

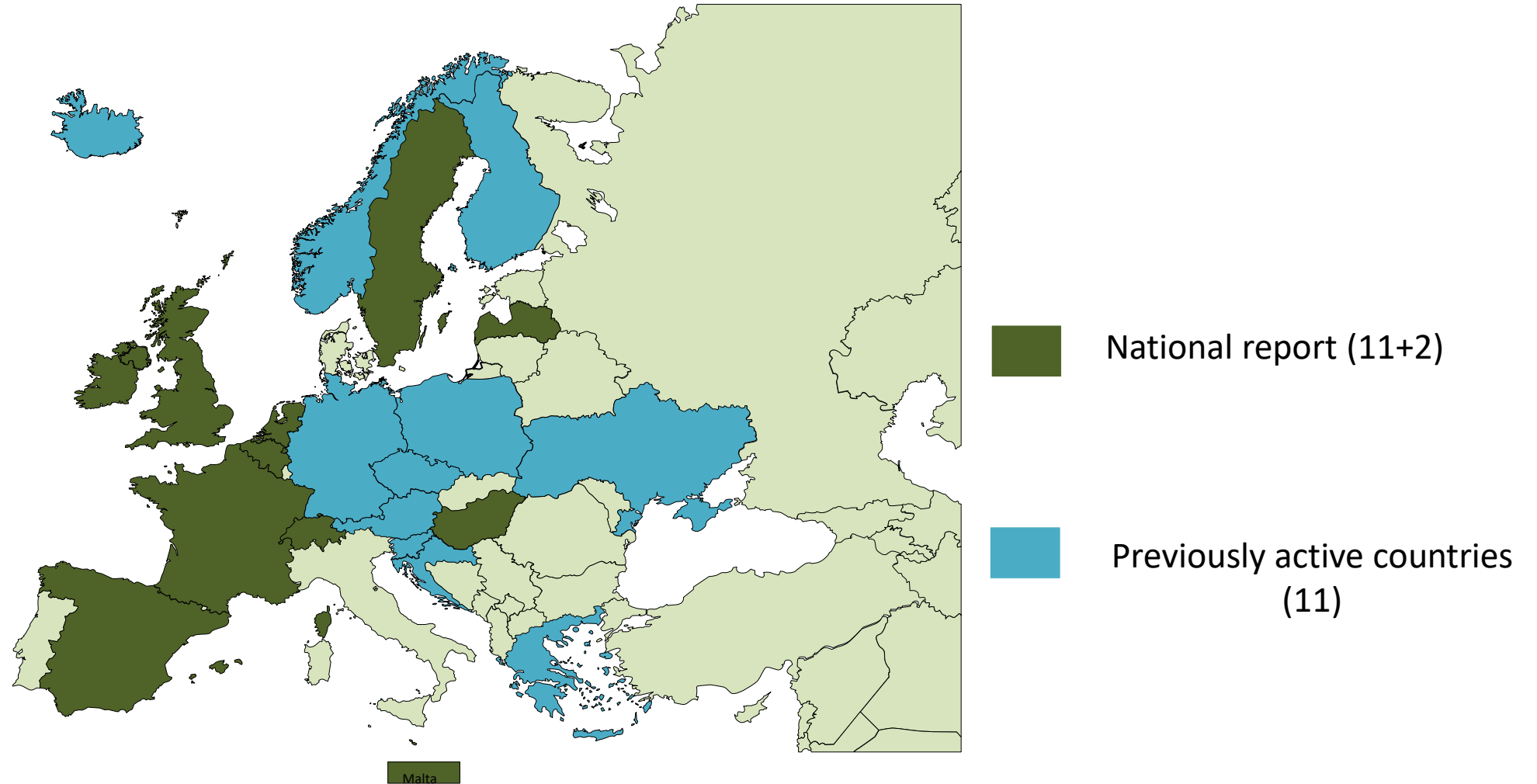
The background of the slide is an aerial photograph of a coastline. On the left, the ocean is a vibrant turquoise color with white foam from waves crashing onto a golden sand beach. To the right of the beach, the land is a mix of brown and green, with a white geometric grid pattern overlaid on it.

National Reports

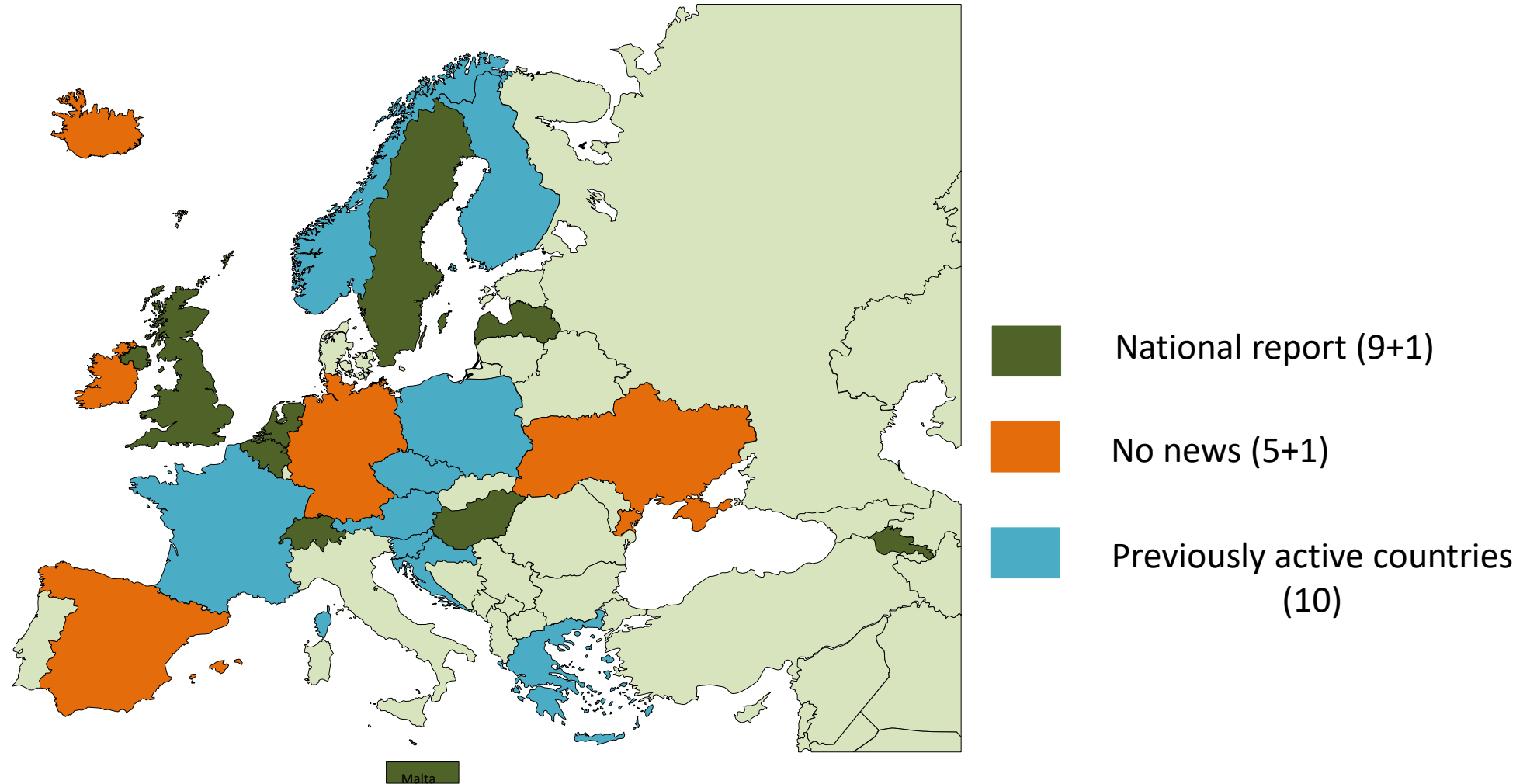
17. April 2024, Virtual meeting

Prepared by Tamás Palya,
vice-chair of QKEN

13 National reports from 11 countries



10 National reports from 9 countries (2023)



National Geographic Institute, Belgium From November 2023 to April 2024

Production challenge

- Increasing timeliness of the data with the same resources

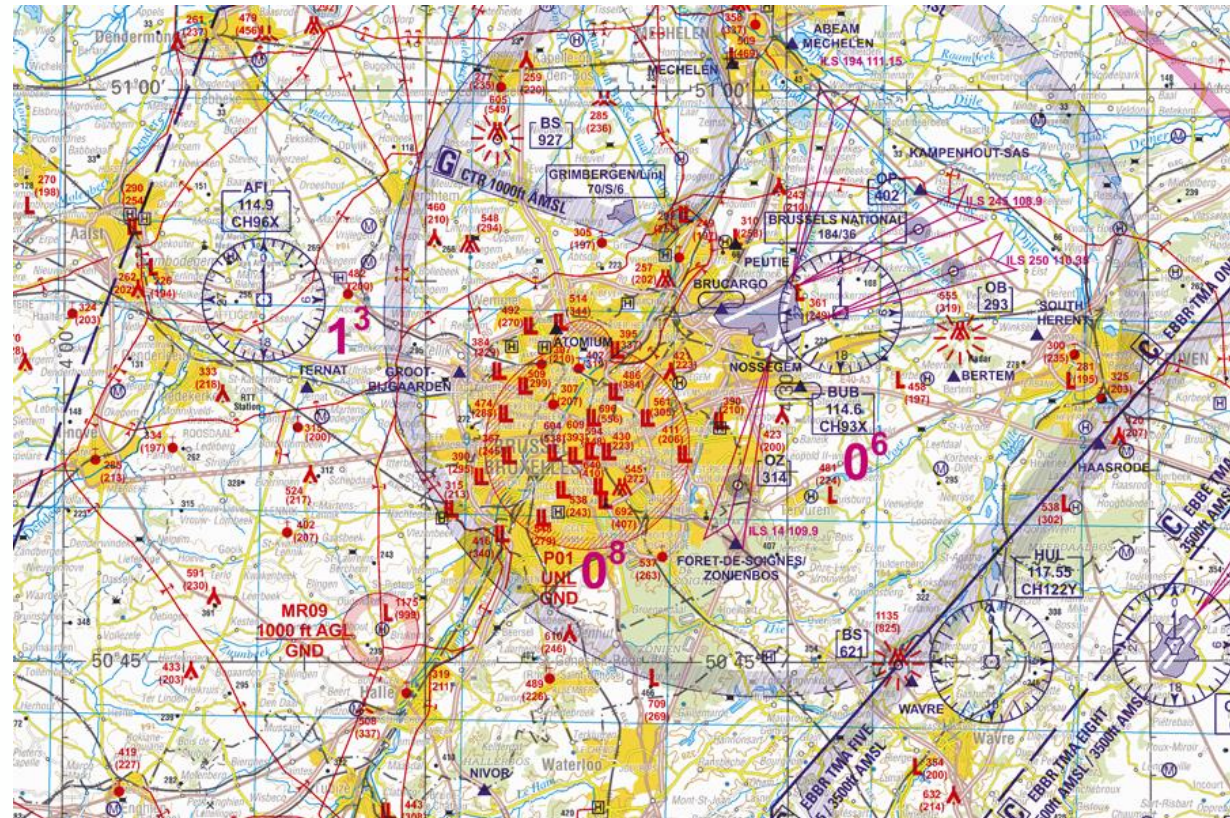
Provisional solution

- More resources on updating reference dataset 1:10k
- Production cycles → prioritization of updates
 - Systematic updates for small zones
 - Targeted thematic updates for larger zones
 - The above are client based
- Improved automated generalisation processes
- Quality control integrated in the production processes

National Geographic Institute, Belgium From November 2023 to April 2024

Quality control:

- Aerial obstacles and DTM
- QC on demand



National Geographic Institute, Belgium From November 2023 to April 2024

Quality assessment:

- **Map sheets for military**
- **Specific themes**
- **External sources**
- **On demand**

Specifications / selection criteria:

- **Review of our specifications**
- **First step: integration of specifications created for external partner into our own specifications**

National Geographic Institute, Belgium From November 2023 to April 2024

Projects:

- Review of our data model
- Automatic QC of 1:250k, 1:50k, 1:25k
- Automatic QC of generalisation procedure 1:10k – 1:25k
- Deep learning implementation into our update procedure
- Extensive review of the specifications for our landcover layer
- ...

National Geographic Institute, Belgium From November 2023 to April 2024

Working on a Quality Management System

- Aeronautical products (ICAO legislation) : ISO 9001:2015 certified



National Geographic Institute, Belgium From November 2023 to April 2024

Most of our projects are still in an immature phase

National Geographic Institute, France From November 2023 to April 2024

• News concerning Data Quality

- a first report on data quality on the land cover database : clues about the weakness of this database (AI detection) and the improvement for the update process
- Data quality control reports available online : reports modified to be understandable for users.

BD Topo

[:https://geoservices.ign.fr/documentation/donnees/vecteur/bdtopo/rapport-contrôle-qualité](https://geoservices.ign.fr/documentation/donnees/vecteur/bdtopo/rapport-contrôle-qualité)


BD Ortho :


<https://geoservices.ign.fr/documentation/donnees/ortho/bdorho/rapport-contrôle-qualité>



<https://geoservices.ign.fr/actualites/2024-01-contrôle-qualité-bdtopo>













3. SYNTHÈSE DES RÉSULTATS

Le code couleur indiquant la conformité est modulé proportionnellement au nombre de résultats conformes ou non conformes obtenus pour un même thème (déficit, excédent, taux d'accord).

 Résultats conformes aux spécifications qualité

 Résultats non conformes aux spécifications qualité

  Résultats majoritairement conformes

Thème	Conformité/ Spécs qualité	Remarque
Réseau routier		Le réseau routier est bien traité, juste de nombreuses confusions sur la nature, en particulier au niveau des échangeurs et sur les routes à 2 chaussées. Quelques erreurs sur les routes à 3 ou 4 voies.
Réseau ferré	 	Quelques voies ferrées principales sont en déficit dans les gares.
Réseau hydrographique	 	La persistance des surfaces hydrographiques est à revoir sur les Dombes qui est une particularité de ce département.
Bâtiments importants		Une aérogare à Bourg est en excédent car il n'y pas de transit de voyageurs dans cet aéroport.
Obstacles aériens		5 éoliennes sont en déficit dans la base sur les 14 répertoriées sur le SIA. Une éolienne et un mât de mesure sont en excédent.
Ponts, Tunnel	 	De nombreux ponts sur le réseau classé ou interrégional sont en déficit ou en excédent.
Réseau électrique		Quelques corrections à effectuer au niveau des postes électriques.
Autres avec critères qualité	 	Un château d'eau est en déficit et quelques parkings de plus de 5 000 m ² dans les aires de service ou de repos sont en déficit.

National Geographic Institute, France From November 2023 to April 2024

- News concerning quality management

-

National Geographic Institute, France From November 2023 to April 2024

- Ongoing works about :
 - Labeling : how do we label other producers data ?
 - Land cover database : first thinking about the update process. What do we modify to keep the stability of the « Zero net artificialization » indicator over time ?
 - NGI products catalog : switch from database products to thematic products for users.
 - Database coherence :
 - how can we merge different databases into a topographic land cover/use database ?
 - how do keep the coherence between different databases while using different AI models ?
 - Adding information online about the different controls we do in our BD Topo production flowline: users ask for them.
 - Decreasing the mean age of BD Ortho by mixing aerial orthos with satellite orthos or flying blocks of orthos

National Geographic Institute, France From November 2023 to April 2024

- None for the moment.

Ordnance Survey, Great Britain From November 2023 to April 2024

- **News concerning Data Quality**
 - **A comprehensive quality audit was completed on Transport data by external consultants**
 - Including newly delivered data (March 24) and previously delivered data (September 23)

Ordnance Survey, Great Britain From November 2023 to April 2024

- **News concerning quality management**
 - **Process for checking data quality for new data asks was formalised and integrated with each new data project**
 - **Ongoing: enterprise data programme is becoming more settled, focused on both improving existing data and planning a roadmap for new data**

Ordnance Survey, Great Britain From November 2023 to April 2024

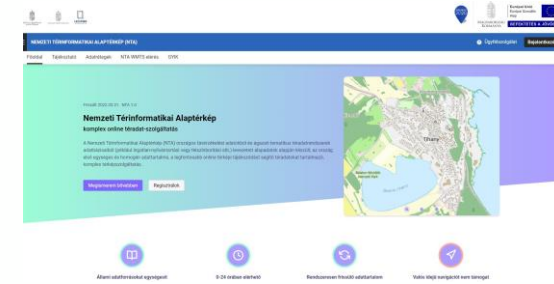
- Any other news that would be of interest for Q-KEN?
 - In March new data asks have been delivered through the National Geographic Database, including:
 - Building attributes
 - Land Cover enhancements and % cover
 - Field boundaries
 - Tram presence on road
 - Geonames
 - Two new premium products were launched:
 - OS Emergency Services Gazetteer
 - OS Multi-Modal Routing network

Lechner Non-profit Ltd, Hungary From November 2023 to April 2024

- **News concerning Data Quality**
 - **Quality Control of the new national base map on the level of Hydro and transport network**
 - Using of orthophoto (year: 2023) for the validation. It is preparing for whole country.
 - New orthophoto in 2023 whole country
 - Using Drone technology for the renewal cadastre map - pilot project (Áporka village) – Partly is done technically, but there are lack of laws
- **News concerning Quality management**
 - There is no the continuation of general Quality management (according to ISO), but some departments have connection with IACS-LPIS, that needs ISO certificate. These departments have to be a quality assurance process.

Lechner Non-profit Ltd, Hungary From November 2023 to April 2024

- Any other news that would be of interest for Q-KEN?
 - The Hungarian National GIS Base Map (NTA) 3rd version entered into force (Residential green spaces) <https://nta.lechnerkozpont.hu/>
 - The National Spatial Information Base Map service of the Lechner Knowledge Center won the Quality-Innovation 2023 award. With the recognition, the Knowledge Center also got the opportunity to participate in the international competition.



Tailte Éireann, Ireland

From November 2023 to April 2024

- **News concerning Data Quality**
 - An improved process has been implemented to provide greater enhancement and enrichment of our datasets including analysis, prioritisation and allocation of tasks to different parts of the organisation
 - An improved process has been implemented for assessing third party data to ensure it is fit for purpose as well as central storage and control of all third party data to ensure it is well governed

Tailte Éireann, Ireland

From November 2023 to April 2024

- **News concerning quality management**
 - **Data Governance Strategy continues to be implemented using the DAMA framework for data management including Data Quality with different data domains going through a review phase and becoming recognised as well governed datasets**
 - **Renewed focus on data currency, accuracy and consistency across our datasets to meet the mandate of our new organisation**

Tailte Éireann, Ireland

From November 2023 to April 2024

- Any other news that would be of interest for Q-KEN?
 - Several large projects about to commence that will impact on data quality
 - Optimisation of data models to ensure data can be captured and maintained over time
 - Review of products to ensure they meet organisational mandate
 - Higher quality remote sensed data expected by next year with new airplanes, cameras, sensors to provide better imagery, lidar etc.

Tailte Éireann, Ireland

From November 2023 to April 2024

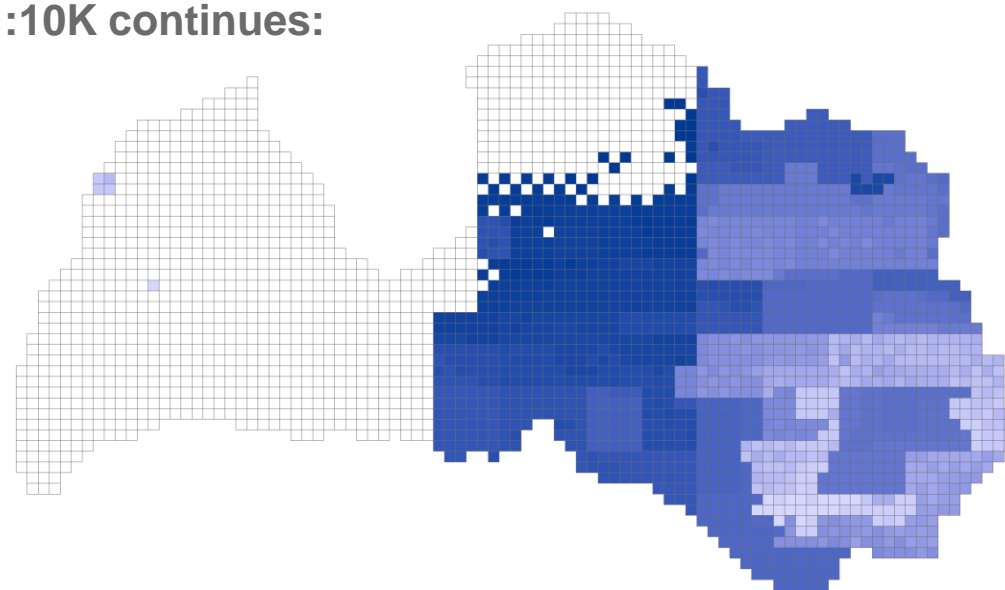
- Topic I can offer for next webinar
 - None at present

LGIA, Latvia From November 2023 to April 2024

- **News concerning Data Quality**

- Continued maintenance of quality for all products produced by LGIA
- Trend of data improvement for the basemap of Latvia in 1:10K continues:

Year	Errors per map sheet
2020	41
2021	35
2022	13
2023	5
2024	4



- Currently LGIA is at 57.4% completion of the 4th cycle of the Topographic map in scale 1:10K

LGIA, Latvia

From November 2023 to April 2024

- **News concerning quality management**
 - **Latvian Geospatial data infrastructure strategy development in progress:**
 - ✓ **Main driving force from Ministry of Defense and LGIA**
 - ✓ **Good response and contribution from other ministries, geospatial data providers and users (State Land Service, Latvian Naval administration, Latvian Railway, National Health Service, Rural Support Centre) and also from public organizations like Latvian Association of Cartographers and Surveyors, Union of Municipalities, Latvian GIS Union etc.**
 - ✓ **Strategy to be completed by the end of 2024**
 - ✓ **Main cornerstones of the strategy – UN Sustainable Development Programme 2030 and Digital Transformation Guidelines 2021-2027 developed by Ministry of Environmental Protection and Regional Development of Latvia**

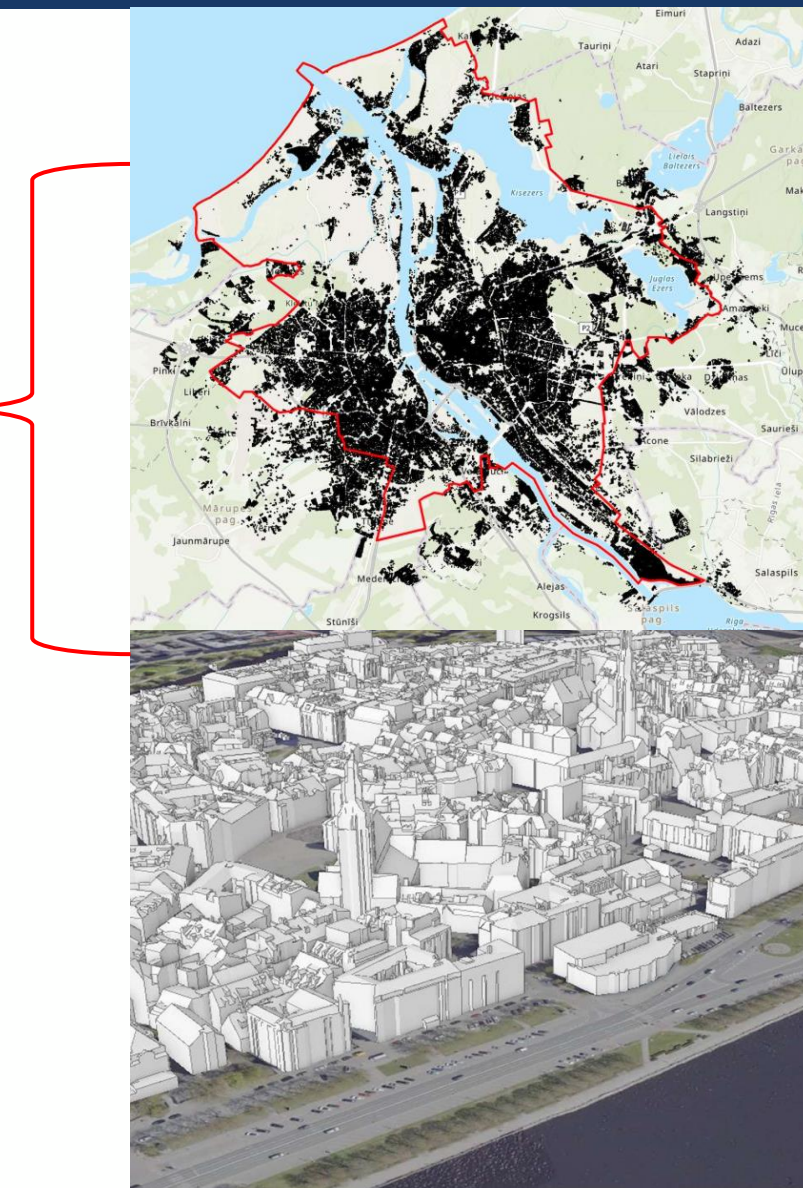
LGIA, Latvia

From November 2023 to April 2024

- **News concerning quality management**
 - **Latvian Geospatial data infrastructure strategy development in progress**
 - ✓ **One of the main objectives of the strategy – improvement of accessibility, usability and quality of geospatial data:**
 - **Creation of a single platform for geospatial data exchange in Latvia**
 - **Simplifying geospatial data standards and formats**
 - **Improvement of cooperation between data producers and users**
 - **Preserving both historic and new geospatial data**

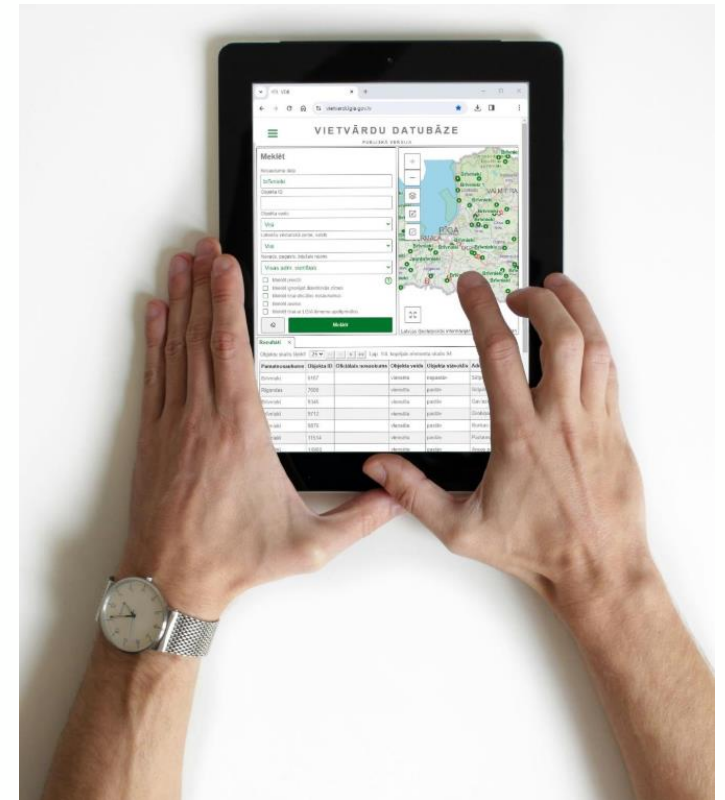
LGIA, Latvia From November 2023 to April 2024

- Any other news that would be of interest for Q-KEN?
 - LGIA has finished a 3D model for Riga and also a 3D LOD2 model



LGIA, Latvia From November 2023 to April 2024

- Any other news that would be of interest for Q-KEN?
 - Preparations in progress for the 5th cycle of Topographic map in scale 1:10K, which will start in the fall of 2024. The data structure will remain in DFDD (DGIWG Feature Data Dictionary) geospatial data coding system, but the production will transition from ArcMap to the ArcGIS Pro environment
 - LGIA has developed a new public Place names database
 - Main improvements include:
 - ✓ Adaptive design – suitable for usage in PC, laptop, tablet and smartphone
 - ✓ Open source solutions
 - ✓ Data not stored in Oracle DB any more
 - ✓ Results shown both in map view and as a table



LGIA, Latvia

From November 2023 to April 2024

- **Topic I can offer for next webinar**
 - Usage of UAVs/drones by LGIA

State Land Service, Latvia From November 2023 to April 2024

- **News concerning Data Quality**

The State Address Register

- the data on 1000 address points in the spatial data of the State Address Register are specified according to the data of the Cadastral Map and orthophotomap
- about 18 000 segments of administrative territories border were updated according to the Cadastral map
- the data on 70 address points in the spatial data of the State Address Register are specified according to open data user reports
- the 43 state road were updated in the State Address Register according to the data provided by the Latvian State Roads

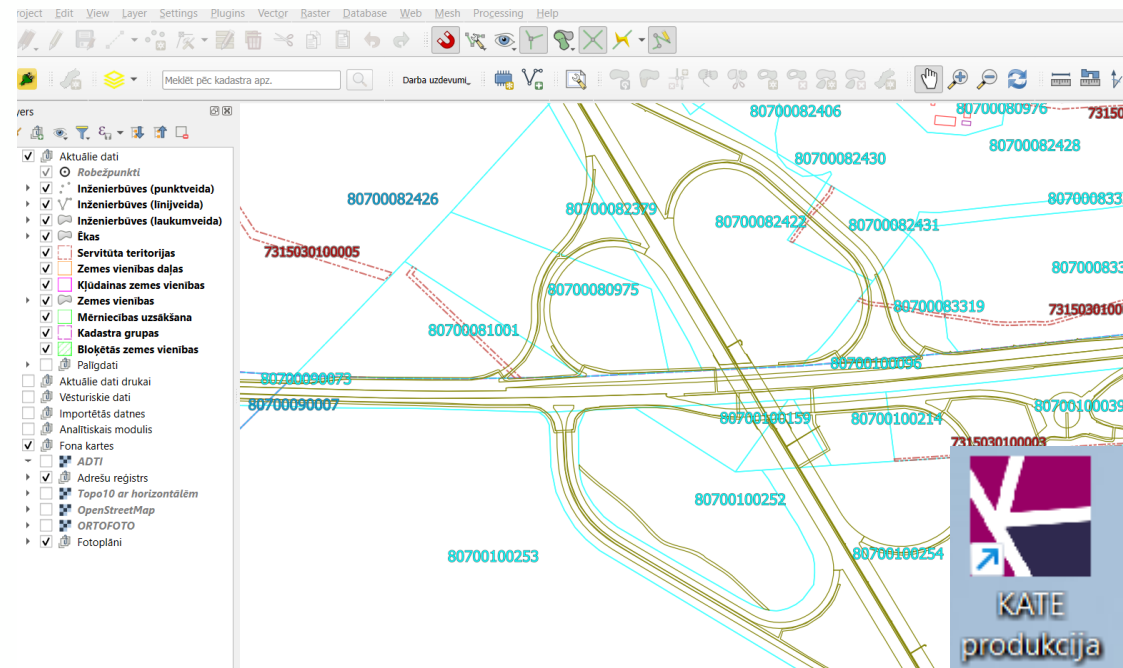
State Land Service, Latvia From November 2023 to April 2024

- News concerning Data Quality

The Cadastral Map -has successfully completed modernisation of the Cadastral Map

- PostgreSQL PostGIS database
- QGIS software
- new data specification
- centralised data storage
- working database
- a number of validations
- WMS on background

+ Knowledge exchange point



Organisation/Country Period Covered

Planning Authority(PA), Malta

Nov 2023 - Apr 2024

Planning Authority(PA), Malta, Nov 2023 - Apr 2024

PA QC of basemap

- ESRI topology rules tools
- Customised FME rules framework
- Visual checks
- Periodic positional accuracy tests

Planning Authority(PA), Malta, Nov 2022 - Apr 2023

News concerning quality management

- Having reviewed time consuming processes, the PA has opted to disregard minor accuracy errors that would not critically impact the use of the map. This option has contributed to a faster basemap updating process without affecting its quality. The PA is currently analysing various processes to further speed up the updating process.
- The PA is testing AI to enhance production and better-quality control.

Planning Authority(PA), Malta, Nov 2022 - Apr 2023

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

The Planning Authority is currently testing AI data capture from satellite and uav imagery.

Planning Authority(PA), Malta, Nov 2022 - Apr 2023

Topic I can offer for next webinar

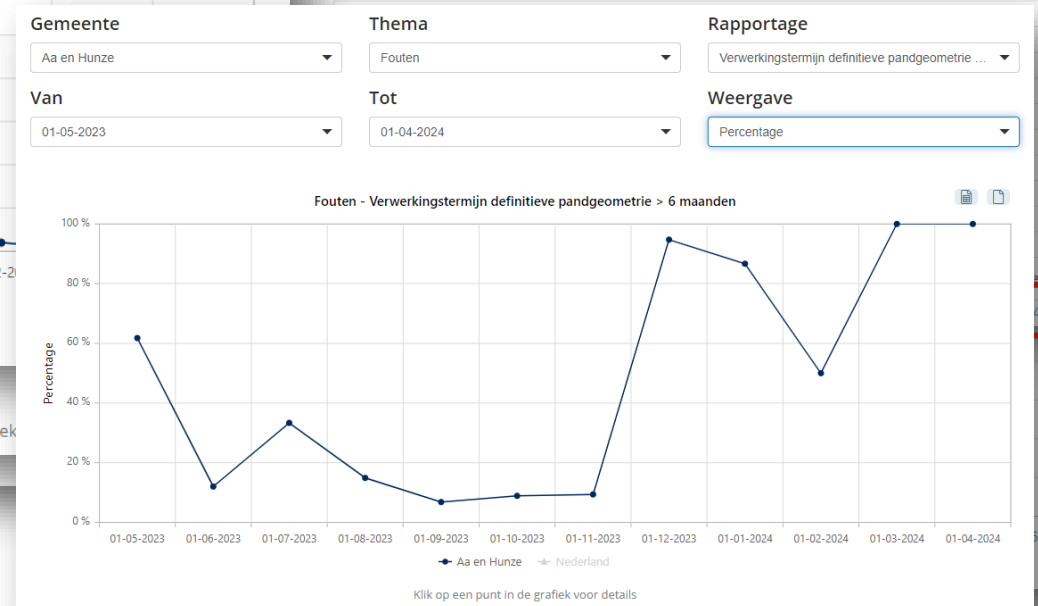
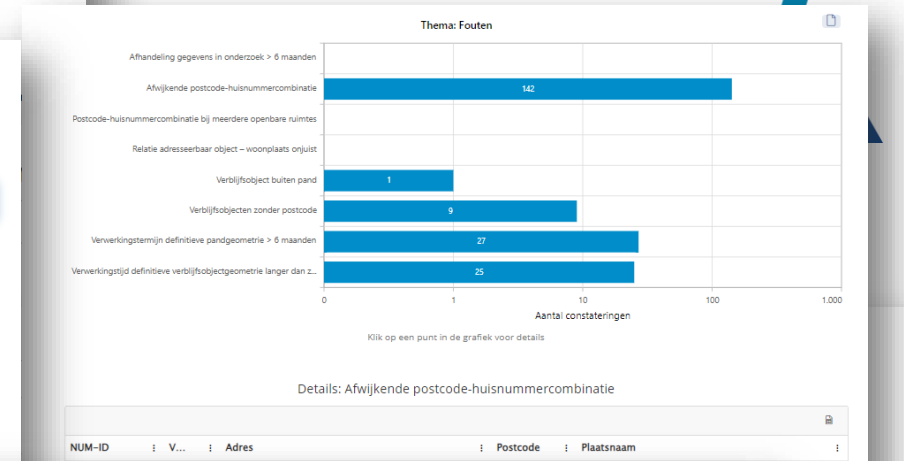
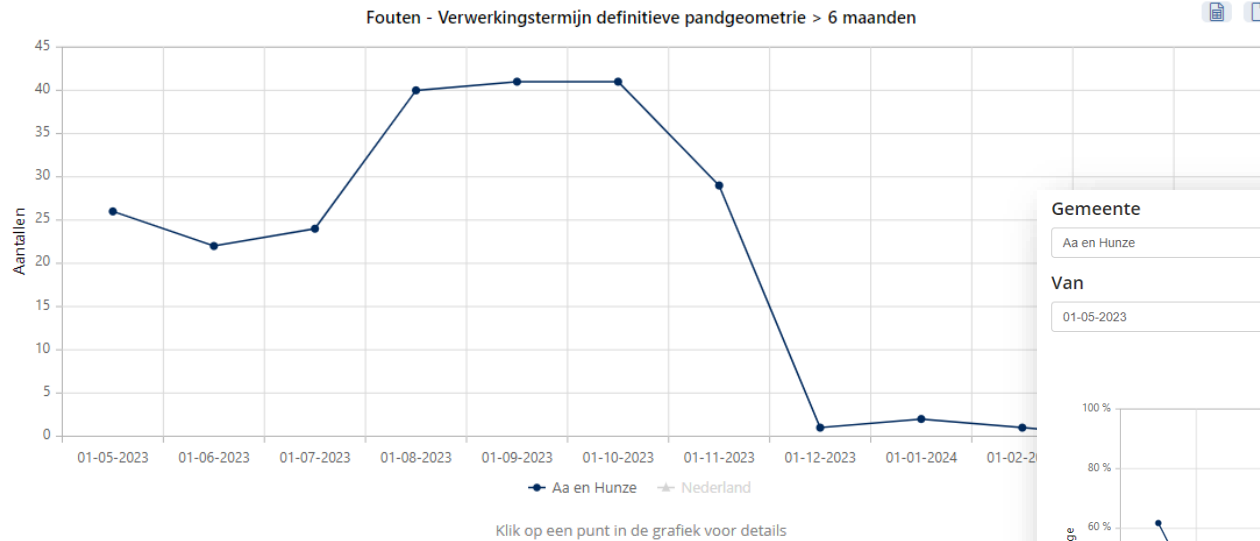
April 2024

kadaster **BAG Bronhouder** Uitloggen Mijn Kadaster

Oploslijst Aantallen Historie ENSIA Ranglijst Toelichting Contact

Gemeente Aa en Hunze **Thema** Fouten **Rapportage** Verwerkingstermijn definitieve pandgeometrie ...

Van 01-05-2023 **Tot** 01-04-2024 **Weergave** Aantallen



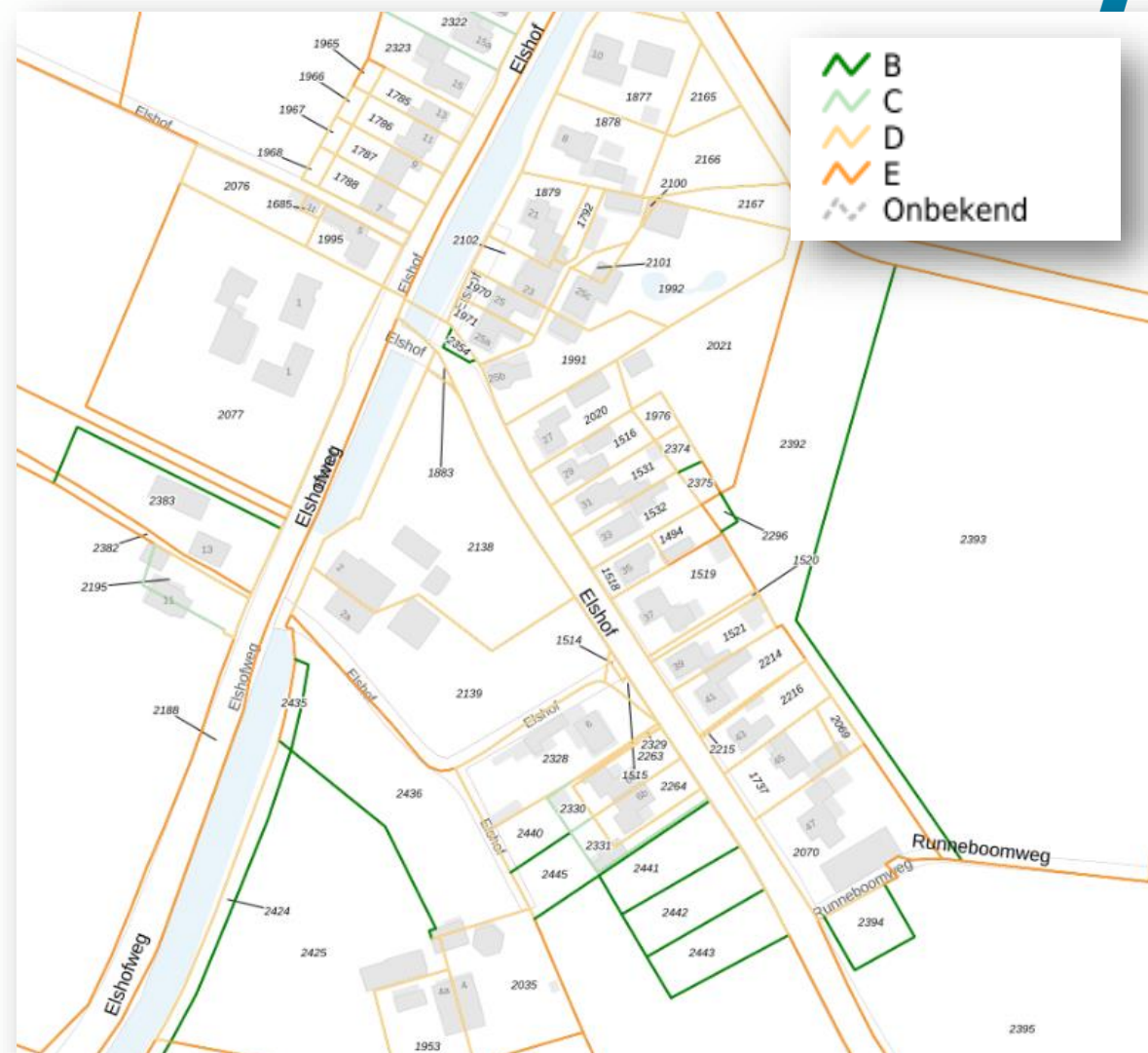
• New

Now the

April 2024

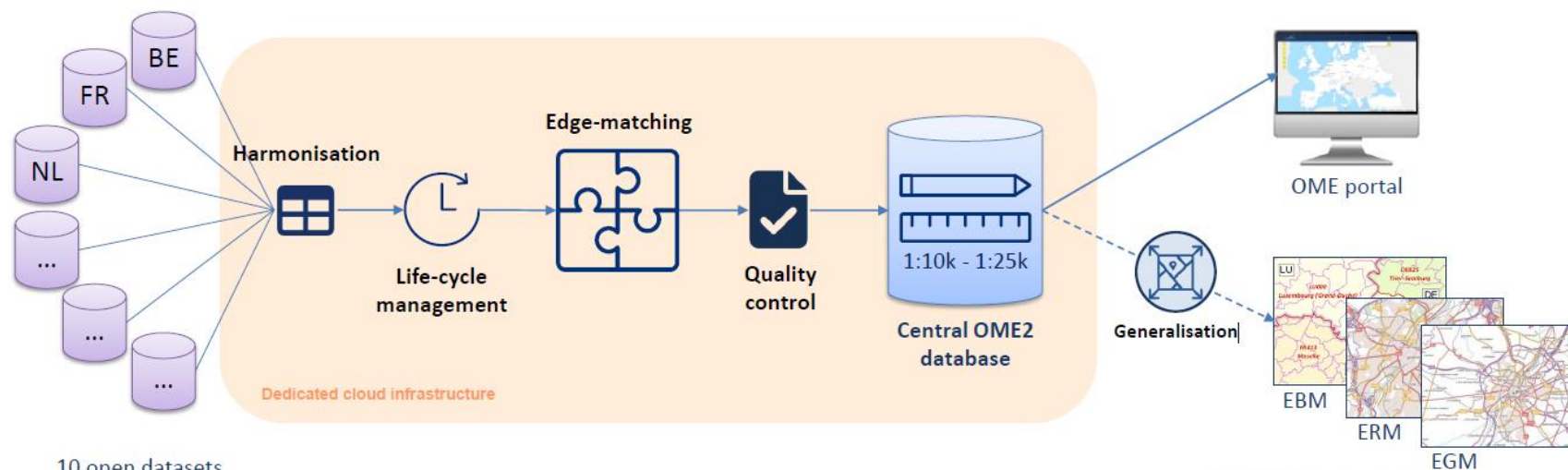
- Visualisation of quality of the cadastral boundaries
- *The accuracy of the position of the boundary on the map has in 95% of the cases both left and right a margin of:*

Label	De nauwkeurigheid van de afbeelding van de grens op de kaart heeft in 95% van de gevallen zowel links als rechts van de grens een marge van:
B	10 cm
C	20 cm
D	40 cm
E	80 cm



OME2 - Quality Tool (WP5.4)

- Set up and maintain a tool that checks the quality of the datasets based on the specifications created in WP4
- Participant: KadNL



10 open datasets
provided by national
producers with
mapping tables

 Co-funded by
the European Union

Digital Europe Programme
Grant Agreement No 101100625

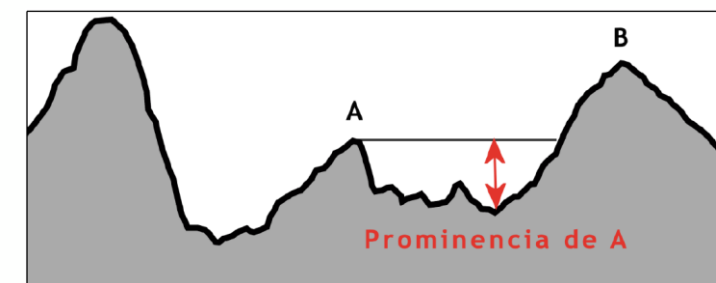
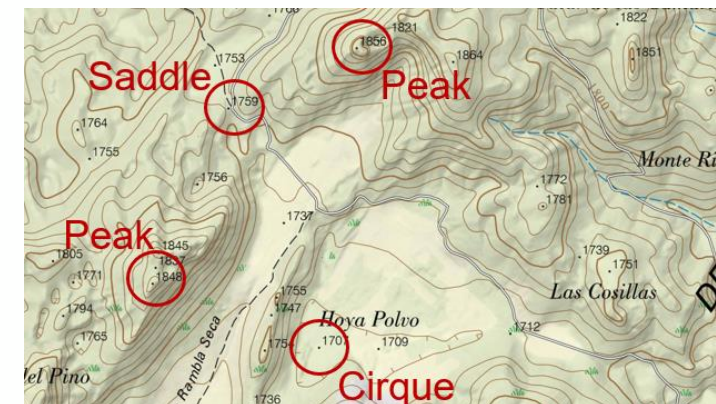
General Directorate for Cadastre, Spain From November 2023 to April 2024

- **News concerning Data Quality**
 - Ongoing annual objectives work plan for 2024 → following similar schema than previous editions.
 - Annual objectives plan based on KPIs
 - KPIs for quality → % of corrections made over a target amount
 - Cadastral reference and address has become very important data for census. New census changes (i.e. change of your residence must include cadastral reference to identify the house) → this involves working on the convergence of address data from both organisations.



Instituto Geográfico Nacional (IGN), Spain From April 2023 to April 2024

- News concerning Data Quality
 - Improving spot elevations classification (peak / saddle / cirque)
 - Until now, automatic classification techniques have been based on nearby environment analysis, with no good results
 - New methodology based on topographic prominence is working well
 - A “drainage” algorithm is used from a DTM -> peak list + saddle
 - Similar algorithm -> cirque list
- Neighbourhood analysis -> peak / saddle / cirque from DTM transferred to spot elevations (National Topographic Database)
- First results on islands. Now applying on mainland



Peaks				Saddles		
Point	Z	Prominence		Point	Z	Parent peak
A	3475			J	3087	A
B	3393	306		F	3189	A
C	3365	176		G	3181	B
D	3238	57		I	3119	A
E	3218	99		K	3044	A
H	3140	96				

Lantmäteriet, Sweden

From November 2023 to April 2024

- Activities that are planned to start or have recently commenced, which will impact Data Quality
 1. EU commission implementation regulation about **High Value Data** (HVD)
 2. Lantmäteriet appointed as the authority to hold a **special tenant-owner register**. Timeline for implementation och and secure financing.
 3. A government investigation titled "**A safer and more accessible real property register**" has been carried out with the task of reviewing the regulation of the real property register and proposing appropriate changes.
 4. A government investigation titled "**Better information on rental housing - mapping of the second-hand market and an improved apartment register**" has been carried out. The proposal has been out for consultation.
 5. The work on a "**Smarter community building process**" and the "**National geodata platform**" continues. The goal of the geodata platform is to provide access to nationally standardized basic data in various processes in the community.
 6. The Swedish government has tasked Lantmäteriet, in collaboration with other authorities and a selection of municipalities, to draw up a proposal for a **road map for the continued digitization of the community building process**.

Bundesamt für Landestopografie swisstopo , Switzerland From 11 2023 to 04 2024

- Any other news that would be of interest for Q-KEN?
 - maps and applications that visualize errors in the data Current projects, they support the product managers in correcting the errors at the source

Bundesamt für Landestopografie swisstopo , Switzerland From 11 2023 to 04 2024

Themes for 2025, I will be in vacations in October 2024

- **Prosuite usage at swisstopo in different projects**
 - Client only
 - Client / Server
 - Running in scheduled process

- **How we make our open data available via “SpatioTemporal Asset Catalogs» STAC**
<https://stacspec.org/en> and how you can use them via QGIS and ArcGIS Pro

-

Proposals for presentations at next plenary/webinar

Subject	Organisation
Usage of UAVs/drones by LGIA	LGIA, Latvia
Quality Dashboards for producers	Kadaster, Netherland
Visualisation of quality of the cadastral boundaries	Kadaster, Netherland
Improving spot elevations classification	IGN, Spain
National GIS Base Map	Lechner, Hungary
Labeling themes	IGN, France



Thank you for your work!