

AFRICAN E&P 2018

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1 March 2018

INTRODUCTION

Entering the next phase of the oil price cycle

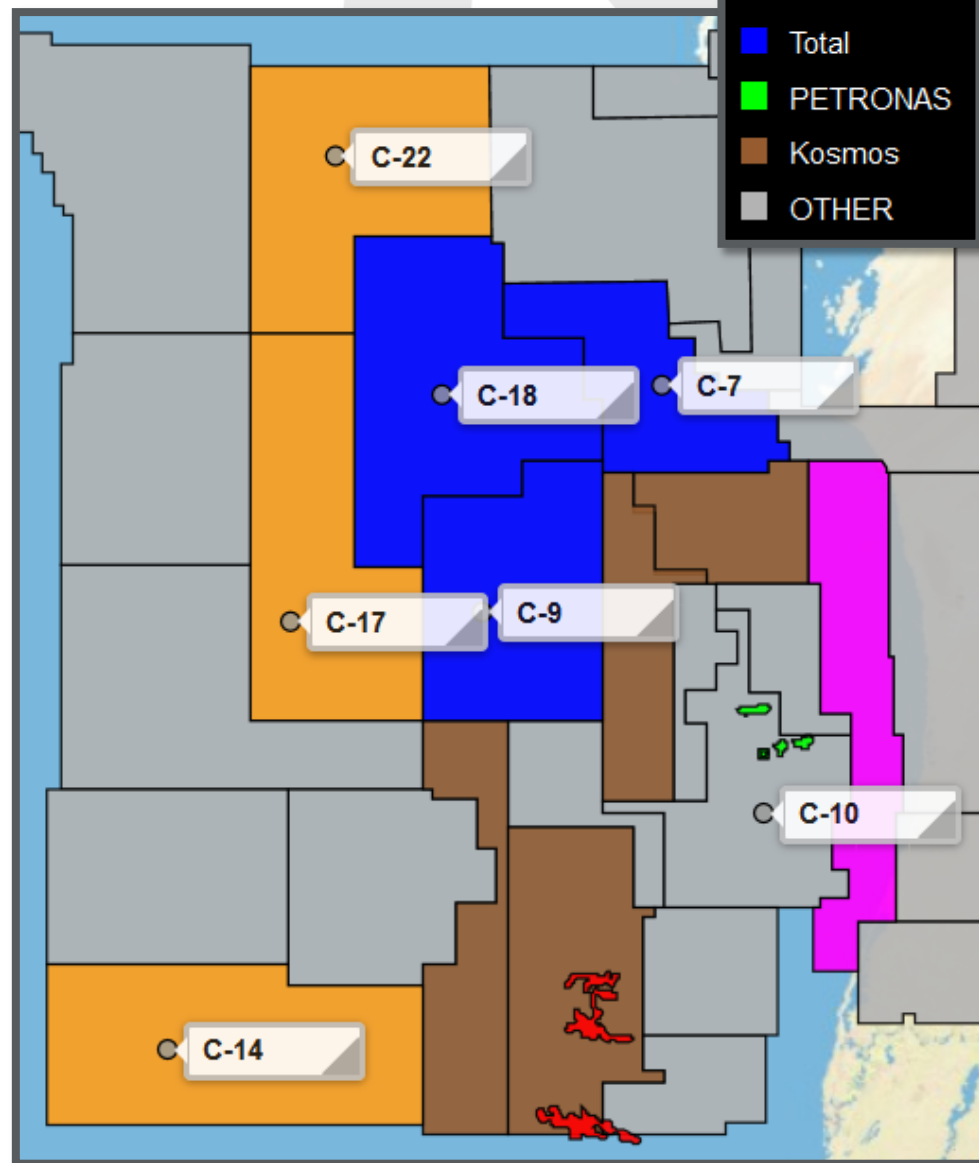
- Oil companies have generally either successfully reduced operational costs and budgets or gone under
 - Service costs significantly reduced
 - Great time for companies with cash to be undertaking exploration and development programmes
 - Seismic/rig companies still feeling strain
 - eg – WesternGeco market exit
 - Seadrill suggests rig market will not re-balance until 2021
- Beginning to see more awards, acquisitions, farm-ins
 - Driven by majors/supermajors
 - Independents with healthy cashsheet will follow
 - Will lead to increase in seismic activity/drilling
 - Drilling in particular to pick up in 2019
 - Will *eventually* result in higher prices



MAURITANIA (& SENEGAL)

Enter the majors

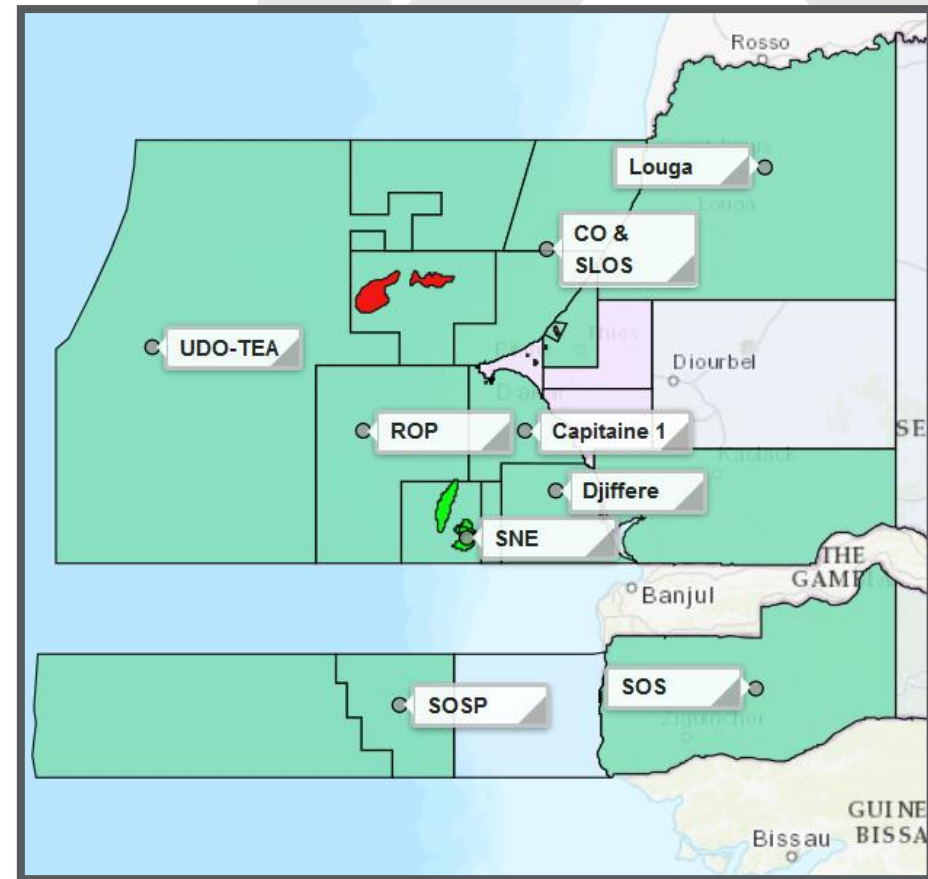
- BP/Kosmos discover 50TCF+ in Mauritania/Senegal
 - Most recently: Yakaar 1
 - Largest global discovery of 2017
 - However Lamantin 1, Hippocampe 1 & Requin Tigre 1 P&A dry
 - Is deepwater oil theory correct?
- Tortue gas development
 - Inter-gov cooperation agreement Feb 2018
 - Initial 50:50 split of revenues
 - FID targeted 2018, first gas in 2022?
 - LNG plant on manmade island near St Louis
- Total awarded C-7 & farmed-in to C-18 (with BP/Kosmos) in 2017
 - 3D seismic currently being acquired (CGG)
 - Also acquired 3D seis over C-9 in 2017 (PGS)
 - NFWs planned 2019+
- ExxonMobil awarded 3 blocks in Dec 2017
 - Seismic planned
- Tullow/Sterling relinquish C-10 in Nov 2018



SENEGAL

First mover advantage now long gone

- New Petroleum Code in the making
 - Bid round had been planned
 - However little open offshore acreage remains
 - Government announced only majors will be awarded new acreage
- Cairn/Woodside/FAR SNE development
 - FID in 2018? First Oil in 2021?
- Total awarded ROP & UDO-TEA May 2017
 - ROP award still disputed by APCL
 - Seismic currently underway
 - Drilling 2019?
- Farm-ins still available from APCL (SOSP) and Atlas Oranto (CO & SLOS)

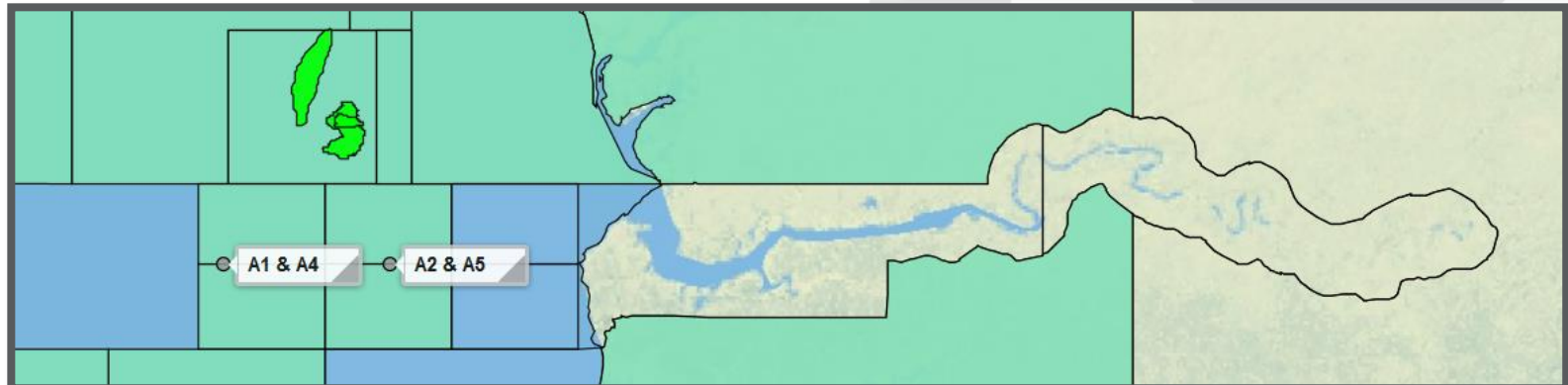
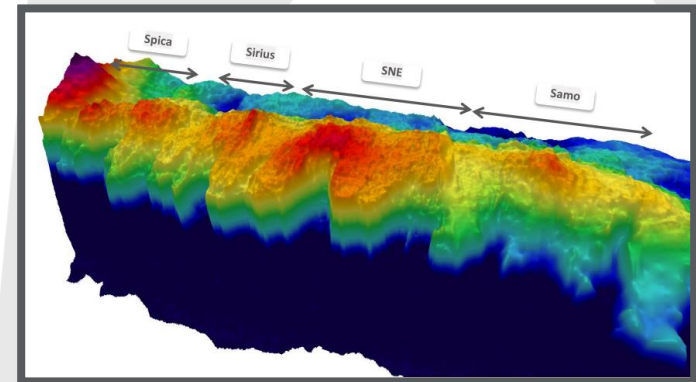


THE GAMBIA

Growing interest from oil companies

- Government requested information from parties interested in acquiring open blocks
 - Submissions due 18 February 2018
 - All acreage available
 - APCL dispute regarding A1 & A4 ongoing
 - Government will now review submissions & invite its chosen parties to negotiate for licences
- **PETRONAS farm-in with FAR & Erin Energy (blocks A2 & A5)**
 - FAR planning Samo 1 in Q3 2018
 - On trend with SNE
 - P50 unrisked prospective resources – 825 MMbo
 - 55% CoS (FAR estimates)

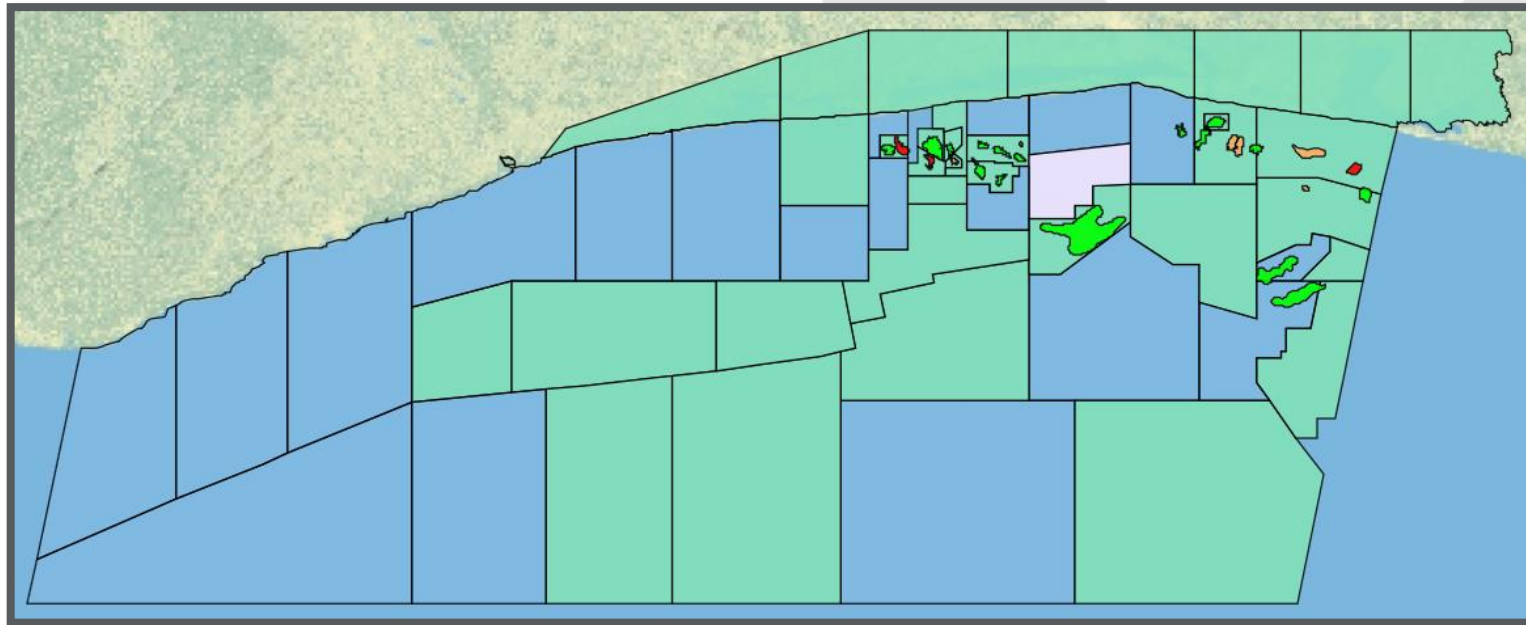
From FAR Corporate Presentation



COTE D'IVOIRE

One of region fastest growing economies - huge power demand

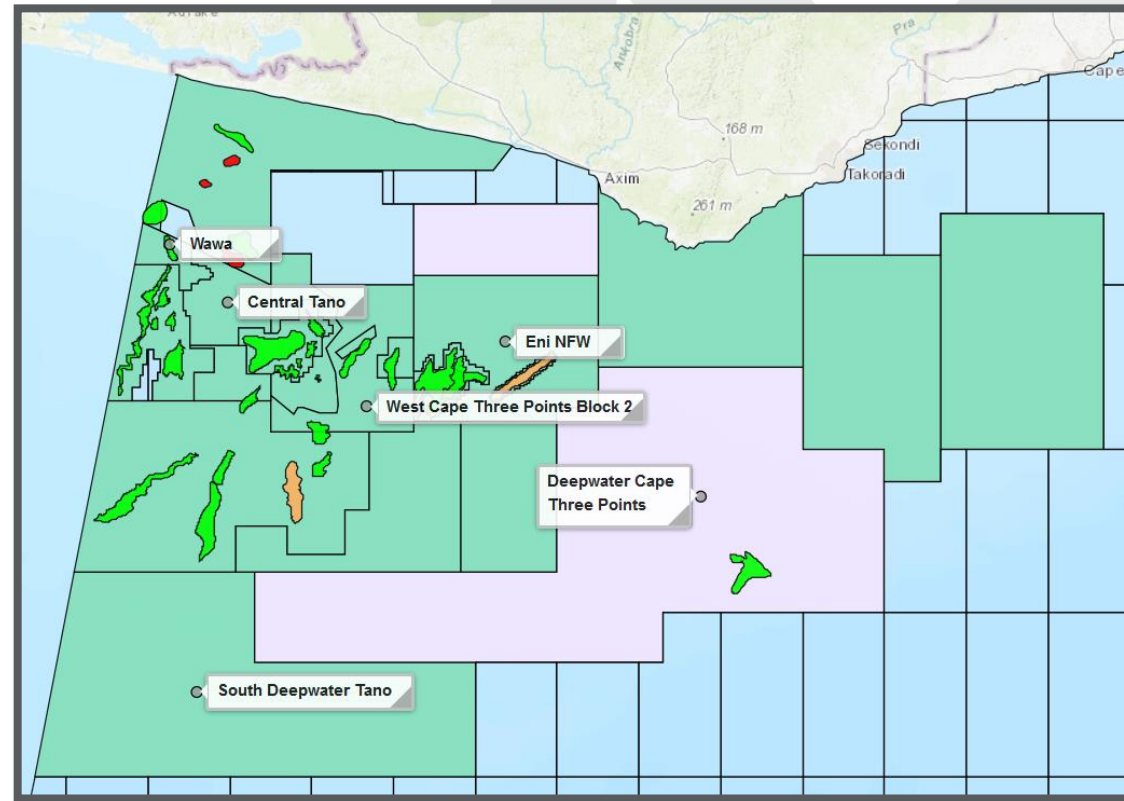
- Exploration Opportunities Promotion 2017 – 15 blocks awarded to date
 - BP/Kosmos, Tullow & SCDM all awarded acreage
 - Supported by PGS
 - However Anadarko & ExxonMobil both pull out
 - Anadarko's 2017 drilling programme unsuccessful
- Tullow planning onshore FTG/seismic in 2018/2019
- Eni acquires offshore seismic Q1 2018 (PGS)
- BP/Kosmos seismic commenced Feb 2018



GHANA

New phase of exploration

- **ExxonMobil awarded Deepwater Cape Three Points**
 - Local partner to be identified before licence ratified
- Petroleum Code 2016 states bid rounds must be held going forward
 - **Accra-Keta LR 2018?**
- Multiple farm-ins available
 - Springfield – WCTP Block 2
 - NFW in 2019?
 - AMNI – Central Tano
 - 2 planned wells before 2020
 - AGM Petroleum – South Deepwater Tano
 - PGS currently acquiring seismic

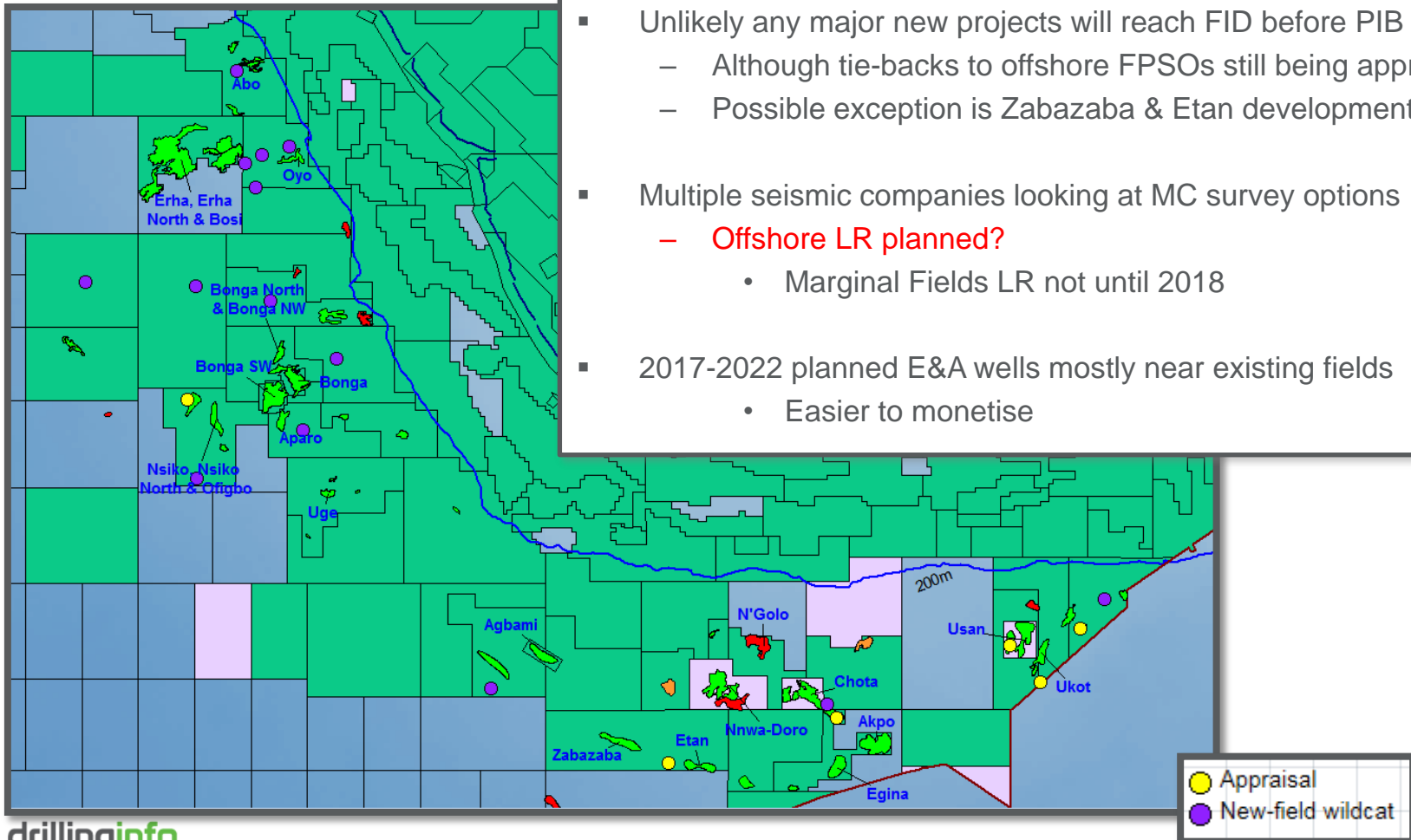


- Field developments ongoing
 - Tullow – Mahogany/Teak (Greater Jubilee Full Field Dev)
 - Fields unitised with Jubilee
 - Tullow takes over operatorship from Kosmos
 - Development drilling in 2018
 - **Aker Energy – Pecan et al**
 - **Hess management decides not to develop fields**
 - Eni – Sankofa Phase II ongoing
 - NFW in 2018?

NIGERIA - OFFSHORE

Exploration has been on hold whilst fiscal & legal terms are resolved

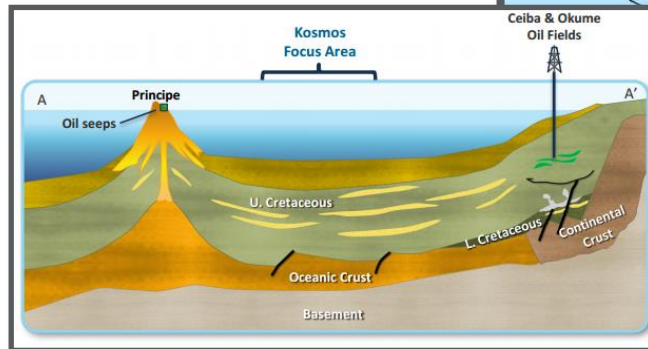
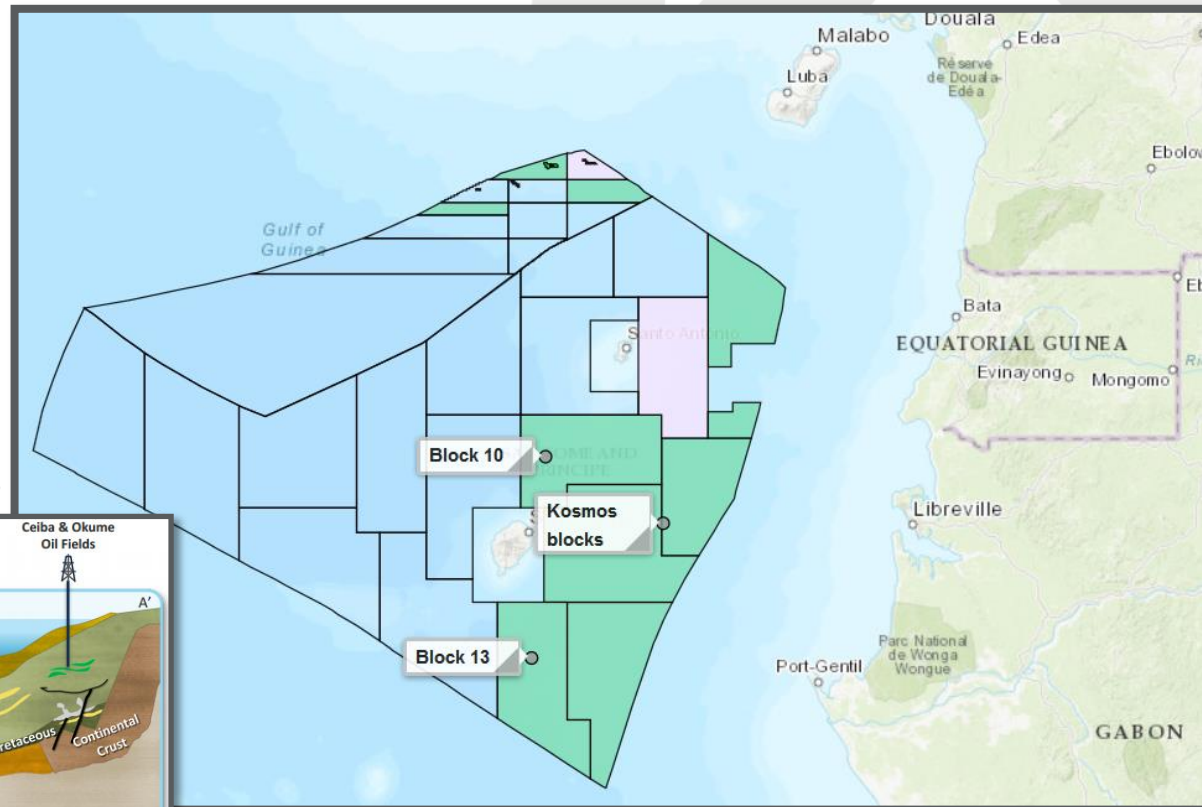
- **PIGB passed in Senate & House of Representatives**
 - Still needs ratifying by President
 - Still 2 other parts to PIB (Fiscal Bill & Host Community Bill)
- Unlikely any major new projects will reach FID before PIB in place
 - Although tie-backs to offshore FPSOs still being approved
 - Possible exception is Zabazaba & Etan development
- Multiple seismic companies looking at MC survey options
 - **Offshore LR planned?**
 - Marginal Fields LR not until 2018
- 2017-2022 planned E&A wells mostly near existing fields
 - Easier to monetise



SAO TOME & PRINCIPE

New kid on the block

- Kosmos/Galp consortium awarded/farmed-in (with Oando) four adjacent licences in EEZ
 - Targeting extension of Rio Muni play
 - ~15,000 sq km 3D seismic acquired Feb-Aug 2017 (CGG)
 - Drilling 2019?
- Tender for Block 10 & 13 ended January 2018
 - Bids from Kosmos/BP & Total/Galp
 - **Blocks awarded to Kosmos/BP**
- Total rumoured to be in negotiations for new blocks

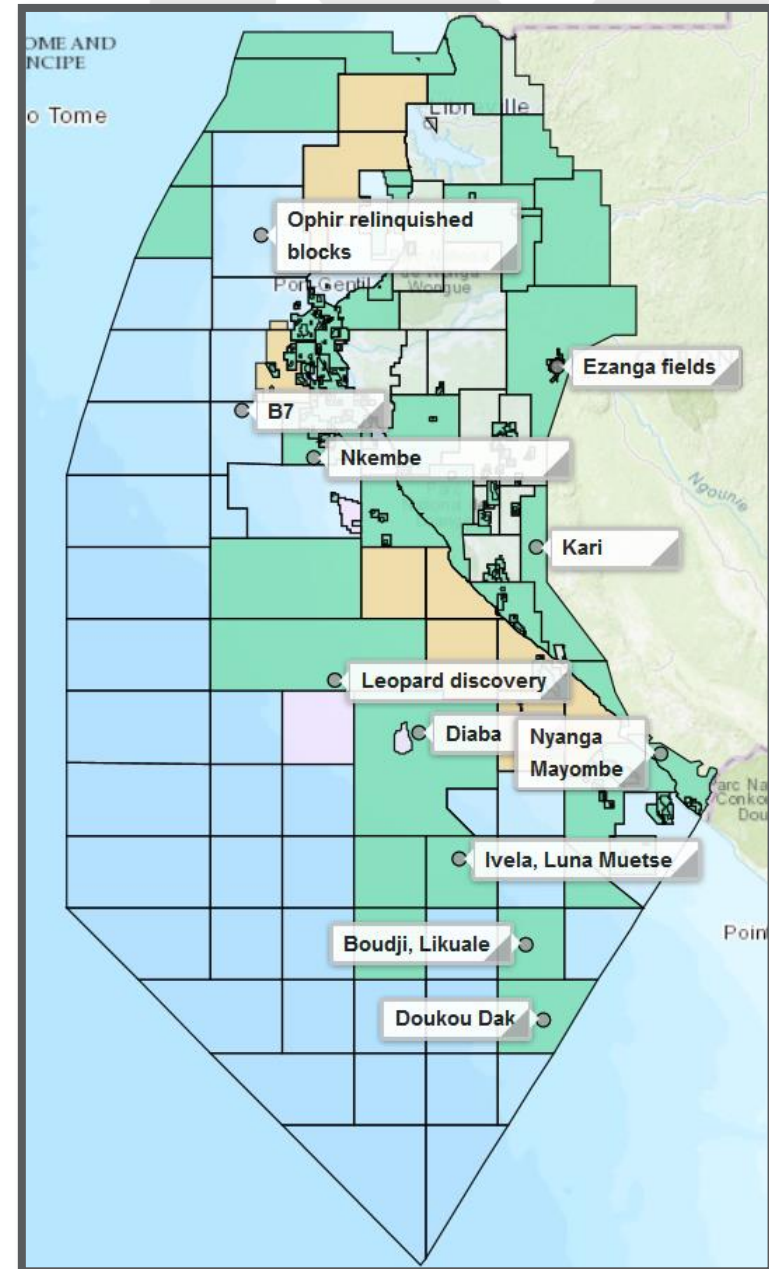


From Kosmos Corporate Presentation

GABON

Where next?

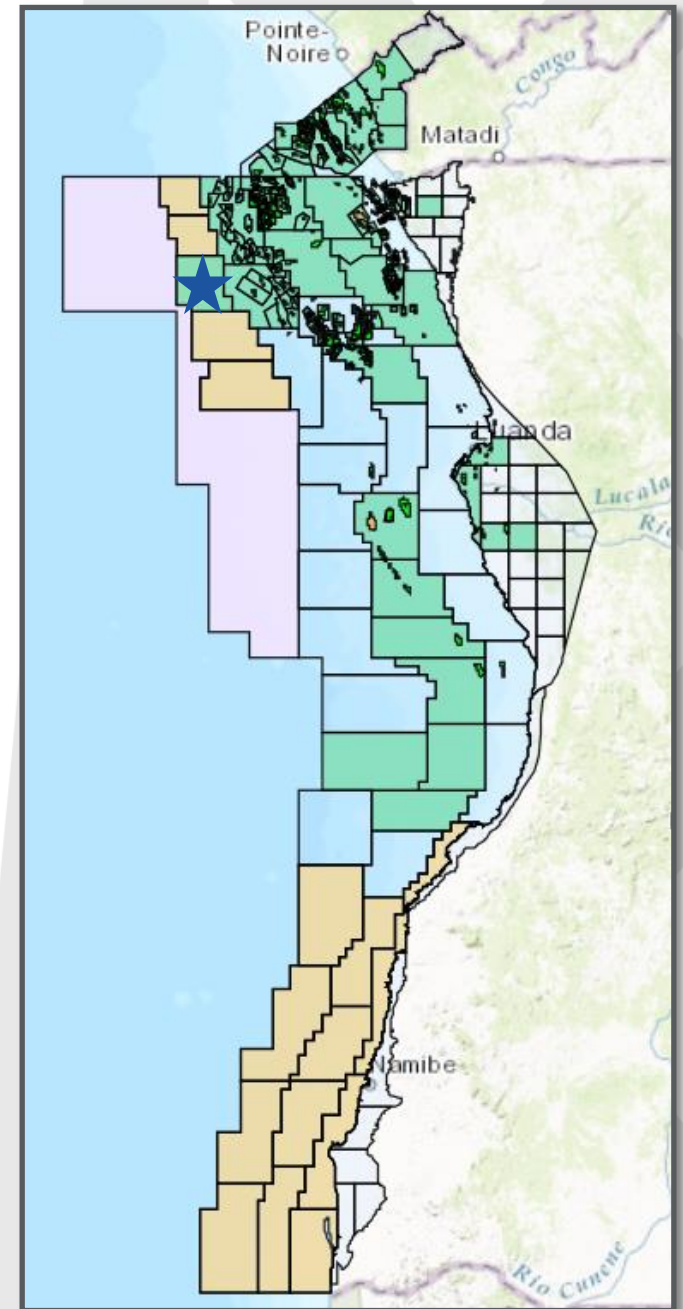
- Change in focus to South Gabon basin (despite unsuccessful 2016 LR)
 - Woodside farms in to multiple blocks (Diaba, Luna Muetse, Likuale, also equity in Doukou Dak)
 - Impact & Marathon still looking for partners
 - 2018 drilling
 - Repsol – Ivela 1 – Drilling ahead
 - PETRONAS – Boudji 1
 - BW Offshore commences development drilling at Tortue
- Shallow water seismic
 - Spectrum acquiring 18,000 sq km 3D data in 3 phases
 - Phase 1 complete
 - Phase 2 commenced
 - Shallow water LR in 2018?
 - **Director General of Hydrocarbons to be replaced (again)**
 - Government looking at new fiscal terms prior to LR
 - These will include gas terms



ANGOLA

First rays of new dawn?

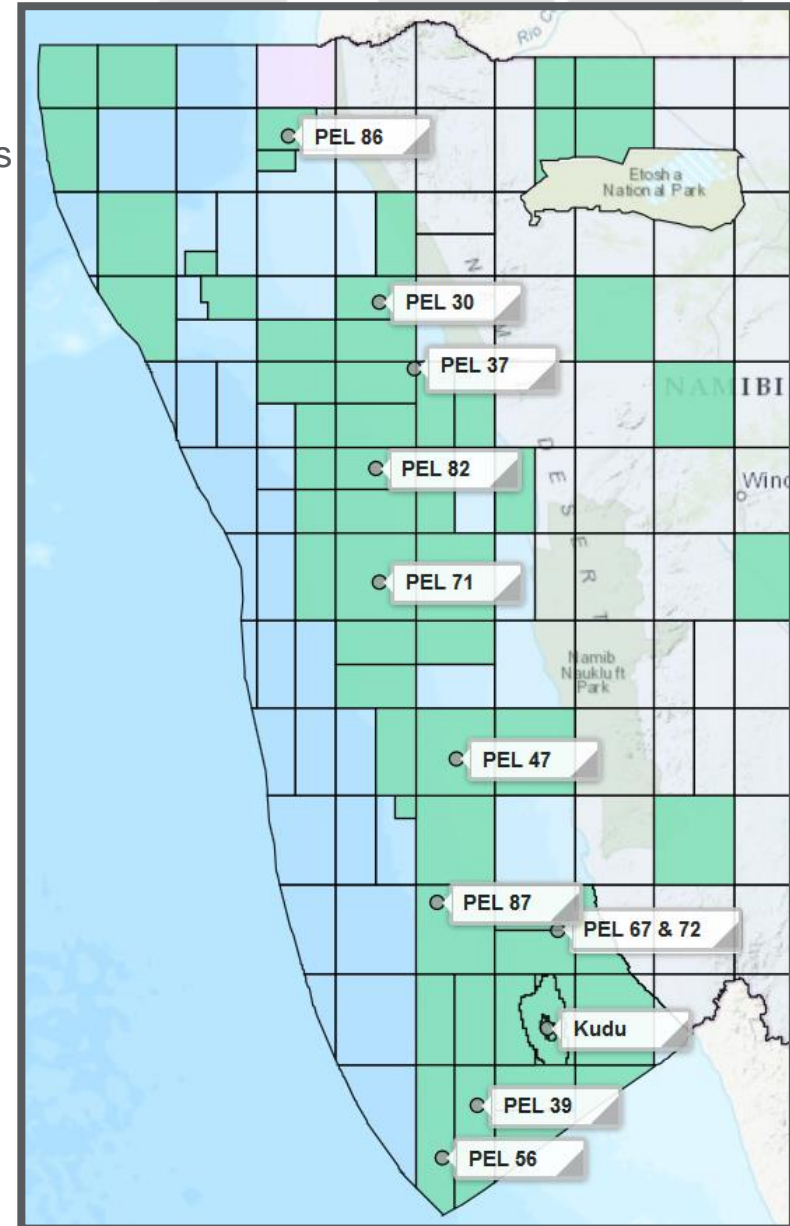
- Deepwater Kwanza blocks relinquished after drilling failures
 - Gas ownership needs resolving
 - Cobalt files for bankruptcy
- Carlos Saturnino takes over Sonangol
 - Commitment to improve fiscal terms?
 - State take currently ~80-90%
 - New gas legislation moving forwards
 - Individual deals have been signed with Chevron & others
 - Chevron investigating infill drilling in Cabinda
- Uncertain timeframe for Lower Congo/Namibe Basin round
 - Multi-client sales beginning to increase
- Total enters Block 48/16 with Sonangol ★
 - Commitment well in first 2 years
 - Also agrees contractual terms for Zinia Phase II (Pazflor, Block 17)



NAMIBIA

New interest - new drilling

- Namcor good at extending/modifying work commitments
 - Strategy has paid off - little acreage relinquished
- Supermajors beginning to grow footprint
 - ExxonMobil farm-in with Galp (PEL 82)
 - Total farm-in with Impact (PEL56) (also in SA)
 - Well planned 2019
 - ONGC/AEC farm-in to PEL 37
 - Comorant 1 NFW – firm well Sept 2018
 - ONGC farms-in to PEL 30
 - Contingent well 2019?
 - Africa Oil Corp acquires Eco Atlantic & Impact Shares
- Still plenty of farm-in opportunities available
 - Chariot – S1 planned well on PEL 71
 - Serica – planned well on PEL 47
 - Pancontinental awarded new block (PEL 87)
 - Namcor awarded its first operated blocks (PEL 86)
 - Also acquired PEL 67 & 72 following Chariot withdrawal with Quiver (local partner)



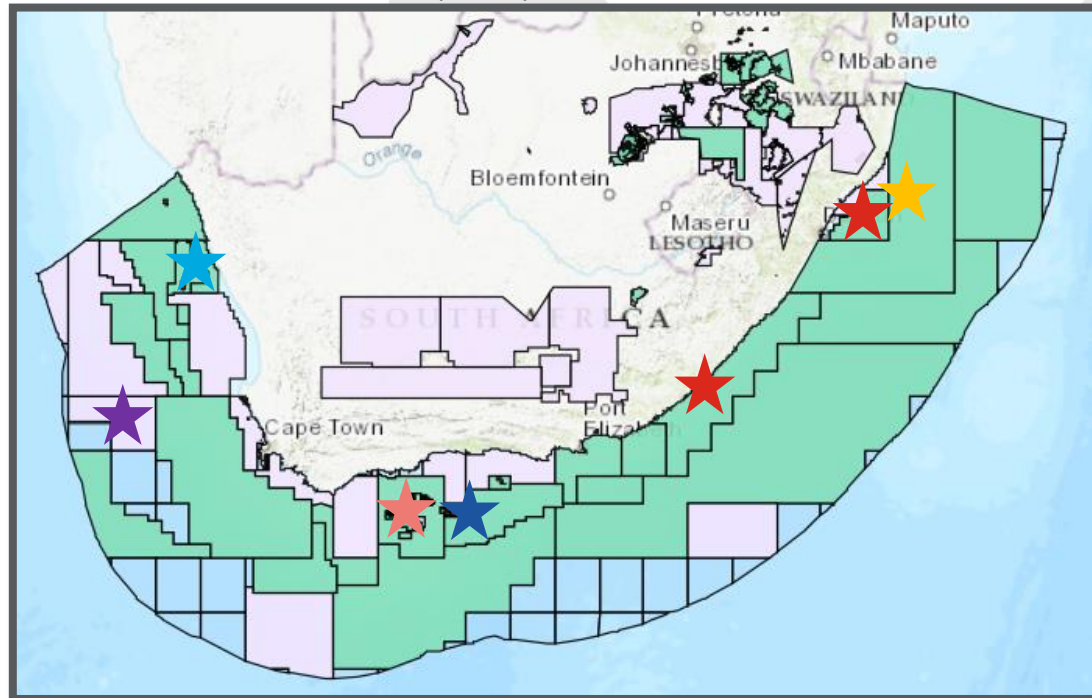
SOUTH AFRICA

Multiple deepwater wells planned

- Total/**Qatar Petroleum**/CNR/Main Street – Brulpadda redrill – Block 11B/12B – End 2018/Early 2019 ★
 - Rig contracted

Contingent on MPDRA being passed

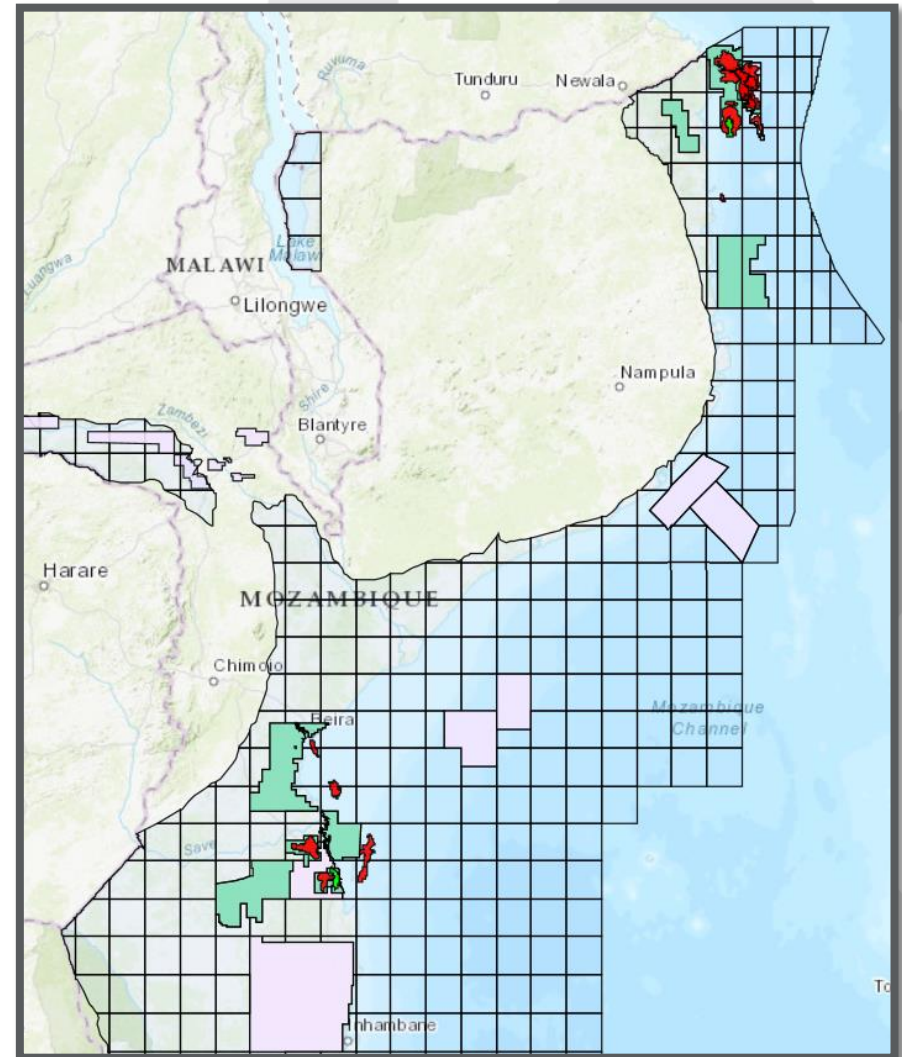
- Eni – 1-2 wells – ER 236 – Possible 2019 ★
- ExxonMobil/Statoil/Impact – 1-2 wells? – 2020+ ★
 - MC Seismic currently being acquired around Transkei Block (PGS)
- AEC – Block 2B – 2018/2019 well
 - Dependent on farm-in partner ★
- Total farm-in with Impact ★



MOZAMBIQUE

Slow progress better then no progress

- Progress being made on LNG projects
 - Eni Coral FLNG mooted for 2022 first gas
 - ExxonMobil farms in with Eni
 - Will takeover operatorship of onshore facilities
 - Anadarko signs SPA deal with EDF Feb 2018
 - FDP approved by government
 - Geophysical site surveys underway
- But what has happened to the 5th licensing round?
 - Statoil withdraws due to lack of progress
 - Other awardees known to be frustrated
- Multi-client seismic surveys ongoing
 - In preparation for 6th licensing round



CONCLUSIONS

CONCLUSIONS

- MSGBC Basin one of only a handful of global exploration hotspots to emerge during downturn
 - Pursuit of acreage dominated by majors/supermajors
- Operations elsewhere have been depressed – happily this is changing
 - Lots of new acreage awards & farm-ins taking place
 - Mostly in West Africa
 - Driven by majors & supermajors
 - Uptick in seismic and drilling now anticipated – particularly in 2019
 - However, this is *eventually* likely to drive service costs up
 - Plenty of opportunities still available, especially in frontier areas and East Africa
- Government policies key
 - Countries willing to grant extensions (ie Namibia) or seen as easy to operate (Cdl) generally doing better
 - Nigeria (uncertainty over fiscal regime, security issues) & Angola (very high state take) have struggled more

THANK YOU

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