

# Use of ISO 19100 Geographic information quality standards in NMCA - 2017

Frankfurt October 2017



# Background

- Questionnaire 2004, 2011 and 2017
  - 2004: 3 standards
  - 2011: 7 standards and the guidelines document
  - 2017: 5 (or 8) standards and the guidelines document
- Restructuring and new versions of the standards



# Example of a question

\* 2. Is your NMCA using the section on Quality Principles in ISO 19157? (Formerly ISO 19113)

Yes

No

Comment

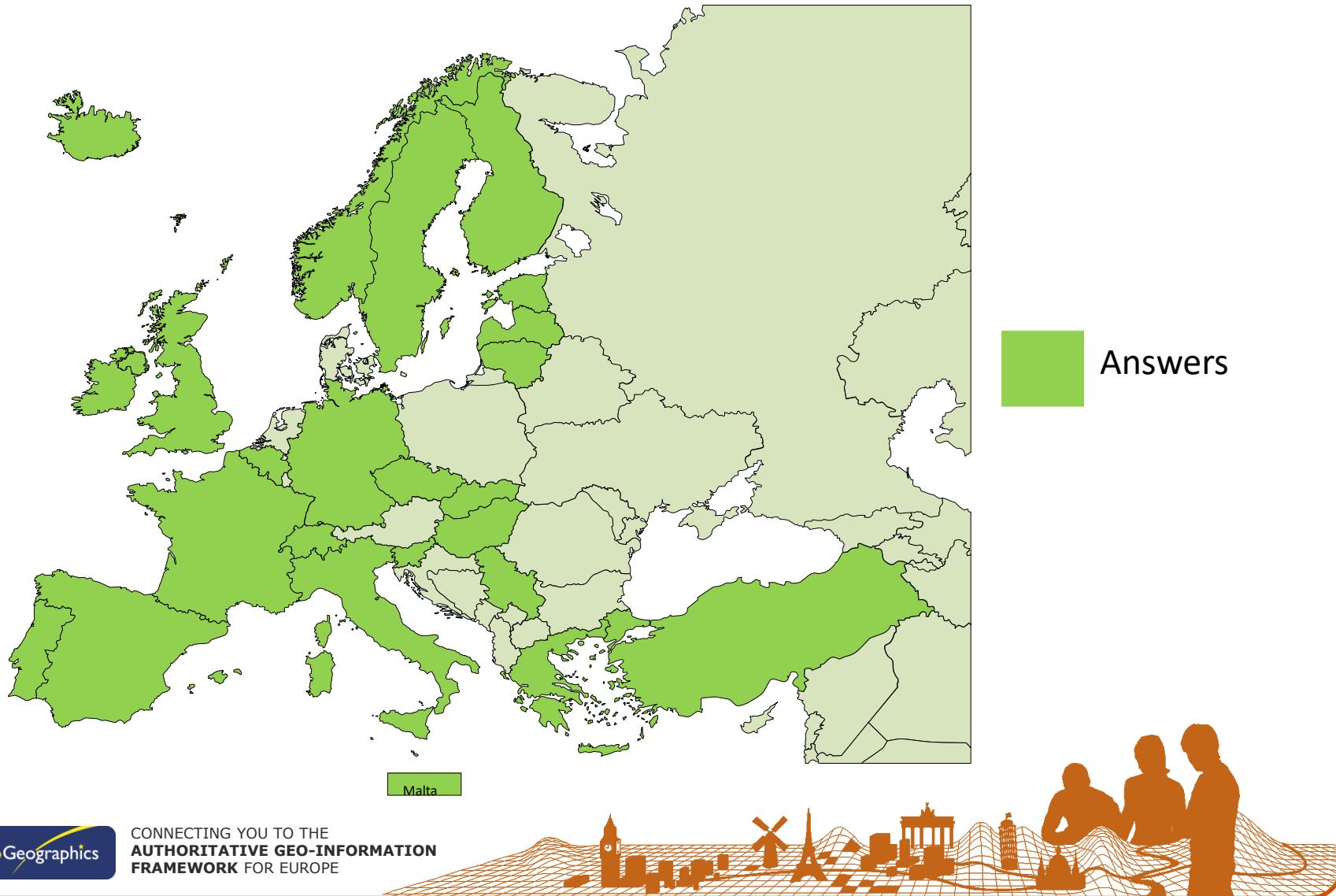
## And comments to it

ISO 19157 is not implemented yet. We still use ISO 19113. (no)  
Mostly based on 19113 (yes)



# Overview of nations participating 2017

## 28 organisations from 25 countrys



# Participating organisations 2017

Cartographic and Geological Institute of Catalonia  
Czech Office for Surveying, Mapping and Cadastre (CUZK)  
Diecão-Geral do Território, Portugal  
Estonian Land Board  
Federal Agency for Cartography and Geodesy (BKG)  
Federal Office of Topography swisstopo  
General Administration of Patrimonial Documentation - SPF Finances - Belgium  
General Command of Mapping (GCM)  
Geodesy, Cartography and Cadastre Authority of the Slovak Republic  
Geodetska uprava Republike Slovenije / Surveying and Mapping Authority of the Republic Slovenia  
Government Office of the Capital City Budapest Department of Geodesy Remote Sensing and Land Offices  
IGN FRANCE  
IGN Spain  
Italian Geographic Military Institute (IGMI)  
Land & Property Services - Northern Ireland  
Lantmäteriet, Sweden  
Latvian Geospatial Information Agency  
National land Survey of Finland  
National Land Survey of Iceland  
NCMA SA Greece  
NGI Belgium  
Norwegian Mappoing Authority  
Ordnance Survey GB  
Ordnance Survey Ireland  
Planning Authority (Malta)  
Republic Geodetic Authority  
State Enterprise Centre of Registers, Lithuania  
State Land Service of the Republic of Latvia



# Some general comments

- Please be informed that the State Enterprise Centre of Registers, Lithuania, is not using standards of the ISO19100 series. There could be some cases when we look at them; however the use is not regulated or formally declared
- We know the ISO Standards. We orientate ourselves towards these standards but we do not implement them specifically. Switzerland knows its own suite of standards for E-Government, called e-ch (<https://www.ech.ch/vechweb/page>)
- We have made a national standard (Geodatakvalitet) based upon ISO 19157, where the ISO quality elements and measures have been translated, explained and examples are added. This is a standard closely related to the Norwegian standard •SOSI Produktspesifikasjoner - Krav og godkjenning 5.0 which is a standard that is based upon ISO 19131 Data product specification, and where quality requirements are an important part.
- NCMA's Quality Model formed using ISO 19113, 19114 & 19138. Working on implementation of the ISO 19157 standard



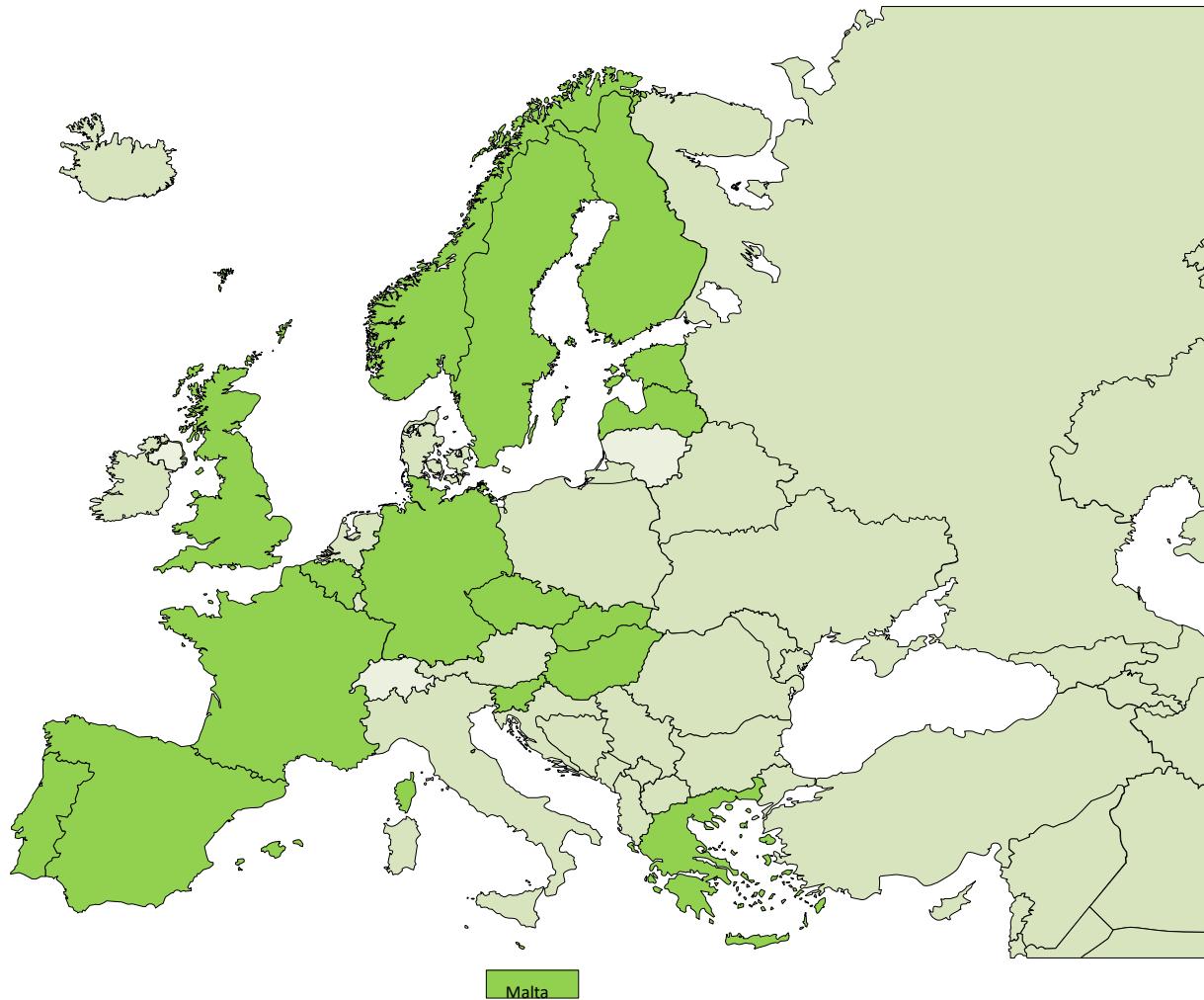
# Comments that changed no to yes or partly

use of:

- Inspire
- NATO STANAG-s
- another version of the standard



# Overview of nations participating 2017 and 2004 or 2011



Answers

# Quality principles comments

- It is not still included in our legal regulation
- YES, Quality Principles described in ISO 19157 have been implemented by CUZK for various data products
- Mostly based on 19113
- Uses components for describing data quality
- Only for DB at scale 1:25.000. Reference document completed in 2016; practical implementation still under development.
- We implement NATO STANAG 2215 (*no*)
- Partly. No direct use, but the principles of are taken into account (*yes*)
- ISO 19157 is not implemented yet. We still use ISO 19113. (*no*)
- Partly (*yes*)
- Partly (*no*)



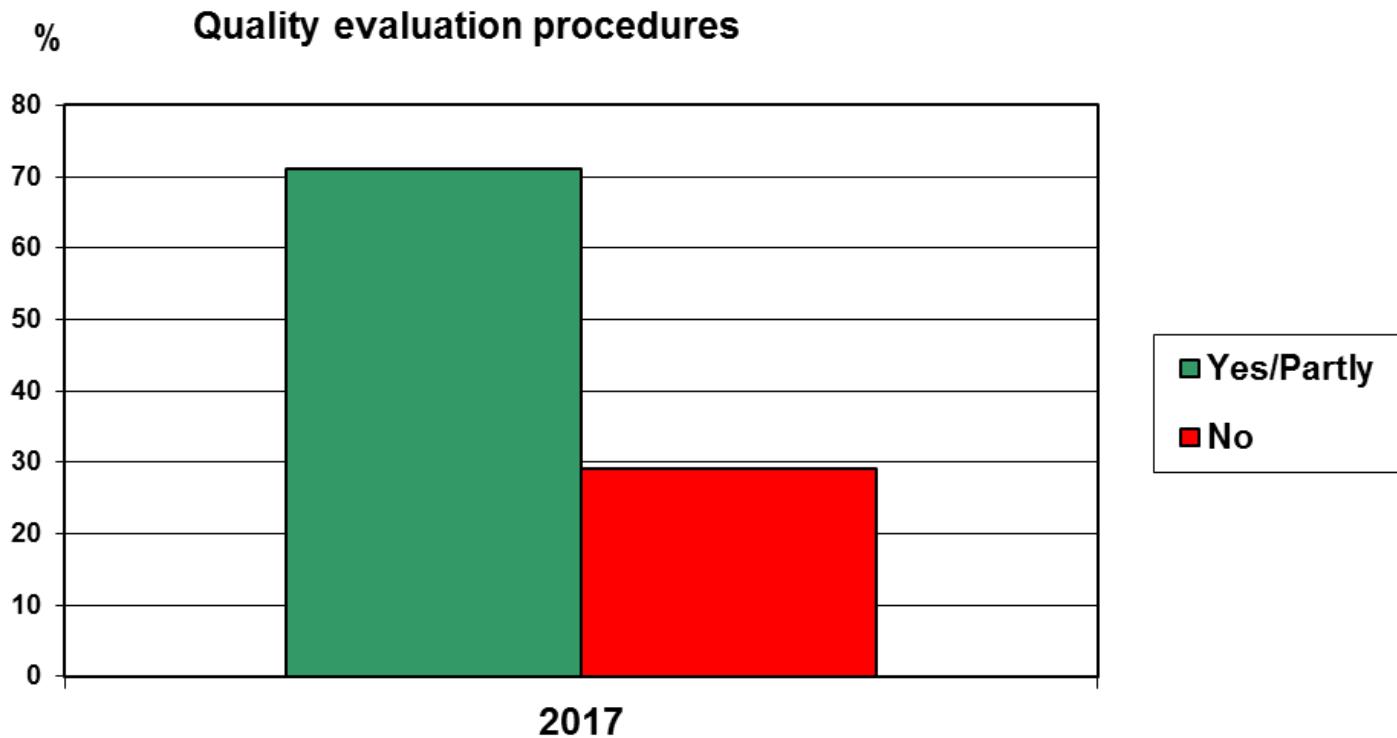
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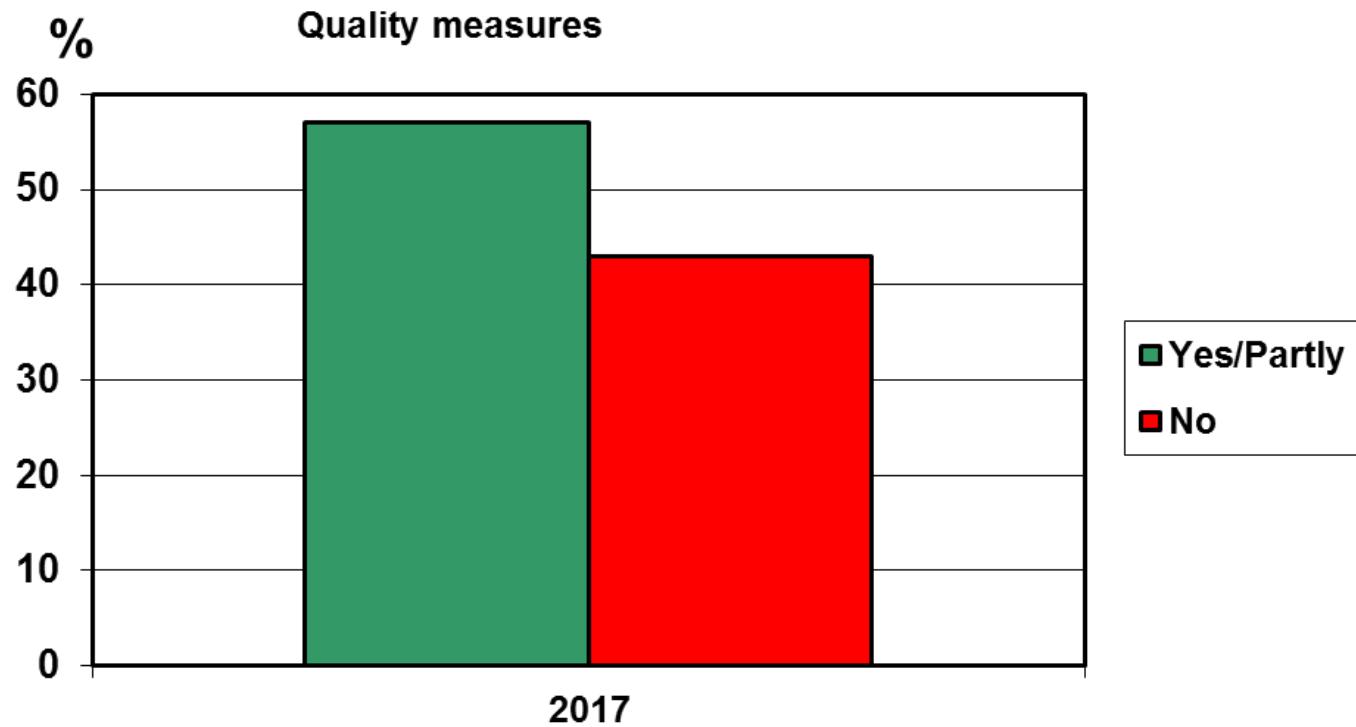
# Using 19114 or 19157



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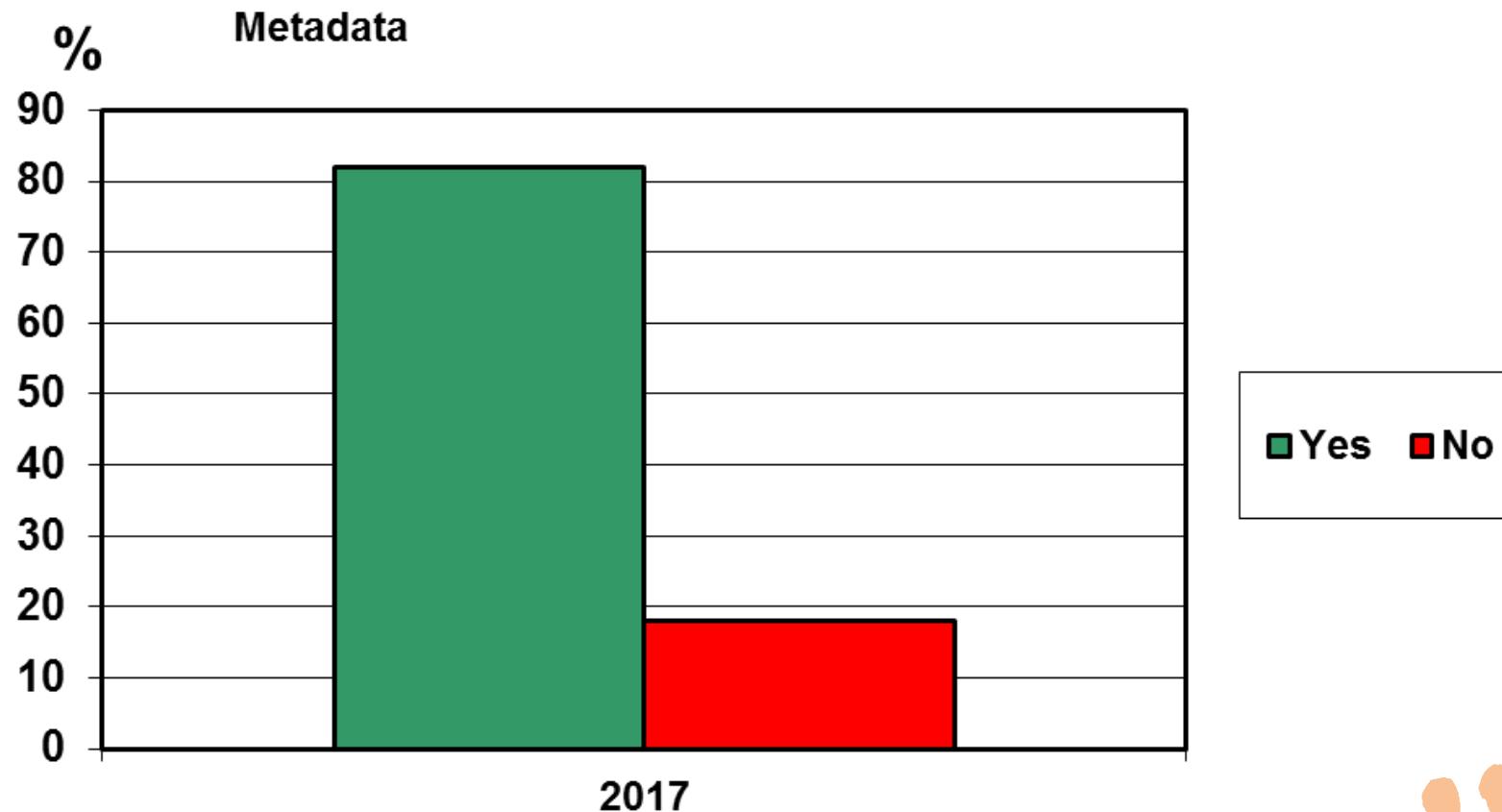
# Using 19138 or 19157



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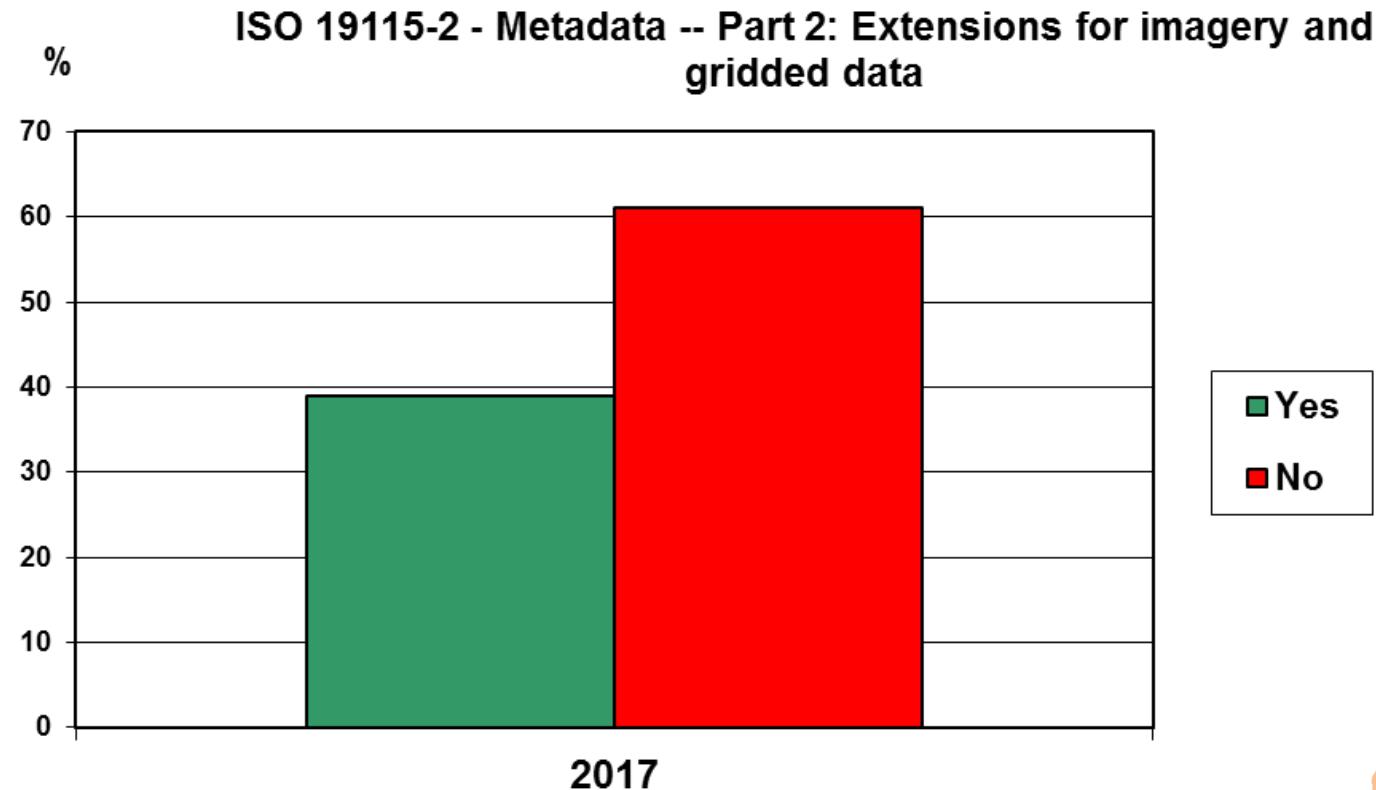
# Using 19115:2003 or 19115 Part 1



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# Metadata for imagery and gridded data

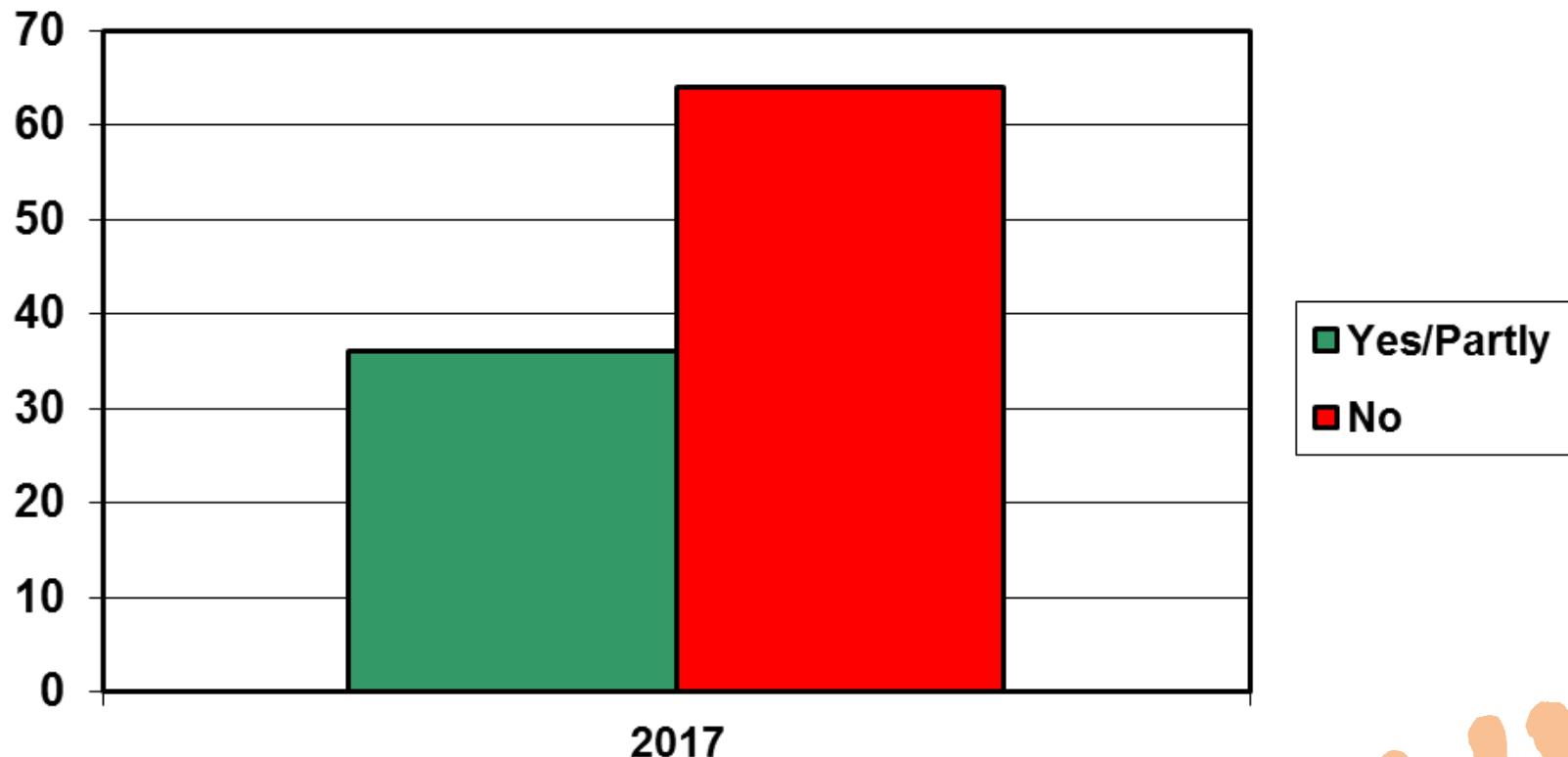


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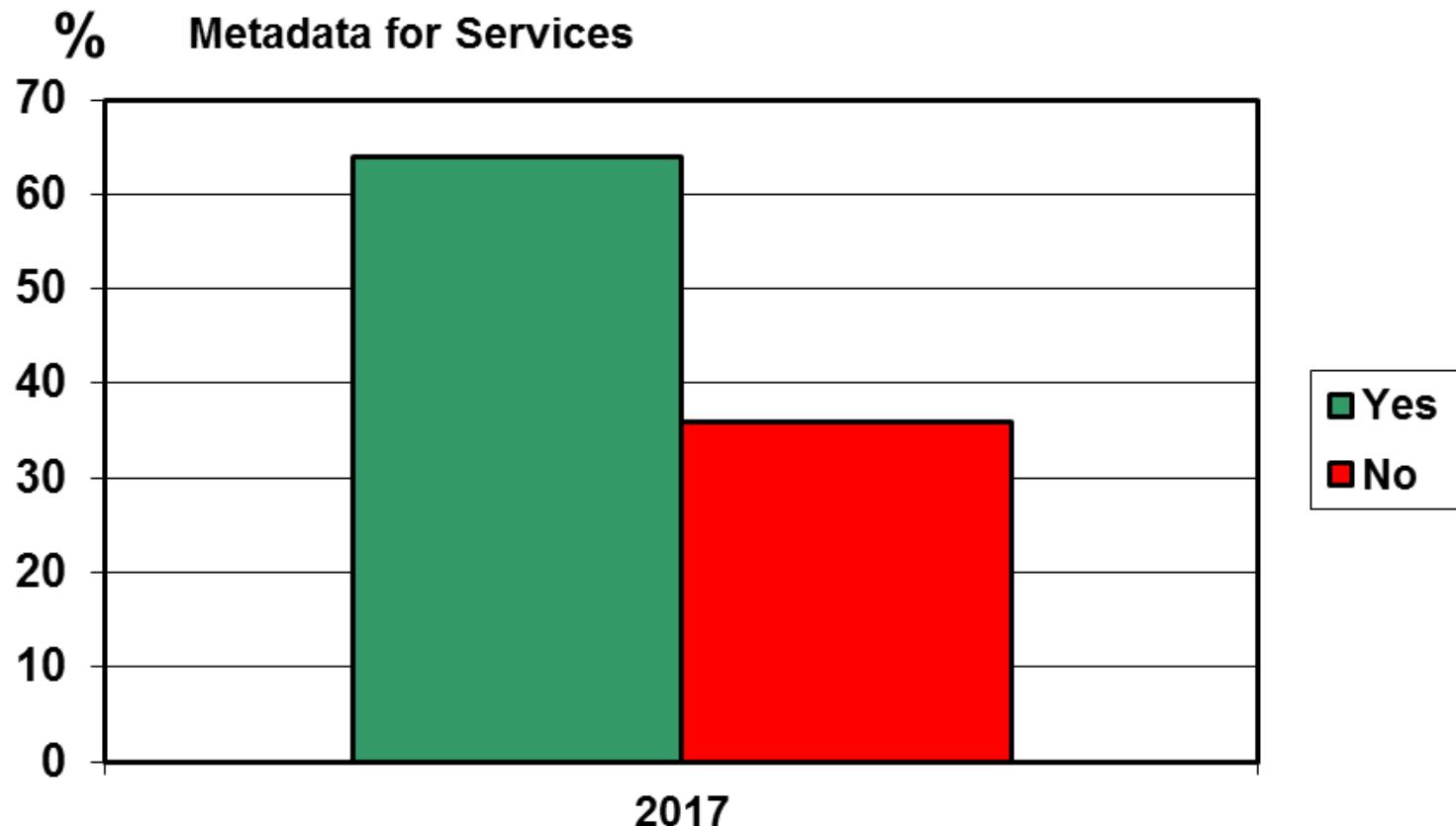
## ISO 19131 Data product specifications



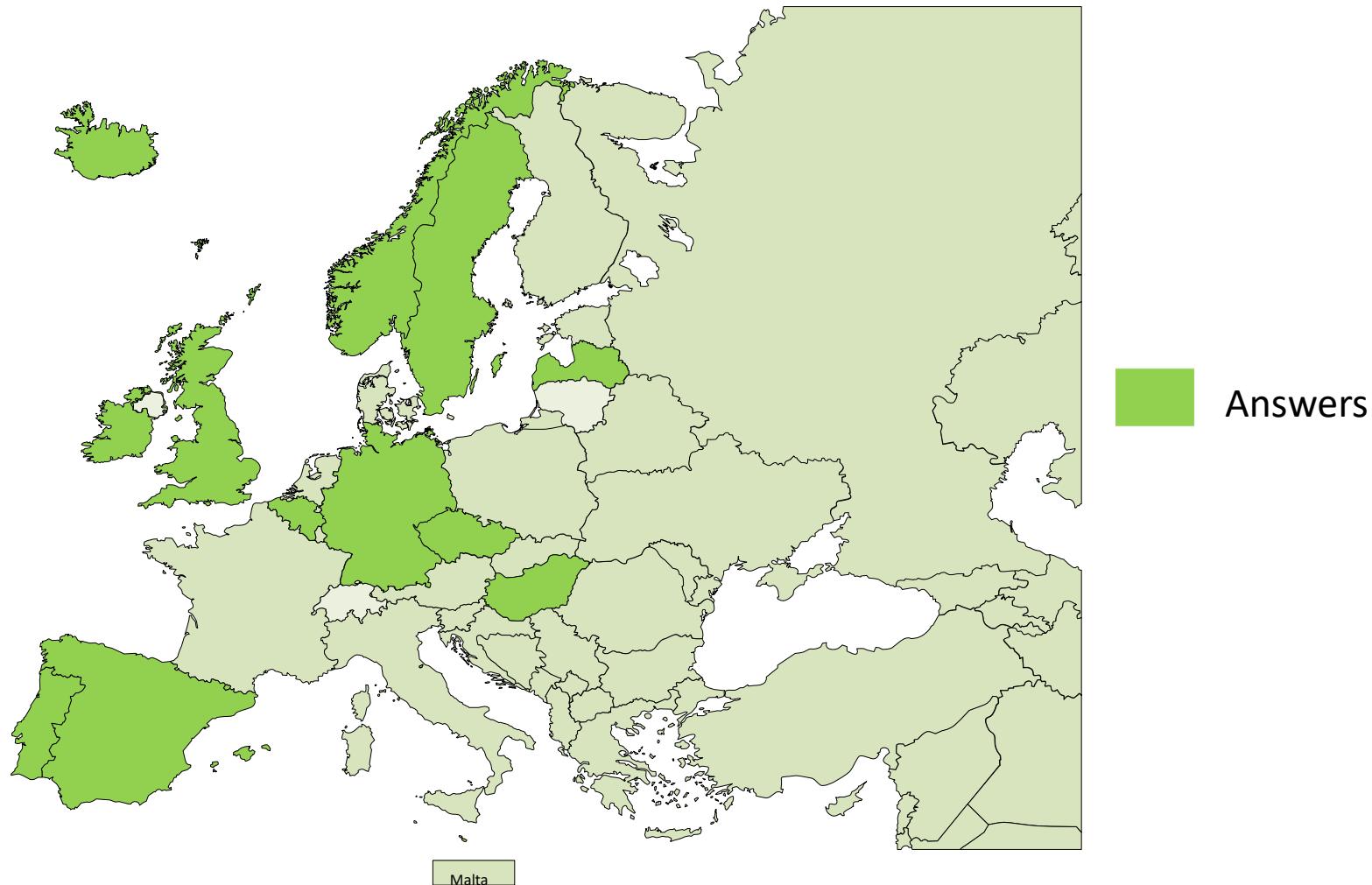
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# 19119:2005 or 19115 Part 1



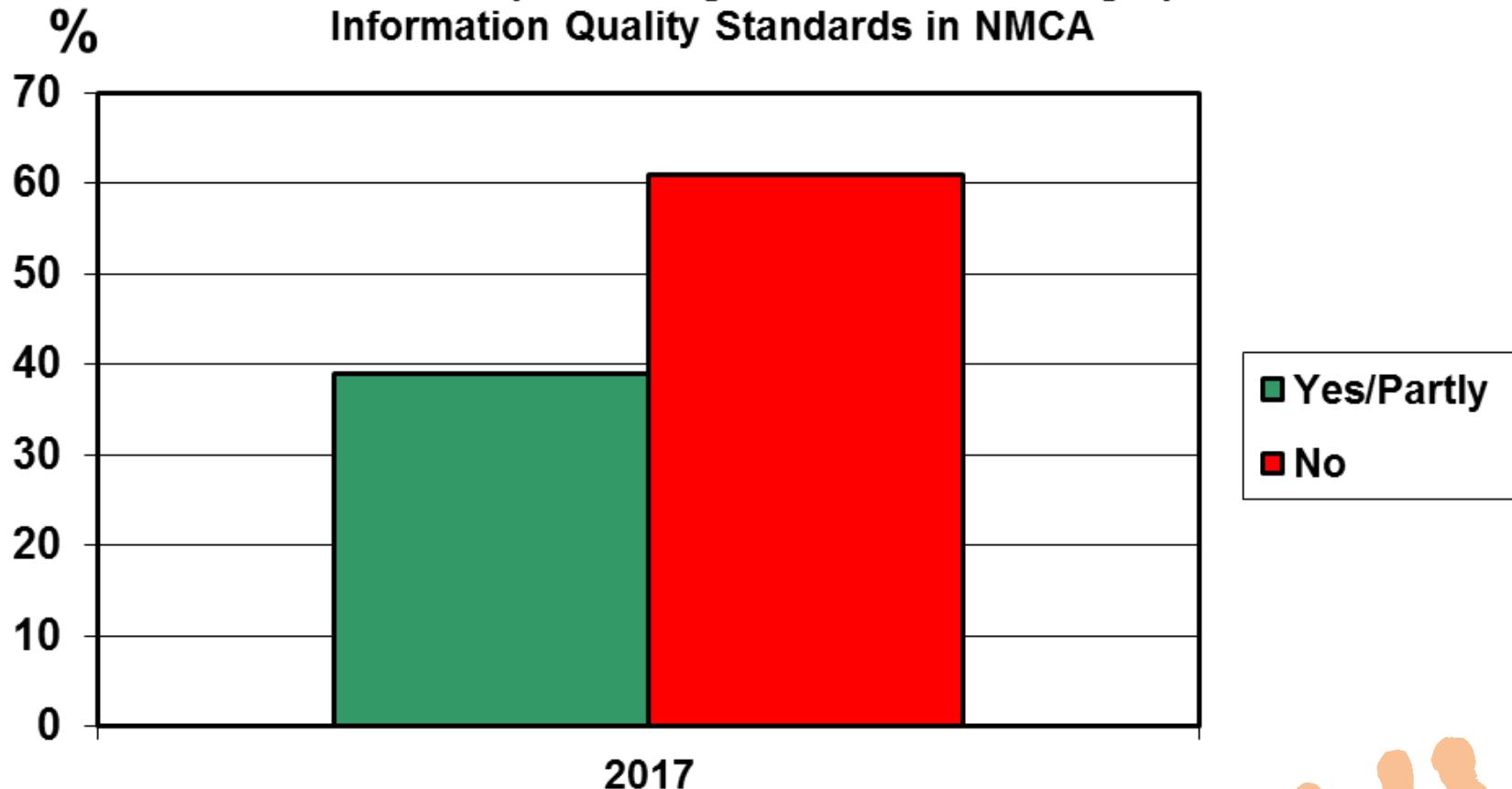
# Overview of nations answering metadata on services 2011 and 2017



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## Guidelines for Implementing the ISO 19100 Geographic Information Quality Standards in NMCA



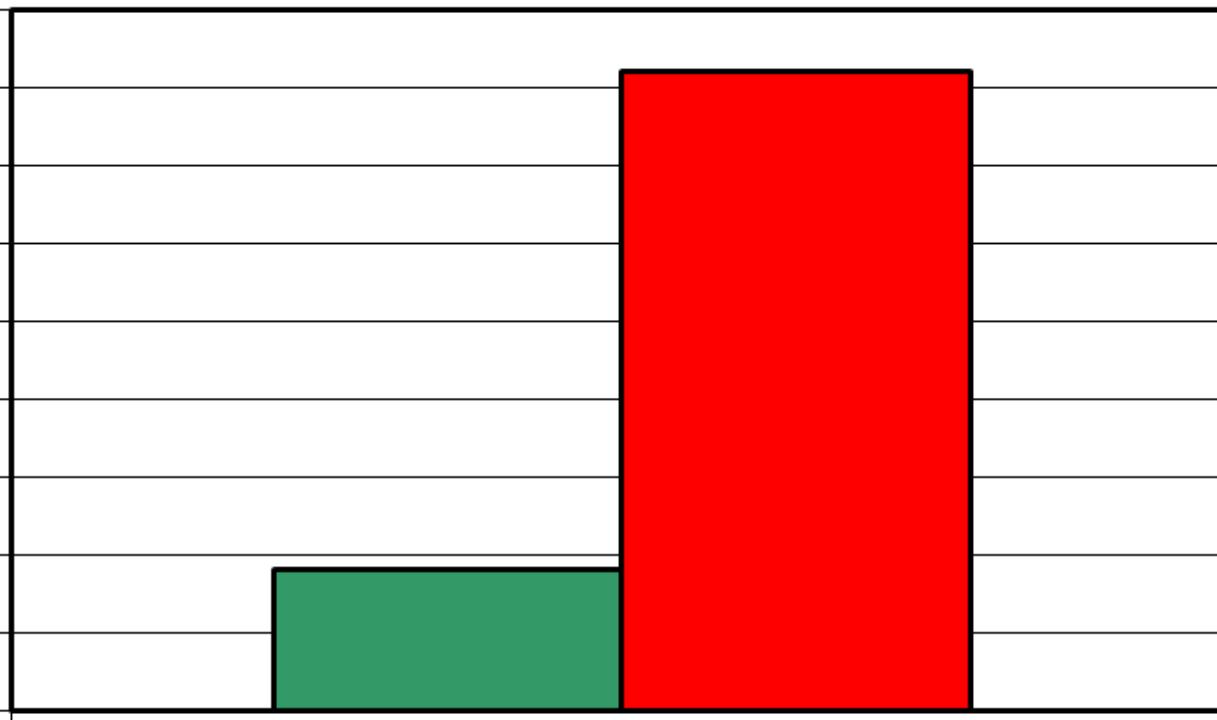
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## ISO/TS 19158 Quality assurance of data supply

90  
80  
70  
60  
50  
40  
30  
20  
10  
0



■ Yes/Partly  
■ No

2017



# Reference documents for work with implementation of standards

- Switzerland knows its own suite of standards for E-Government, called e-ch (<https://www.ech.ch/vechweb/page>)
- We are working on a mapping from Quality as described in ISO 19157 to quality dimensions as formalised in DQV (Data quality Vocabulary - W3C), with the intention of being an extension of DCAT.
- A user guide for implementing the specification standard, and it is available in English.
- Documentation test set for INSPIRE, for administrative units, addresses, geographical names. <http://professionnels.ign.fr/inspire-telechargement>
- Only an Icelandic feature catalogue, but I am not sure if that is interesting in this context.
- Specification of governmental acceptance about the quality control of aerial photos, orthoimageries and the connected work process
- Process management documents
- a) Orthoimagery and DEM quality control procedures b) Field measurements procedures (using FGDC Geospatial Positioning Accuracy Standards - Part 3: National Standard for Spatial Data Accuracy)

	Yes %	No %	Year
Reference documents	32	68	2017



# Two members have information in English

- Sweden have a handbook for the use of ISO 19131 Data product specification: SIS-TR 40:2015 Geographic information – Technical framework – Manual for data product specification. It is available for free at <https://enav.sis.se/en/Standard/?std=STD-8017694>
- Norwegian Mapping Authority are working on a mapping from Quality as described in ISO 19157 to quality dimensions as formalized in DQV (Data quality Vocabulary - W3C), with the intention of being an extension of DCAT. There are English descriptions in the document, this work is intended to be finished before summer.



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