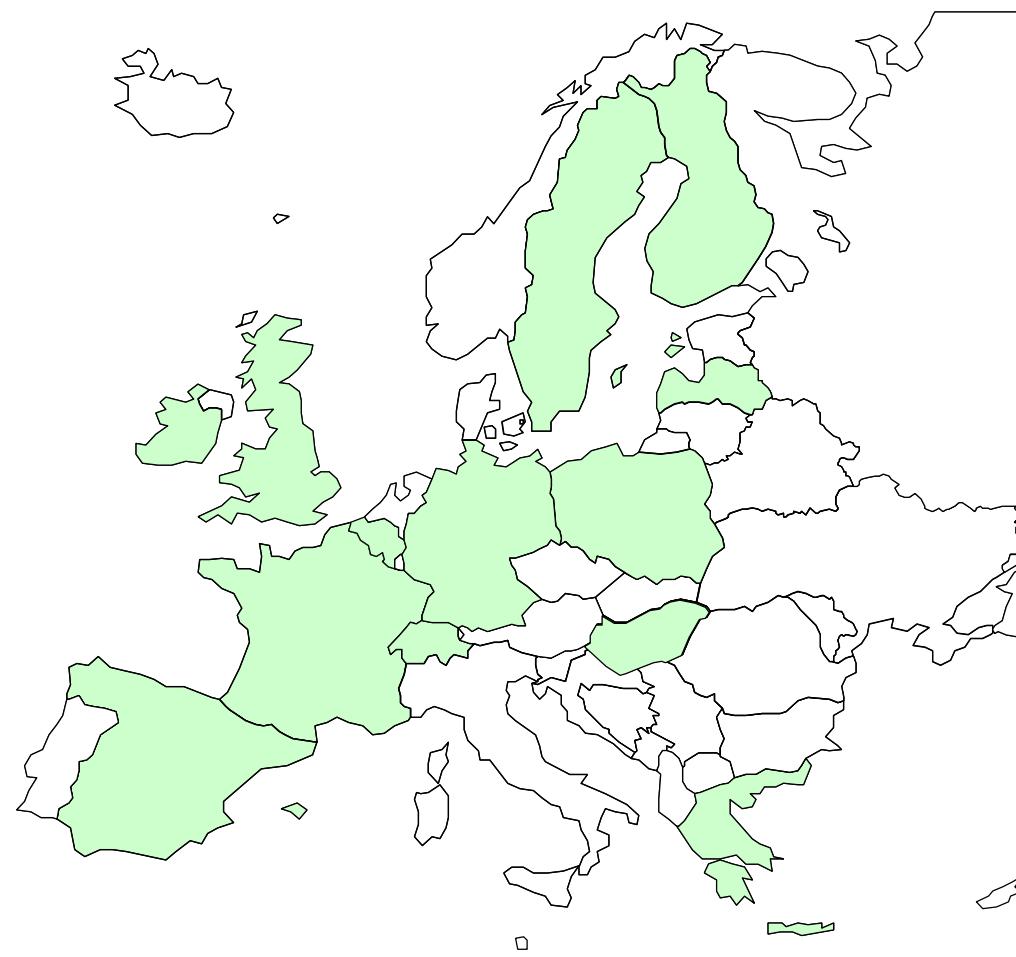


National Reports

Quality Knowledge Exchange Network

Athens May 2016





14 National reports



National Geographic Institute, Belgium

From October 2015 to May 2016

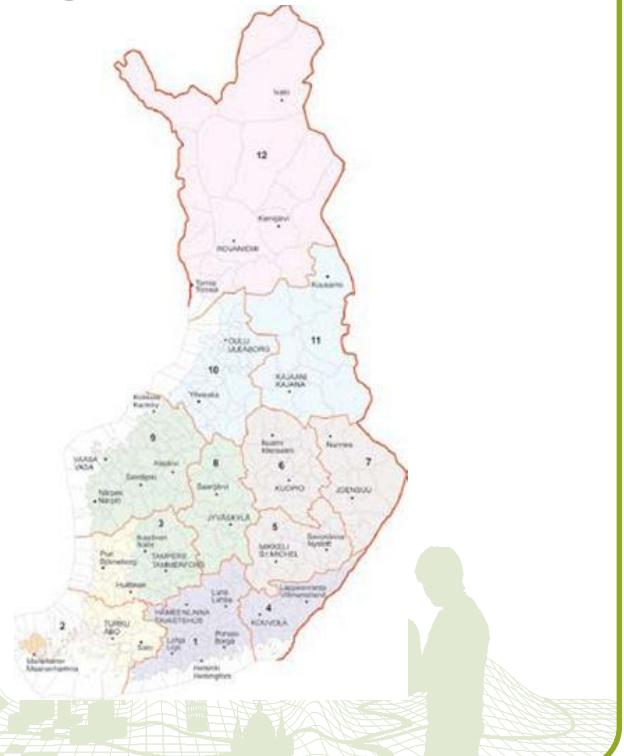
- News concerning quality management
 - Trying to improve the quality control process for the updating of our 1:10k products
 - Working on a quality control process for the creation of our new 1:25k products
 - Working on a quality control process for the updating of our 1:50k products



The National Land Survey of Finland

Long history of mapping – complexity of quality

- **Mapping activities during 1900's – basemapping project started at 1947**
 - Some map object has been mapped decades ago (footpaths, soil etc)
- **Map data digitalization during 1990's**
- **Organisation history, since 2013 there were 12 (independent) land survey agencies -> 12 different dialect of mapping**



Dialects of GIS in Finland - example

Is this road (for cars) or path for tractor or other all-terrain vehicle?

In our database it depends where you are and who has made mapping..



Purpose of quality work

- Is quality work just done to convince Ministry that quality is good

Or

- Do we really want to know what quality is and is there something we can do better



What have I found?

- In Finland municipalities take care of address system. They should inform NLS of all changes in addressiss.
- NLS database is from where navigator companies, emergency services etc. gets address information



Quality control of addressies

- 1887 address were checked as part of my area based quality control
- 1823 address were right, but
 - 16 address were missing (0,85%)
 - 11 address has error in writing or there were not such address in Municipality (0,58%)
 - 37 error in address numbers (1,96%)



How of fix this addressproblem?

- We ask from every municipality list of their addressies
- We compare addressies in exel and check all differencies and fix errors
- This is one example that quality work is important.



Utsunpisto	588591518		
Utsuvaarantie	588591551		
Uusisalmentie	204119859		
Vaarankuja	64748151		
Vaaratie	204117812		
Valkamantie	730538213		
Valmajantie		Puuttui MTK	Lisätty
Valtatie	204119438		
Vanhatie	778029499		
Vanhaväylä	1639479232		
Varastotie	1304209085		
Varikkokaarre		Puuttui MTK	Lisätty
Varikkosuora	1127642392		
Varputie		ei rakennettu	ei toimenpiteitä
Vasantie	475663757		
Vasaojantie	353165929		
Vasatie	204169902		
Vehkatie	1446808870		
Veikasenharju	780018749		
Veikasenreuna	1258114796		
Veikasentie	204139860		
Velhontie	780348367		
Vene-Aapontie	706558365		
Venejoentie	204108684		
Venesuvannontie	731085053		
Venevalkamantie		Puuttui MTK	Lisätty
Verstalantie	1251907282		
Vesalantie	982027989		
Vesirikka-autontie	204144606		
Vesmantie	773829201		
Vielmantie	780273936		
Vihtorintie	353168352		
	2041405244		



- This is one example that quality work is important.



Institut national de l'information géographique et forestière (IGN), France

From October 2015 to May 2016

- **News concerning Data Quality**
 - nothing special
- **News concerning quality management**
 - ISO9001:2015 in October 2017
- **Any other news that would be of interest for Q-KEN?**
 - next plenary session of Q-KEN in Paris (October 2016 ?)



BKG, Germany

From October 2015 to May 2016

- News concerning quality management
 - the Working Committee of the Surveying Authorities (AdV) voted for the development of a new test suite
 - the new test suite shall be able to test
 - Big xml data (e.g. Digital Landscape Model, CityGML...)
 - INSPIRE View Services
 - INSPIRE Download Services
 - will be based on the ETF framework



BKG, Germany

From October 2015 to May 2016

- Any other news that would be of interest for Q-KEN?
- BKG has taken over the production management for ERM from NGI Belgium



Ordnance Survey, Great Britain

From October 2015 to May 2016

- News concerning Data Quality
 - Work is continuing on improving the water network. This has involved creating new tests to ensure that the network is joined up, flows in the right direction and has the correct primary flow.
 - Enhancement of the process to capture functional sites is continuing and will go live during the summer.
 - A second phase of Names improvement is underway



Ordnance Survey, Great Britain

From October 2015 to May 2016

- News concerning quality management
 - Standardisation of reporting procedures and test results is ongoing. Lack of manpower is still restricting this activity although we hope to start with networks shortly.



Ordnance Survey, Great Britain

From October 2015 to May 2016

- Any other news that would be of interest for Q-KEN?
 - David Henderson has been promoted to Director of Products and Innovation
 - A business transformation project is underway. Main drivers are increasing our capability to meet customer needs and a greater focus on international consultancy
 - Government has announced its intention to make address data in GB “Open”. Investigations as to how this might happen are underway



NMCA SA, Greece

From October 2015 to May 2016

- News concerning Data Quality

A. Quality Control of cadastral studies deliverables (30 contracts - 1288 municipalities / 8,9 million rights)

- Quality Control for all delivered data using the NCMA's Quality Plan (based on NCMA's Quality Model for Cadastral Parcels - extended version of ESDIN Quality Model for cadastral parcels),
- Absolute accuracy check of spatial data has been completed for all delivered data
- Acceptance sampling inspection using procedure A of ISO 2859-2 (sampling item = ownership) for the delivered data of suspension and final cadastral records,

The effectiveness of the quality plan, led to very small numbers less than 3% in objections and corrections from the owners during suspension (less than 1% in spatial data).



NMCA SA, Greece

From October 2015 to May 2016

- News concerning Data Quality

B. Quality Control of orthophoto deliverables)

- Orthoimagery production of scale 1:2.500. Delivered already airphotos, orthoimages and DEM's for 100% of Greece
- Absolute accuracy check of orthoimages has been completed for 50% of delivered data (2250 field check points)
- Quality control of deliverables implemented by an external contractor and is expected to be completed by the end of May

- News concerning quality management

- Revision of existing Quality Control Records, data quality reports (QAR's) and internal software applications (under development),
- Working on implementation of the ISO 19157 standard in our Quality Model for cadastral parcels

- Any other news that would be of interest for Q-KEN

- In tendering procedure the rest of the country



FÖMI, Hungary

From October 2015 to May 2016

- News concerning Data Quality
 - Specification of governmental acceptance about the quality control of aerial photos, orthoimageries and the connected workprocess was done begin of 2016.
- News concerning Quality management
 - External audit by SGS is successfull done in Aril 2016.
 - ISO (17025) accreditation of Measurement Lab of GPS calibration. On-site inspection is finished. First-year review of the accreditation is done.
 - Reconstruction of ISO 9001 is done, and ISO 27001 (information security) is in progress.
- Any other news that would be of interest for Q-KEN?
 - Word Quality Forum of the International Academy for Quality was held in Budapest on October 26-27, 2015. It was organised by Hungarian Committee of European Organization for Quality (EOQ). It was an outstanding professional success. See on the web: <http://www.iaq2015.com/>
- Topic I can offer for next webinar or meeting
 -



OSi, Ireland

From October 2015 to May 2016

News concerning Data Quality

- **Introduction of a Quarantine step within the data capture workflow (GMS).**
 - Allows a Job Planner to mark a job for quarantine at time of planning.
 - Job will require examination and sign-off before final check-in to live database.
- **National Land Cover & Habitat Mapping Project**
 - This project will use the Prime2 concepts to capture and store information about Land Cover & Habitats
 - OSi may use some of this data to enhance the quality of the Form/Function properties of Prime2 SoE objects.
- **Addition on new Form/Function combination**
 - Division/Virtual Junction
 - Named Water/Reservoir
- **Any other news that would be of interest for Q-KEN?**
 - **3 month student employment**
 - Over the next 3 months OSi will employ 8 GIS students to review Prime2 objects (5th/6th Class Ways, Buildings > 1000 sq mts & 1000sq mts< buildings >500 sq. mts) for Form/Function values



Latvian Geospatial Information Agency, Latvia

From January 2016 to May 2016

- Any other news that would be of interest for Q-KEN?
 - Concerning with national laws and regulations on spatial data, starting with January 1, 2016, expanding the range of information that is available free of charge, State and local government institutions. Those are:
 - Topographic maps in scale range 1:2000 – 1:250000;
 - Orthophotos in scale range 1:2000 – 1:10000;
 - DTM-s grid 5m – 200m;
 - DTM and DSM in LAS format;
 - DEM visualized as a contour line
 - For successful INSPIRE implementation in the State organized 'Masterclass' training. Topics: Discovery services (Metadata and metadata validation), transformation of national data to INSPIRE scheme, View and Download services (include INSPIRE Atom services). Have been held four lessons, 6 – 7 hours each



Latvian Geospatial Information Agency, Latvia

From January 2016 to May 2016

- From March 30, 2016 start to operate LGIA Mobile Map Browser: <http://kartes.lgia.gov.lv/>
- At May 12, 2016 completed planned aerial photography works of 2016. Made aerial photographing works for 22,400 km² with 25 cm resolution (Georeal, Czech)
- January 1, 2016 - 10 years ago established the Latvian Geospatial Information Agency



General Office of Geodesy and Cartography (GUGiK), Poland

From October 2015 to May 2016

- News concerning Data Quality**

There is a new register created in Poland - The Integrated System of Information about Real Estates – ZSIN.

Last year, Phase I of the ZSIN project was finished. The phase consisted of:

- creating an application, on which was stored the ZSIN database**
- creating a central repository for the copies of databases of parcels and buildings**
- the modernization of data of parcels and buildings in chosen areas, as well as transforming the data into these new data structures.**

In Phase I of the ZSIN project, 58 districts (out of 380 in Poland) took part.

•

General Office of Geodesy and Cartography (GUGiK), Poland

From October 2015 to May 2016

- News concerning quality management**

**In 2016 - Phase II of the project has begun,
in the course of which the participation of 200 districts is being planned.**

GUGiK received money from UE for the two phases of The ZSIN project

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ICGC, Catalonia – Spain

From November 2015 to April 2016

- **News concerning quality management**

Achievements

- Renovation of ISO 9001 certificate including new environment of the Topographic DB based on Geomedia.

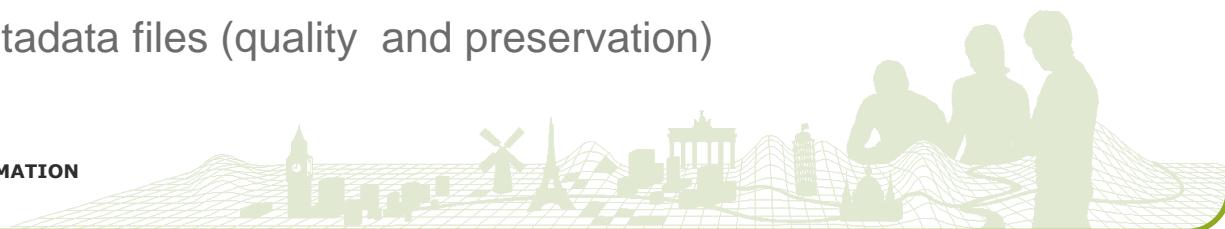
In process

- Analysis in order to know how to adapt the quality management system to the new ISO 9001:2015

- **News concerning Data Quality**

ICGC Topographic Data Bases

- New Quality evaluation system for the production of Topographic DB based on Geomedia.
- In process:
 - Enrichment of metadata files (quality and preservation)



- **News concerning Data Quality**

- **Data Quality Validation in the Transport Network data base**
 - Designing a new visual methodology for quality control of the GRI of Transport Network in the production process.
 - Designing the quality control outcome report and the quality data index with the objective of being able to compare the quality among different updated regions.
- **Data Quality Validation in the Hydrography data base**
 - New quality controls developed that were integrated in the production process with the same environment (tailor-made tool for Geomedia)
 - Developed of a new positional accuracy evaluation methodology to test the automatic network obtained from DTM02:
 - Automatic selection of control points (sample)
 - Stereoscopic measurement in XYZ



- **News concerning quality management**

-Training course about Quality Continuous Improvement (Business Process Model and Notation, Lean, Six Sigma).

- **Any other news that would be of interest for Q-KEN?**

- **Automatic map from Topographic Base BTN25:** WMTS pilot service generated automatic from the BTN25 of a region of Spain in order to finish the whole process.
- **GRI of Hydrography:** Version 0 completed from existing data and INSPIRE compliant. OGC Standard Web Services on progress.



Lantmäteriet, Sweden

From October 2015 to May 2016

- News concerning Data Quality
 - Updating the data product specifications in accordance with 19131 and 19157
 - Terminology
 - Developing instructions on when to use positional accuracy and positional uncertainty, Our new surveying instructions are using the terminology from GUM.
 - The Swedish handbook in surveying and mapping is almost completed. In the new version quality aspects on geographic data is a part of its own.
 - All parts are available, for free, on the Webb (in Swedish). [HMK-document](#)



Lantmäteriet, Sweden

From October 2015 to May 2016

- Any other news that would be of interest for Q-KEN?
 - Developing a new system for documenting data specifications and from that produce all other specifications for describing data products, services and metadata
 - Swedish geoprocess
 - Provide a basis for effective and unambiguous spatial data exchange.
 - 3 year joint project: Lantmäteriet, municipalities, SKL(Swedish association of local authorities and regions)
 - Support for municipalities to implement new reference systems: Sweref99 and Rh2000
 - Horizontal system: The last 8 will be ready this year
 - Vertical system: 199 of 290 ready, 50 more this year
 - New/updated processes for cooperation on data capture and exchange—9 themes.
 - Data product specifications – 9 themes.
 - Surveying instructions
 - Where on a physical feature to measure it and how to geometrically represent the feature based on the measurements



Bundesamt für Landestopografie swisstopo , Switzerland

From 10 2015 to 05 2016

- **News concerning Data Quality**
 - Improvement in QA-Tools
 - More and more use of QA-Tools in production workflow



Bundesamt für Landestopografie swisstopo , Switzerland

From 10 2015 to 05 2016

- News concerning quality management
 - Consequent use of checkservices for product integration in geodatawarehouse.
 - Use of QA-Tools to verify the reproducibility of geoprocessing.
Example:
 - Extract data from a terrain and create a regular grid
 - We receive new version of geoprocessing tool
 - automated comparison of both results
 - Use of QA-Tools to verify the integrity of stored geodata / products
Example:
 - Nightly MD5 check on textfiles
 -



Bundesamt für Landestopografie swisstopo , Switzerland

From 10 2015 to 05 2016

- Any other news that would be of interest for Q-KEN?
 - New 2.5D-Viewer <https://s.geo.admin.ch/6bca9e86c6>



Proposals in Athens for presentations at next plenary

Subject	Organisation
Quality control of addressies	Finland
BKG has taken over the production management for ERM from NGI Belgium	Germany
Introduction of a Quarantine step within the data capture workflow (GMS).	Ireland
National Land Cover & Habitat Mapping Project <ul style="list-style-type: none">OSi may use some of this data to enhance the quality of the Form/Function properties of Prime2 SoE objects.	Ireland
Designing a new visual methodology for quality control of the GRI of Transport Network in the production process.	IGN, Spain
Developed of a new positional accuracy evaluation methodology to test the automatic network obtained from DTM02:	IGN, Spain

