

NATIONAL LASER SCANNING PROGRAM

ANDREAS RÖNNBERG, SENIOR ENGINEER





THE FIRST MISSION (2007)



Create a new national elevation model with higher resolution and accuracy

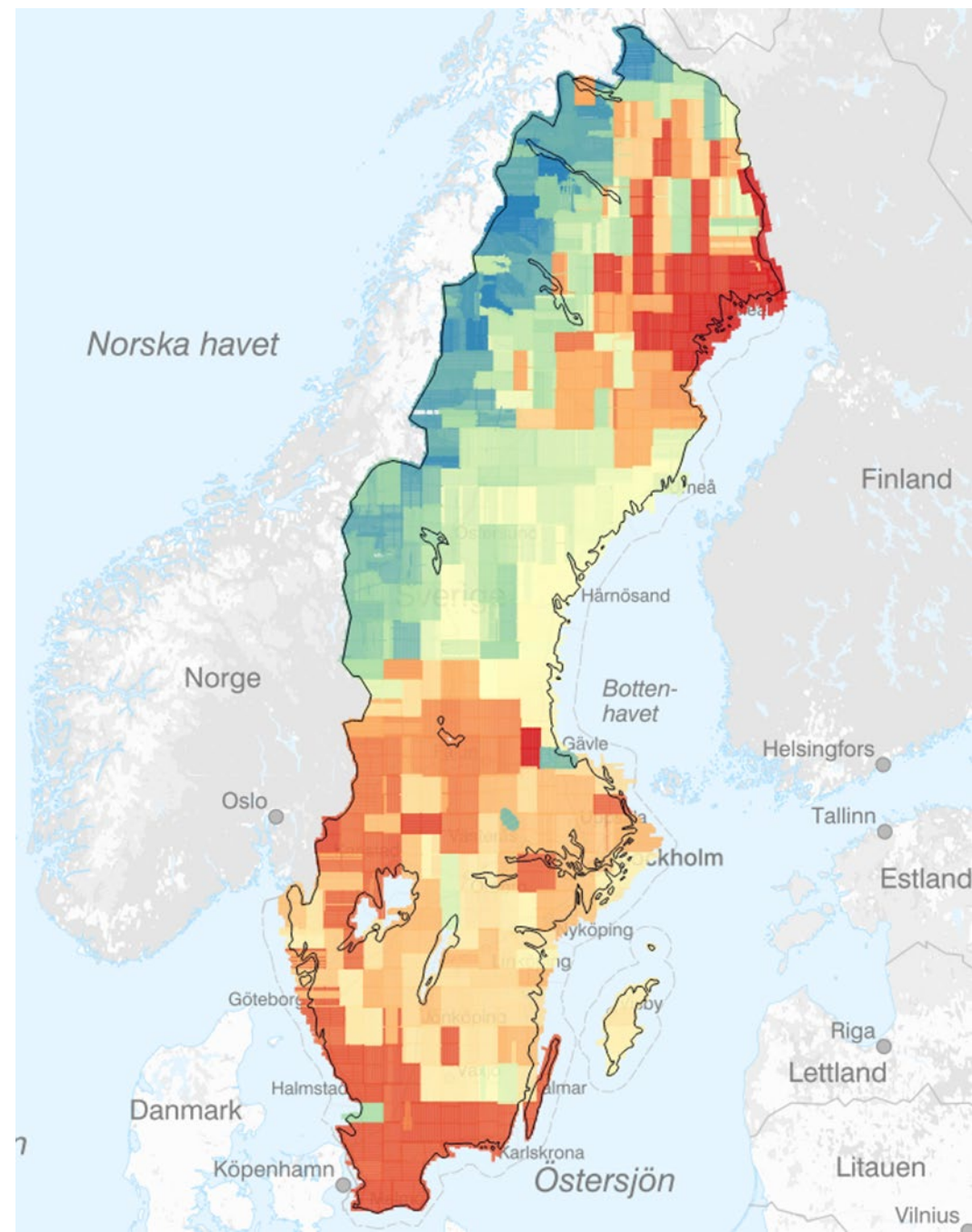
- To replace existing 50 m model

Laser scanning was chosen as the most appropriate technology

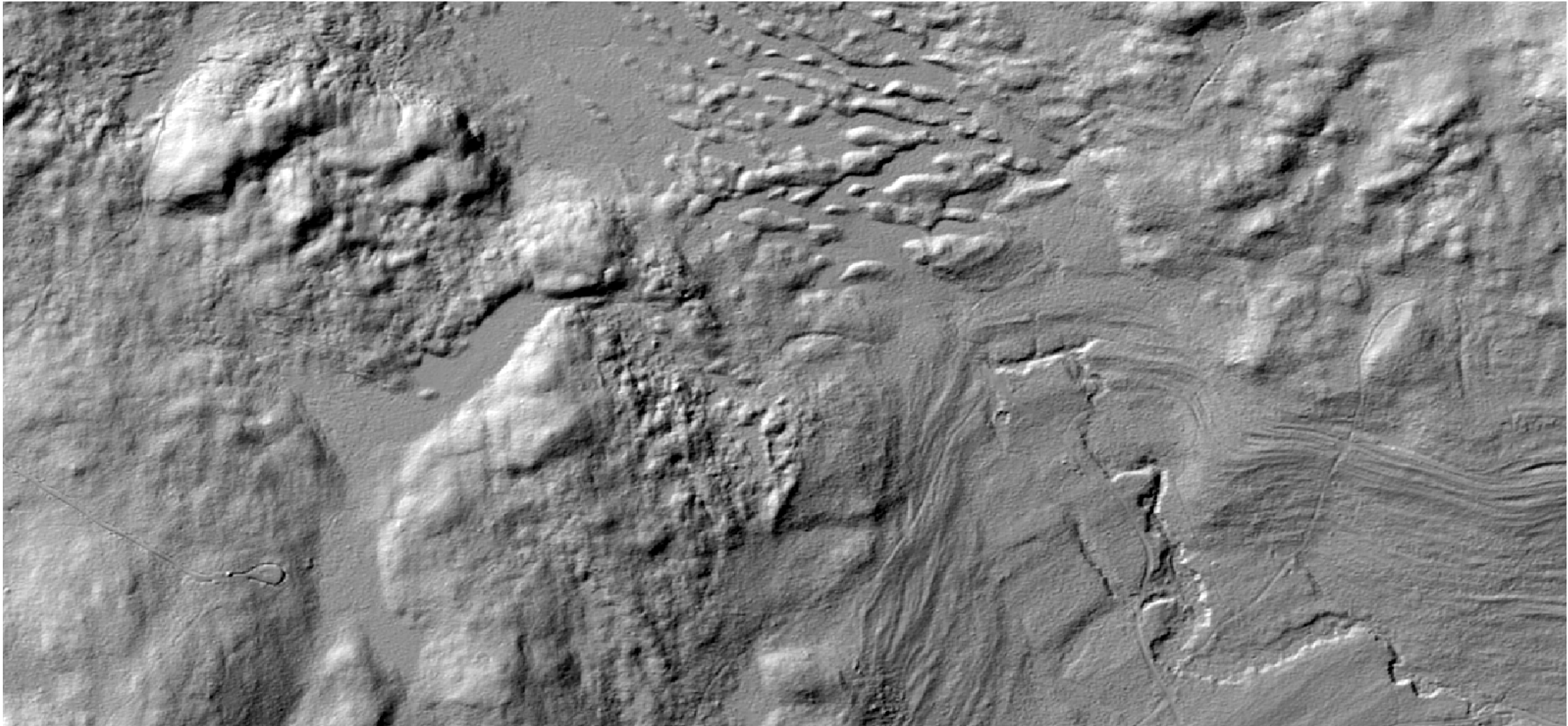
A LONG-TERM PROJECT

- Laser scanning started in spring 2009
- Last mountain area scanned in autumn 2019
 - Very difficult weather conditions
- 10 years to reach full national coverage
- Total cost more than 30 million euro

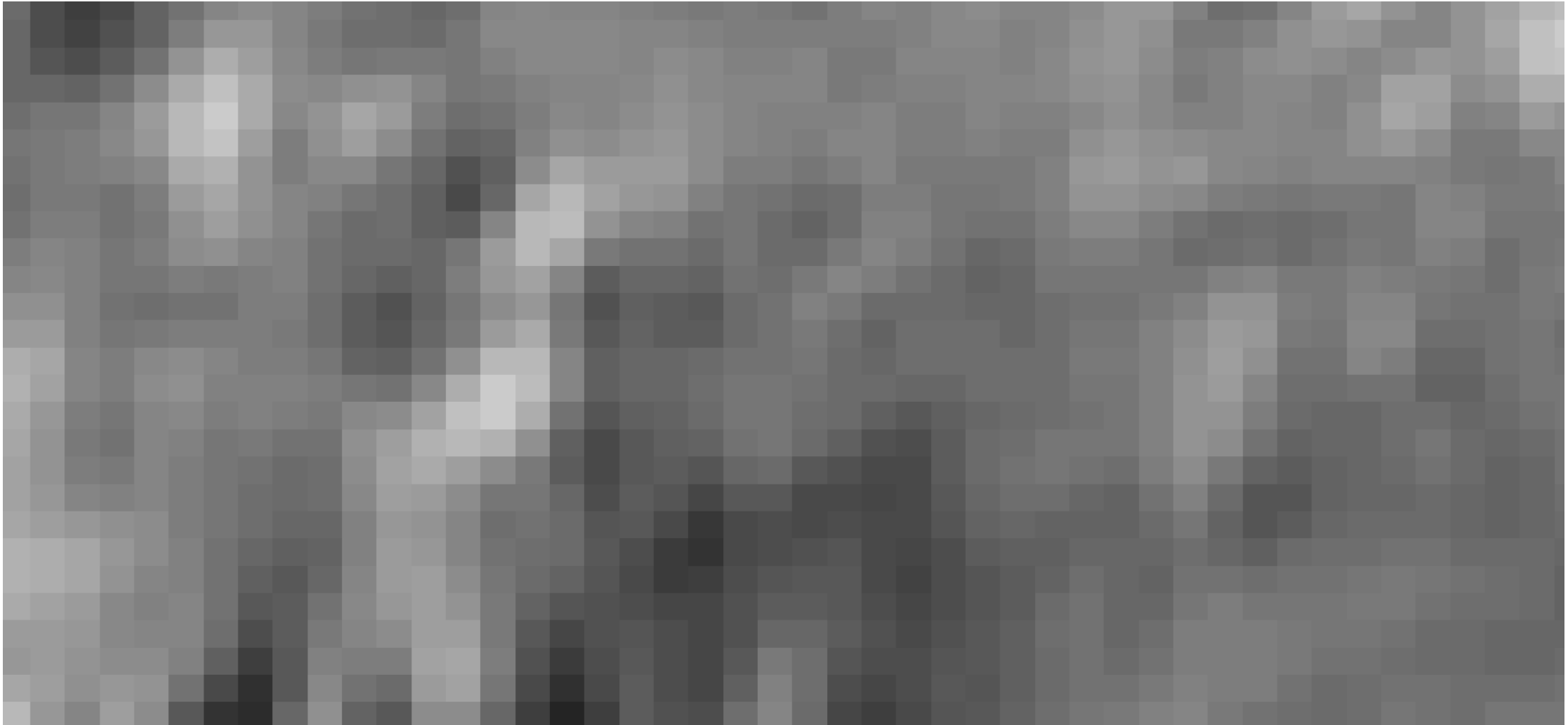
Coloring by
scan date



NEW TERRAIN MODEL (1 M)



OLD TERRAIN MODEL (50 M) ...



PRODUCTS

National elevation model (1 m DTM)

- WMS with slope, shading and metadata
- WCS with 1m GSD DTM
- Elevation by request (get Z for given XY)
- Contour lines (part of web map WMS)

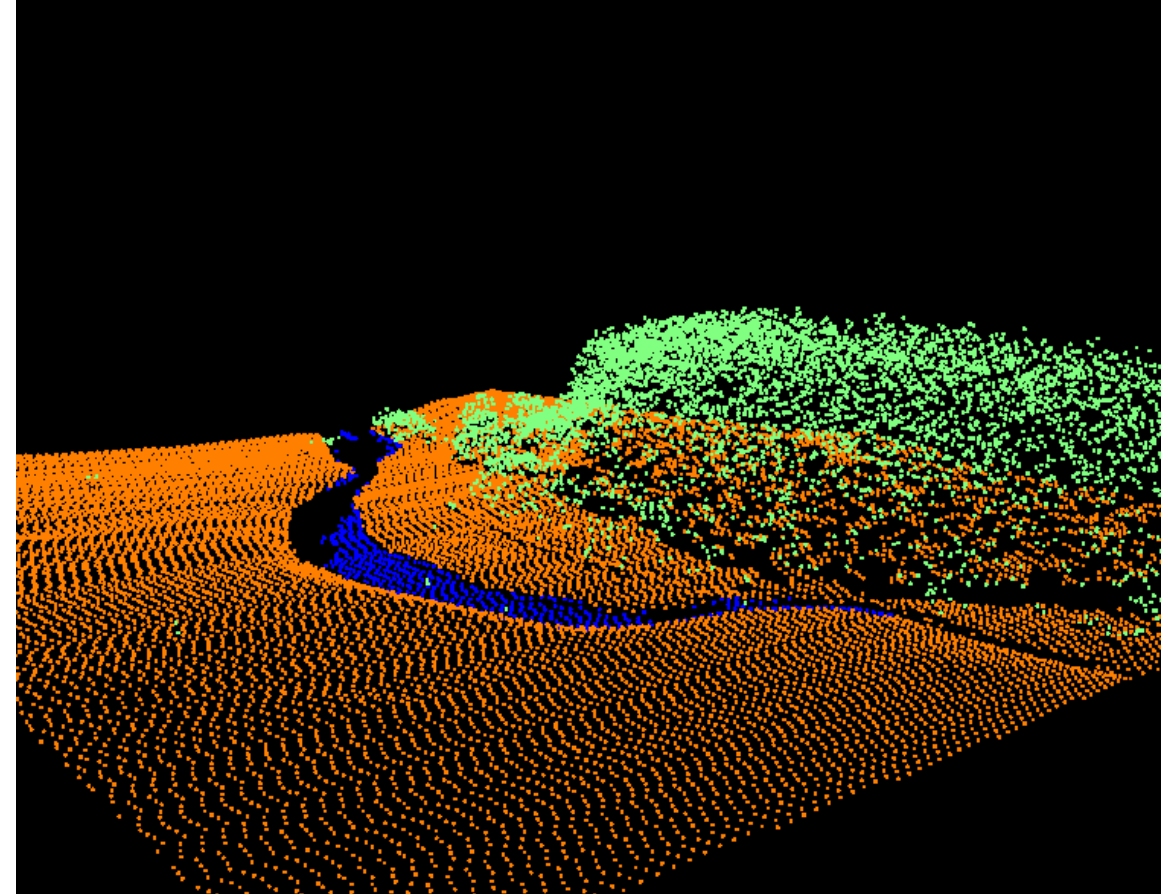
Laser pointcloud

- Ground classified, with trajectories and metadata
- Pointcloud contain lots of information on above ground objects



MAIN APPLICATIONS

- National elevation model
 - Prediction of risk for flooding and landslide
 - Ortho rectification
 - General mapping (contour lines, hill-shading, etcetera)
 - Improve mapping of surface waters (ongoing)
 - ...
- Laser pointcloud
 - Area-based mapping of forest parameters e.g. tree height and volume
 - Base forest data (Swedish Forest Agency)
 - Forestry is a major business in Sweden



THE SECOND MISSION (2017)

A new laser scan of Swedish forests, to update base forest data

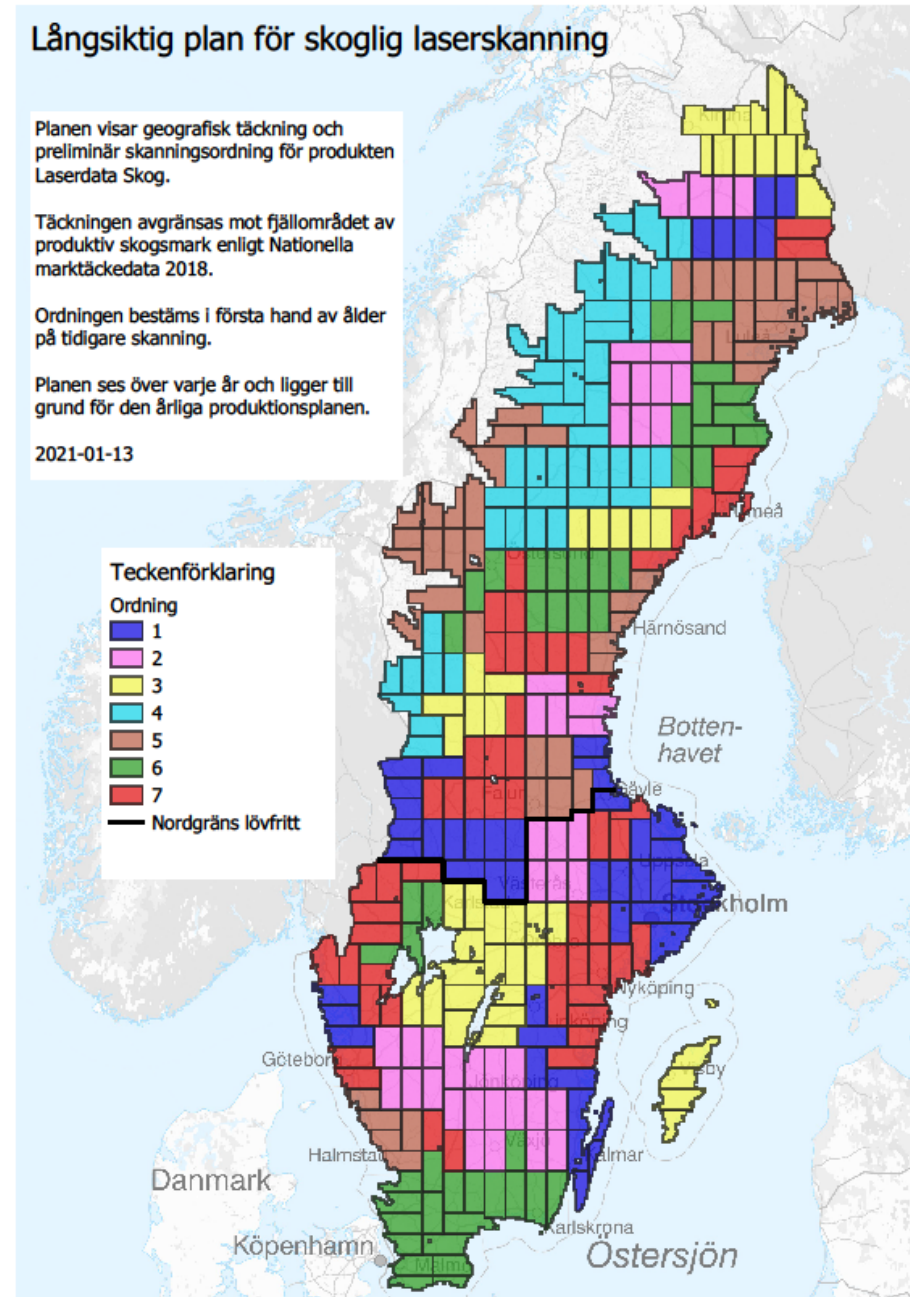
Laser data shall be useful and available for different applications

Laser scanning started in 2018

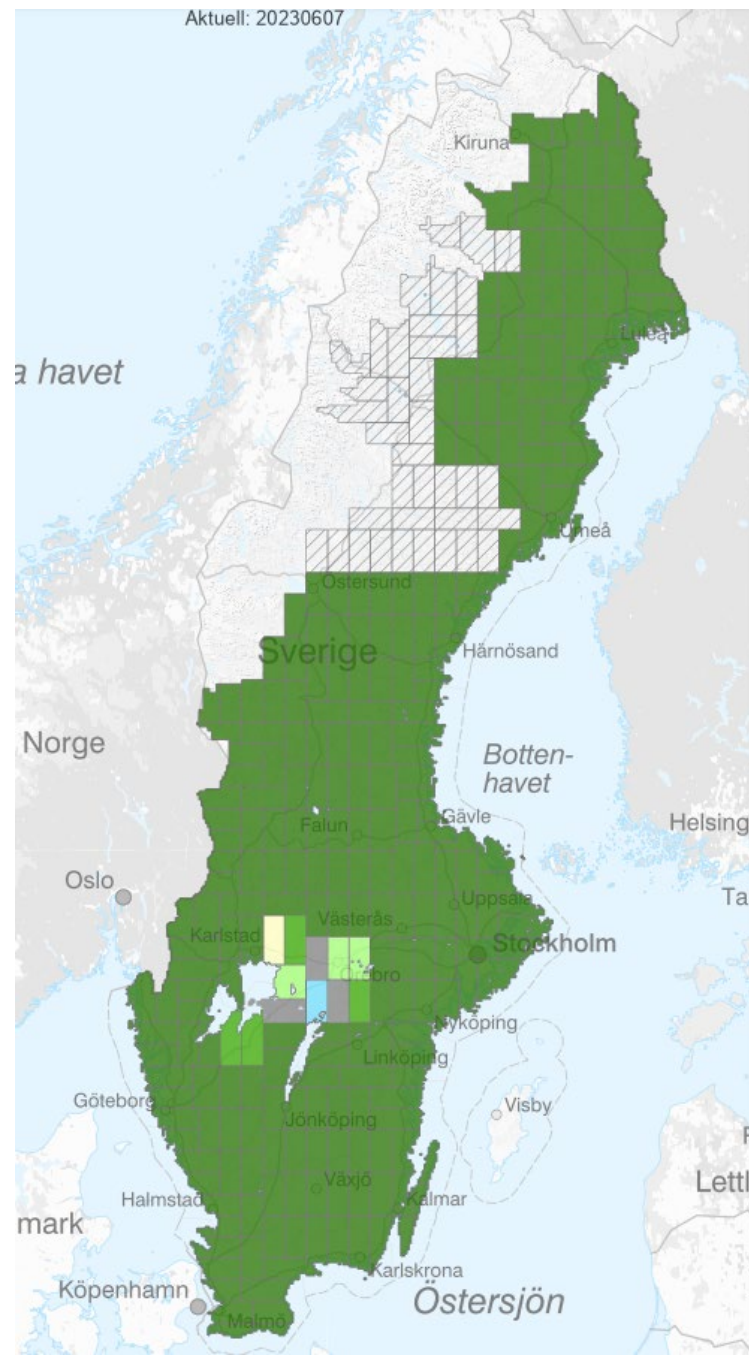


LIMITED YEARLY BUDGET

- EUR 1 million for laser scanning (Lantmäteriet)
 - Plus around EUR 0.3 million contribution from forestry companies
- EUR 0.2 million for production of forest base data (Swedish Forest Agency)
- No extra funding for Lantmäteriet
 - Tendering
 - Quality control
 - Data storage
 - Dissemination



COVERAGE JUNE 2023



Laserdata Nedladdning, skog

Produkten utgörs av ett punktmoln med klassificerade punkter insamlade vid laserskanning från flygplan. Punktmolnet har en punkttäthet på 1-2 punkter per kvadratmeter.

[📖 Produktdokumentation](#)

1. Välj urval


Typ av beställning

☒ Engångsuttag

Data produceras och levereras en gång.

☐ Abonnemang

Efter den första leveransen kan nya leveranser startas vid behov av uppdaterade data, det görs via API eller manuellt i Mitt konto.

Koordinatsystem 

SWEREF 99 TM (Standard) 

Leveransformat 

LAZ 

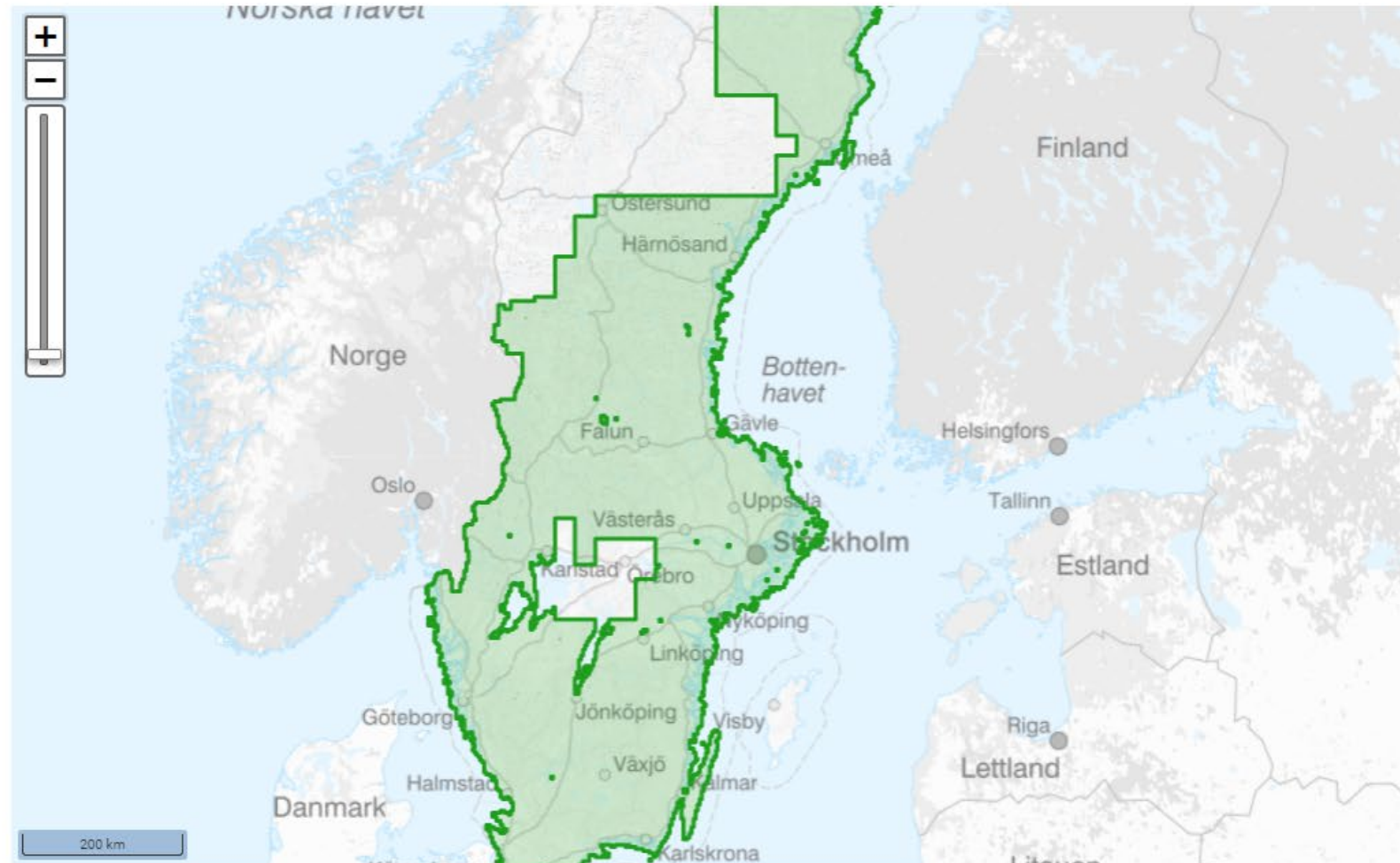
Kantfiler 

☐ Ja

☒ Nej

Geografiskt urval





SKOGENS PÄRLOR

SKOGLIGA GRUNDDATA

SKADOR PÅ SKOG



Zooma till län/kommun

Län:

Visa

Kommun:

Visa

Zooma till ort

Ort:

Sök

Zooma till fastighet

Kommun: (wildcard=*):

Fastighet: (wildcard=*):

Ange fastighetsbeteckning:
'Berga 1:1', 'Berga 1' eller 'Berga'

Sök

Zooma till koordinat

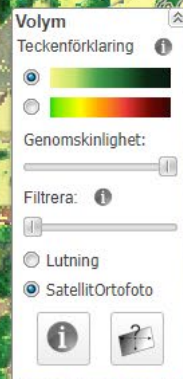
X (N-S):

Y (Ö-V):

Skala:

Sweref99TM

Visa



Information

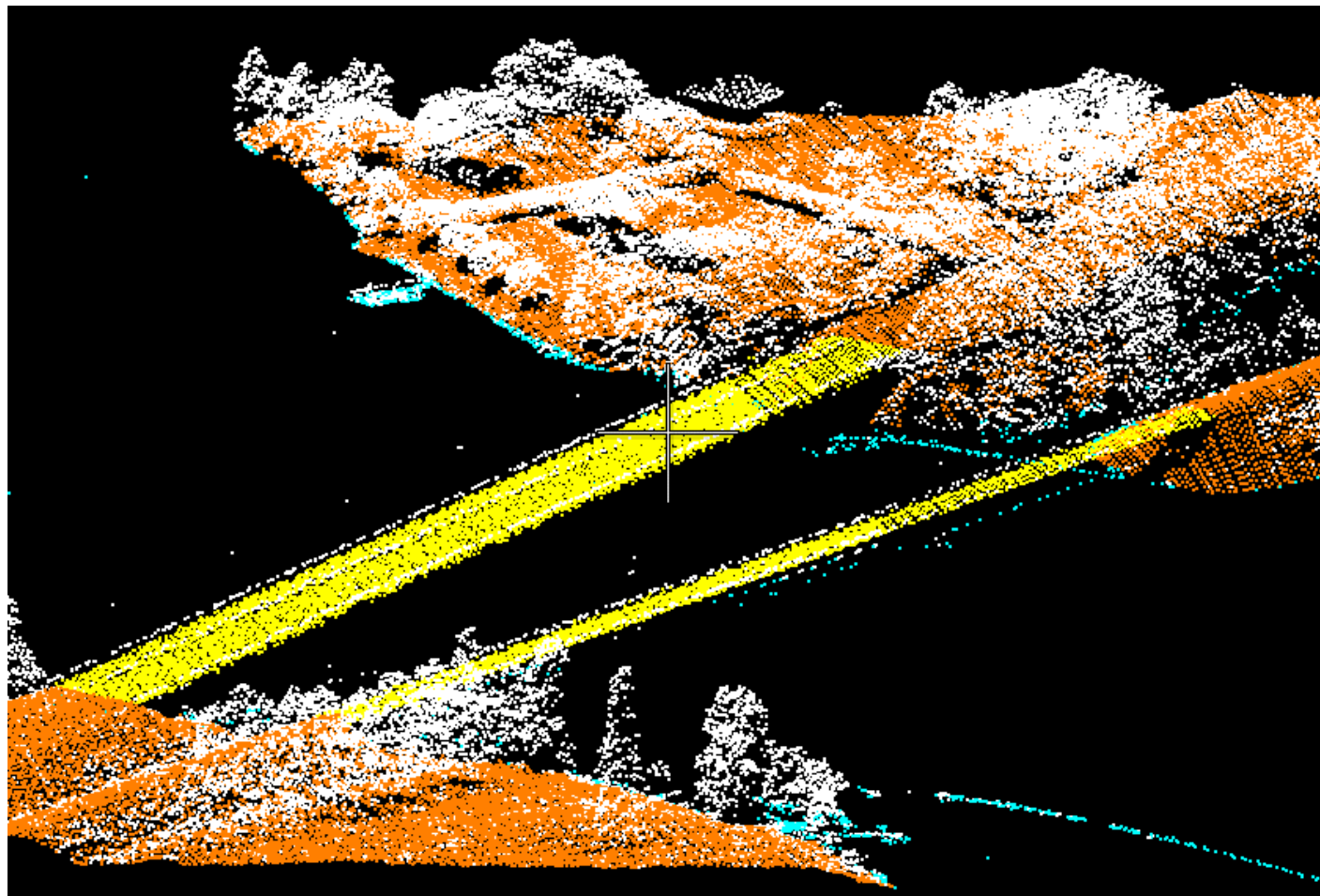


1: 25000

Genomskinlighet:

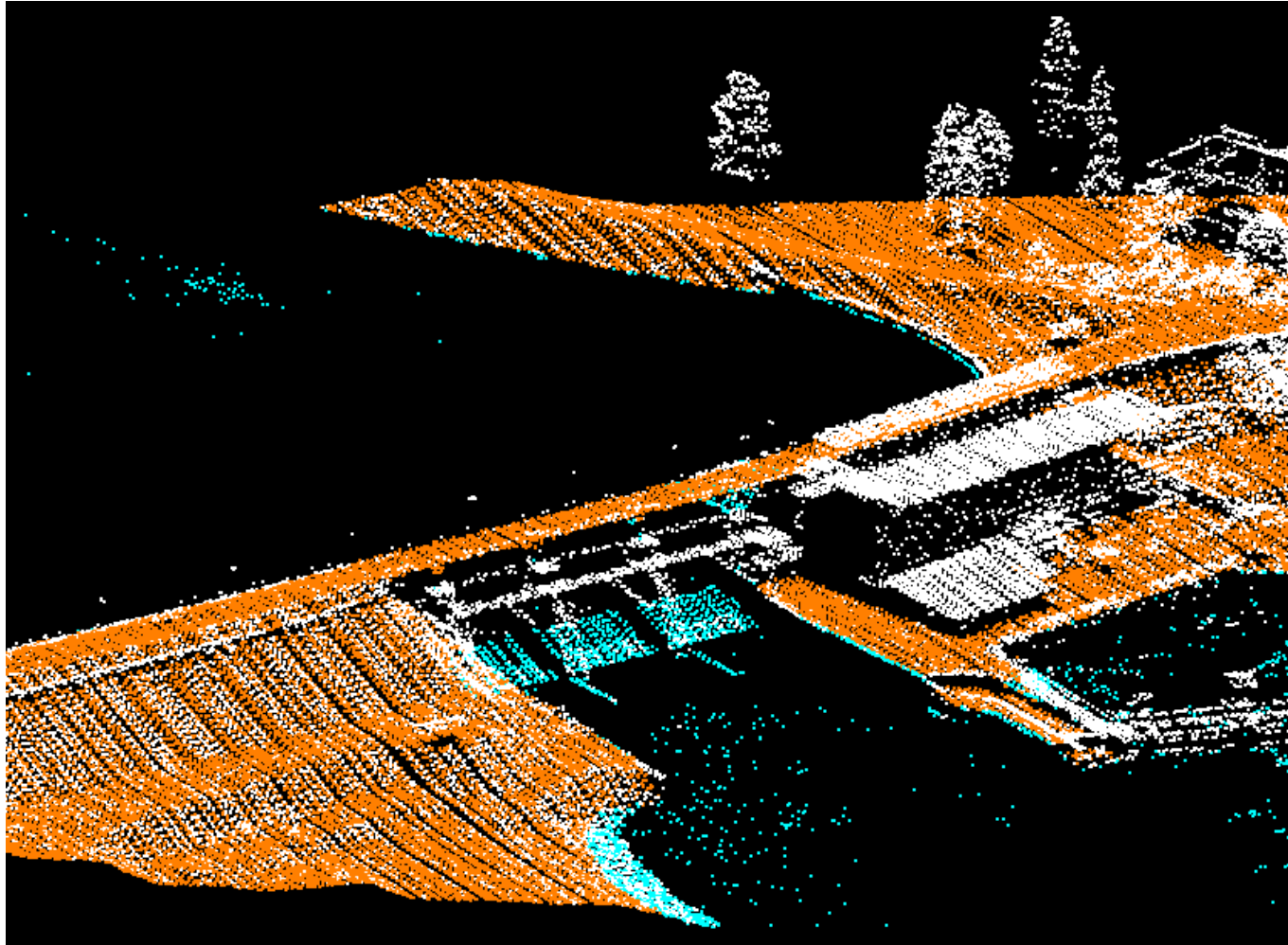
6 709 748 , 611 359 (Nord, Öst) enligt Sweref99TM. Bakgrundskarta © Lantmäteriet, 109-2011/2037

CLASSIFY BRIDGES



~40 000 objects

ENSURE GROUND CLASSIFICATION ON DAMS

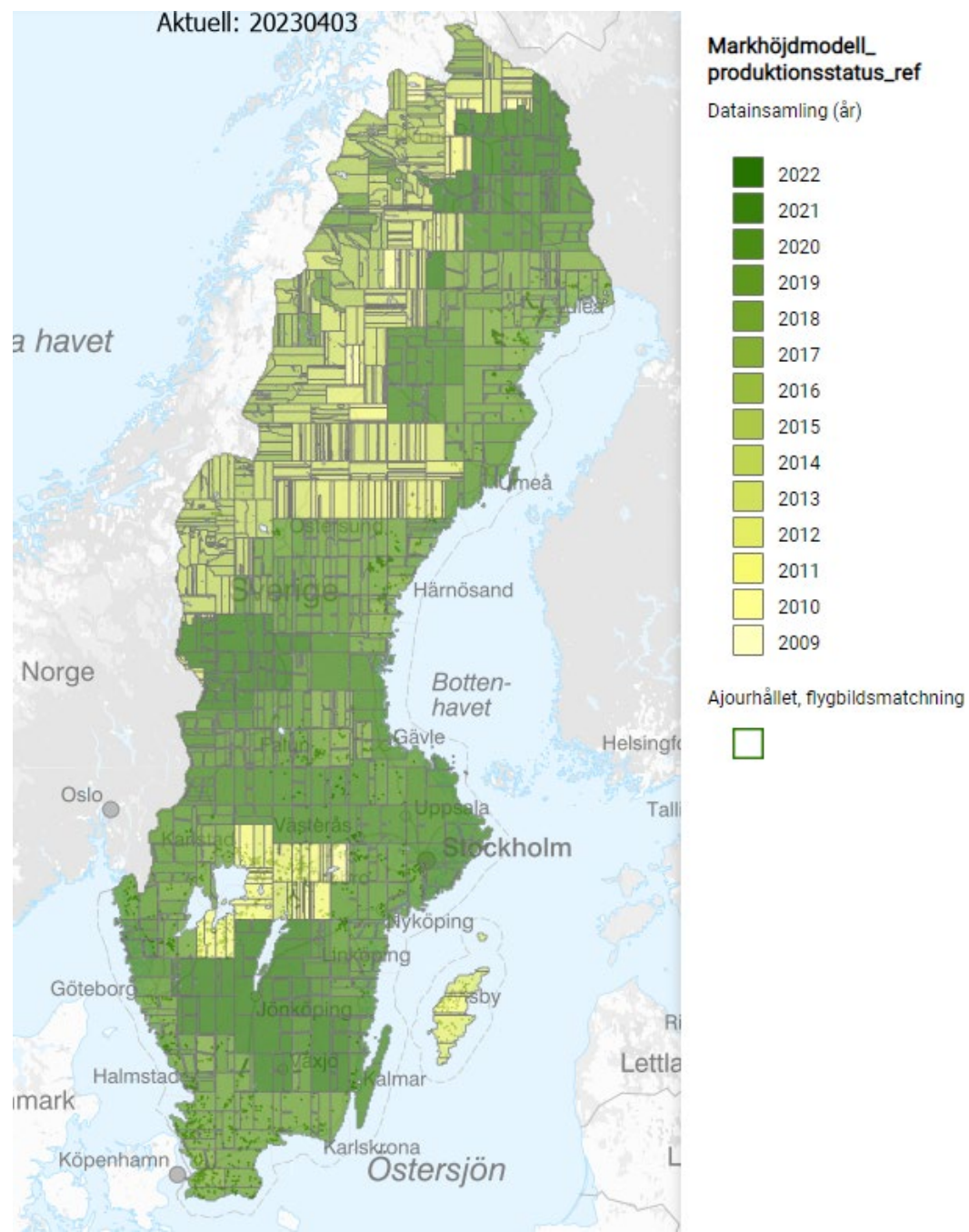


3–4 000 objects

3D WATER POLYGONS



JUNE 2023



NEXT STEP

- Swedish Forest Agency has applied for an enlarged budget
 - Cover complete nation (also the mountain range)
 - Shorten the time for one coverage to 5 years
 - Increase point density, for new applications
- Budget is still uncertain, but scanning goes on and we will start the third laser coverage next year



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Contact kundcenter@lm.se

Telephone +46 77- 63 63 63

andreas.ronnberg@lm.se