3D REGIONAL GEOLOGICAL MODELLING IN POLAND

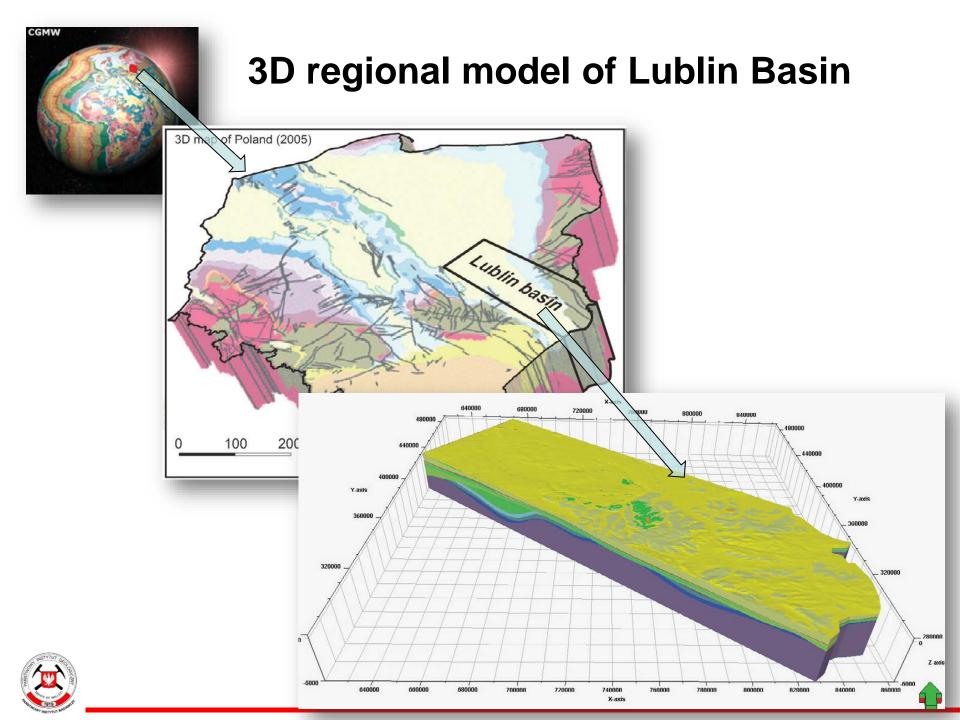
Zbigniew Małolepszy, Ewa Szynkaruk, Urszula Stępień & PGI-NRI Modeling Team

Wiesbaden, 16 June 2016

Polish Geological Institute National Research Institute

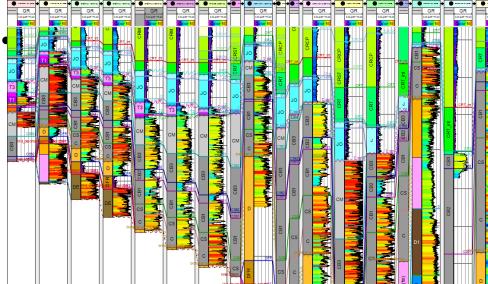
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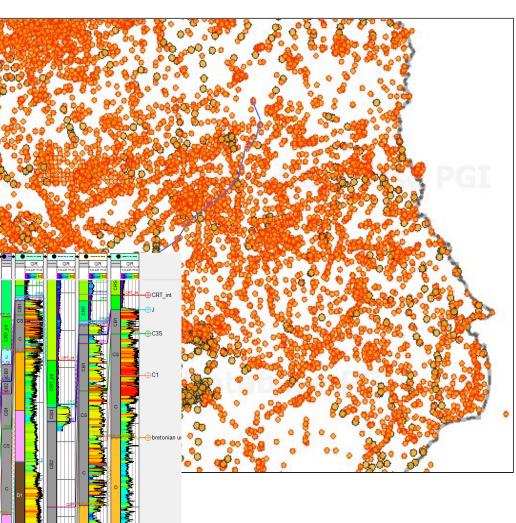


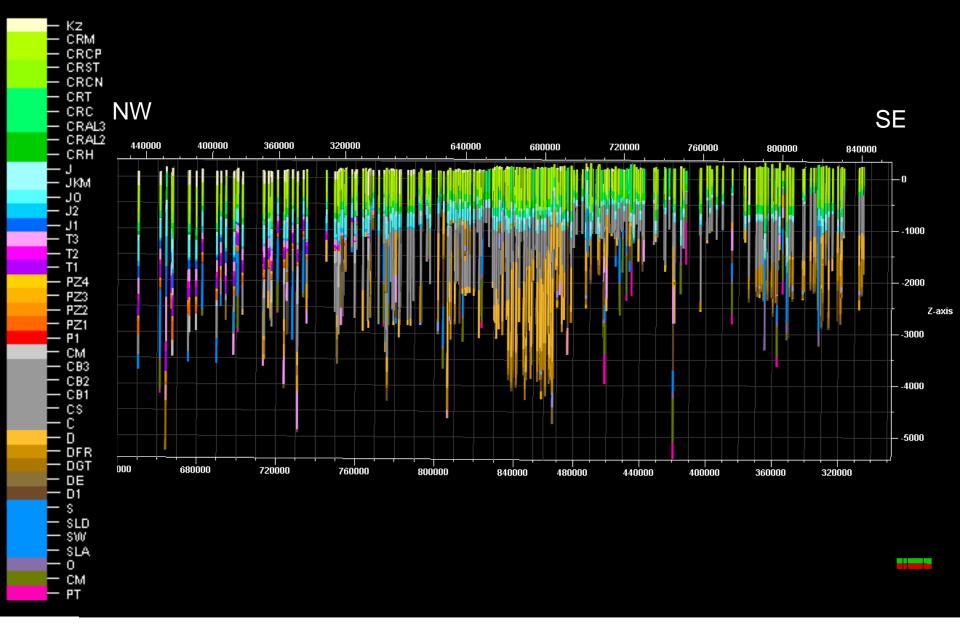
Well data input

- 224 deep wels (1200-5800m) selected for best depiction of geology
- Detailed review of stratigraphy and lithofacies in the wells to get best quality of data
- Additional 196 deep wels with







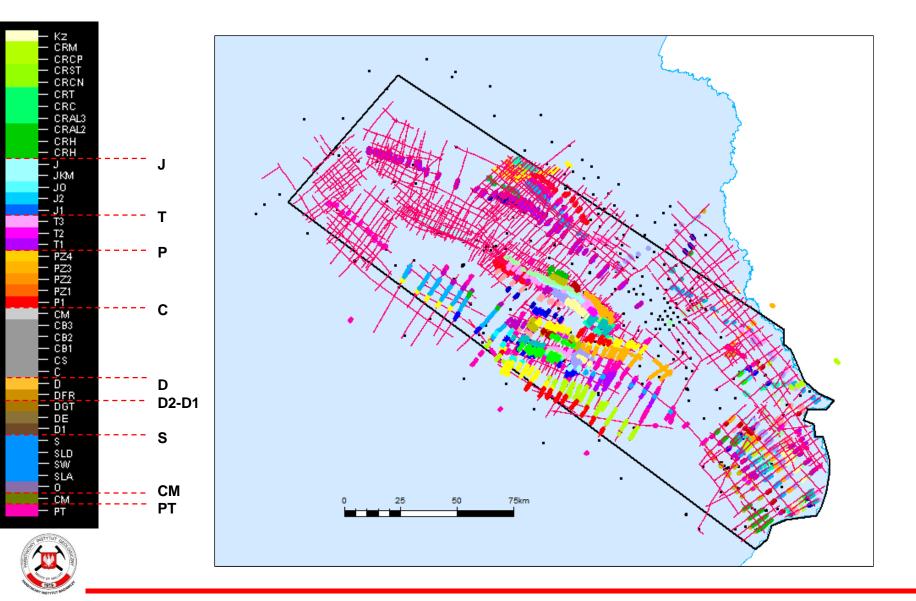




Chronostratigraphy: Precambrian – Quaternary

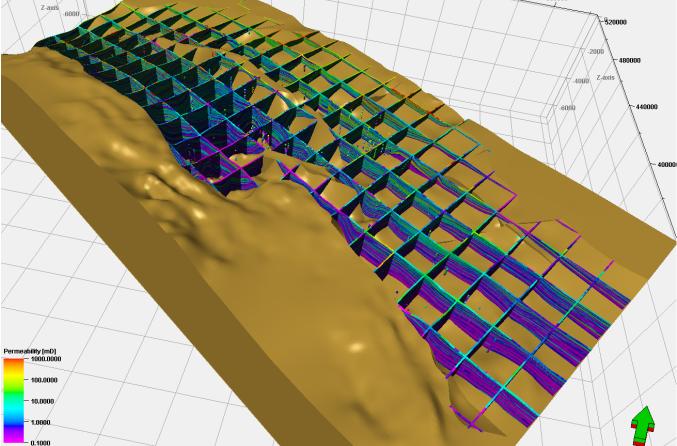
43 zones

Seismic interpretation: over 10 000 km of 2D surveys 144 faults interpreted (mostly reverse faults) 9 horizons interpreted



3D grid modelling

- Chronostratigraphy
- Lithostratigraphy
- Lithofacies
- Lithology (volume & proportions)
- Reservoir properties (Phi & K)
- Many others like water TDS etc. etc.



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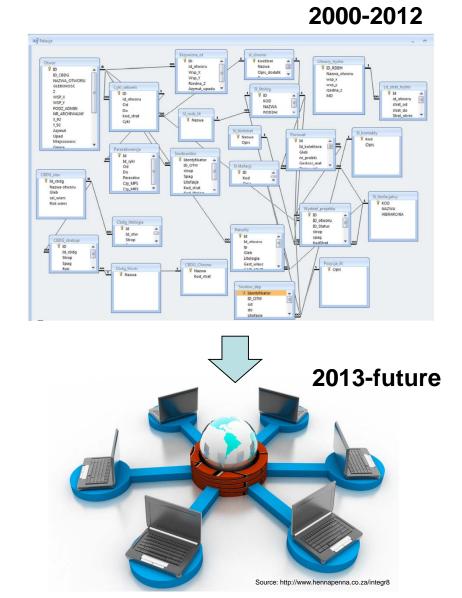


Data storage and structuring databases

The proccess of migration of hundreds of pieces, mostly personal databases, into single database system based on robust and relible software solutions.

Data cleaning and integration is carried on to validate potentially all available resources.

A large storage space is reserved for storage of 3D grids of rock properties.

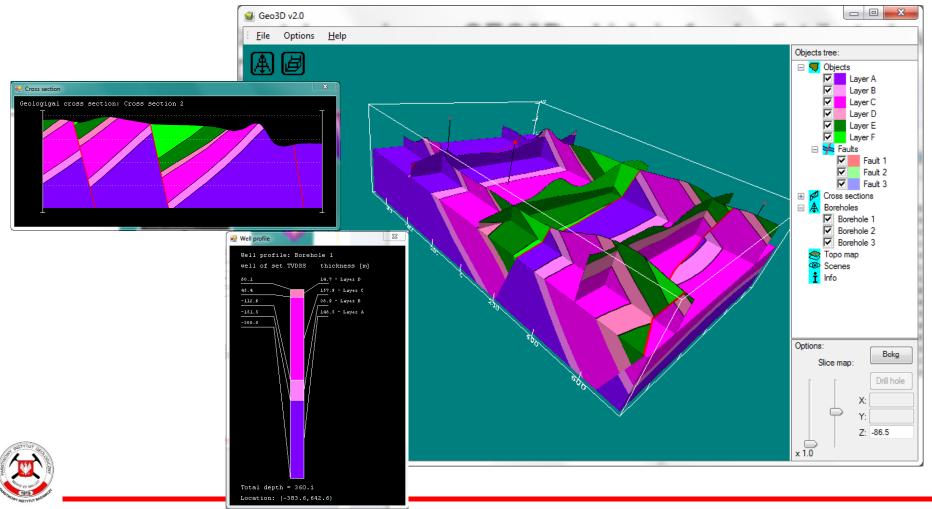




3D models delivery to the end users

The models have been delivered to the end user through:

- standalone viewer GEO3D which is freely distributed with the models
- 3D web viewer, WebGeo3D

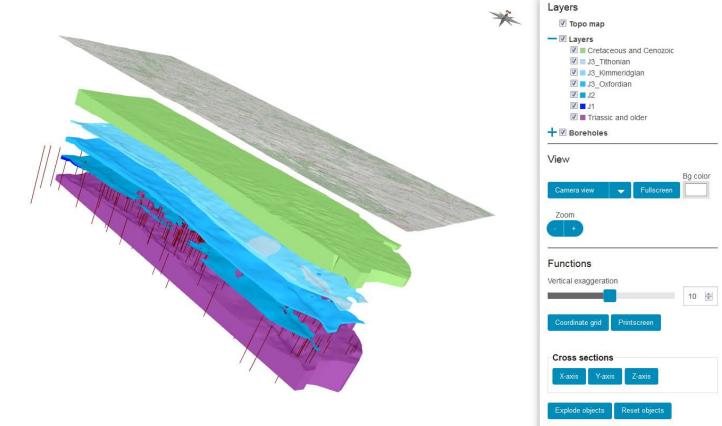


Web solutions for 3D model delivery

X3D format of data

Innovative content management system integrated with the database

Support of mobile devices





Thank you very much for your attention



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