



Subsurface Data Availability: Benchmarking Data Access Arrangements in Western European Countries

*Eline Van Malderen
Guido Hoetz*

KU LEUVEN

ebn

Objectives

- Establish an overview of subsurface data availability in Netherlands and neighboring countries
- Identifying best practices: improving data availability in the Netherlands
- Understanding *INSPIRE* (EU initiative)

- Subsurface data (depth > 500m)
- Availability and quality
- Netherlands
- Belgium – Germany – Denmark – UK – Norway
- Benchmarking

Why?

- Finding remaining HCs more difficult
- New challenge: CCS, Geothermal energy
- We need deeper understanding subsurface.

- Expensive to explore
- A lot of wells & seismic exists
- Evaluation requires access to data, also internationally.

Best practices and recommendations

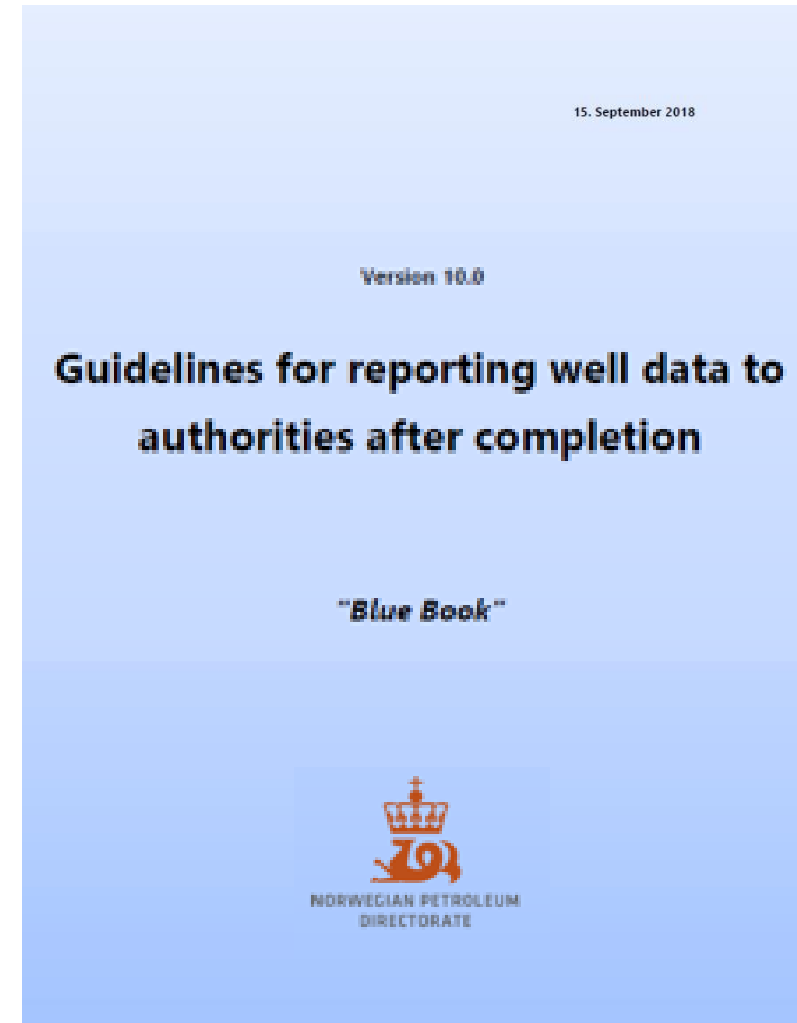
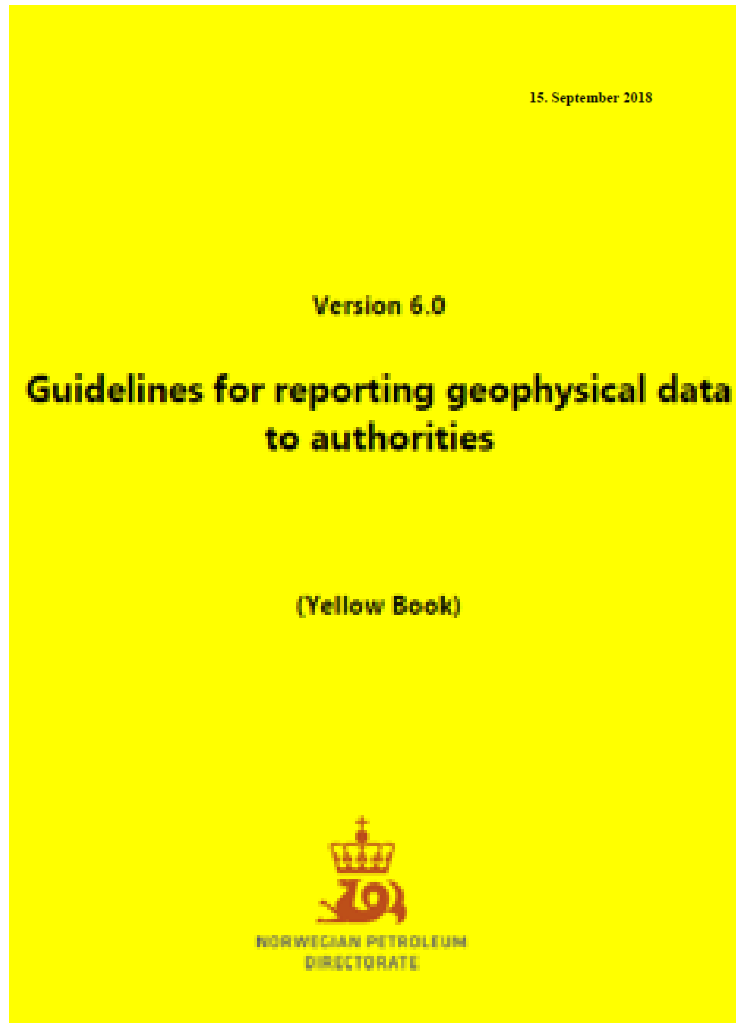
General data table

→ data table allowing comparison

- 6 countries (+ regions)
- 15 geoportals (Incl. NLOG (NL) and BGR Geoviewer (DE))
- Borehole and seismic metadata
 - Availability: yes / no
 - Cost: free / payment
 - Quality of Access: poor / fair / good

Best practices: example Norway

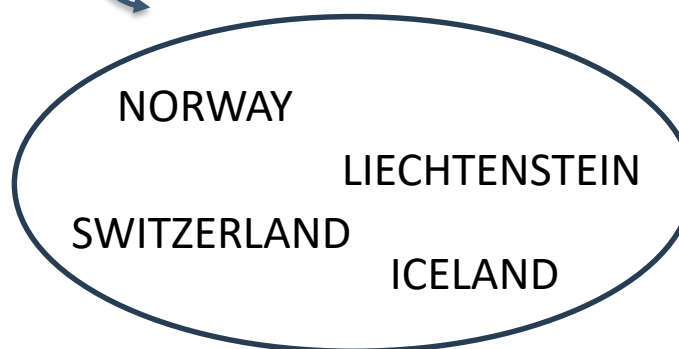
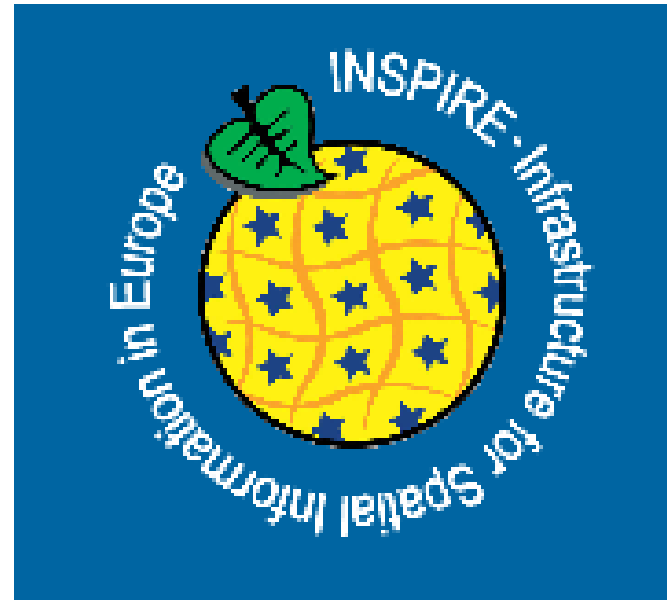
→ Guidelines on how to make data available



INSPIRE

Infrastructure for Spatial Information in Europe

- European directive 2007/2/EG
- Completion date: 2021
- All member states (28) + EFTA members + non member states



INSPIRE



Addresses



Cadastral parcels



Geographical grid systems



Hydrography



Transport networks



Elevation



Land cover



Administrative units



Coordinate reference



Geographical names



Protected sites



Geology



Orthoimagery



Agricultural and aquaculture facilities



Atmospheric conditions



Buildings



Environmental monitoring Facilities



Human health and safety



Meteorological geographical features



Natural risk zones



Population distribution and demography



Sea regions



Species distribution



Utility and governmental services



Area management / restriction / regulation zones & reporting units



Bio-geographical regions



Energy Resources



Habitats and biotopes



Land use



Mineral Resources



Oceanographic geographical features



Production and industrial facilities




Soil





Statistical units


INSPIRE: How compliant are we?

	Current (2019)	Expected (2021)
Netherlands	POOR	FAIR
Belgium	FAIR	GOOD
Germany	FAIR	FAIR
Denmark	FAIR	GOOD
UK	GOOD	DROP OUT
Norway	FAIR	FAIR

 GOOD

 FAIR

 POOR

 DROP OUT

Conclusions

- Data access studied for BE, UK, DE, DK, NO;
- Data classification scheme developed;
- Data access table created allowing benchmarking and identifying “best practices”;
- UK’s geoportal (NDR) is *state-of-the-art* (data richness & availability);
- *Inspire*: very good EU initiative (ambitious!), timetable is big challenge.

Subsurface Data Availability: Benchmarking Data Access Arrangements in Western European Countries



Questions?