

Quo Vadis Geospatial Metadata ?

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Assumption 1:

(Quality) Metadata *is* important

Status 10 years ago...

- Important obstacles related to use of geospatial data*

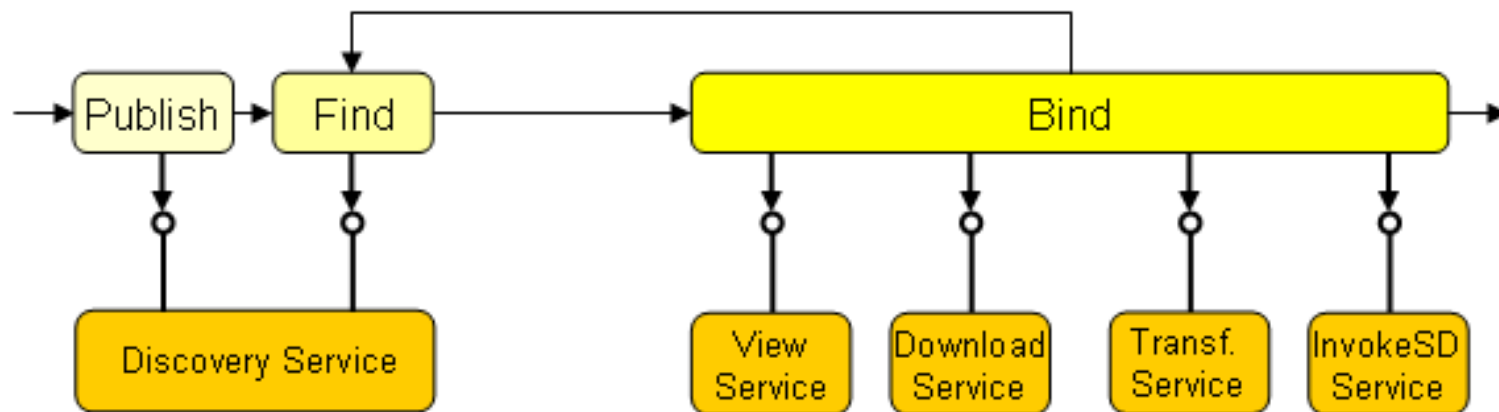
- ✓ *Spatial data is often missing or incomplete*
- ✓ *The description of available spatial data is often incomplete*
- ✓ *Spatial datasets can often not be combined with other spatial datasets*
- ✓ *The system to find, access and use spatial data often function in isolation only and are not compatible with each other.*
- ✓ *Cultural, institutional, financial and legal barriers prevent or delay the sharing and re-use of existing data.*

*Agreement of 97 % of participants public consultation 2004

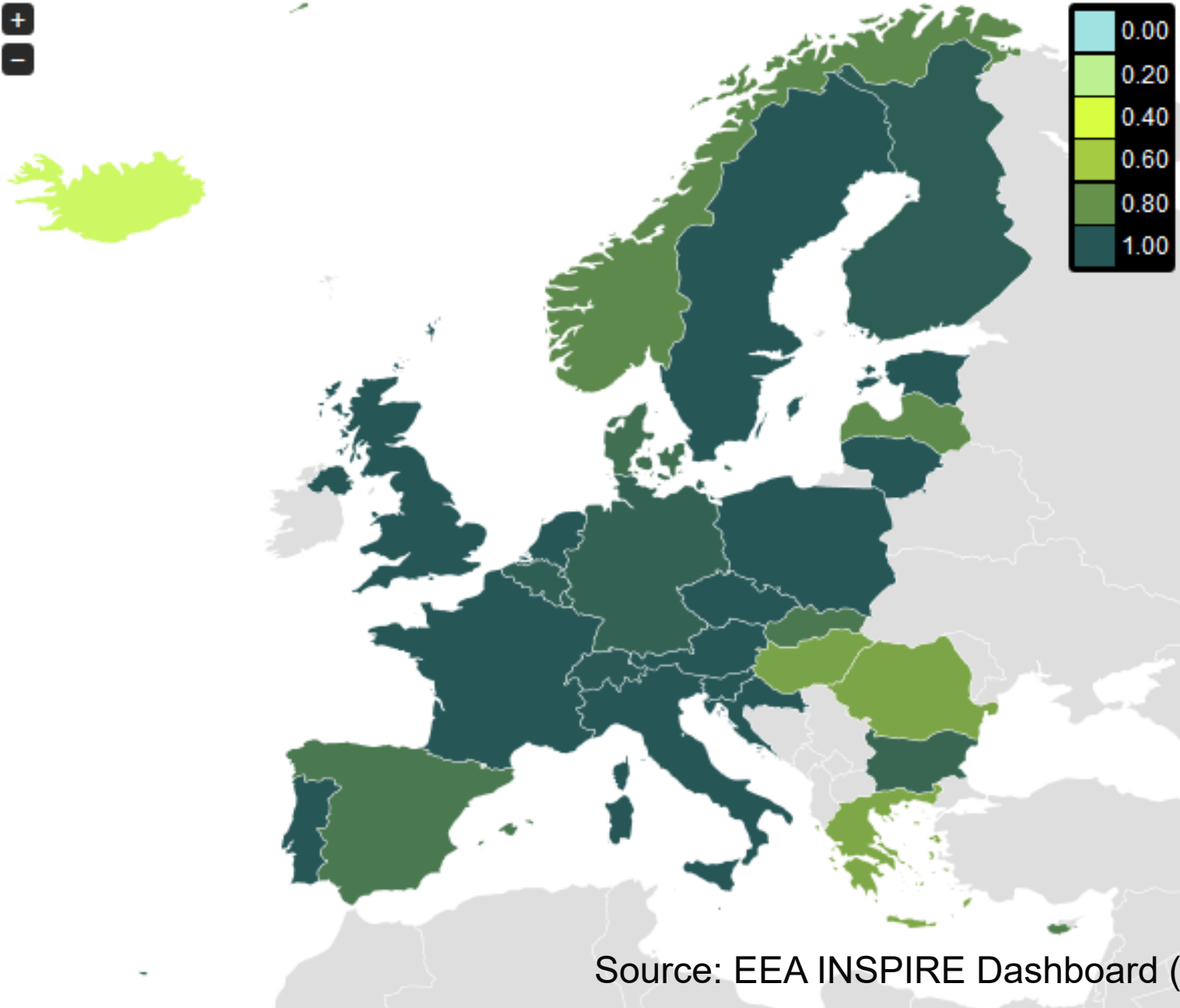
European Environment Agency



Quelle: Chris Steenmans (2014)

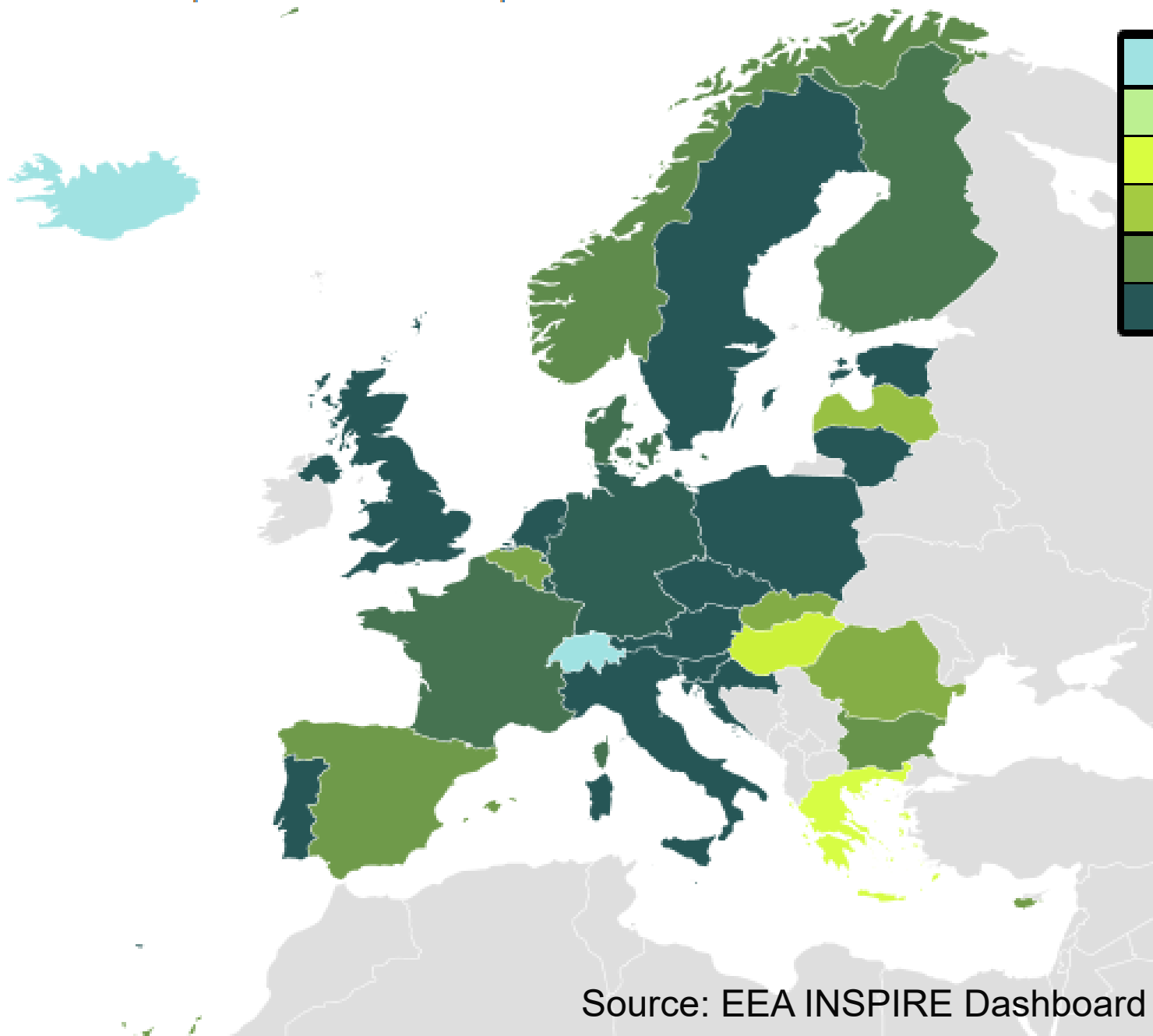


EXISTENCE OF METADATA (DATA SETS AND SERVICES) - MDI1



Source: EEA INSPIRE Dashboard (2016)

CONFORMITY OF METADATA (DATA SETS AND SERVICES) - MDI2



nd |

Source: EEA INSPIRE Dashboard (2016)

Assumption 2:

Geospatial metadata (& search) is *broken*



INSPIRE GEOPORTAL

Enhancing access to European spatial data

EUROPEAN COMMISSION > INSPIRE > INSPIRE GEOPORTAL > Discovery / Viewer

Find a place in:

Powered by GeoNames

Search:

Adv



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Metadata
– redundant or not redundant that's the question

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Description of the problem

- * WMS services are popular for spatial data publication but in these services metadata are very often not sufficiently/comprehensively defined
- * CSW services provide metadata (eg. consistent with the INSPIRE directive)
- * In many cases WMS and CSW metadata are not synchronized due to the misconfiguration of a spatial software

Results

In order to use the program you should define the required parameters as follows:

1. Server adress with a GeoNetwork service. The

- *Prototype Portal*
- IT / web trends
- Inconsistency in ISO / OGC Standards

Assumption 3:

Broken geospatial metadata (& search) is *hard to fix*

Work programme Update TG Metadata

Issues in Release A June 20th 2015

- MIWP-8 (J) Metadata for SDS (draft)
- MIWP-8 (D) Integrate metadata for interoperability into the Metadata TG (draft)
- MIWP-8 (I) Language neutral identifiers (draft)
- MIWP-8 (L) Unique Resource Identifier (draft)
- MIWP-8 (M) Coupled resources (draft)
- MIWP-8 (E-1) Integrate Theme specific metadata (draft)
- MIWP-8 (A) Conditions applying to access and use (draft)

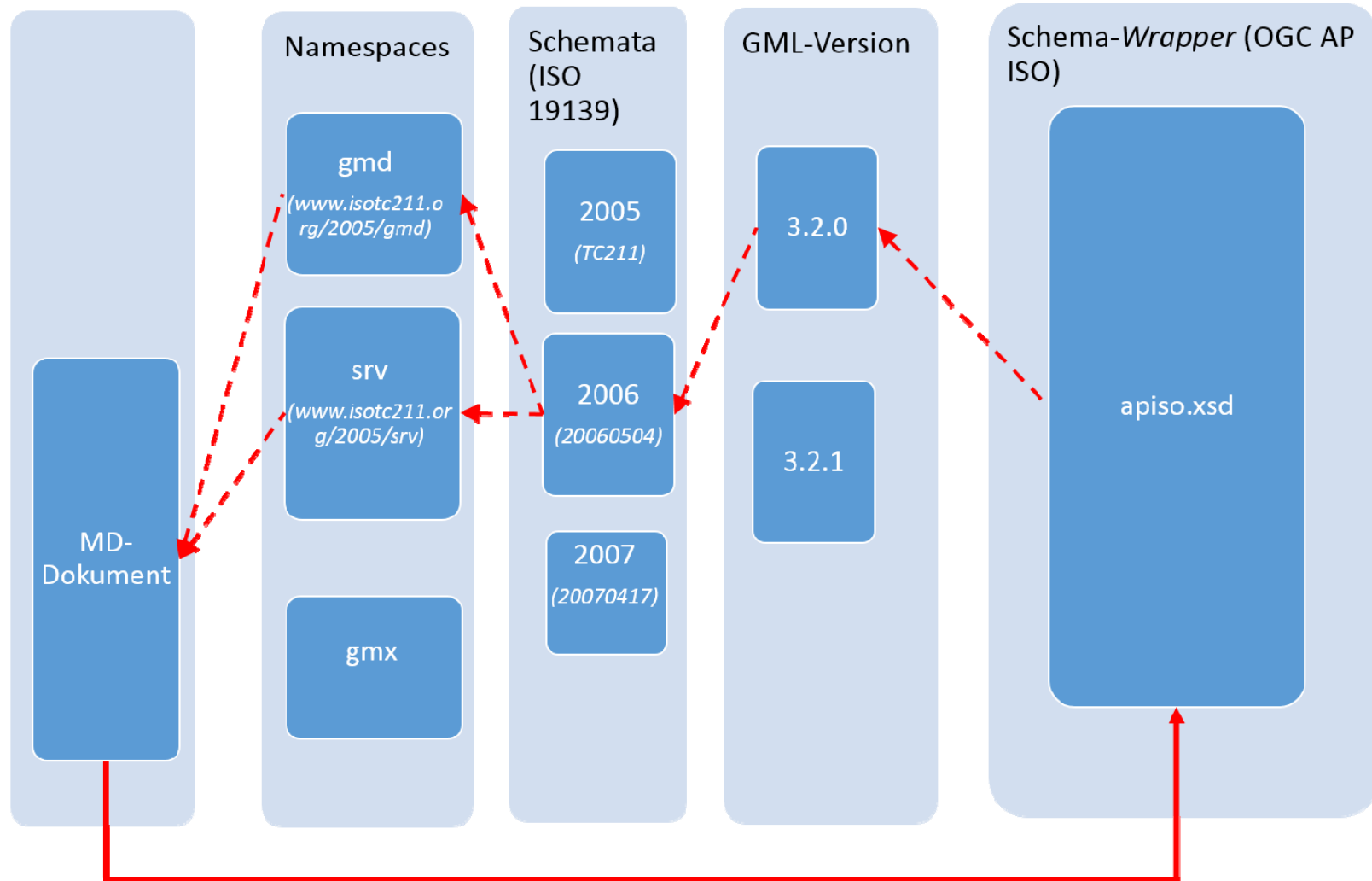
Issues in Release B December 20th 2015

- MIWP-8 (C) Harmonized restrictions/licenses
- MIWP-8 (E-2) Integrate Theme specific metadata
- MIWP-8 (F) Relation to ISO19115-1:2014
- MIWP-8 (G) Conformance classes in registry
- MIWP-8 (H) Metadata for monitoring
- MIWP-8 (K) Add Abstract Test suite

- Metadata and Discovery Services were the first INSPIRE deliverables
- Involvement of broader community
- Dependencies within INSPIRE architecture
- Dependencies on standardization bodies
- ...

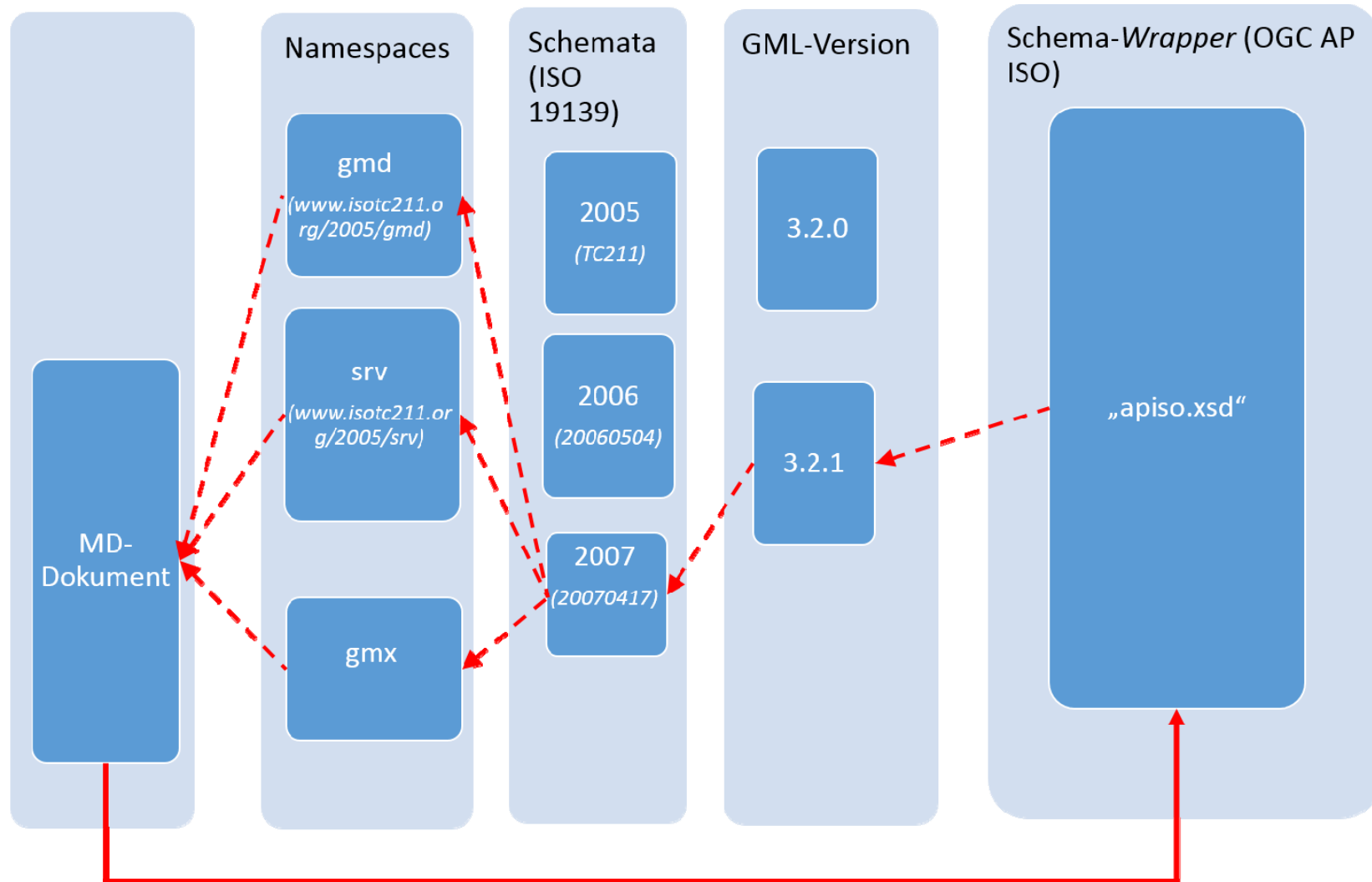
„CSW 2.0.2 ISO AP 1.0“ uses outdated ISO schema
which can lead to invalid metadata...

- INSPIRE Discovery Service / Metadata → „CSW 2.0.2 ISO AP 1.0“
 - 19115:2003 / 19119:2005 / 19139:2007
 - OGC pulished „apiso.xsd“ which is not fully compliant to ISO 19115/19119/19139
 - gmx:Anchor Element → subsitute for *CharacterString*-Element
 - Reference to GML-Version 3.2.0
 - → Schemavalidation ist hard to implement!
- OGC Change Requests pending for 4-6 years!





GDI-DE Schema references (improved)



- ISO activities
 - ISO 19115-1:2014
 - ISO 19115-2:2009
 - 19115-3:2016
 - ISO 19119:2016
 - 19139-2:2012
 - ...
- OGC
 - CSW 3.0
 - AP ISO ?

Assumption 4:

**Several options for the future – strategic decisions
to be made**

1. Conservative: Stick with legacy data models, encodings & web service
 - Secure investments in software & people
 - Feel unhappy with results
2. Evolution: Adapt new data models, encodings & web service
 - Invest in standardization, software & people
 - Write new TGs
 - does it improve the situation?
3. Revolution: pivot strategy and rethink metadata approach
 - Try new things, e.g. GeoDCAT
 - Risks: see #2
4. = (1. + 2.) | (1. + 3.) | (2. + 3.) | (1. + 2. + 3.)

Conclusion:

The work on Geospatial Metadata is not done – this is the time to start the discussion on future directions

Thank you for listening!