

Presentation of software and services

by I•GIS



LARCOS

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CEO and founder
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I•GIS A/S

- Founded 2002
- 12 staff
- Software development
 - Geology
 - Model
 - Web systems for data management
- R&D projects
- Global provider (Europe, US, Asia)
- Significant role in Danish Groundwater Mapping

**SOFTWARE SOLUTIONS****LARCOS****Our clients**

- Geological Surveys (GEUS, USGS, SGU, PGI, GA, ISGS)
- Consultants
- Municipalities
- EPA (The Danish Environmental Protection Agency)
- Waterworks and Utilities
- University and education



+ LARCOS



Geological Modelling

- ✓ 3D
- ✓ Layer models
- ✓ Voxel Models
- ✓ GIS component
- ✓ Cross sections
- ✓ Data integration
- ✓ Model Update
- ✓ Model merging
- ✓ Geostatistics



Decision Support

- ✓ Visualization
- ✓ Statistics
- ✓ Volume computations
- ✓ Draw down computation
- ✓ Quality Control
- ✓ Export/reporting
- ✓ Pseudo Wells



Data Hosting

- ✓ Cloud storage
- ✓ Backup systems
- ✓ Data Security
- ✓ Support



Data Admin

- ✓ Data Upload
- ✓ Data Download
- ✓ User admin
- ✓ Data Grouping
- ✓ Meta data



Access/Sharing

- ✓ Web Portal Interface
- ✓ GIS WMS Services
- ✓ Directly from GeoScene3D



LARCOS

- ✓ Large Model admin
- ✓ Several modelers
- ✓ Grid update service
- ✓ 3D Model API
- ✓ Check in/out and QC



3D Viewer

- ✓ 3D models in web-browser
- ✓ Visualization tools
- ✓ Profile view
- ✓ Synced with GIS map
- ✓ Large Point Clouds

Desktop software

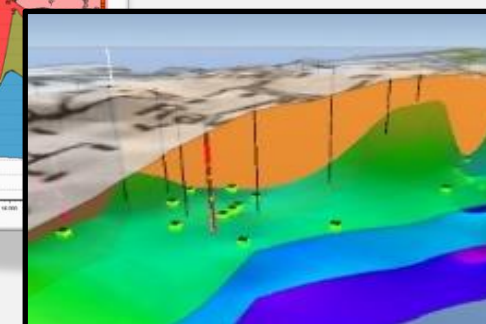
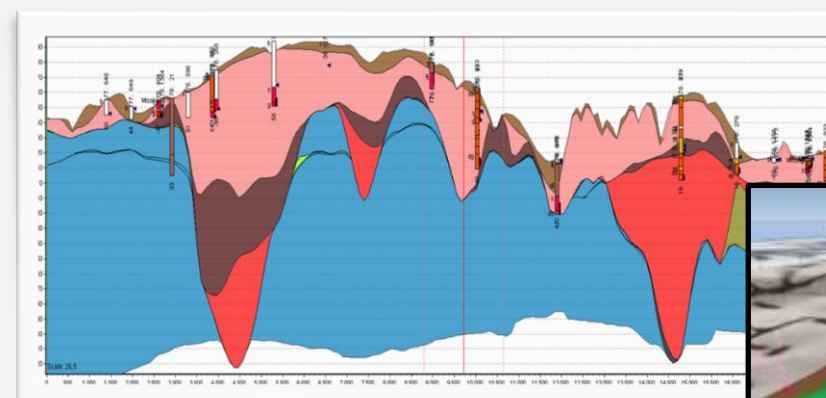
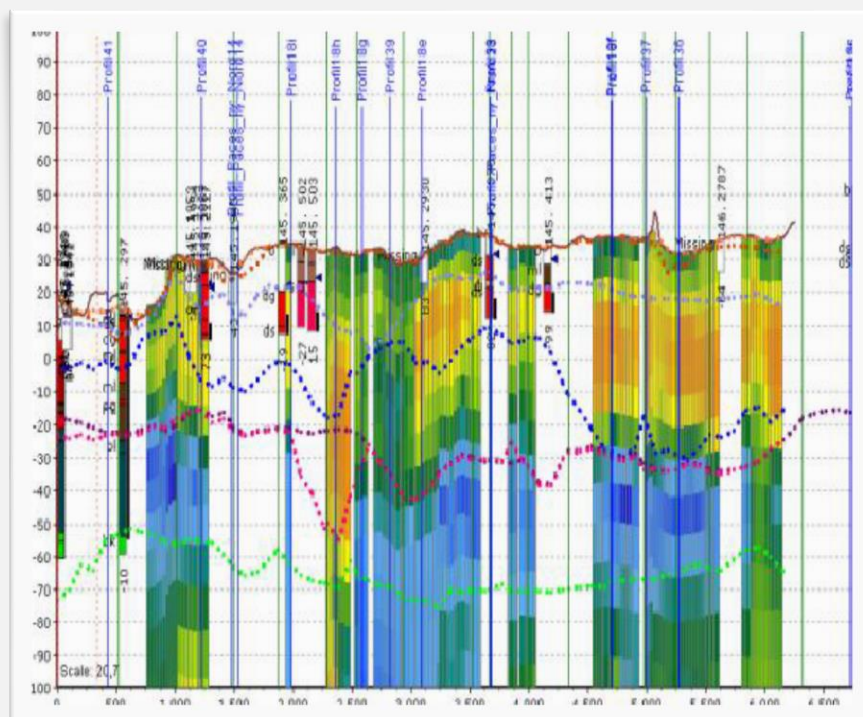
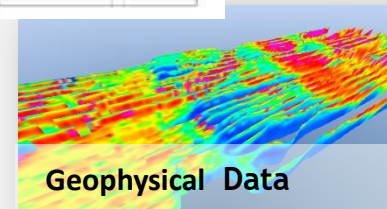
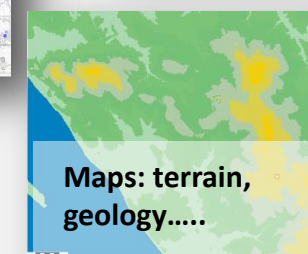
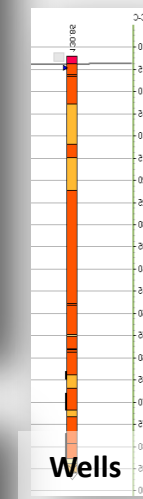
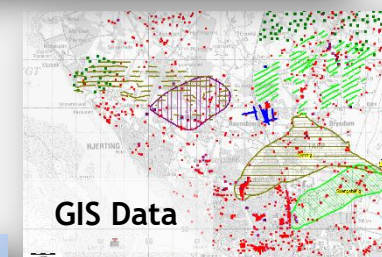
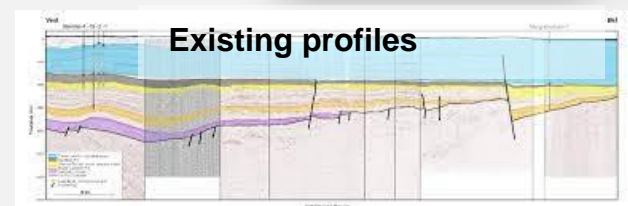
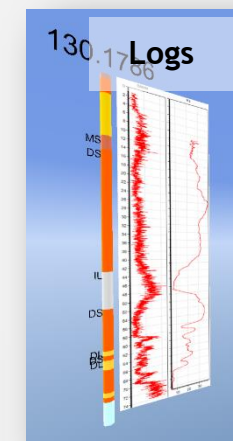
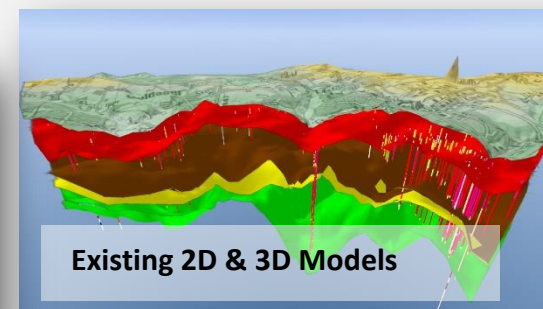
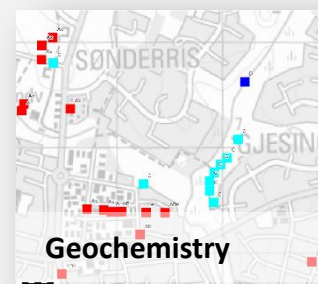
Web portal & services

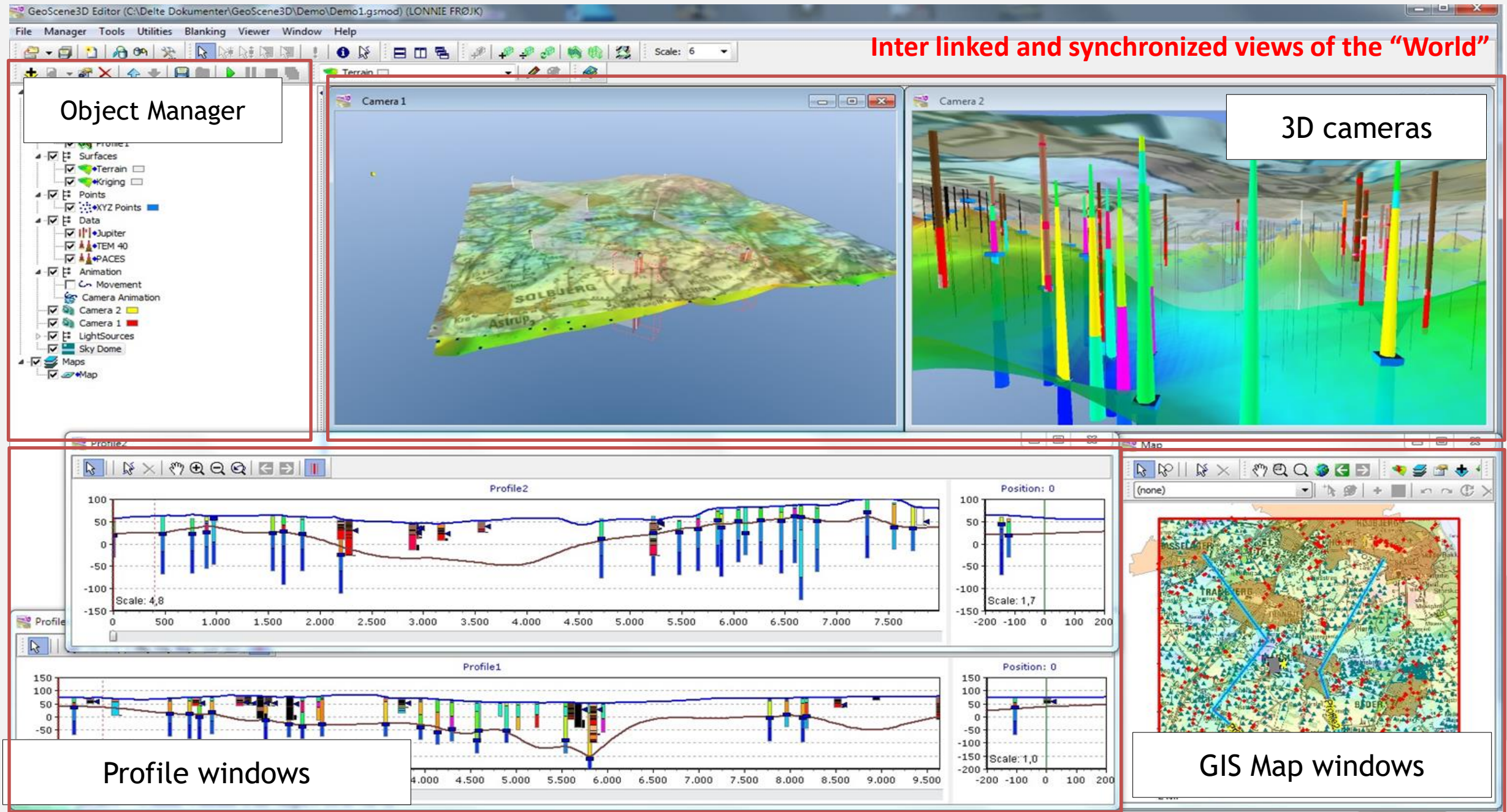


...a 3D geological modelling software made by geologists

A suite of modelling workflows supported by data and treasuring geological knowledge

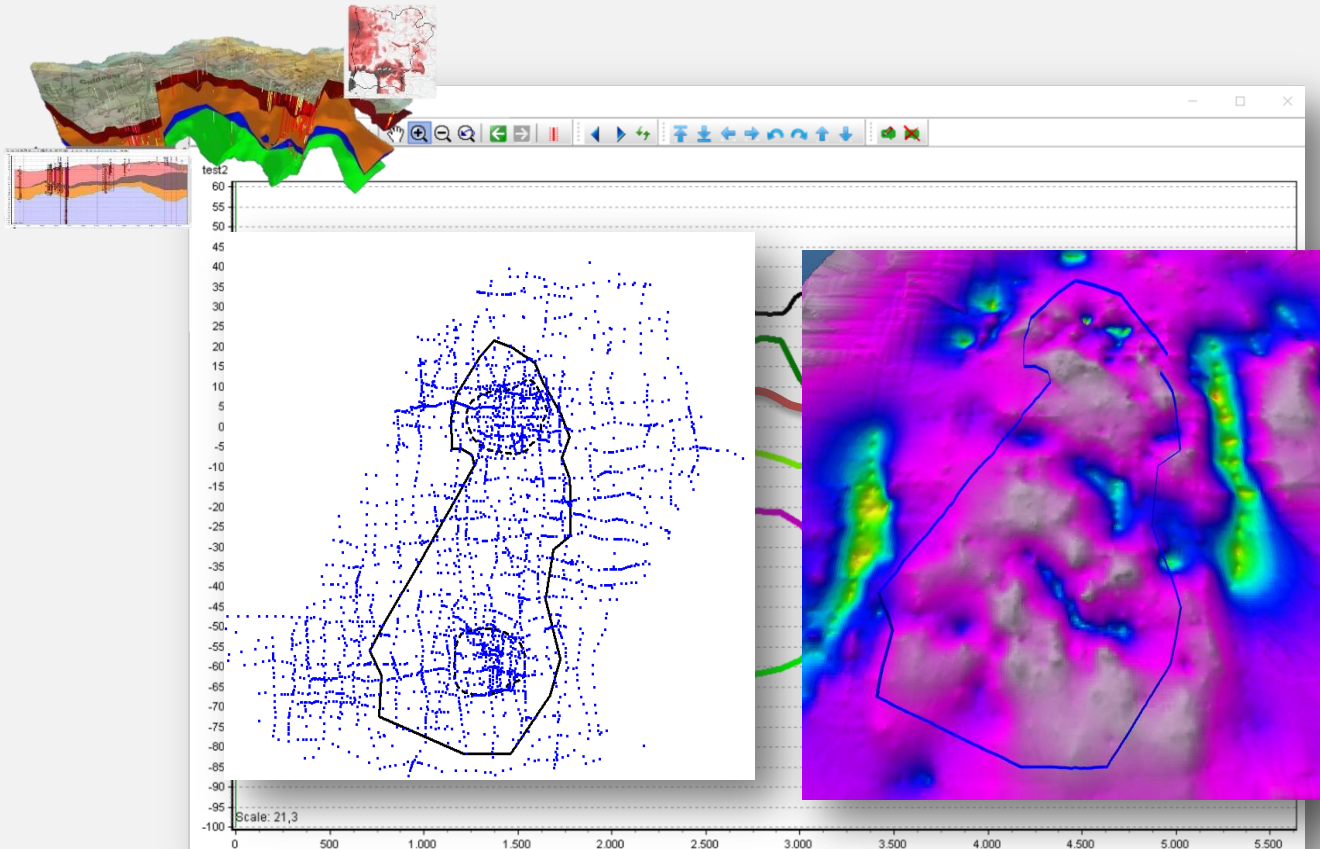
Integration of all types of relevant data



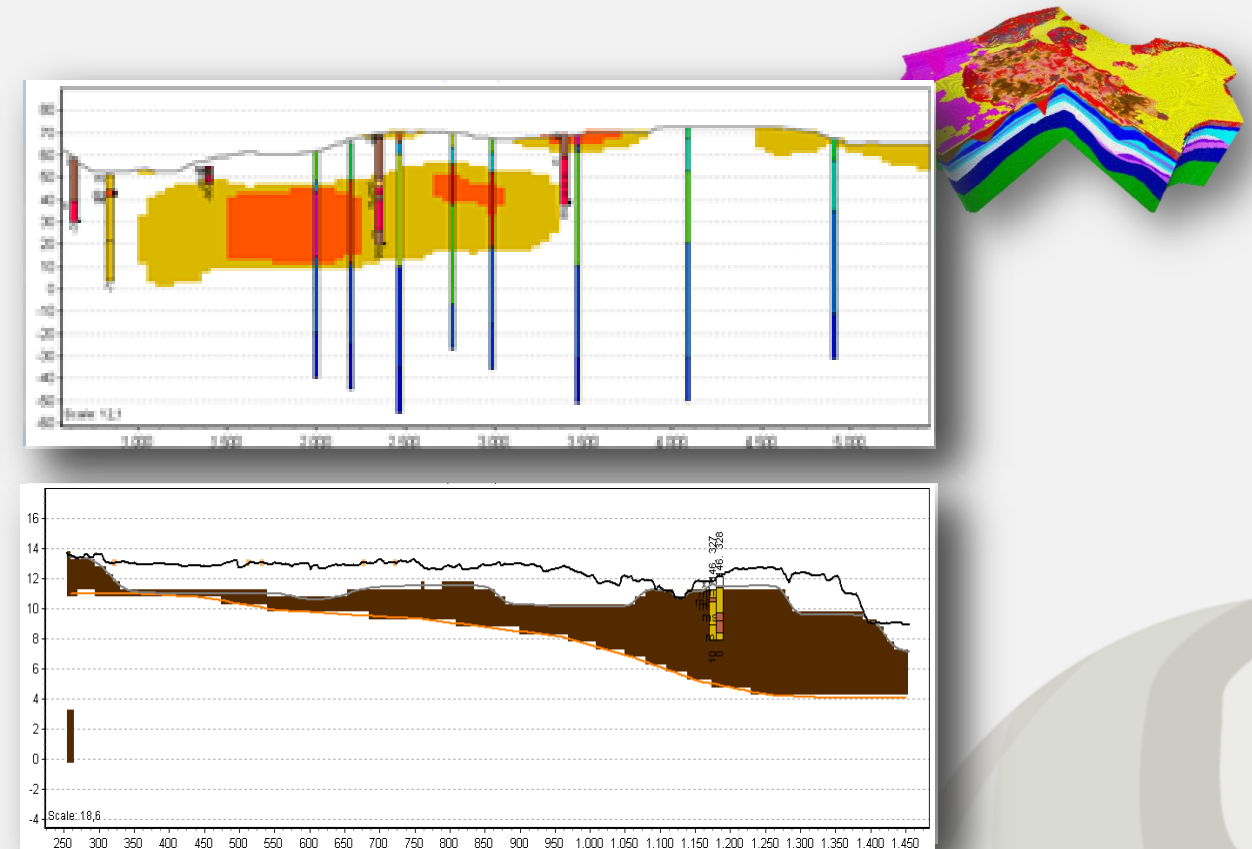


GeoScene3D model types and model techniques

- Layered models
- Voxel models

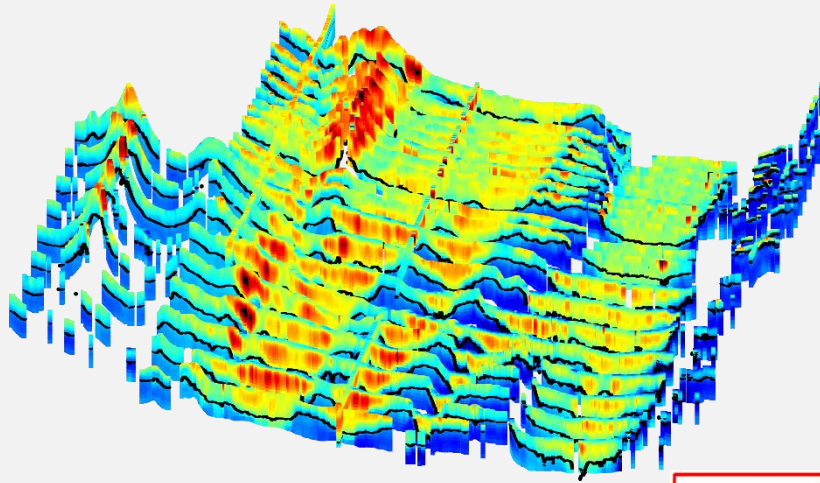


Layered model

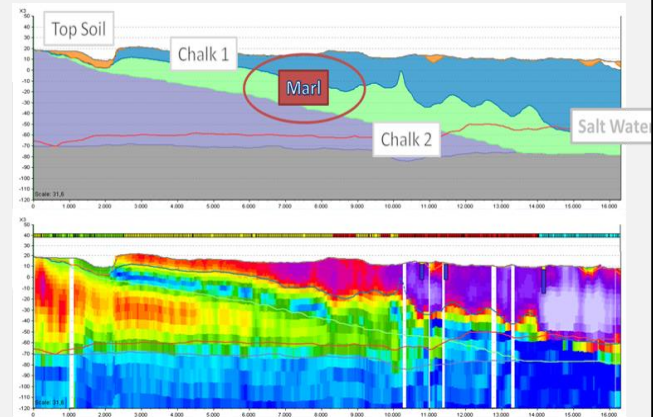
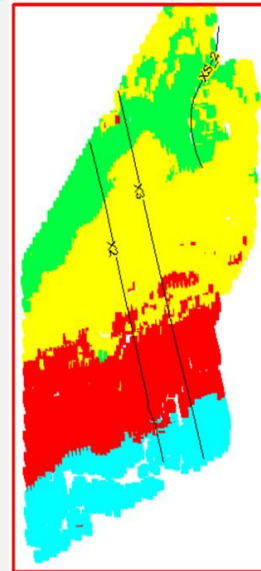


Voxel model

Fast modeling

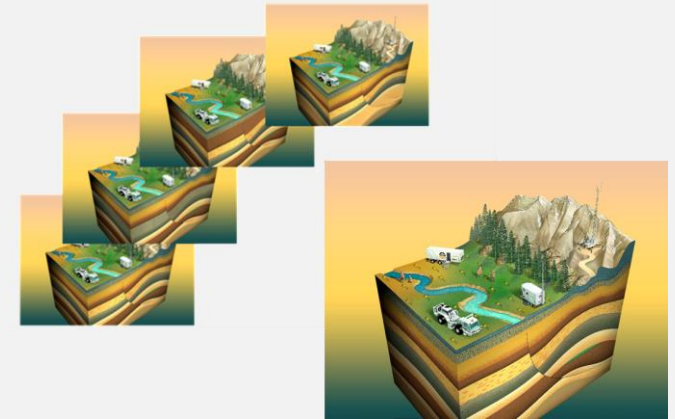


Smart Interpretation



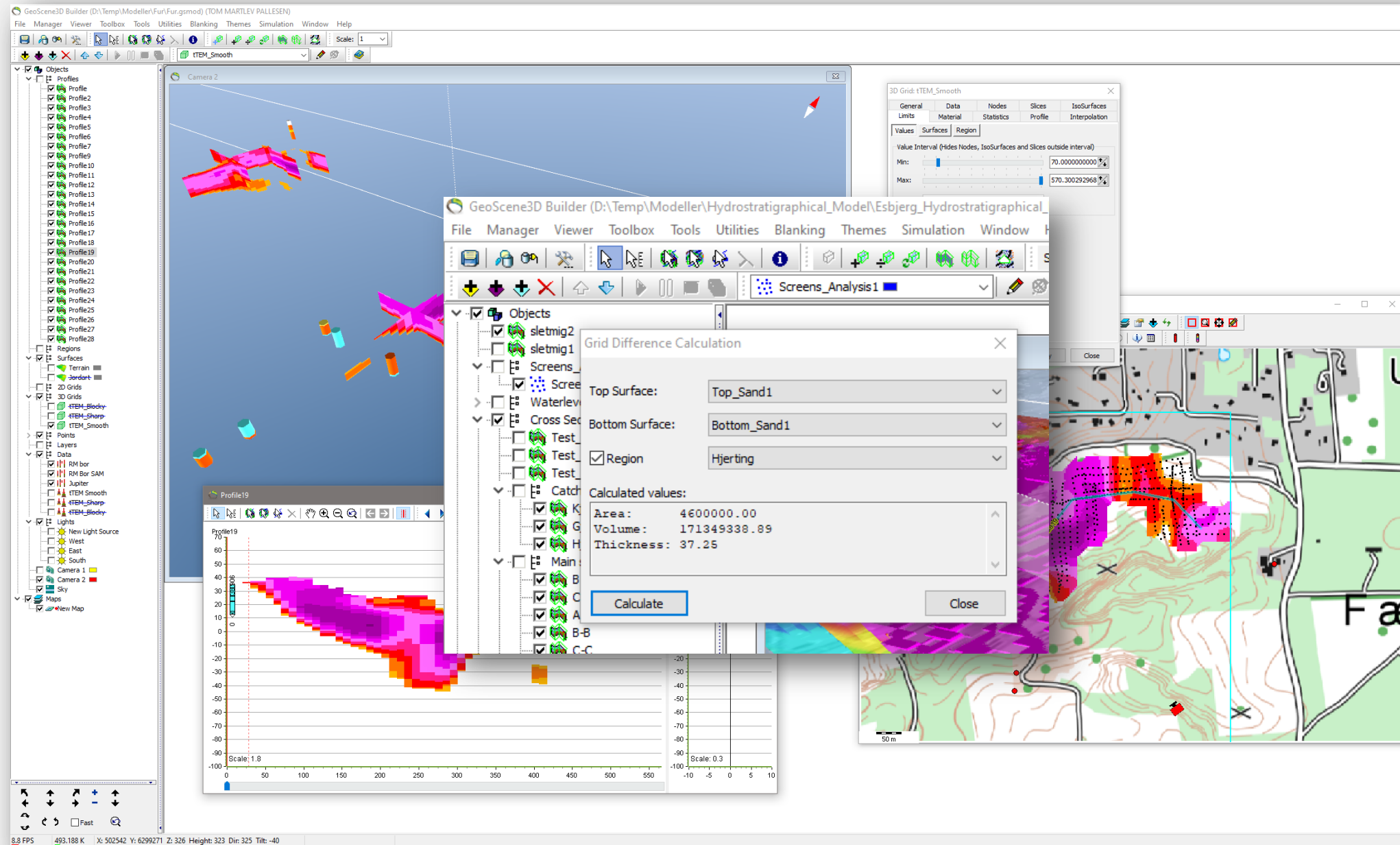
Clustering

Gaining extra information

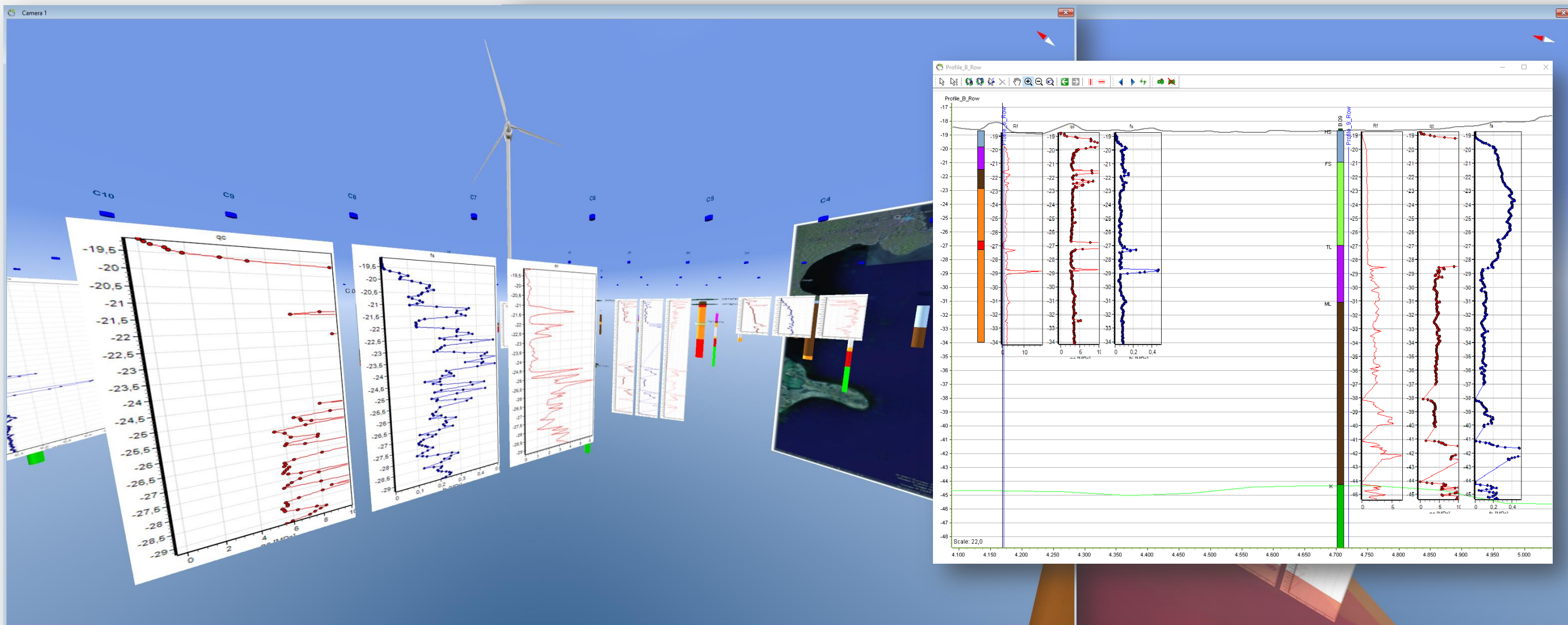


Multiple Point Statistics

GeoScene3D is used for many purposes



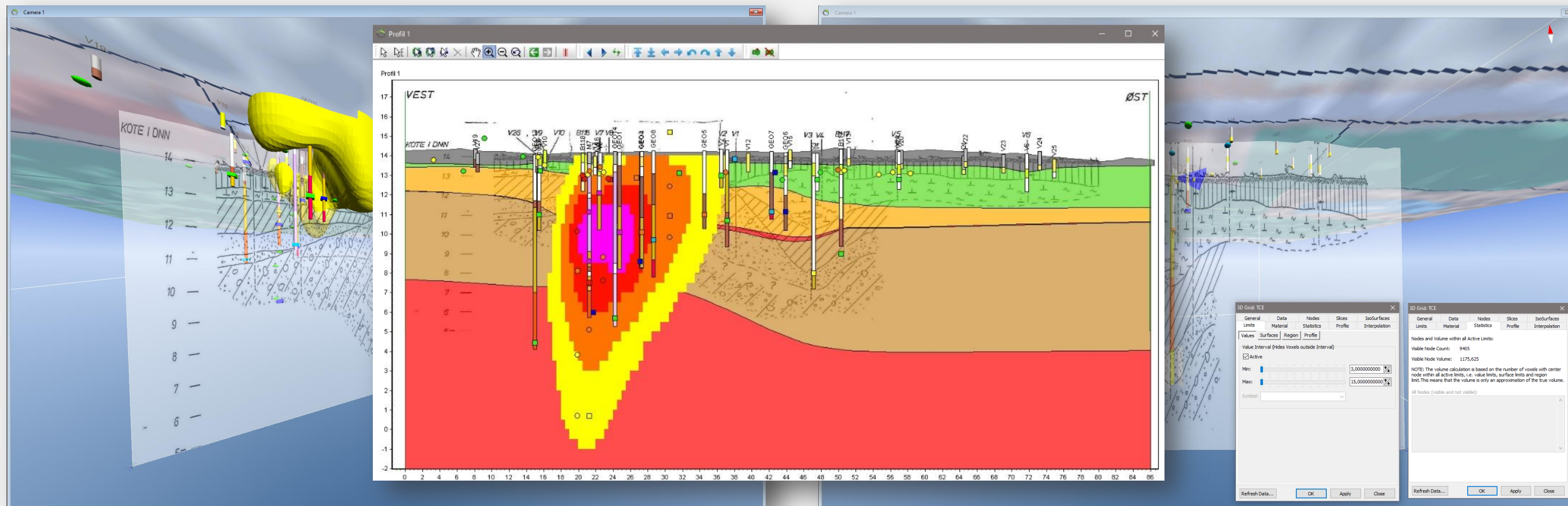
GeoScene3D is used for many purposes



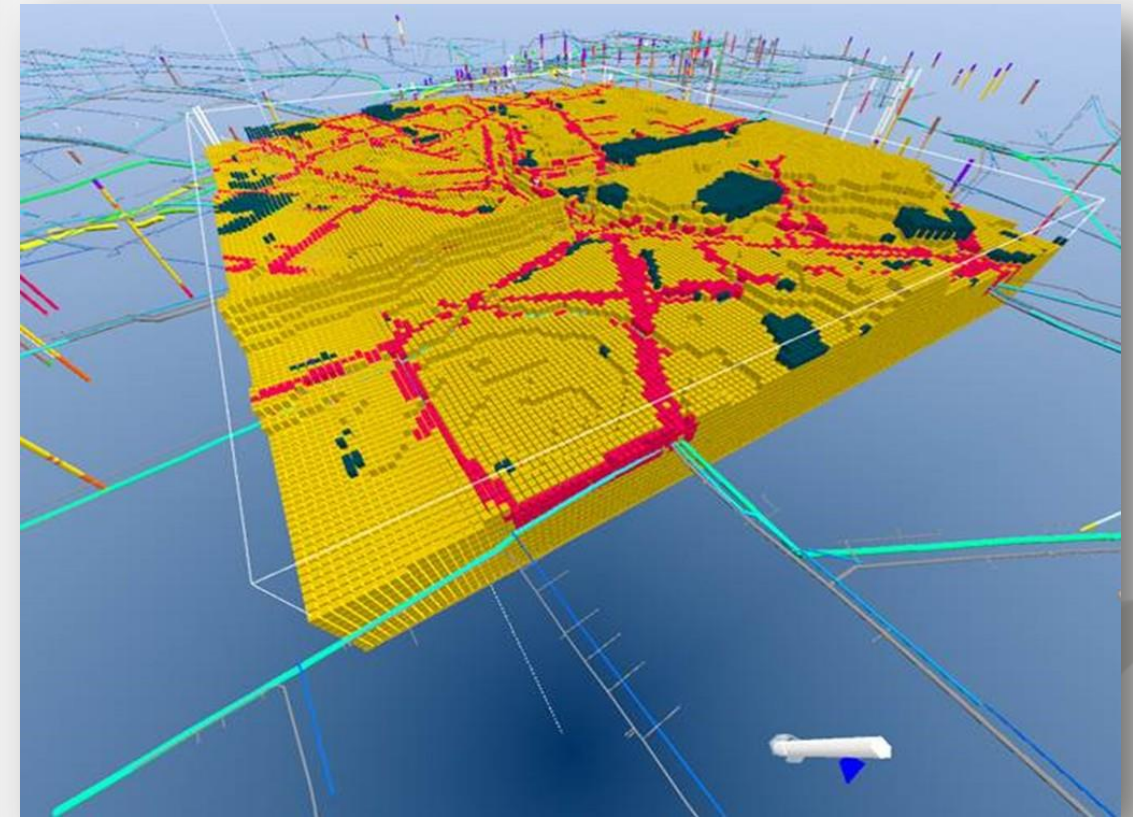
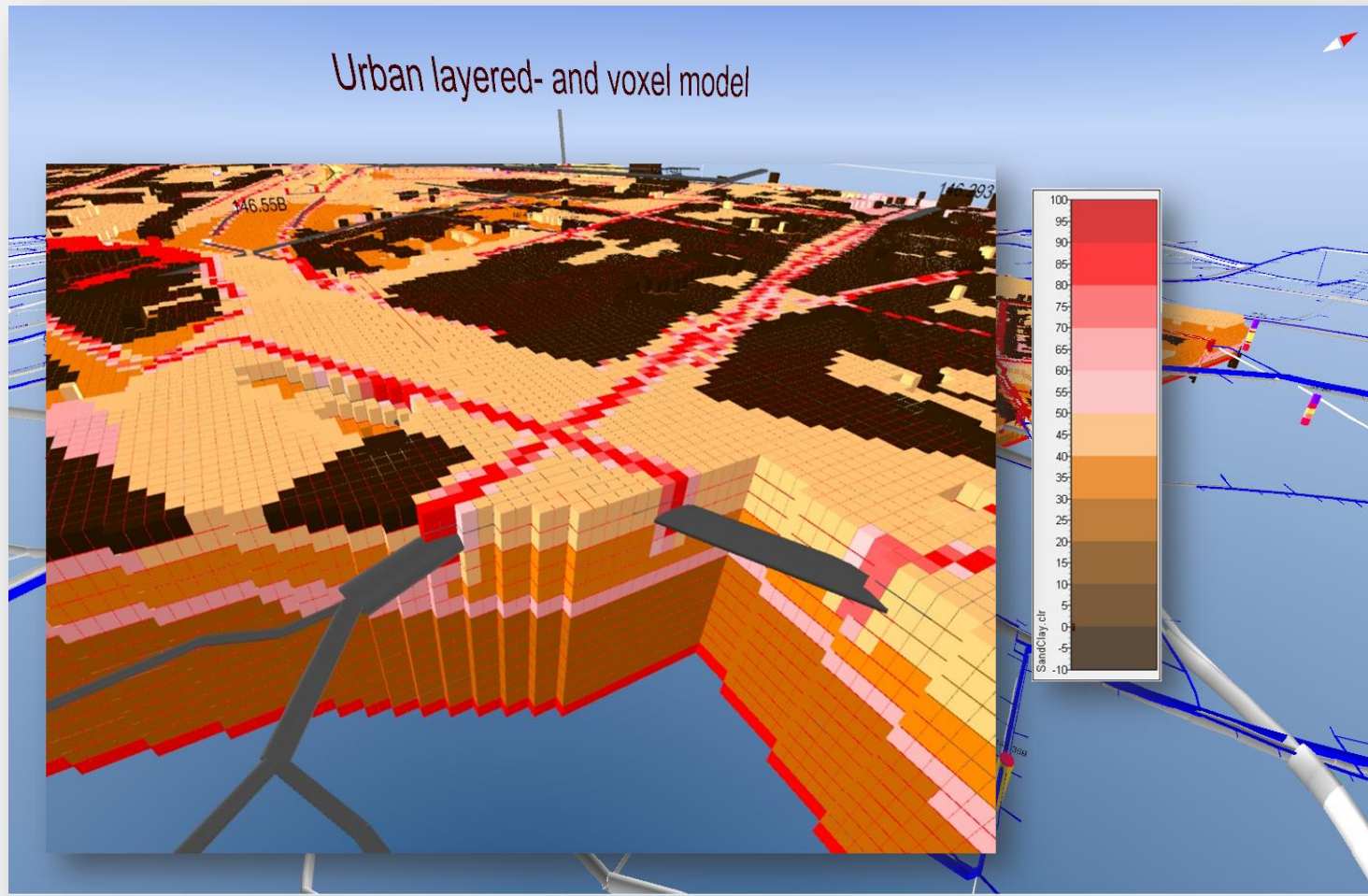
GeoScene3D is used for many purposes

Hydrocarbons, total (mg/l)

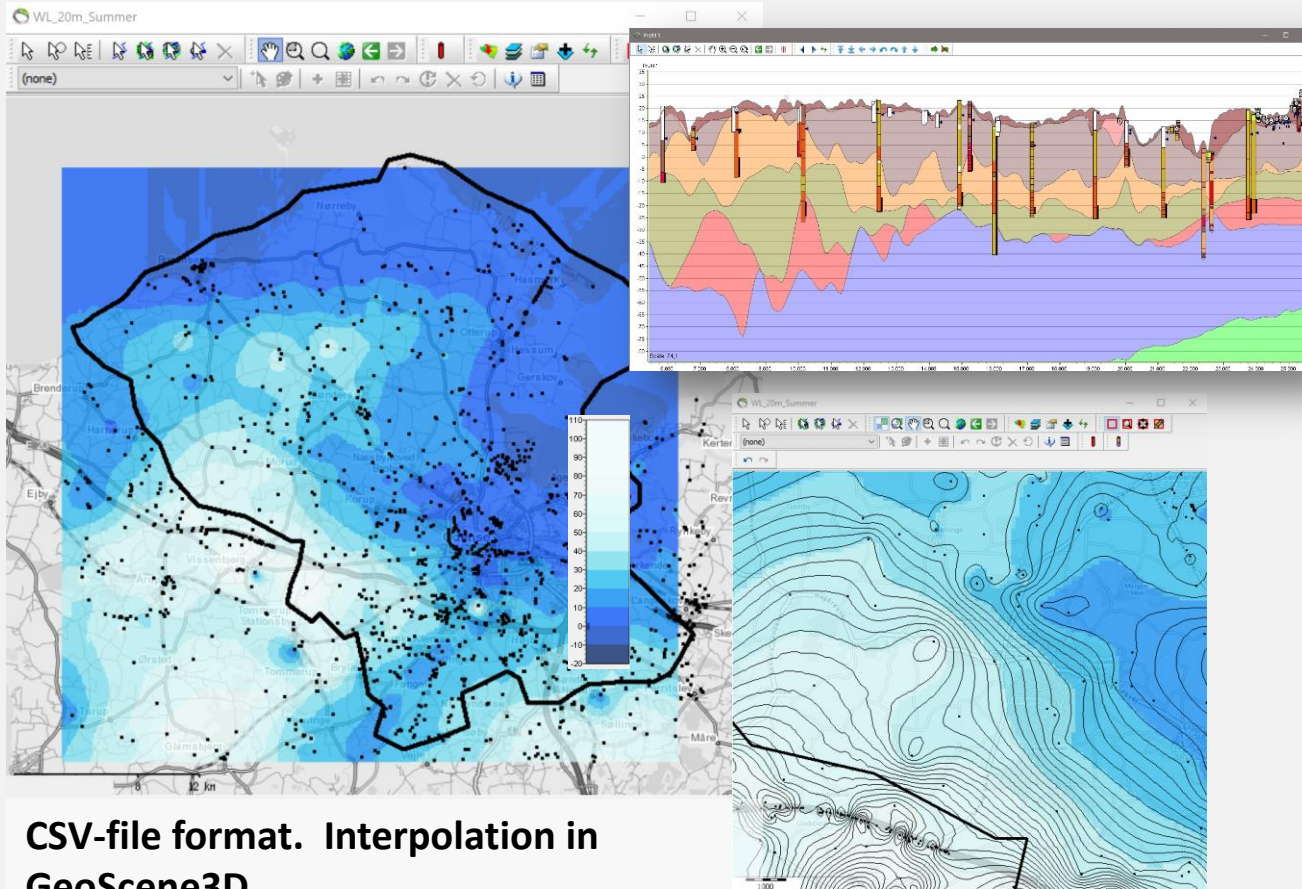
TCE ($\mu\text{g/l}$)



GeoScene3D is used for many purposes

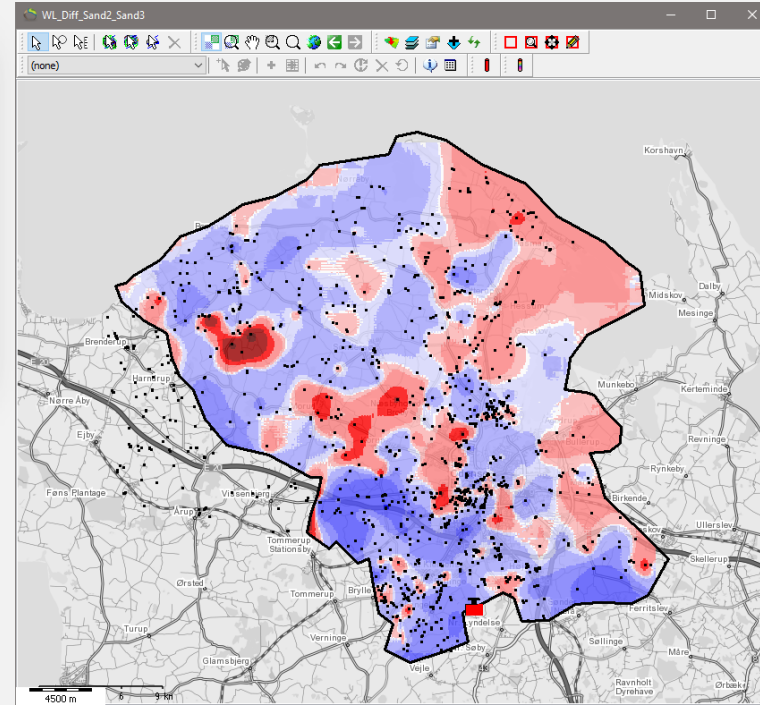


GeoScene3D is used for many purposes



CSV-file format. Interpolation in GeoScene3D

Contour lines

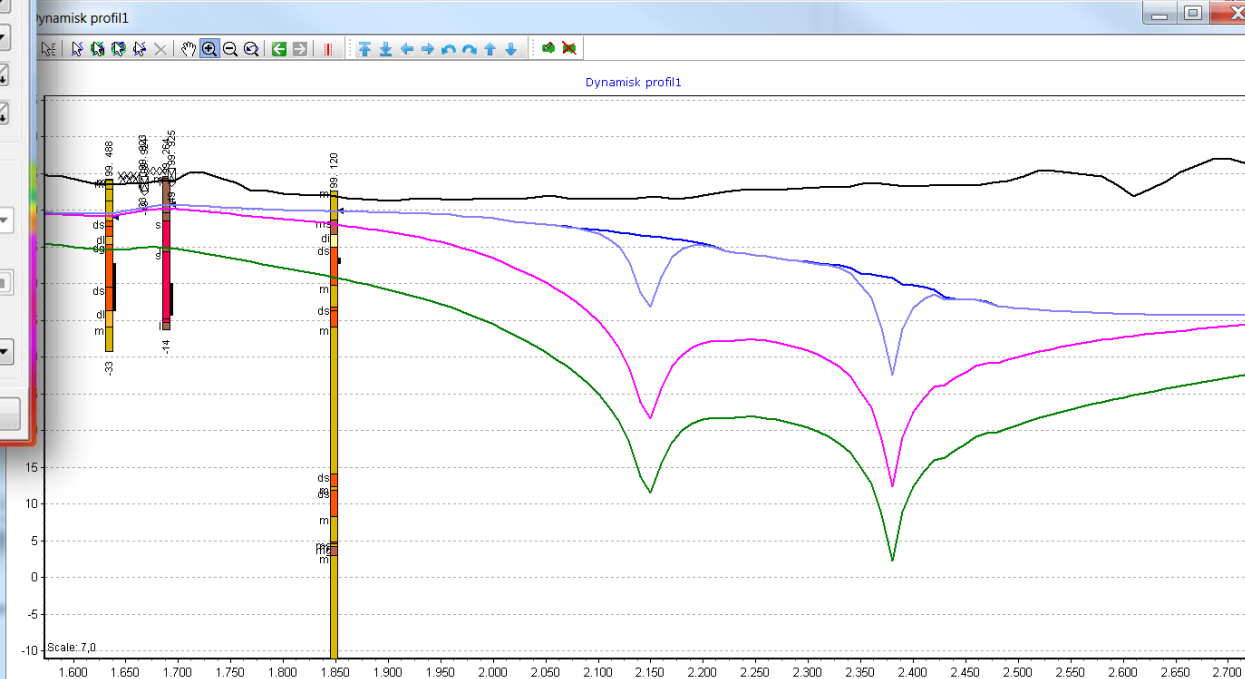
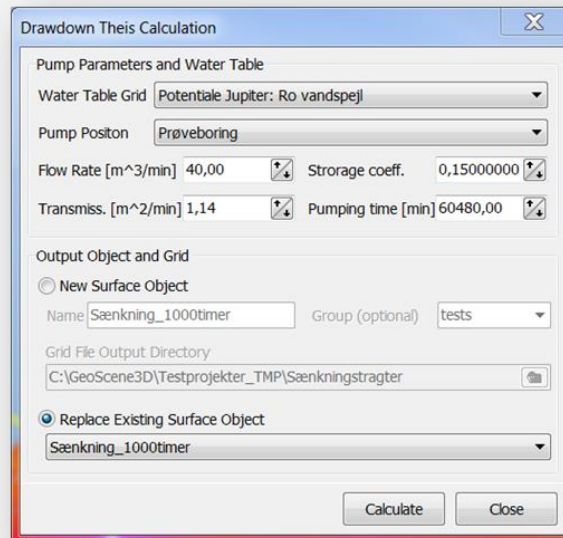


Pressure gradient

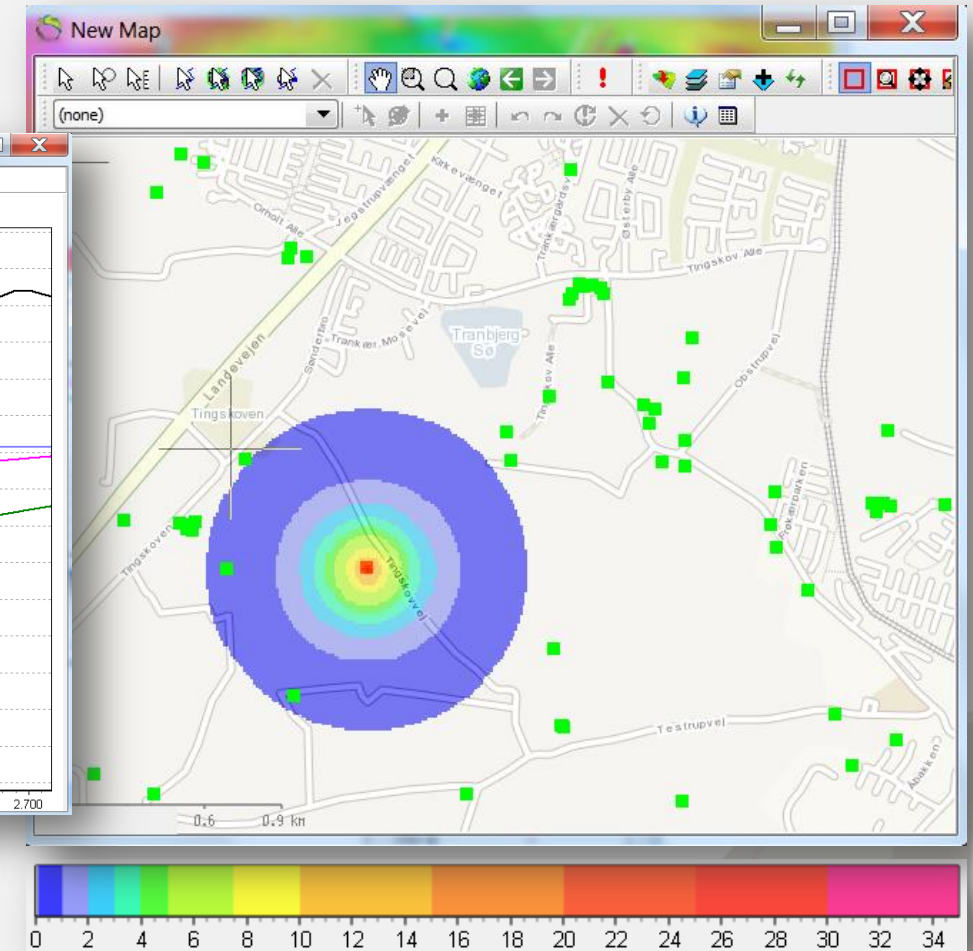
Data filtering options

- Time (year, day, sec)
- Time interval/seasonal
- Spatial (layers, regions)
- Max, min, average
- Latest/oldest
- STD value/data variation
- Output in Access DB

GeoScene3D is used for many purposes



Calculations – 2 well sites



Draw Down in GIS/Map Window

Geological surveys

Modeling Very large models / very detailed models

Directly connecting to own databases – changing of underlying data -> change in data i GeoScene3D

Geophysics – Large amounts of EM data – Dedicated tools and optimization to handle and to use in models

No proprietary data formats



...collaborate and secure your data

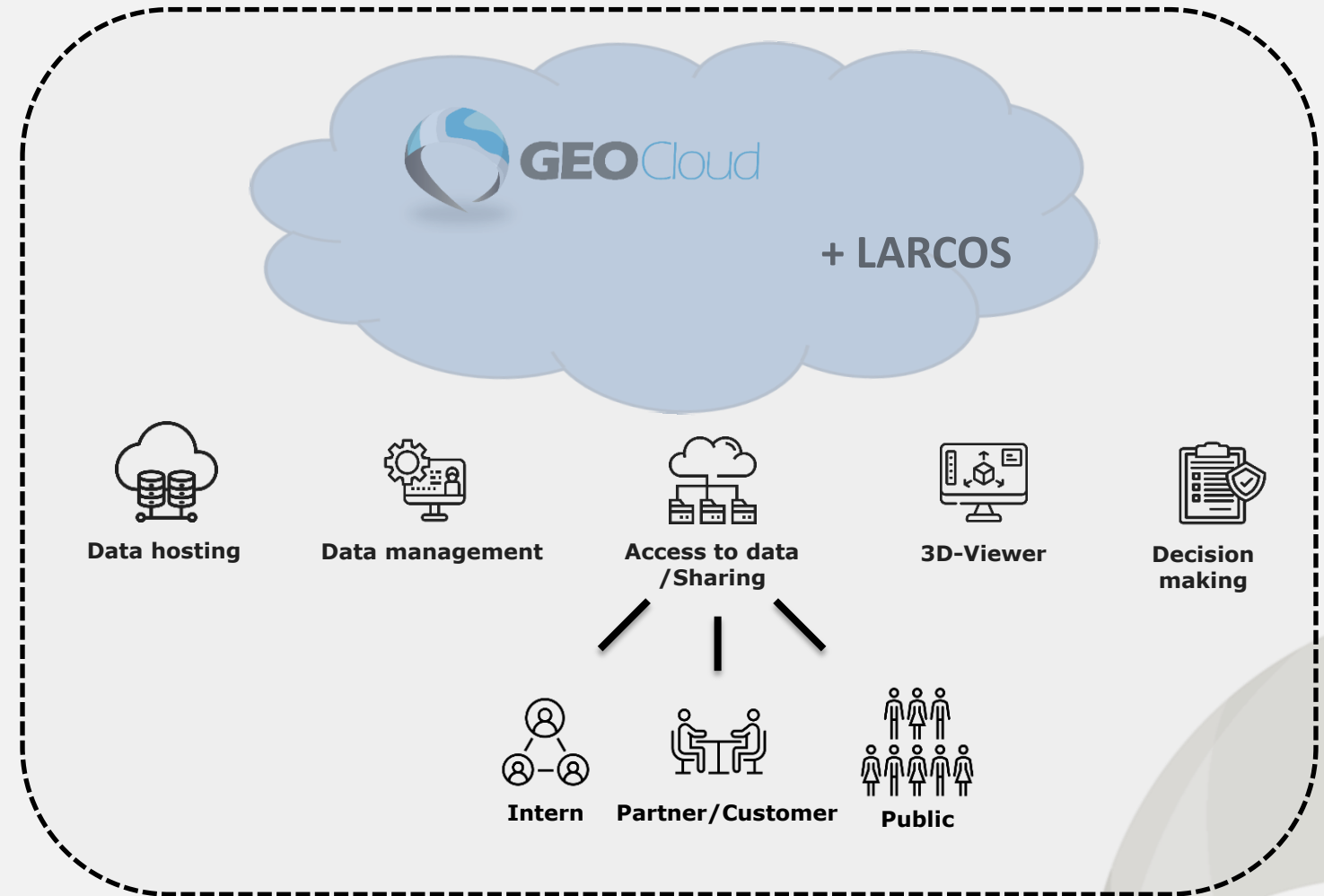
SOFTWARE SOLUTIONS



LARCOS



Specialist use



General use

The image displays three overlapping browser windows of the GeoCloud - Brandenburg web application. The top-left window shows the 'Data Administration' page with a sidebar menu. The top-right window shows the 'Users' page with a table of users. The bottom window shows the 'Data' menu expanded, listing various data types.

Data Administration - GeoCloud

https://geocloud.live

GeoCloud - Brandenburg

Data Administration

- Groups
- Data
- File Upload
- Legends

Groups

Go to Portal /

Data Administration - GeoCloud

https://geocloud.live

GeoCloud - Brandenburg

- Groups
- Data
- Geophysical Surveys
- 2D Grids
- 3D Grids
- Boreholes
- Points
- Logs
- Shapefiles
- WMSs
- Point Clouds
- Miscellaneous
- Static Profiles

Users - GeoCloud

https://geocloud.live/Users

GeoCloud - Brandenburg

Portal Administration

- Information
- Settings
- Users

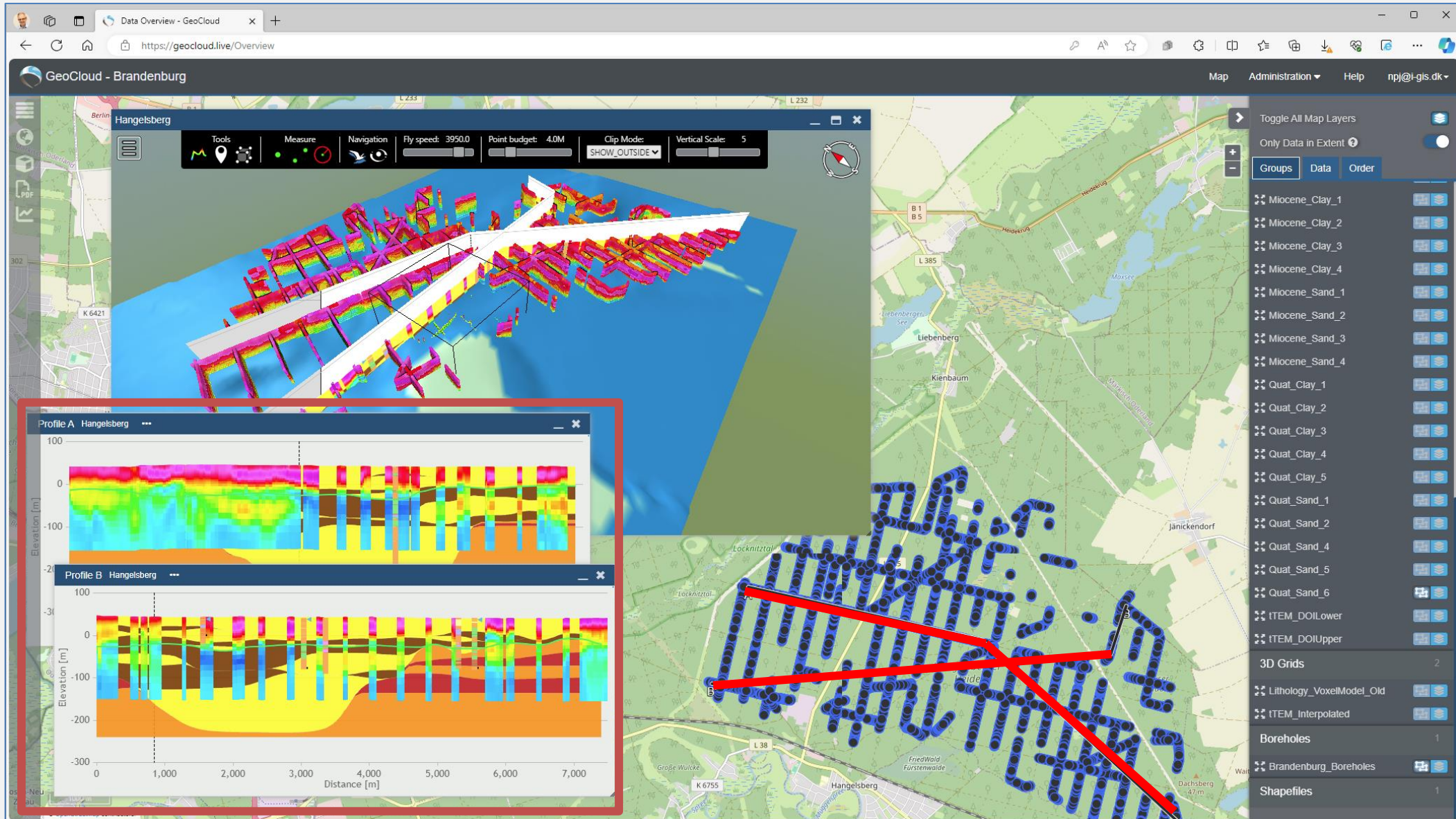
ProInv Map Administration Help npj@i-gis.dk

Users

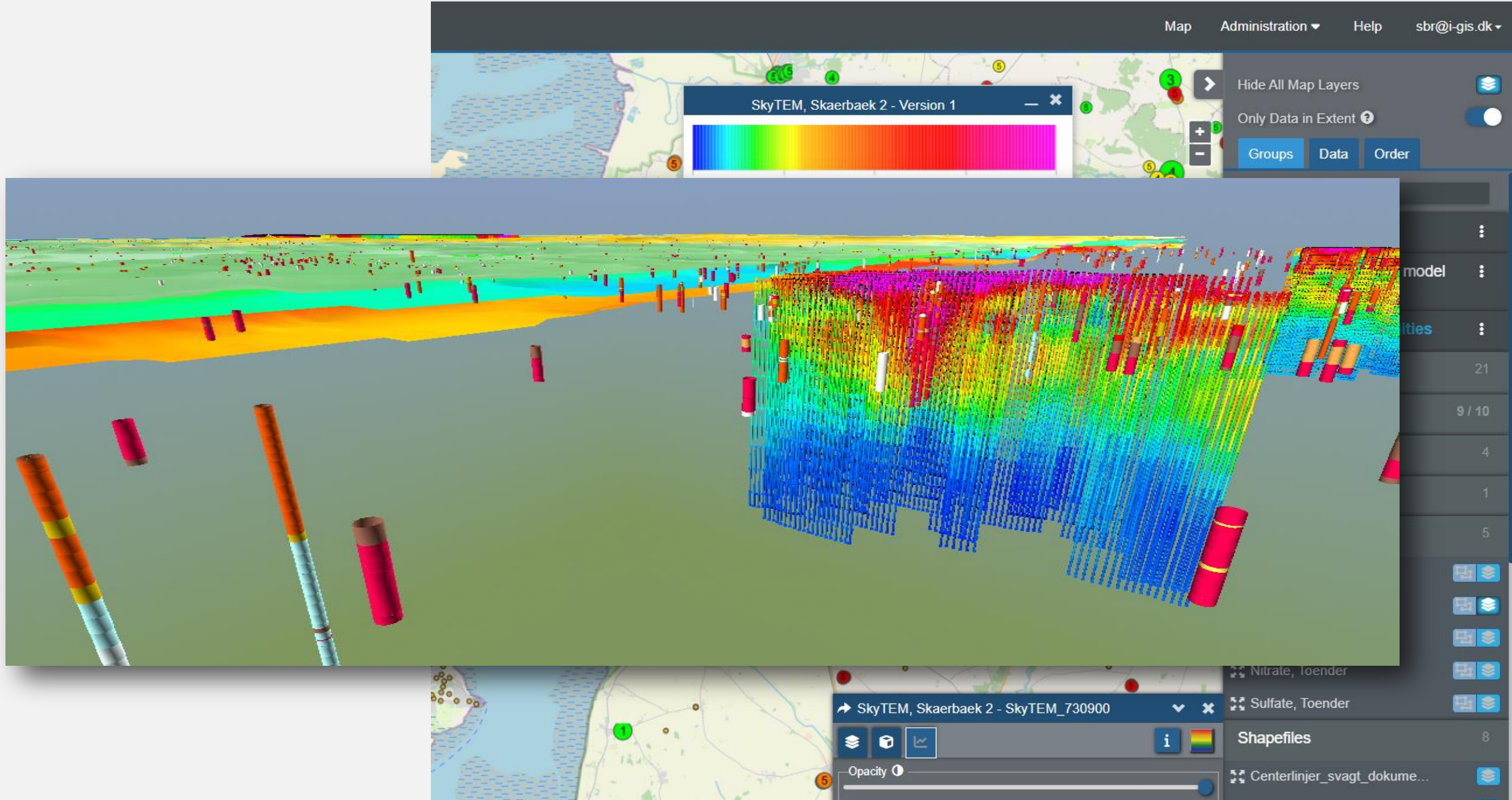
+ Invite User Email All Users

Show 10 entries Search:

First Name	Last Name	User Name	Email
Mike	Bering	mbering@brandenburg.de	mbering@brandenburg.de
Helmut	Bruchhoff	hbruchhoff@brandenburg.de	hbruchhoff@brandenburg.de
Manuela	Klein	m.klein@b-l-e.de	m.klein@b-l-e.de
Matthias	Mau	MLT.M@brandenburg.de	MLT.M@brandenburg.de
Uwe	Neumann	hydrogenkoge@lgr.brandenburg.de	hydrogenkoge@lgr.brandenburg.de
Timo	Rosen	Timo.Rosen@lgr.brandenburg.de	Timo.Rosen@lgr.brandenburg.de

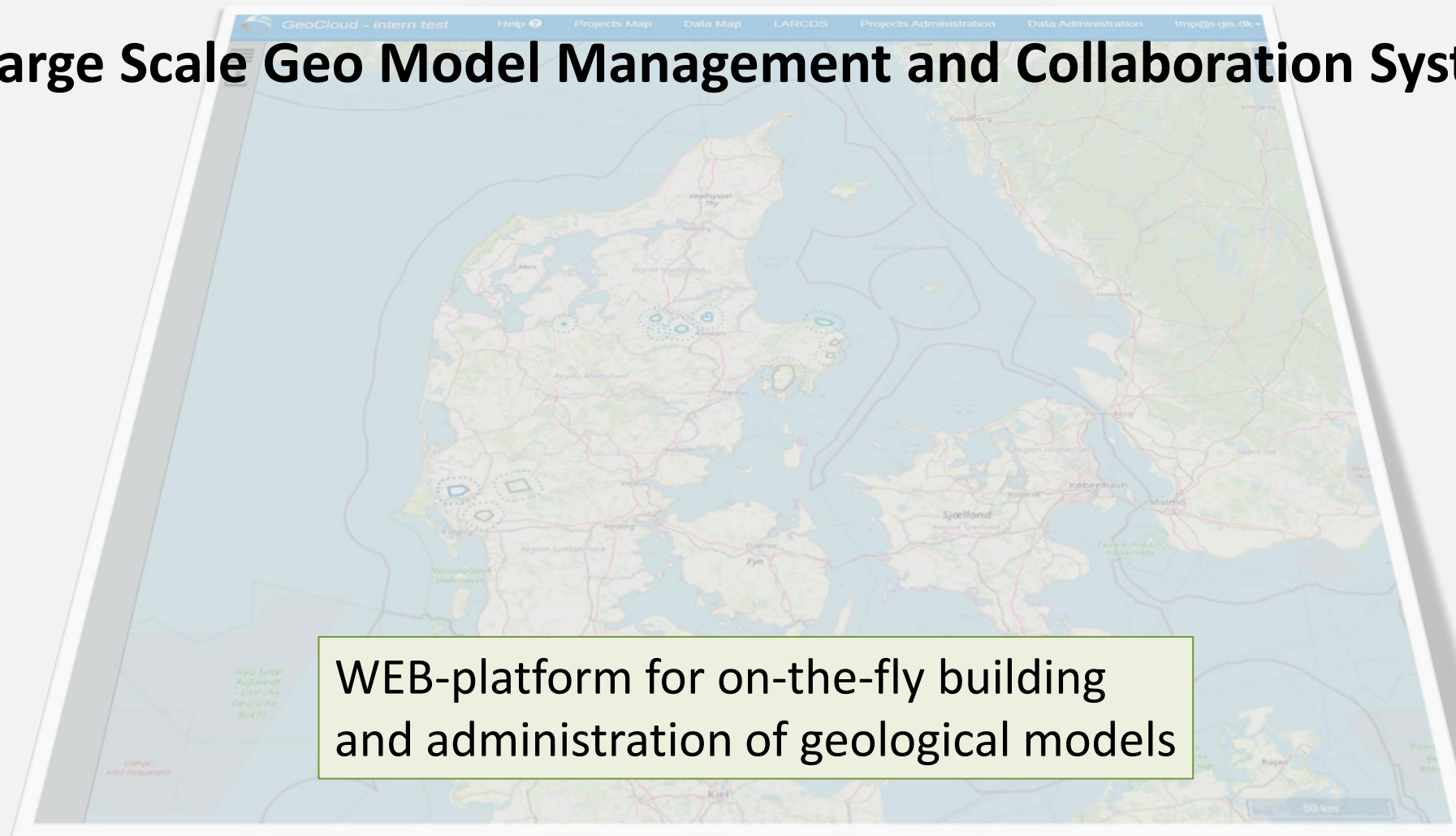


What is GeoCloud



LARCOS

Large Scale Geo Model Management and Collaboration System



GeoCloud - Miljøstyrelsen

LARCOS Administration Help tmp@i-gis.dk

Select Base Layer
OpenStreetMap

OSD Areas

Model Selection
FOHM - Jylland (50 layers)
FOHM - Jylland (50 layers)
FOHM - Fyn (23 layers)
FOHM - Sjælland (23 layers)
Model Download Options

Show Other Users
Only Rejected Areas
Show Polygon Buffer
Show History

Areas currently being updated

Supports several models

Different users – different access levels:

- Administration and QC
- Check out – check in
- Upload – download data
- View-only
- Public/nonpublic data

GeoScene3D (or GIS systems) → QC → GeoCloud LARCOS → Check Out Information

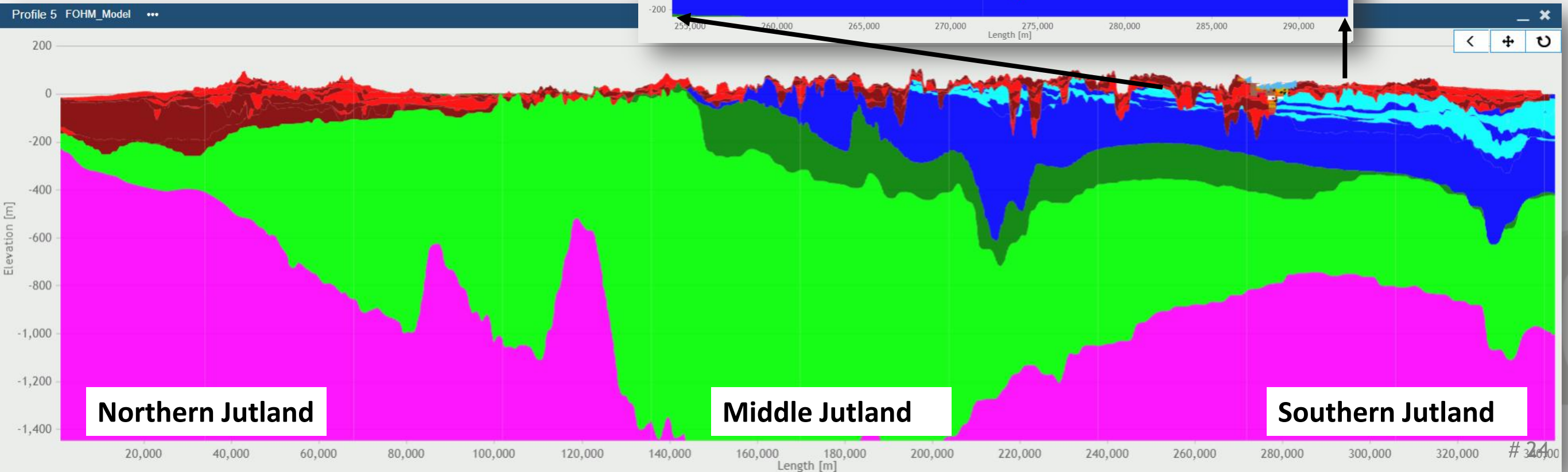
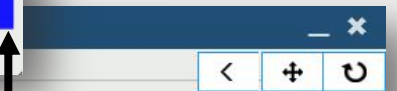
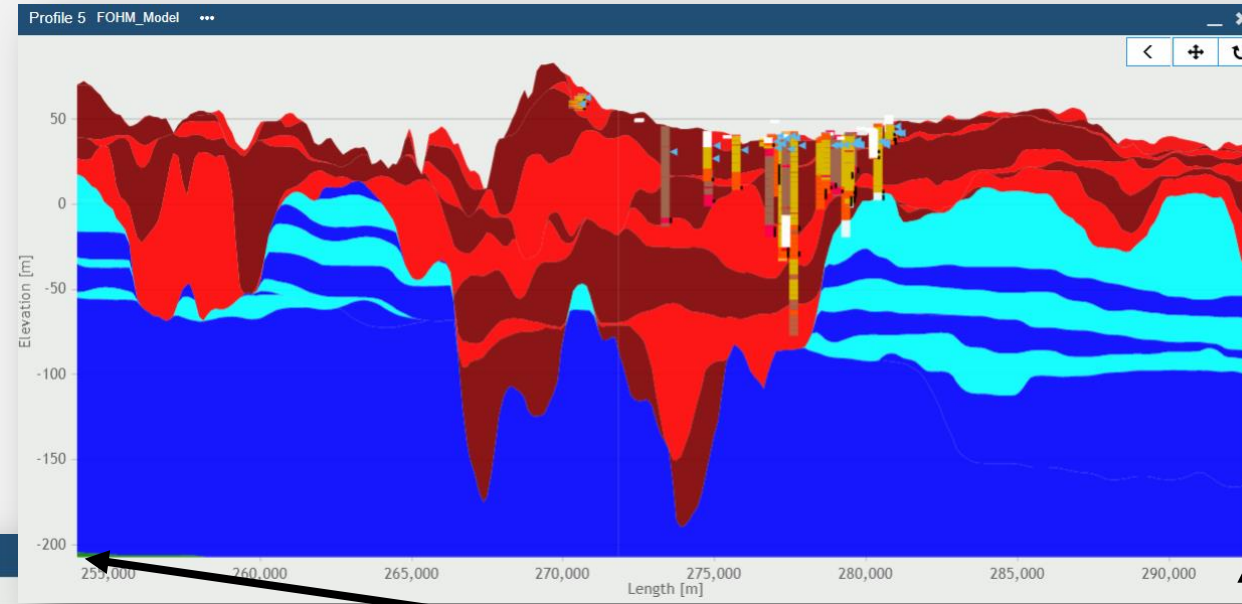
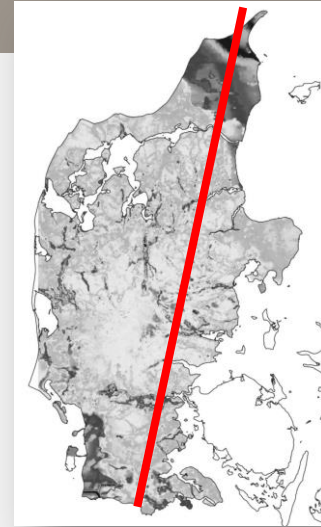
- Administration and QC
- Check out – check in
- Upload – download data
- View-only
- Public/nonpublic data

Output examples

Cross sections

Shown: Jutland, north to south.

Length: 380 km.



Sidebar

Navigation

- GeoScene3D
- Installation &
- Application
- Concepts
- Project Center
- 3D grids
- Add 3D elements
- Add Geophysics
- Add Map Data
- Add Points
- Add Surfaces
- Add Wells
- add_geocloud
- AEM
- Building a layer
- Building a voxel
- Calculations
- Danish Model
- Data formats
- Hydro Calculations
- Interpolation
- Profiles and Reports
- Setup a new project
- Toolbox
- Tools
- Troubleshooting

Webinars

GeoScene3D and GeoCloud Webinars

1 - 12 of 20

Share

GeoScene3D FAST MODELS



31:37

Webinar: Fast Models



Fast and Efficient Geological Modeling with GeoScene3D Join us for an insightful webinar where...

GEOSCENE 3D INTRO AND BASICS



29:01

Webinar: GeoScene3D



This webinar is your gateway to GeoScene3D modeling software. Discover how to...

GeoScene3D SAVE TIME WITH SMART INTERPRETATION



FROM GEOPHYSICAL DATA TO 3D VOXEL MODEL

Tuesday, September 20th, 2023
14:30 - 15:15 CEST (Central European Summer Time)
20:30 - 21:15 CPT (Central Time US, Canada, Mexico)



GeoScene3D LEARNING CENTER

If you have any questions about your products or need support, feel free to contact us: supportgs3d@i-gis.dk



Getting started



Adding Data



Modelling



Map, profiles & 3D window



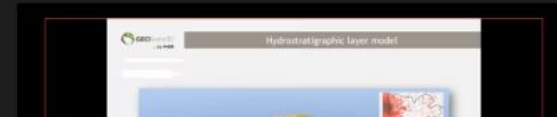
Diverse



Wells & Boreholes

GETTING VALUE FROM (A)EM DATA WITH GEOSCENE3D

Tuesday, December 6th, 2023, 1:00 pm - 1:45 CET Time
16:45 am Lincoln, Nebraska - Central Time US



GEOSCENE3D INTRO AND BASICS



GEOCLOUD GET THE MOST OUT OF YOUR GEOLOGICAL DATA

Thursday, November 30th, 2023, 4:00 pm - 4:15 pm CET Time

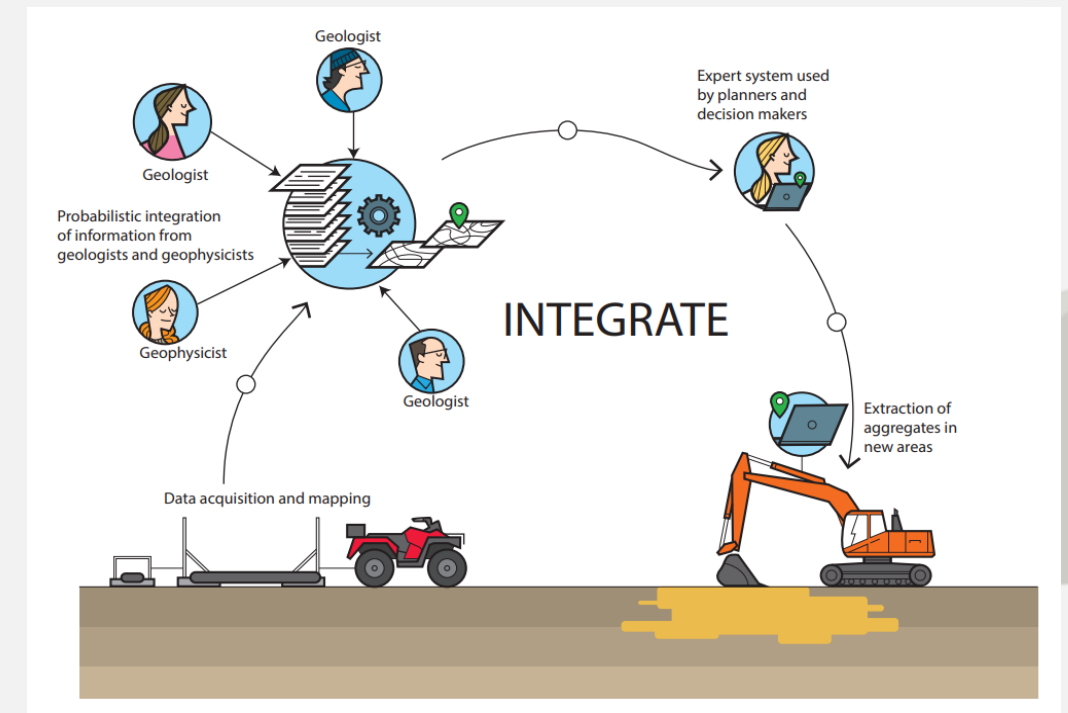
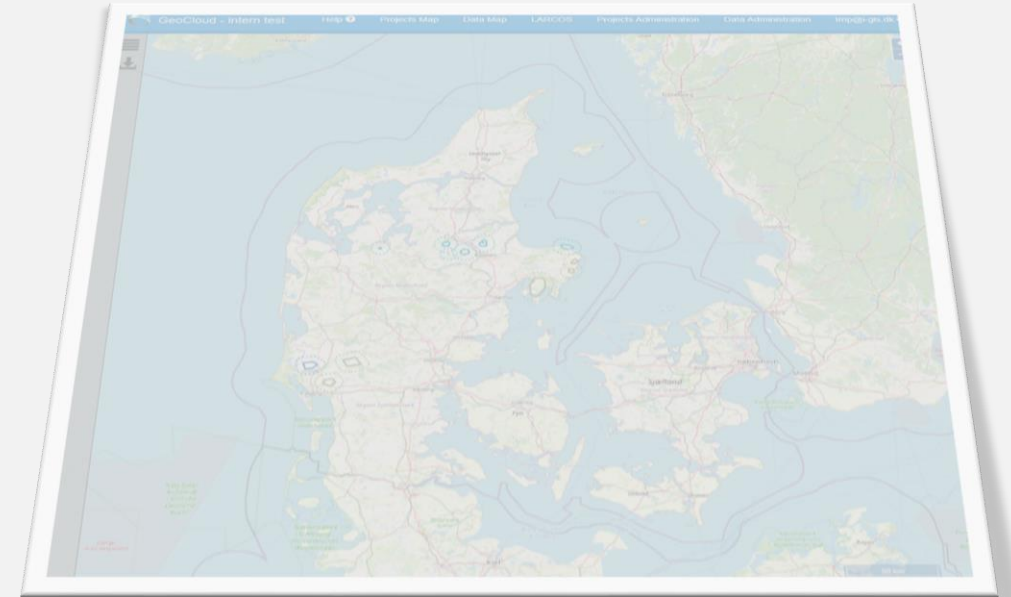


GEOSCENE3D INTRO AND BASICS



Future:

- Models are growing: Enhancing capabilities on Very Large Models
- Lots of data (geophysics) to come: Probabilistic modeling. Can a modelers vision of a model fit into geophysical data?



END

