Quality Management of the European Location Framework

Presentation to: International Workshop on Spatial and Map Quality

By: Antti Jakobsson

Date: 20th Jan 2015
Why ELF?

Authoritysourcing = ELF

OpenStreetMap Finland

Crowdsourcing
The ELF vision – The ELF White Paper

A geospatial reference infrastructure

- Interoperable data and services
- Full coverage of Europe
- Support international standards and INSPIRE
- Quality and metadata
- Management of national data through interoperable processes
Basis for the Quality Management in ELF

- ISO 9000 Quality Management Systems
- ISO 19157 Geographic Information – Data Quality
- ISO 19158 Quality Assurance of Data Supply
- ESDIN project (2008-2011)
• Data custodian can ensure that data providers are capable of proving required quality
• Why?
  ★ Data custodian can not directly influence to the production processes
  ★ CASE ELF
  ★ CASE INSPIRE
  ★ Commercial relationships
  ★ It is costly to correct data after the production
  ★ Delay in provision of data
  ★ Certification is expensive
Data Provider Quality Assurance

• Basic Level Assurance: Assuring that a process appears to be capable of creating or maintaining ELF products at the required quality. This includes identification of production processes and utilization of ELF validation or some other tools.

• Operational Level Assurance: This will be achieved working together with ELF regional co-ordinators, checking that validation results are what is excepted, training programmes have been implemented.

• The Final Level Assurance: This is achieved when the data provider for ELF is capable of maintaining the quality achieved at the operational level over a period of time.
Management responsibilities

• ELF Data Providers -> validating their ELF data and setting the ELF services. In case of Non NMCA data provider it could be that NMCA validates this data (based on national SDI)
• ELF Regional Co-ordinators -> Management of expert reviews using ELF Data Quality Tool(s)
• ELF Quality Manager -> overall quality management -> Data Provider Agreement
What is required at national level

• To perform INSPIRE ATS and schema validation as specified by INSPIRE

• To perform ELF minimum quality evaluation, each update should be evaluated

• To ensure that organization meets ELF ISO 19158 as specified by the ELF Quality Manager

• To answer quality reclamations and feedback received from the Geo Product Finder
Expert Reviews

- Used to determine overall quality of data within ELF
- To check whether certain quality requirements are met
- As a result data may be
  - Rejected: Data does not meet INSPIRE ATS and can not be published in ELF. Testing done nationally and confirmed by expert review
  - INSPIRE schema: Checked that INSPIRE schema is valid -> INSPIRE tools
  - Generic ELF: Data meets ELF minimum requirements, ELF national validation was performed, ELF metadata is available
  - Generalisation: Data meets generalisation requirements
  - Edge-matching: edge matching tool has been run or edge matching done nationally; Data can be used for cross-border use cases
Quality results in GPF – ELF Quality Label

Process/Organisation capability

ISO 19158 Basic/Operational/Full

INSPIRE  ELF  Cross-border  Pan-European  Use case name

Validation results/Expert reviews