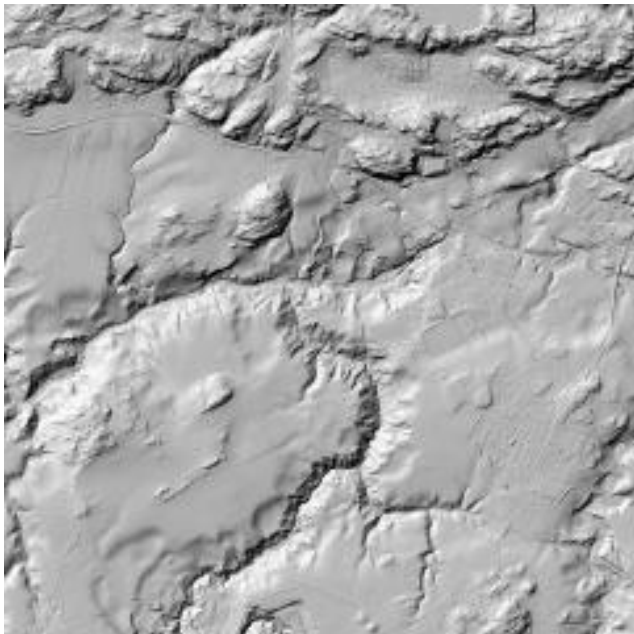
All measures from ISO 19157:2013

A few new measures received during ISO 19157-1 revision and

A few new from 19157-3 development

New measures about:

- Coverage
- Street view
- Maintenance
- Metadata




Component	Description
Name	circular error at 95 % significance level
Alias	navigation accuracy
Element name	absolute or external accuracy
Basic measure	CE95
Definition	radius describing a circle, in which the t ability of 95 %
Description	See <a href="#">G.3.3</a>
Parameter	-
Value type	Me
Value structure	
Source reference	
Example	-
Identifier	45

P = 95 %	$\frac{2,4477}{\sqrt{2}} \sqrt{\sigma_x^2 + \sigma^2}$	CE95
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# STATUS FOR ISO 19157-3 REGISTER IMPLEMENTATION

- OGC – ISO 19157-3 Registration Authority
- ISO 19157-3 resides on OGC RAINBOW as one of the vocabularies


**OGC RAINBOW - Hosted instance**

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[Home](#) > [catalogs](#) > [ISO 19157-3 Data quality measures register definitions](#) > [collections](#) > [ISO19157-3 quality measures](#)

## ISO19157-3 quality measures

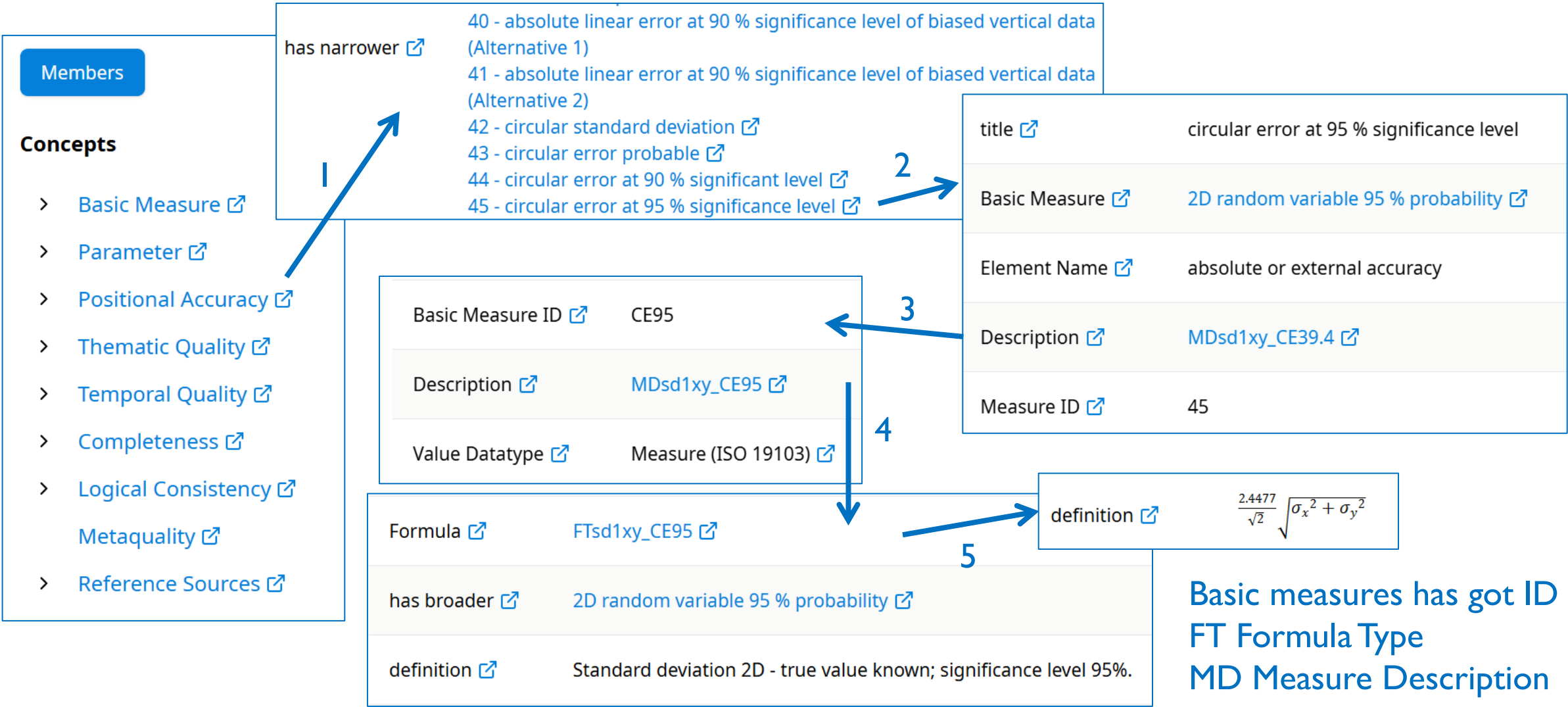
**IRI**
<https://standards.isotc211.org/19157/-3/1/dqc/content/qualityMeasure>

**Type**
[Concept Scheme](#)

SKOS

skos:ConceptScheme	
URI:	<a href="http://www.w3.org/2004/02/skos/core#ConceptScheme">http://www.w3.org/2004/02/skos/core#ConceptScheme</a>
Definition:	<a href="#">Section 4. Concept Schemes</a>
Label:	<i>Concept Scheme</i>
Disjoint classes:	<a href="#">skos:Collection</a> <a href="#">skos:Concept</a>

# STATUS FOR ISO 19157-3 REGISTER IMPLEMENTATION








# STATUS FOR ISO 19157-3 REGISTER IMPLEMENTATION

## Alternate Profiles




View alternate views & formats



### Alternates Profile


anot+turtle  turtle  ld+json 

rdf+xml  anot+ld+json 

### OGC Object Profile

turtle  ld+json  rdf+xml 

n-triples  anot+ld+json 

turtle 

```
@prefix basicmeasure: <https://standards.iso211.org/19157/-3/1/dqc/content/basicMeasure/> .
@prefix dcterms: <http://purl.org/dc/terms/> .
@prefix isodqm: <http://www.opengis.net/def/metamodel/isodqm/> .
@prefix measuredescription: <https://standards.iso211.org/19157/-3/1/dqc/content/measureDescription/> .
@prefix ns10: <https://standards.iso211.org/19157/-3/1/dqc/content/> .
@prefix ns3: <http://www.opengis.net/def/status/> .
@prefix ogcna: <http://www.opengis.net/def/metamodel/ogc-na/> .
@prefix qualitymeasure: <https://standards.iso211.org/19157/-3/1/dqc/content/qualityMeasure/> .
@prefix skos: <http://www.w3.org/2004/02/skos/core#> .

qualitymeasure:45 a skos:Concept ;
  dcterms:date "2025-04-17 10:41:21.090" ;
  dcterms:hasVersion "1.0" ;
  dcterms:title "circular error at 95Â % significance level" ;
  isodqm:basicMeasure basicmeasure:CE95 ;
  isodqm:elementName "absolute or external accuracy" ;
  isodqm:measureDescription measuredescription:MDsdIxy_CE39.4 ;
  isodqm:measureID "45" ;
  isodqm:valueType "Measure" ;
  ogcna:status ns3:valid ;
  skos:altLabel "navigation accuracy" ;
  skos:broader qualitymeasure:QCI ;
  skos:definition "Radius describing a circle, in which the true point location lies with the probability of 95Â %." ;
  skos:inScheme ns10:qualityMeasure ;
  skos:narrower measuredescription:MDsdIxy,
    measuredescription:MDsdIxy_CE39.4 ;
  skos:prefLabel "45 - circular error at 95Â % significance level" .
```

# STATUS FOR ISO 19157-3 REGISTER IMPLEMENTATION

19157-3 DQM register v2.0 published:

- All ISO 19157:2013 Annex D measures
- Few new, received during ISO 19157-1 revision & ISO 19157-3 development revision
- New measures will be  
Marked with ID 200+

Enhancements ongoing along with OGC RAINBOW updates – highest priority:  
implementing the gov rules

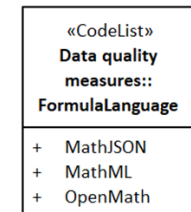
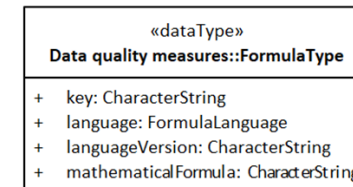
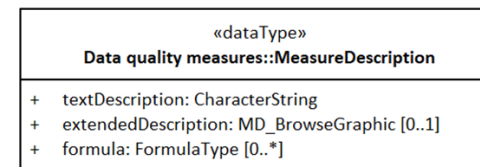
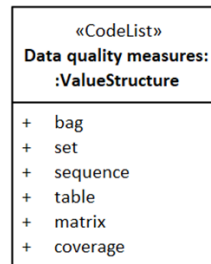
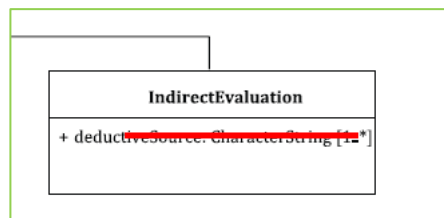
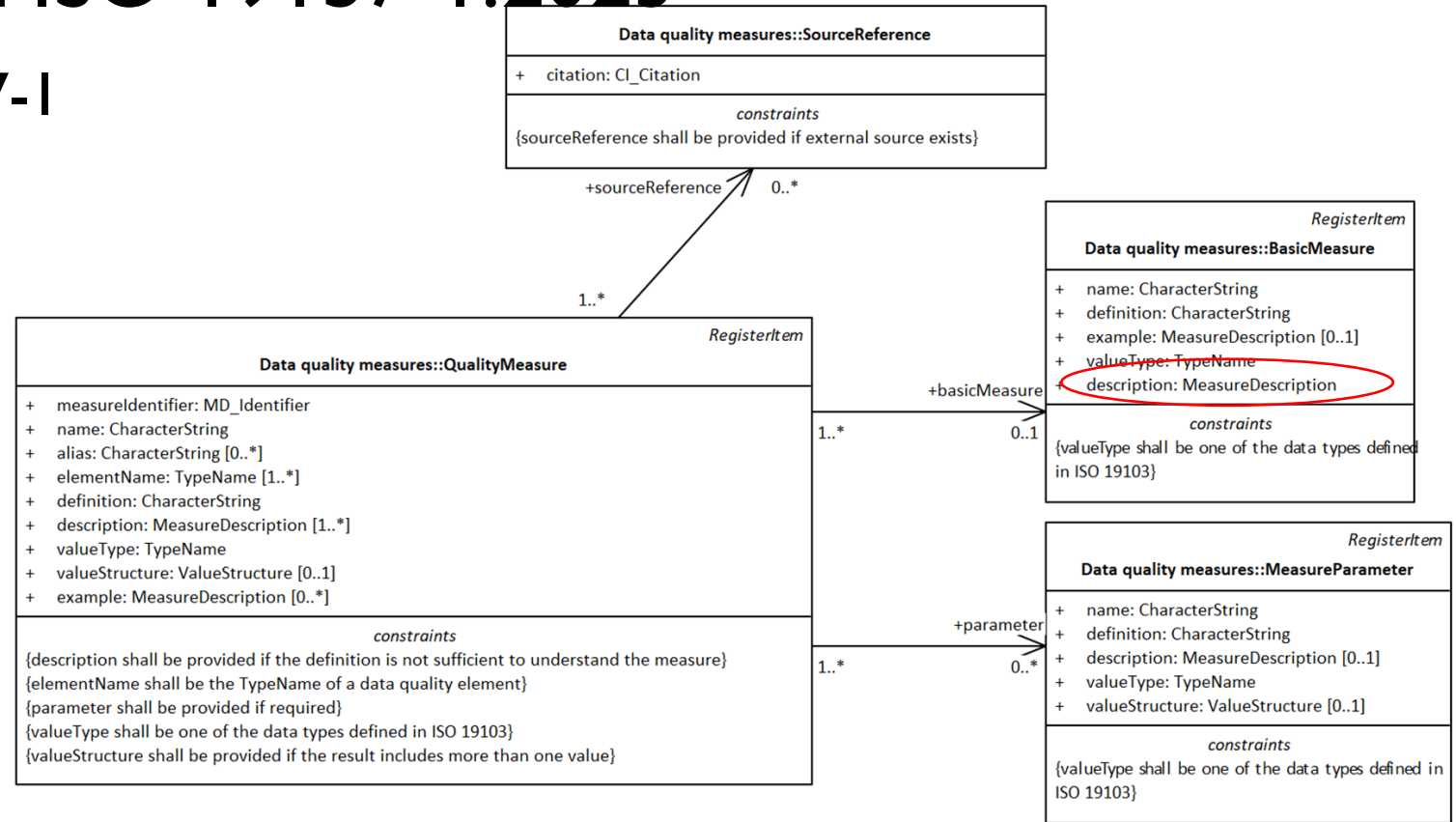
Time table:	
November	ISO/TC211 plenary, decision on amendment to 19157-1
January	preparation for FDIS 19157-3
May	ISO 19157-3



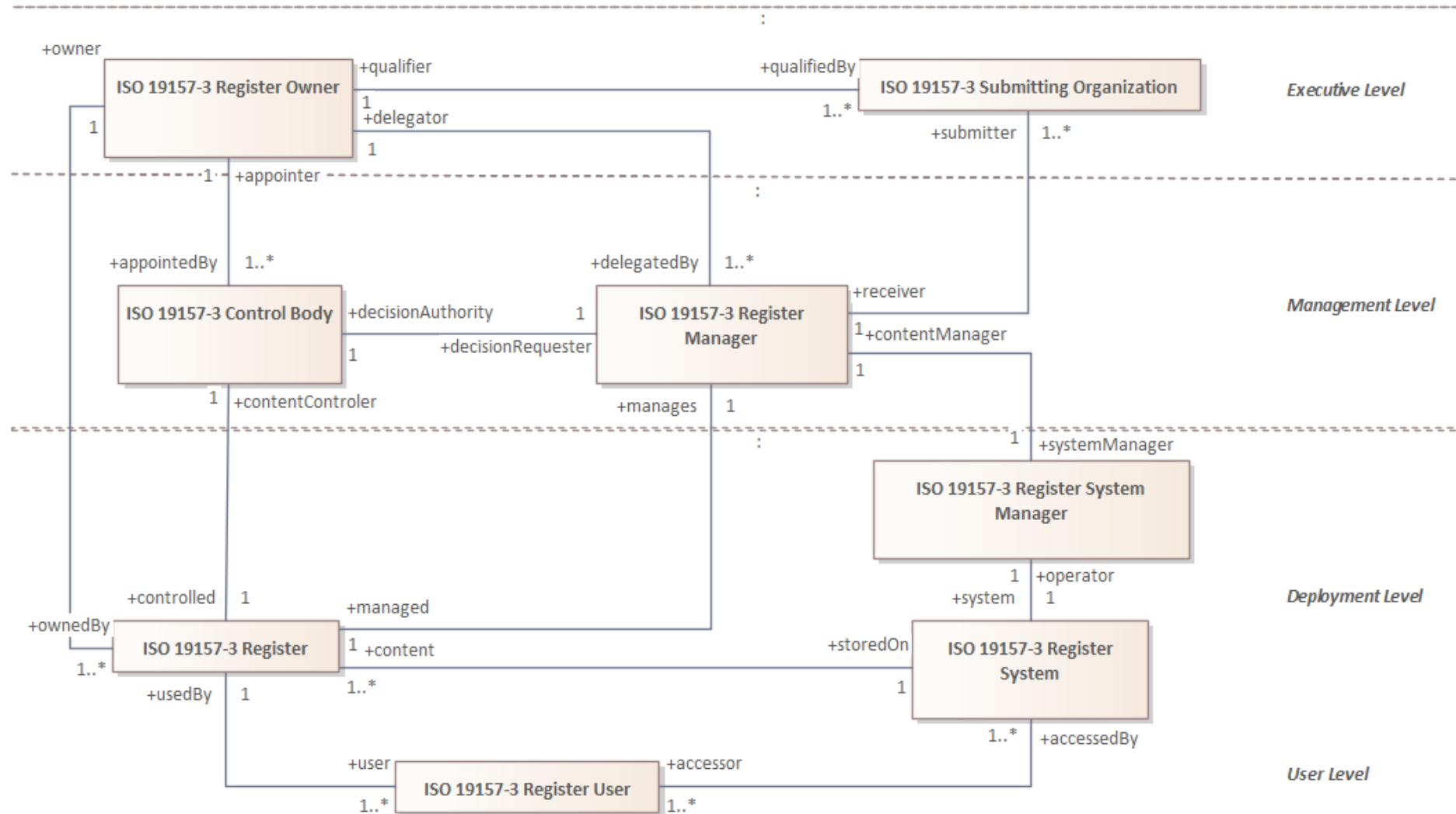
# AMENDMENT TO THE ISO 19157-1:2023

Few errors to fix from ISO 19157-1 revision:

- Correct versions of Fig 12 and Fig 13 – the ones we submitted, but ISO/CS did not update
- Fixing numbering and cross-refs in Data Dictionary
- Revise section titles in Annex A
- Fix cross-ref in Clause 6
- New Fig 10 – as a result of ISO 19157-3 work



# ROLES AND RESPONSIBILITIES



# 19157-3 REGISTER GOVERNANCE

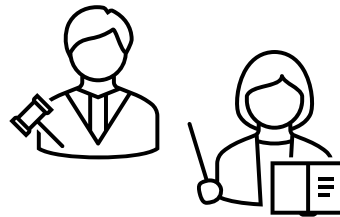
Defined by ISO/DIS 19135 and ISO 19157-3:

- Roles and responsibilities
- Management of register items
- Tracking updates

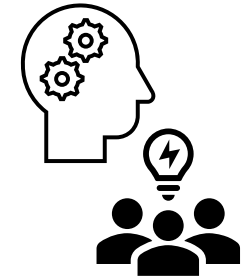
*Proposer*



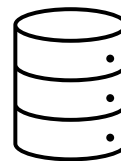
*Register manager*



*Control Body*



*Updates register*



*Evaluates*

# CONTROL BODY

- responsible for approving the content
  - shall consist of experts agreed by ISO/TC 211
  - each P-member and external liaison is permitted to nominate
  - may invite experts to join the control body
  - the Chair and the Co-Chair shall be nominated by the register owner
  - decisions shall be made by consensus
- 
- *is this you?*  
*then let your organization nominate you*
  - *...ideally the chair is going to be appointed when ISO 19157-3 is published*

# DATA QUALITY STANDARDS IN PRACTICE

