



Promoting Ghana's Available Opportunities

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- **Interventions for Sustainable E&P Activities in Ghana**
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- **Conclusion**

Country Profile



- Ghana is a peaceful democracy in West Africa
- Total land area is 238,533 sq. km
- Mainstay of Economy - Agric, Service, Mining and Petroleum



Overview of Ghana's Upstream Industry

FPSO KNK



FPSO JEAM

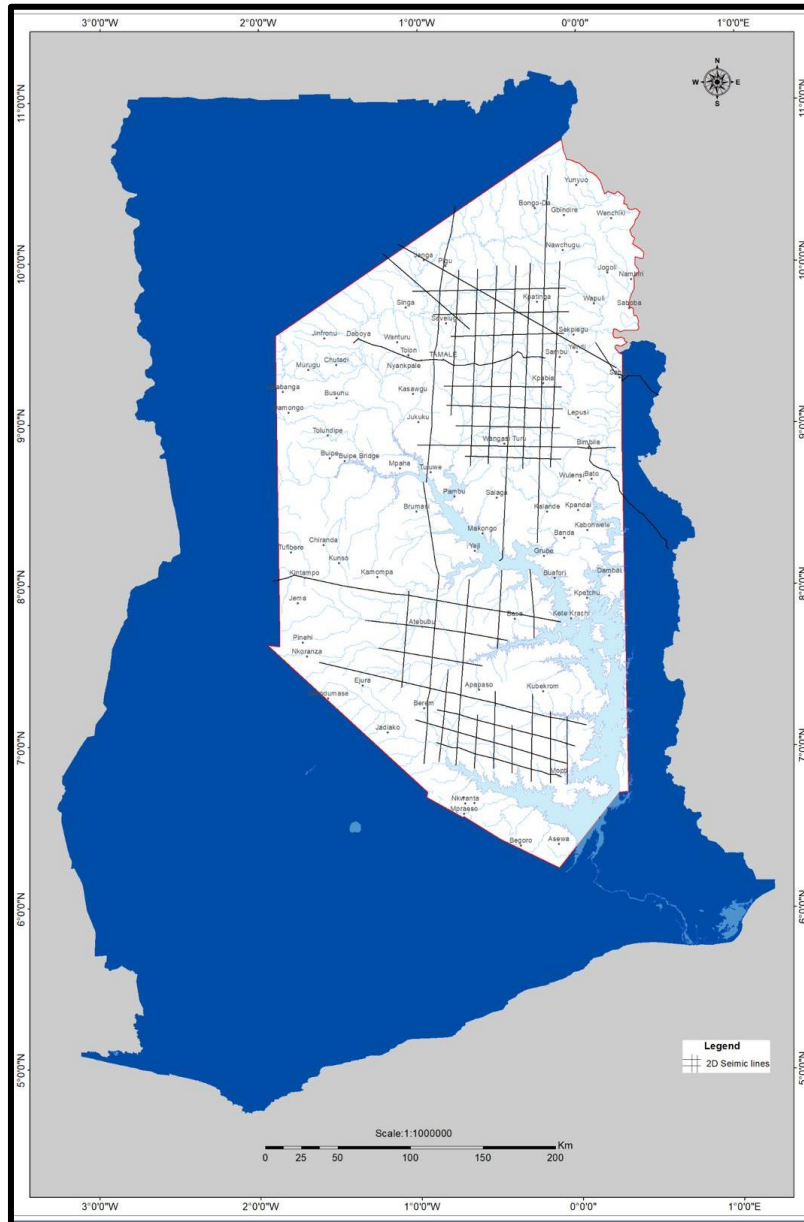


FPSO JAK



- 3 offshore basins and 1 onshore basin with active E&P activities.
- 12 Operators with 14 Petroleum Agreements
- Jubilee Field (2007) became the first commercial discovery, production commenced in December 2010
- 30 discoveries have been made after 2007 – latest discovery in Sept 2022
- About 80 prospects identified
- 3 Producing fields – Jubilee, TEN and SGN
- Average Daily Production of **150,000bbl/d** of oil and **380mmscf/d** of gas
- Availability of Infrastructure – 3 FPSOs, pipelines, Gas Processing Plant, Ports
- Proven reserves in excess of **1.035 billion barrels of oil** and **1.72 Tcf gas**
- Extensive acreage available for licensing - about 46,169 acreage covered by data (approx. 70 oil blocks) available for licensing
- A Robust Regulatory Framework.

The Voltaian Basin Project



- The Voltaian Basin is a Neo-Proterozoic inland Basin covering about 103,600sq.km
- The Basin is largely unexplored and has been tested with one exploration well – Premuase -1
- The Ghana National Petroleum Corporation (GNPC) is spearheading exploration works in the Basin to acquire relevant dataset that will enable an effective understanding of the geology and hydrocarbon potential of the basin
- GNPC has completed the acquisition of 6,025km of 2D seismic Data and has completed a Surface Geochemical Survey to map the presence and distribution of Oil & Gas to identify areas with high potential for hydrocarbon accumulation
- Two wells will be drilled within the Basin to establish its stratigraphy

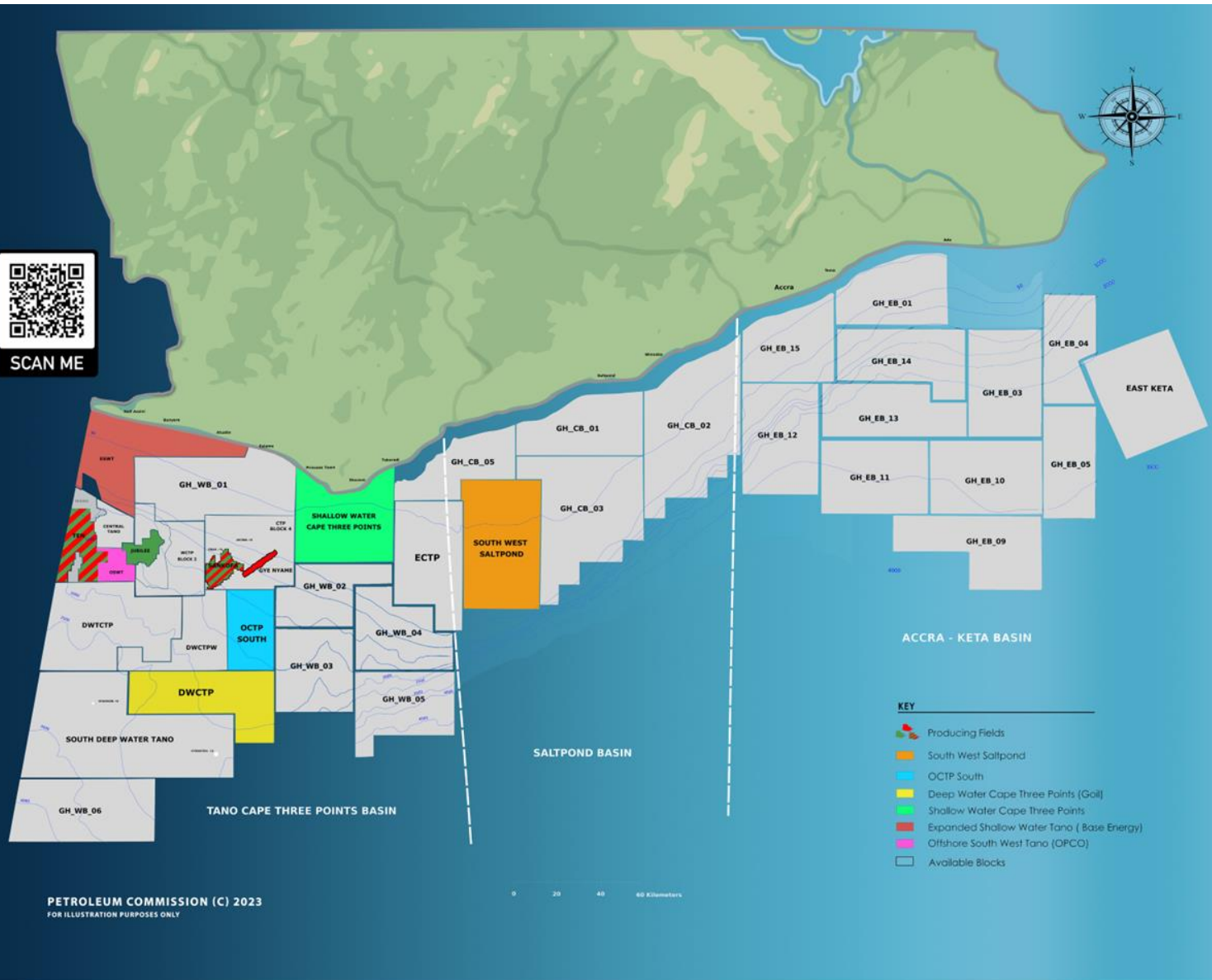
Blocks on Offer



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SCAN ME



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NEW ACREAGES

Available via Direct Negotiation

- Offshore Cape Three Points South – **755 sq.km**
- Shallow Water Cape Three Points – **1508 sq.km**
- South West Saltpond – **2050 sq.km**

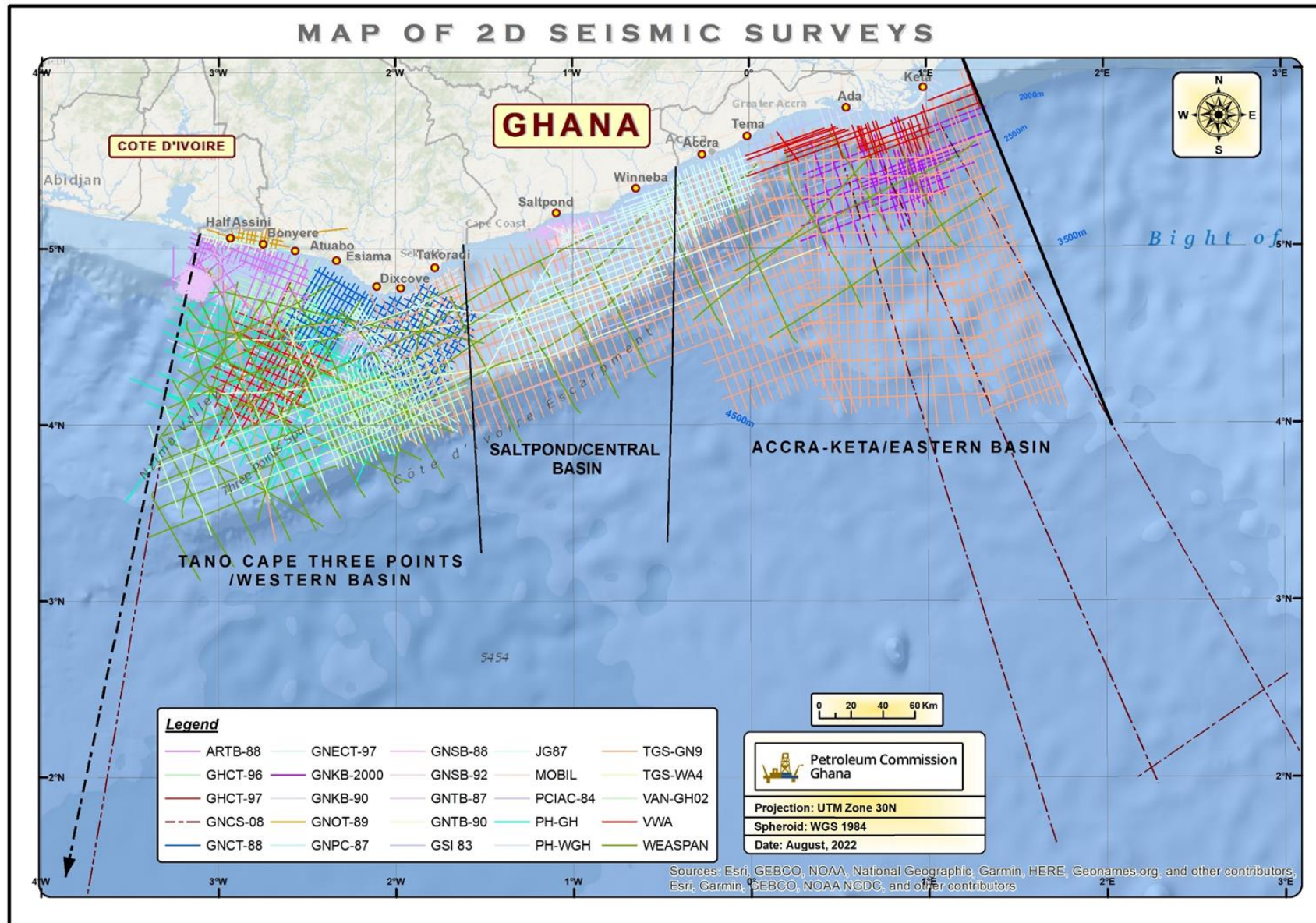
FARM-IN

- Deep Water Cape Three Points – **1474 sq.km**
Operated by GOIL Upstream Ghana Ltd.
- Expanded Shallow Water Tano – **1500 sq.km**
Operated by Base Energy Ghana Ltd.
- Offshore South West Tano – **175 sq.km**
Operated by OSWT & EK Operating Company (OPCO)

2D Data Coverage



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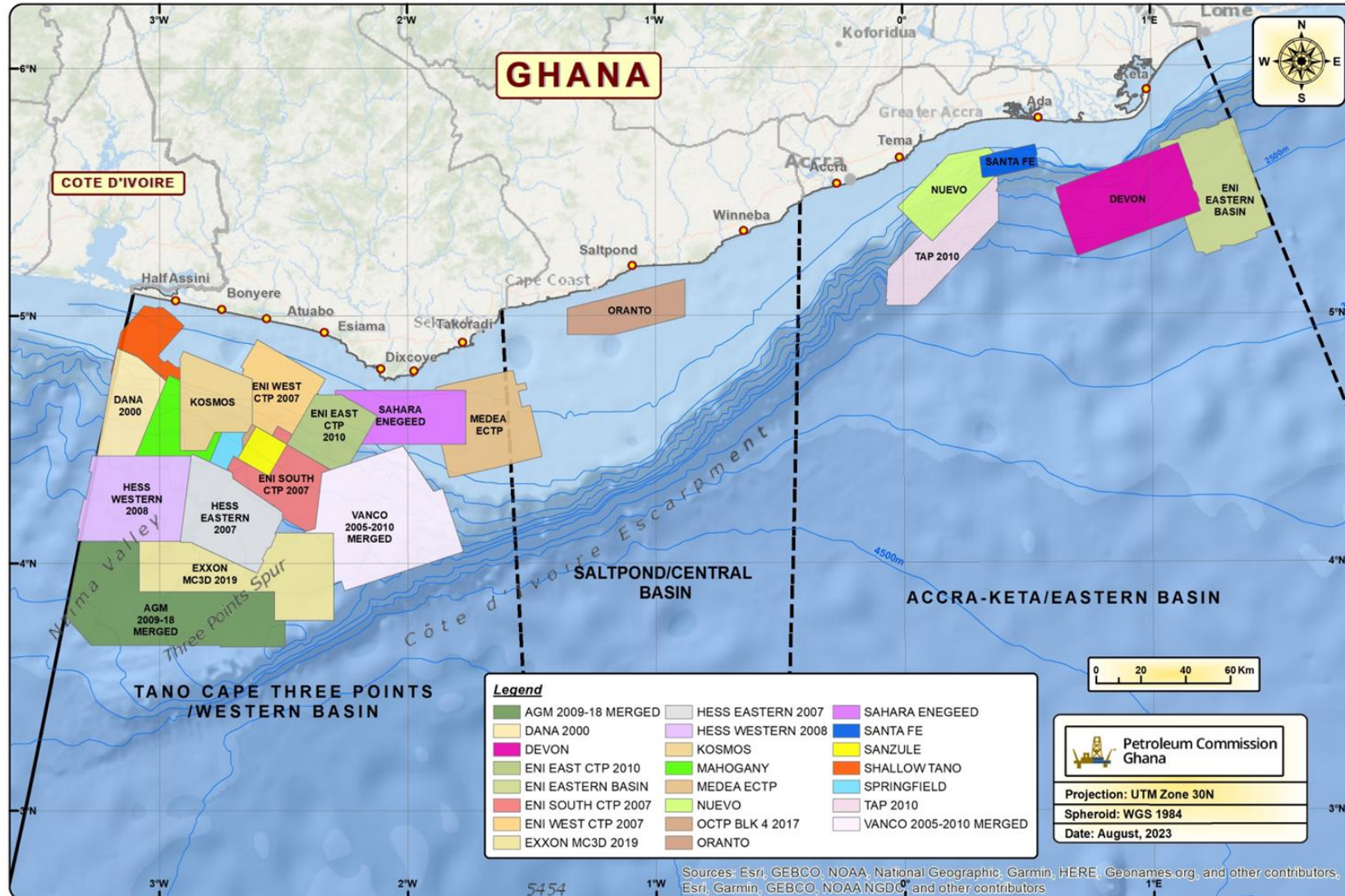
Total 2D Vintages = 25
Total Length ≈ 52,802km

3D Data Coverage



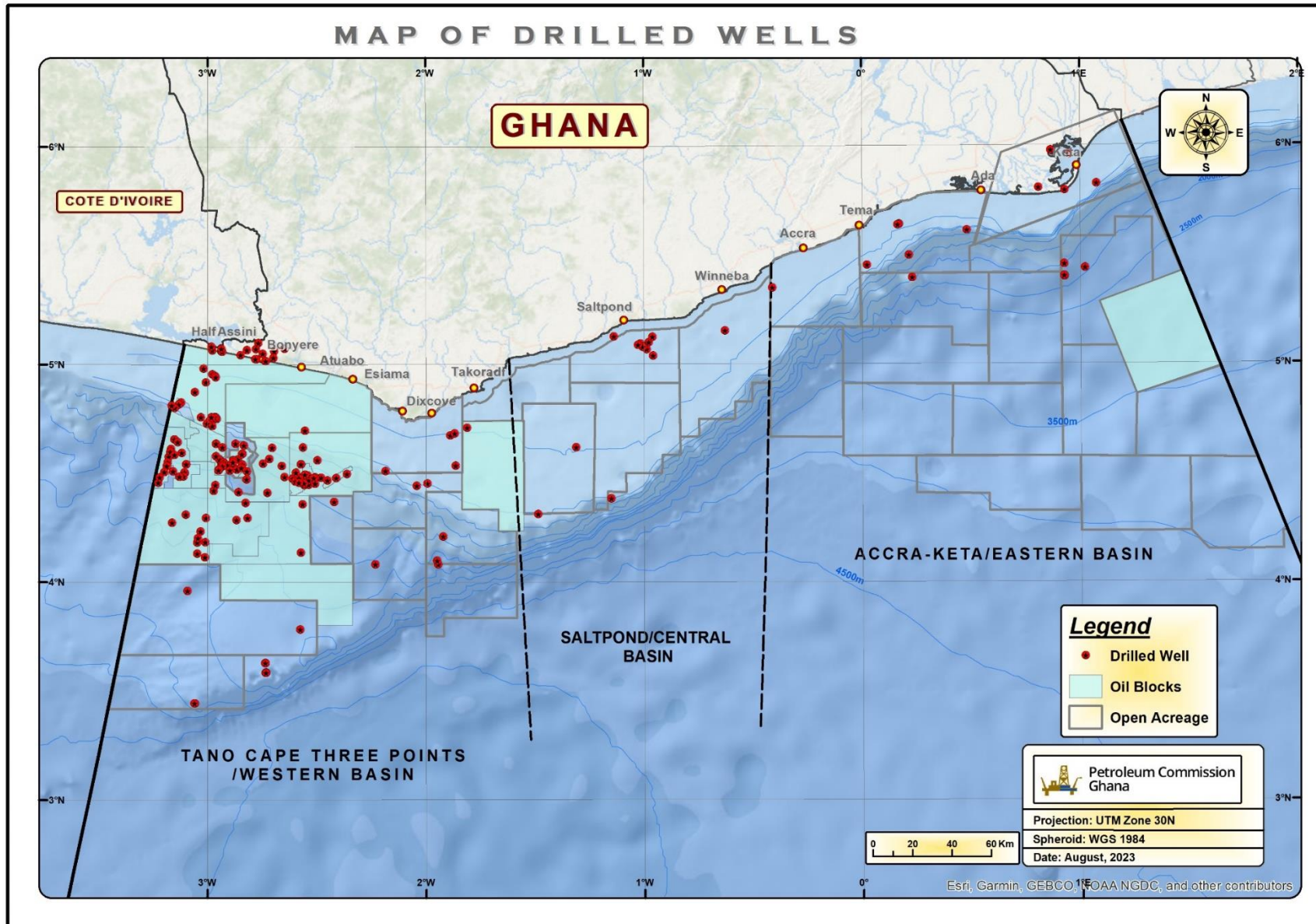
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MAP OF OFFSHORE 3D SEISMIC SURVEYS



Total 3D Surveys = 23
Total Area ≈ 34,475sq.km

Well Coverage Map



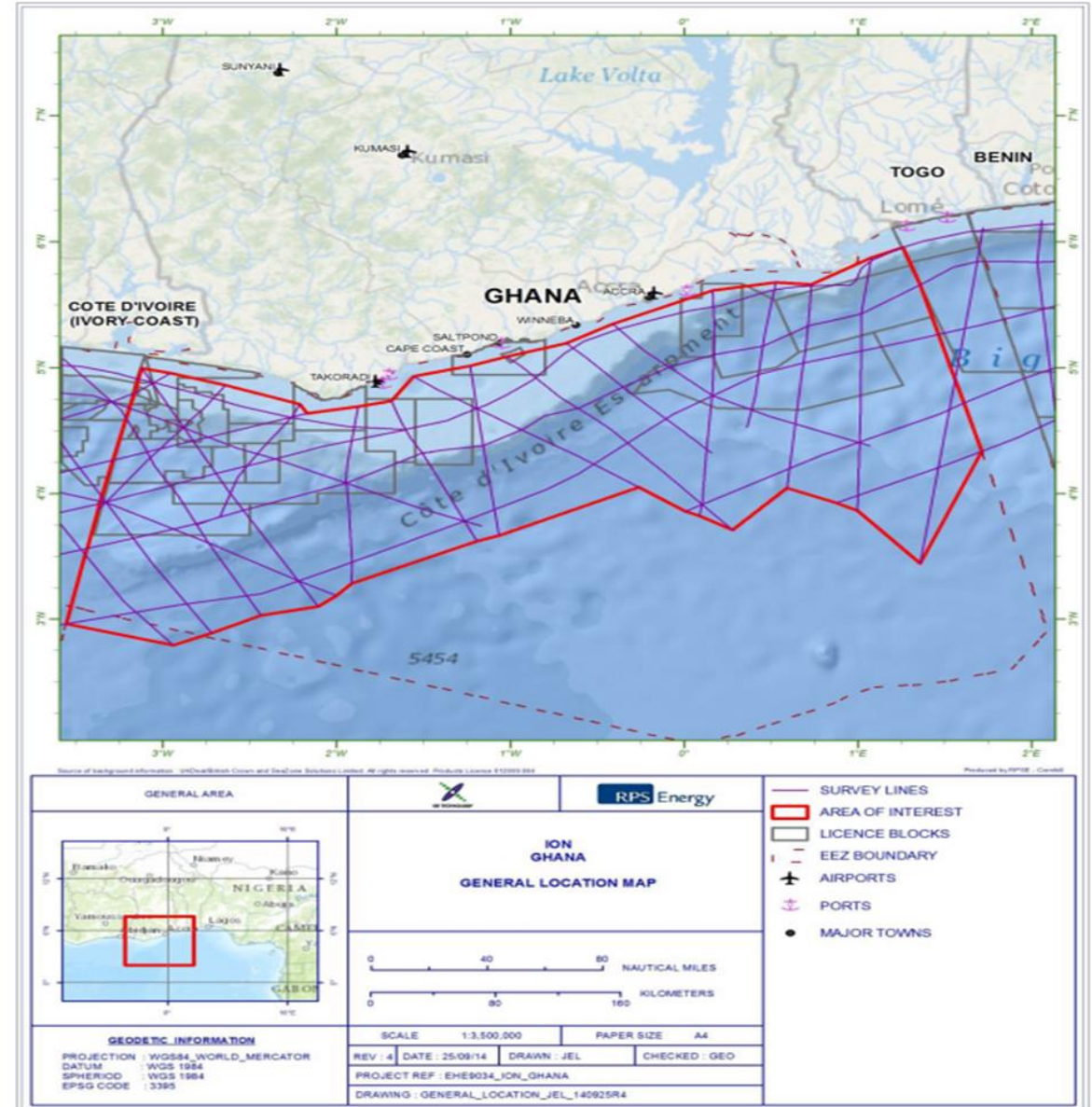
Total Wells Drilled = 228

ION/GEOEX West Equatorial African SPAN Survey

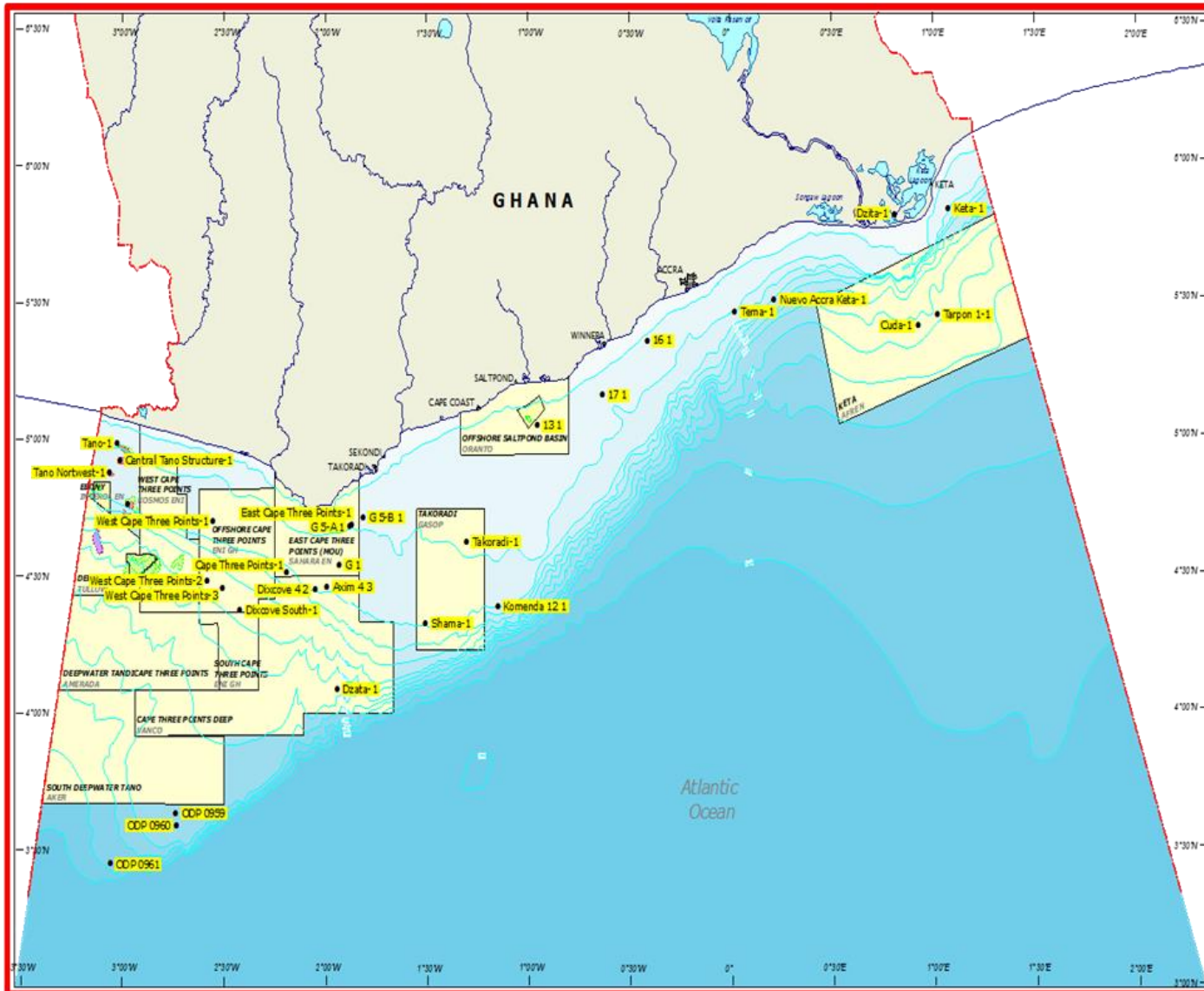


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- The objective of the survey is to image the Basin Architecture, define the limits of the various basins along the Equatorial Margin and identify potential Petroleum Systems Offshore West Africa.
- The survey integrates available offshore well data to calibrate key stratigraphic horizons regionally and place this part of the margin in a larger (continental) context.



Corelab Regional Reservoirs & Seals Study



Geological Characterization

Characterize the reservoir quality and petrophysical properties of the main reservoirs.

Biostratigraphical Characterization

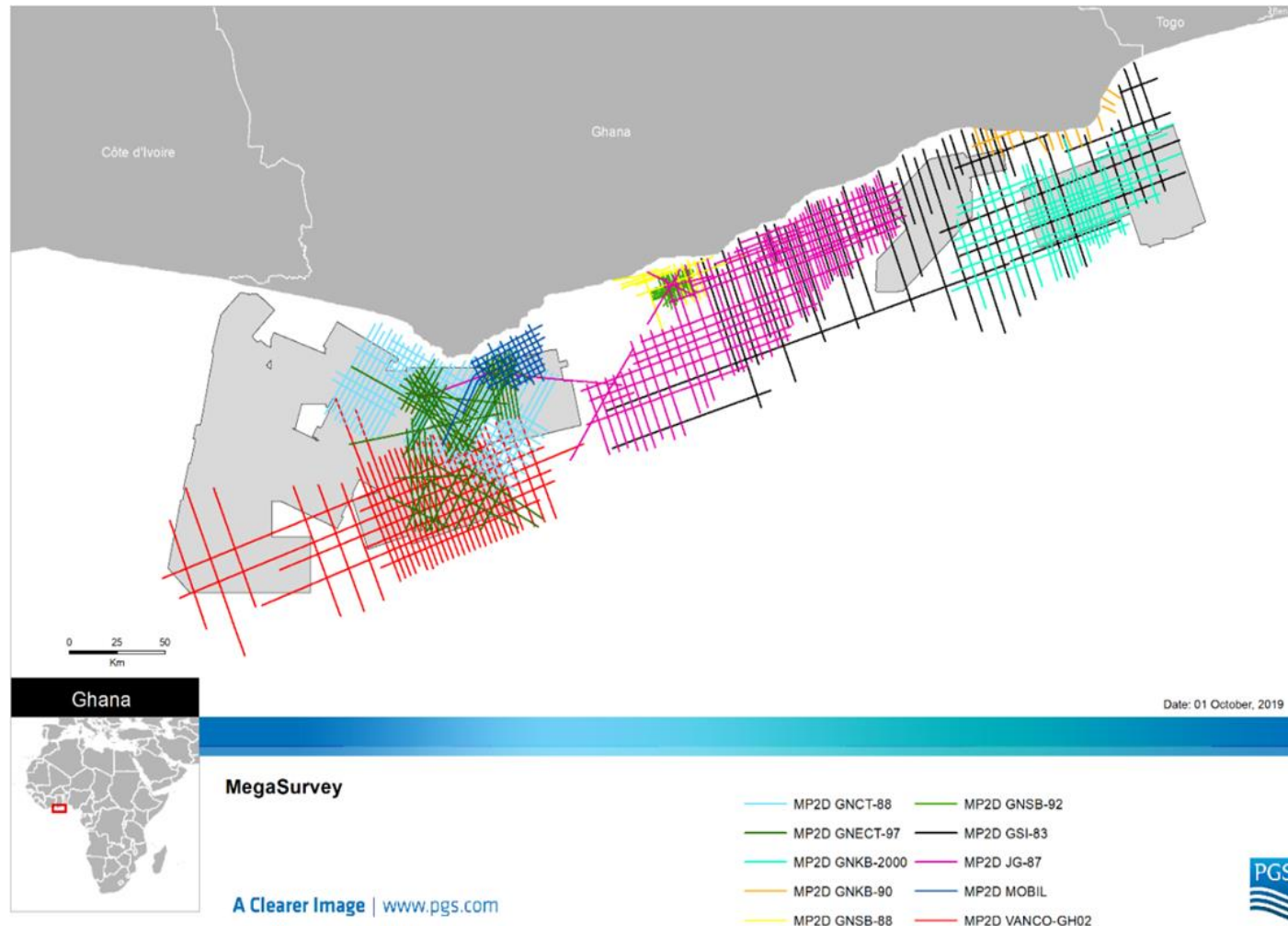
Detailed stratigraphic framework shall be established for the wells based on a combination of detailed biostratigraphy and cyclostratigraphy.

Petrophysical Characterization

Access to existing and suitable core plugs may allow non-destructive testing for key petrophysical properties such as porosity, liquid permeability, capillary pressure and Archie water saturation.

Conventional Reservoir and Seal Lithologies

Provide participating companies data to better evaluate seal rock quality and to aid in prospect risk assessment



- The MegaSurvey ties extensive 3D coverage in the Tano Basin to the west with 2D across the Saltpond Basin into the Keta Basin in the East to produce a phase-balanced & uniformly scaled contiguous volume of seismic data.
- The MegaSurvey can be used to continue exploration of analogues of existing interests, identify new prospects & place field-scale geological understanding into a basin-wide scale.

Ghana's Fiscal Regime – simple and attractive

01

Royalties

- Rate of royalty ranges from:
 - 4% - 12.5% of gross oil production
 - 3% - 10% of volume of gas exported
- Royalties are determined by **competitive bidding** or through **direct negotiation**

02

Corporate Income Tax

- The corporate income tax rate is **35%**
- Ring-fenced on Field/Development and Production Area basis.
- 5-year loss carried over
- 100% recovery of OPEX and abandonment cost in the same period
- Exploration and development costs capitalized and recovered over 5 years

03

State Participation

- Minimum **Initial Participating Carried Interest of 15%** non-reimbursable for exploration and development phases
- Additional Participating Paying Interest **OPTION** after declaration of commerciality up to a pre-agreed percentage

04

Additional Oil Entitlement

- Captures part of windfall profit
- AOE entitles the State to a share of contractor's crude oil if the post-tax rate of return exceeds specified thresholds.

To ensure the efficient conduct of upstream petroleum operations and all allied activities for the benefit of Ghanaians, Government has adopted a systematic approach in the development of upstream regulations and guidelines

Laws

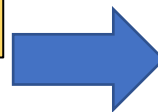
The 1992 Constitution of the Republic of Ghana

Petroleum (Exploration and Production) Act, 2016 Act 919

Ghana National Petroleum Corporation Law, (1983) PNDCL 64

Income Tax Act (2015), Act 896

Petroleum Revenue Management Act, 2011 (Act 815)

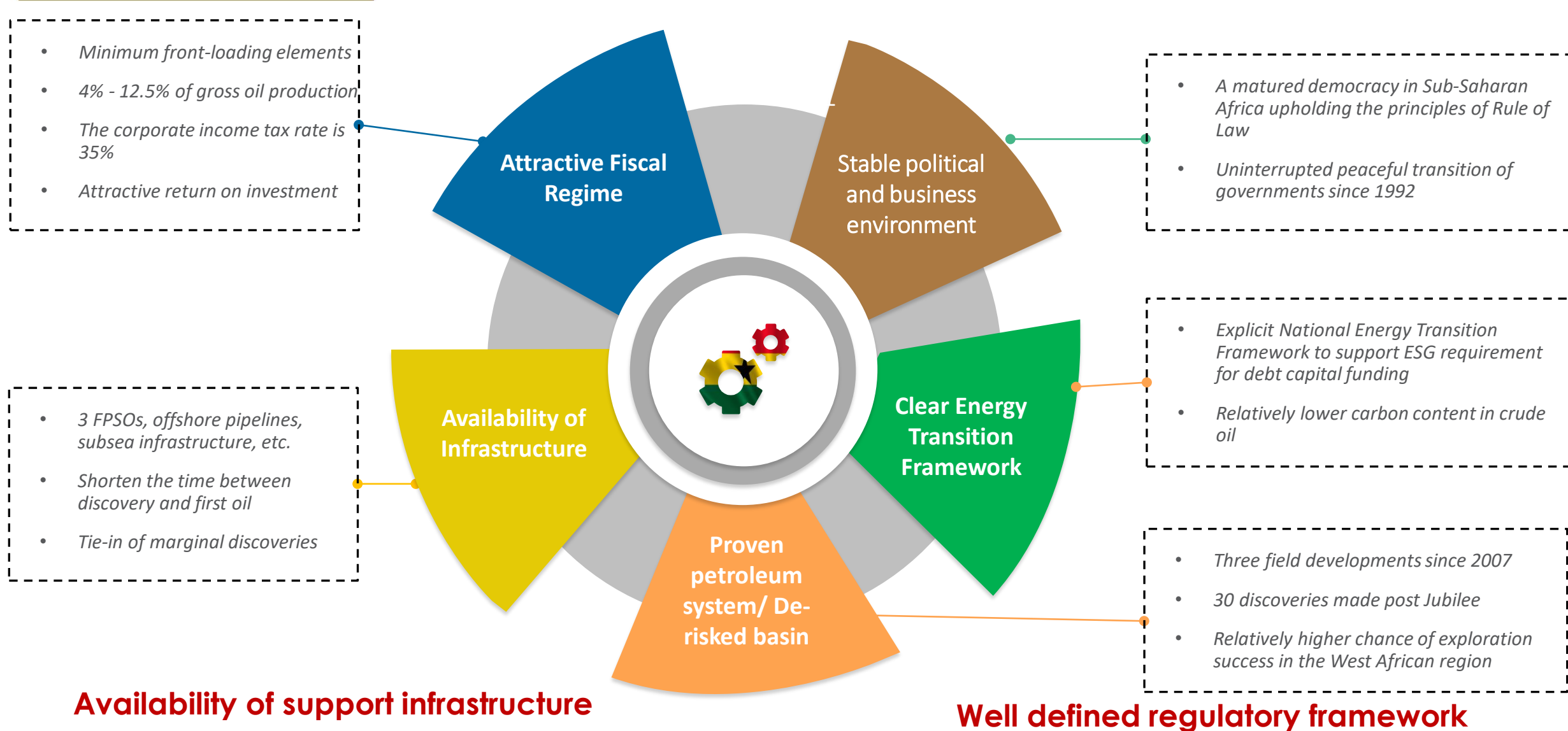


- Petroleum (Local Content and Local Participation) Regulations, 2013 (L.I. 2204)
- Petroleum (Exploration and Production)(Measurement) Regulations, 2016 (L.I. 2246)
- Petroleum (Exploration and Production)(Health Safety and Environment Regulations) Regulations, 2017 (L.I. 2258)
- Petroleum (Exploration and Production)(Data Management) Regulations, 2017 (L.I. 2257)
- Petroleum (Exploration and Production)(General) Regulations, 2018 (L.I. 2359)

- Ghana is a signatory to several global protocols and agreements relating to climate change. Prominent among these include:
 - **Sustainable Development Goals**
 - **Paris Agreement and**
 - **Glasgow Climate Pact**
- Committed to Nationally Determined Contribution (NDCs):
 - **to reduce emissions by 15-45% below business-as-usual (BAU) by 2030 and**
 - **strengthen climate resilience in close alignment with its development priorities**
- Developed a National Energy Transition Framework to chart the path to long-term net-zero state by 2070
- The long-term net-zero framework is aimed at achieving decarbonization, energy access, security and efficiency
- **Ghana seeks to balance its commitment to net-zero and the urgent need to transform its economy through the exploitation of its petroleum resources**

- Adherence to the zero flaring policy
- Scale up gas processing and transportation infrastructure by 2025
- 10% of electricity generation capacity from renewable sources by 2030 and 20% by 2070
- Phase out fossil liquid fuel for electricity generation by 2040
- Carbon Capture Utilisation and Storage (CCUS) for electricity generation and Oil and Gas Industries by 2040.
- Use of renewable energy on offshore platforms instead of gas-based electricity by 2050.
- Establishment of natural carbon sinks eg. forests - E&P Companies to be encouraged to embark on afforestation
- Accelerate natural gas production to serve as fuel for power generation and blue hydrogen generation by 2050.

Why Invest in Ghana's Upstream Petroleum Sector?



- Peaceful Democratic West African country.
- Reliable Investment destination for International Oil Companies.
- Proven Petroleum System in the offshore environment – Three FPSOs producing oil and gas from Jubilee, TEN and Sankofa Fields.
- Explicit National Energy Transition Framework to support ESG requirements for debt capital funding.
- Very attractive Fiscal Regime.
- Robust Regulatory Regime.
- Availability of Offshore Blocks for Direct Negotiation.
- Availability of Offshore Blocks for Farm-in Partnerships.



For digital copies of relevant information relating to upstream petroleum opportunities in Ghana

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