

6th December 2022

Facilitator: Ben Reilly

Microsoft Teams Meeting

Welcome

Ben provided a brief welcome and karakia. Opening remarks and quick run through of the agenda of the meeting. Questions etiquette: raise your hand in teams or type in chat.

LINZ: news

Updates from Property Team

NZ Suburbs and Localities dataset (*slide 7*):

- progress is going well
- the Fire and Emergency dataset will continue for 6 months after release.

NZ Addresses dataset (*slide 8*):

- remained in pilot for longer than expected but will be released early 2023 as the authoritative dataset that LINZ provides
- **NZ Street address** dataset will remain available for 6 months.

NZ Properties Hybrid (*slide 9*):

- will provide best special data we have available at present.
- combination of DVR, titles, parcels and RGB colour-coding will reflect best available representation available at the time
- in time more polygons will turn green as the underlying data is matched into a single 'Unit of Property' with unique identifier code
- available to central and local government as at March 2023.
- Questions followed with regard to when draft documentation will be issued covering the new datasets. LINZ confirmed the dataset releases would be accompanied by documentation.

Contact: addresses@linz.govt.nz

Notice of Change

(slide 10):

- improvements for VSPs going live on December 12
- XML Working Group making progress with group of TAs
- LINZ meeting software developers (e.g. MAGIQ) about XML integration

Contact: mwebster@linz.govt.nz

Rating Valuation and DVR Rules Review

(slide 11)

- Rating Valuation rules review has begun
- the initial focus is on gaining an understanding of how VSPs manage store and transfer the DVR data
- significant change in valuation rules likely, including things like formats, fields, fitness for purpose, etc.

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LINZ: LiDAR

Abbey Douglas and Emory Beck presenting, covered:

(slides 12 - 29)

- how you can get data and what datasets are coming up by the end of the year
- currently 30% national coverage aim to be at 80% by 2024 (slide 14)
- provided a briefing on the basics of LIDAR (slide 15)
- point clouds freely available for download from [Open Topography](#) (slide 16) and [LINZ Data service](#) (slide 20)
- two RASTA products available from LINZ data service – brief description provided
- encourage experimenting with uses for data, such as 3D printing (slide 22)
- visit [Elevation Aotearoa](#) to check when new datasets come out, how-to guides, and other information (slide 23)
- and/or follow [@LINZLDS on Twitter](#) for news and updates (slide 25)
- new regional datasets will be published shortly, in particular Northland region, parts of Canterbury, and the Taranaki region (slides 26-28)
- unfortunately Horizons Region did not participate in the Programme, so coverage in that region remains limited

Call for evidence – the National Elevation Programme was made possible by one-off funding through the Provincial Growth Fund. New funding will need to be secured to continue national LiDAR mapping beyond 2024. *LINZ welcomes any evidence and value propositions our stakeholders and customers can provide.*

Contact: elevation@linz.govt.nz

Wellington City Council: Info and Data strategy

Nadia Webster presenting:

- update on WCC's ongoing work to create an info and data strategy
- WCC held workshops to identify outcomes and barriers, opportunities and roadmap, mission critical data (*slide 32*)
- tried to produce a draft maturity model from attendees to the workshops (75+ people). Recorded where WCC was at with regard to various components including Discovery and Availability, Culture, Analytics, Governance, etc. (*slide 33*)
- Development of an action plan to raise maturity level (*slide 36*)
- Example – Property Data – Notice of Sale – set out a system flowchart for how Wellington's NoC system works and will work in the future (*slide 38*)
- Discussed data- matching as an issue. Simple transactions (single rating unit and single title) should work under WCC's Minimum Viable Product (MVP) and result in enormous time benefits for WCC staff.

Lynker Analytics: Data not Pixels work in Christchurch City

Matt Lythe & David Knox presenting:

- Lynker are a team of GIS practitioners and data scientists with expertise in machine learning, remote sensing, and geo-spatial analytics
- Fast growing area of work: some examples of recent projects/applications (*slide 42*):
 - solar asset value score – estimate of average price of solar installations vs. potential power bill savings
 - land cover
 - Beaver ponds detection in the Colorado USA region
 - settlement analysis, study for World Bank, changes in informal settlements, changes in urban density
 - roof material and conditions

- buildings and toads
- this presentation focuses on roof analysis – Lynker sought to help Christchurch Council understand roof condition and heavy metal load to stormwater (in particular Zinc) (*slides 43-44*)
- developed four models to achieve this (*slide 45*):
 - Supervised remote sensing classification model
 - A deep learning image classification to discriminate metal and non-metal. This includes distinguishing between ceramic tiles and decra-mastic metal tiles.
 - A deep learning image classification model to discriminate poor condition roof
 - A machine learning ensemble model to predict a final roof condition (decay index)
- David ran through a demo showing how roof conditions were flagged on aerial imagery
- achieve a reasonable level accuracy in predicting roofing integrity and likelihood of degradation of Zinc from roof material (*slides 47-48*)
- there followed a brief discussion of implications for Councils in holding maintenance information - this might be one method that facilitates more regular quality-controlled maintenance and updates of some attributes within DVR data.

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Blurry to insightful: Creating a one stop shop for satellite imagery and derived data

Steve Critchlow presenting:

- studies and work have frequently been based on low-res images that may be unsuitable to the task at hand
- there are a variety of imagery types available: hi-res colour multi-spectral, night-time, video, hyperspectral, radar, and 3D elevation models (*slide 51*)
- level of detail required for different pieces of work can be facilitated by different satellites or drone technologies – there will be variation in price and delivery time (*slide 51*)
- providers are multi-national and have different strengths / capabilities (*slide 52*)
- capable of different types of environmental monitoring depending on resolution, etc.

- refer to PPT for specifics of the different companies and their capabilities (*slides 53-63*)
- Critchlow website allows customers to try different variables in side-by-side comparisons (*slide 64*)
- there followed a brief discussion about the minimum area requirements for satellite imagery and the limitations that imposes on some potential users.

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