### Poland – country update

Ewa Szynkaruk, Urszula Stępień, Zbigniew Małolepszy, Tomasz Żuk, & PGI-NRI Modelling Team

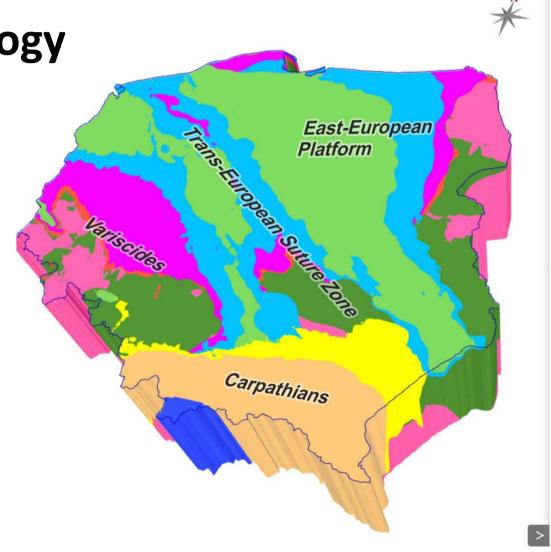


## THREE MAIN ROADS TOWARDS 3D GEOLOGY OF POLAND

1. Framework geology

at national scale

> opportunities and challenges

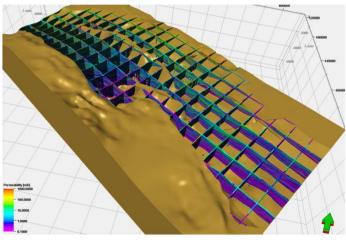


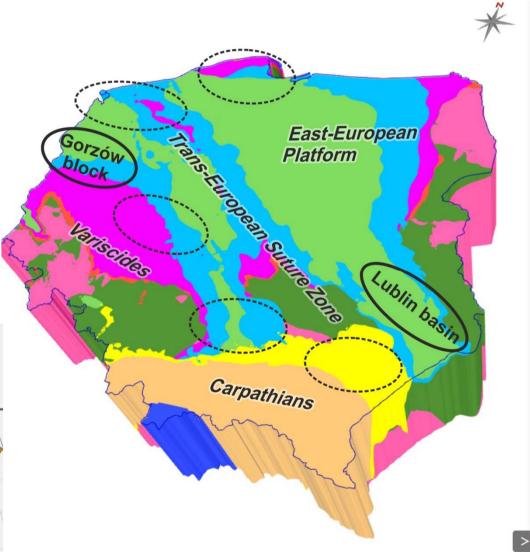


### THREE MAIN ROADS TOWARDS 3D GEOLOGY OF POLAND

## 2. Sedimentary basins

> where most of our activity concentrates



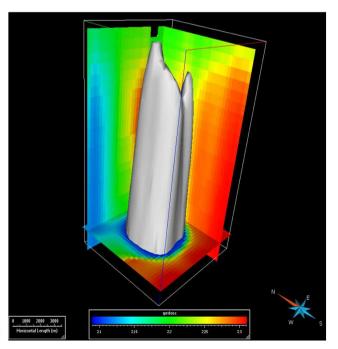


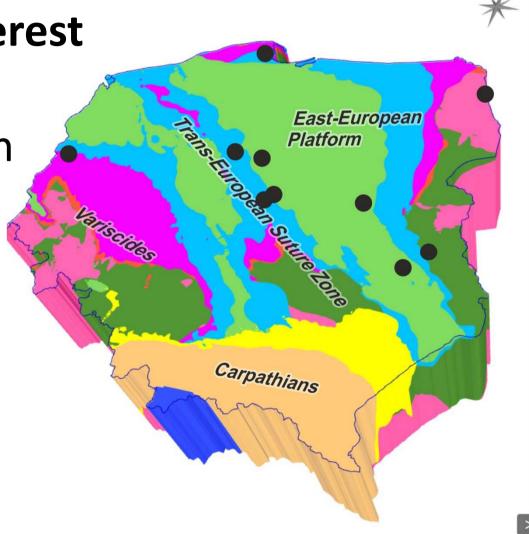
## THREE MAIN ROADS TOWARDS 3D GEOLOGY OF POLAND

3. Structures of interest

> where we need

detailed information



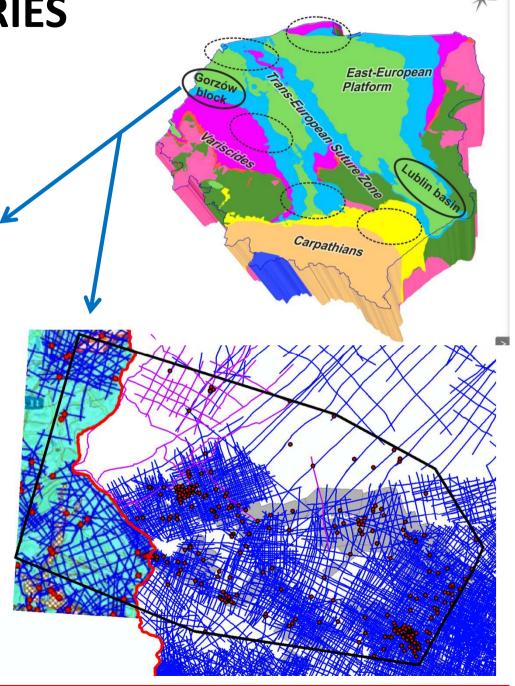




**CROSSING BOUNDARIES** 

> going West...

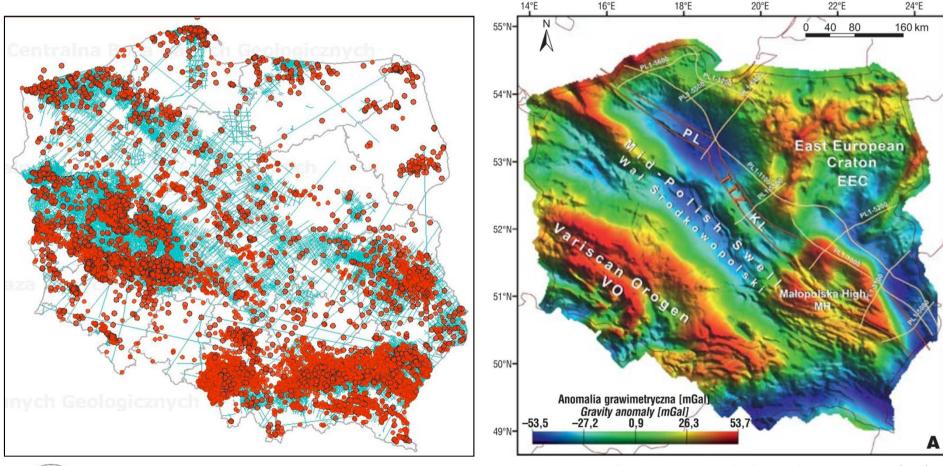
Alter	Epoche	Stratigraphische Einheit	Definition nach GTA	Definition nach GPK	abgestimmte TUNB Horizonte	3D model of Gorzów Block
1,8 Ma	Quarter	Quarter				Main seismic reflectors
		Plozin				(informal zone colours)
24 Ma	Neogen (Jungtertiär)	Moçân	toIR	A1		
		Oligozán	toik	A1	_toIR/A1"	XL1688 XL17708 XL1689 XL1688
	Palbogen Altertiari	Eszán Oberpalásszán	tpa	T1		T130)
65 Ma	Oberkreide	Den Masshricht Compan Santon			"Transgression Kánozolkum"	
99 Ma		Turon Cenoman	kro	B2/T2	"Alb-Cenoman-Transgression"	base K
	Unterkreide	Alb Apt Barrême Hauterive Valengin	kru	T4'	Basis Marine Unterkreide	
124 Ma	Maim (Oterer Jura)	Bernas = Wealdon Serpulit Munder Mergel Errebockhäuser PK. Giges-Schichten Kinnerköge Korallensolich Historialner Sich	Basis jo	berechnet aus	4	top Tk
180 Ma	Dogger (Mitterer Jura)	Callov Bathon Bajoc Asten	jutco (Top Posidonien- schiefer / Dörnten- Schiefer)	L1	Basis Malm* (Basis Heersumer Schichten)  Basis Dooger einschließich	top Tp2
206 Ma	Lins (Unterer Jura)	Toerc Plentbach Sinemur Hettang Rhail	juhe (Basis Hettang)	in BB und MV berechnet aus K2/T7 in ST Refieldor L4 berechnet aus K2/T7	jurense-aalensis-Schichten  Basis "Lias"	
231 Ma	Keuper	Stainmerpelkauper Obserer Glockauper Schiffsandstein Unterer Gloskauper Lebenkauper	k (Basis Lettenkeuper)	M1	Basis "Rhätkeuper"	base T Z3 Z2
240 Ma	Muschelkalk Ob Buntalindslein	Ob. Muschekulk Mill. Muschekulk Unt. Muschekulk Ritt	SO (Basis Salinarrot)	berechnet aus \$1- oder \$1/\$2	Basis Keuper einschließlich Oberer Hauptmuschelkalk Basis Oberer Buntsandstein	Z2 base Ca2
	Met. Burdsondstein	Solling-Folge Hardegsen-Folge Dethutt-Folge Volumehausen *Folge	berechnet aus Restmächtigkeits- karten des GTA	berechnet aus	(Basis Salinarröt)  Basis Mittlerer Buntsandstein	base Z
251 Ma	Unt. Buntsandstein	Bernburg-Folge Calvorda-Folge	Reflektor Oberfläche Zechstein Salinar	X1	(Basis Volpriehausen/Optionom) Basis Buntsandstein"	
258 Ma	Zechstein	Molin-Zyklus Friesland-Zyklus Ohre-Zyklus Alter-Zyklus Leine-Zyklus Stafifuri-Zyklus Werra-Zyklus	berechnet aus z2Na	berechnet aus	Top Zechstein  Basis Zechstein	
Detra		Obsertilingend			Top Prä-Zechstein	





## **CROSSING BOUNDARIES Beyond seismics and wells**

> gravimetry

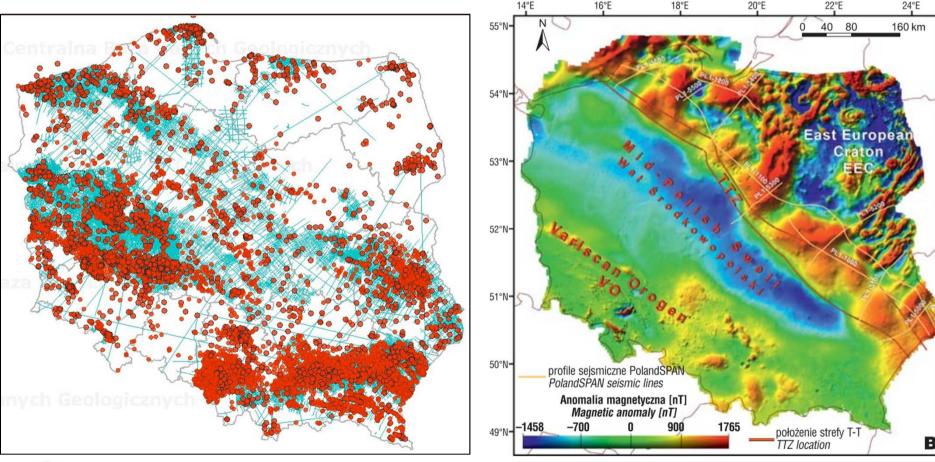




Mazur et al. 2017. Przegląd Geologiczny, 65(12).

## **CROSSING BOUNDARIES Beyond seismics and wells**

> magnetics





Mazur et al. 2017. Przegląd Geologiczny, 65(12).

#### **NEW MAPS ON BOARD**

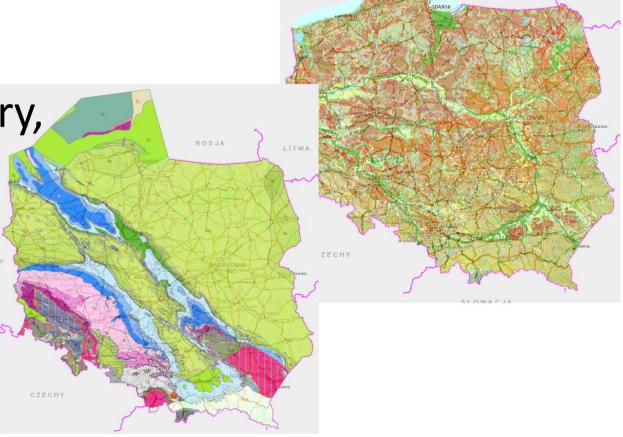
3 new geological maps of Poland at 1:500k scale, ready-made for Framework geology of Poland and GeoSciML, INSPIRE and IQAME

complient:

> superficial,

> sub-Quaternary,

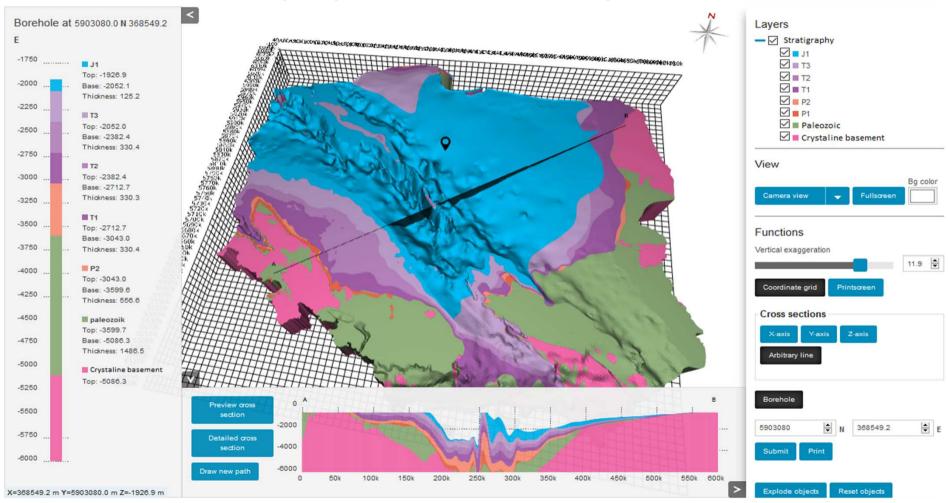
> sub-Cenozoic





#### **WEB VIEWER**

> new approach for visualization of 3D geology along with rock properties and other parameters





# Thank you very much for your attention!

Please do not miss the poster presentation tomorrow on: Innovative approach to reconstruction of facies distribution based on analogue study with 3D GPR data and multiple point statistics.

