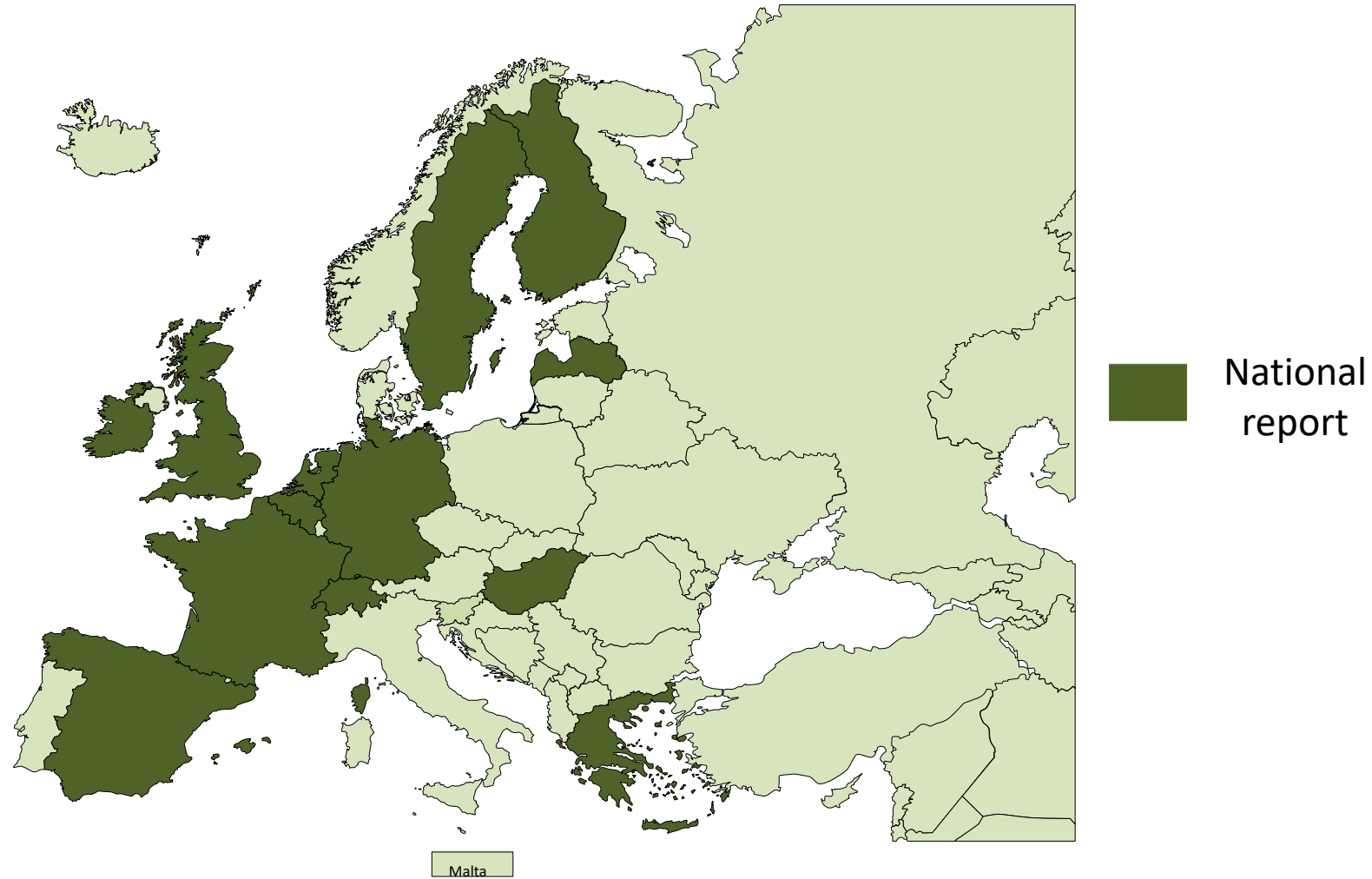


National Reports

4. December 2018, Tallinn

Prepared by Tamás Palya,
vice-chair of QKEN

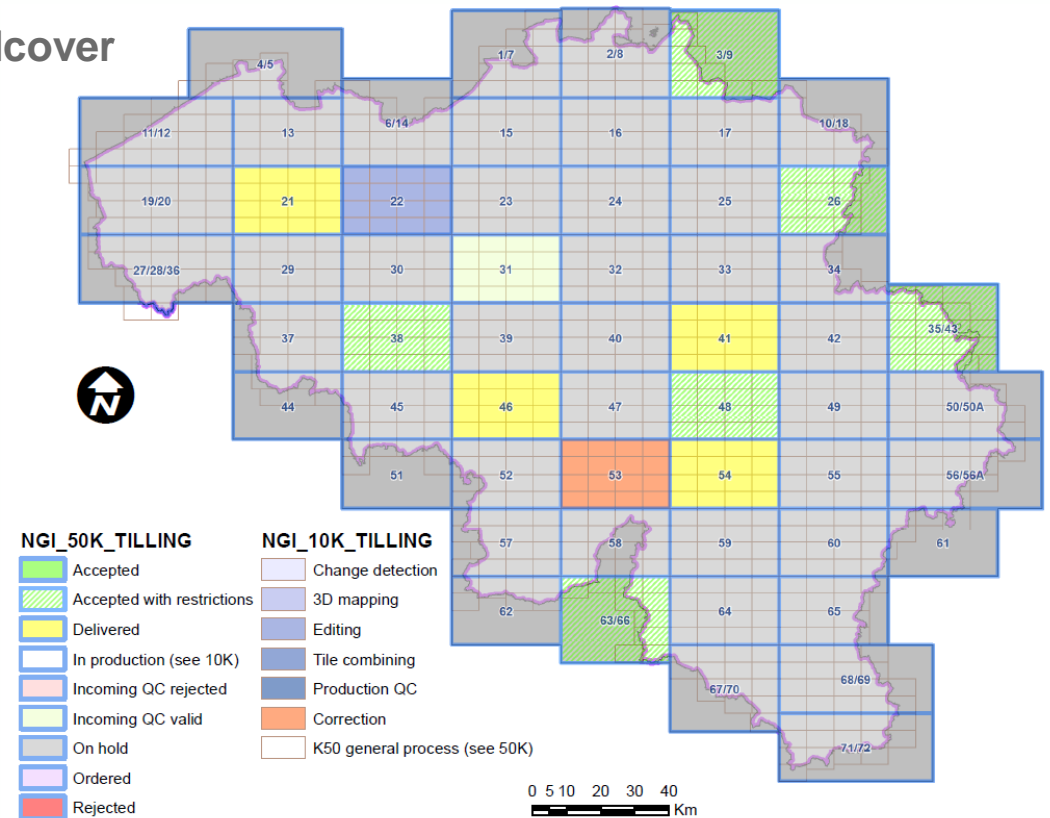
14 National reports from 13 countries



National Geographic Institute, Belgium

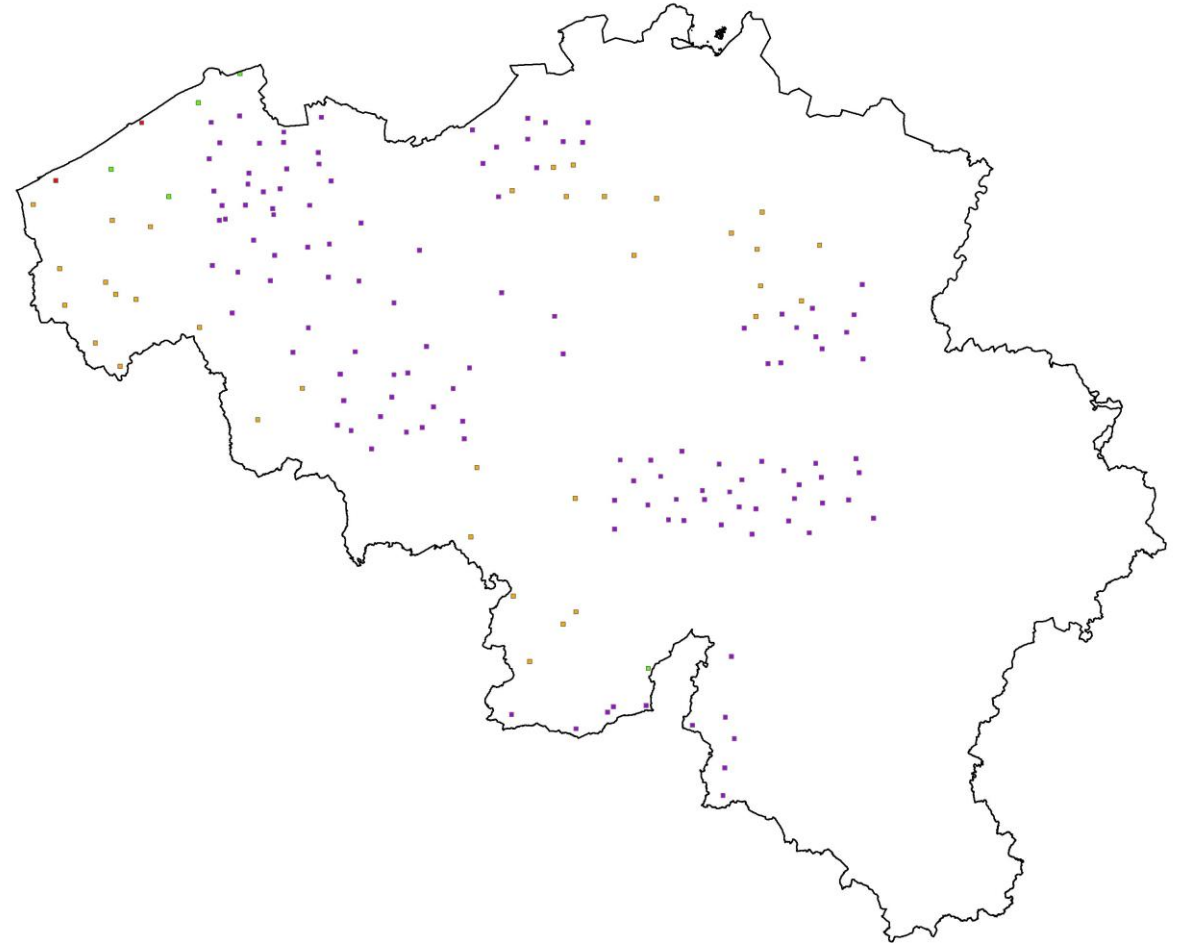
From May 2018 to December 2018

- External data update is ongoing (2018-2020)
 - Constructions, road network, hydrographic network, landcover
 - Effect on production process
 - Effect on data quality



National Geographic Institute, Belgium From May 2018 to December 2018

- **Quality Assessment using field data**
 - Data quality of actual reference data
 - Data quality of POI information
 - Quality control methods used
 - Quality control of external data (OSM)
 - Today we have partial results 166 zones (100ha)
-
- Field survey is done (127)
 - Field survey is ongoing (2)
 - Zones are ready for survey (5)
 - Zones are being prepared for survey (32)



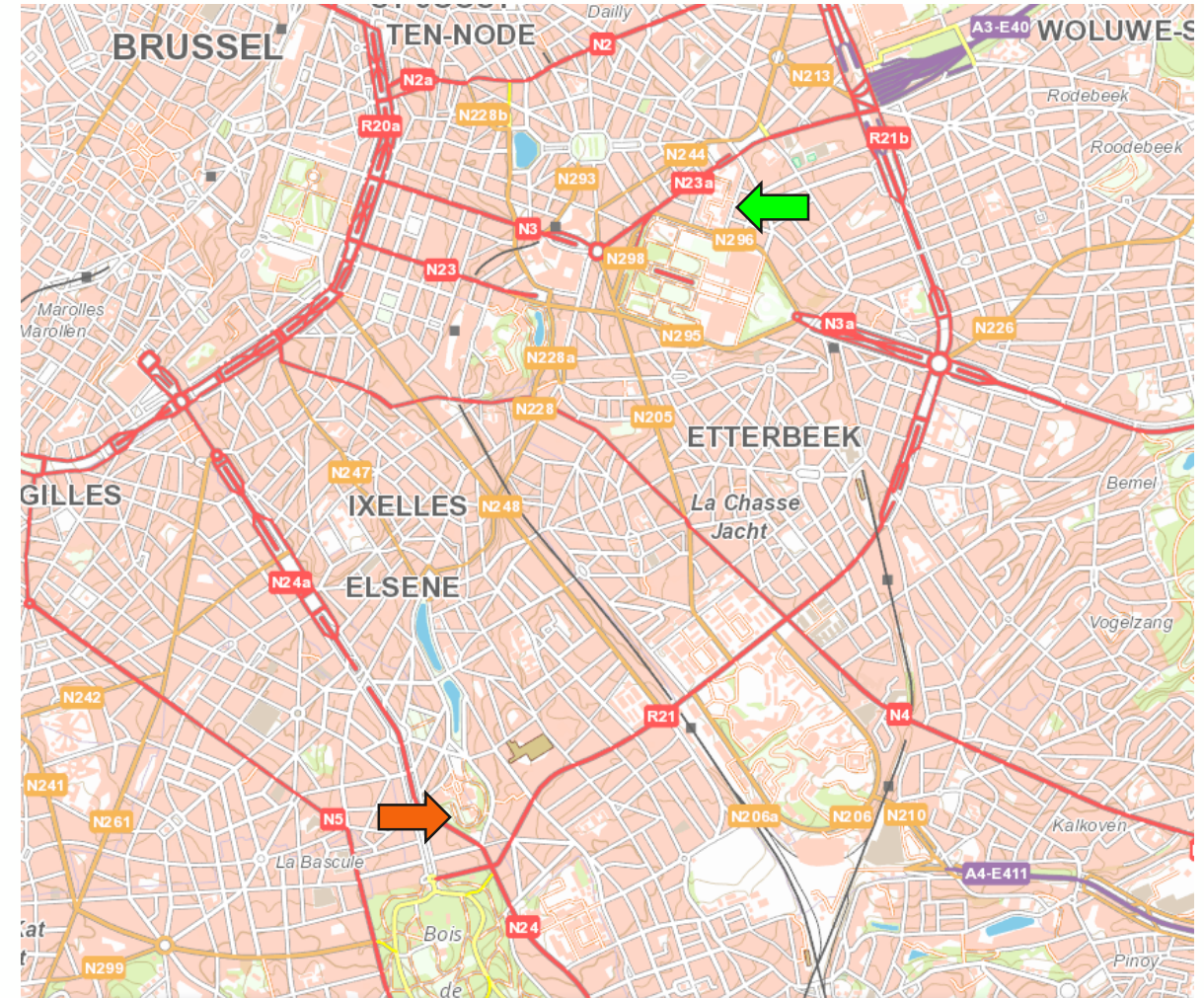
National Geographic Institute, Belgium

From May 2018 to December 2018

- Improvement of our automatic controls in SQL, FME and 1Integrate
- Working on a technical vision 2020-2025
- Setting up Quality control process for eTOD data
 - Trying to make this process ISO 9001-2008 certified

National Geographic Institute, Belgium From May 2018 to December 2018

- November 2019 - NGI will move to the Royal Military Academy



National Geographic Institute, Belgium
From May 2018 to December 2018

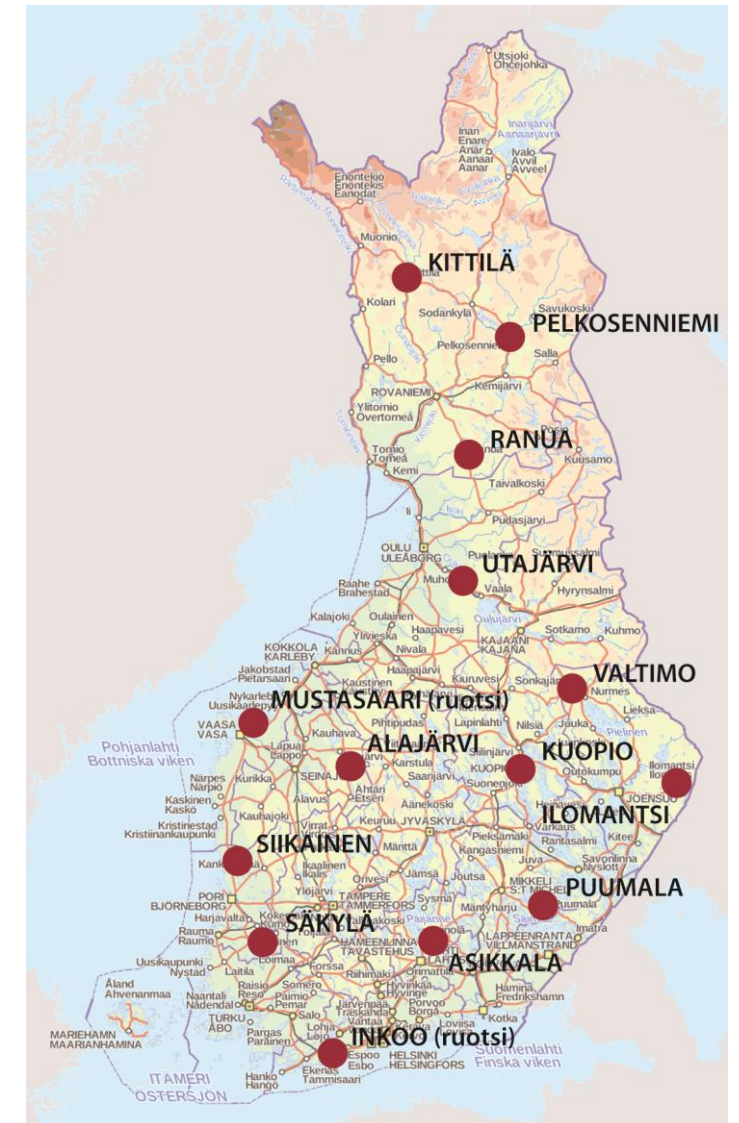
- **Quality Assessment of our reference database and our quality control methods through field survey**

National Land Survey, Finland From April 2017 to November 2018

• Data Quality

- Data quality test 2018 passed.
- 14 test fields Around Finland
 - 1x1 km for buildings
 - 3x3 km for roads and addresses
- Completeness (commission/omission) for buildings and roads
- Thematic accuracy for addresses (Municipalities official addressees compared to addressees in NLS GIS database)

Theme	
Buildings, completeness	0,8 %
Roads, completeness	2,3 %
Addresses, thematic accuracy	2,4 %



National Land Survey, Finland

From April 2017 to November 2018

- **Other news**

- **NLS is building new national GIS ecosystem; National Topographic Database of Finland (NTDF).**
- **New conceptual models for themes**
 - Buildings and constructions
 - Traffic
 - Terrain
 - Hydrography
 - Addresses
- **In the future, some themes are maintained by municipalities and other public organisations.**
- **Maintenance by several organisations is a challenge for data quality management.**
 - Logical consistency is automatically tested by NLS during the download process.
 - Spatial accuracy (x, y, z) is data attribute.
 - Completeness and thematic accuracy has to be tested either by the maintenance organization or NLS. The process is under consideration.

National Land Survey, Finland

From April 2017 to November 2018

- **Topic I can offer for next webinar**
 - National Topographic Database of Finland, new conceptual models.
 -

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

From June 2018 to November 2018

- **News concerning quality management**
 - The training is included into the IGN's ISO9001:2015 certificate
 - All processes except research are certificated.

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

From June 2018 to November 2018

- Any other news that would be of interest for Q-KEN?
 - French mapping agency is involved to the creation of the geographic component of the state platform
 - The three pillars :



Open and mutualized platform



An ecosystem of uses and communities



The collaborative for maintenance and enrichment of the sovereign geographic data

- A part of this platform is financed by the Fund for the Transformation of Public Action (FTPA)
- Potential beneficiaries :
 - 120 000 senior managers in the public service,
 - 15 000 instructors handling geographic information,
 - $\frac{3}{4}$ french people have made an online administrative process in the last 12 months. Geographic information is increasingly required in form entry.

BKG, Germany

From May 2018 to November 2018

- **News concerning Data Quality**
 - **Working group on quality management closed 1. phase**
 - Product-oriented survey of BKG products is completed
 - User demand survey and collection channels are documented
 - Reference documents are collected and documented
 - Quality management tools are collected and documented
 - **Working group on quality management started 2. phase**
 - **Goals:** tool for documentation of user demands
concept of quality management for the BKG
report on the Federal Ministry of the Interior
 - New members
- **New activity plan of BKG**
 - Quality management is a standalone operation
- **Cooperation with the GDI-DE (spatial data infrastructure in Germany) on quality management is in progress**

BKG, Germany

From May 2018 to November 2018

- Any other news that would be of interest for Q-KEN?
 - Conflict between ISO and OGC standards

BKG, Germany

From May 2018 to November 2018

- **Topic I can offer for next webinar**
 - TopPlus / TopPlusOpen
 -

Ordnance Survey GB

From May 2018 to November 2018

- **News concerning Data Quality**
 - Investigations into new editing mechanisms have created a need for significant data improvement in the coming months
 - We are looking at the potential for removing cartographic text as a feature and generating it automatically

Ordnance Survey GB

From May 2018 to November 2018

- **News concerning Quality Management**
 - Ordnance Survey is close to implementing a new Data Governance Framework to control its data.

This initiative will

- Control data throughout its lifecycle
- Ensure data is fit for use
- Create data that can be exploited more easily
- Allow the integration of 3rd party datasets
- Ensure that data is properly documented
- Ensure that data is discoverable

Ordnance Survey GB

From May 2018 to November 2018

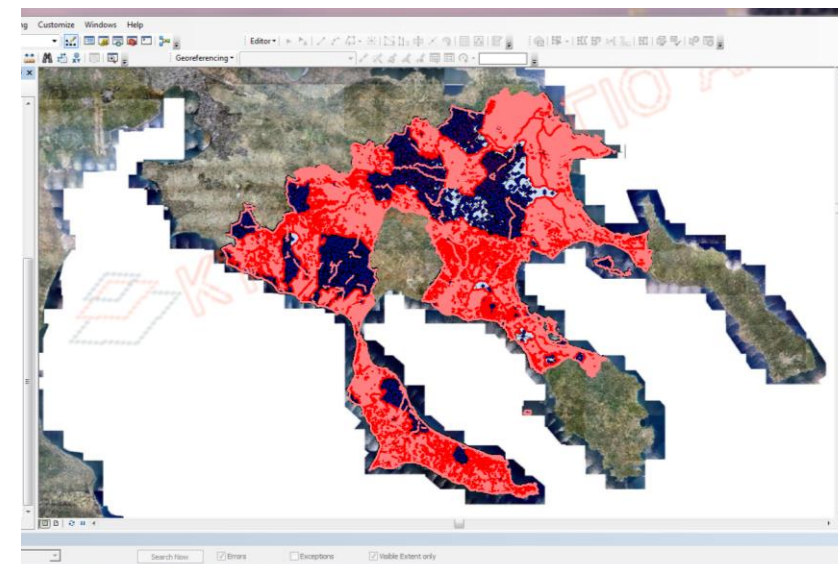
- Any other news that would be of interest for Q-KEN?
 - The political landscape for OS has changed significantly. Central Government has created a “Geospatial Commission” made up of OS, HMLR, UKHO, BGS, Coal Authority and Valuation Office with the aim being to see the organisations can collaborate more effectively to remove barriers to the use of our data to support economic growth.
 - There are some initial projects looking at linked data, data discoverability and 3rd party data
 - As part of the work, Central Government has also asked OS to look at how it could open up OS MasterMap (our premium large scale product) to make it more accessible for users.

These initiatives along with the potential replacement of most of our core services are consuming considerable amounts of time and effort.

Hellenic Cadastre , Greece

From 07 2018 to 12 2018

- **National Cadastre creation: Quality Control for all delivered data using the Hellenic Cadastre Quality Plan based on ISO 19157 (running 72 contracts, ~ 25,6 million property rights)**
- **Redesign of software applications for the quality check of spatial cadastral data. Switch from stand-alone applications to integrated control environment. In each delivery of spatial data, all data are loaded into a single geodatabase and customize control tools are used.**
- **From last July, we are use a custom application that allows contractors to remotely upload their deliverables to the HC database. The application check the deliverables in real time and send the results to the contractor. It refers to quality parameters of completeness and logical consistency of cadastral data delivered**



Hellenic Cadastre , Greece

From 07 2018 to 12 2018

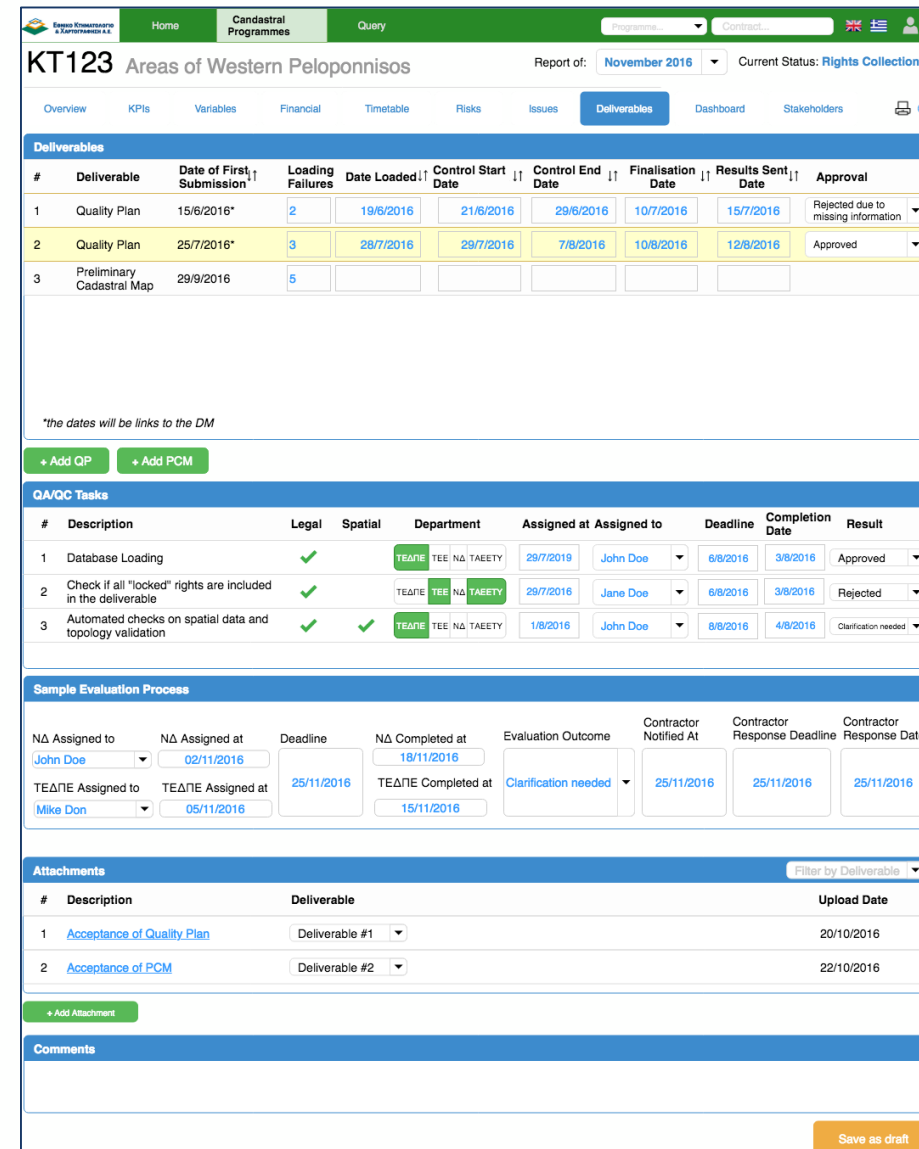
- Re-designing the procedure for checking the positional accuracy of cadastral data. Use a sampling test based on the FGDC standards for placement of control points. The number of checkpoints is calculated based on the size of the total area at the level of a cadastral study.
- Field measurements are implemented by external contractor (out sourcing)



Hellenic Cadastre , Greece

From 07 2018 to 12 2018

- HC develop a custom made PMIS specifically designed for cadastral projects linked to the already installed MS Project Server. We are still working towards a PMIS extension, which includes the monitoring and management of all the quality control procedures. It is expected to be completed until the end of 2018.



The screenshot displays the PMIS interface for the Hellenic Cadastre project, titled "KT123 Areas of Western Peloponnisos". The interface includes a navigation bar with "Home", "Cadastral Programmes", and "Query" tabs. The main content area is divided into several sections:

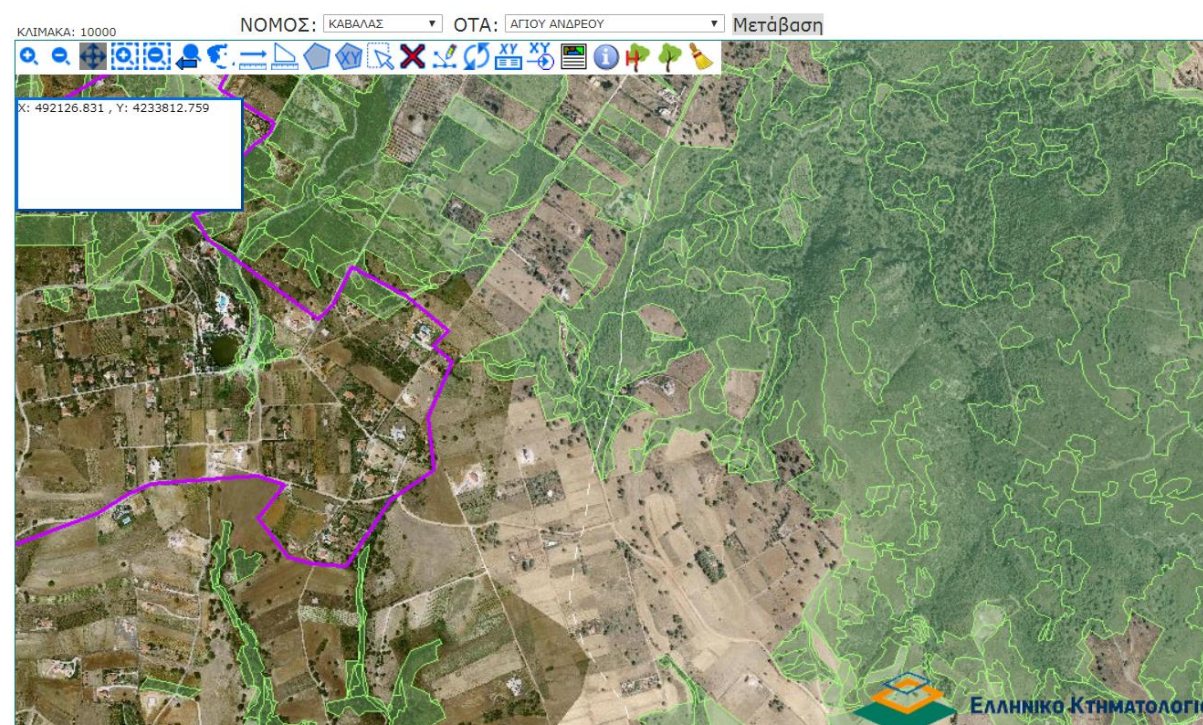
- Deliverables:** A table listing deliverables with columns for #, Deliverable, Date of First Submission, Loading Failures, Date Loaded, Control Start Date, Control End Date, Finalisation Date, Results Sent Date, and Approval. The table shows three deliverables: Quality Plan (15/6/2016), Quality Plan (25/7/2016), and Preliminary Cadastral Map (29/9/2016).
- QA/QC Tasks:** A table listing tasks with columns for #, Description, Legal, Spatial, Department, Assigned at, Assigned to, Deadline, Completion Date, and Result. The table shows three tasks: Database Loading, Check if all "locked" rights are included in the deliverable, and Automated checks on spatial data and topology validation.
- Sample Evaluation Process:** A section for tracking evaluation progress, including fields for NA Assigned to, NA Assigned at, Deadline, NA Completed at, Evaluation Outcome, Contractor Notified At, Contractor Response Deadline, and Contractor Response Date.
- Attachments:** A table listing attachments with columns for #, Description, Deliverable, and Upload Date. The table shows two attachments: Acceptance of Quality Plan and Acceptance of PCM.
- Comments:** A section for adding comments, currently empty.

The interface also includes a "Save as draft" button at the bottom right.

Hellenic Cadastre , Greece

From 07 2018 to 12 2018

- The agency is eventually licensed by the Ministry of Defense for uploading LSO25 orthophotos (25cm GSD) delivered in 2016 on its website. The only condition is to degrade the GSD of the images to 50cm!!! We are already working on this project and it is expected to be completed early next year.
- NCMA supports the forest agencies in the management of geospatial data and provide technical support to them.



Viewing application of Forest maps in agency's website

BFKH FTFF, Hungary

From May 2018 to December 2018

- **News concerning Data Quality**
 - Quality control of attributes of the Hungarian unified land registry
 - a) comparative study between the attributes of the Cadastral map and the Land registry (consistency study)
 - b) Based on differences were made the correction by the land offices
 - Quality Control process on LPIS
- **News concerning Quality management**
 - Full internal audit is done, certification audit is in progress.
 - Reworking of the institutional Regulation Rules is done.
- **Any other news that would be of interest for Q-KEN?**
 - New reorganization plan for our Institute from 2019(?). Merging with Lechner Non-profit Ltd (Hungarian Spatial planning Knowledge Center). The governmental decision is missing.
- **Topic I can offer for next webinar or meeting**

-

OSi, Ireland

From May 2018 to November 2018

- **News concerning Data Quality**
 - New department (Geospatial Services, Data Quality and Governance) created for the express purpose of data quality & governance
 - Introduced 3 new Way functions (Sixth Class (Managed); Seventh Class (Managed) and Eighth Class (Managed)) to facilitate Local Authorities Road Management Program
 - 7000+ Ways edited and reclassified
 - 1700+ new Ways, not previously captured as Ways, identified by LAs for classification.
 - Possible introduction of new Artificial functions (Enclosed Traffic Area (Managed), Car Park (Managed)) with agreement of OSi & LGMA
- **Named Group Editor in operation in 3 of our 6 Regional Offices**
- **Photogrammetric Prime2 flowline gone live.**
- **Continue to improve the quality of existing objects (Form/Function)**

Latvian Geospatial Information Agency, Latvia

From 05 2018 to 12 2018

- The updated technical specification for Topographic Map in scale 1:10 000 has been ratified
- Ongoing development of specifications for Digital Elevation Models and Hypsographic Curvelines

Latvian Geospatial Information Agency, Latvia

From 05 2018 to 12 2018

- **New position in LGIA – Engineer of Process Quality Management:**
 - Development and control of procedures of spatial data production
 - Maintenance and improvement of aeronavigational data Quality Management System (QMS)
 - Implementation of QMS in other processes of LGIA

Latvian Geospatial Information Agency, Latvia

From 05 2018 to 12 2018

- The reorganisation process of the LGIA has been finished in September 2018
- Pilot project – creating Topographic map in scale 1:10 000 in ArcGIS

From May 2018 to November 2018

-
- An aerial photograph of a property with a red outline. A red dot is placed on the property, and the word "PÁVLOSTA" is written in red capital letters next to it. The property is surrounded by green trees and a road. Other property boundaries are visible in the background.

The State Land Service (SLS), Latvia

From May 2018 to November 2018

- **News concerning Data Quality**
 - **The boundaries of the 138 land parcels are updated in accordance with the administrative boundaries along the Baltic sea coast**

Before:



Two lines

After:



One line

The State Land Service (SLS), Latvia

From May 2018 to December 2018

- News concerning quality management
 - **No significant achievements**

Kadaster, the Netherlands

December 2018

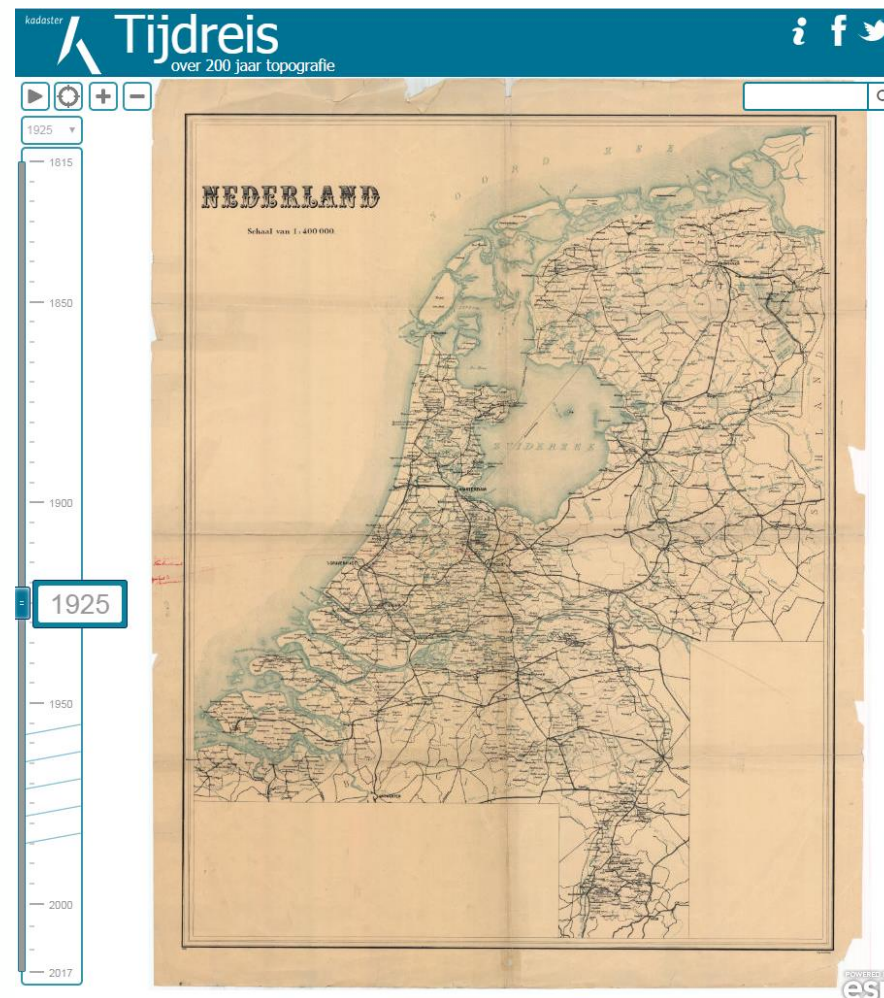


- **News concerning Data Quality and Quality Management**
 - Continuous development of our Quality-dashboards for improving Key Registers
 - Linking Key Registers in data and in dashboards
 - Linking BAG (Key Register Addresses and Buildings) and BGT (Key Register Large Scale Topography) objects
 - Improving BRT (Key Register Topography) street names with BAG street names
 - Audit of the Key Register Topography
 - The 3-yearly audit shows positive results for BRT quality with some recommendations for improvements
 - ERM Quality Management new approach, presented in Zagreb November 2018
 - Kadaster has developed new *ERM Validator 1.0*, a generic set of tools available to all producers for quality control of ERM
 - Key Register Valuation of Real Estate (LV WOZ) is shifting focus to validation of the data and quality improvement now that all producers (municipalities) are connected to the Register

Kadaster, the Netherlands

December 2018

- Any other news that would be of interest for Q-KEN?
 - Kadaster is working on updating the Quality Strategy in general and for spatial data (key) registers in particular
 - Meeting in Southampton of the Working Group on Multi-Resolution Geo Processing (October 2018) in collaboration with ESRI



www.topotijdreis.nl

Topographic time travel in the Netherlands

Instituto Geográfico Nacional (IGN), Spain
From May 2018 to November 2018

- **Automatic quality control in the new production environment using ArcGIS:**
Developing Quality Control flows in the new environment using ArcGIS Pro in order to check the official cadastral updating

Instituto Geográfico Nacional (IGN), Spain

From May 2018 to November 2018

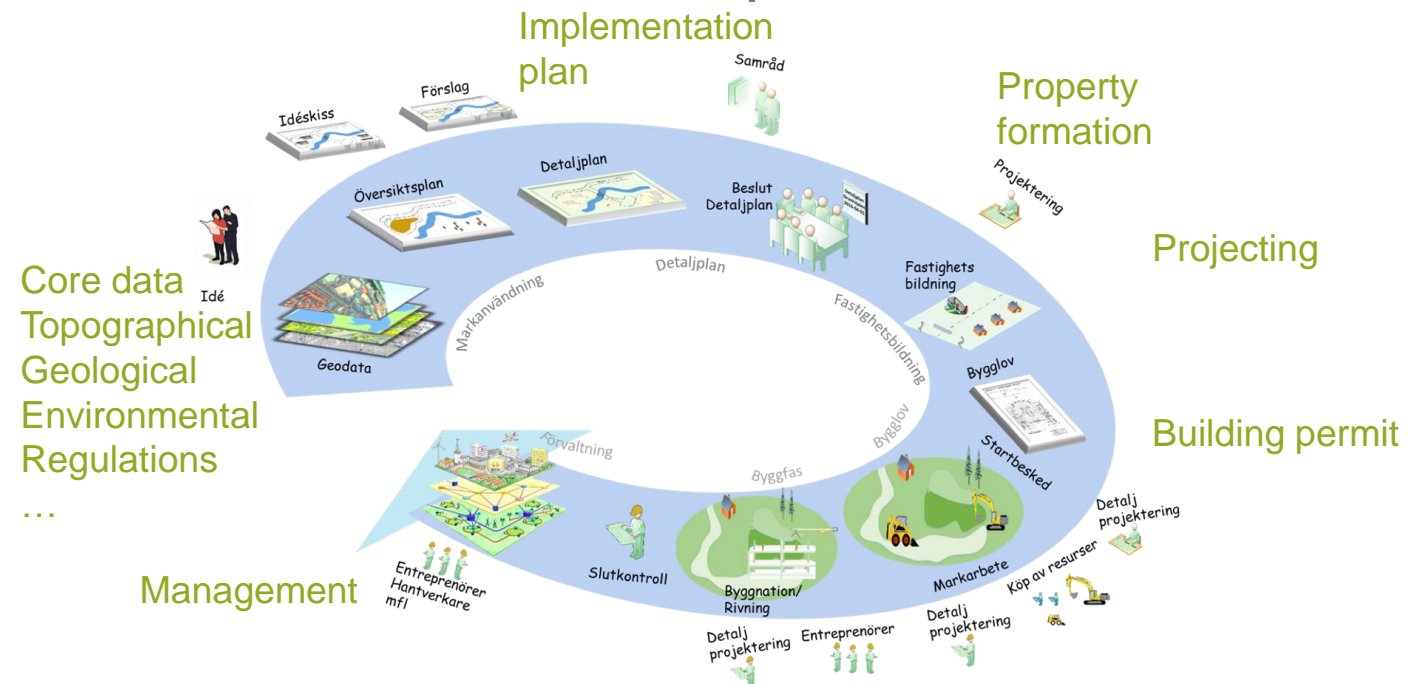
- **InciGeo-BDIG integration:** Developing geoprocessing services with ArcGIS Pro in order to integrate the InciGeo (tool for jobs management) with the new environment to update geospatial information databases (BDIG) using ArcGIS Pro:
 - Job packing, synchronization, conciliation and consolidation

Lantmäteriet – National land survey of Sweden

From April 2018 to November 2018

- **National Geodata strategy**
 - National Geodata Strategy has a several work packages to handle the strategy in practice. They will start soon and participants will be from other authorities. Swedish Geoprocess will be included.

- Digital information
- Source is original
- Open
- Accessible
- Information security
- Cooperation
- National cooperation for geodata collection



Lantmäteriet – National land survey of Sweden

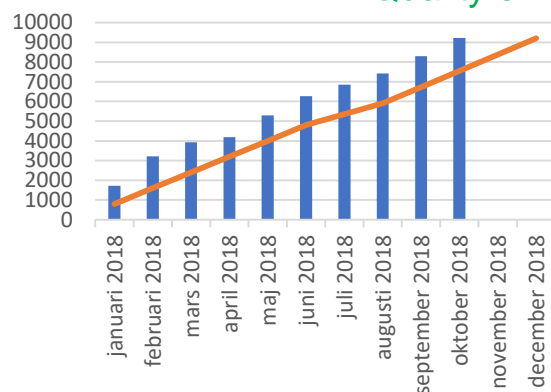
From April 2018 to November 2018

- Working group at SIS – Swedish Standard Institute
A tutorial for ISO 19157
 - Point out demands
 - Chose measure
 - Measure
 - Show fulfilments and how to read the result for the users
- Swedish profile for Metadata ISO 19115, supplement to TG 2.0.1
Added rules for Sweden, example:
 - Metadata contact information to organisation, not to a personDeviant rules for Sweden, example:
 - Date stamp for metadata shall be created, updated or annual review

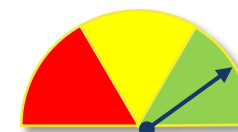
Lantmäteriet – National land survey of Sweden

From April 2018 to November 2018

Quality enhancement in Real Property register

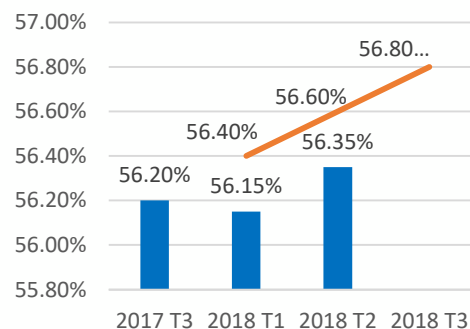


Number of corrected/completed Rights, 6900
Joint property units 2300
Total 9200

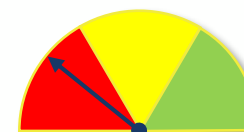


Goal: 100%
Result: 97%
Updating interval: Monthly

Position Accuracy for Real Property Boundary



Increase accuracy 2018
Better accuracy than 0,5 m.
Totally 14 000 000 boundaries



Goal: 56,6%
Result: 56,35%
Updating interval: Tertial

Bundesamt für Landestopografie swisstopo , Switzerland

From 05 2018 to 12 2018

- New JIRA board to describe QA as a “story”, user can describe the requirement and all concerned can join in the discussion. More than 300 Stories
- New reporting output: html and xml

Quality Specification	Release Quality			
Date of verification	19.11.2018 15:14:46	Processing time	01h:34m:28s	
Warnings	0	Errors	68	
Verified extent	X-Min: 2'550'000.00 Y-Min: 1'254'000.00 X-Max: 2'620'000.00 Y-Max: 1'302'000.00 (CH1903+_LV95)			
AOI description				
AOI feature source				
Output directory	LK_26 (orig. path: \\v0t0020a.adr.admin.ch\prod\topgisprod\03_Production\Administration\RC2018_Abschluss\QA\ReleaseQuality_20181119\LK_26)			
Map document	issues.mxd	Verification report	verification.xml	

<No category>					68
Quality condition	Issue description	Affected components	Type	Issue count	
1312_TLM_arNAR_NoGaps	Gap found with area smaller than minimum value Gaps.Gap.AreaTooSmall		Error	1	
1312_TLM_arSPFZAR-NAR-VERKAR-bbBB-bauSPFZBAUPLY-STAUBAU-VERKBAUPLY-VERSBAUPLY_NoGaps	Gap found with area smaller than minimum value Gaps.Gap.AreaTooSmall		Error	1	
1312_TLM_arSPFZAR-NAR-VERKAR_NoGaps	Gap found with area smaller than minimum value Gaps.Gap.AreaTooSmall		Error	1	
1412_TLM_gwFLGW-saoc_gwGWL_RelGroupConnected	The line group consists of more than one connected part ConnectedLineGroups.InvalidLineGroup.MultipleParts		Error	2	
2017_TLM_saoc_arSCHULE_ISCED_STUFE-NAME_SCHULE_Unique	Field values are not unique UniqueFields.NotUnique	ISCED_STUFE, NAME_SCHULE	Error	2	
1107_TLM_swSTRNJ-swSTRAEF-swSTRINF_NetOrphanNode	Orphan node OrphanNode.OrphanNode	SHAPE	Error	1	
1312_TLM_arNAR_SegmentLength	Consecutive segment lengths smaller than limit SegmentLength.SmallerThanLimit.ConsecutiveSegments	SHAPE	Error	5	
1312_TLM_arNAR_SegmentLength	Segment length smaller than limit SegmentLength.SmallerThanLimit.OneSegment	SHAPE	Error	17	

Bundesamt für Landestopografie swisstopo , Switzerland

From 05 2018 to 12 2018

- Starting to formalize the software development process ISO 9001-2008
we have a established process based on GIT but not yet ISO 9001-2008 certified

Bundesamt für Landestopografie swisstopo , Switzerland

From 05 2018 to 12 2018

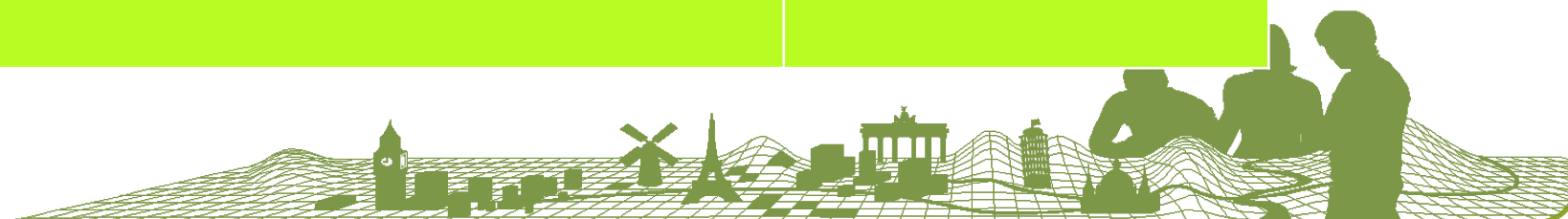
- How to made a official official street name index.

Stakeholder:

- Producers
 - 26 Cantons as partner with
 - 2222 (1.1.2018 / no joke) municipalities as partners of the cantons. They deliver 2400 files with datasets
 - Federal Statistical Office
 - Road network by swisstopo (topographical landscape model)
- Users
 - Companies need web services / api
 - swisstopo for maps with road names
 - geo.admin.ch as service an mapping platform
 -

Proposals for presentations at next plenary/webinar

Subject	Organisation
Quality Assessment of our reference database and our quality control methods through field survey	NGI, Belgium 12
National Topographic Database of Finland, new conceptual models.	NLS, Finland 7
TopPlus / TopPlusOpen → WEBINAR	BKG, Germany
Development of specifications for Digital Elevation Models and Hypsographic Curvelines	LGIA, Latvia 0
New ERM Validator 1.0	Kadaster, Netherlands 7
National Geodata strategy	NLS, Sweden 5
Automatic quality control in the new production environment using ArcGIS	IGN, Spain 8
Official street name index	Swisstopo 10
Quality of street names	Kadaster, Netherlands 5



Thank you for yor attention!