

Oblieke Werelden in de Praktijk

AHN Beeldmateriaal congress 2023

- Wie zijn wij ?
- Ons product: Obliquo
- Wie zijn de gebruikers ?
- Praktijkvoorbeelden



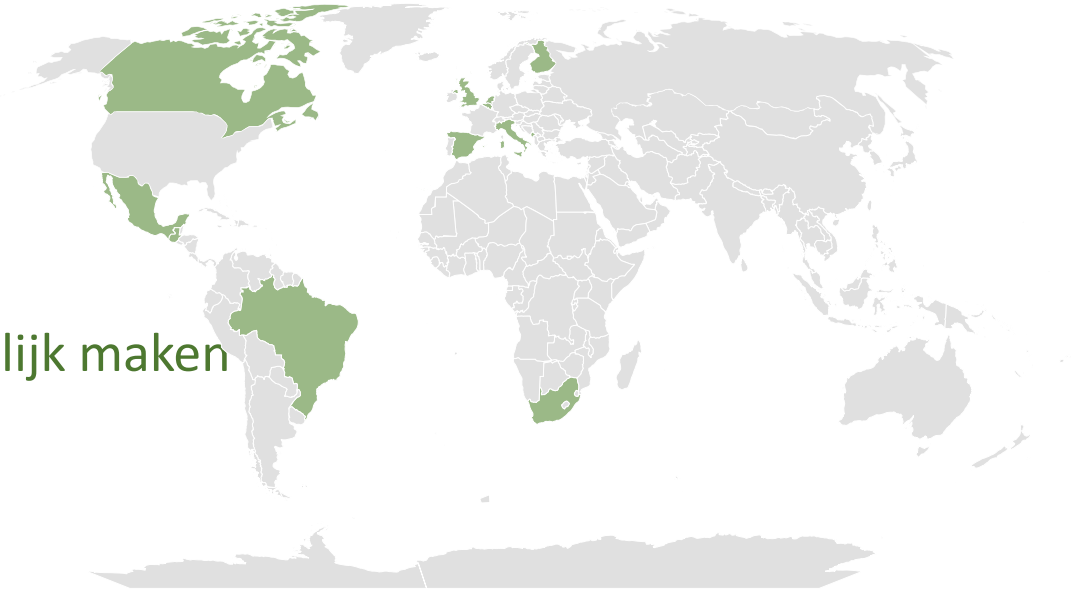
obliquo

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Airborne Laserscanning Int. B.V./ Voxel3D



- Opgericht in 2015
- Valladolid in Spanje
- Actief in 13 landen
- Missie: Geodata toegankelijk maken
- Ons product: Obliquo



Ons Product

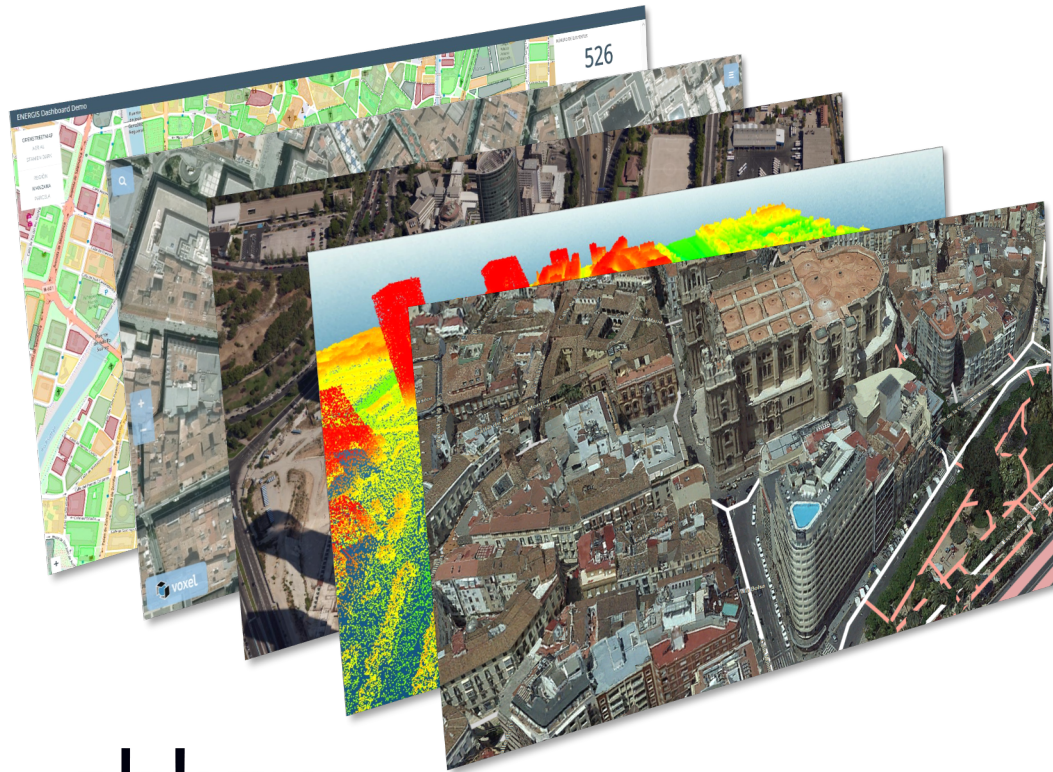
מבטקום



IS A MODERN GEOSPATIAL PLATFORM

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Obliquo: Toegankelijk maken van Geospatial data



Geospatial data

- alle typen data
- Onbegrensde omvang

SOLUTION

OBLIQUO CLOUD STORAGE

Unlimited storage for
geospatial data



OBLIQUO WEB MAP ENGINE

Ultra high-performance
data streaming system



OBLIQUO PORTAL

Visualization and
analysis of the
information in any web
browser

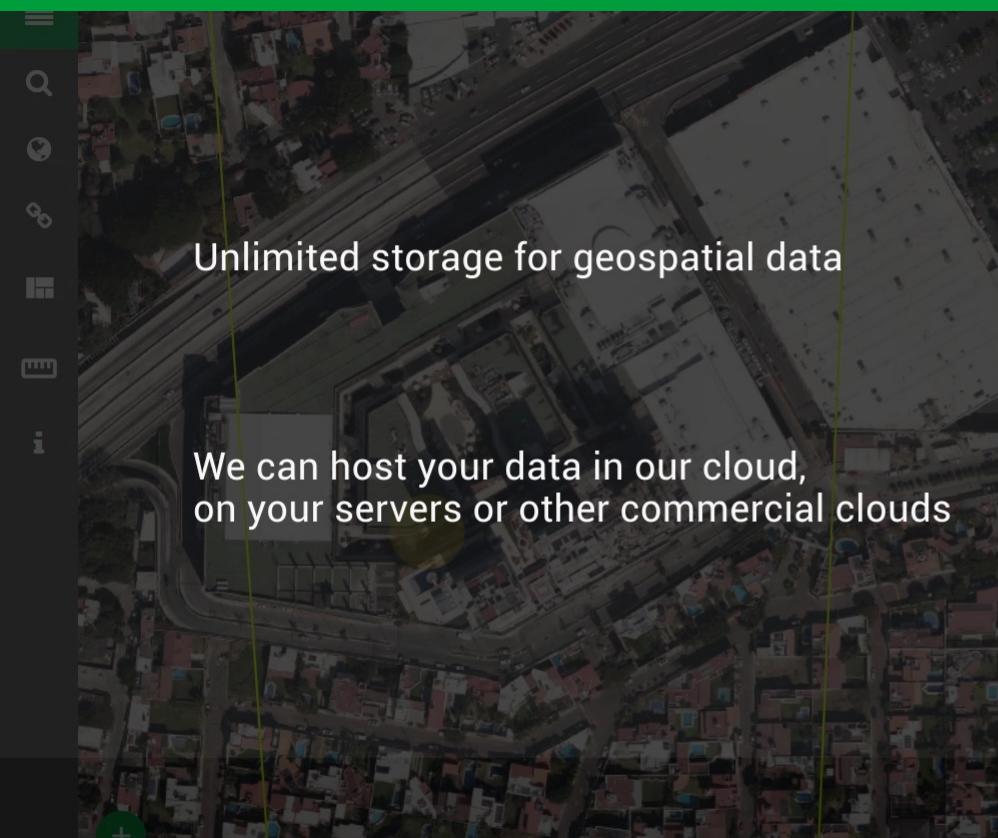


OBLIQUO API

Create your applications
or integrate Obliquo into
your workflow



Ons Product

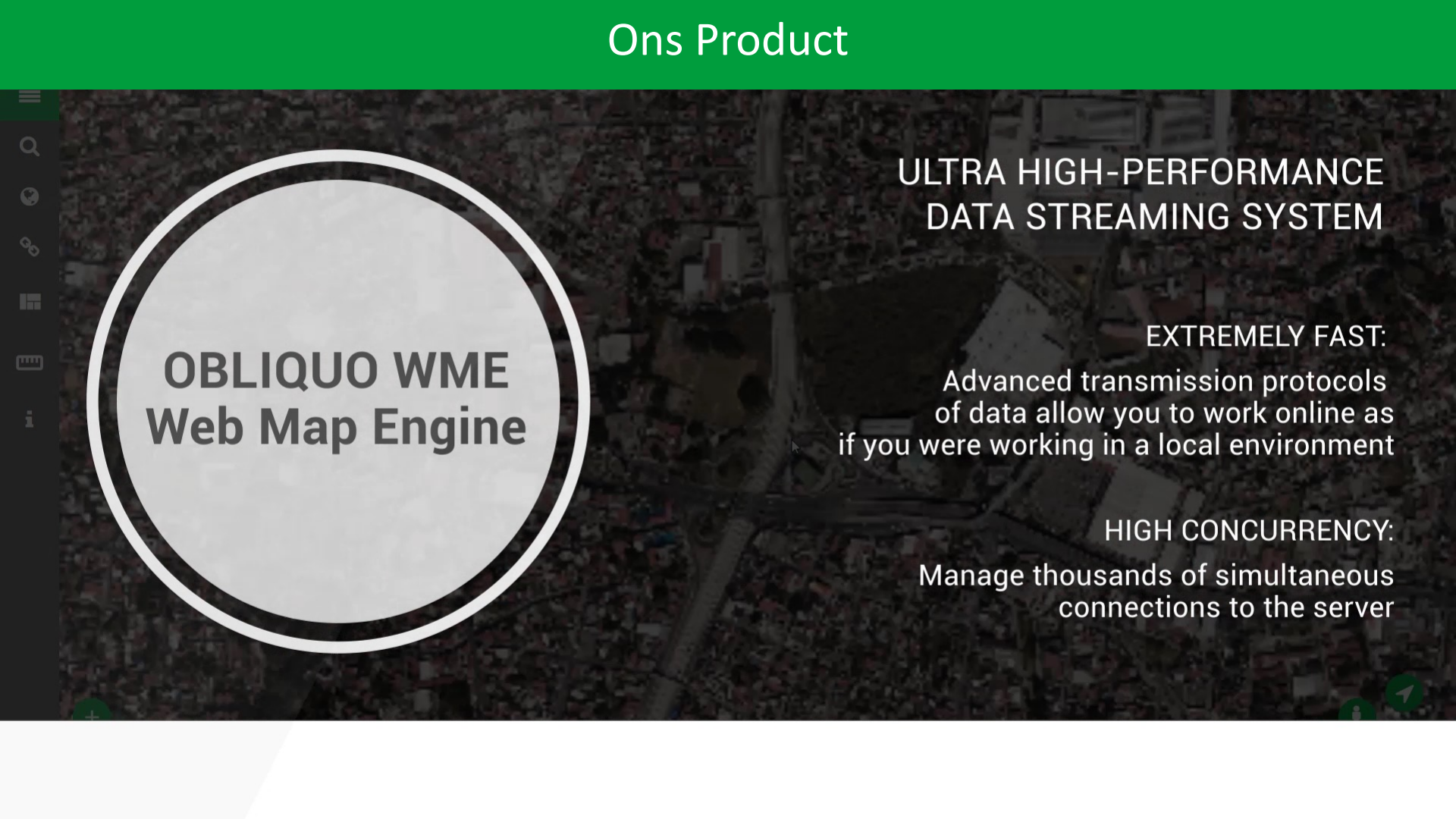


Unlimited storage for geospatial data

We can host your data in our cloud,
on your servers or other commercial clouds



OBLIQUO
Cloud Storage



OBLIQUO WME
Web Map Engine

ULTRA HIGH-PERFORMANCE DATA STREAMING SYSTEM

EXTREMELY FAST:

Advanced transmission protocols of data allow you to work online as if you were working in a local environment

HIGH CONCURRENCY:

Manage thousands of simultaneous connections to the server

Ons Product



OBLIQUO Portal

VISUALIZATION AND ANALYSIS OF THE INFORMATION IN ANY WEB BROWSER

Fusion of various types of data in the same environment

Interoperable: Data integration from third parties

Measurements of any object or element in 3D

- Coordinates
- Distances
- Areas

Obliquo: Toegankelijk maken van Geospatial data

ACCESSIBILITY



FROM ANYWHERE



ANYTIME



WITH ANY DEVICE

Ons Product

CREATE YOUR APPLICATIONS
OR INTEGRATE OBLIQUO
INTO YOUR WORKFLOW

Integration with:



ArcGIS



OBLIQUO API



We take care of data structuring,
preparation for online
visualization and deployment
on our platform



Just send us your data
and we will publish them
in record time



Decide who can
access your data

obliquo

- Visualiseer al uw gegevens in dezelfde viewer
- Meet ieder element
- Voeg WMS/WMTS informatie toe
- Query attribuutinformatie
- Deel met teamleden of klanten



obliquo

- Dataleverancier onafhankelijk
- Ondersteunen data van iedere sensor
- Geen investeringen in dataopslag
- Optimale gegevensbeveiliging
- Maatwerk mogelijkheden voor uw organisatie



> 500TB data en >>> 1.000-en connecties per dag

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Onze klanten en gebruikers

- Overheden (gemeentelijk, regional, national)
- Nutsbedrijven, ingenieurbureaus, telecom, solar...
- Burgers
- (Airborne) Survey bedrijven



Obliquo gebruikers: een paar referenties

Stad Madrid 450 km²

- Data: orthofoto's; obliek beelden 9cm 100K+; Laser puntenwolk; 3D mesh

Regio Madrid 8.028 km²

- Data: orthofoto's, obliek beelden 10-15 cm
- Sensoren: Vexcel, Leica/Hexagon, IGI, Visionmap

Regio Malaga 7.310 km²

- Data: orthofoto's (10 jaargangen); obliek beelden 10-15cm; > 1M beelden
- Verschillende sensoren

Obliquo gebruikers: een paar referenties

Overheid Montenegro: 13.812 km²

- Data: orthofoto's; obliek beelden 10-15cm
- Sensor: Vexcel Osprey

Vansteelandt (Vlaanderen, Wallonie) Plan3D: >15.000 km²

- Data: orthofoto's (7,5 cm), obliek beelden 9 cm; puntenwolk (laser, dense matching); 3D mesh; afgeleide producten
- Sensor: Leica CityMapper

Bluesky UK

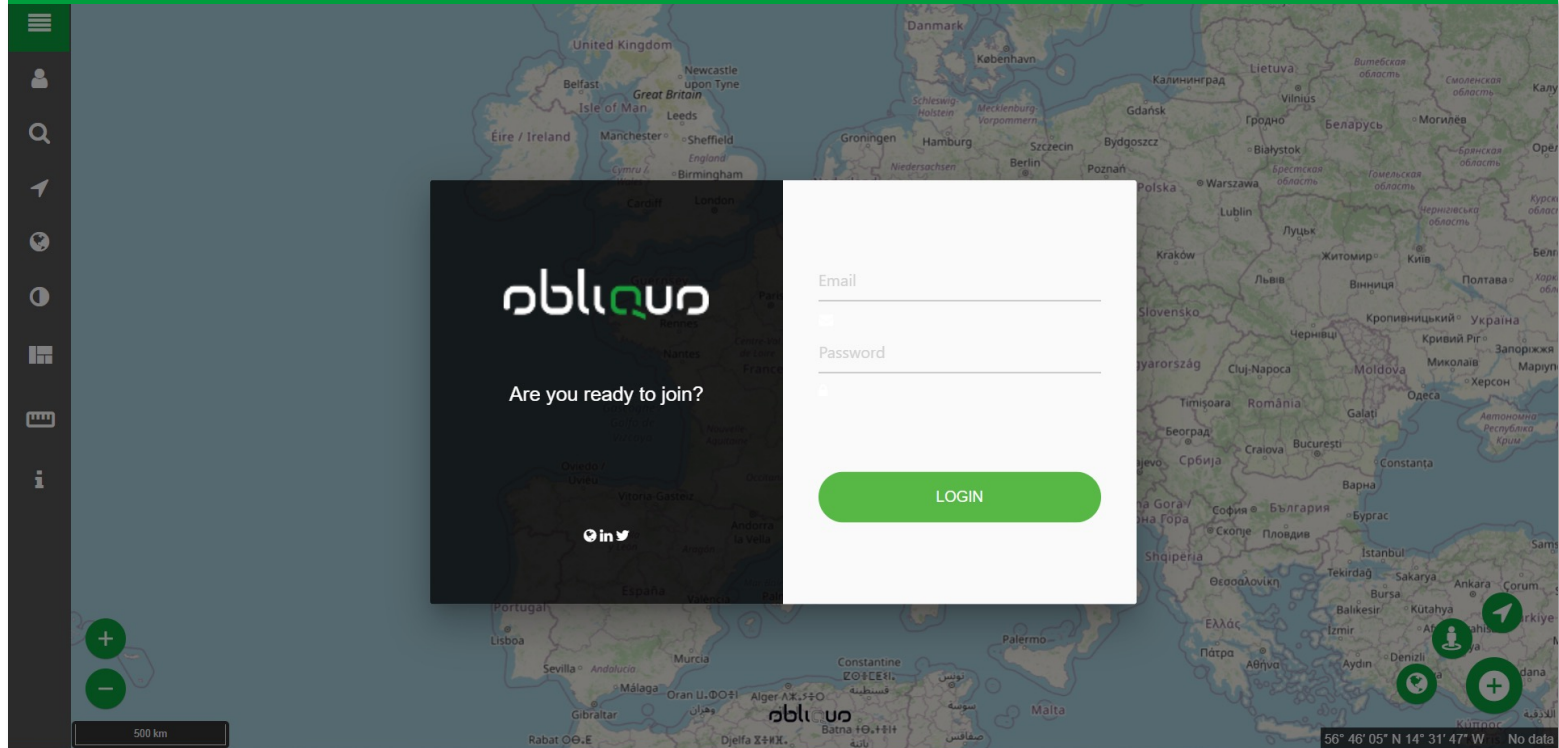
- Data: obliek beelden 10cm;

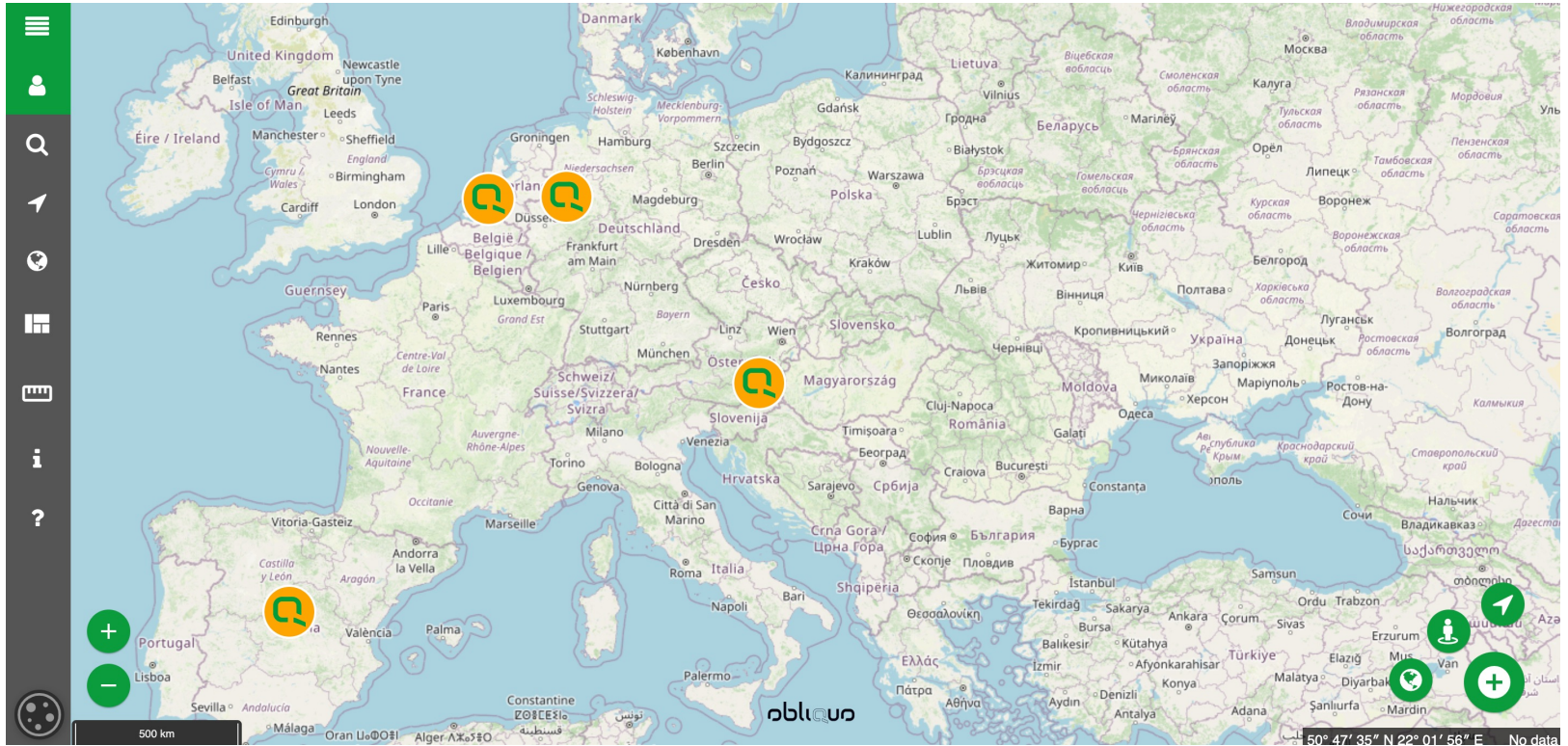
Kavel 10

- Data: orthofoto's; obliek beelden 10cm; panorama's



Obliquo: mogelijkheden en toepassingen





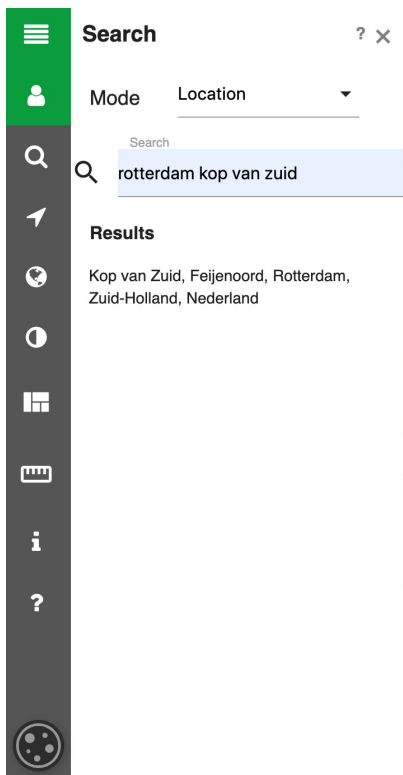
облук Openings scherm; User Interface

Search ? x

Mode Location

Search
rotterdam kop van zuid

Results
Kop van Zuid, Feijenoord, Rotterdam,
Zuid-Holland, Nederland



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Zoeken op adres

Data Kavel10

Tools ? x

Catalogue Add Query

Layers

- Vector data
- Point cloud data
- Panoramic data
- Oblique data

2022

2020

2019

- Ortho data
- Baselayer



Data Layer manager

Data Kavel10



<https://app.obliquo.cloud/#>

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139000599_0011_01_0038_P00_01 [2019/06/27] Demos[2019]

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Selectie oblieke kijkrichtingen

Data Kavel10



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Selectie oblieke kijkrichtingen

Data Kavel10



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Selectie oblieke kijkrichtingen

Data Kavel10

The image shows a software interface for a 3D city model. On the left is a vertical sidebar with icons for home, user, search, navigation, and other functions. The main area is divided into two panels: 'Layouts' and 'Organization'. The 'Layouts' panel lists four options: 'Single view', 'Dual view', 'Three view', and 'Five view'. The 'Organization' panel lists three options: 'Smart', 'Horizontal', and 'Vertical'. The main view is a 3D aerial rendering of a city with various buildings, including a prominent curved skyscraper and a tall rectangular one. A compass icon is in the top left of the 3D view, and several green circular icons (plus, minus, refresh, user, and a plus with a plus) are in the bottom right. At the bottom of the 3D view, there is a watermark 'obliquo' and a footer with the text '138000782_0008_01_0031_P00_01 [2019/06/27] Demos[2019]'.

Layouts ? X

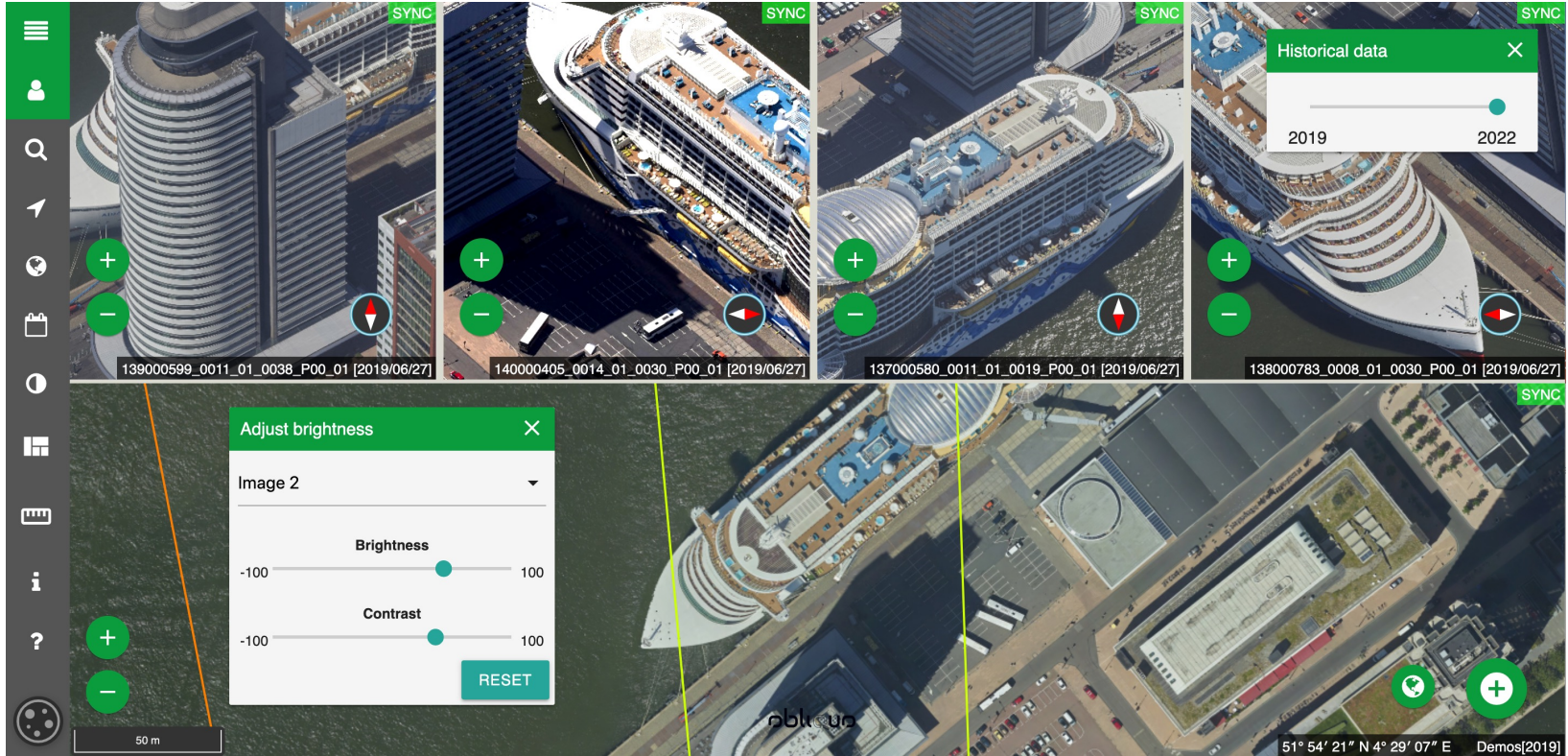
- 1 Single view
- 2 Dual view
- 3 Three view
- 5 Five view

Organization

- Smart
- Horizontal
- Vertical

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138000782_0008_01_0031_P00_01 [2019/06/27] Demos[2019]



obliquo Five view layout

Data Kavel10

Tools ? x

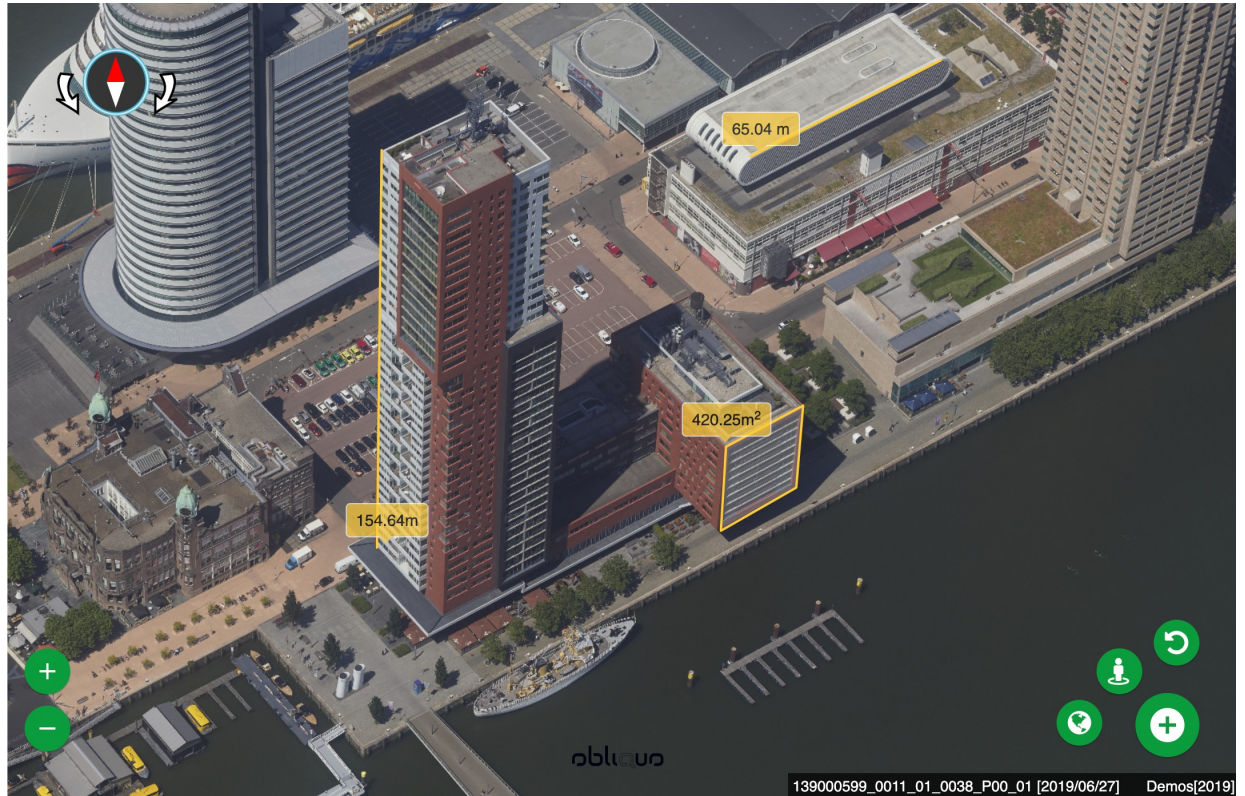
Objects

- Height
- Area
- Distance

Properties

x	y	z
4.5	51.9	1.7
4.5	51.9	3.0

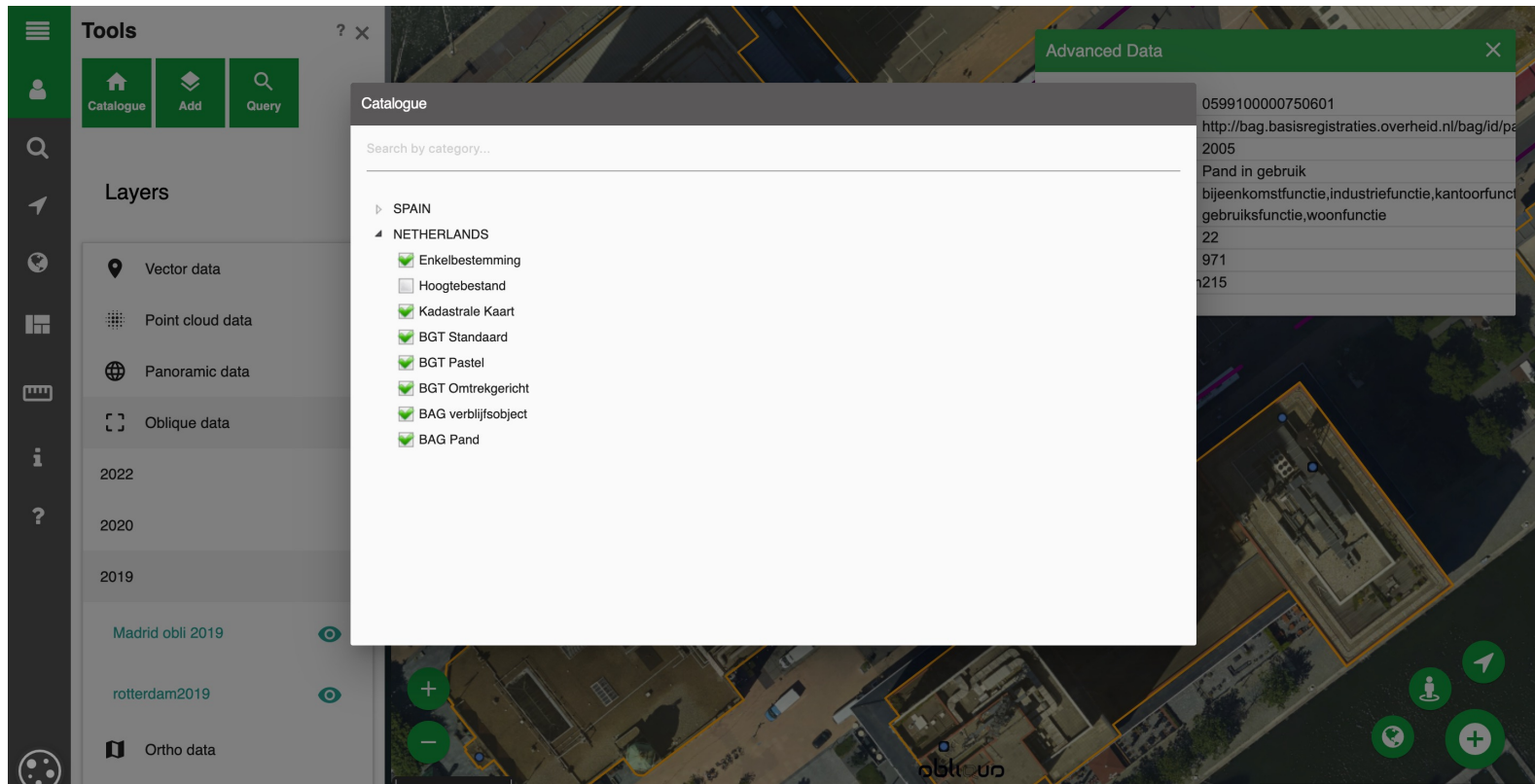
Distance: 65.04 m



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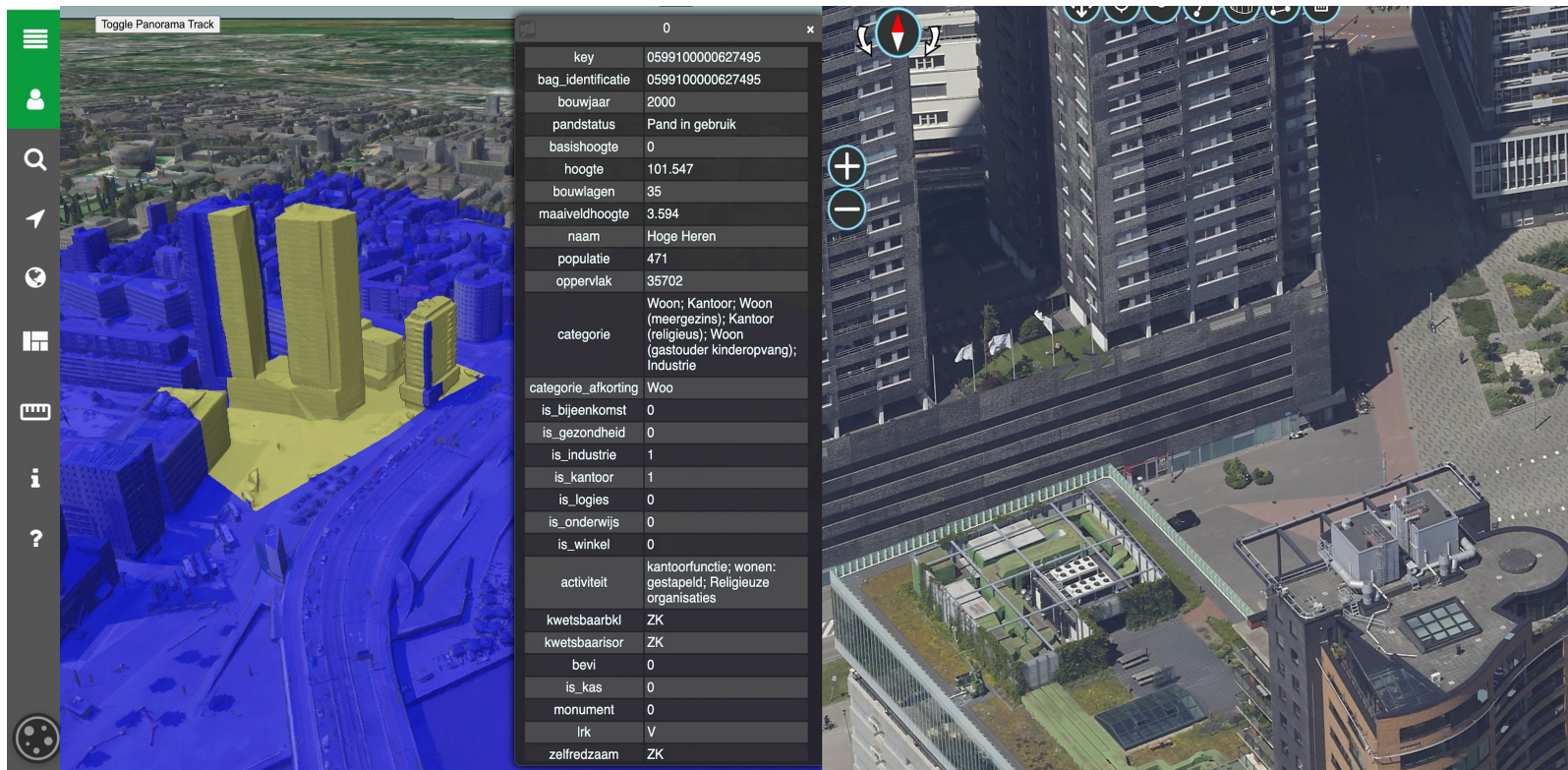
Meten: in single beelden en in stereo

Data Kavel10



Externe datalayers: toevoegen aan catalogus



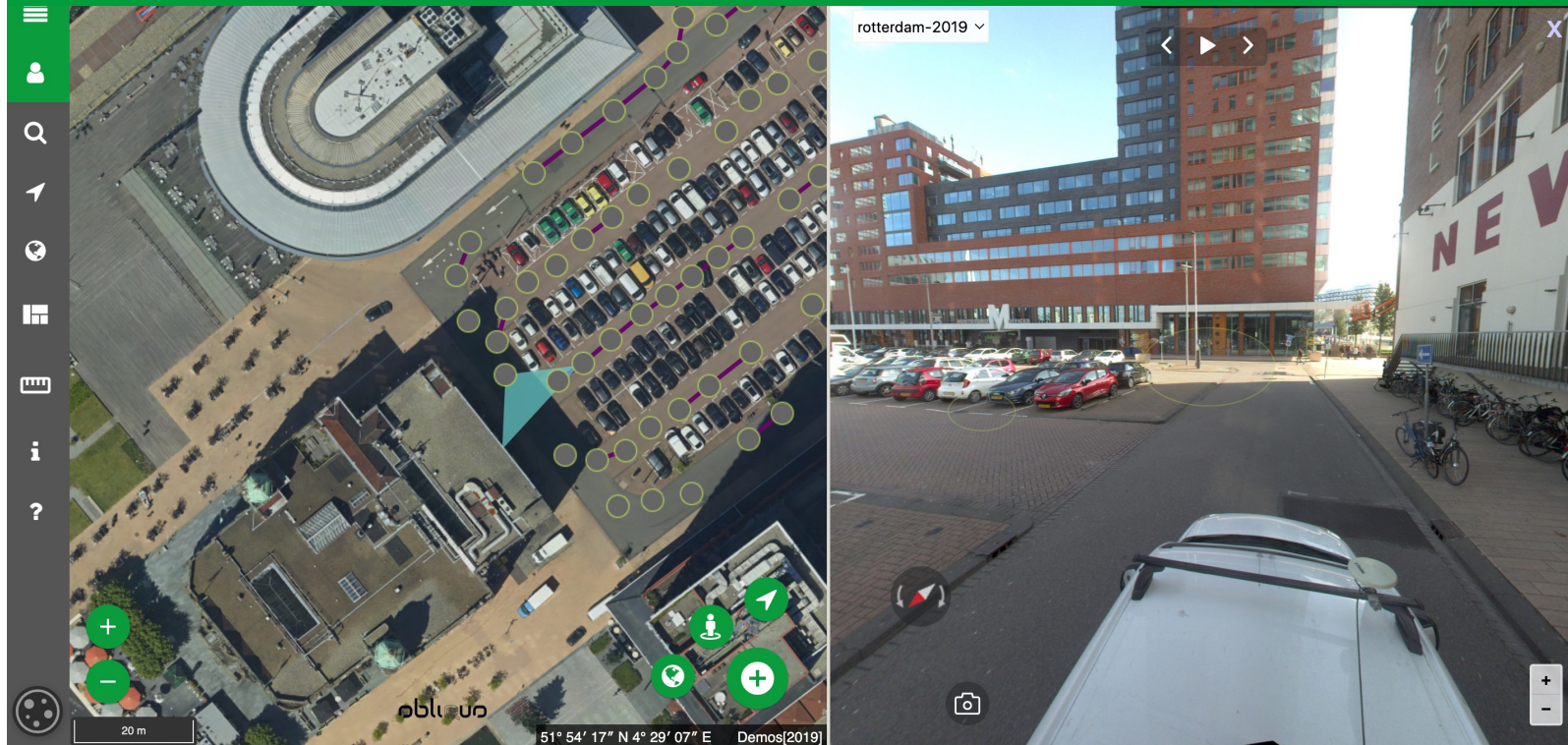


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combinatie met 3D LOD modellen (SPOTinfo)

- Gesynchroniseerd, zelfde U.I., vrije keuze combinatie data

Obliquo: ook voor mobile mapping data



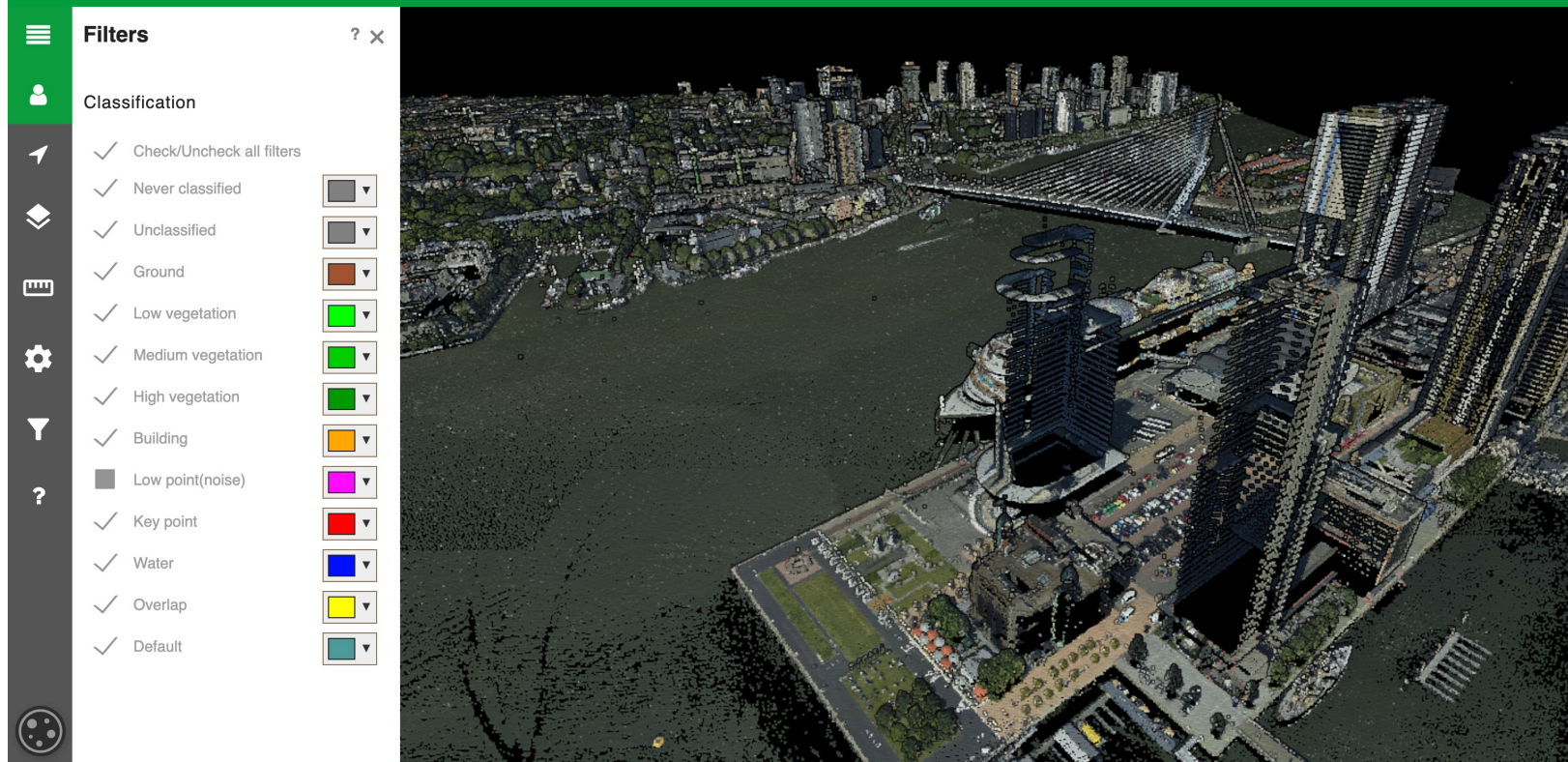
obliquo

combinatie met mobile mapping beelden

Data Kavel10

- Gesynchroniseerd, zelfde U.I., vrije keuze combinatie data

Obliquo: ook voor puntenwolken



The image shows a screenshot of the Obliquo software interface. On the left, there is a vertical sidebar with various navigation icons. The main window displays a 3D point cloud of a city, with buildings and a river visible. A 'Filters' panel is open on the left side of the main window, showing a list of classification categories with checkboxes and color swatches. The categories include: Check/Uncheck all filters, Never classified, Unclassified, Ground, Low vegetation, Medium vegetation, High vegetation, Building, Low point(noise), Key point, Water, Overlap, and Default. Each category has a corresponding color swatch and a dropdown arrow.

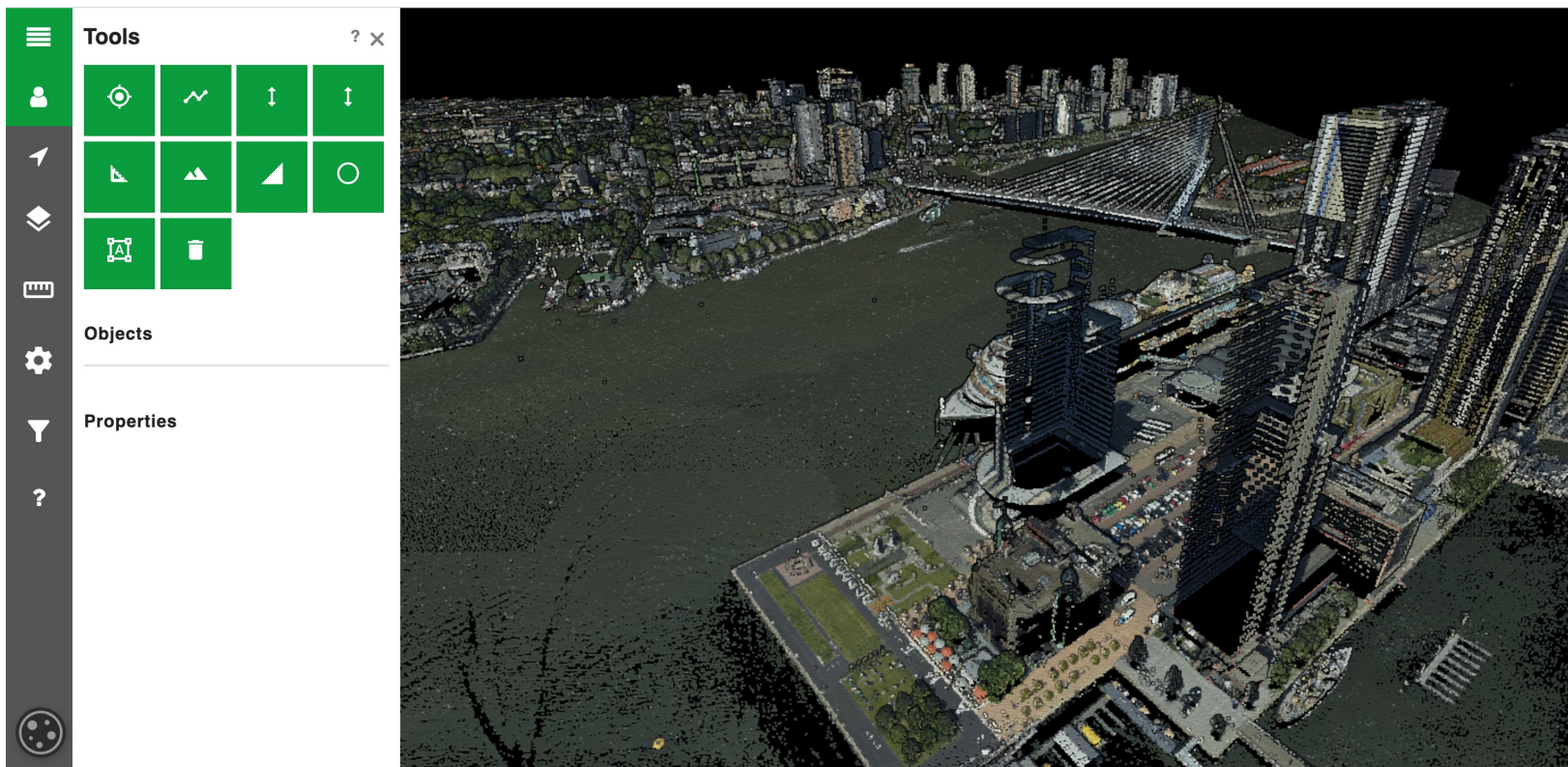
Filters ? x

Classification

- Check/Uncheck all filters
- Never classified
- Unclassified
- Ground
- Low vegetation
- Medium vegetation
- High vegetation
- Building
- Low point(noise)
- Key point
- Water
- Overlap
- Default

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Puntenwolken (airborne, mobile mapping, static)
– filtering op klassificatie



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Meet tools in de puntenwolk

Data Kavel10

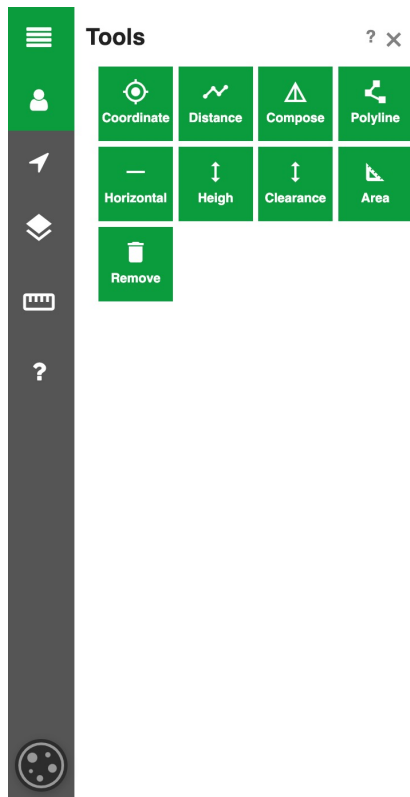
Obliquo: ook voor 3D mesh modellen



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mesh modellen; zelfde UI; multiple layouts

Plan3D
by Vansteelandt



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3D mesh modellen; 3D meet mogelijkheden

Plan3D
by Vansteelandt



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3D mesh modellen; multiple layouts

Plan3D
by Vansteelandt



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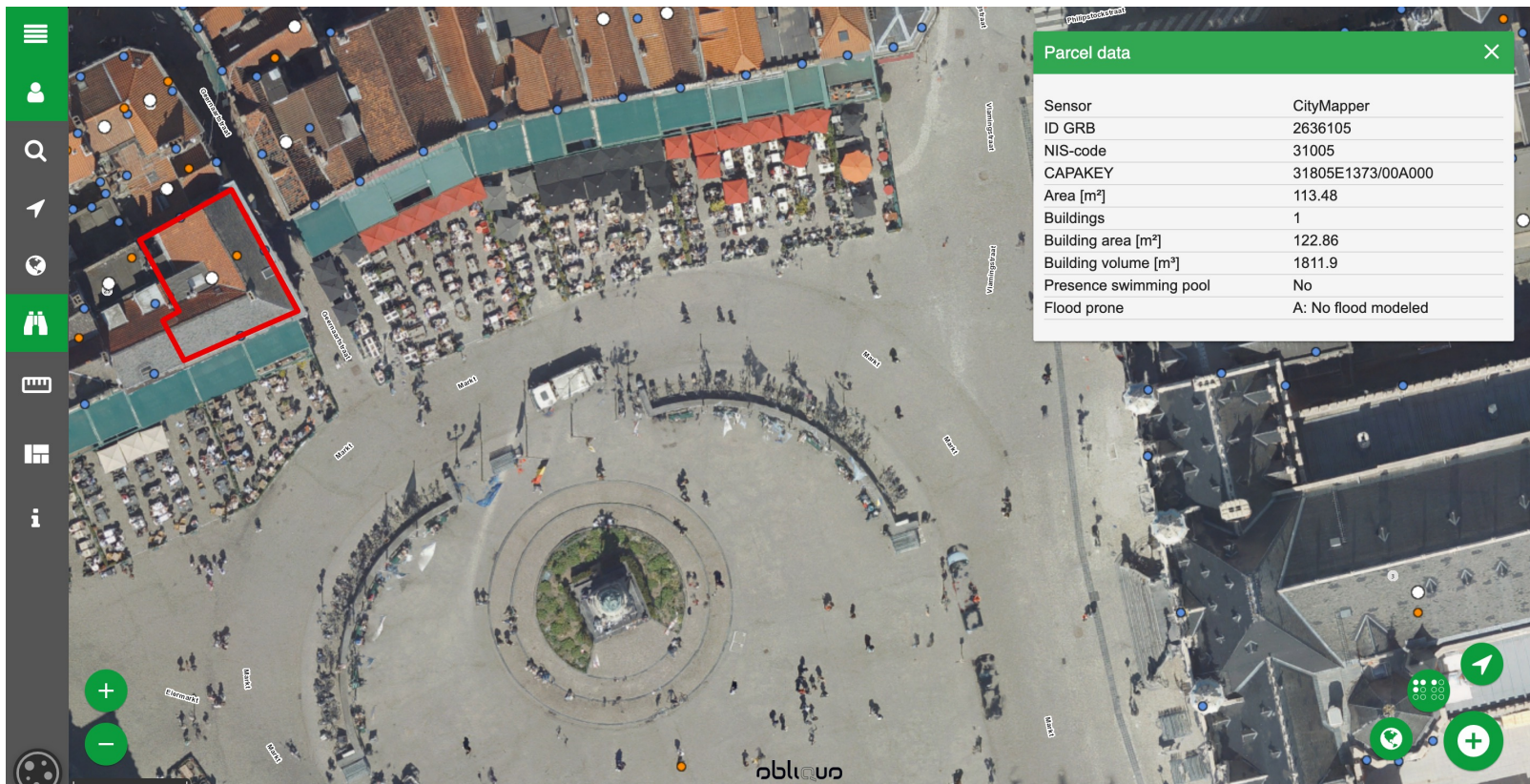
3D mesh modellen; multiple layouts

Plan3D
by Vansteelandt



obliq Obliëk en true orthofoto's





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Koppeling met eigen vector layers en query

Plan3D
by Vansteelandt

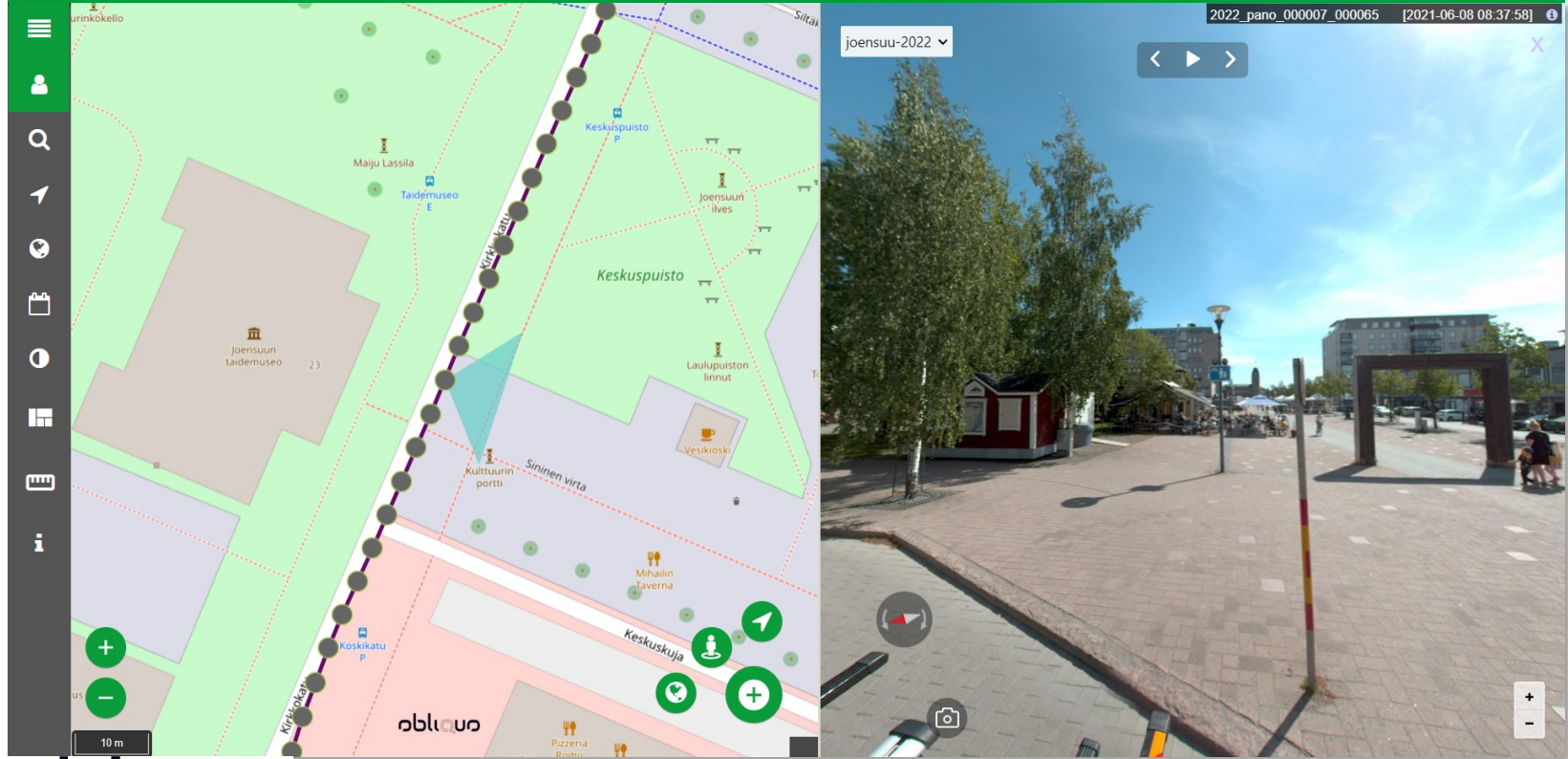


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3D colored puntenwolk uit dense matching

Plan3D
by Vansteelandt

Obliquo: ook voor panoramabeelden



obliquo

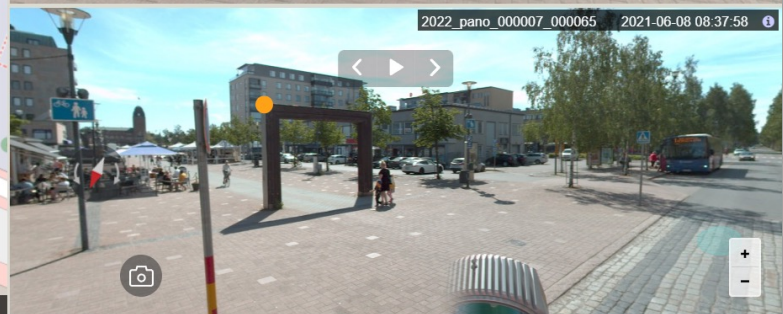
Dual view; vrije keuze in combinatie van data

Data Tripodi



obliquo Three view

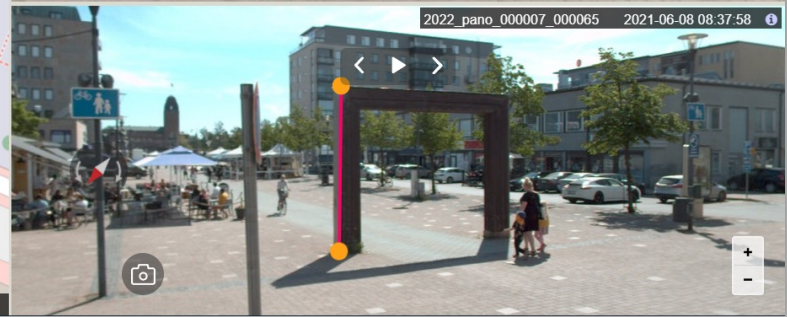
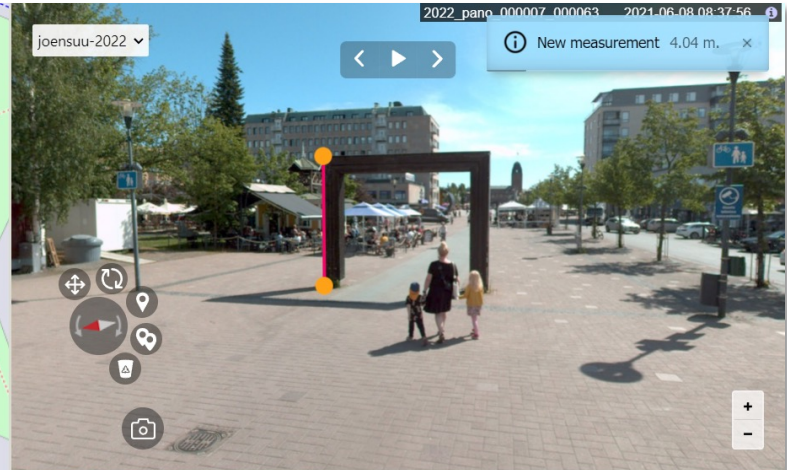
Data Tripodi



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Meetfunctionaliteit: 3D point coordinates

Data Tripodi



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Meetfunctionaliteit: 3D distance

Data Tripodi

Obliquo: ook voor mobile mapping puntenwolken



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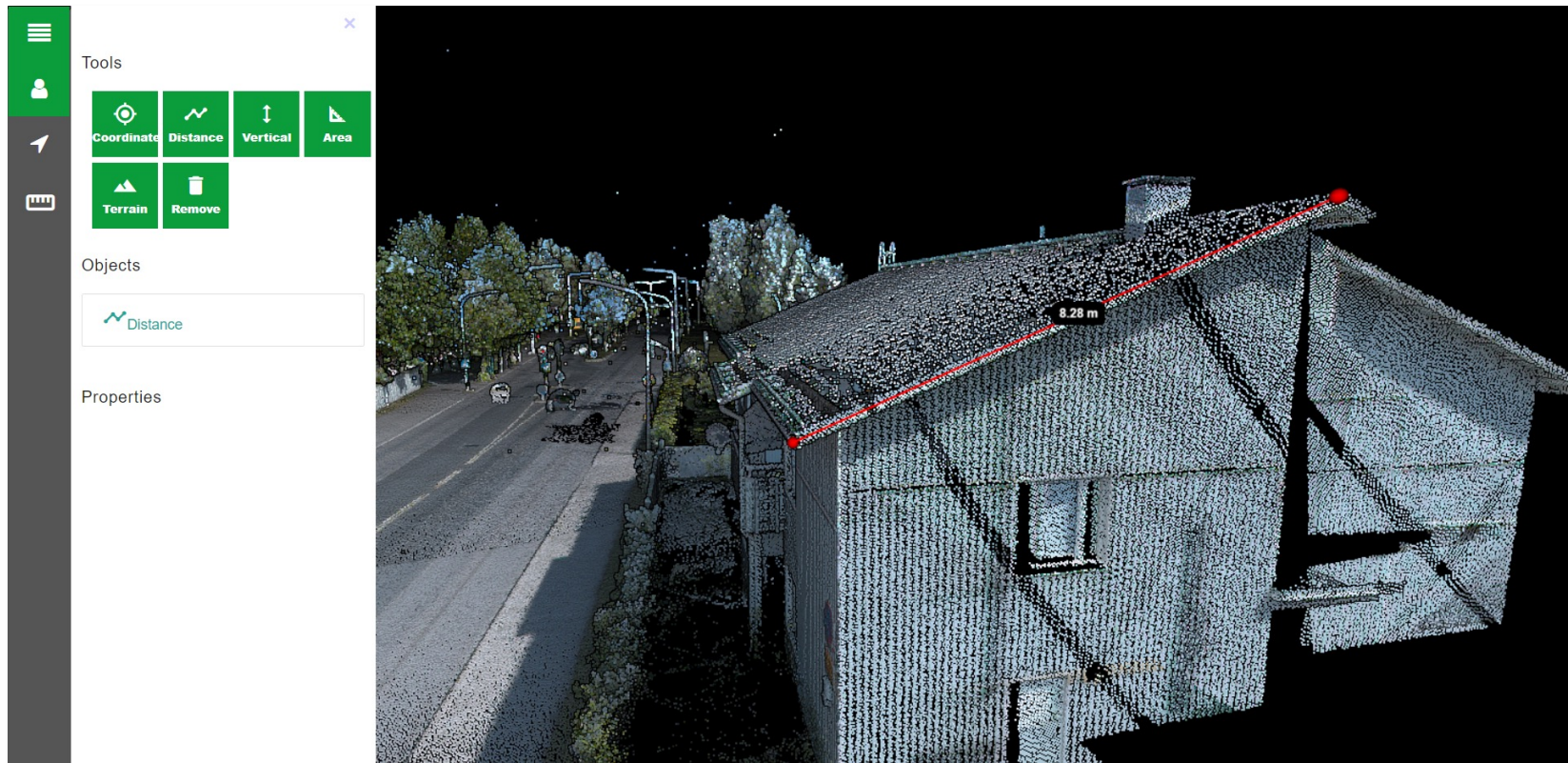
Cloud mode

Data Tripodi



Meet tools: 3D point coordinates

Data Tripodi



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Meet tools: 3D afstanden

Data Tripodi



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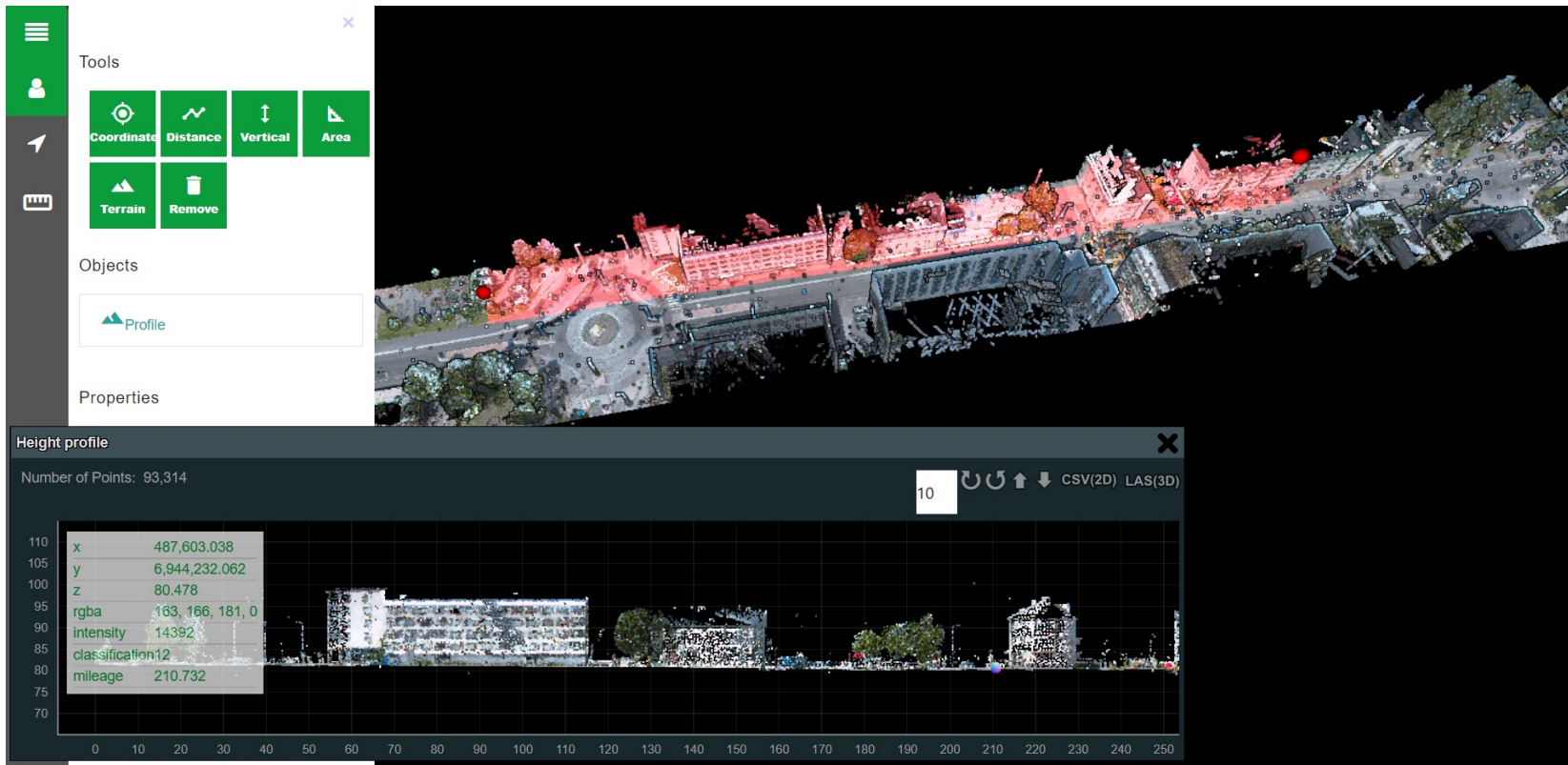
Meet tools: Hoogte

Data Tripodi



obliQ Meet tools: 3D area

Data Tripodi



obliqu Meet tools: 3D profile

Waartoe leiden viewers zoals Obliquo ?

- eenvoudige ontsluiten alle soorten geodata
- laagdrempelig beschikbaarheid
- nieuwe gebruikers (groepen)
- toename vraag en gebruik
- we gaan anders werken
- ontwikkeling van algorithmen voor Big data handling
- ontwikkeling van specifieke cloud-based toepassingen
- gebruik gebaseerde financiële modellen

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LIVE DEMO

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Bedankt voor uw aandacht!



<https://voxel3d.es>
<https://obliquo.cloud>

Voor meer informatie kontakt
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