

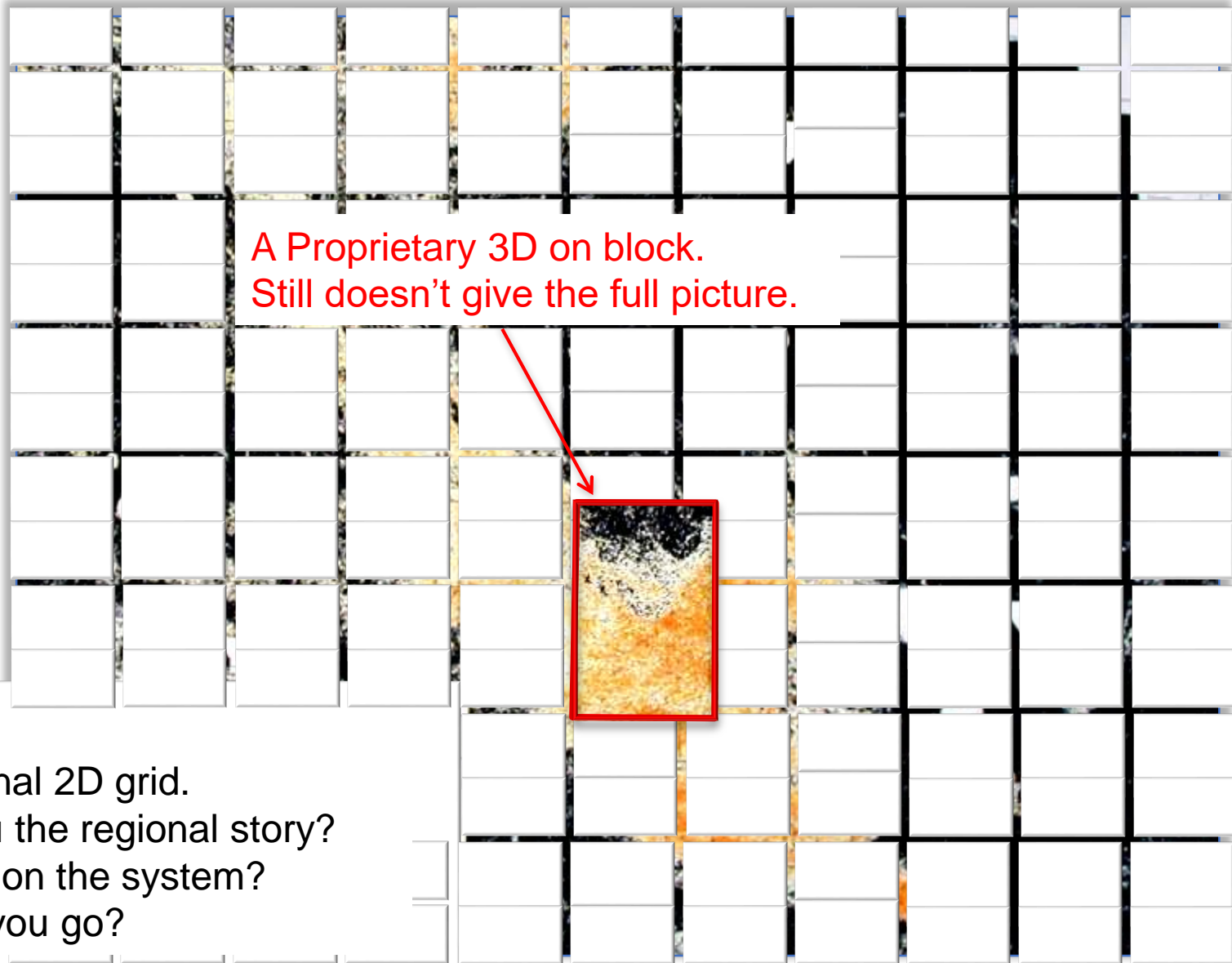


Malaysia Multi-client Data Sets

Grow Your Energy Portfolio With Us

Multi-client Concept

Why Multi-client: Seeing the big picture...



A Proprietary 3D on block.
Still doesn't give the full picture.

This is a regional 2D grid.
Does it tell you the regional story?
Where are we on the system?
Where would you go?

Multi-client Concept

Why Multi-client: Seeing the big picture...

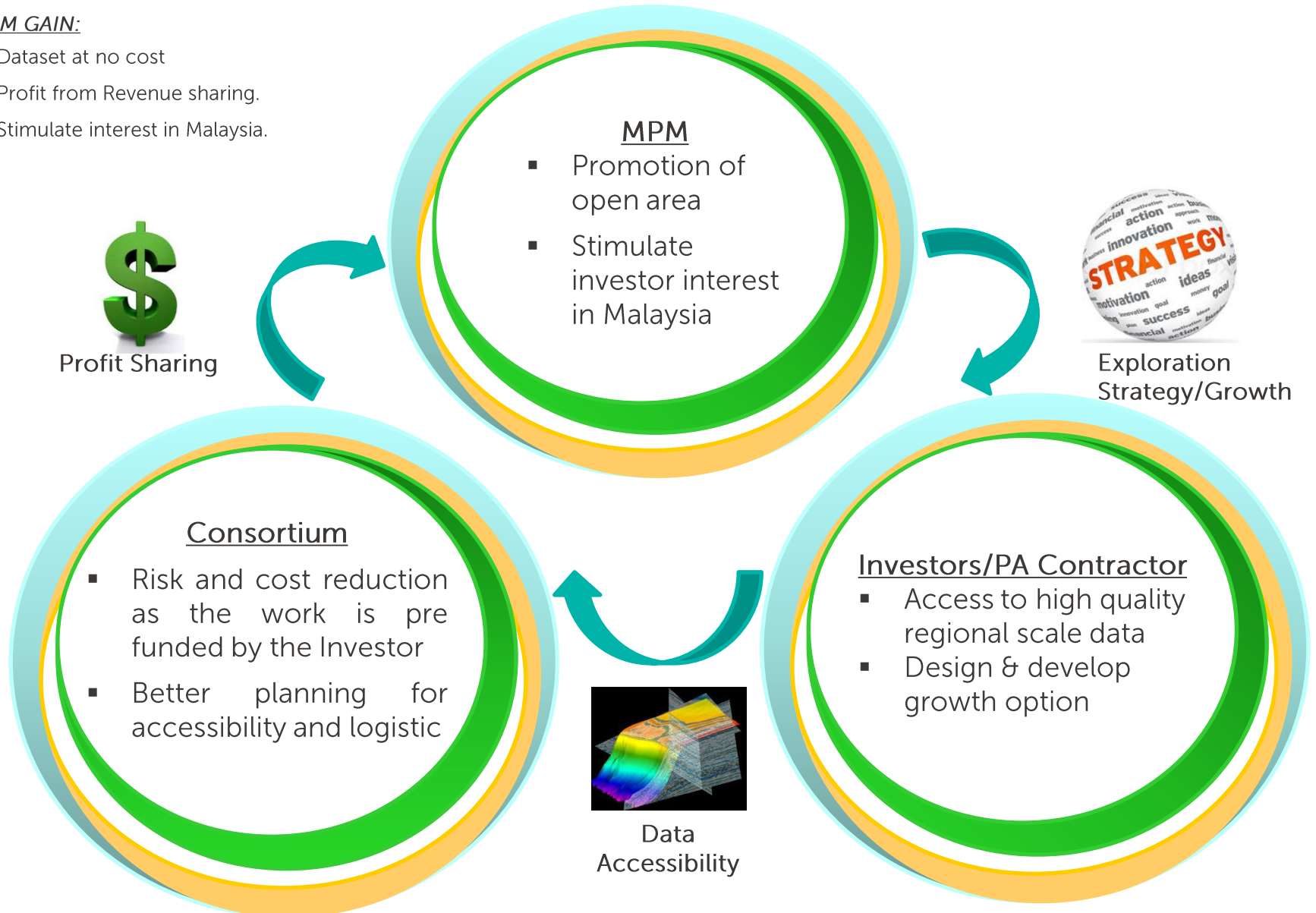
Tertiary Submarine Fan

True value of MultiClient 3D –
Seeing the BIG picture
Know where you are on the Play
Fairway.
Understand reservoir variability.

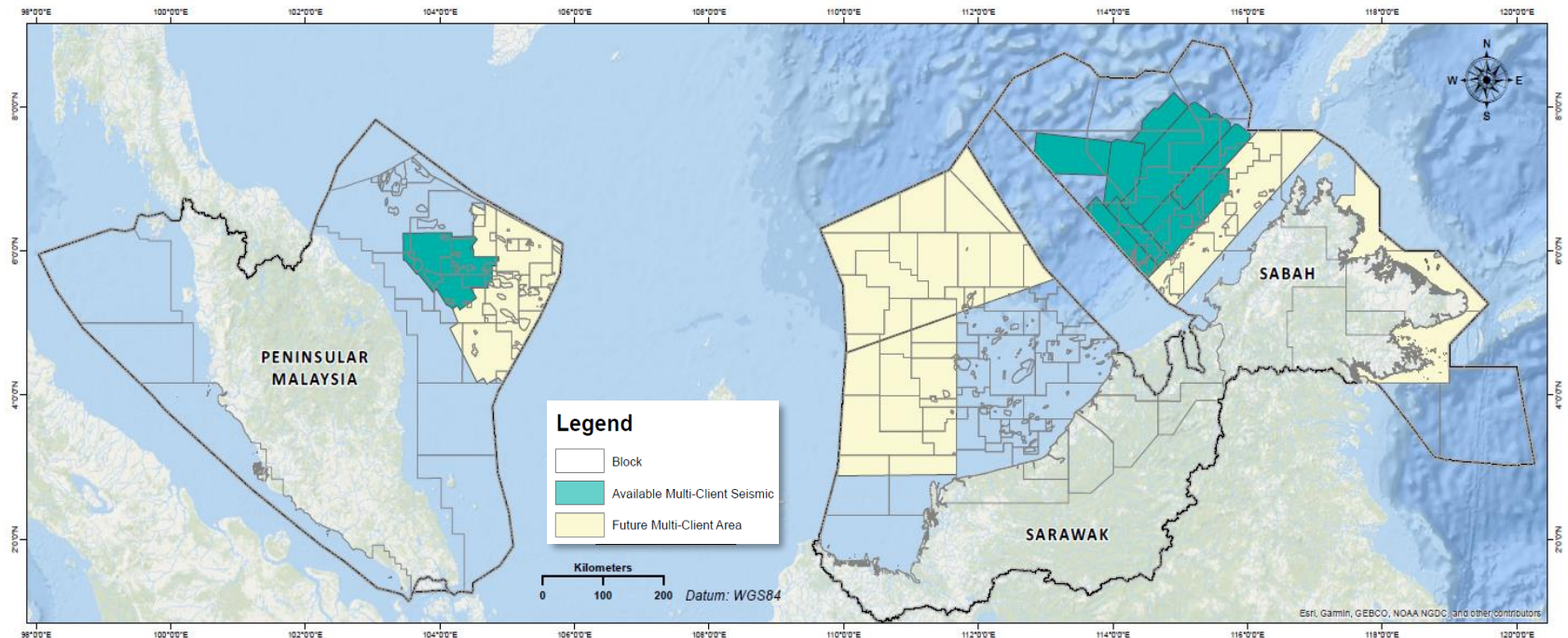
Multi-client concept: combining several surveys into one larger survey conducted by multi-client contractor

MPM GAIN:

- Dataset at no cost
- Profit from Revenue sharing.
- Stimulate interest in Malaysia.



Revitalizing and unlocking new potential via multi-client 2D & 3D seismic data set



3D Mega Merge Seismic Data Set Phase I

- ~12,000 km² of 3D merge Multi-client data set available for licensing.

3D Mega Merge Seismic Data Set Phase II

- More than 30,000 km² of data set to be made available via Multi-client subject to pre-funding.
- Continuous data integration with option of reprocessing product to be made available.

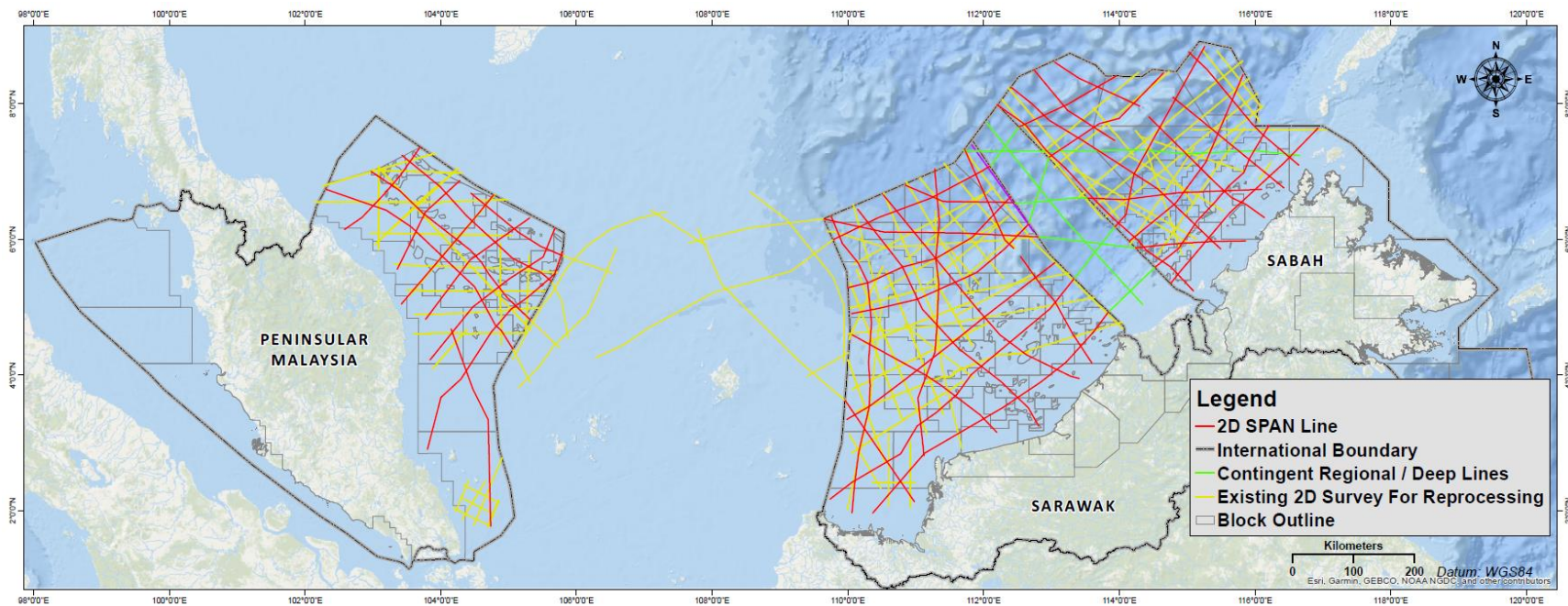
SK 3D Seismic data

- ~100,000 km² of future Multi-client 3D seismic data set to be made available subject to pre-funding.

SB 2D & 3D Seismic data

- More than 50,000 km² of 3D Multi-client seismic data set in Deepwater available for licensing.
- Future 2D seismic data set at East Sabah to be made available via Multi-client subject to pre-funding.

Showcase of Malaysian basins potential via regional and deep multi-client 2D seismic SPAN data set

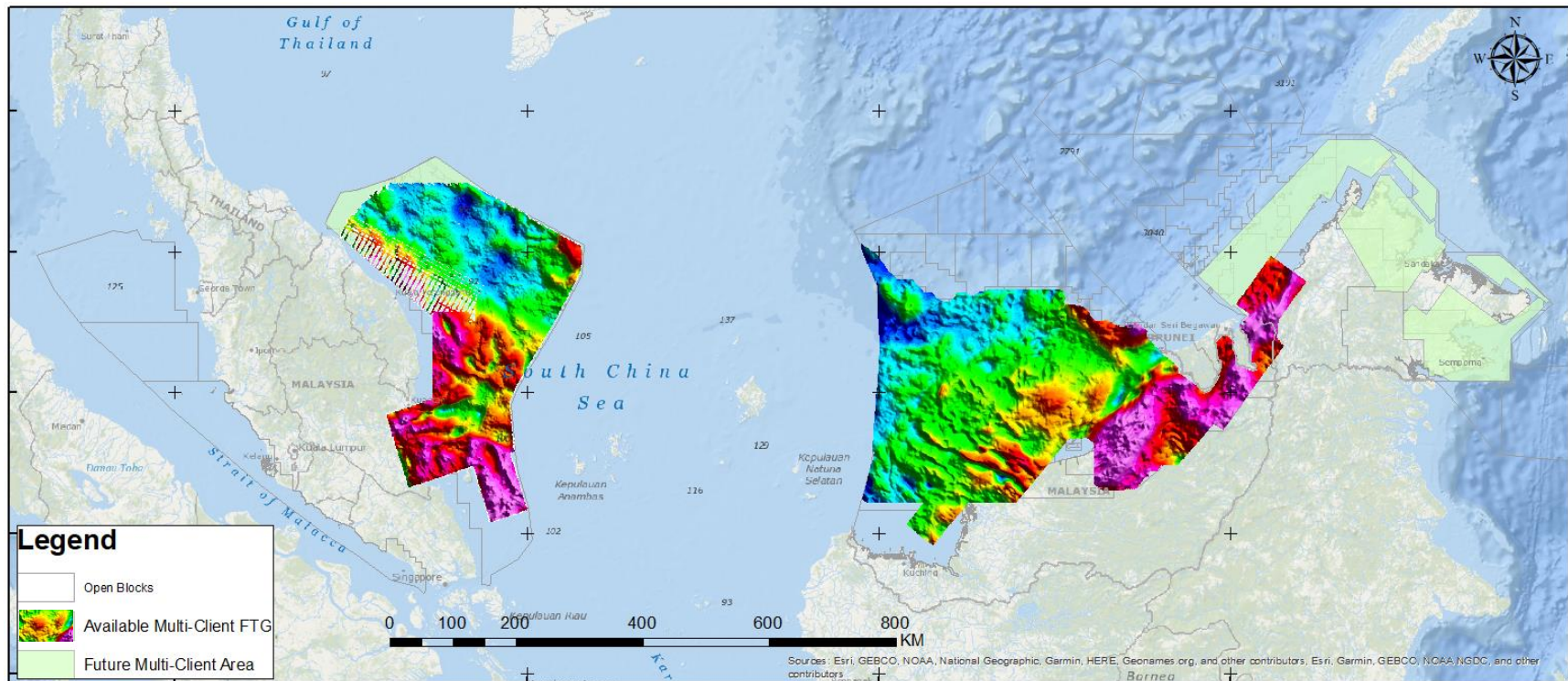


Basin scale 2D seismic SPAN survey

Future regional 2D seismic SPAN data set to be made available via Multi-client subject to pre-funding.

- Capture the regional 2D seismic crustal imaging
- Showcase the full potential of each basin area
- Highlight the proven play & new play in a basin perspective

An insight into the exploration perspective and exploration opportunities via multi-client Full Tensor Gravity Gradiometry data set.



Blanket FTG data

- More than 255,000 km² of FTG Multi-client data set available for licensing.
- ~56,000 km² of future Multi-client FTG data set at SB region, subject to pre-funding.
- FTG data helps identify basin which leads to new Seismic Acquisition & Prospect Generation.

Scope and benefits: multi-client will benefits PETRONAS in de-risking the open blocks through low cost and low risk mechanism

Scopes

- ✓ **Pre-funding** the project via PETRONAS' approved marketing strategy and companies
- ✓ **Data acquisition** bigger/regional survey coverage via latest technology & higher resolution of FTG, 2D & 3D Data
- ✓ Broadband Marine **Data processing** of the acquired data up to PrSTM & PrSDM with and option to perform preliminary G&G interpretation.
- ✓ **Market and sell** of the data through PETRONAS approved list of companies/buyers. All data acquired is sole property of PETRONAS.

Benefit to PETRONAS

De-risking efforts and exploiting existing/neglected play

Simulate investors interest in Malaysia exploration

Promotion for open area

Cost effective and low risk mechanism



Multi-client Terms and Condition



Data to reside in Malaysia/Outside

Excess is available through server

MC Data in replacement to Work Commitment

Subject to PETRONAS approval, PSCs have option either to acquire a proprietary data or purchase MC data.

List of approved buyers

- PETRONAS will provide MC contractor a list of approved buyers.
- Those buyers that are not in the list, MC contractor will have to seek PETRONAS approval.
- No Chinese, Vietnamese and Philippines companies.
- No agents

Flexible Profit Sharing Model

Profit share will start at ($P \times \text{revenue}$)

CARIGALI's right to MC data

CARIGALI will be given MC data for FOC (subject to MC Contract)

Pre-fund

PETRONAS will not pre-fund however reasonable time will be provided for MC Contractors to arrange pre-funding.

Cost Recovery

Subject to MC's business model for pre-funder's and buyers.

Multi-client Business Model: Only pre approved company by PETRONAS can license the data

CONFIDENTIALITY

- Data solely **owned** by PETRONAS
- Data **physically** reside in Malaysia

PROMOTION

- **Online Data room** to show gist of MC data
- **Purchase** through MC companies
- **Pre-approved** list of Contractors
- **Marketing** by both

COMMERCIAL ARRANGEMENT

- PETRONAS **dictate areas**
- MPM will **screen** potential clients
- Flexible profit Sharing model

LEGAL

- PETRONAS T&C
- **Consortium Holding period** not more than 10 years

Key Terms and Condition

List of approved buyers

- ✓ PETRONAS provided MC contractor a list of approved buyers.
- ✓ MC contractor will have to seek PETRONAS approval if they are not in the approved list,
- ✓ No agents, No Chinese, Vietnamese and Philippines companies

MC data in replacement to Work Commitment







- ✓ Companies awarded a block will not be forced to purchase the MC data. They have options either to acquire a proprietary data or purchase MC data.

Cost recovery incentive

- ✓ Cost recovery only applicable for pre funded cost within awarded block

Differences between multi-client survey & proprietary

Multi client provide solution for cost efficiency and risk management

Parameter	Multi-client	Proprietary
1. Area coverage 	Provide coverage flexibility to license any acreage (operated or open block)	Constraint within PSC boundary
2. Technology 	Latest technology of multi sensor seismic (GeoStreamer & Isometrix). Value creation to MPM	Subject to PA Contractor requirement and normally tie to their budget
3. Investment 	Consortium & Investor	PA contractor
4. Profit Sharing 	Profit Sharing between MPM and Consortium	No Profit Gain/Share
5. Risk 	Consortium	PA contractor
6. Cost 	Lump sump fees : Licensing + Uplift Fee (with processing in 1 contract) Prorate between volume of coverage	Separate cost for acquisition and processing Based on fixed volume

Multi-client Contract period

Sarawak Multi-client 3D seismic

- *Effective date : 28th Aug 2020*
- *Pre-funding period : 4+8 mth to 28th Aug 2021*
- *Commencement Period : 3+2 yr upon approval of 1st program in Oct 2021.*
- *Data holding & marketing : 13 yr from the commencement period by Oct 2034*
- *Expiry date : 13 yrs from the commencement period by Oct 2034.*

Malaysia Multi-client Full Tensor Gravity Gradiometry

- *Effective date : 1st Aug 2017*
- *Pre-funding period : 4 mth to Dec 2017*
- *Commencement Period : 10mth + 4 yr by 31st Dec 2021*
- *Data holding & marketing : for 6 yr from the commencement period by June 2024 + 4yr option*
- *Expiry date : 6 yrs from the commencement period by June 2024 + 4 yr option.*

Malaysia 2D SPAN seismic

- *Effective date : 20th June 2019*
- *Pre-funding period : 6mth + 2yr to 20th Dec 2021*
- *Commencement Period : 18mth*
- *Data holding & marketing : for 10yr by 20th June 2031*
- *Expiry date : by 20th June 2031 with 5yr option*

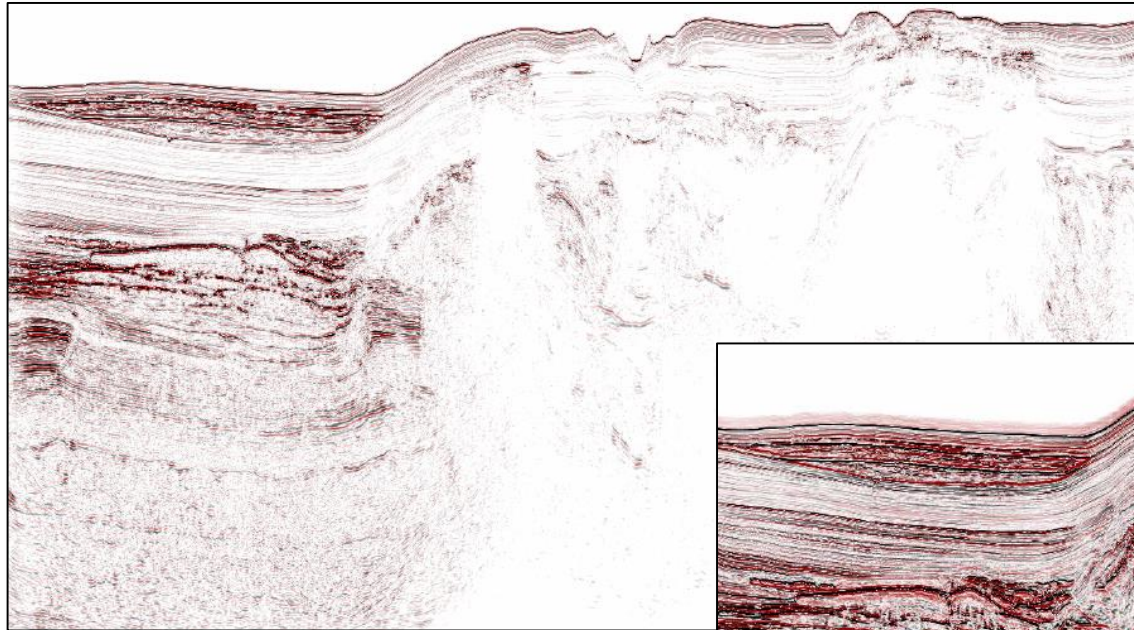
Peninsular Malaysia Multi-client Mega-merge 3D Seismic

- *Effective date :*
- *Pre-funding period :*
- *Commencement Period :*
- *Data holding & marketing :*
- *Expiry date :*

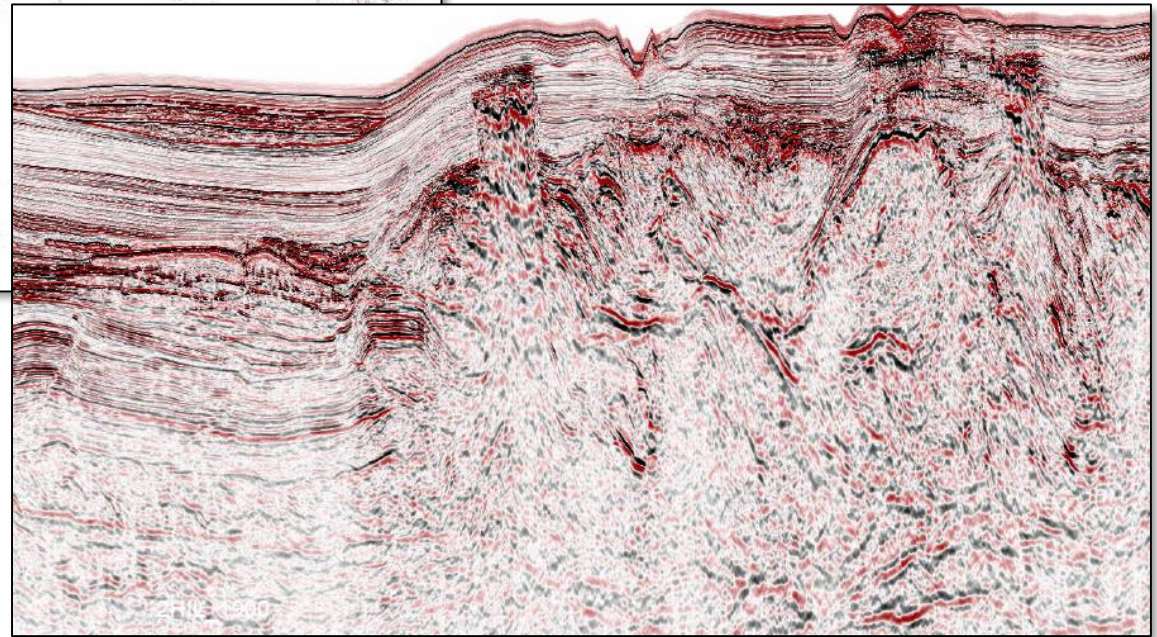
Sabah Multi-client 2D/3D Seismic

- *Effective date :*
- *Pre-funding period :*
- *Commencement Period :*
- *Data holding & marketing :*
- *Expiry date :*

Legacy

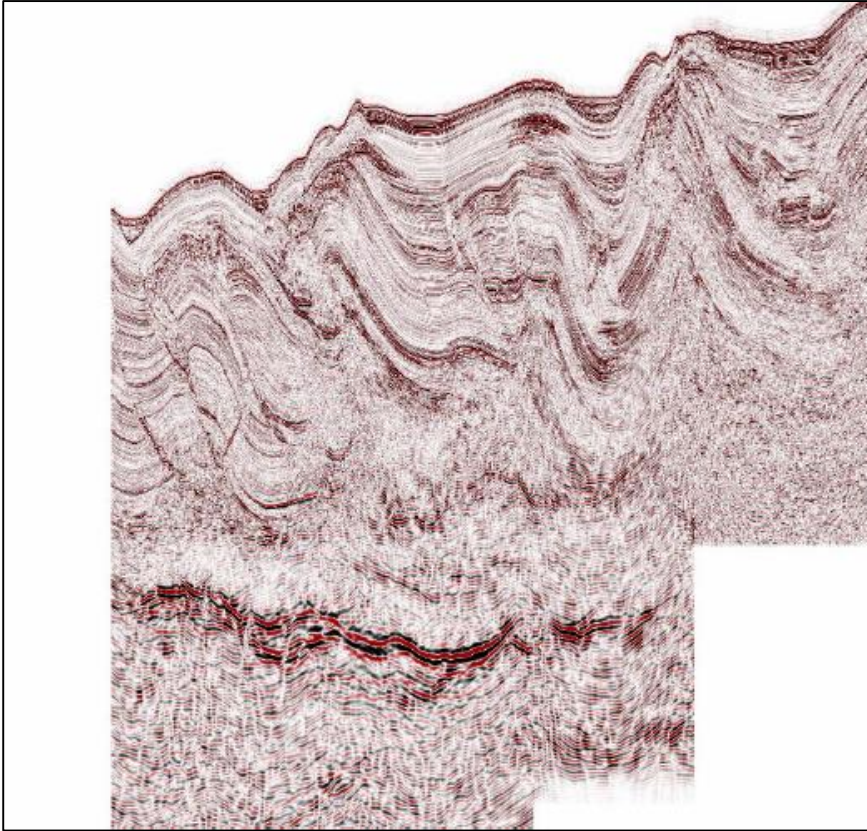


Multi-client 3D Seismic

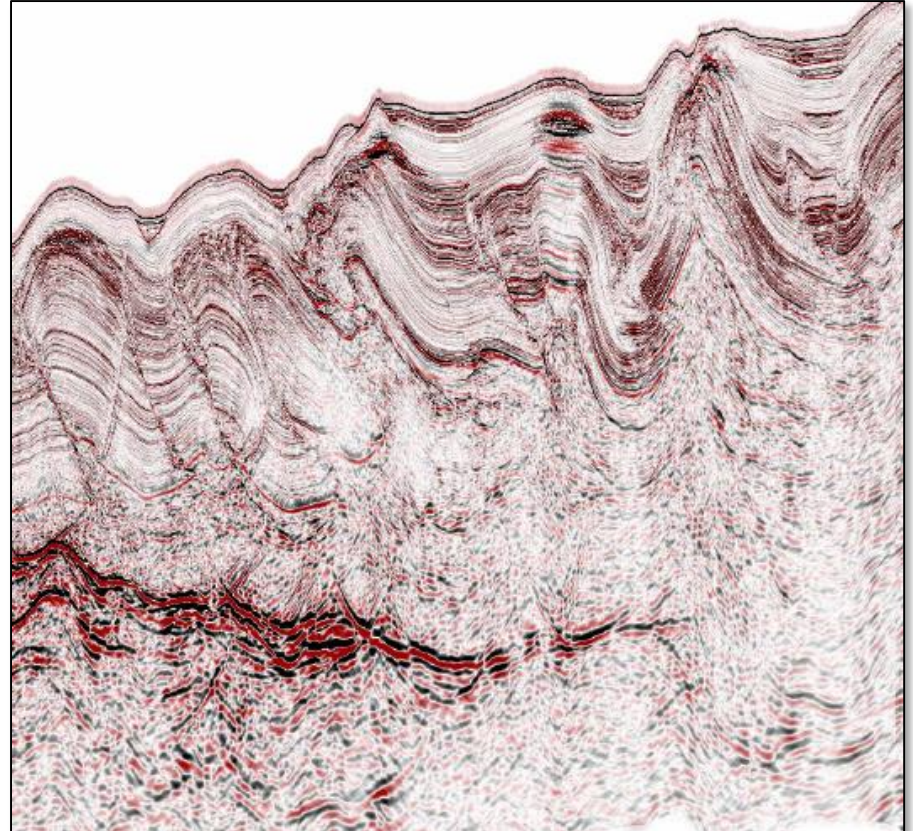


Major improvement from poorly imaged legacy data to better defined new Multi-client 3D seismic imaging

Legacy

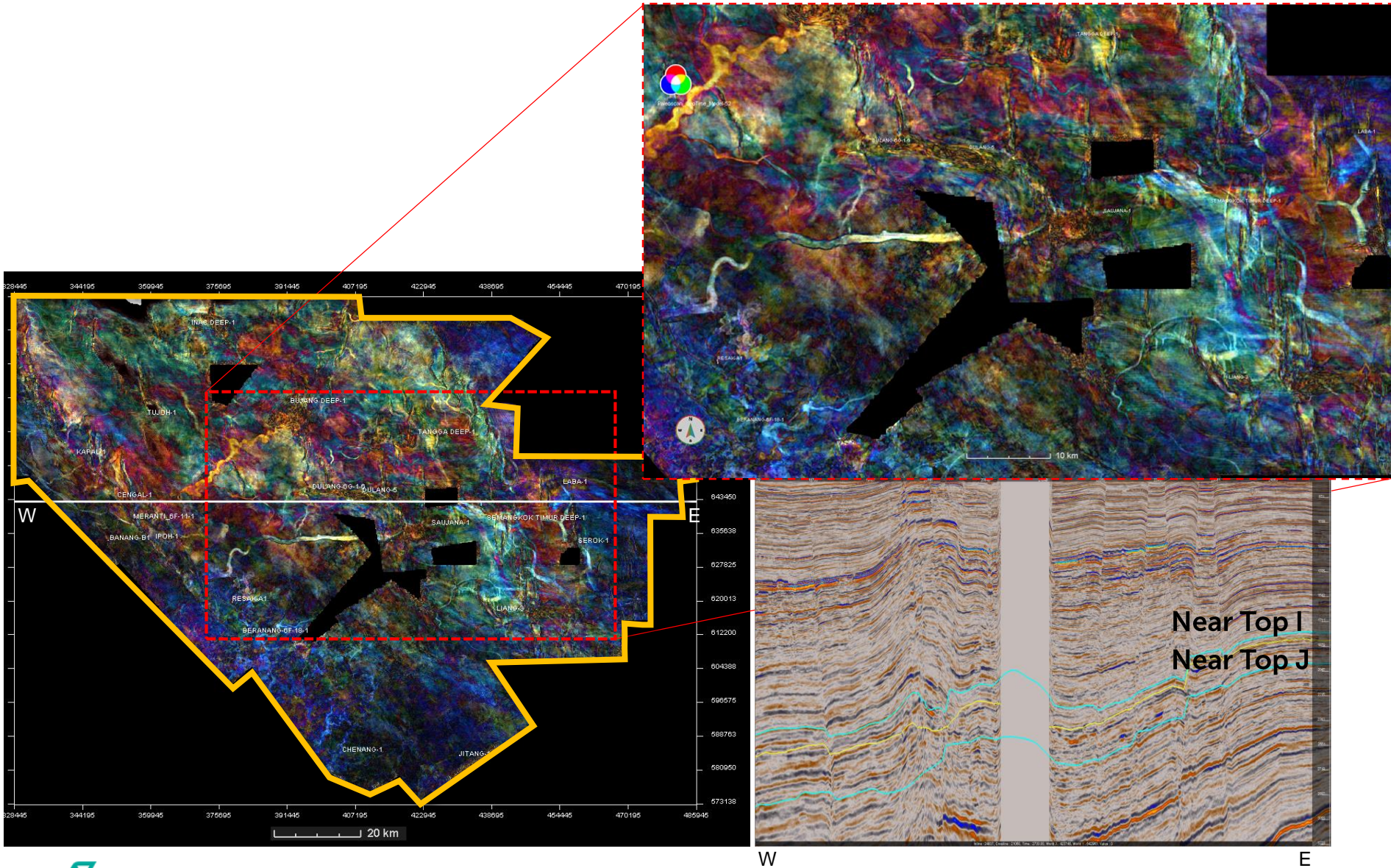


Multi-client 3D Seismic



More complete and better seismic imaging within toe-thrust packages

Mega merge data set enables seamless prospect identification and tracking



FTG Advantage

- Higher resolution
- Measure all components (gravity fields)
- Improves signal-to-noise ratio
- 3D measurement of gravity fields

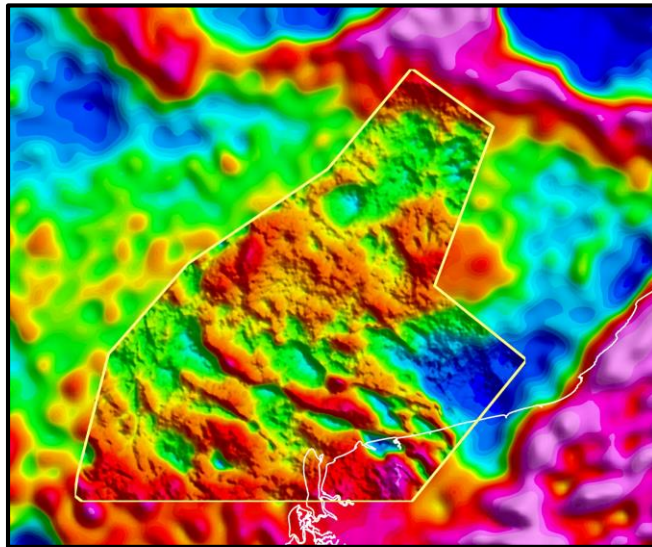
Exploration Impact

- HCs kitchens & HCs migration routes
- Regional trapping/structural trends
- Potential leads & prospect mapping

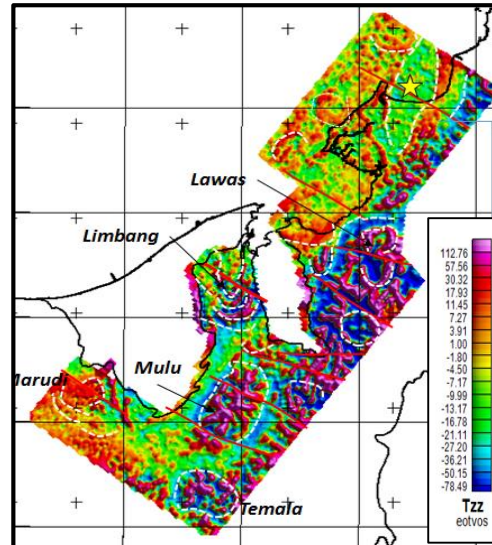
Business Impact

- New sub-basins
- Effective block promotion
- Improving Exploration efficiency

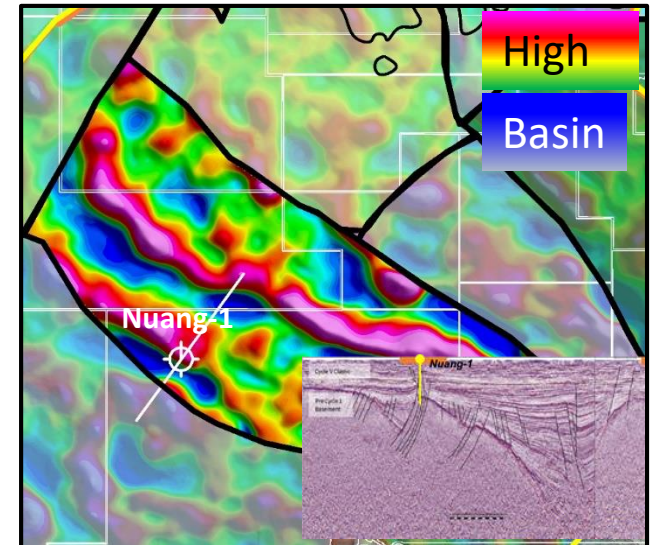
FTG helps identify basin which leads to new Seismic Acquisition & Prospect Generation



Higher resolution from conventional gravity

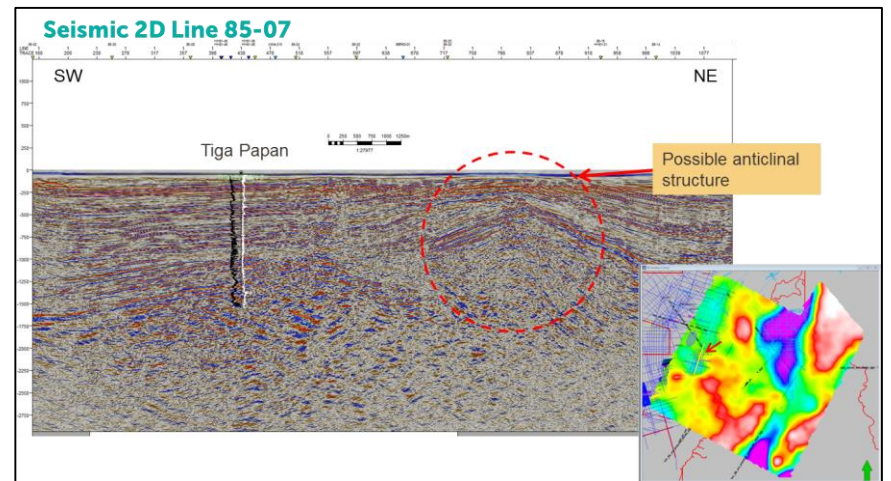
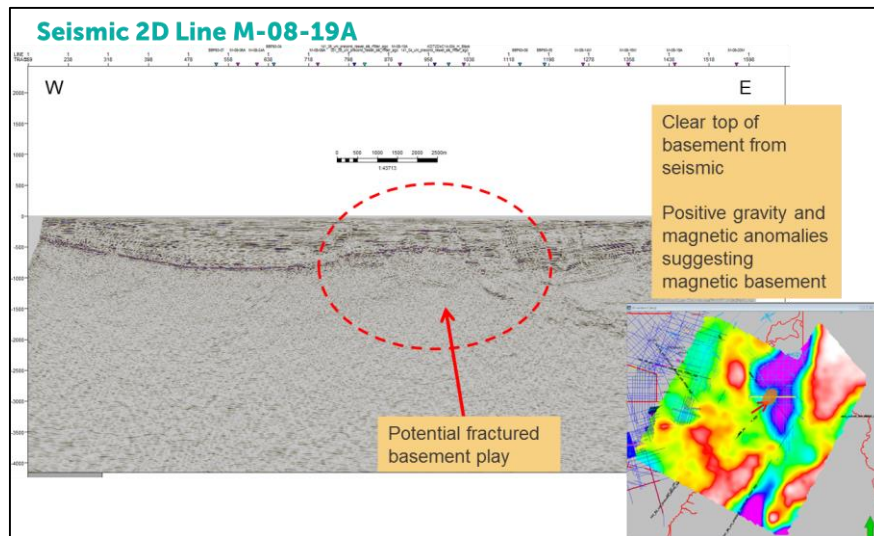
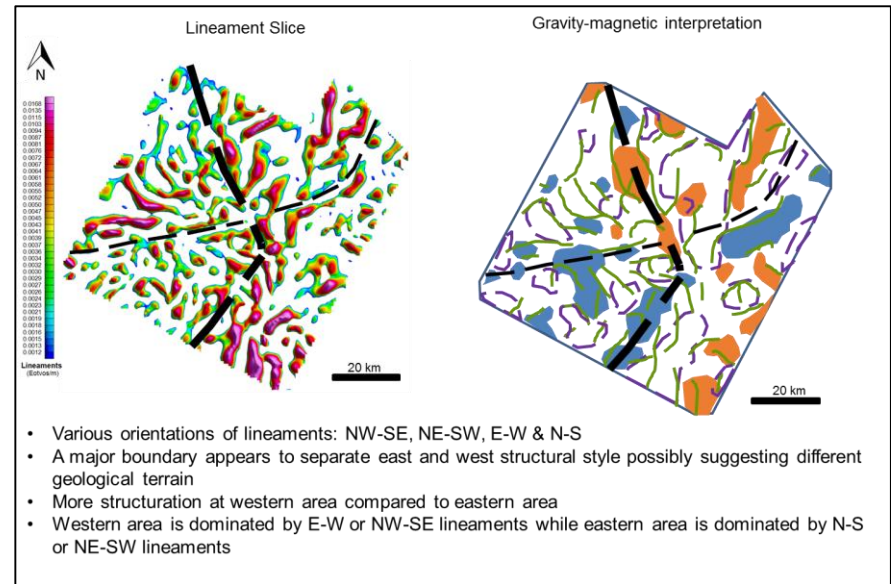
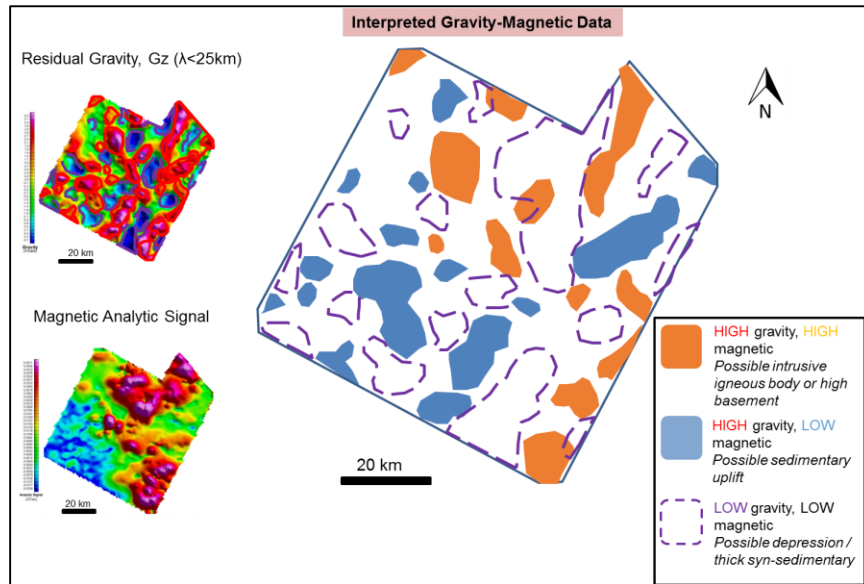


Structures and major fault identification



Half graben structures in Tatau Province.

Why FTG then...



THANK YOU

