



Ministry of Energy and Mineral Resources
Republic of Indonesia

Indonesia : Aiming for the Sustainability of the Oil and Gas Industry

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Republic of Indonesia



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Kementerian Energi dan
Sumber Daya Mineral



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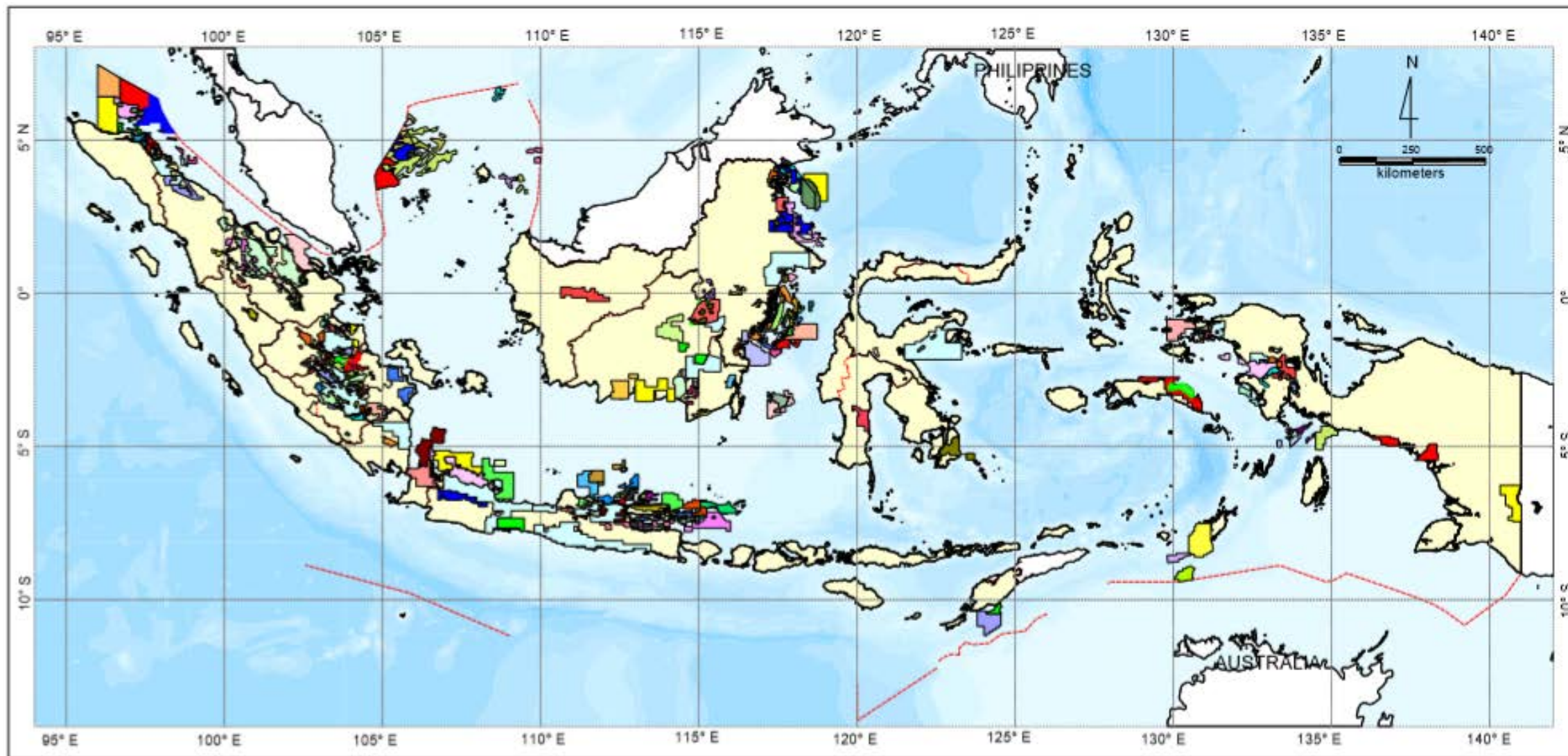


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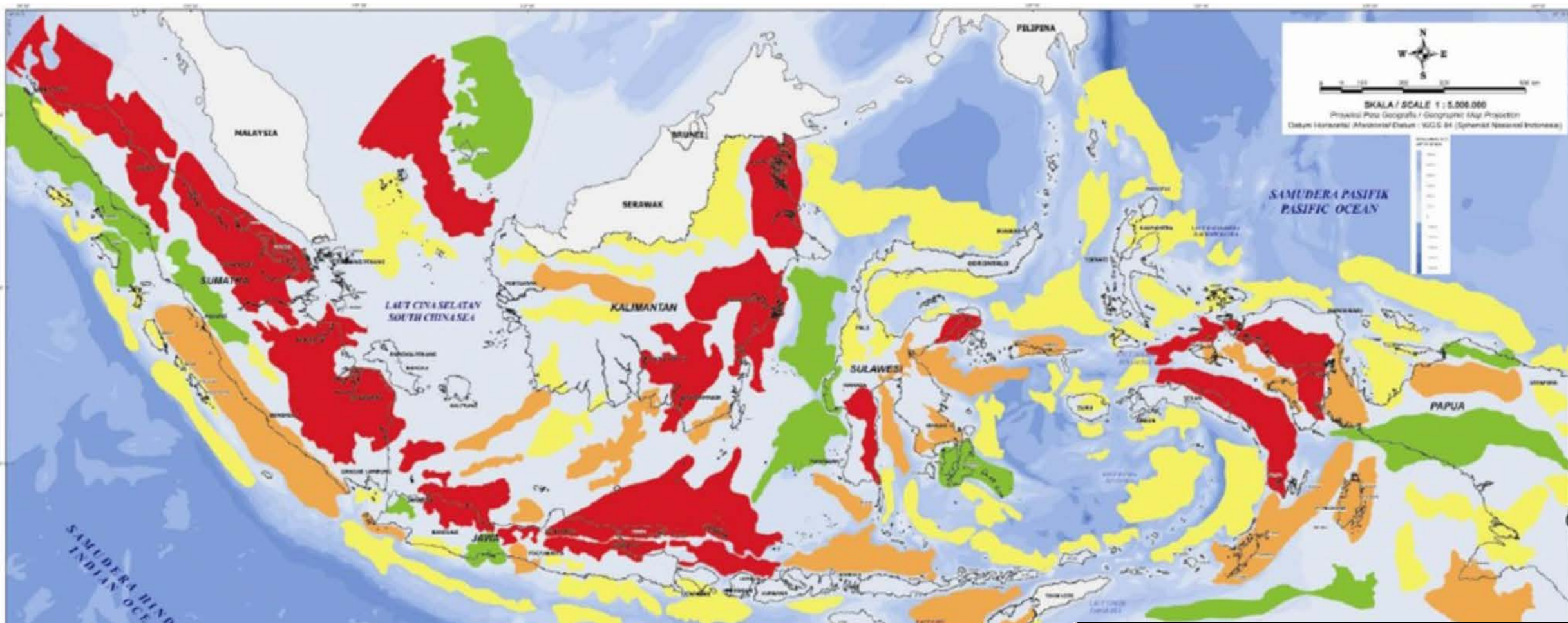


Kementerian ESDM

Indonesia's Oil and Gas Working Area



Indonesia's Oil and Gas Reserve

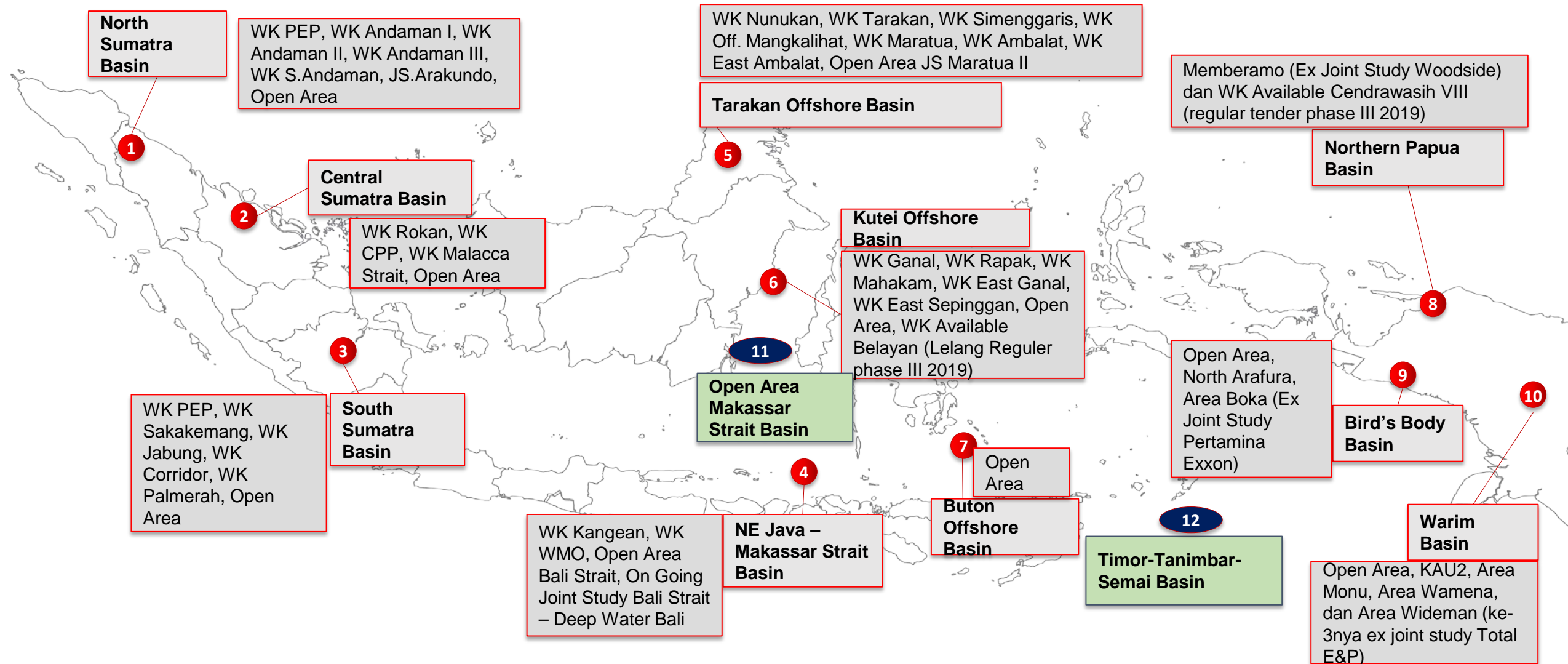


■ 18 Basins Producing	■ 24 Basins Drilled with no Discovery
■ 12 Basins Drilled with Discovery	■ 74 Basins Undrilled
Total: 128 Basins	

Reserve	
Oil	: 3.774 MMSTB
Gas	: 77 TSCF



12 Oil and Gas Exploration Potential Area



National Strategic Projects: Oil and Gas Upstream (USD 30.5 Bn)

IDD (Indonesian Deep Water)

Gendalo & Gehem

Peak Prod. Est. : 1.100 MMSCFD , 42,000 BOPD

Onstream Plan : Quartal I – 2024

Tangguh

Peak Prod. Est. : 700 MMSCFD,
3,000 BOPD

Onstream Plan : 2020

Jambaran Tiung Biru

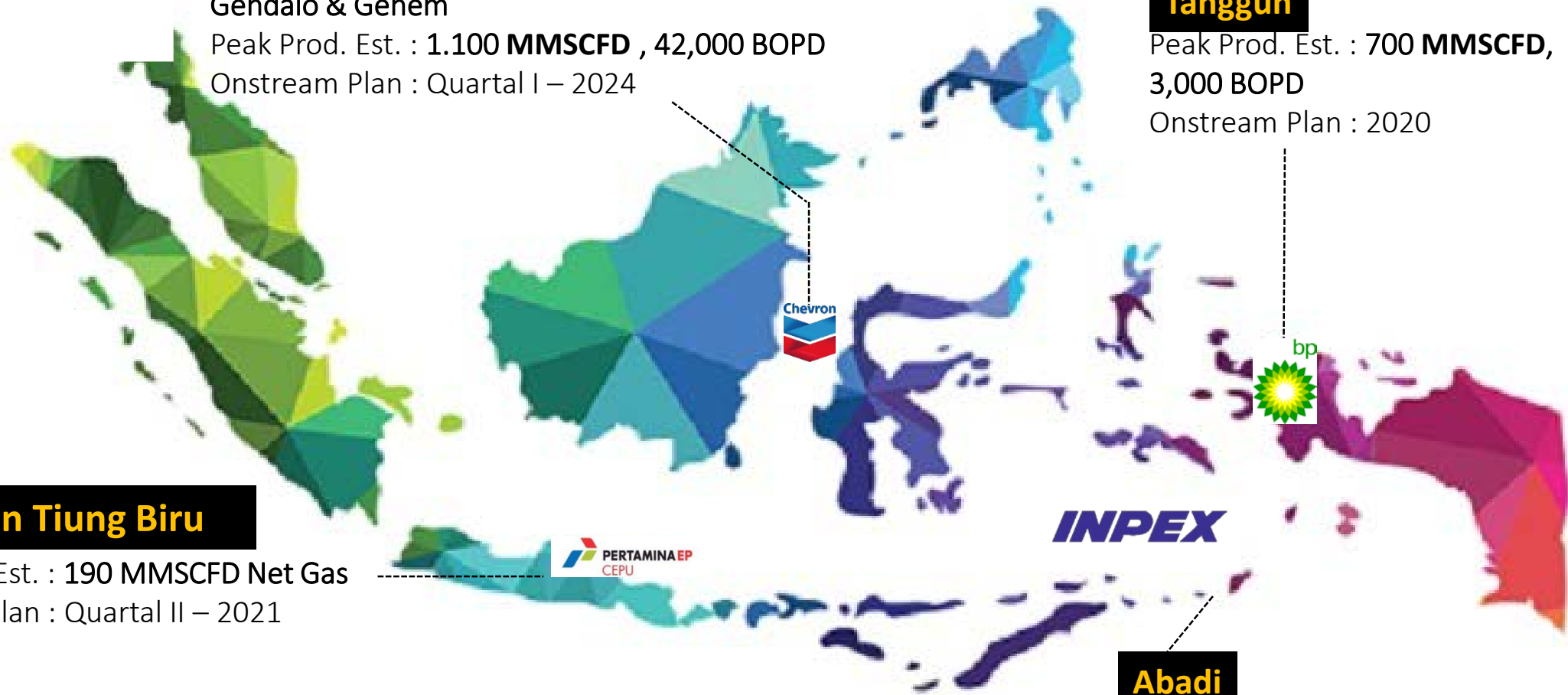
Peak Prod. Est. : 190 MMSCFD Net Gas

Onstream Plan : Quartal II – 2021

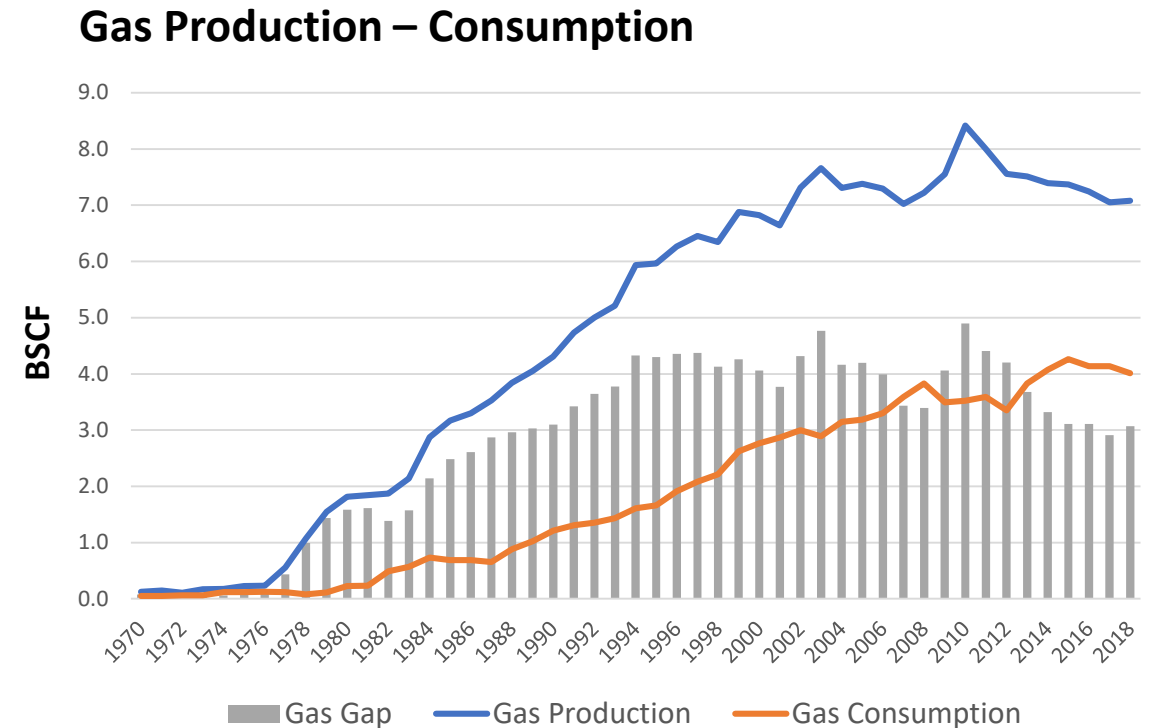
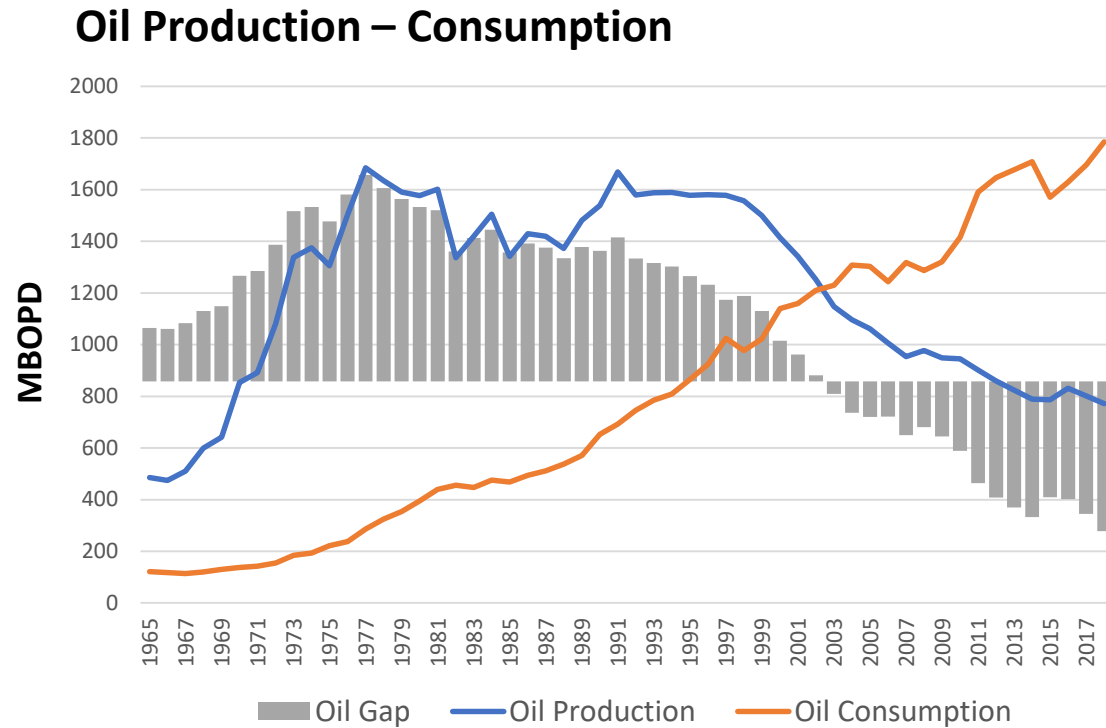
Abadi

Peak Prod. Est. : 9.5 MTPA dan 150 MMSCFD

Onstream Plan : Quartal II – 2027



National Oil and Gas Production – Consumption Profile

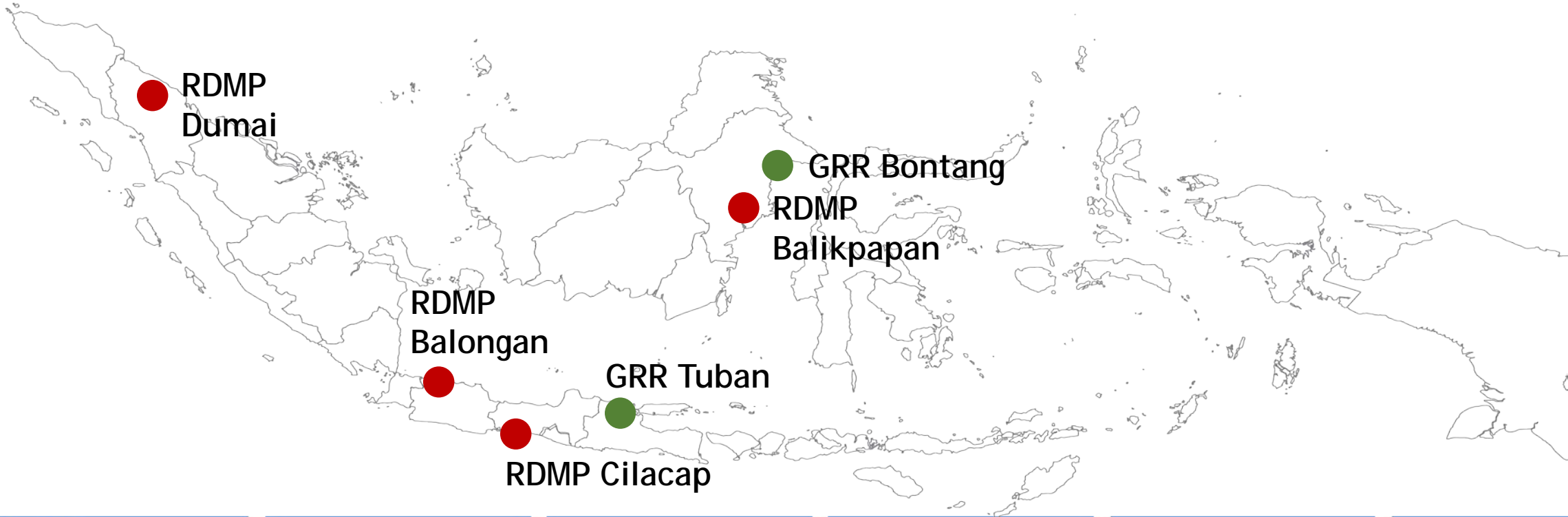


Source: BP Statistical Report & SKK Migas

- *Oil Production-Consumption Gap has increased since Indonesia became a net importer*
- *Oil imports resulted in expenses for the State Foreign Exchange → Need to explore the discovery of New Reserves*
- *The increasing trend of natural gas production, as well as domestic utilization*

PERTAMINA'S MEGA PROJECTS

PROCESSING AND PETROCHEMICAL BUSINESS TRANSFORMATION

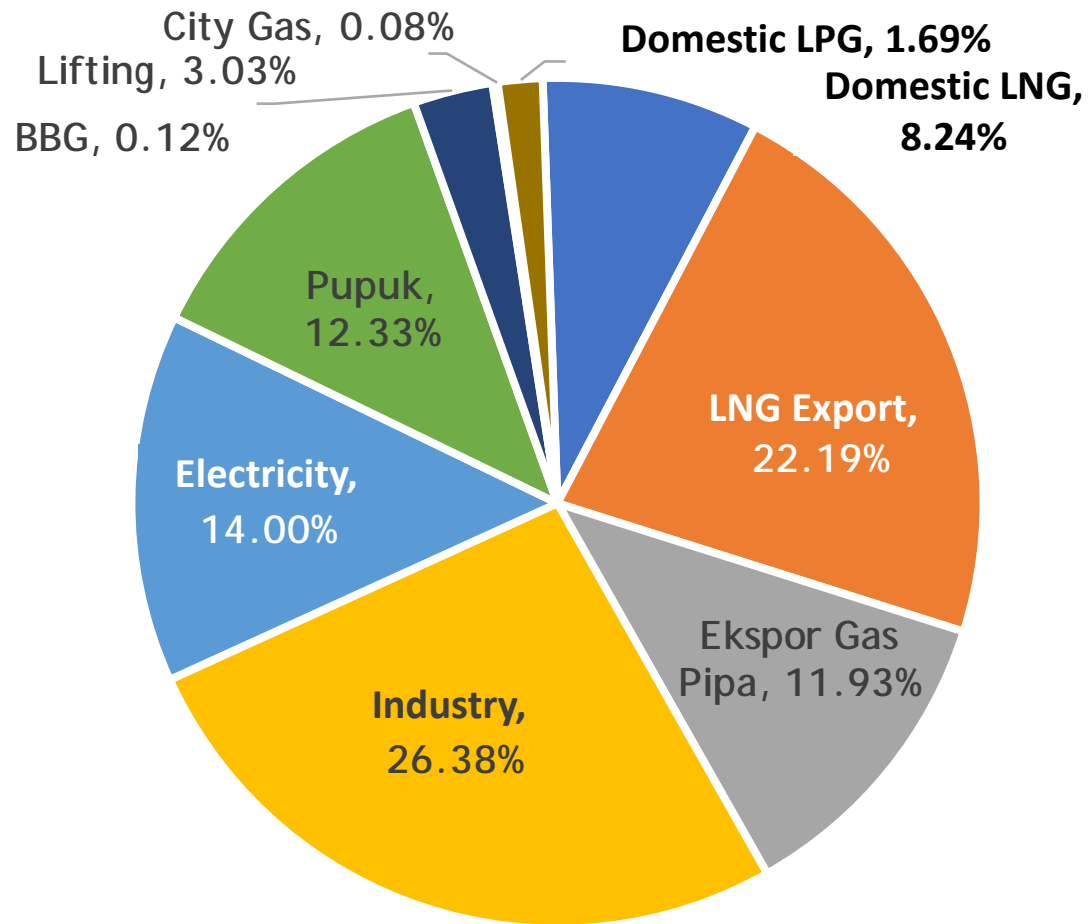


Crude processing capacity**	Crude quality	Valuable product yield	Fuel production	Fuel quality	Petchem production
~1.9 million	~2% S	~95% vol.	1600 kbpd	Euro 5	7900* ktpa
from ~1 million barrel per day	from 0.2% S (Sweet)	from ~75% vol	from 600 kbpd	from Euro 2	from 600 ktpa

RDMP: Refinery Development Master Plan; GRR : Grass Root Refinery

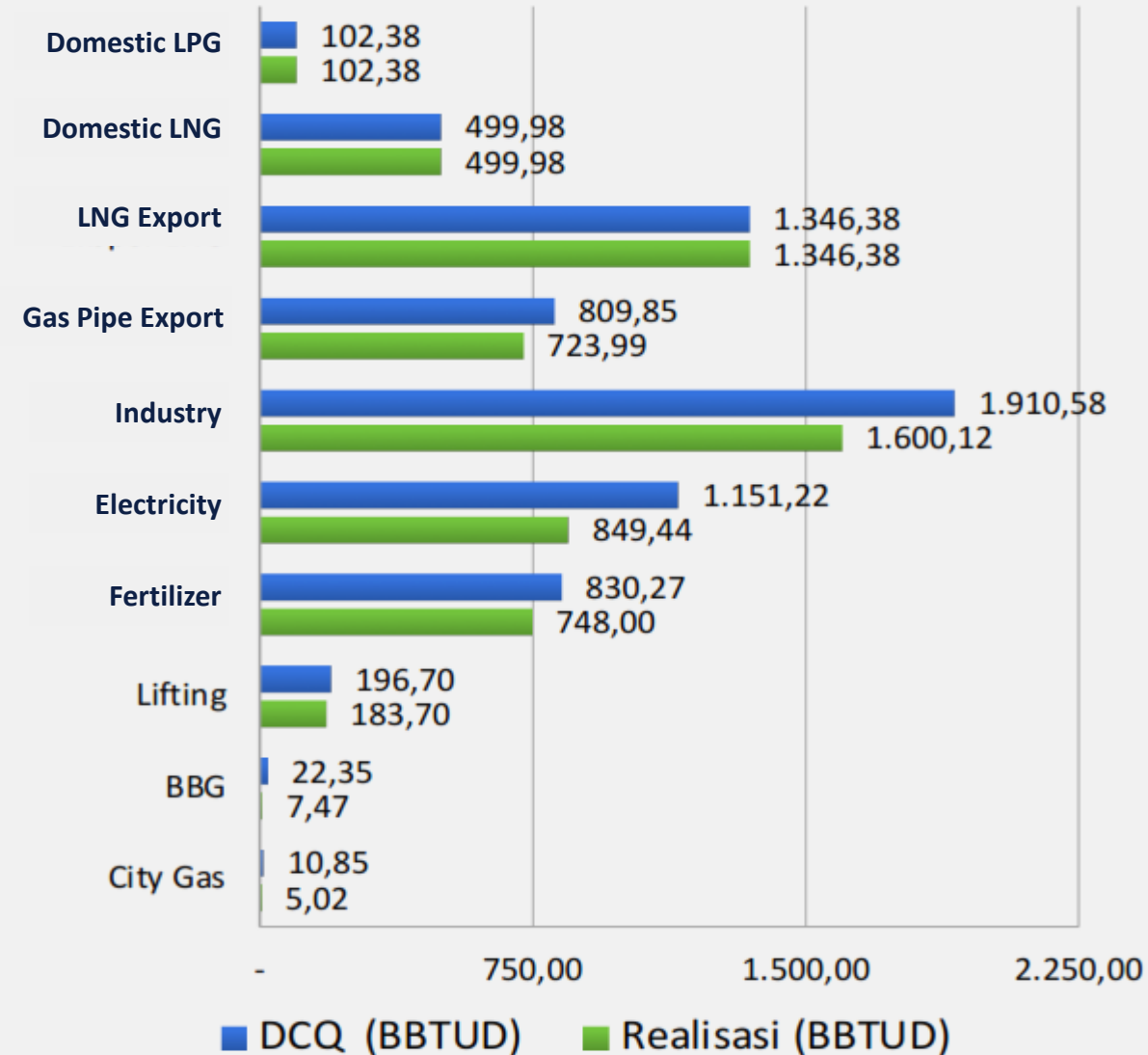
Domestic Gas Utilization

Domestic Gas Utilization Percentage - November 2019



Realization - November 2019: 6.066 MMSCFD

Gas Utilization Realization Vs Contracted



Opportunity and Challenge

Opportunity

- ✓ Gap of oil production to consumption
- ✓ Expansion of Oil Refinery
- ✓ Boosting for gas domestic utilization, ie. Petrochemicals, Fertilizers, Electricity, Transportation, Industry, household
- ✓ Overseas market for gas

Area of improvements

- Remoteness of exploration
- Appropriate incentives and Fiscal terms
- Simplification of permit, and automatization of process ->
- Energy mix towards cleaner energy
- Cope with World Economy growth



Thank you

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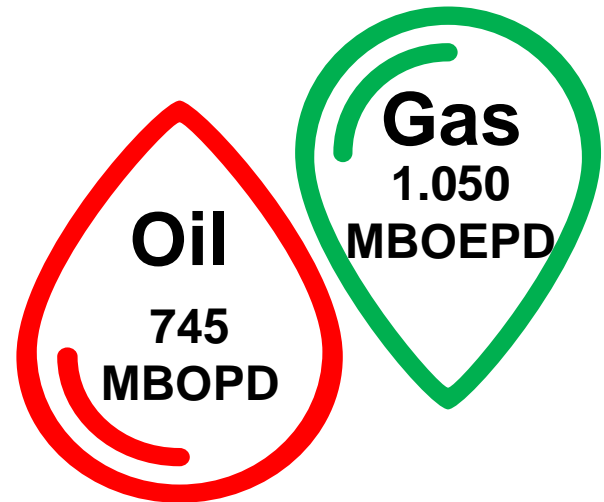


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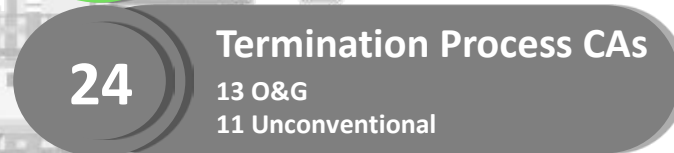
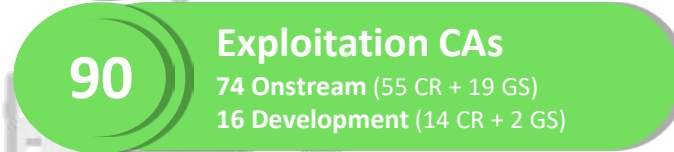
Oil & Gas Upstream Performance

As of September 2019

Oil & Gas Lifting



206 Oil & Gas Contract Areas



RRR Achievement



Investment

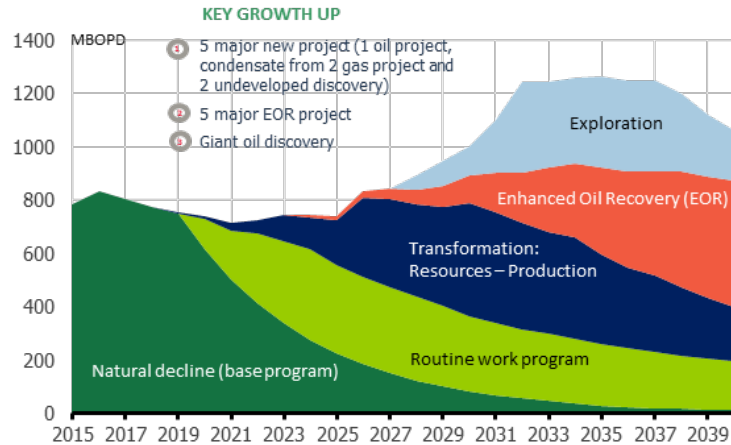


Revenue

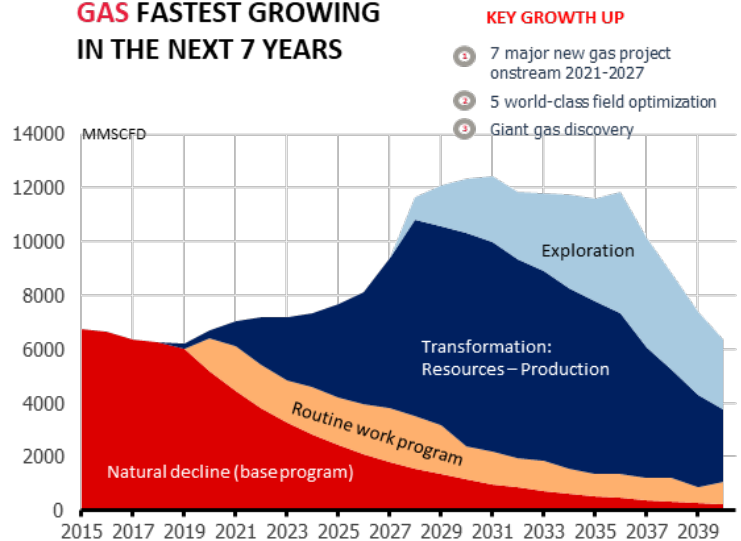


INDONESIA OIL & GAS LONG TERM PLAN

OIL RISING IN THE NEXT 5 YEARS



GAS FASTEST GROWING IN THE NEXT 7 YEARS



MAINTAINING EXISTING PRODUCTION

- Good reservoir management
- Massive routine work program
- 22 Block extension
- Early access on transition periode
- Lifting strategy to achieve the target
- Well and field reactivation
- Innovation & new technology (passive seismic, PCTGL)

TRANSFORM R TO P

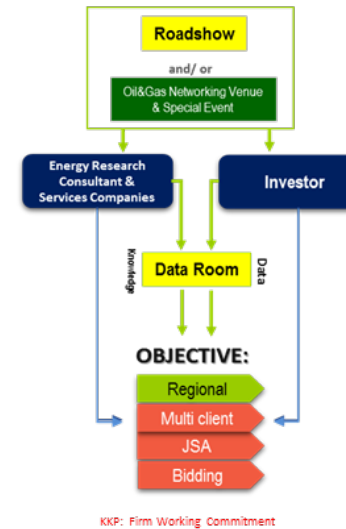
- Accelerated monetization of undevelop discovery (27 New Oil & Gas Project)
- Optimisation pending POD
- World-class project management (field optimization/commercial exercise)
- Clustering gas resources, project opportunity & gas market (LNG, CNG, GTL, Petrochemical)

ENHANCED OIL RECOVERY (EOR)

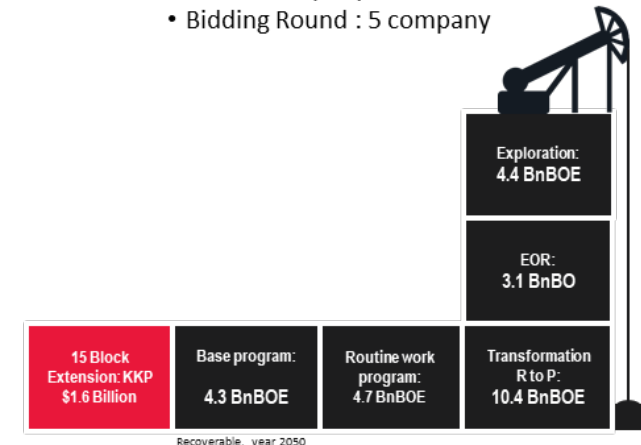
- Indonesia EOR Key risk: oil price
 - 3.1 BnBO recoverable resources, 52 Field
- KKP EOR – \$ 446 Million
- Accelerated EOR Project
 - Field trial EOR, year 2019: Tanjung, Jatibarang & Gemah.
 - Early access on Rokan Block to accelerate Minas Chemical EOR.
 - Full scale EOR Minas year 2024, Tanjung year 2027.

EXPLORATION

- KKP – \$ 2,1 Billion
 - \$ 200 Million, year 2019 - 2026
 - Accelerated KKP of South Jambi B & EMP Bentu
 - KKP Open Area, seismic survey July 2019
- Unconventional Play :
 - EOG (2nd biggest player)
 - Kaliberau Deep & 1 well new play
- Exploration Roadshow
 - Roadshow : Investor, O&G Research & Business Intelligence Company, O&G Services Company, Special Events at 5 country & 27 company
 - Dataroom : 19 company
 - Regional Studies: 9 company (data room), 15 company (non data room)
 - JSA : 1 company
 - Bidding Round : 5 company



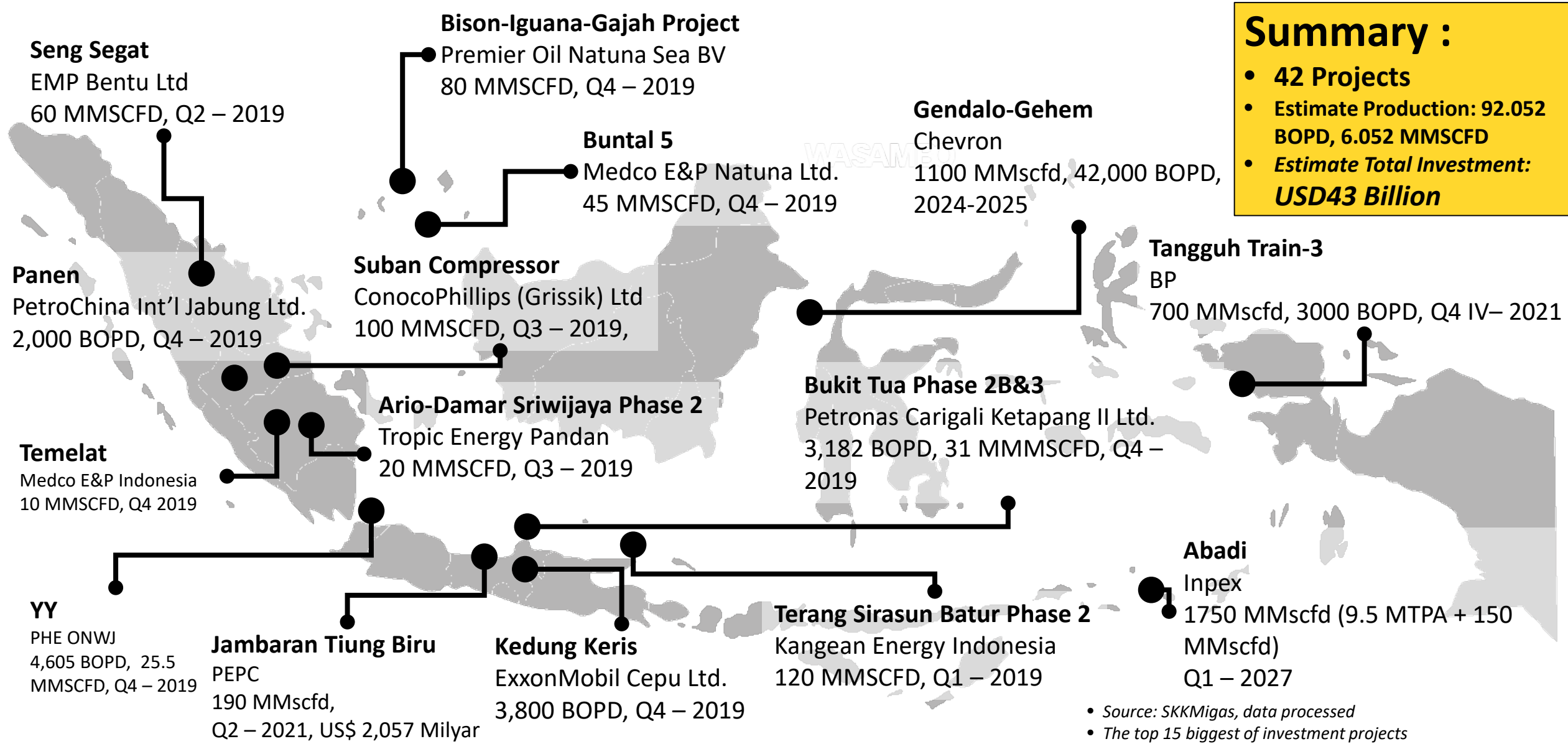
- 3D seismic repro 200,000 km², third largest repro in the world
- 2D seismic survey 32,000 km, the longest survey at one block



Oil and Gas Upstream Projects

Summary :

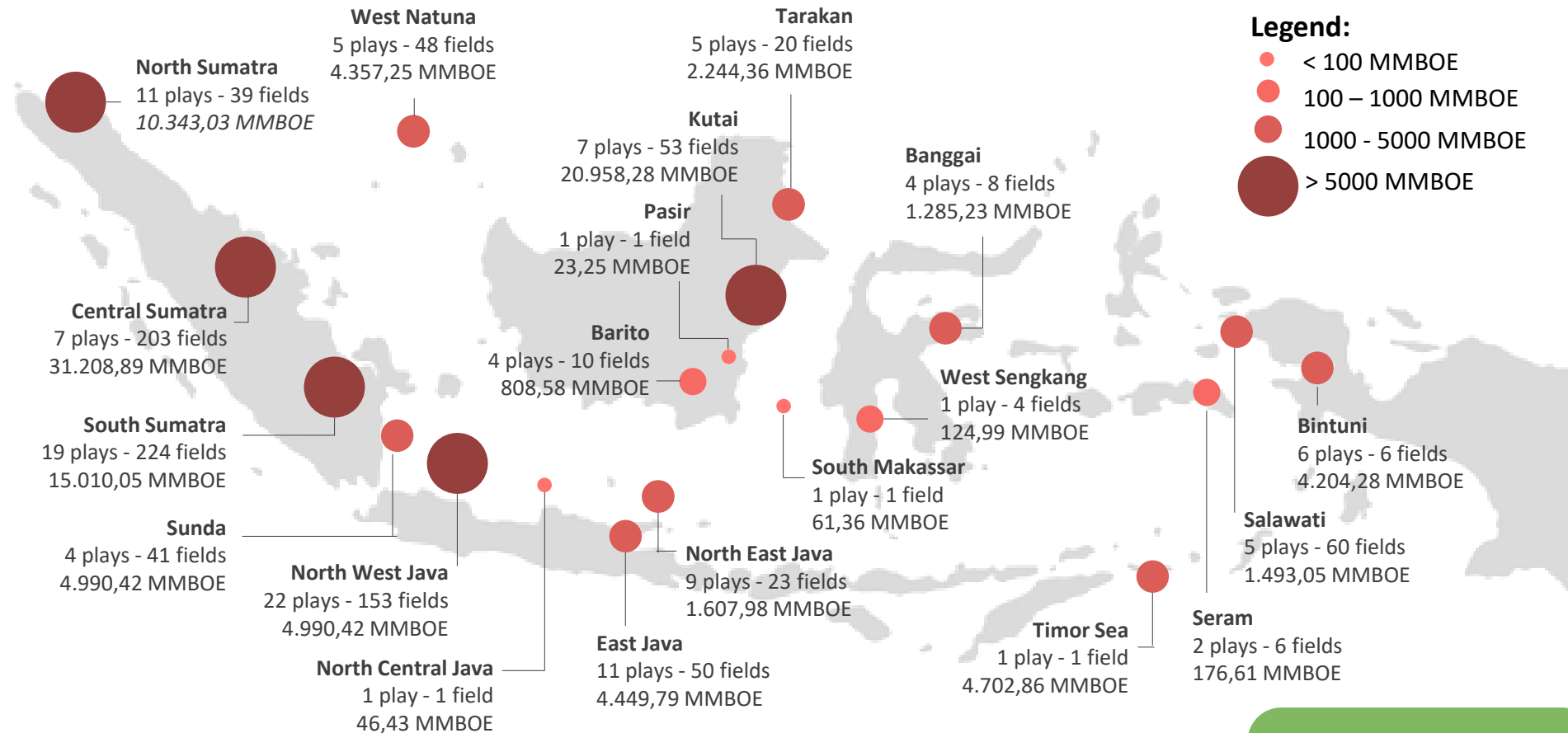
- **42 Projects**
- **Estimate Production: 92.052 BOPD, 6.052 MMSCFD**
- **Estimate Total Investment: USD43 Billion**



- Source: SKKMigas, data processed
- The top 15 biggest of investment projects
- Status Agustus 2019

Exploration Area Potentials

More than 1400 fields has been discovered from 1872



INDONESIA HAS...

20

PRODUCING BASINS

126

PROVEN PLAYS

832

FIELDS/STRUCTURES

113 BBOE

DISCOVERED VOLUME INPLACE

~8,5 BBOE

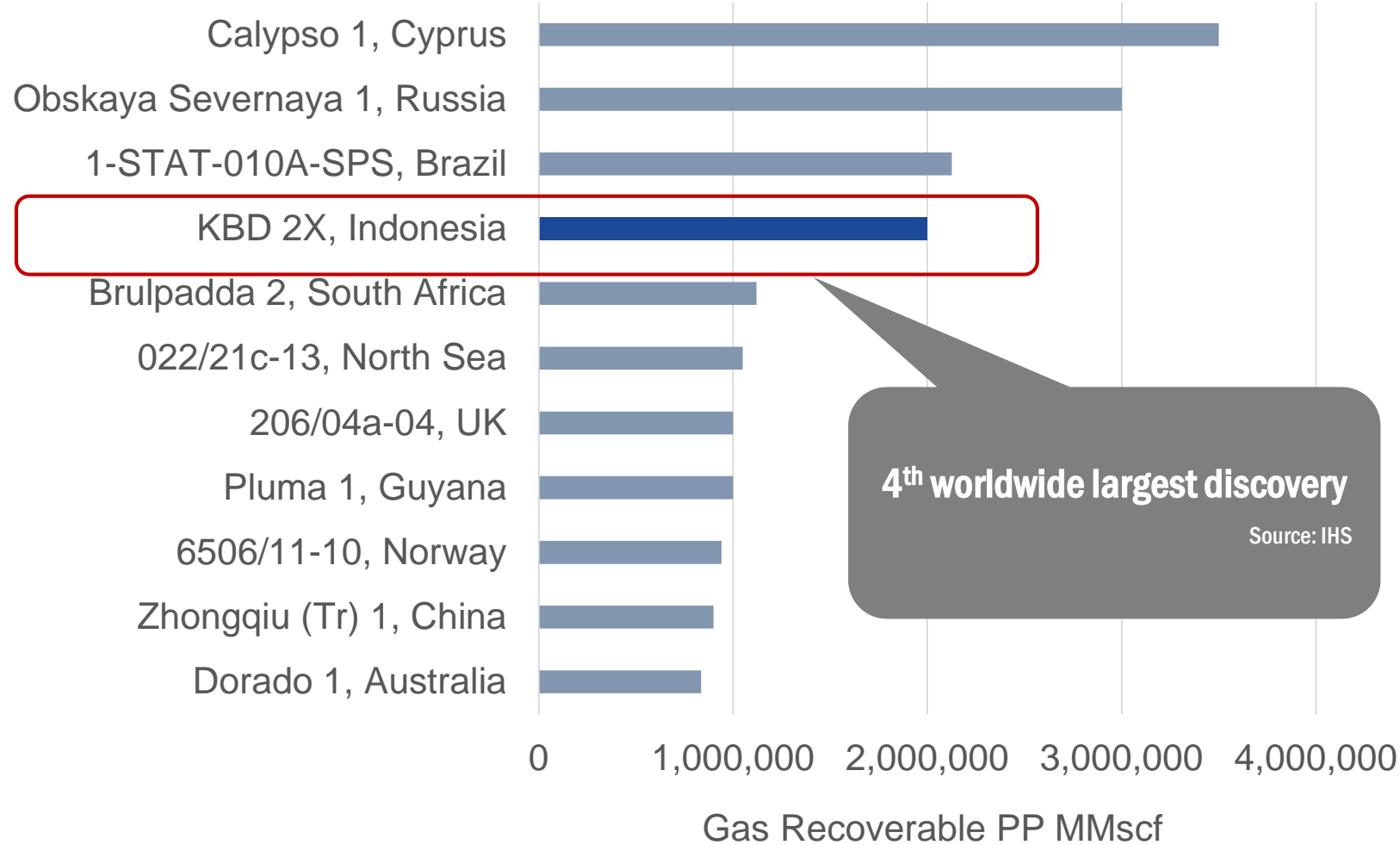
YET TO FIND IN PLACE
From PROVEN PLAY



Discovery in 2018 - 2019



2018 – 2019 Discovery



INTEGRATED OPERATION CENTER (IOC)

VISION AND OBJECTIVE

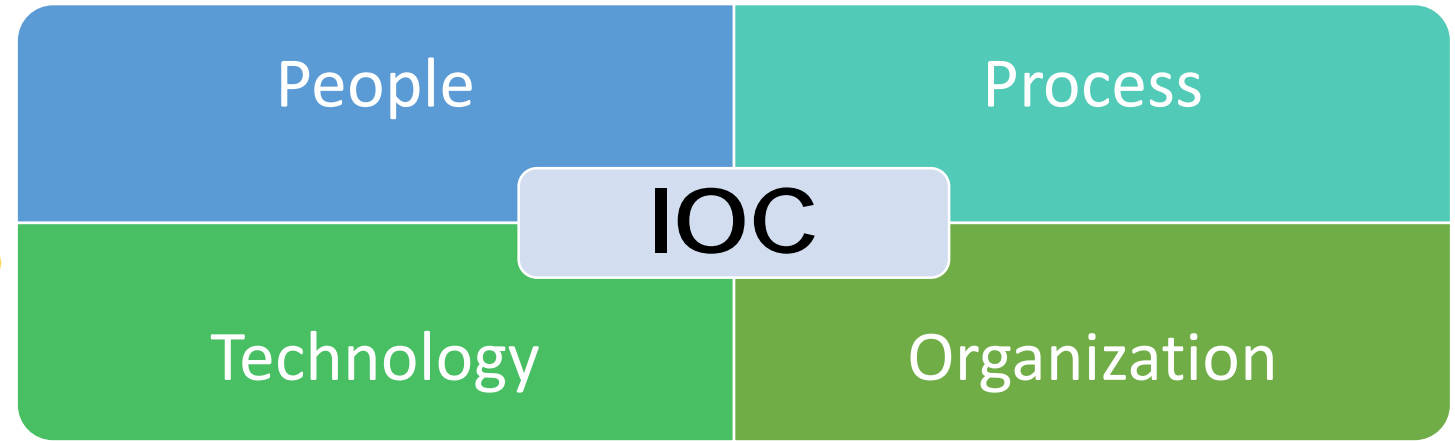
Operational data is centralized in individual PSC Operation, partially integrated

Lack of live operational disruption monitoring

Lack of operational data openness and transparency

Need of Quicker response and control in emergency situation

Manual approach (human driven) in oil shipping/lifting planning management



- ✓ Quicker decision making
- ✓ Production optimization
- ✓ Cost efficiency
- ✓ Innovation
- ✓ Effective activity

To Improve the performance of the upstream oil and gas industry;

