



Flanders
State of the Art

Using (hydro) geological models in the DOV web portal

DATABANK ONDERGROND VLAANDEREN

Database of the soil and subsoil of Flanders

Wiesbaden, 16/ 06/ 2016

Pieter De Graef

DOV Project manager



ENVIRONMENT
NATURE &
ENERGY
DEPARTMENT

Overview

▶ DOV

→ Who are we?

→ Inspire & DOV

▶ Geology@DOV

→ Web portal

→ 3D model

→ Loam voxel model

▶ Next steps

→ Virtual drillings & profiles

→ 3D & Inspire?

Who are we?

- ▶ URL: <http://dov.vlaanderen.be>
- ▶ DOV is a cooperation in Flanders:
 - First established in 1996
 - Open data online since 2002
 - 3 entities are the core partners:
 - Mobility and Public Works Department (MOW)
 - Environment, Nature and Energy Department (LNE)
 - Flemish Environment Agency (VMM)

MISSION Structuring and managing all data and information concerning the soil and subsoil of Flanders and make them available

VISION DOV is a cooperation of partners that mobilizes data and information concerning the soil and subsoil of Flanders, guards and reports on their quality and makes them accessible in an integrated way.
DOV works according to Flemish decrees and international agreements, in the most effective, efficient and flexible way.

Which data in DOV?

DOV offers data and information on thematic areas related to soil and subsoil:

groundwater



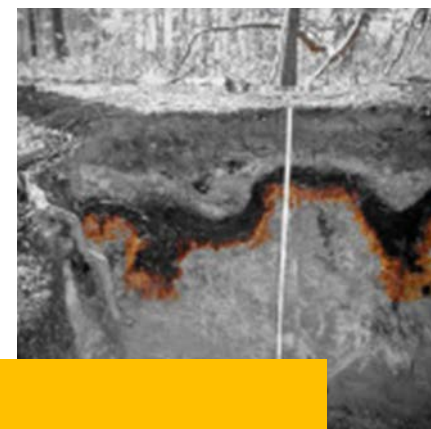
geology



geotechnics



soil



All data is available as **open data**

Reuse is allowed

“gratis open data licentie Vlaanderen V1.2”

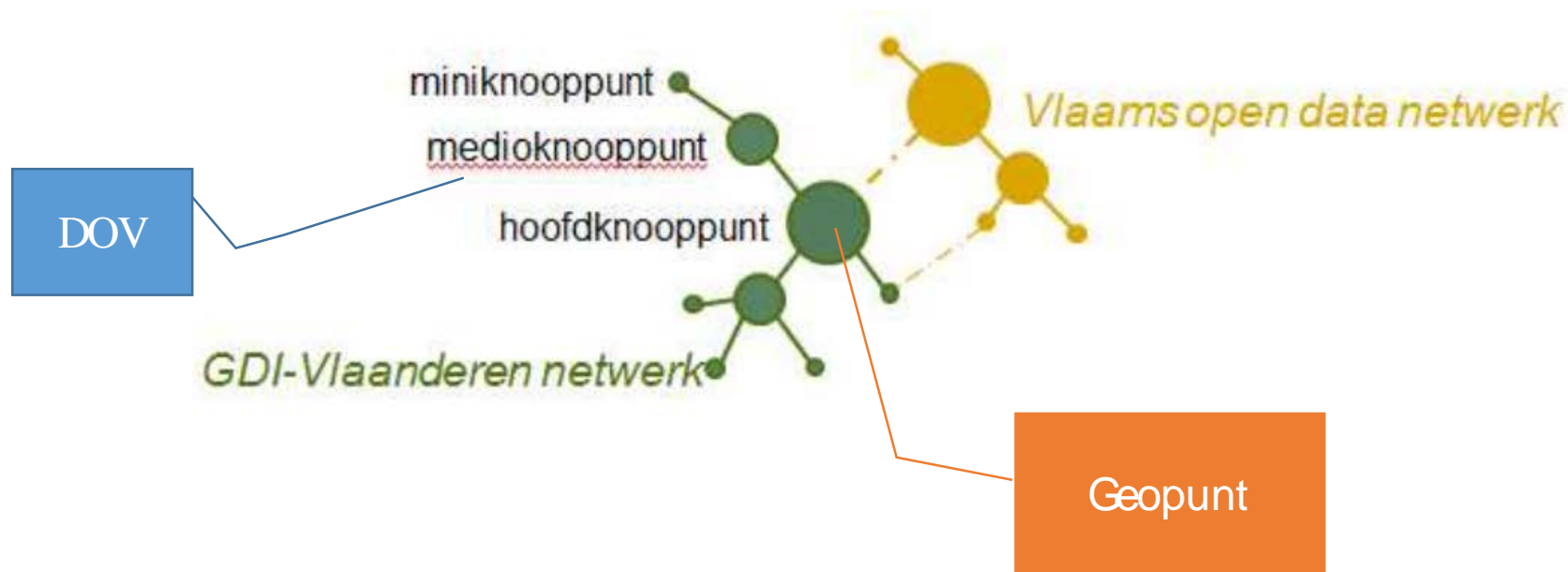
Architecture for DOV

Open Source!

- ▶ PostgreSQL , Post GIS
- ▶ Services
 - Catalog (Geonetwork): CSW
 - × DOV: >1000 metadata files
 - OGC-services (Geoserver) :
WMS, WFS/ WCS, WMIS –
 - × DOV: 800 layers
- ▶ Application for publication
 - × “Mercurius”

- ▶ Applications for data management and viewing
 - Java, GWT
 - Geotools, Geomajas
 - [Verkenner](#)

Open data in Flanders versus SDI



Geology @ DOV

DOV explorer

Databank Ondergrond Vlaanderen

Verkenner

Vul hier een zoekterm of adres in... Geavanceerd

Geen thema

Kaartbeeld instellen

Indien de kaartlaag niet zichtbaar is, zoom in (tot op 1:20.000 voor sommige kaartlagen).

- Boringen
 - Legende
- Topo 10 zwart-wit transp. (2009) (NGI)
 - Legende
- GRB basiskaart zonder achtergrond
- Tertiair
 - Legende
- Ortho's Vlaanderen (zomervluchten 2012)

1.000 m
Schaal = 1 : 35000
XY (Lambert72):

powered by GEOMA.JAS

Zoekresultaten

Selectie Acties Toon resultaten van: Boringen (21) Opties

	Boornummer	Rapport	Partner	Status	Opdrachten	Diepte van (m)
<input type="checkbox"/> (+)	B/1-002360	rapport	VMM	Publiek	Vergunningen-Antwerpen	0,00
<input type="checkbox"/> (+)	kb8d17e-B208	rapport	LNE-ALBON	Publiek	kb8d17e	0,00
<input type="checkbox"/> (+)	kb8d17e-B209	rapport	LNE-ALBON	Publiek	kb8d17e	0,00

Kaartlagen kiezen

DOV explorer

Databank Ondergrond Vlaanderen

Apps | Home | Over ons | Meld een probleem | Contact

Verkenner

Kaartbeeld instellen

Indien de kaartlaag niet zichtbaar is, zoom in (tot op 1:20.000 voor sommige kaartlagen).

- Boringen
 - Legende
- Topo 10 zwart-wit transp. (2009) (NGI)
 - Legende
- GRB basiskaart zonder achtergrond
 - Legende
- Tertiair
 - Legende
- Ortho's Vlaanderen (zomervluchten 2012)

Vul hier een zoekterm in

1.000 m
Schaal = 1 : 350
XY (Lambert72)

Zoekresultaten

Selectie ▾

- B/
- kb
- kb

Kaartlagen kiezen

Kaartlagen kiezen

Ga naar [Kaartbeeld instellen](#) om de weergave van de aangevinkte kaartlagen te personaliseren.

Kaarten | Ref. lagen | Extern

- Administratieve informatie
- Grondonderzoek
 - Proeven en metingen
 - Grondwateronderzoek
- Vergunningen
- Bodem
 - Geologie
 - Quartair
 - Neogeen/Paleogeen (Tertiair)
 - Krijt
 - Profielen
 - G3Dv2
 - Delfstoffen
- Hydrogeologie
- Energiebronnen

Drillings, descriptions, logs, interpretations

Geen thema ▾

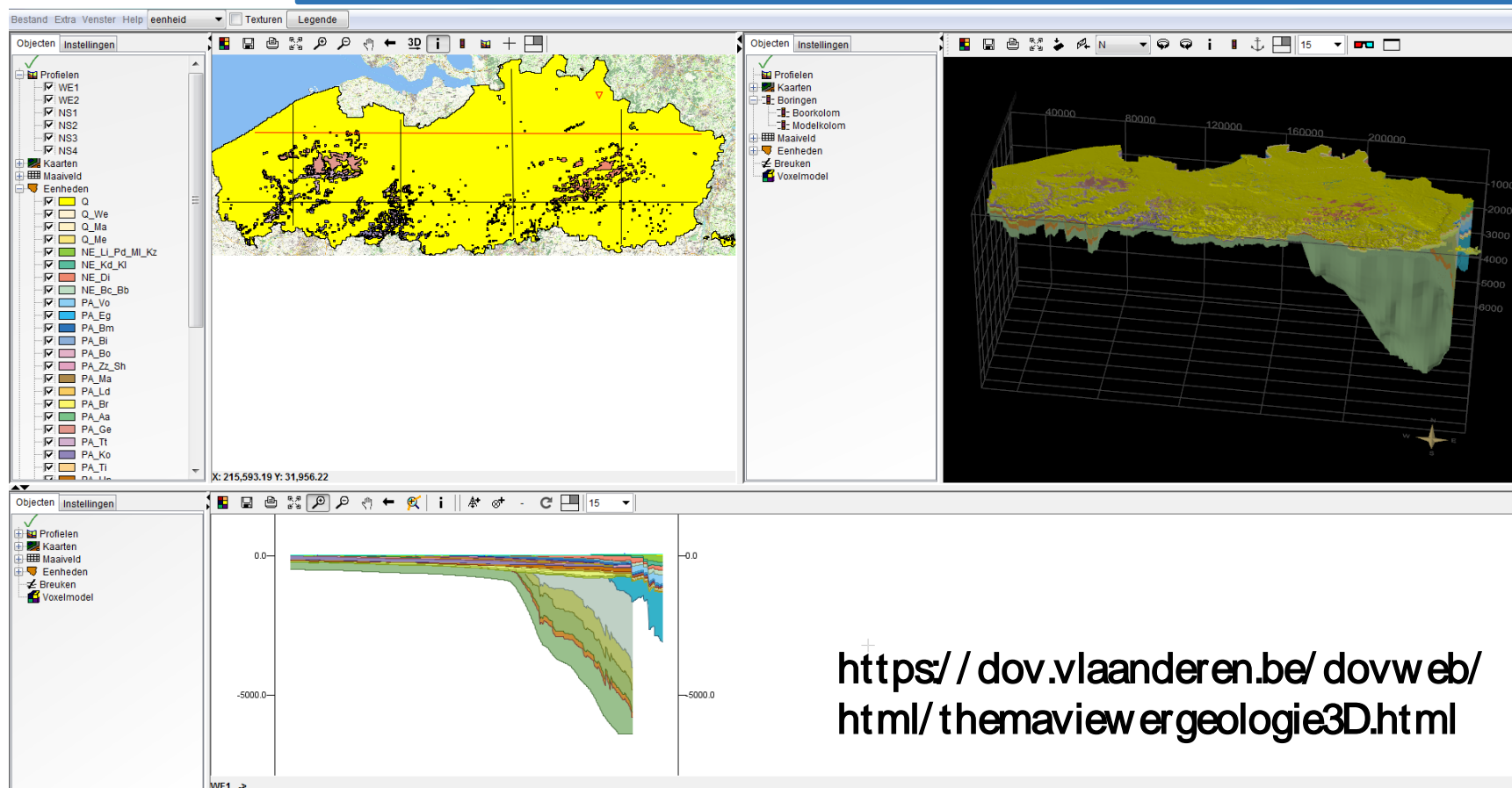
powered by GEOMA.JAS

lagen	Diepte van (m)
ninge	0,00
erpen	0,00
e	0,00
e	0,00



3D Surface Viewer

Visualisation of geological 3D model, G3Dv2 (Matthys et al., 2013)



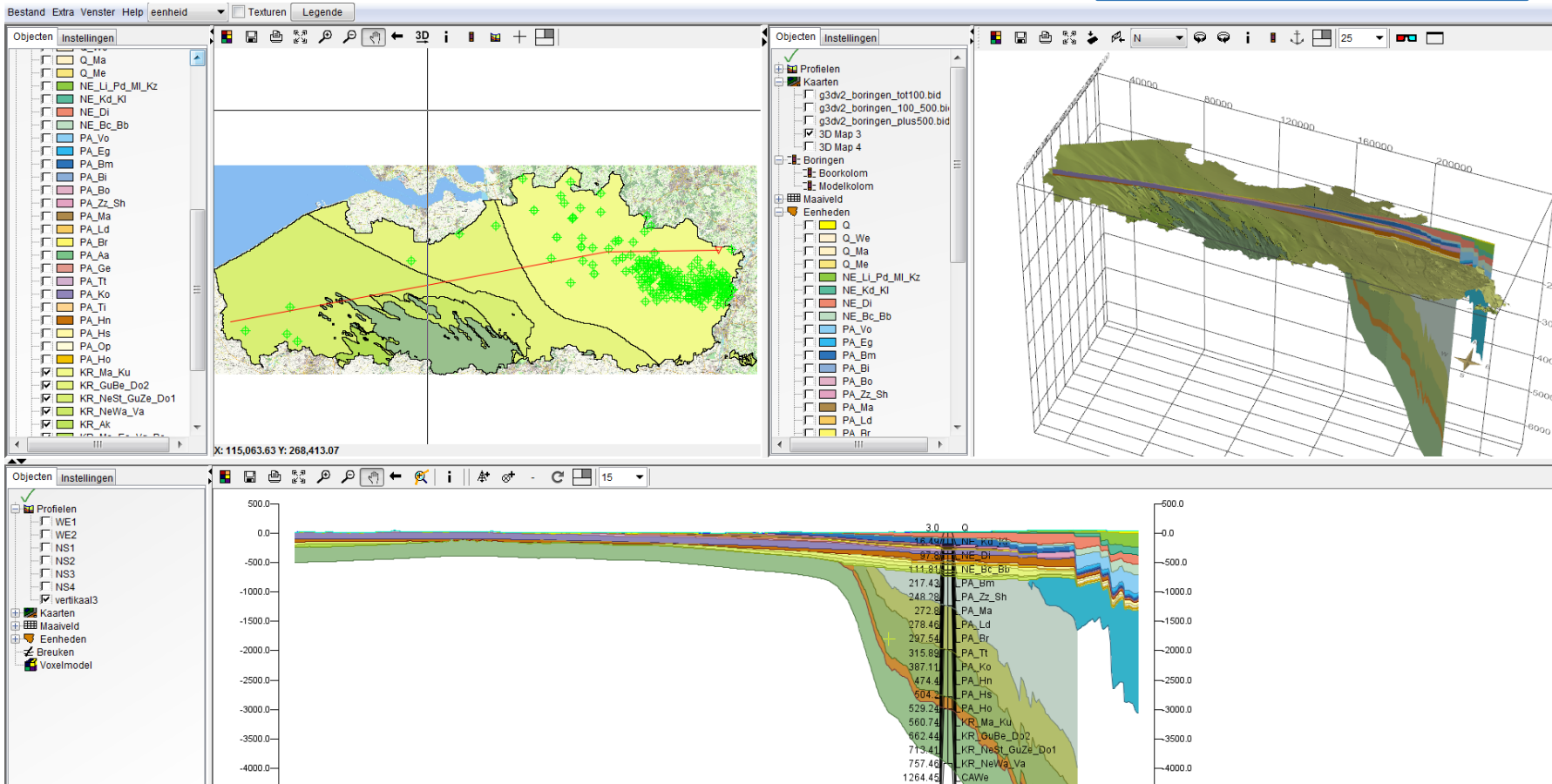
<https://dov.vlaanderen.be/dovweb/html/themaviewergeologie3D.html>



Flanders
State of the Art

3D Surface Viewer

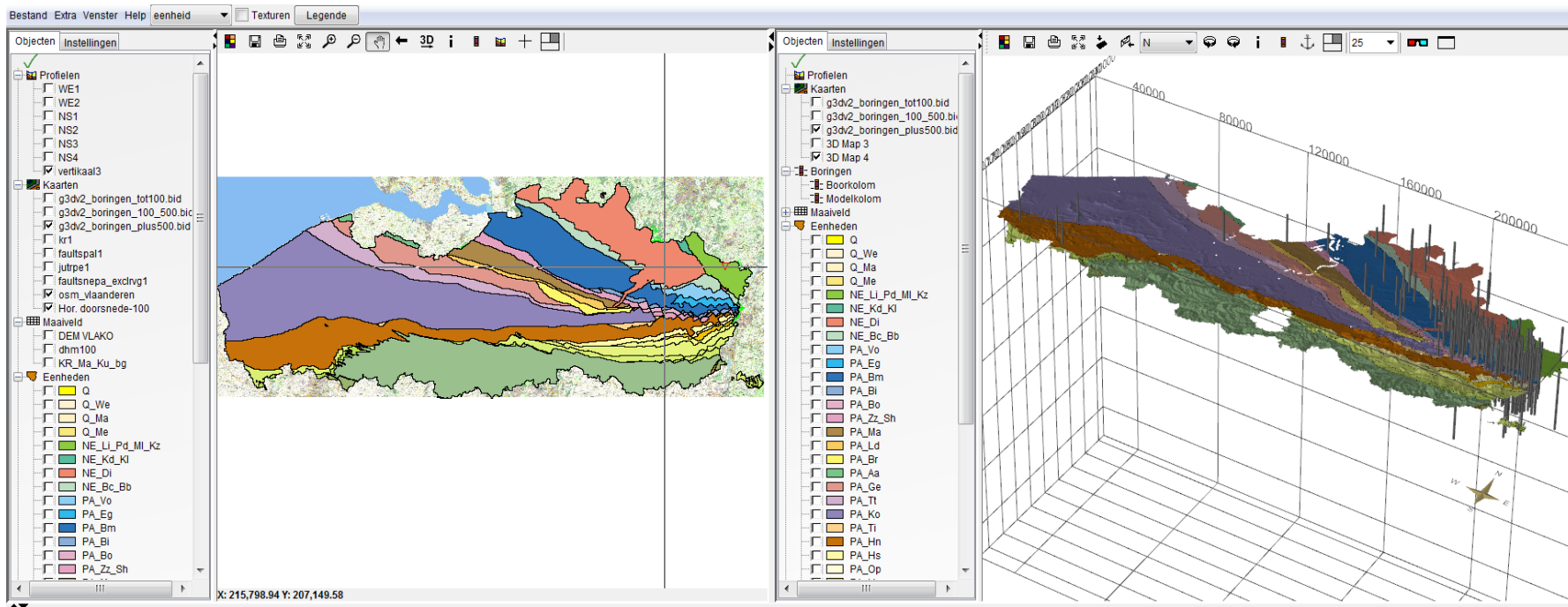
Make vertical profiles



Flanders
State of the Art

3D Surface Viewer

Make horizontal slices

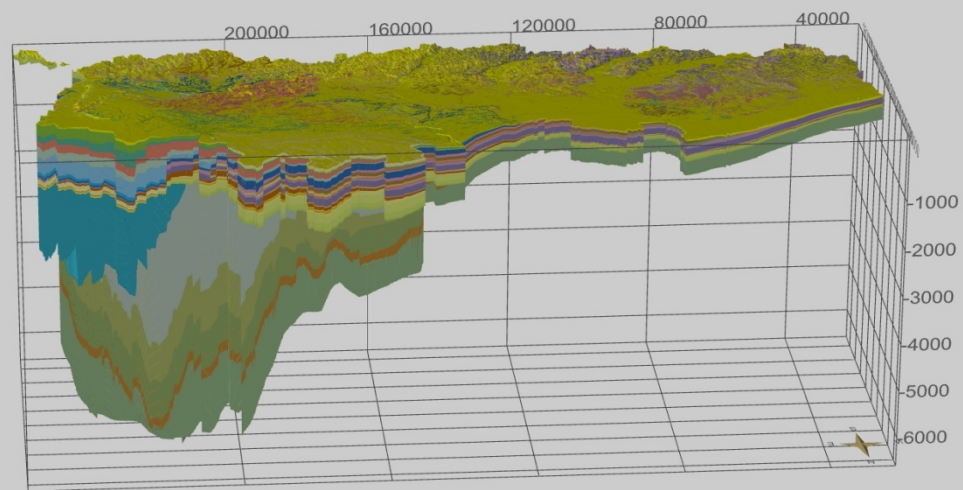


..and much more options...

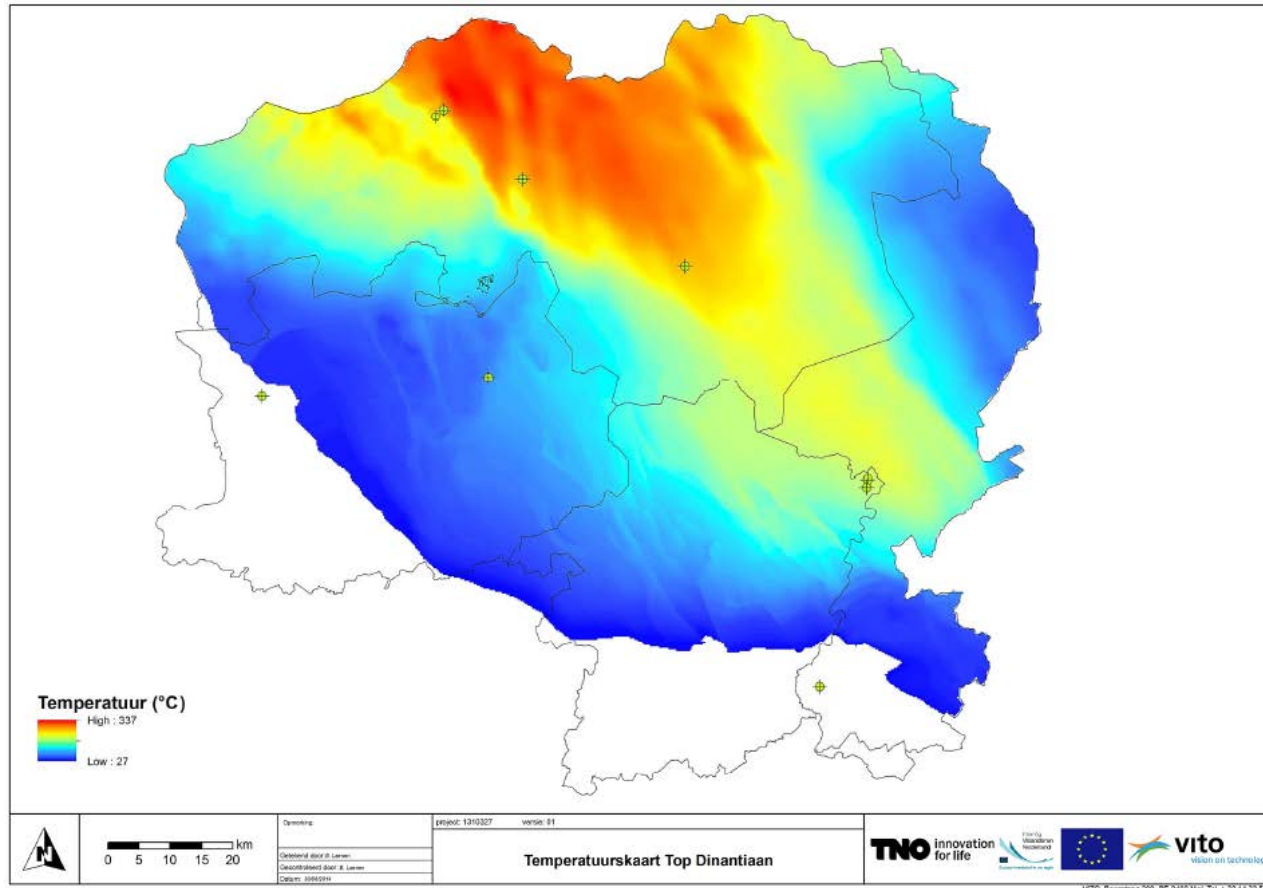


Flanders
State of the Art

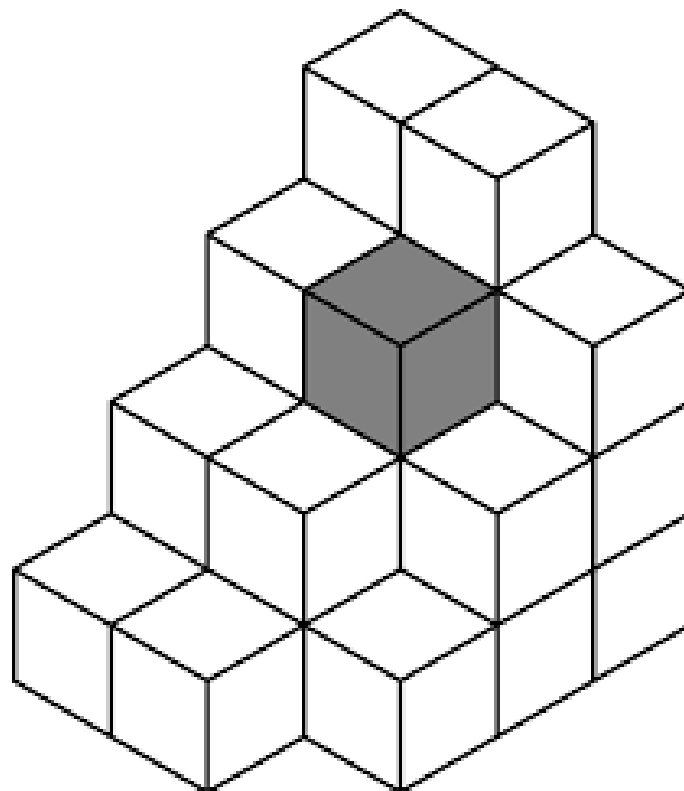
Balmatt project (VITO)



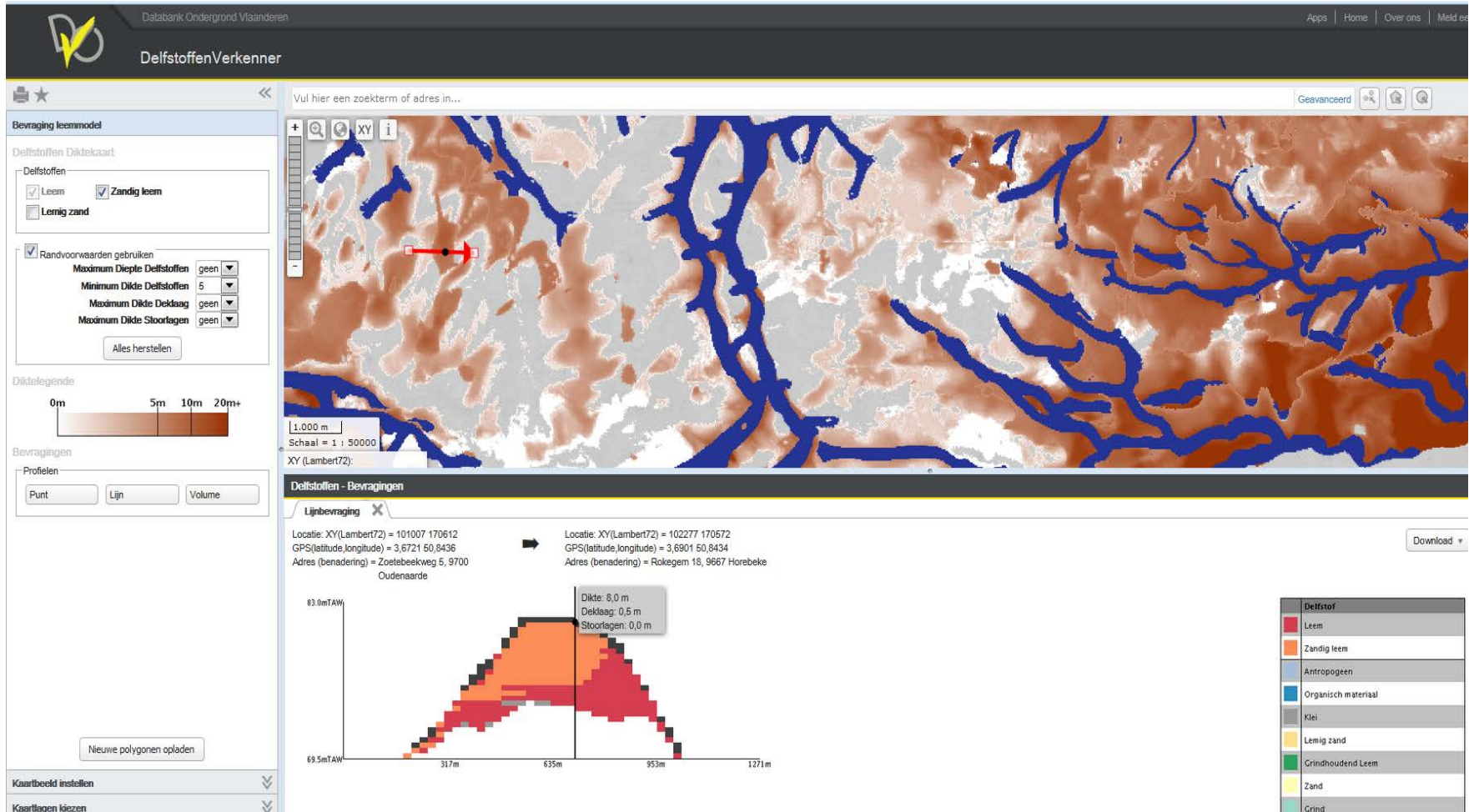
Balmatt project (VITO)



Loam voxel model



Mineral resources explorer



Flanders
State of the Art

Visualisation of Loess Voxel Model (van Haren et al., 2015) – presentation in thematic Session 8

QUESTIONS ?

Contact us at dov@vlaanderen.be



Flanders
State of the Art