

How to Report on Data Quality in a Multinational Environment?

Presentation to: SDMQ2015

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Agenda

- ★ ELF architecture
- ★ Data Quality Management
- ★ Data Quality Reporting
- **★**Summary & Conclusions



ELF Architecture



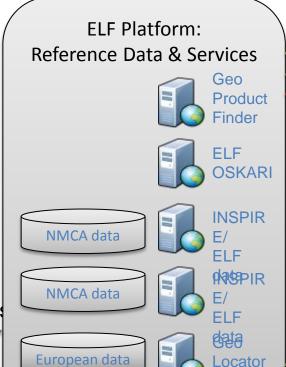
ELF Geo-tools for Reference Data:

edge matching, generalisation, transformation, change detection visualization, data quality analysis and improvement, service testing

National Mapping & Cadastral Authorities

NSDIs

Other Data Providers



Other

Reference Data

Applications:
Use Reference Data and
Other Data in any
Application Environment



Map Applications Value-added Web Services

elf.maps.arcgis.co

GIS Platforms:
Data and Application Hubs
of the FLF Infrastructure

feature data, gridded data, map tiles



Web Services
JavaScript APIs
Mobile SDKs
Map Applications





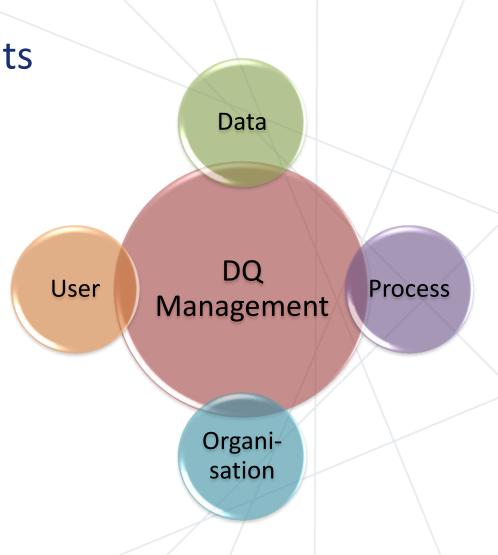
Data Quality management





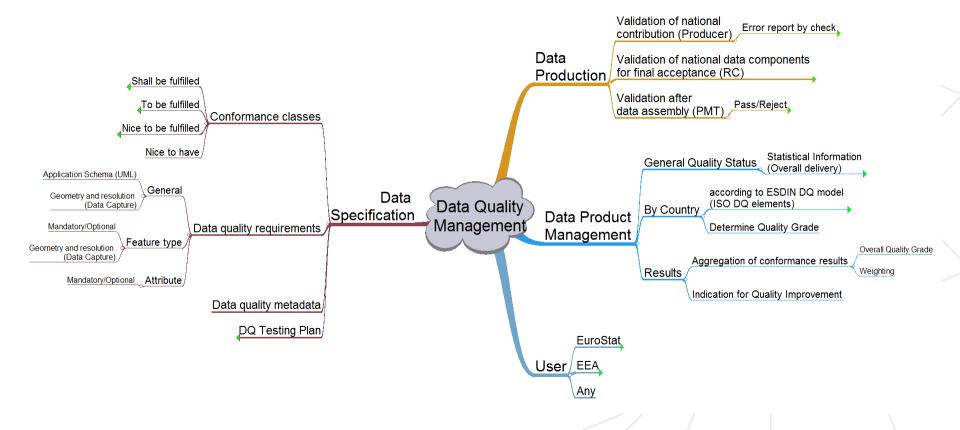
Data Quality Viewpoints

- ★ Data
 - **★** Conformance with data specifications
 - **★** Detailed error reports
- ★ Process
 - ★ Production process
 - **★** Validation tools
- ★ Organisation
 - **★** General DQ status
 - **★** Comparative assessment
- ★ User
 - ★ Usability for intended use

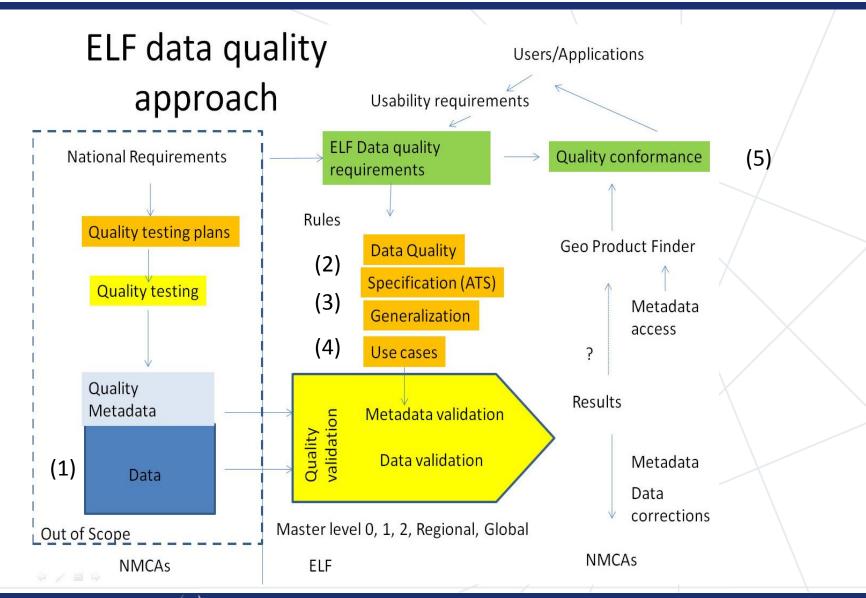




Experience from Eurogeographics





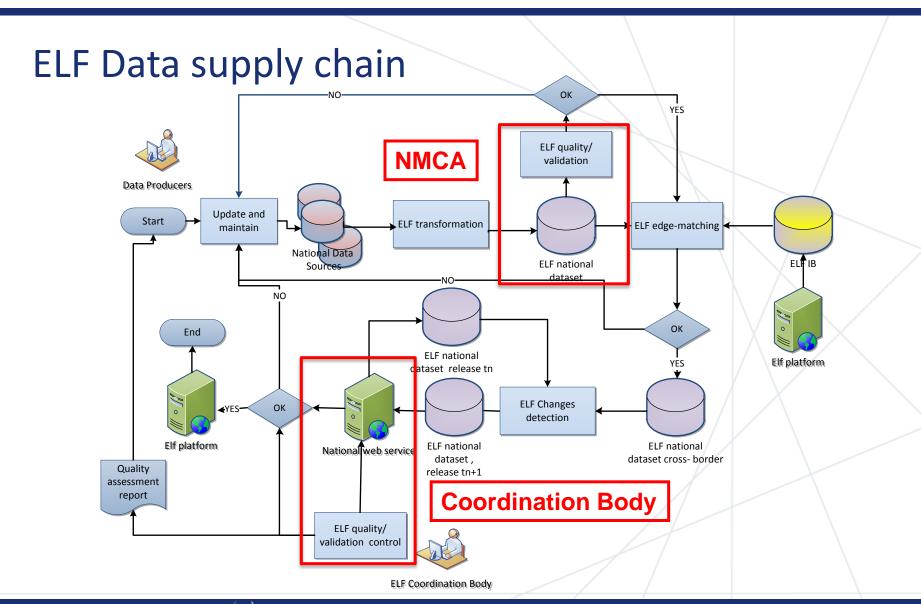




Data Quality Reporting

How data quality reporting can organised to meet the expectations of producers, management and users?







National producers (NMCAs)

- ★ Check national data after transformation into ELF specification, send error statistics and feature statistics to Coordination Body
- ★ State if change detection tool and/or edge matching tool was used and send reported error statistics from tools to Coordination Body
- Report national specifics in metadata
 - ★ Completeness: missing feature and attribute information
 - **★** Mismatch in classification
 - **★** Currency
 - **★** Scale

Out of scope for ELF: checking of national requirements and checking against reality





Coordination body

Final acceptance to ELF platform

- ★ Check error statistics, feature statistics and metadata from national producers
- ★ State if data is accepted (as INSPIRE or ELF) or rejected, ask NMCA to improve the data quality if necessary

Data quality reporting for users and ELF management

- Review error statistics from all processing steps and metadata for a specific use case (only a part of the requirements have to be met)
- ★ Aggregate quality results
- Original feature statistics and metadata also available in ELF GeoProductFinder



Expert Reviews

Input:

- ★ Quality information coming from each interoperability process
- ★ Feature statistics from data quality tools
- ★ Metadata on data quality general information (national specifics)

Aggregate results for reporting to ELF management and users

- comparative assessment
- agreed conformance classes (for themes, not whole countries)
- acceptance levels based on use cases and user requirements.

Aggregated quality results made available in ELF GeoProductFinder as "Expert Reviews"



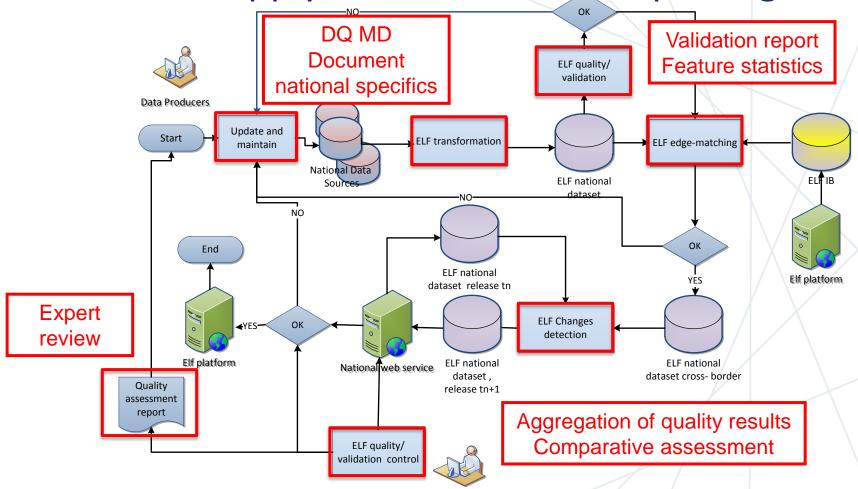


Summary & Conclusions





ELF Data supply chain & Quality Reporting



ELF Coordination Body





From isolated components to integrated, crossborder seamless authoritative reference data ...





Thank you!

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