



CAPITAL  
MARKETS  
DAY 2014  
25 June - London



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# Agenda

Time	Topic	Main presenter	Q&A
12.30	Introduction	Aidan Heavey	
12.45	West Africa Business	David Lawrie	David Lawrie, Paul McDade and Angus McCoss
13.45	East Africa Business	Gary Thompson	Gary Thompson, Paul McDade and Angus McCoss
14.45	Coffee break		
15.15	Exploration	Ian Cloke	Ian Cloke, Angus McCoss and Claire Hawkings
16.15	Funding our Business Strategy & Portfolio Management	Brian Williams Les Wood	Brian Williams, Les Wood, Ian Springett, & Aidan Heavey
17.15	Closing remarks	Ian Springett	
17.30	Cocktails and canapés		



# Speaker biographies



**David Lawrie**  
**Vice President, West & North Africa**

David joined Tullow in 2011 and is the Regional Vice President for West & North Africa and a member of the Tullow Group Executive Committee. Having previously worked for HESS and BP David held various senior roles in Asset Management and Commercial both here in the UK and overseas. He has over 20 years experience in the Oil and Gas industry.



**Gary Thompson**  
**Vice President, South & East Africa**

Gary joined Tullow in 2013 and is the Regional Vice President for South & East Africa and a member of the Group Executive Committee. Prior to joining Tullow, Gary worked for BG Group, Woodside Energy and a Chevron lead Joint Venture Operating Company. Gary has held various general management, asset management, senior commercial and senior technical roles in 29 years of experience in the oil and gas industry in various locations around the world.



**Ian Cloke**  
**Vice President, Exploration**

Ian Cloke joined Tullow in 2005 and is Vice President Exploration and a member of the Group Executive Committee. Previously to this he was Area Exploration Manager for South & East Africa for in Cape Town. Previous to Tullow he worked for ExxonMobil in various positions around the globe in exploration, development and production. He has a PhD and MSc from University of London and a BSc from the University of Durham.



**Brian Williams**  
**Vice President, Corporate Finance**

Brian Williams joined Tullow in 2000 and was appointed Head of Corporate Finance, Treasury and Marketing following our Energy Africa acquisition in 2004, having previously managed the Finance and Commercial functions of our UK gas business. An accountant with over 30 years experience, Brian has worked in various Finance and Commercial roles with the BNOC, Hamilton Brothers Oil & Gas, Pict Petroleum and Alliance Resources. Brian holds a degree in Economics and Modern History and a post graduate diploma in Finance & Accounting. Brian is also a member of the Group Executive Committee.



**Les Wood**  
**Vice President, Commercial**

Les joined Tullow in 2014 as Vice President Commercial and is a member of the Group Executive Committee. Prior to joining Tullow, Les worked for BP plc in various executive, CFO, M&A, senior commercial and senior technical positions over 28 years in various locations around the world, including Canada and the Middle East. He has an MSc from Aberdeen University and a BSc from Heriot Watt University.



**Claire Hawkings**  
**Vice President, Europe, South America & Asia**

Claire joined Tullow in 2009 and is the Regional Vice President for Europe, North Atlantic, South America & Asia and a member of the Tullow Group Executive Committee. Before Tullow, Claire worked for BG Group in various senior roles in General Management, business development, commercial, strategy and planning, both here in the UK, in Asia and in North Africa. She has around 25 years experience in the Oil and Gas industry.



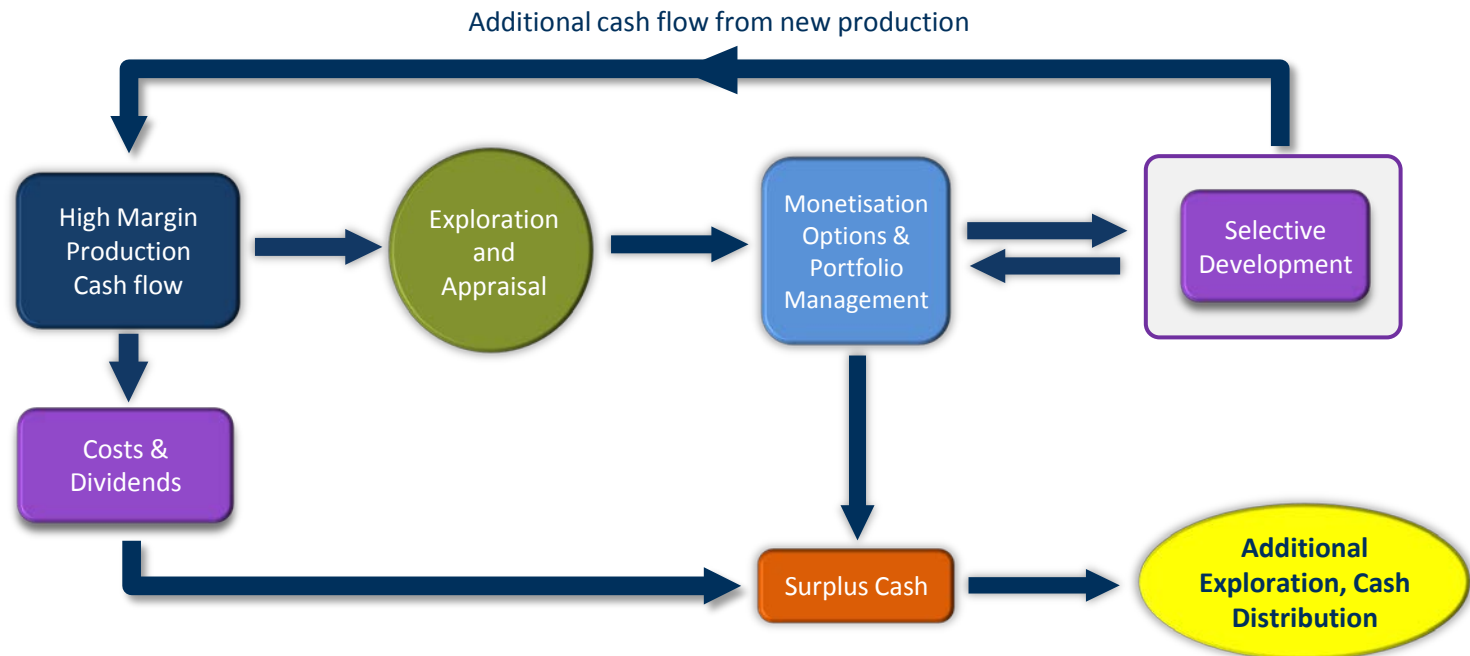


# INTRODUCTION

Aidan Heavey



# Our Strategy



- Material cash flow generation and development upside from West Africa
- New oil province potential in East Africa delivering significant future resource growth
- Industry leading exploration portfolio in Africa and Atlantic Margins
- Strong balance sheet provides foundations to deliver long term value to shareholders





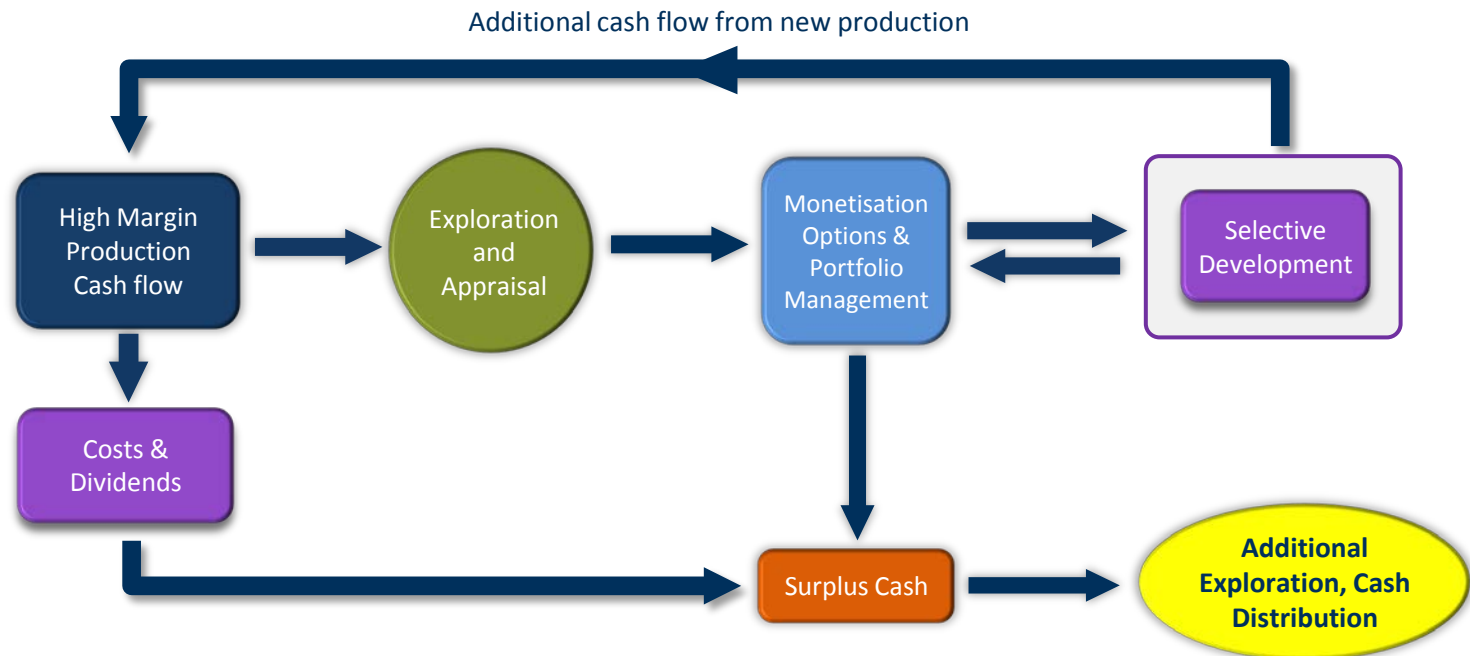
# WEST AFRICA BUSINESS

David Lawrie





# Our strategy



- **Material cash flow generation and development upside from West Africa**
- New oil province potential in East Africa delivering significant future resource growth
- Industry leading exploration portfolio in Africa and Atlantic Margins
- Strong balance sheet provides foundations to deliver long term value to shareholders

# Regional investment highlights

## West & North Africa

9

Countries

39

Licences

28

Years experience

c.88,000

Sq km  
Acreage

65,000

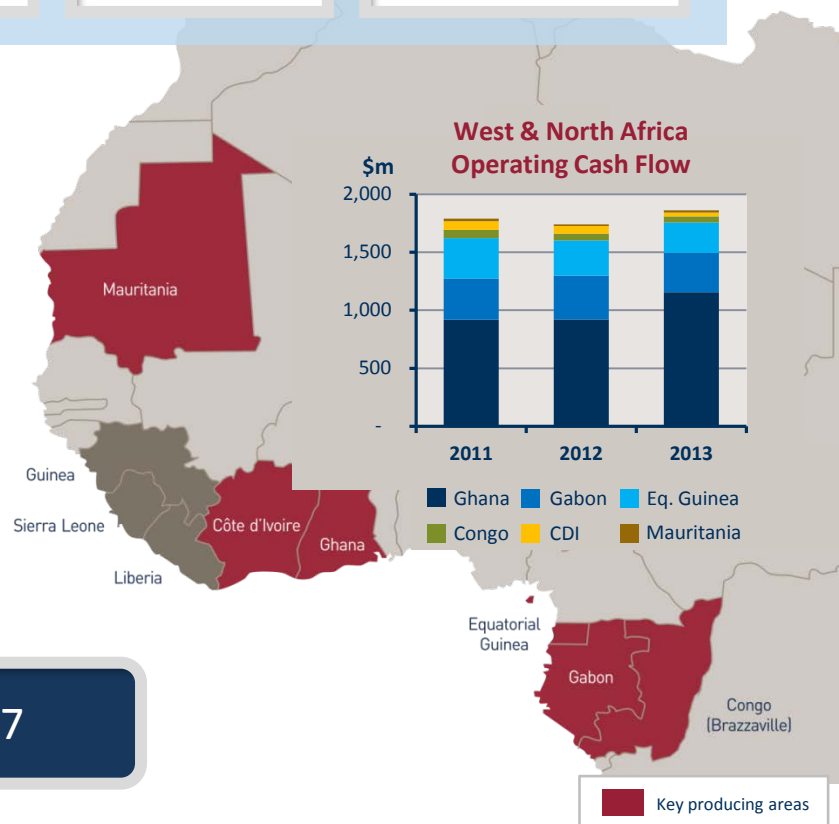
boepd  
2013 production

665.6

mmboe  
Reserves & Resources

- Material business with potential to generate over \$2.5bn per annum of pre-tax operating cash flow
- Rising production base to over 100,000 boepd by 2017; significant future value growth
- Balanced fiscal regimes which encourage investment
- Strong relationships with key stakeholders
- Deep regional experience and footprint

**Over 100,000 boepd net production by 2017**



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West Africa Business

# NON-OPERATED PRODUCTION





# Non-operated - strengths and opportunities

## Material portfolio of high margin resources

High margin oil fields give broad technical base with potential to drive future value growth

## Influencing non-operated activities

Learning from and challenging operators to transfer knowledge across West Africa portfolio

## Track record of sustaining production

Selective high quality investment opportunities enable sustained production

## Stakeholder management

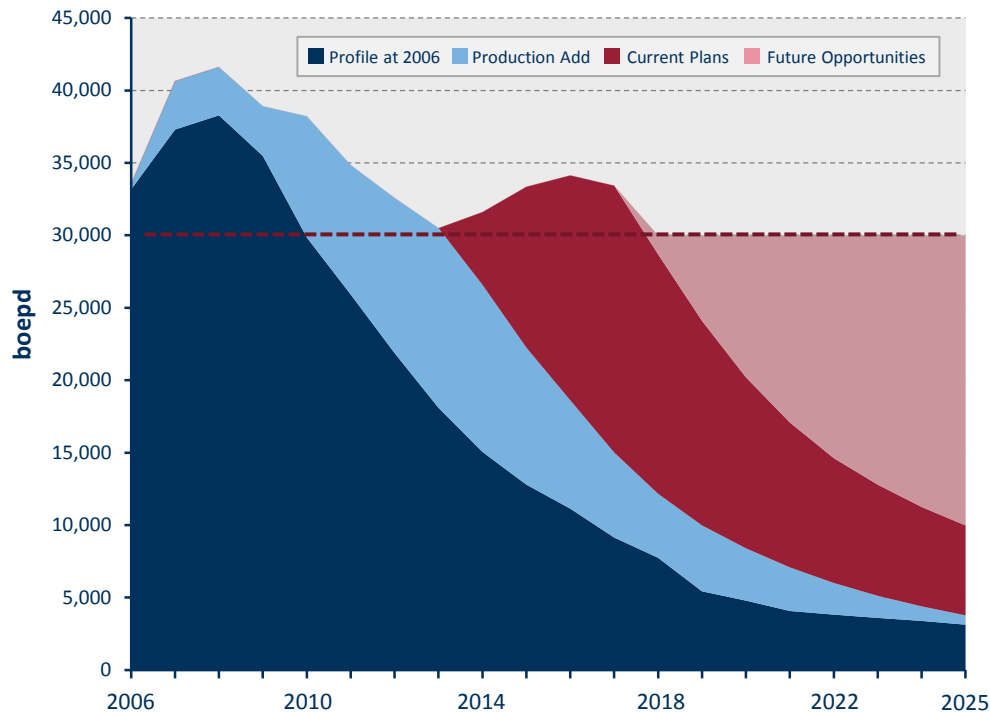
Strong in-country relationships to ensure alignment with host Governments

## Non-operated – sustaining high margin production

- Good technical work has delivered investment opportunities
- High return investments compete strongly for capital within Tullow's portfolio
- Medium term investment plans sanctioned and under way

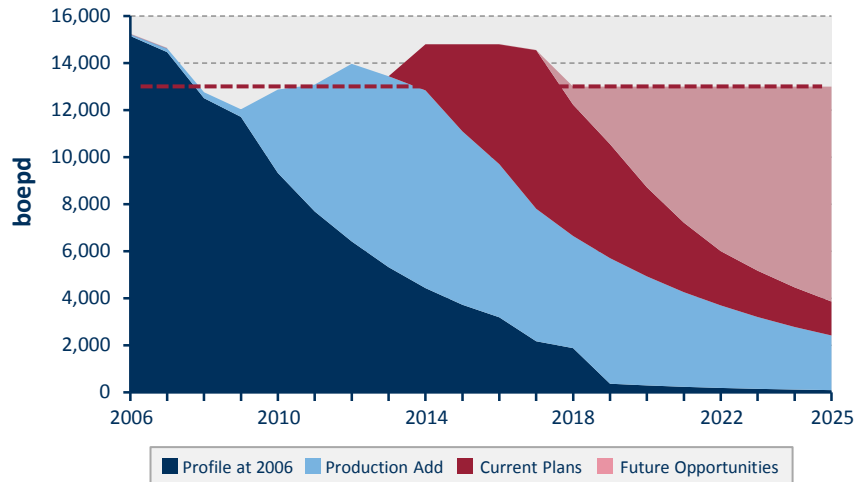
High value incremental investments can sustain net production around 30,000 boepd to 2020+

**Non-operated West Africa net production profile**



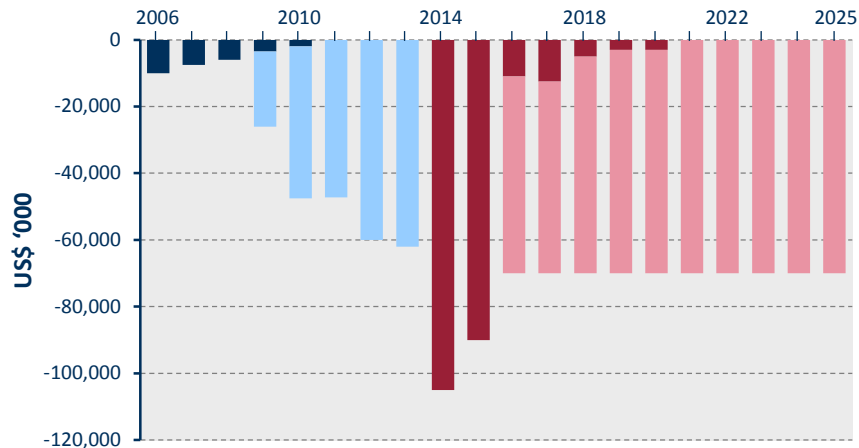
# Non-operated case study: Gabon

**Gabon net production profile**



- High value infill drilling has offset decline
- Tullow technical influence impacting Operator decisions
- Sputnik, pre-salt exploration opportunity, offers material upside potential in 2014

**Gabon net capex profile**



**c.55**

Wells  
per Year

**161%**

Reserve  
Replacement  
(last 4 years)

**0.57**

Average payback  
per well  
(years)

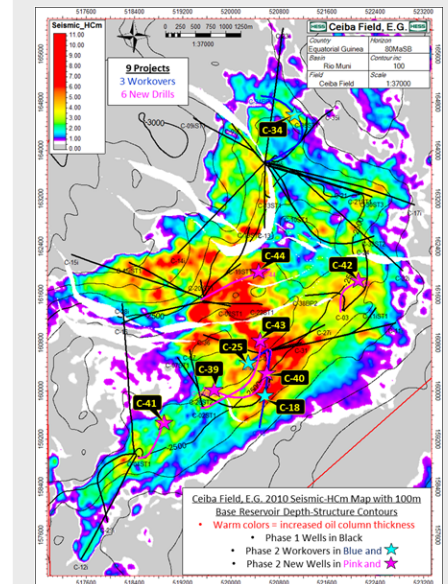
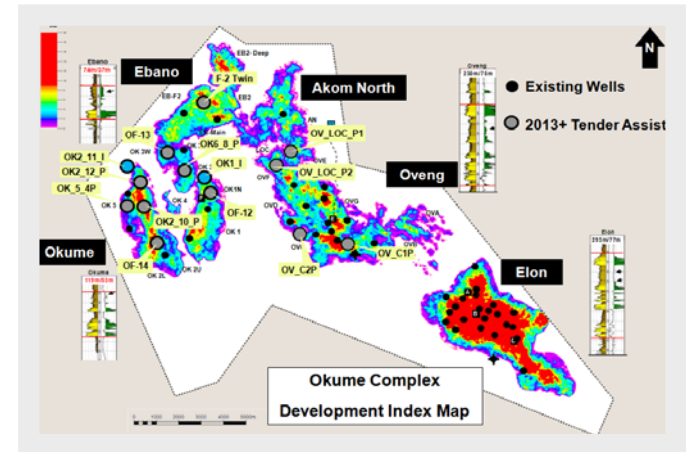
Strong reserves replacement can  
sustain net production >13,000 boepd,  
with exploration upside



# Non-operated case study: Equatorial Guinea



- Use of 4D seismic data to optimise infill drilling
  - First iteration in 2010 (learning ahead of use at Jubilee & TEN)
  - Next campaign planned for late 2014/15 (Ceiba)
- Outstanding results achieved on Ceiba
  - Initial 20,000 bopd gross flow rate from recent infill wells
- Ongoing drilling activity on Okume Complex
  - 10 well programme under way
  - 4 future wells on Elon, dependent on 4D data processing



4D seismic enabling previously unseen oil to be developed

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# GHANA OPERATED ACTIVITY



## Ghana – long-term value generation

### World class fields

Up to c.4 billion barrels of high quality oil in place, with additional gas in place of up to c.4 tcf

### Strong track record

Experienced team with strong track record of delivery through all phases of life cycle

### Visible future growth

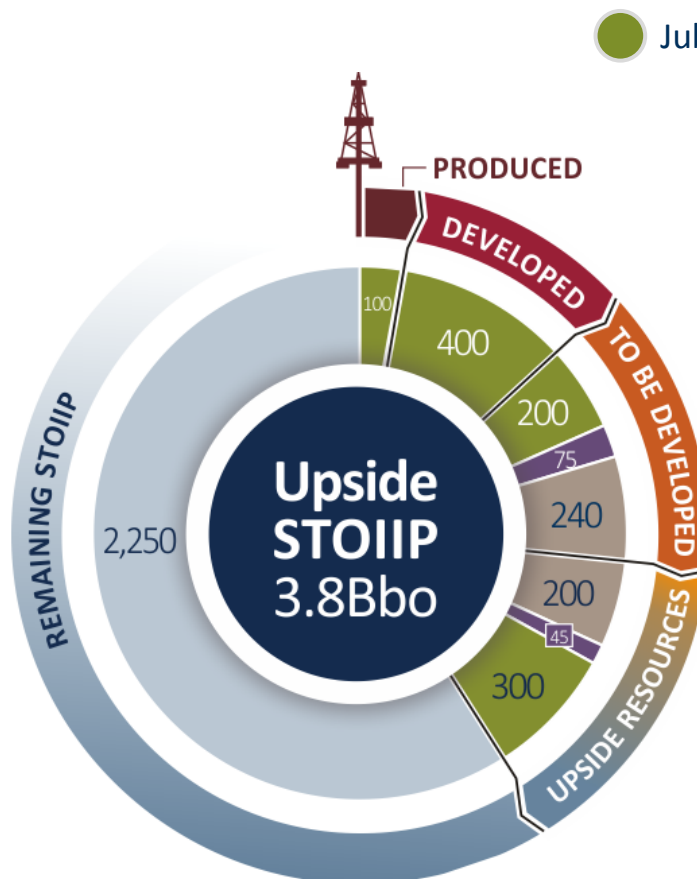
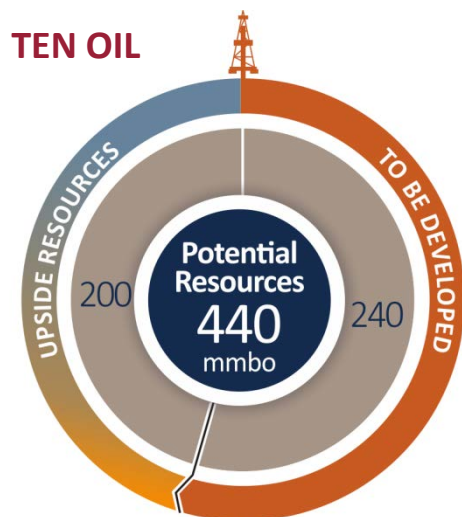
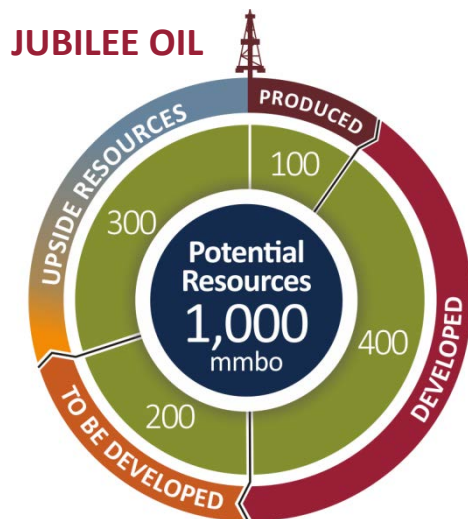
Substantial future production growth secured across portfolio of high quality investment opportunities

### Strong local relationships

Well established relationships with key stakeholders underpins long term business



# World class fields

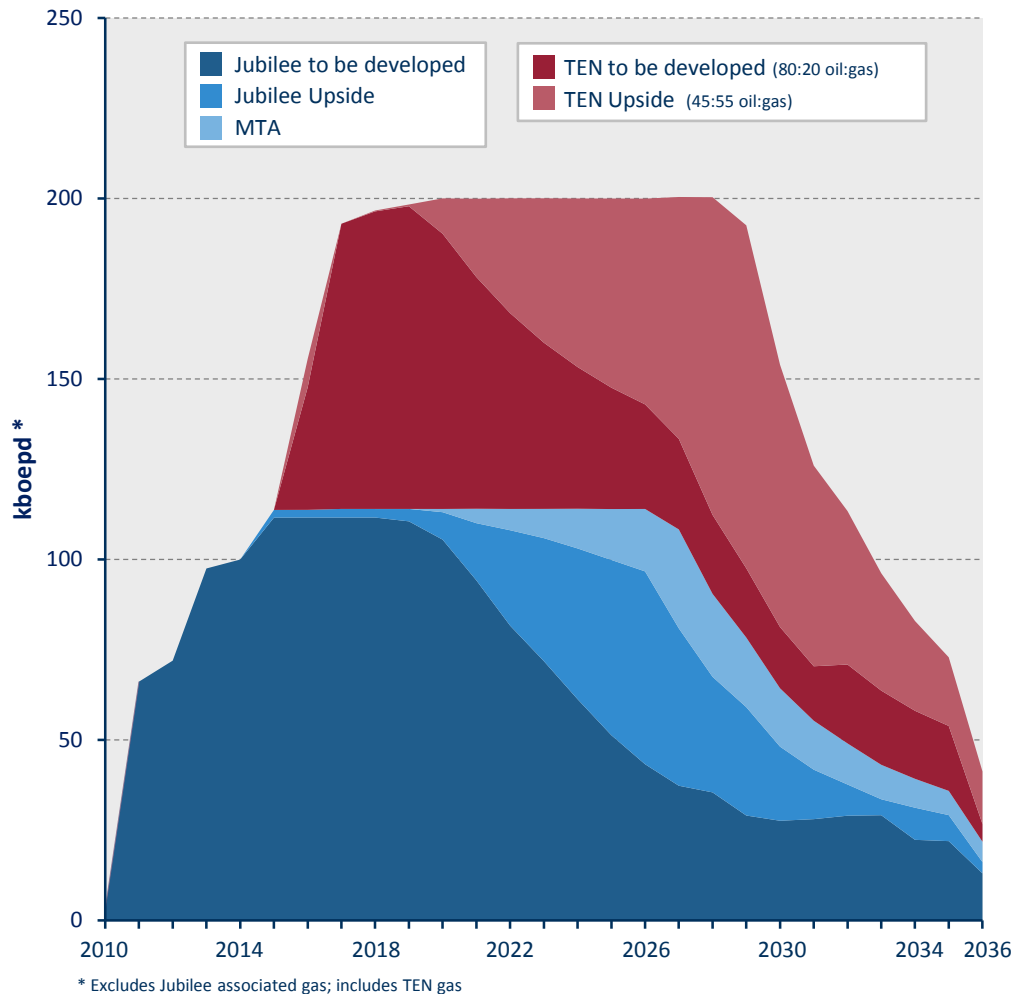


● Jubilee
 ● TEN
 ● MTA

Material resource base will drive long-term value growth

# Sustainable production and cash flow

**Ghana gross production profile**

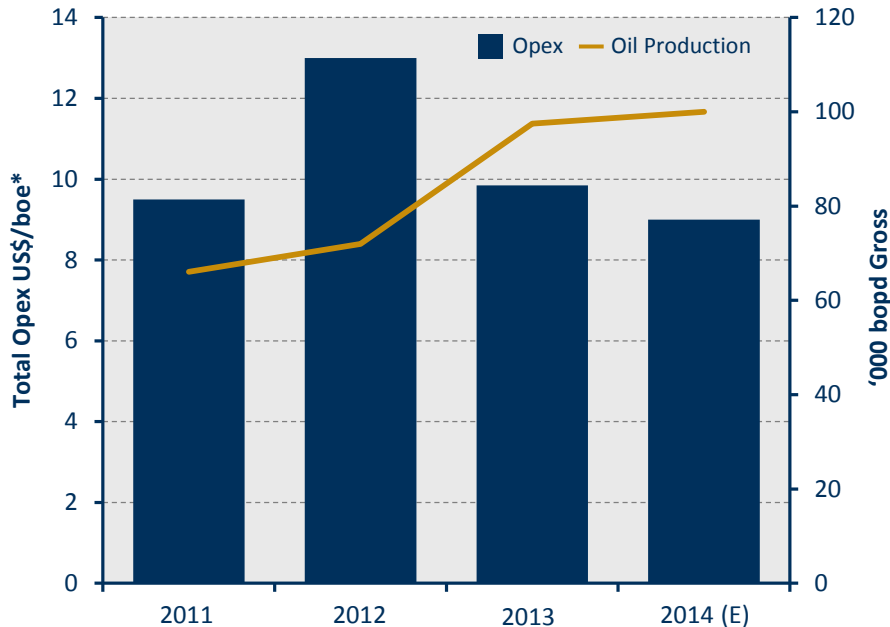


- Gross production at around 200,000 boepd beyond 2025
- c.\$2bn annual potential net pre-tax operating cash flow
- Opportunity for FPSO capacity expansion and production acceleration

World class fields with potential to sustain c.\$2bn pre-tax operating cash flow per annum

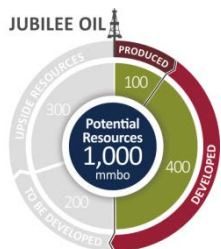
# Strong track record – Opex management

## Jubilee opex vs production



\* 2011 and 2012 includes acid jobs shown as Capex in financial statements

- Direct operating costs benchmark favourably with identified cost reduction areas
- Indirect operating costs seeing some growth ahead of TEN start-up
- Current operating costs of c.\$9/boe, has scope to reduce to <\$8/boe as production increases, efficiency improvements are delivered and TEN synergies are realised
- TEN operating costs expected to be similar to Jubilee (excluding lease)



Combined Jubilee and TEN operations offer scope for further cost reduction through synergies and efficiencies

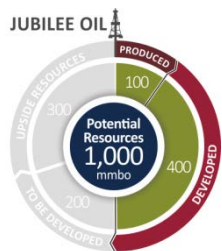
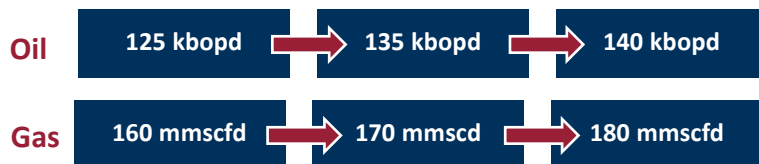
# Strong track record – potential to increase capacity

## FPSO capacity improvements

	Work completed	Work in progress	Work outstanding
<b>Oil optimisation</b>	Run down improvements Cooling optimisation	Run down improvements Cooling modifications	Pumps and exchangers
<b>Gas compression</b>	Debottlenecking	Rewheeling Dehydration optimisation	Upgrading power capacity
<b>Water injection</b>		Scale unit by-pass	

- **Current oil capacity**
  - Constrained by gas export infrastructure
  - On track to deliver 100,000 bopd in 2014
- **FPSO capacity is being upgraded**
  - FPSO tested at maximum 126,000 bopd
  - On completion of FPSO debottlenecking, oil capacity of c.140,000 bopd
  - Gas capacity being increased from 160 mmscfd to c.180 mmscfd
- **Good reservoir management will determine long term production potential**

### CAPACITY POTENTIAL



Near term opportunities to increase long-term FPSO capacity

# Visible future growth – delivering Jubilee upside



## 2P recovery

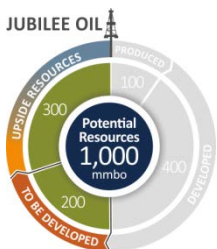
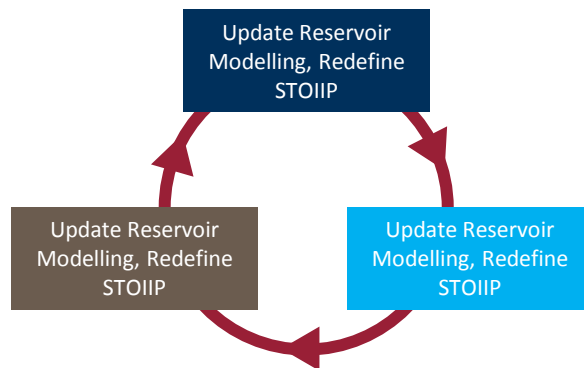
- Additional wells identified to develop remaining resources
- Further sub-sea infrastructure to be installed to extend resource reach
- Investing in technology levers to increase recovery factors

## 3P resource upside

- Process established to mature 3P upside resources to 2P

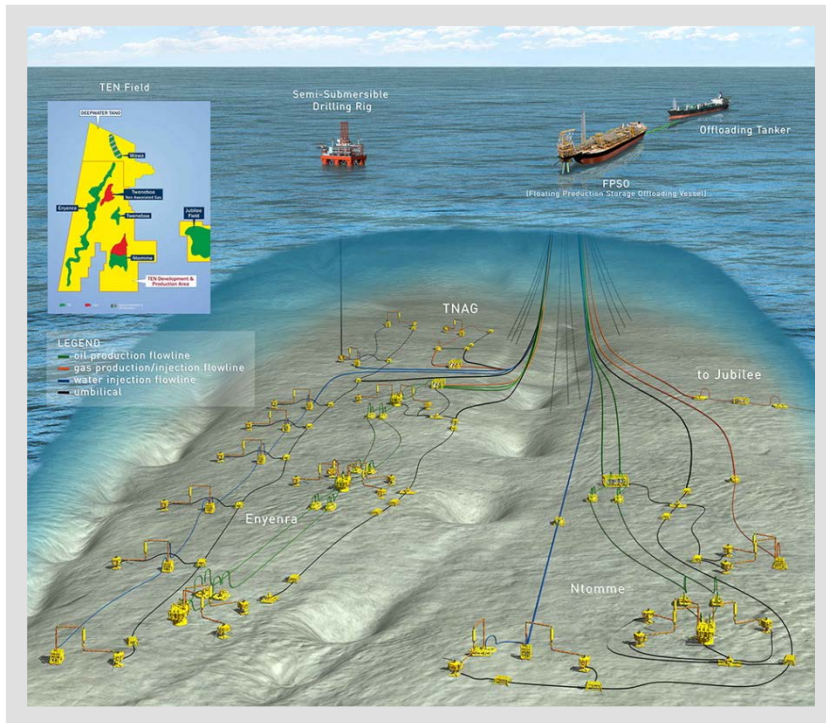
## Further upside

- Near field exploration opportunities being worked



Substantial remaining value opportunity to be delivered

# Visible future growth – TEN development overview



## Base development case

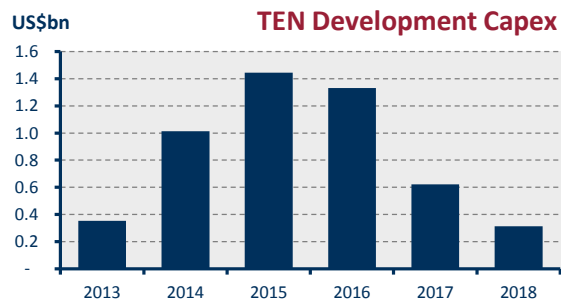
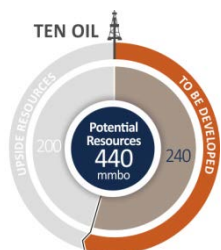
- 300 mmboe reserves being developed
- 24 well development
- Gross development capex of \$4.9 billion
- Leased FPSO, capacity of 80,000 bopd

## Mid-2016 start up

- 10 wells on stream at start up; 7 drilled to date
- Plateau production reached by end 2016
- c.\$4 billion capex spent by First Oil

## Post start up

- Drill and complete remaining 14 wells by 2018
- Initiate export of gas by mid-2017
- Focus on delivering upside resources

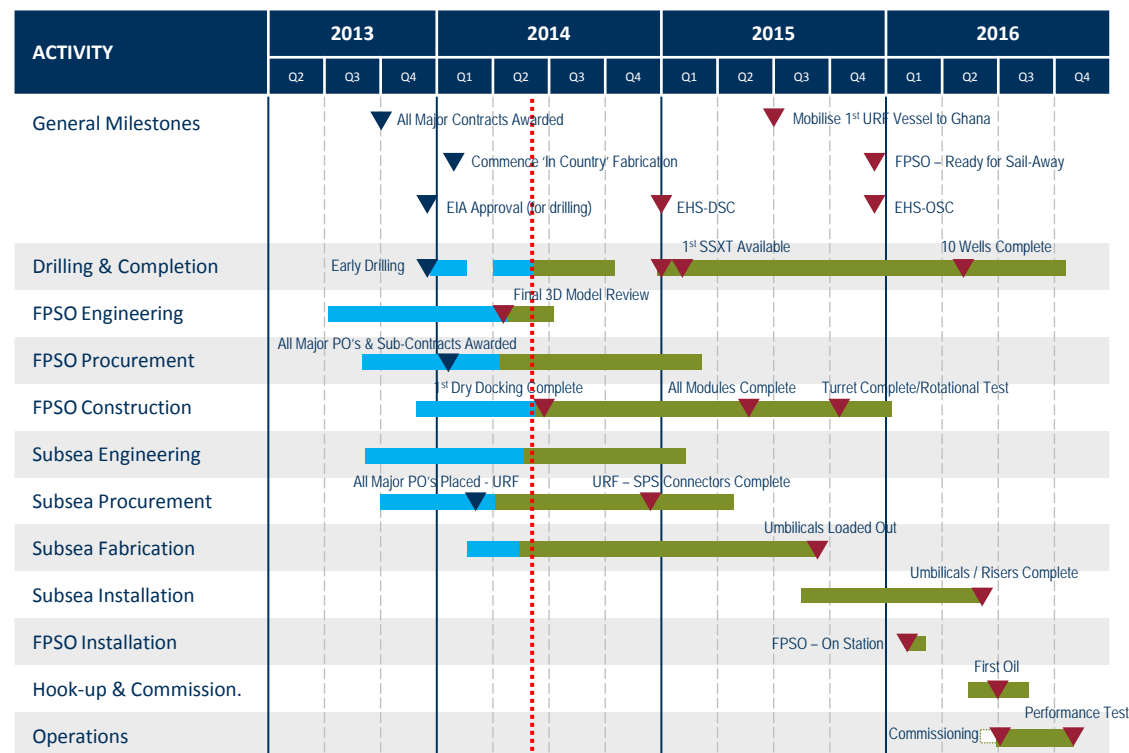


Well results to date underpin confidence in resource estimates

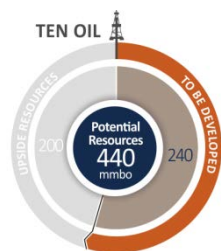


# Visible future growth - TEN Project on track

## Execution schedule with strategic milestones



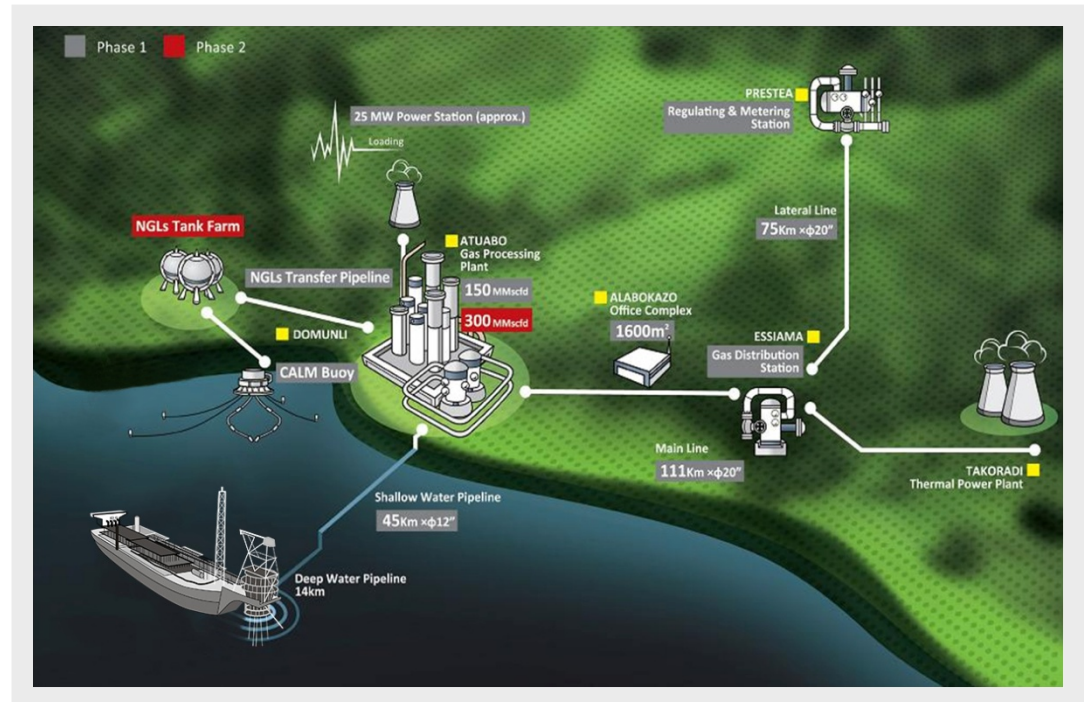
- Over 2 million man-hours worked to date
- Major contracts awarded to 'world-class' contractors with West Africa experience
- Tullow delivery teams staffed and in place
- All permits in place for installation works, beginning in 2015
- Project progress to date on track; expect progress to be c.50% by end of 2014



Project remains on schedule and within budget

# Visible future growth – monetising gas resources in Ghana

- Up to c.4 tcf gross potential gas resource to be monetised
- GNGC gas infrastructure project creates sufficient capacity to take Jubilee and TEN gas
- Expected completion in Q4 2014
- Future value opportunity as domestic/regional gas market develops



Ghana's growing energy demand can unlock value from large gas resource

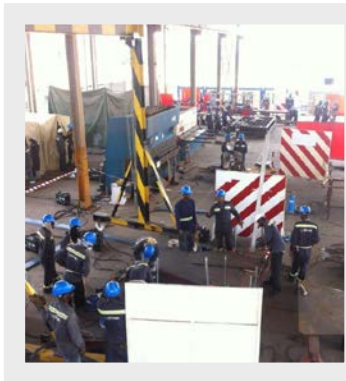
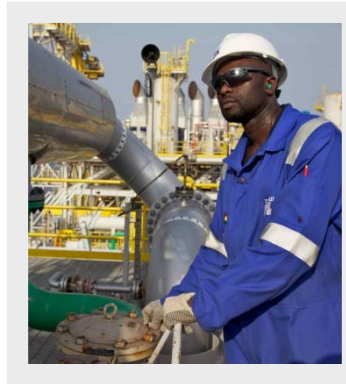
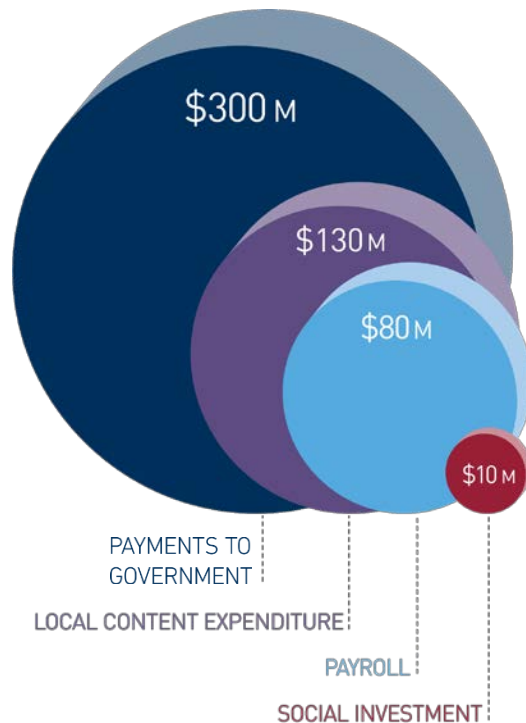


# Strong local relationships



**2013**

## Socio-economic contribution



- **Employment:**

- 266 Ghanaians employed, 87% of permanent staff

- **Procurement:**

- \$438 million spent with 740 local companies 2010-2013
- ~50% of total 2013 spend with local companies and international businesses registered in Ghana

- **Capacity development:**

- 120 scholarships 2011-14
- \$5 million in Jubilee Technical Training Centre
- \$5 million in Enterprise Development Centre

- **Social investment:**

- Jubilee Livelihood Enhancement and Enterprise Development Project, >1,400 people sponsored

- **Payments to Government:**

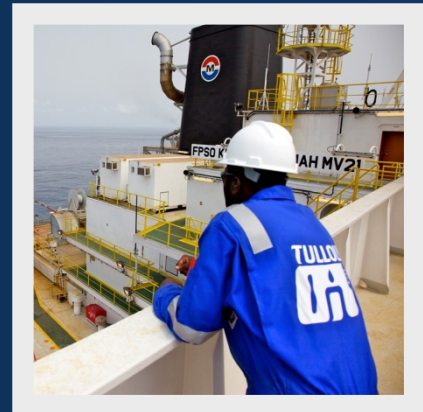
- \$443 million 2012-13

**TEN Project will significantly enhance Tullow's socio-economic contribution to Ghana**

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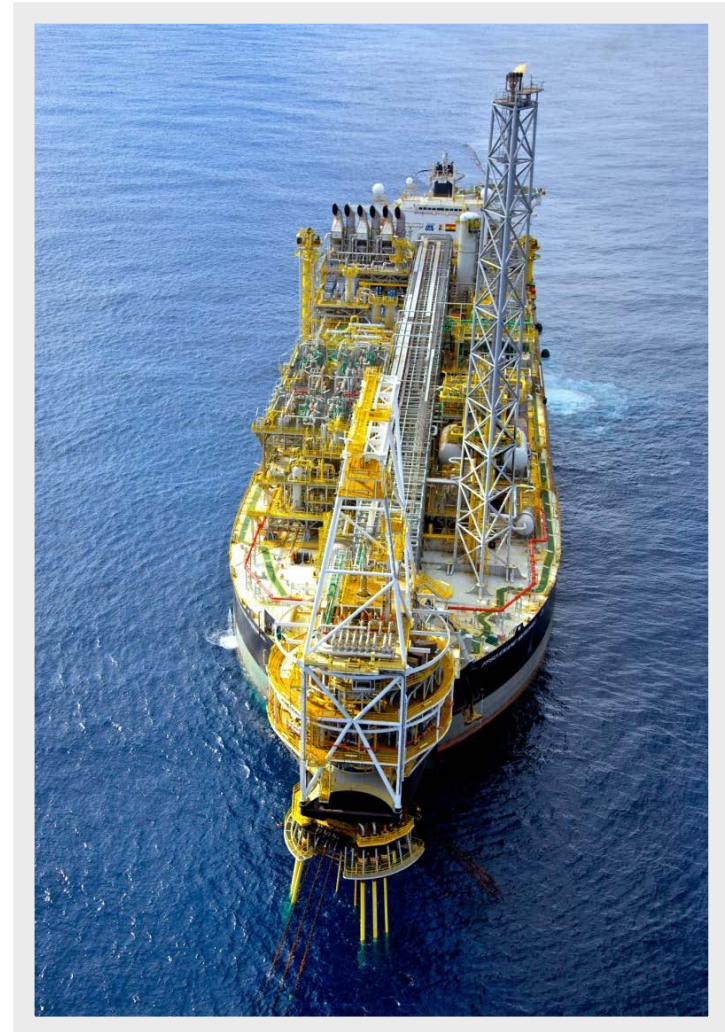
# CONCLUSION





## Investment highlights

- Material business with potential to generate over \$2.5bn per annum of pre-tax operating cash flow
- Rising production base to over 100,000 boepd by 2017; significant future value growth
- Balanced fiscal regimes which encourage investment
- Strong relationships with key stakeholders
- Deep regional experience and footprint





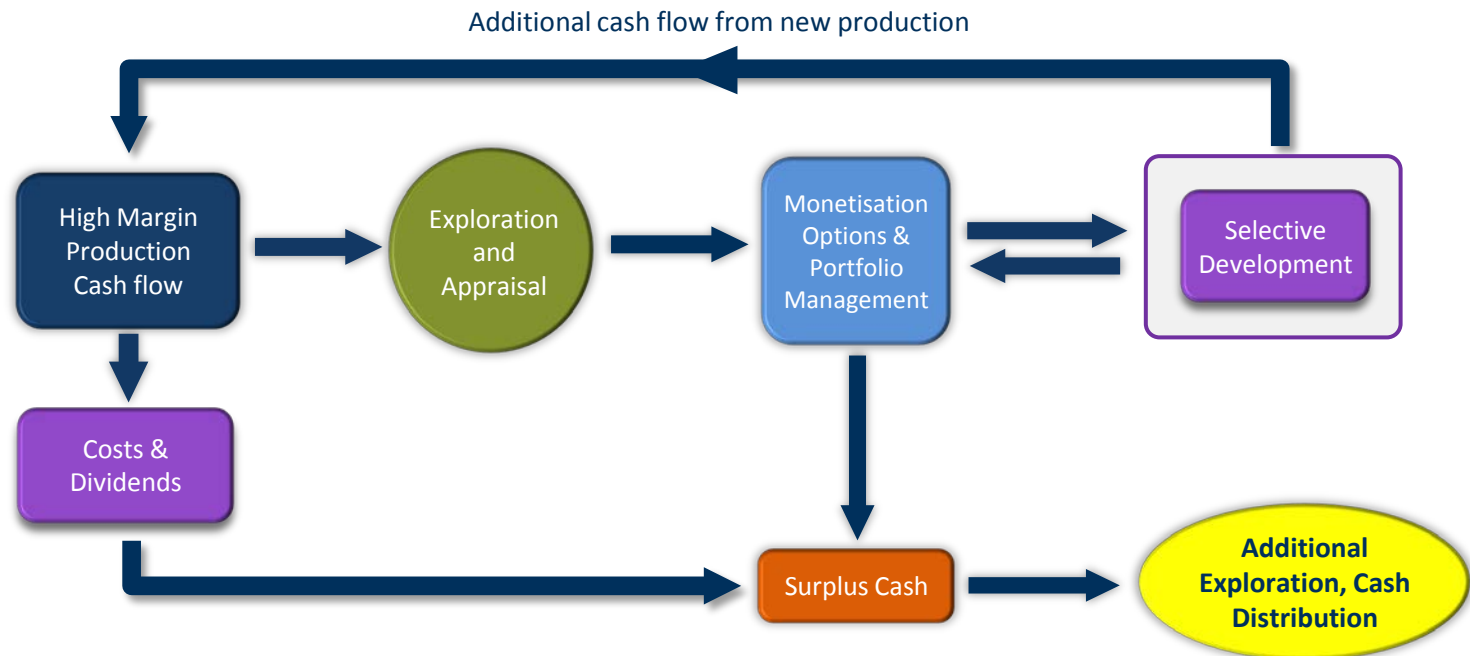
# EAST AFRICA BUSINESS

Gary Thompson





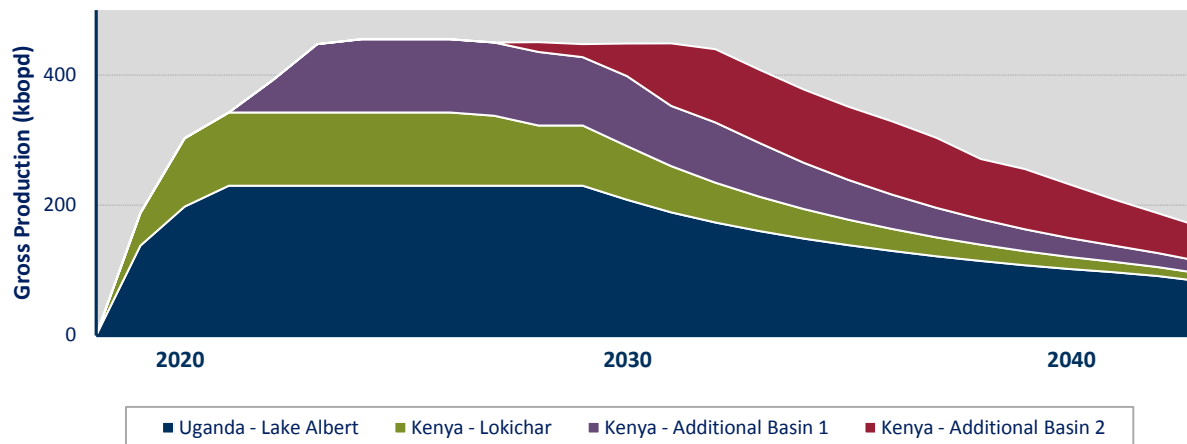
# Our strategy



- Material cash flow generation and development upside from West Africa
- **New oil province potential in East Africa delivering significant future resource growth**
- Industry leading exploration portfolio in Africa and Atlantic Margins
- Strong balance sheet provides foundations to deliver long term value to shareholders

# Investment highlights

- Full life cycle regional scale E&P business
- Two basins discovered with over 300,000 bopd potential
- Large yet-to-find upside from basin opening exploration campaign
- Governments and partners aligned for earliest possible first oil
- Good progress on Uganda and Kenya developments including pipeline



## East Africa Business

3

Countries

9

Licences

10+

Years experience

90,000

Sq Km  
Acreage

2.3 Bbo

Discovered  
Resources (Gross)

1 to 5 Bbo

Risked Yet to Find  
Resources (gross)

# Creating a material value regional oil business

## Major resources – A new oil province

Two major oil basins already discovered with large upside potential to be tested across 12+ basins;  
Multi basin opening exploration focus

## Leading regional position

Significant mainly operated, regional equity position with full cycle E&P business opportunities

## Developing discovered resources

Commercial volumes established; Multi basin opening exploration focus; Material production potential over 300,000 bopd gross

## Execution capability

Tullow has significant onshore operated experience; Uganda learnings effectively leveraged to accelerate Kenya and Ethiopia campaigns

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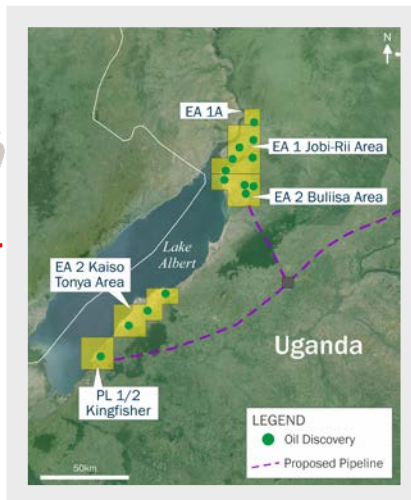
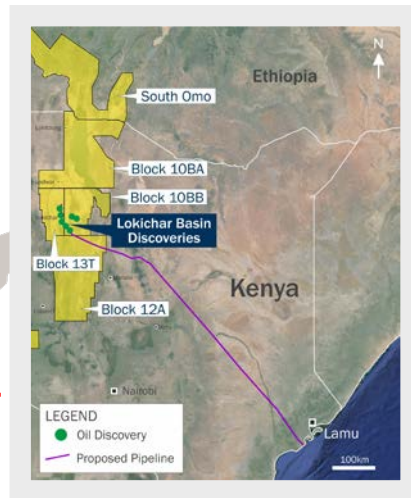
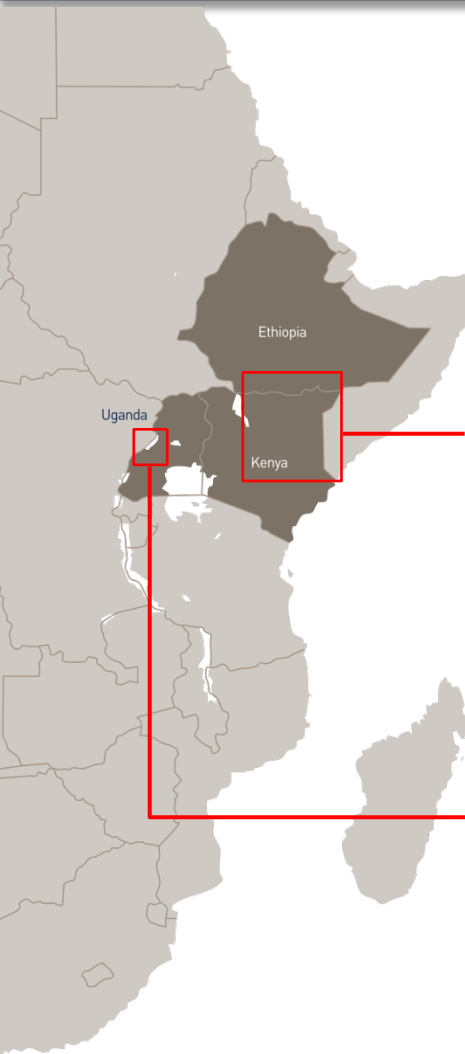
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# A NEW OIL PROVINCE



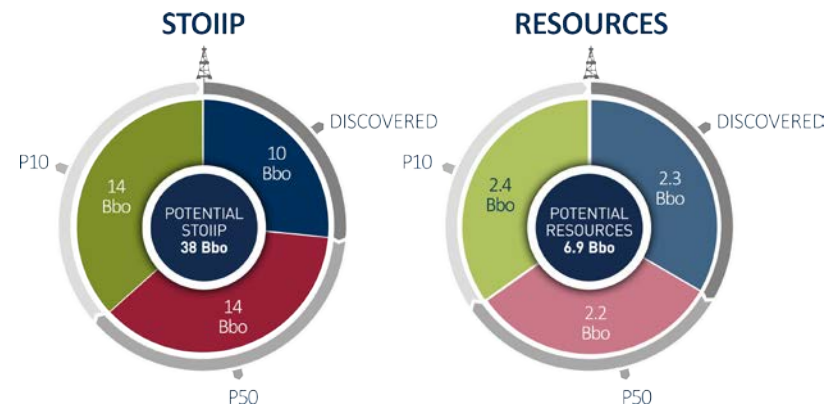


# Major oil resources discovered



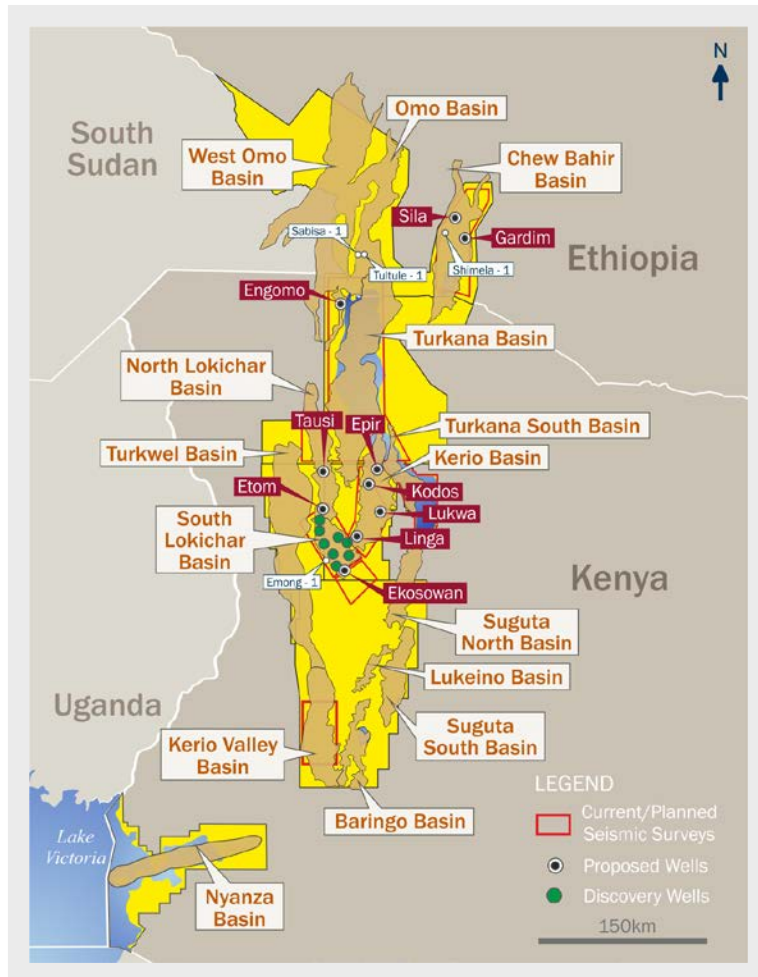
## Potential new oil province

- Prospective acreage covers 12+ basins
- Two established as major oil basins
  - Lake Albert
  - South Lokichar
- Significant resources discovered
  - Large yet to find upside
- Expect to test nine new basins by end 2015



World class asset base – early in value cycle

# Exploring Kenya & Ethiopia's significant resource potential

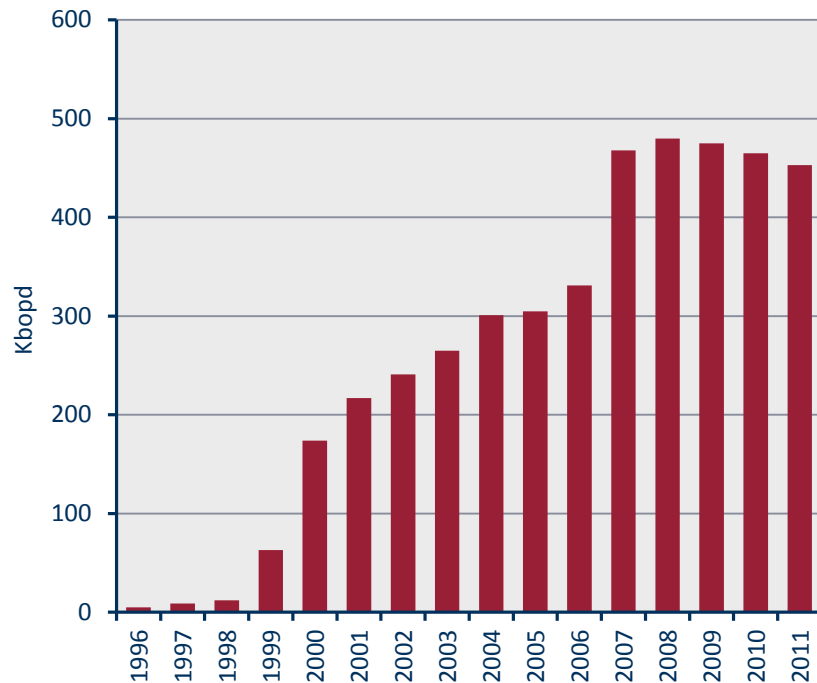


The following basins will be tested in 2014/2015	Date
Chew Bahir South Basin: Gardim	In progress
North Kerio Basin: Kodos	3Q 2014
Turkana Central Basin: Epir	3Q 2014
Turkana North Basin: Engomo	4Q 2014
North Lokichar Basin	1H 2015
Kerio Valley Basin	1H 2015
Nyanza Trough	2H 2015
Kerio South Basin	2H 2015
South Omo Basin	2H 2015

Nine basin opening wells to be drilled by end of 2015

## Case Study: Sudan analogue

### Sudan Production



### Milestones

- 1995: Block 6 relicenced to CNPC
- 1996: Early production scheme (c.5mbd)
- 1997: Greater Nile Blocks and Block 5A relicenced – path open to development
- 1999: Greater Nile project & export pipeline
- 2003: Block 6 to Khartoum Refinery pipeline
- 2006: Melut Basin project & export pipeline

Tullow's East Africa position potentially similar in scale to Sudan

**4**

Basins

**5**

Billion Barrels

**3**

Pipelines

**>400**

kbpd

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# LEADING REGIONAL POSITION





## Building scale, equity, opportunity and value



- First mover access to major frontier acreage in Uganda
- Perseverance and resilience
  - First discovery 2006 & major discoveries 2008+
- Built on Tullow's initial Uganda position
  - Acquisitions and farmouts realise value & strengthen partnership
- Leveraged Tullow East African Rift know how
  - Secured low cost operated entry into Kenya & Ethiopia 2010
  - Initial Kenya oil discovery in 2012
  - Further exploration & appraisal success 2013+

Purposefully built position in East African onshore Tertiary Rift Basins

# Material full cycle E&P business established

## Access & Explore

Regional exploration & appraisal success – 87% at \$1.95/bbl.  
Leveraged to multi basin opening exploration & upside value.

## Appraise

Successful Ugandan appraisal - 1.7 Bbo; \$2.9 bn monetised by farmout.  
Leveraging Uganda expertise to accelerate Kenya appraisal & value build.

## Develop & Execute

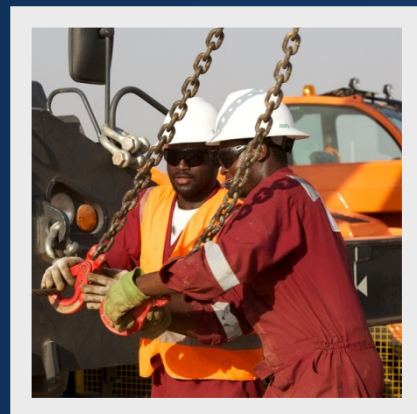
Optimisation and significant cost reductions - \$3 bn; Project value enhanced.  
Leveraging capability to accelerate Kenya development studies.  
Options to partially divest and monetise project value before execution.

## Produce

New future core production business.  
Regional synergies and shared infrastructure enhancing value.



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**DEVELOPING  
DISCOVERED  
RESOURCES**



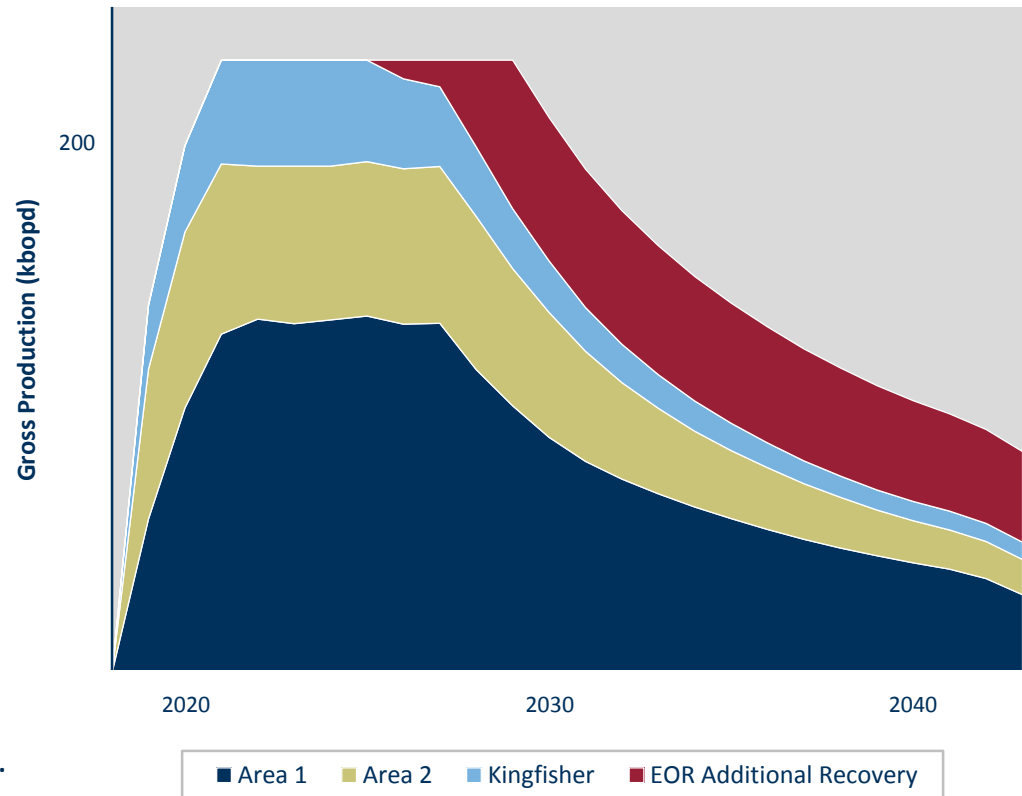
## Uganda – development status

### Project definition being finalised

- Appraisal programme completed
- Development costs reduced by 30%
- Kingfisher PL awarded, all EA2 Field Development plans submitted to GoU , remaining EA1 plans to be submitted between June and December 2014.
- Enhanced oil recovery (EOR) being worked

### MoU underpins basis of development

- MoU provides agreement on export pipeline and local refinery initially 30,000 bopd
- Regional export pipeline being progressed.



Focus on enhancing project value and regional synergies

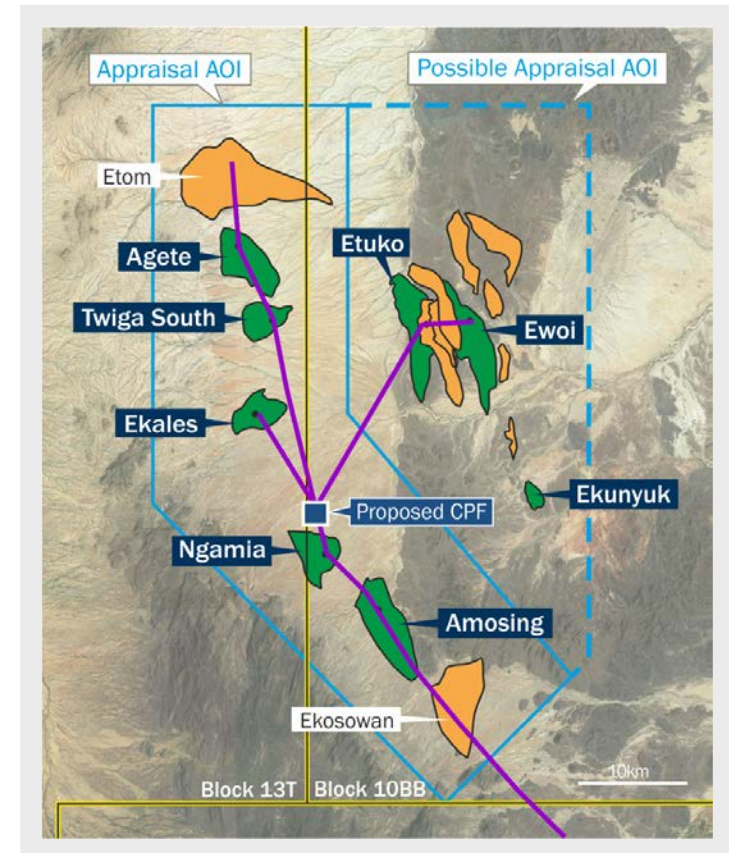
# Kenya development plans rapidly advancing

## Explore, appraise and develop simultaneously

- Exploration and appraisal drill out by end 2015
  - 600 mmbo Pmean gross resources discovered to date
- Appraisal Area of Interest (AOI) established
- Extended well tests being planned
- Development plan for discovered resources by end 2015
  - Targeting c.100,000 bopd gross
- Social & environmental baseline surveys under way
- Parallel basin opening exploration campaign
  - Potential for subsequent development phases

## Shortening timeline to first oil

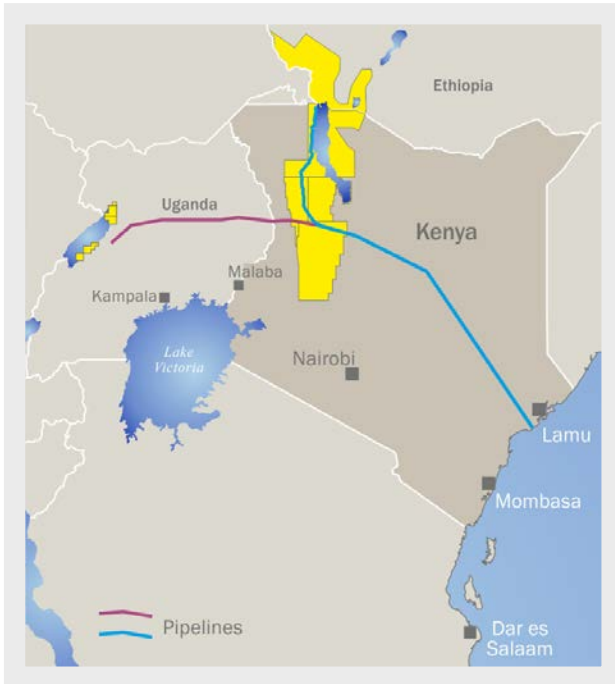
- Government aligned on early first oil ambitions
- Leveraging Uganda experience to accelerate activities
- Targeting end 2015/2016 FID



Rapid progress being made towards commercialisation



## Regional crude oil export pipelines



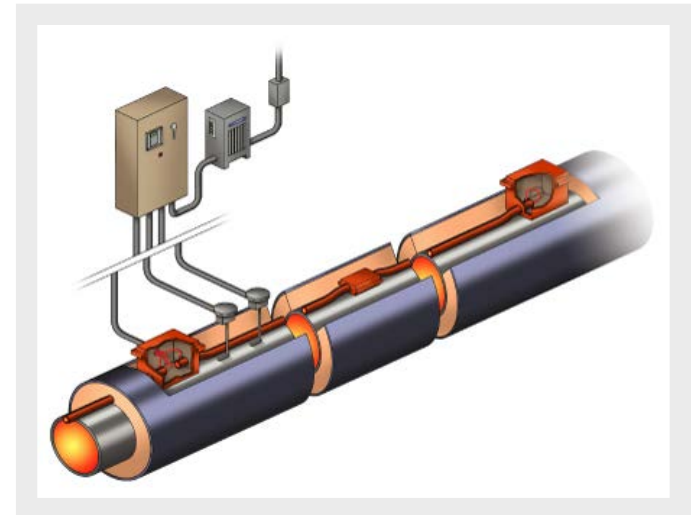
- Regional pipeline agreed
  - Governments across region supportive
- Significant progress on technical design
  - Routing and environmental screening completed
  - Conceptual design studies completed
    - Buried pipeline
    - Flow assurance heating technology identified
    - Offshore loading system concept designs complete
  - Pre-FEED substantially progressed
  - Current costs estimated at c.\$4.5 bn
- Structuring of pipeline companies being addressed
  - Tariffs and commercial structures being progressed



Export pipelines will unlock value of regions oil

# Marketing and transporting high quality crude oil

- Ultra low sulphur, intermediate API gravity
  - Comparable to Minas, Cabinda
- Very low level of impurities
  - TAN, nitrogen, metals etc
- High proportions of Distillates and VGO
  - Highest unit value cuts
- Transportation logistics well understood for high pour point crudes, access to markets East and West



High quality crude oil, broad market access, strong price outlook

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East Africa Business  
**EXECUTION  
CAPABILITY**



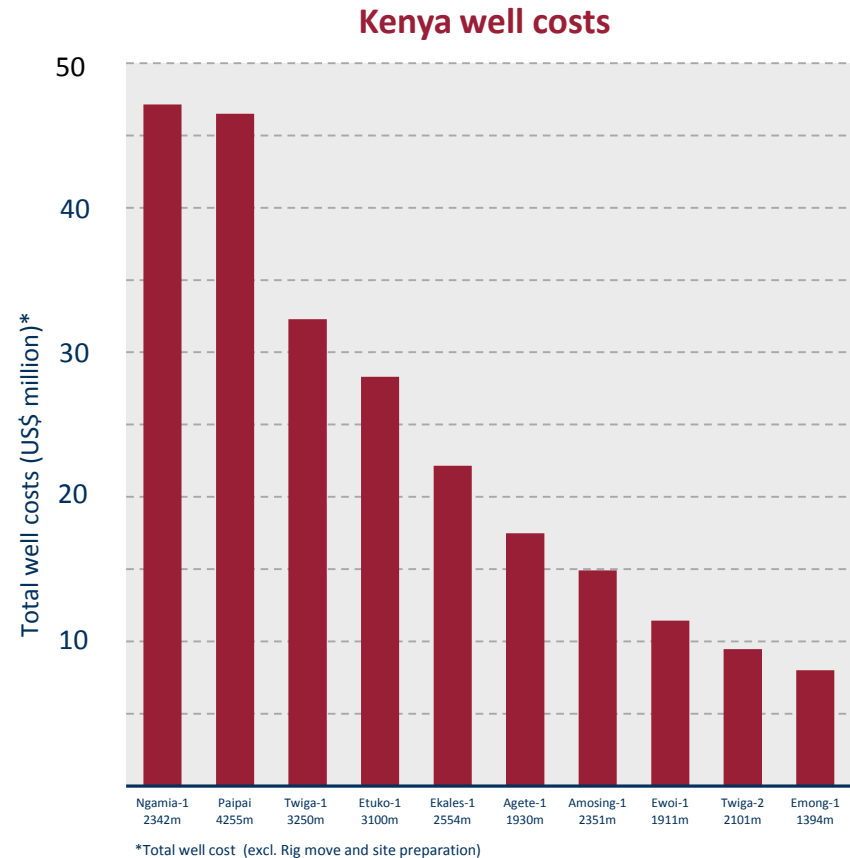
# Exploration operations capability

## Since 2004

- 104 exploration and appraisal wells & sidetracks - 77 as operator
- 40 wells tested both production & injection
- 57,700 sq km of FTG surveys – all as operator
- 12,362 km 2D seismic & 2,152 sq km 3D seismic

## Significant savings based on experience

- Transferring learnings on well design and execution across region
- Driving down exploration drilling costs & further reductions targeted
- Reducing rig move time and cost



Tullow most experienced explorer of Tertiary Rift Basins in Africa

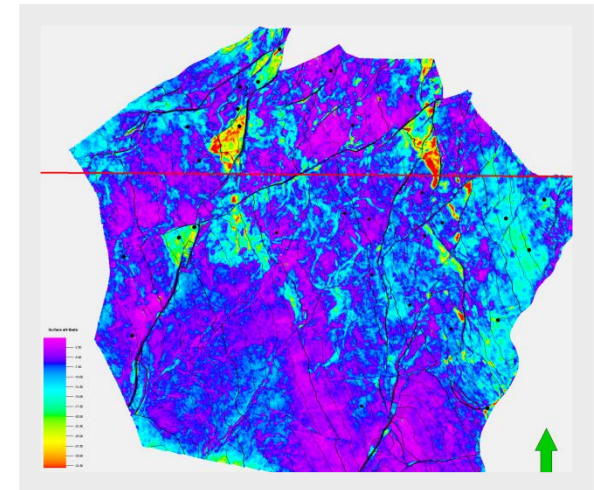
# Effective appraisal capability



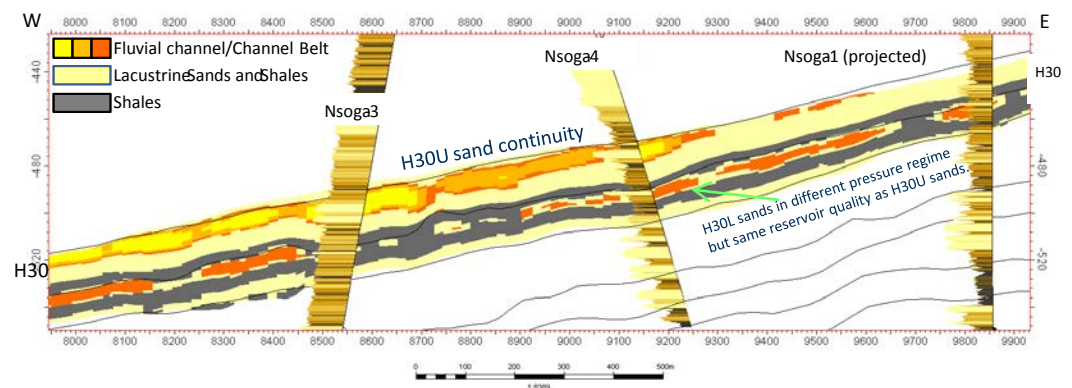
## Uganda – Buliisa example

- Two 3D surveys (649 sq km); 30 appraisal wells & sidetracks; well tests on 25 wells
- Production and interference testing, water injection, injection of viscosified water
- Horizontal well successfully drilled and tested
- High quality 3D seismic with excellent imaging
- Seismic attributes indicate hydrocarbon-filled, sand-rich bodies - proved by wells
- Development wells now placed with high confidence leading to higher resources and a lower well count

3D - Attributes



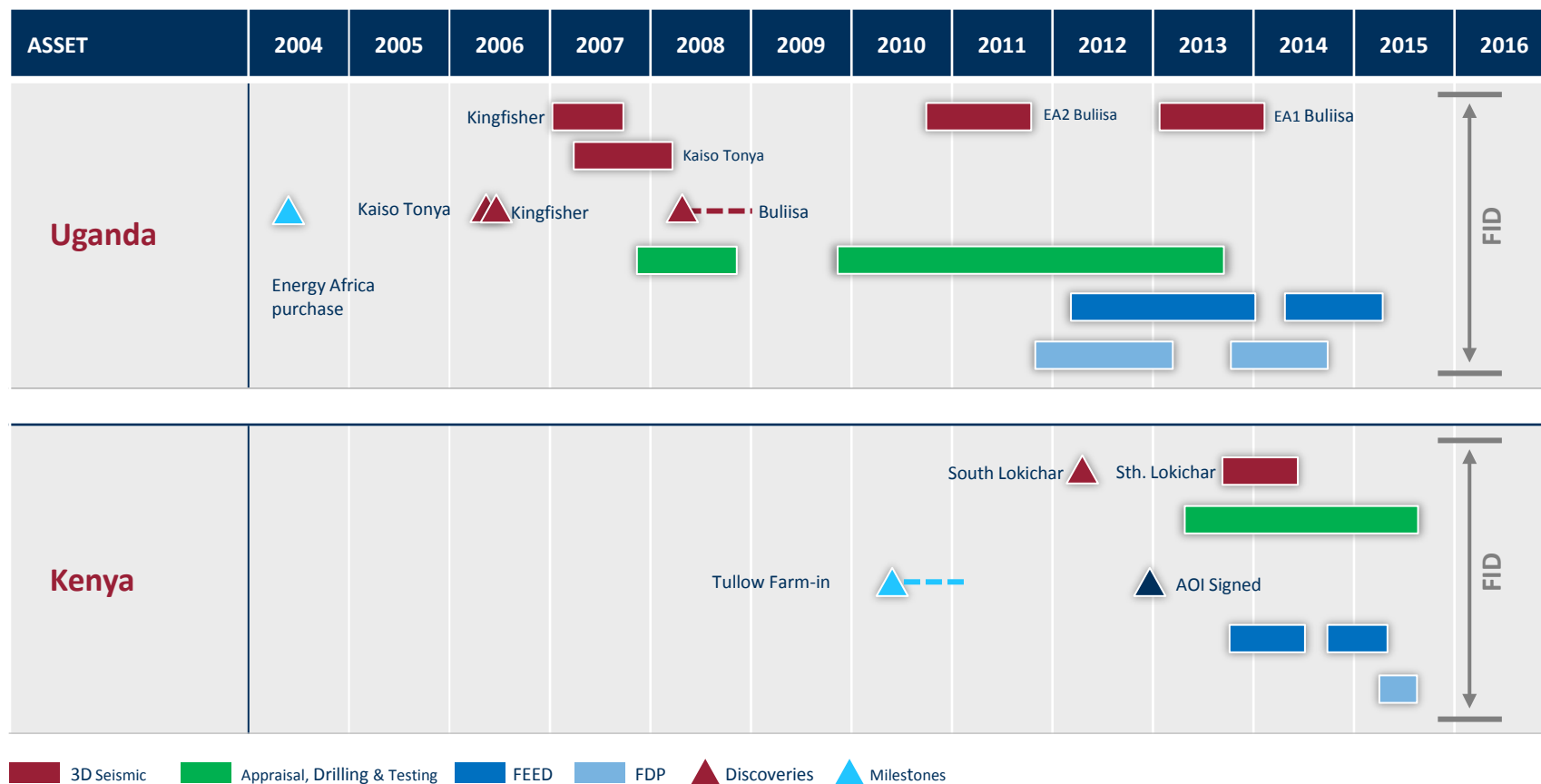
Nsoga 3 & 4 well placement



Appraisal learnings being applied in Kenya



# Shortening appraisal timelines



Kenya and Uganda FID can be delivered together by mid-2016

# Executing developments in East Africa

## Ugandan and Kenyan discoveries have much in common

Good quality waxy, high viscosity crude

Reservoir rocks highly permeable

Reservoir energy low with little aquifer support or associated gas

Sensitive environments

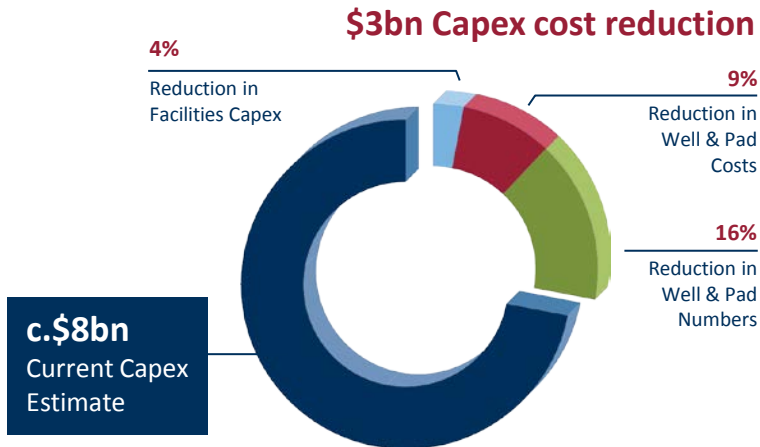


## Similar development concepts

- High angle/horizontal wells. Artificial lift to maximise productivity and minimise well numbers
- Water injection to maintain reservoir pressures. Potential for polymer injection to enhance recovery.
- Wells grouped and drilled from well pads to minimise land requirements & environmental and social impacts.
- Well pads linked to Central Processing Facilities (CPF) by buried flowlines.
- Separation of produced water at CPF with water treated and reinjected
- Pumping of stabilised crude oil from CPF to market via heated buried crude oil pipeline.

Uganda development learnings transferable to Kenya

# Uganda development optimisation and Capex savings

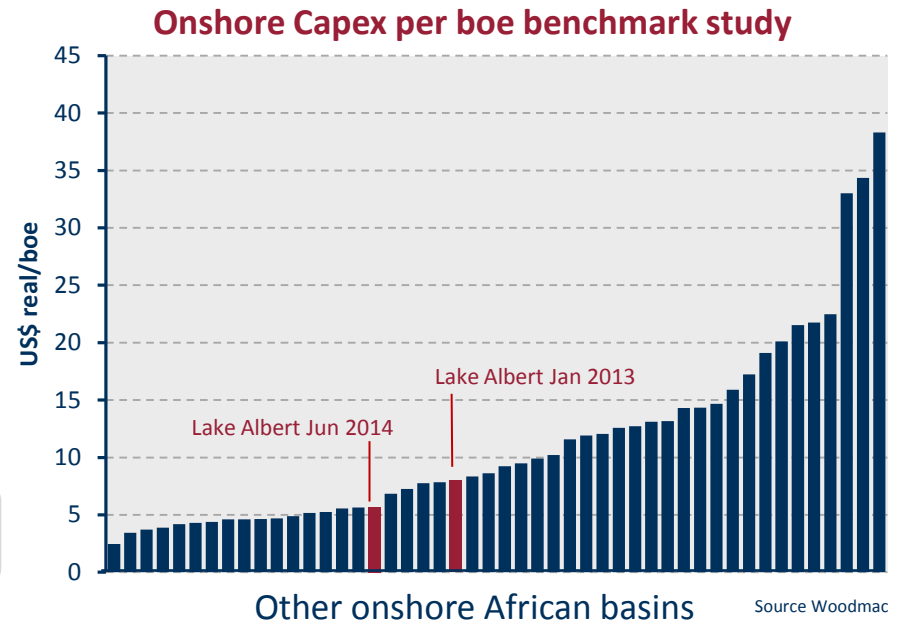


## Capex reductions

- Wells executed to standardised repeatable designs
- Well designs minimise pad numbers
- Purpose built rigs and pads minimise drilling, completion and rig move times
- Facilities costs reduced by redesign of process, reduction in flowline lengths & sharing of facilities

**Further Capex reductions targeted**

- Development optimisation and Capex reduction programme in 2013/14
- Capex reduced from c.\$11bn to c.\$8bn
  - Tullow's c.\$6/bbl competitive with benchmarks
- Further Capex reductions targeted
- 60% of life of project Capex pre first oil
  - Tullow's share \$1.6 bn at current equity



# Management of surface risks

## Local Content

- Integrated into core business
- Local Content Task Force
- Strengthening supplier development & contractor management
- Created Local Content Contractors forum
- Special projects – innovative, cross functional, flexible



## Social Performance

- Established SP functions – land access & water capability
- Robust EHSIA strategy
- Strengthening contractor management
- Community consultation & communications programme
- Established community resource offices in major towns
- Social investment integrated into broader benefits strategy



## Stakeholder Engagement

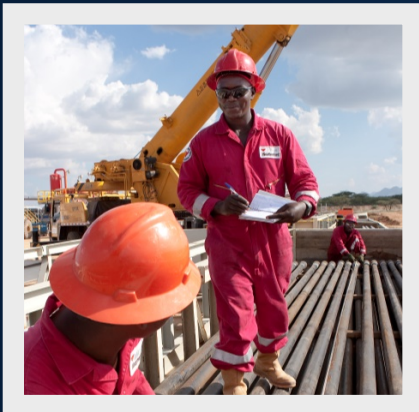
- Mapping & engagement frameworks in place
- Issues driven approach from National and County level to project affected areas



## Our People (HR & Employment)

- Focus on capacity building
- Stronger HR oversight of contractors
- Clear local employment guidelines
- Manpower planning underway – vocational training provision





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East Africa Business

# CONCLUSION





## East Africa Business key messages

Full life cycle regional scale E&P business

Two basins discovered with over 300,000 bopd potential

Large yet-to-find upside from basin opening exploration campaign

Tullow has the people & capability to successfully deliver the East Africa Business Unit

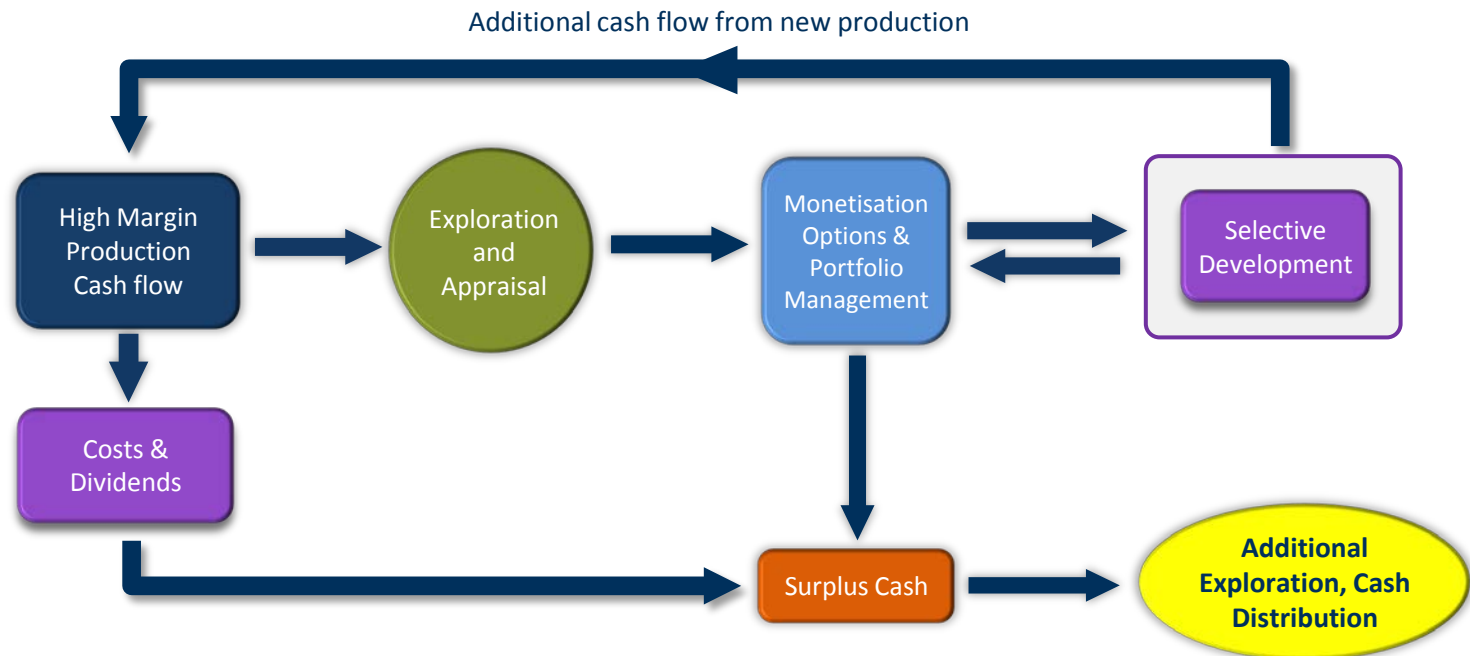


# EXPLORATION

Ian Cloke



# Our strategy



- Material cash flow generation and development upside from West Africa
- New oil province potential in East Africa delivering significant future resource growth
- **Industry leading exploration portfolio in Africa and Atlantic Margins**
- Strong balance sheet provides foundations to deliver long term value to shareholders

# Structured to continue strong exploration performance

## 2007-2013

**1.4**

**Billion boe**

Discovered resource

**\$3.3**

**/boe**

Finding costs\*

**210**

E&A Team

**5**

Basins opened

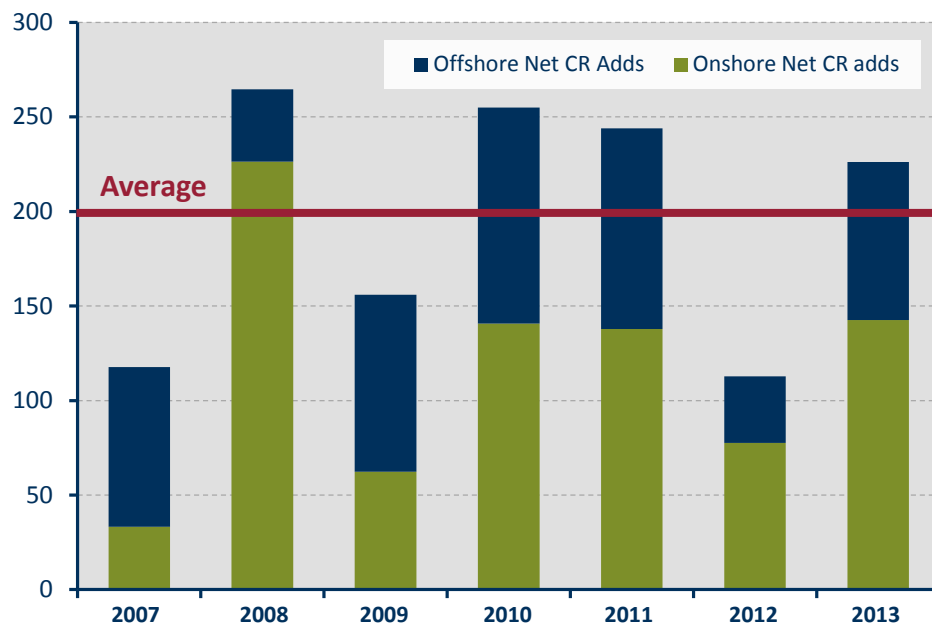
**770%**

Production Replacement

**330,000**

Sq km gross acreage

## Net Contingent Resource Additions mmboe / year



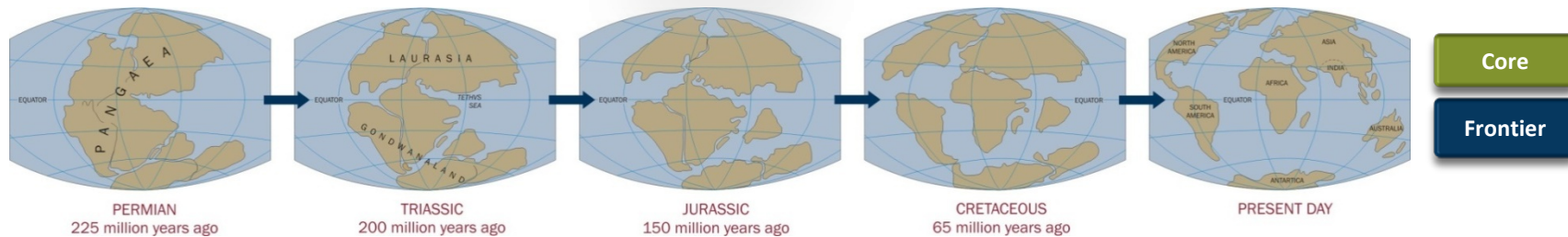
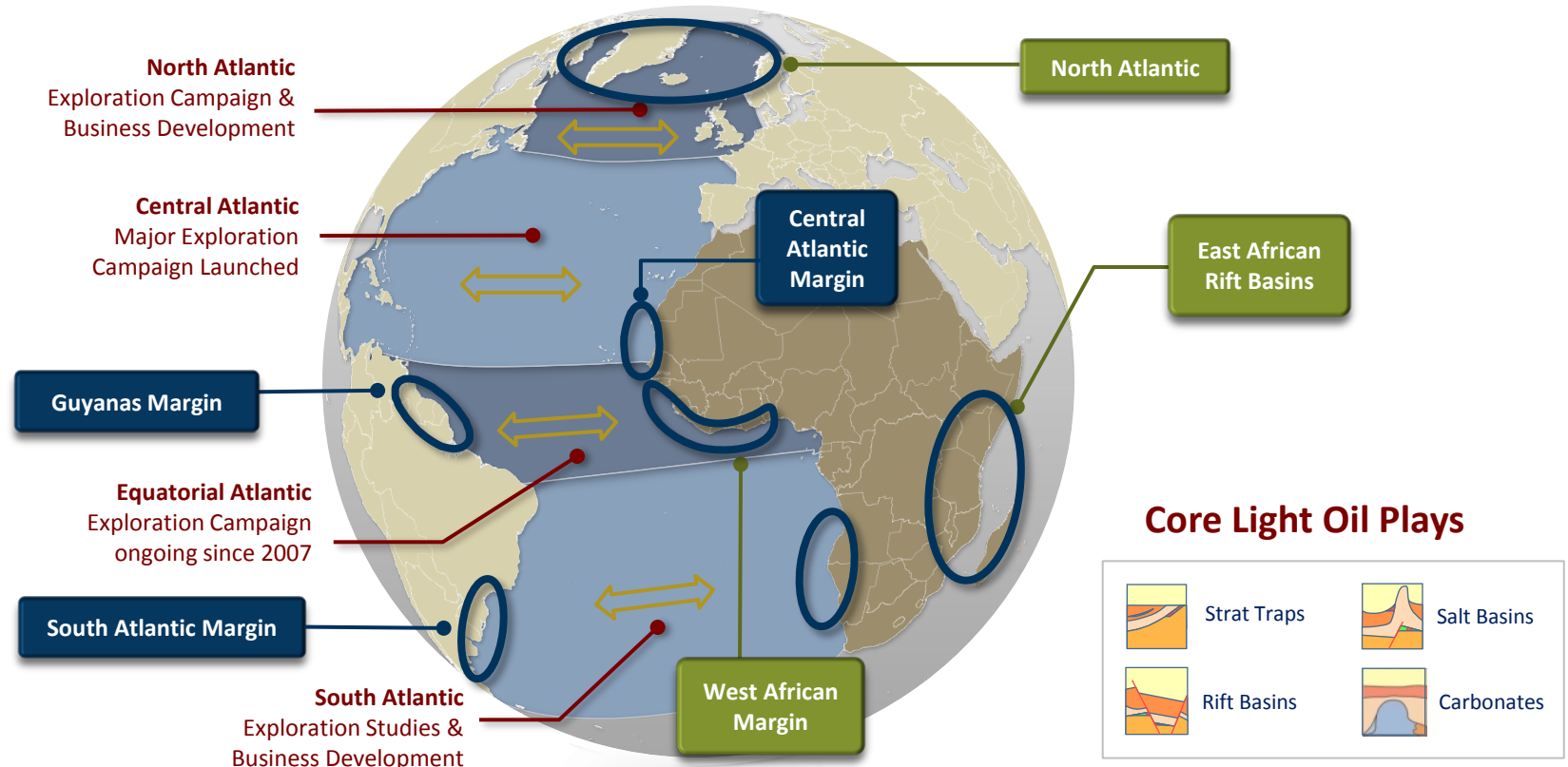
- We found & continue to find our own oil
- Cost-effective feedstock for value creation
- Campaign approach hedges annual variability
- E&A investment managed to maximise value
- Our process works

**Industry recognised leading oil finder**

\*Finding costs: \$3.3/boe (2007-2013), \$4.4/boe (2013). Full pre-FID expenditures / audited Contingent Resource adds & revs (excl. acquisitions)

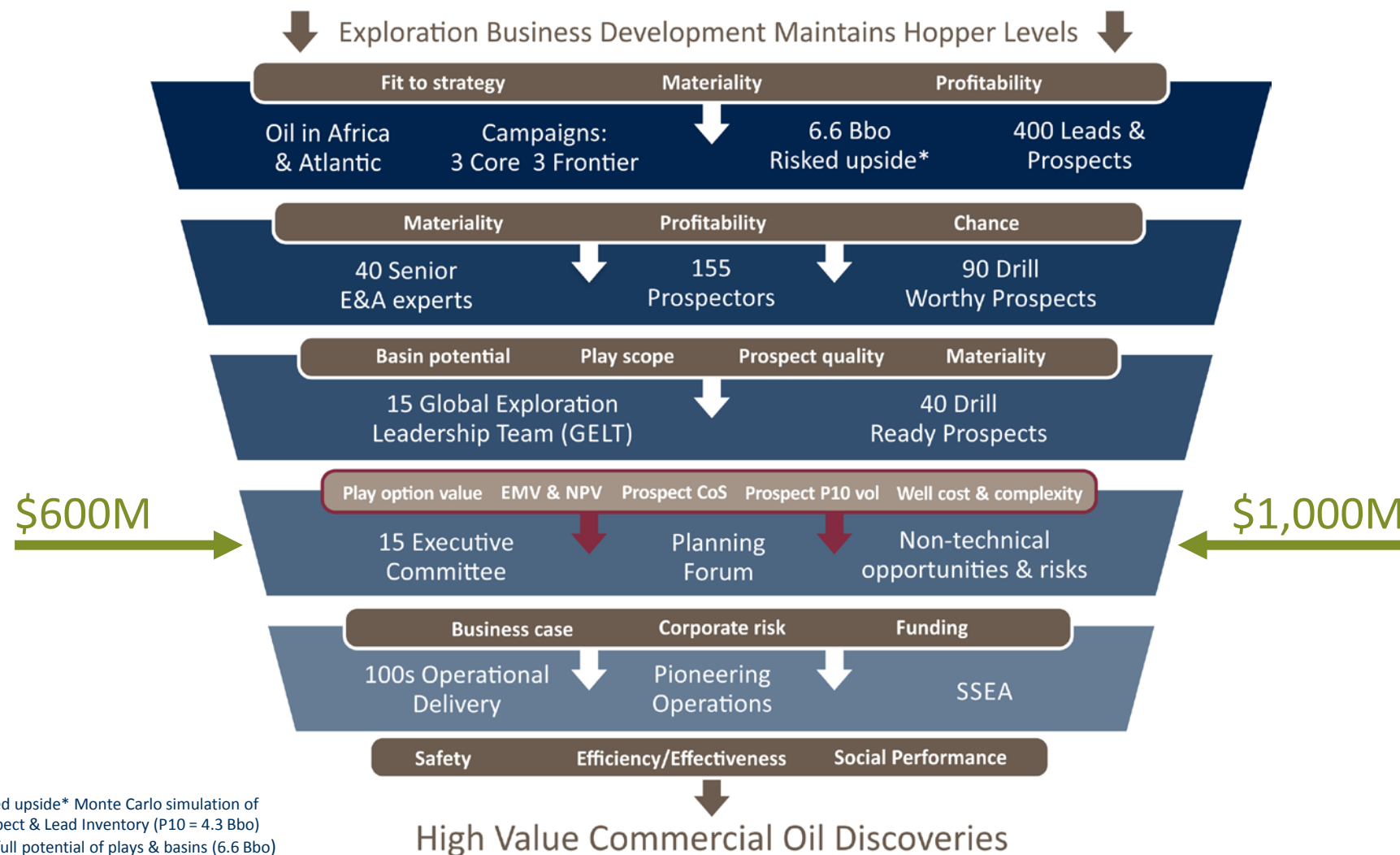


# Where we explore: Africa & Atlantic for light oil





# How we explore: our process works



# Balanced investment across the portfolio

## Exploration Business Development

### Africa & Atlantic New Frontiers

>100 opportunities reviewed p.a.  
97% rejected on value basis

## Frontier

### South Atlantic Margins

Low cost options give exposure to upside  
Older turbidites beneath shelf (low cost)

### Guyanas Margin

New oil basin opened in 2011  
Strong portfolio enables value refocus

### Central Atlantic Margin

New oil play opened in 2014  
Shift to lower-cost material oil plays

## Core

### East African Rift Basins

10 Bbo STOIP found in ~40 Bbo potential  
2 new oil rift basins opened 2006 & 2012  
Oil province potential in 12+ basin portfolio

### North Atlantic Continental Shelf

Hoop oil basin opened in Barents Sea  
Near infrastructure exploration  
Fiscal incentives encourage exploration

### West African Margin

Discovered 4.6 Bboe in place  
Tano deepwater oil basin opened in 2007  
Selective wildcats for elusive next Jubilee

## E&A Capex Split

~10%

~25%

~65%

# Exploring for high value oil

## Oil finding principles

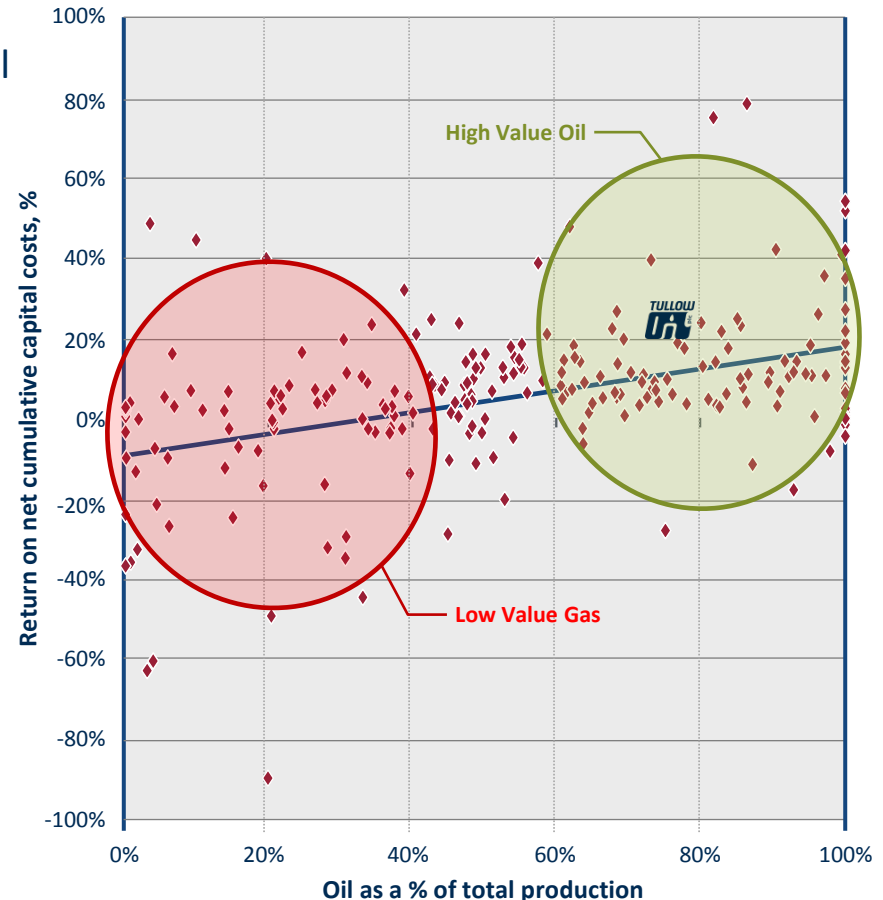
- Focus on finding high value producible light oil
- Oil is multiples more valuable than gas
- Oil is easier to commercialise

## Oil finding approach

- Oil finding focus applied across business
- Geophysically, oil harder to find than gas
- Proprietary technologies & know-how
- Scientific method: idea - test - feedback

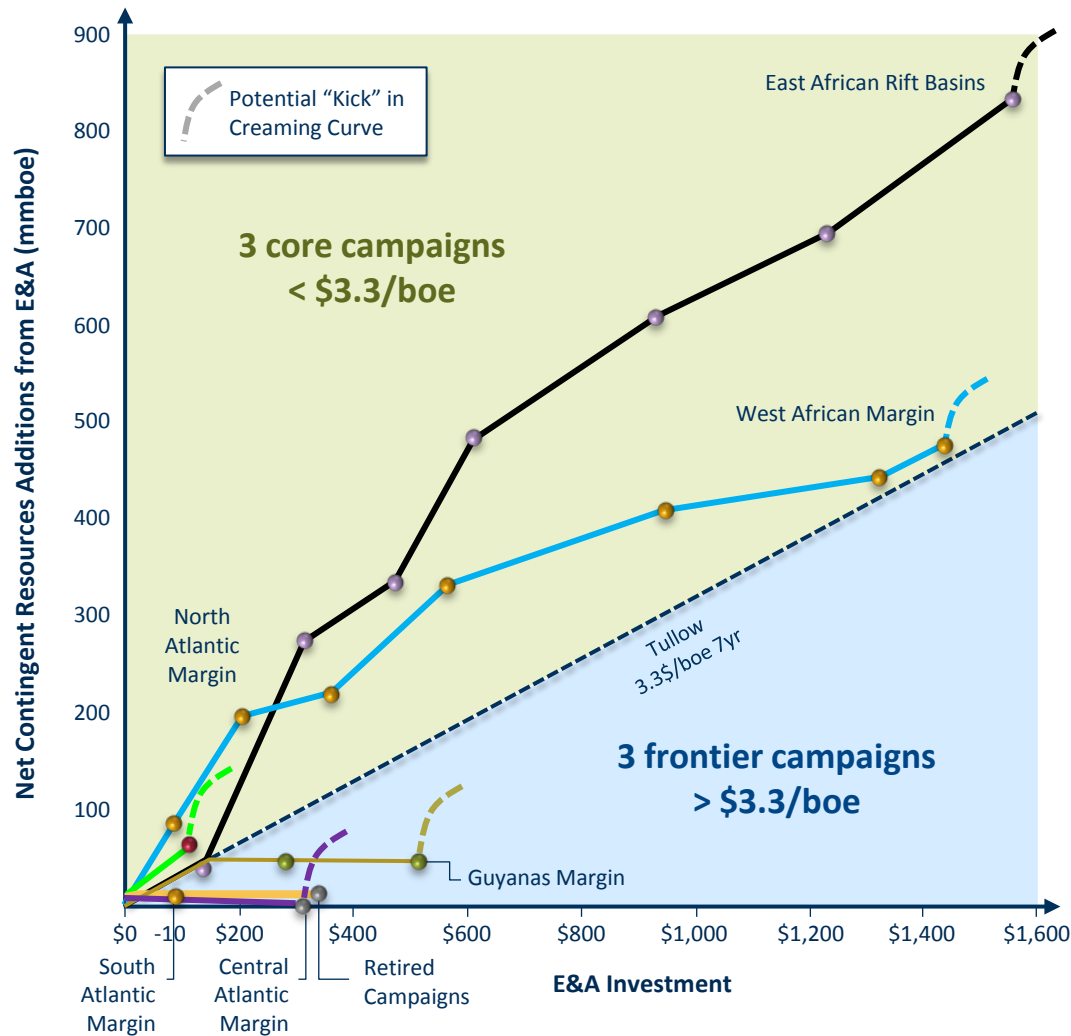
Top quartile returns  
from oil discoveries

## Higher profitability associated with higher oil reserve mix



Source: IHS Herold Global Upstream Performance Review: Worldwide (August 2013)

# Cost efficient exploration \$3.3/boe (2007-2013)



## 3 core campaigns < \$3.3/boe

- East African Rift Basins \$1.95/boe
  - Investing in a major winner
- West African Margin \$3.2/boe
  - Pioneering done, return to Jubilee NFE
- North Atlantic Margin \$2.25/boe
  - Capital efficient commercial plays

## 3 frontier campaigns > \$3.3/boe

- Guyanas Margin
  - Flat-lined at Zaedyus. Suriname kick?
- Central Atlantic Margin
  - Proven oil basin, shift to low cost plays
- South Atlantic Margin
  - Entry positions near Angola/Brazil

# Costs & well complexity impact global exploration industry



## Cost escalation

- Costs doubled over 5 year boom (2005-9)
- Increased again after Macondo (2010)
- Onshore shale activity boom raises costs

## Well complexity

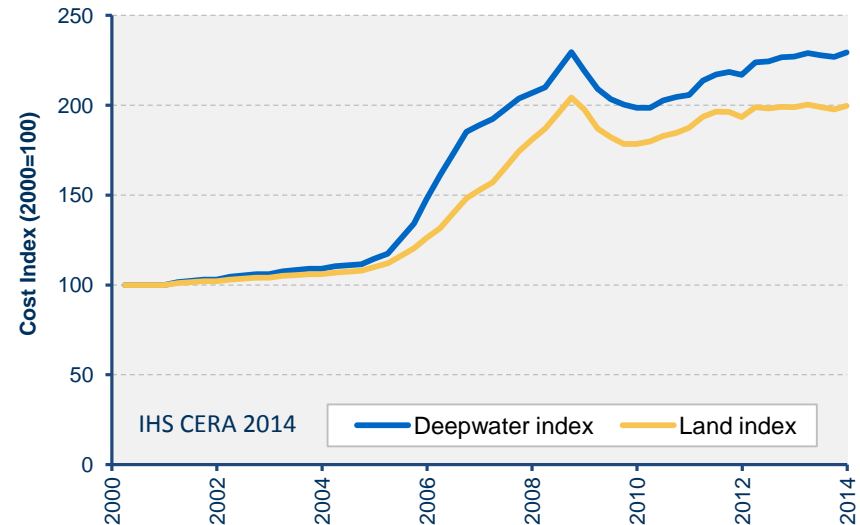
- Exposure too high in multi-casing wells
- Escalated minimum commercial field sizes
- Not necessarily a “deepwater” issue

## Envable portfolio opportunities

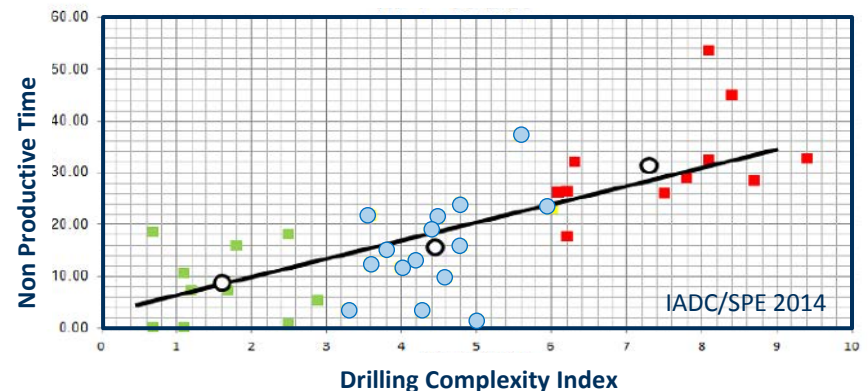
- Optionality in large acreage footprints
- Shift within licences towards low cost plays

E&A campaigns proactively adapted to external factors to maximise value

Deepwater and Land cost analysis indexes

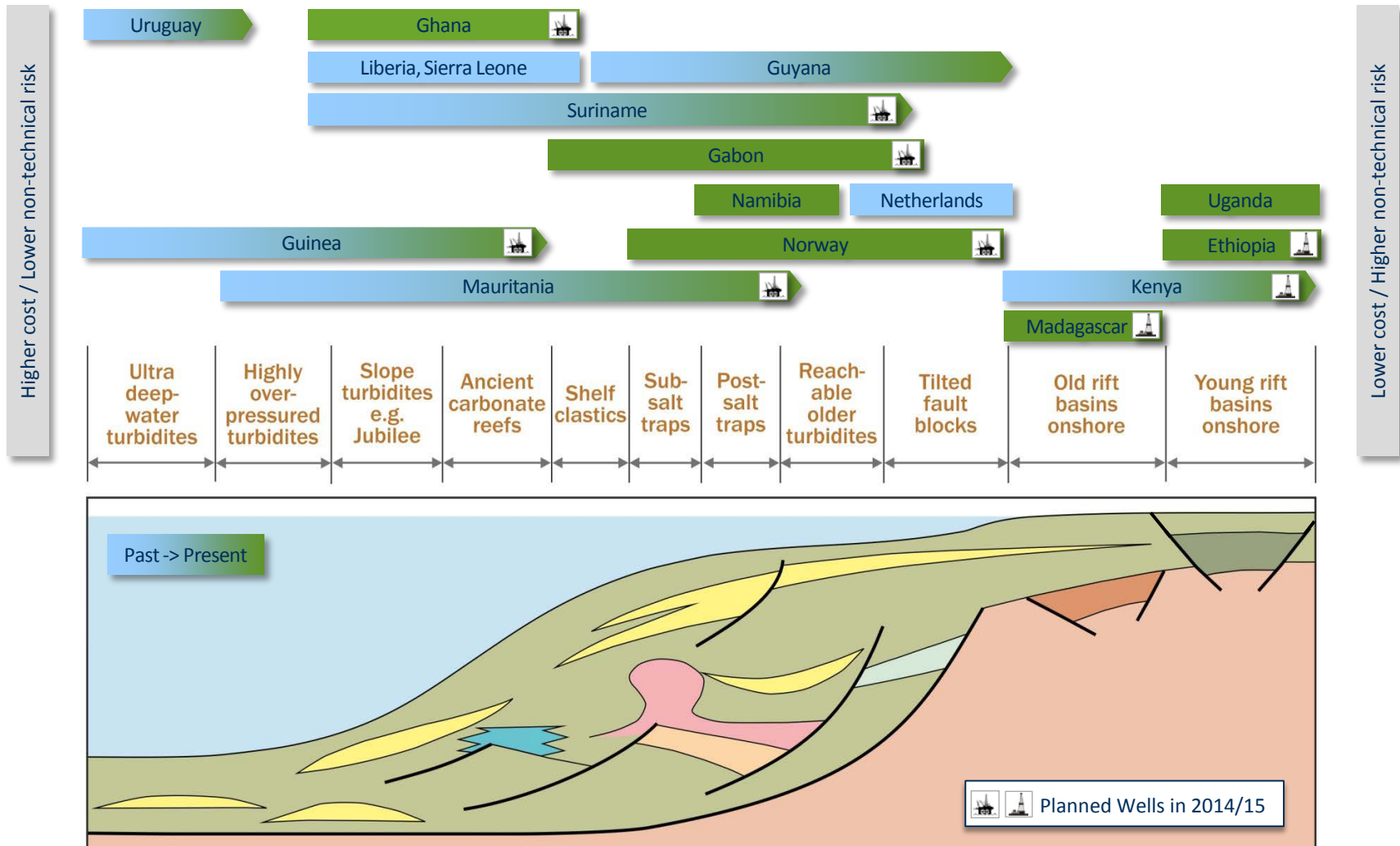


Non Productive Time vs Drilling Complexity Index





# Shifts of emphasis within exploration portfolio for value



# E&A people & portfolio

## People

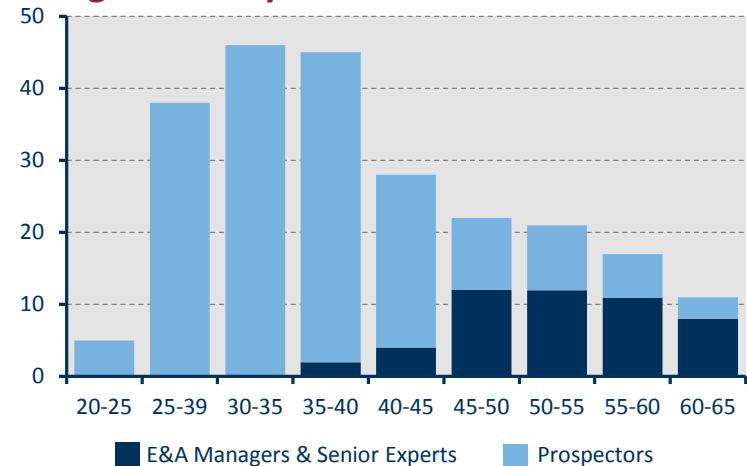
- Leading demographics despite 'Industry Crew Change'
- 195 petroleum geoscientists with 15 years average oil finding experience
- 15 Global Exploration Leaders with 30 years average oil finding experience
- Very high professional motivation & staff retention

## Portfolio

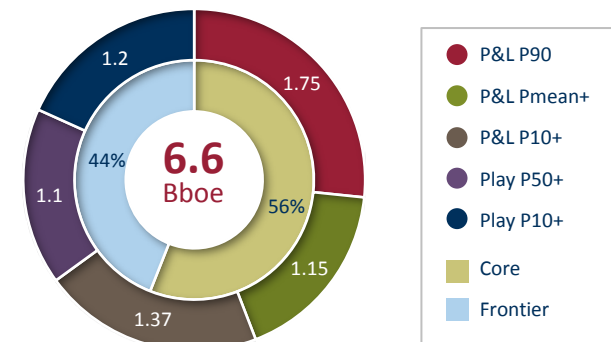
- Balanced focus on 3 core & 3 frontier campaigns
- Up to 6.6 Bboe potential recoverable in licence
- **Scale:** prospects (pre-2006), through plays, basins (2007+) & now opening new oil province (2012+)

Top team, top portfolio, needle-moving scale

### Age Diversity



### Net Risked Prospective Resource (Bbo recoverable)



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# CORE CAMPAIGNS



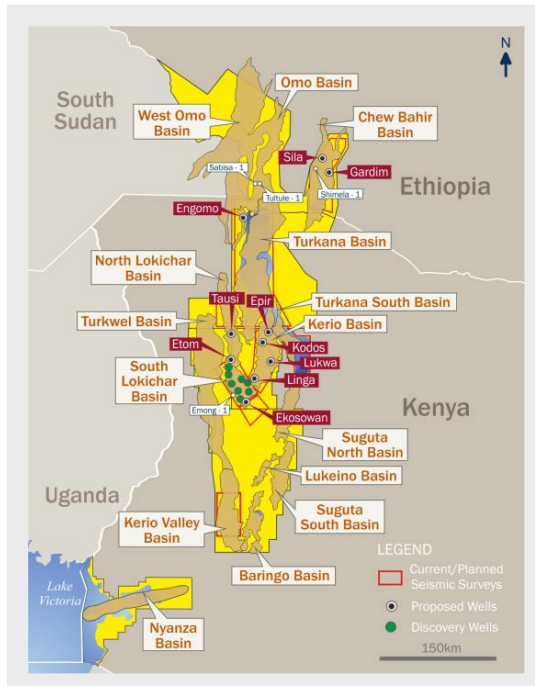
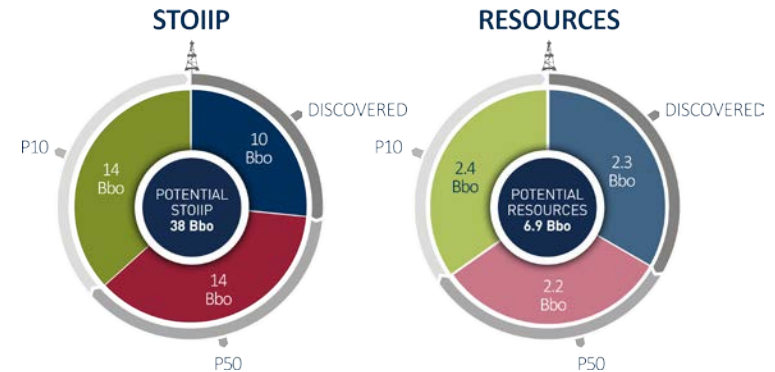
# East African onshore Rift Basins Campaign



## Uganda Lake Albert Rift Basin (1st phase)

- New oil basin opened 2006
- 91% E&A success 2006-2014 (88 wells)
- Well cost reduction & smart well trials during E&A
- Pioneering R&D (FTG, Ambient Seismic, HiFi-3D)

## East African Rift Basin Volumes

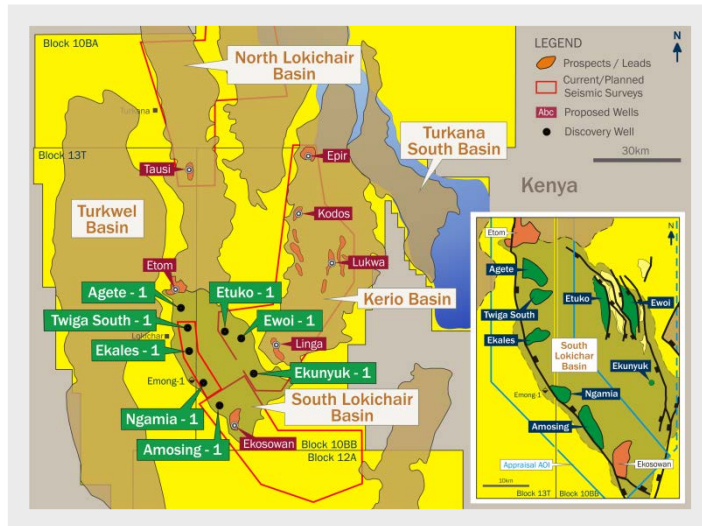


## Kenya-Ethiopia Rift Basins (2nd phase)

- Regional knowledge & capability nimbly deployed
- New frontiers study high-grades Kenya-Ethiopia in 2007
- Commanding position captured at low cost in 2010/11
- Rapid action, next new oil basin opened 2012

Leading acreage position establishes a new industry hotspot

# Kenya onshore Rift Basins transformational oil opportunity

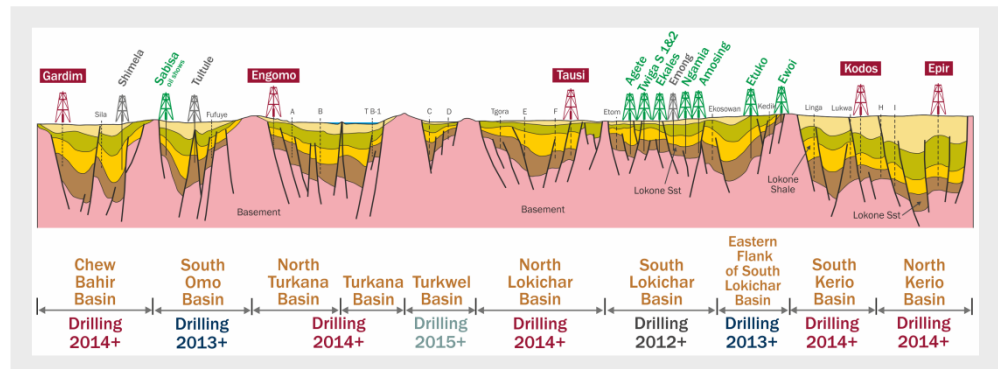


## South Lokichar ultimate potential & beyond...

- Eight oil discoveries (2012-2014)
- High value resource currently being drilled-out
- Rapidly appraise in parallel with development planning
- Basin drill-out attempts to double STOIIIP

## Potential new oil province of rift basins

- Prospective acreage covers 12+ basins
- Two established as major oil basins
- Testing 9 new basins in 2014-15
- 1 to 9 Bbo STOIIIP potential in each basin



Multiple basins being explored to define magnitude of new oil province



# Opening phase of West African Margin Campaign

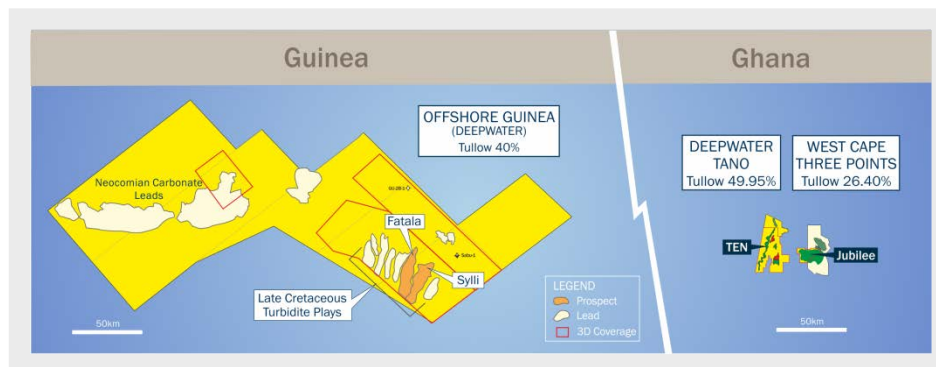
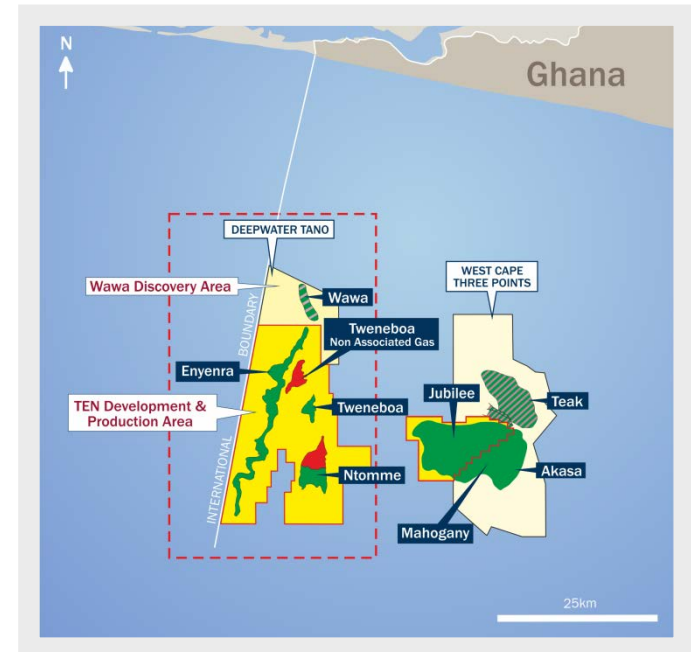


## Tano Basin opened offshore Ghana

- Jubilee giant oil discovery led industry shift
- Campaign hit the N/G sweetspots
- Tullow E&A wells drilled with 80% success
- ~ 4.6 billion boe potential gross in place

## Pursuing the Jubilee play westwards

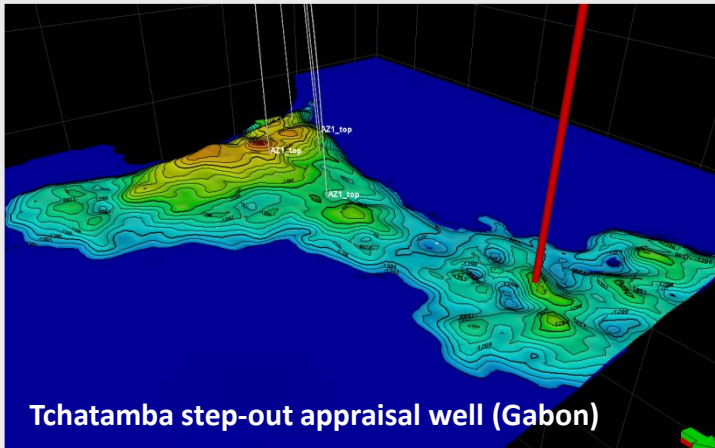
- 2008-12 industry campaign: Jubilee is a rare 'diamond'
- 7 sub-economic oil finds: high costs, not developed
- Breached if too sandy, uneconomic if too shaley
- Selective wildcatting now focuses on 'Very Big Cats'



## Guinea

- Opportunity set from shelf to ultra-deepwater
- Fataala selected for drilling; 373 mmbo (gross unrisked mean), 974 mmbo (P10), CoS 20%
- Further prospects & leads identified; total gross mean risked resources > 350mmbo

# West African near field exploration in producing heartlands

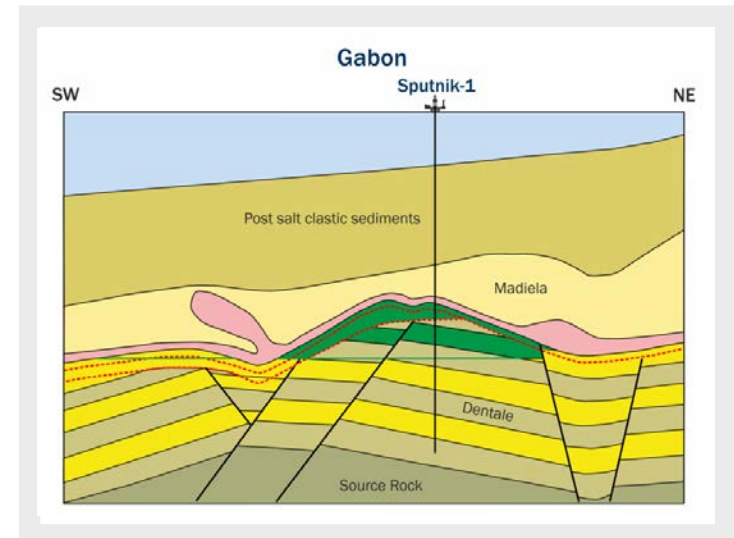


## Oil field & production plateau extensions

- Numerous near field & near infrastructure exploration & appraisal prospects in Ghana, Gabon, Equatorial Guinea, Cote d'Ivoire, Congo B
- High value & cost effective incremental projects for rapid tie back & production

## Frontier exploration in producing heartlands

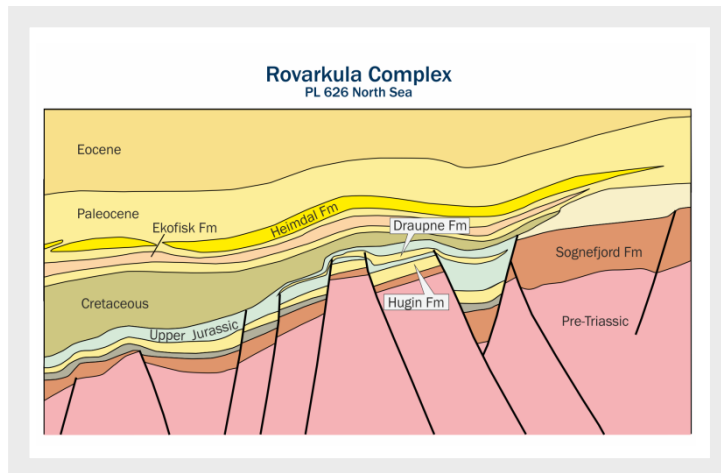
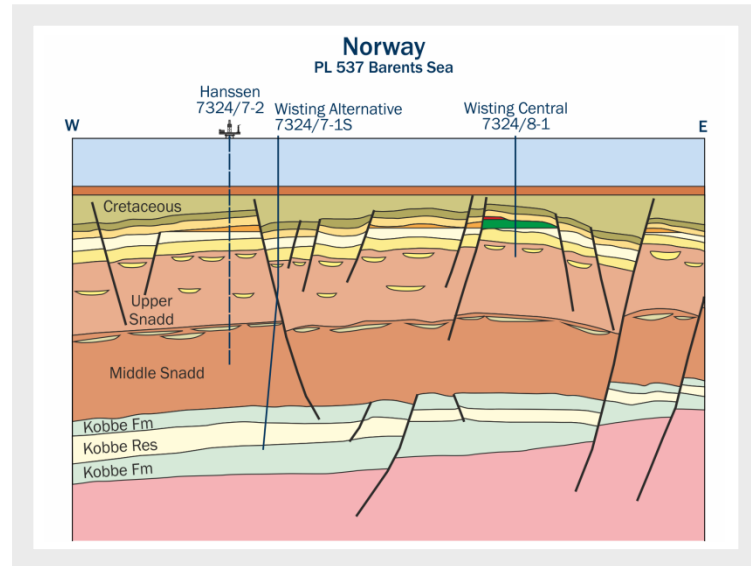
- Pre-salt oil play being tested
- Sandstone reservoirs targeted, age equivalent to Brazil/Angola pre-salt carbonate play
- Sputnik scheduled for July spud; 206 mmbo (gross unrisked mean), 427 mmbo (P10), CoS 27%
- Further prospects & leads identified with gross mean risked resources > 330 mmbo



Utilising proprietary knowledge & technology for maximum value extraction

## Barents Sea frontier exploration

- Wisting shallow giant oil discovery
- Bjaarland & Hansel to test 500mmbo upside
- CSEM & HiFi 3D seismic proprietary insights
- Exploring for regional follow-up



## Norwegian & North Sea near-infrastructure plays

- Established petroleum system & oil plays
- Fiscal incentives encourage oil exploration
- Near infrastructure for quick monetisation
- 2014: Butch SW, Lupus, Heimdalsho

Cost-effective E&A opportunities near infrastructure for quick monetisation

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East Africa Development Business

# EXPLORATION BUSINESS DEVELOPMENT & FRONTIER CAMPAIGNS



# Selecting our next New Frontiers for sustained value growth



## **Directed by continental scale geology**

- Fundamental geology locates possible oil basins
- Staying clear of expensive 'feeding frenzies'

## **Early business integration**

- Integrate commercial & economic insights
- Consider range of non-technical risks & funding options

## **Parallel evaluations**

- Build technical & business case together
- Remain nimble to beat the competition

## **Capture commanding position**

- Longstanding relationships bring opportunities
- Decisive entrepreneurial deal-making

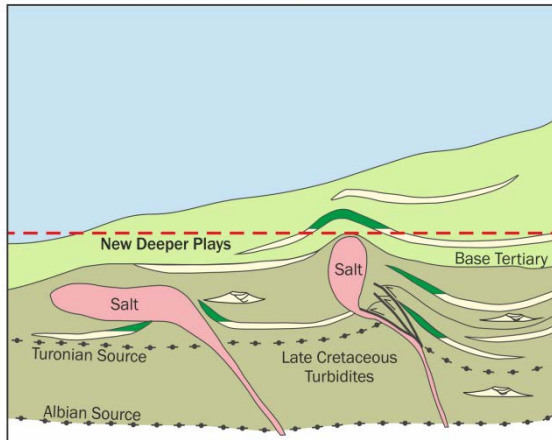
**Taking the lead in New Frontiers**



# Central Atlantic Margin Campaign



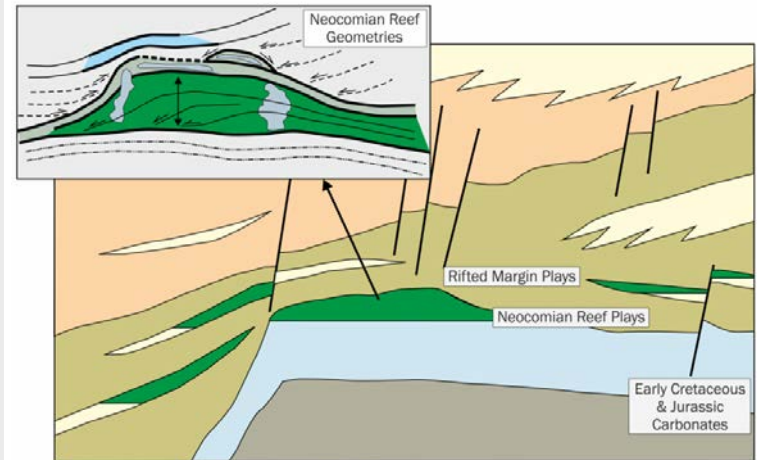
## Mauritania Outboard Plays



## Mauritania deepwater turbidites (1<sup>st</sup> phase)

- Fregate-1 discovers over 30m light oil & condensate
- Commercialisation options under review (high costs)
- Follow-up potential of new oil play being high-graded
- Campaign break to integrate data

## Mauritania Inboard Plays



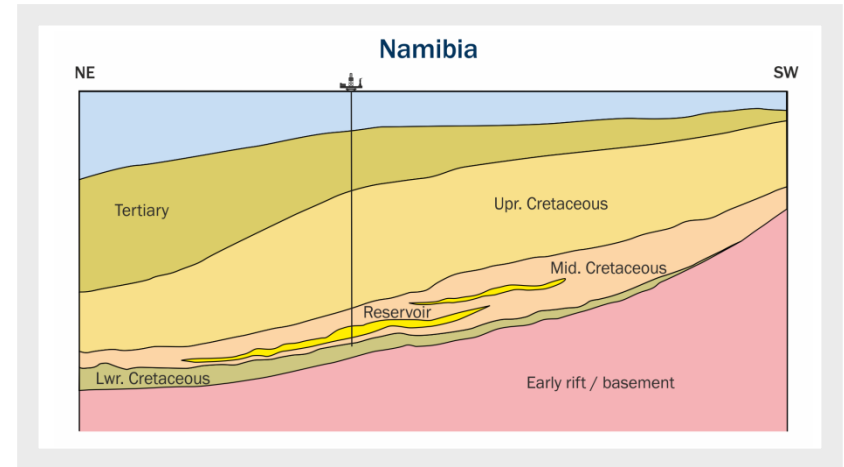
## Mauritania shelf plays (2<sup>nd</sup> phase)

- Cost effective exploration shifts inboard
- Rifted margin & carbonate plays
- Kibaro prospect; 67 mmbo (gross unrisked mean), 150 mmbo (P10), CoS 24%
- Further prospects & leads identified with gross mean risked resources > 1 Bbo

# Next growth – frontier exploration examples

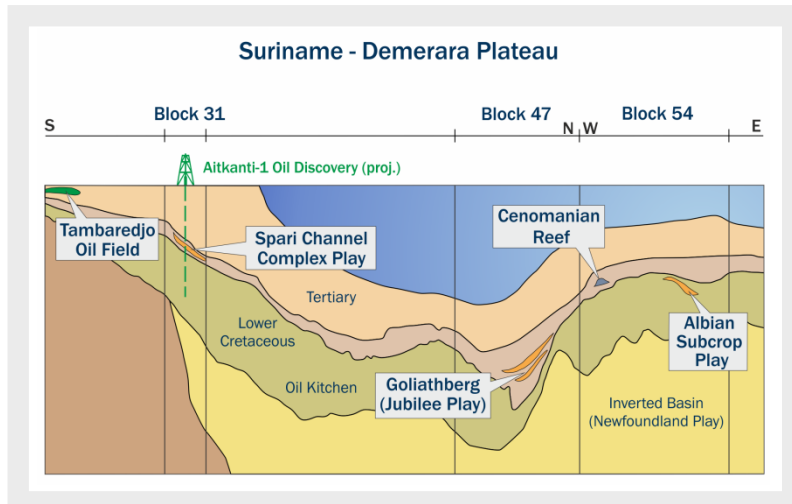
## Namibia reachable turbidites

- Older turbidites beneath shelf (low cost)
- Oil system established by Wingat-1 (HRT)
- New 3D survey highlights 2015 prospect
- Albatross prospect; 422 mmbo (gross unrisked mean), 1093 mmbo (P10), CoS 17%
- Further prospects & leads identified with gross mean risked resources > 150 mmbo



## Guyanas Margin

- Significant oil charge proven by Zaedyus-1 (72 m pay)
- Industry interest continues to ramp-up
- Commanding acreage spread with play diversity
- Equity being managed to mitigate exposures
- Goliathberg operated prospect in Suriname; 287 mmbo (gross unrisked mean), 788 mmbo (P10), CoS 20%
- Further prospects & leads identified with gross mean risked resources > 716 mmbo



# Exploration investment highlights

## PEOPLE

Industry recognised leading oil finders over last 5 years

## TRACK RECORD

200mmboe/yr (average 2007-2013 @ \$3.3/boe; \$4.4/boe for 222mmboe in 2013)

## PORTFOLIO

Industry leading positions in hottest new provinces (6.6 Bboe risked upside)

## PROGRAMME

Potential high impact exploration news flow from multiple wildcats 2014-2015



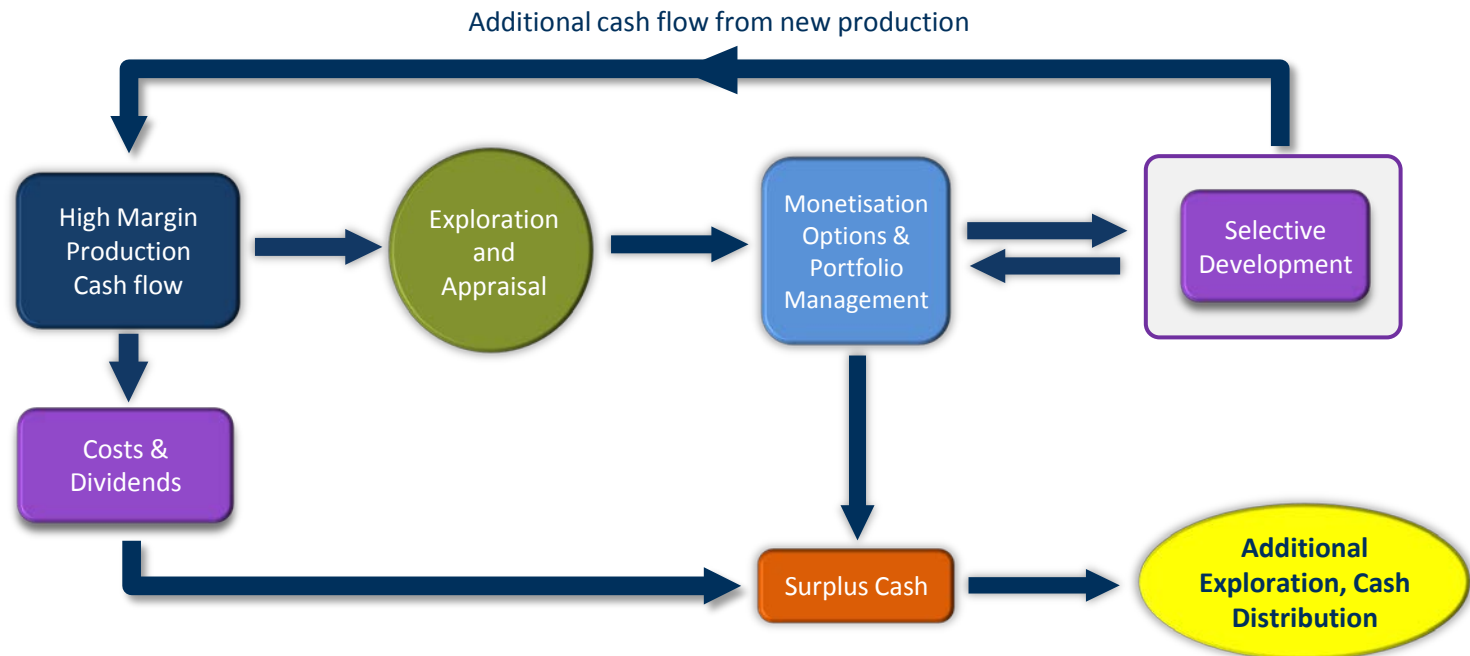


# FUNDING STRATEGY

Brian Williams



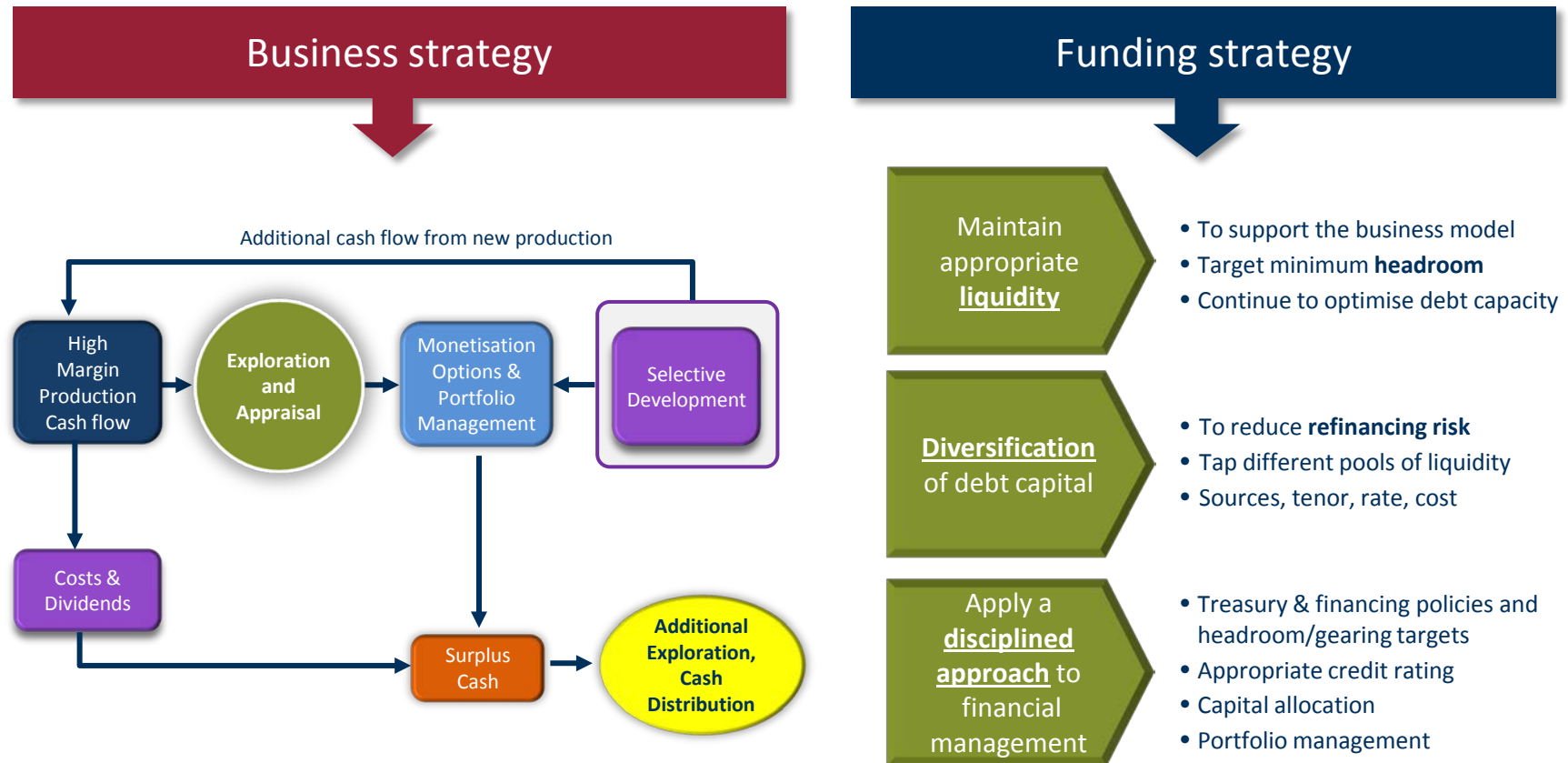
# Our Strategy



- Material cash flow generation and development upside from West Africa
- New oil province potential in East Africa delivering significant future resource growth
- Industry leading exploration portfolio in Africa and Atlantic Margins
- **Strong balance sheet provides foundations to deliver long term value to shareholders**



# Funding strategy designed to support business strategy



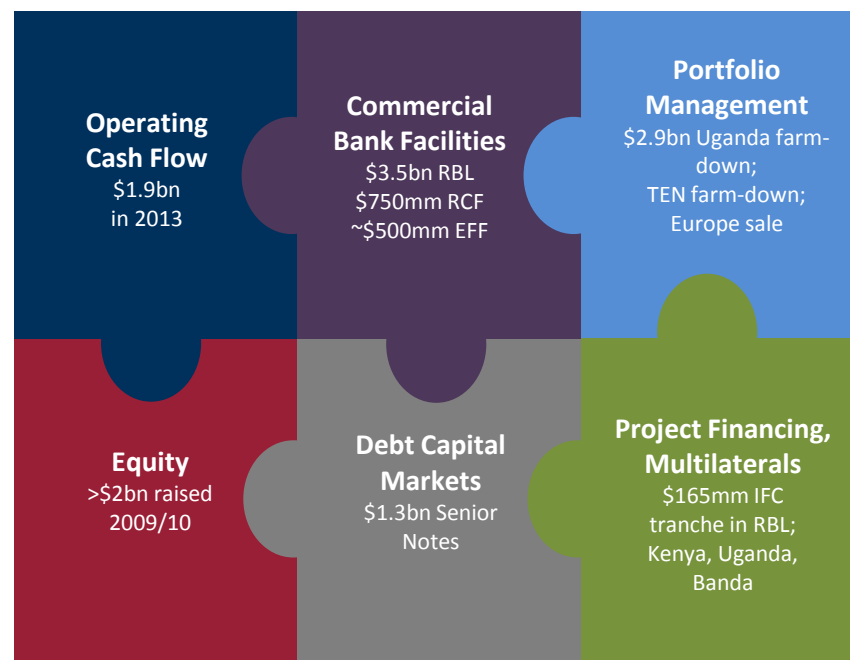
Funding strategy focused on liquidity, diversification and a disciplined approach

# Funding initiatives leverage business strengths

## Business Strengths

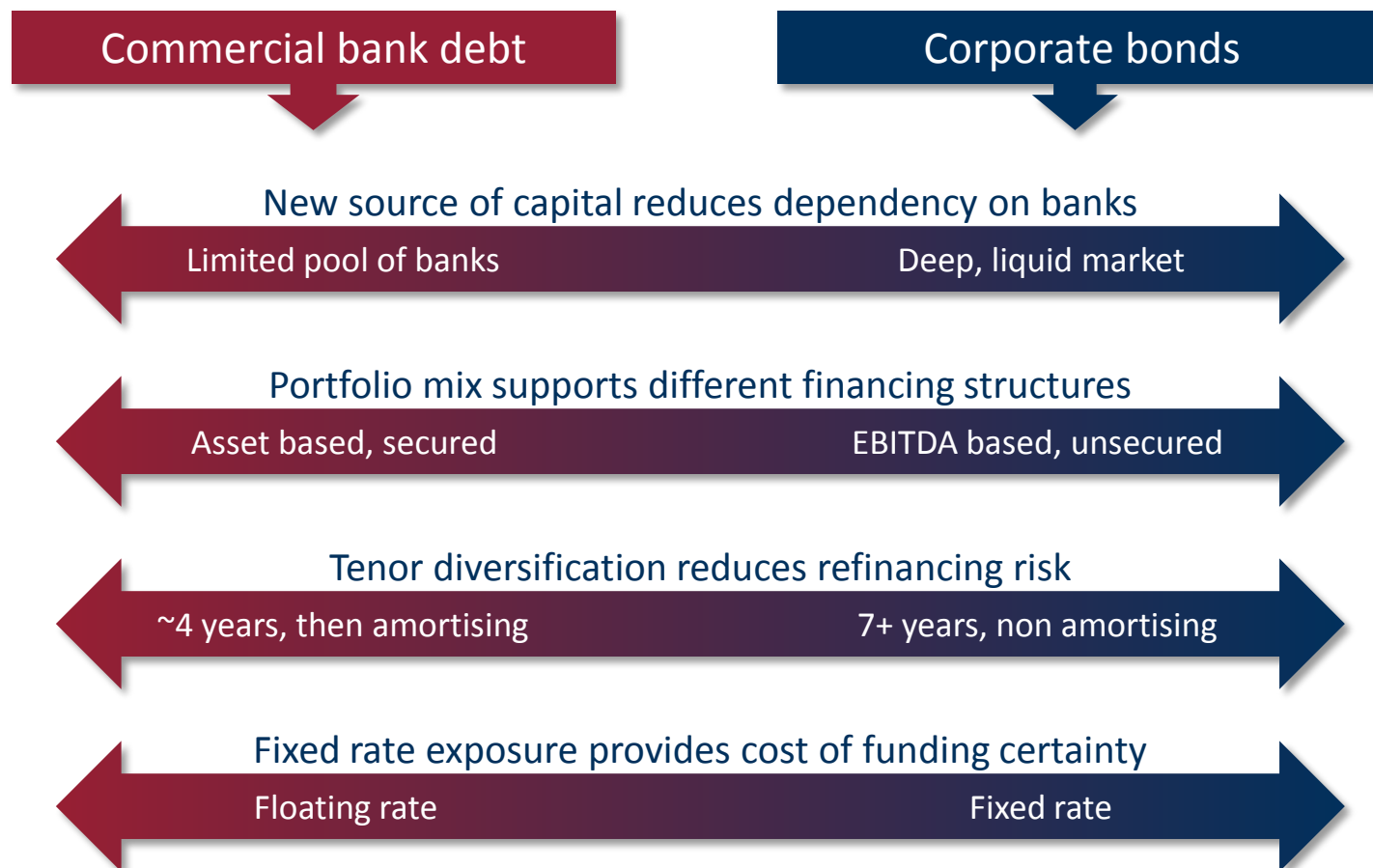
## Funding Initiatives

1. Proven track record:
  - E&A success
  - Development project execution
  - Strong long standing relationships in Africa
  - Stable management team
2. Large diversified asset base (exploration, development and production)
3. Strong cash generation (high margin production and portfolio management)
4. Operator status and material equity positions provide significant influence over assets
5. Disciplined capital management and conservative financial profile



Business strengths allow us to access various pools of liquidity

# Corporate bonds enhance Tullow's debt capital structure

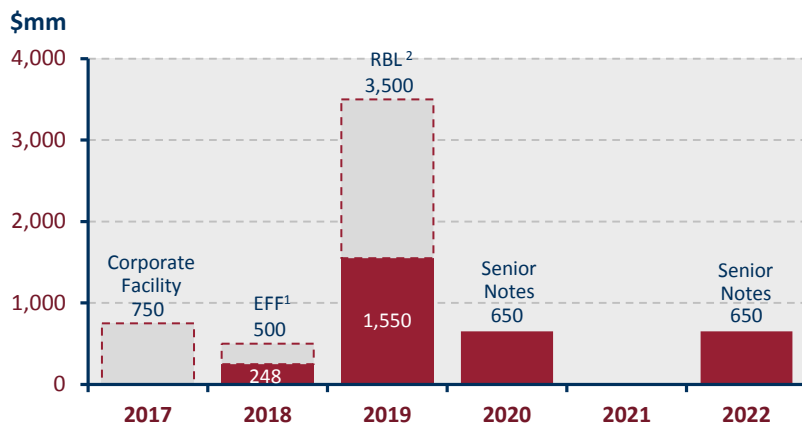


Bond offerings provide access to diversified investor base and structure, reducing financial risk

# Debt capital structure has evolved

## Debt maturity profile

\$mm	Commitment size	Maturity
RBL	3,500	Dec 2019
Corporate Facility	750	Apr 2017
6% Senior Notes	650	Nov 2020
6¼% Senior Notes	650	Apr 2022
EFF <sup>1</sup>	~500	Dec 2017



(1) Norwegian Exploration Finance Facility

(2) Final maturity; RBL amortises linearly over 2016 – 2019

## Key metrics

\$mm	31 May 2014
<b>Cash and cash equivalents</b>	<b>430</b>
<b>Debt outstanding</b>	
RBL Facilities	1,550
EFF <sup>1</sup>	248
Corporate Facility	-
Senior Notes	1,300
<b>Total debt</b>	<b>3,098</b>
<b>Net debt</b>	<b>2,668</b>
<b>Facility headroom</b>	<b>2,399</b>

- RBL remains core facility (development/producing asset based)
- Corporate Facility (further capacity from resources base)
- Corporate bonds provide diversification of investor base, tenor, structure (unsecured) and pricing (fixed rate)

Tullow has access to ~\$6.0bn of committed debt facilities with current headroom of \$2.4bn and no near term maturities

# Disciplined financial management policies

## Business Risk Profile



Exploration-led growth strategy

Capital-intensive projects

Single commodity exposure

African exposure

## Financial policies



1. Maintain a **well funded** balance sheet

- Provide ample liquidity
- Access to flexible and diversified funding sources

2. Apply a **prudent** financial approach

- Rigorous capital allocation
- Hedging programmes
- Insurance programme
- Flexible dividend policy

3. Adhere to **appropriate** policy targets

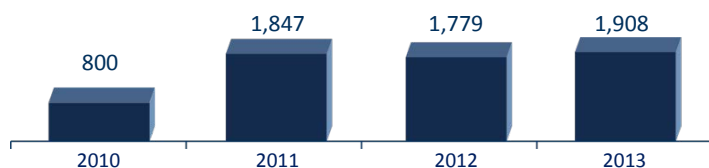
- Headroom
- Net Debt/EBITDA
- Net Debt/Equity

A disciplined and conservative financial approach supports the business model



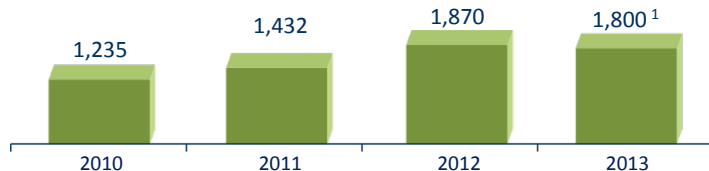
# Historical performance key metrics

**Adj. EBITDAX (\$mm)**



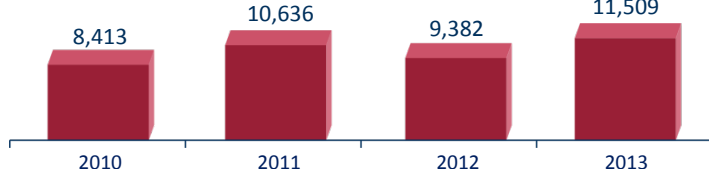
- Strong growth in Adjusted EBITDAX driven by increasing production

**Capital investment (\$mm)**



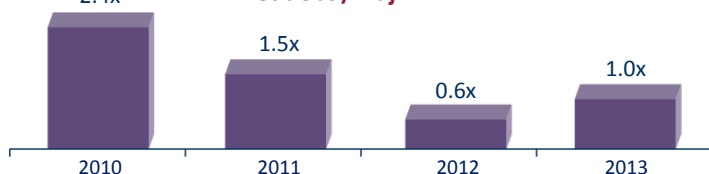
- Over \$6.3bn of capital investment over the past 4 years
- Capex exposure being managed successfully, e.g. through \$2.9bn farm-down of Ugandan assets and ongoing portfolio management activities

**Total assets (\$mm)**



- Large and diversified asset base
- Significant increase in total assets of ~\$3.1bn since 2010
- Intangibles and PP&E driving 2013 year on year increase of 23%

**Net debt / Adj. EBITDAX**



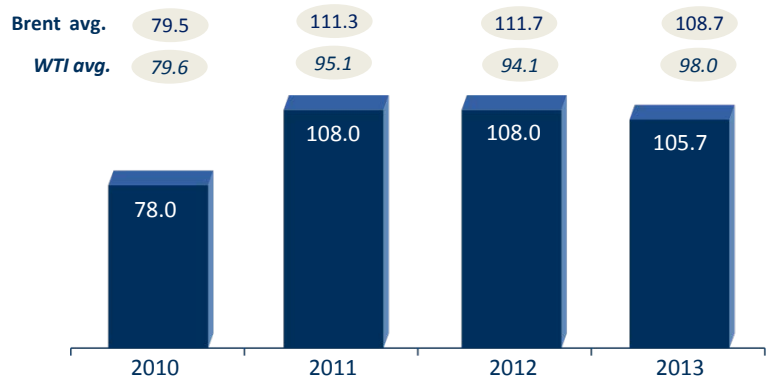
- Strong de-leveraging since 2010 due to increase in high margin Jubilee production and Uganda farm-down
- Maintenance of low and appropriate leverage levels despite higher capital investments

Growth is managed within a financially sound and conservative framework

(1) Excludes Spring Energy Norway acquisition

# High margin production and competitive cost base

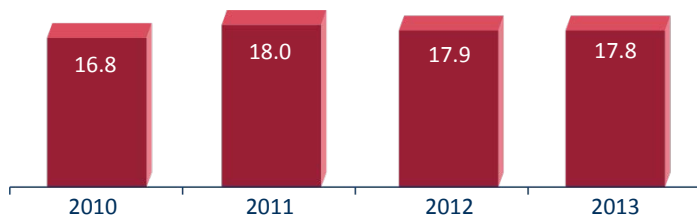
**Realized oil price per bbl (\$)¹**



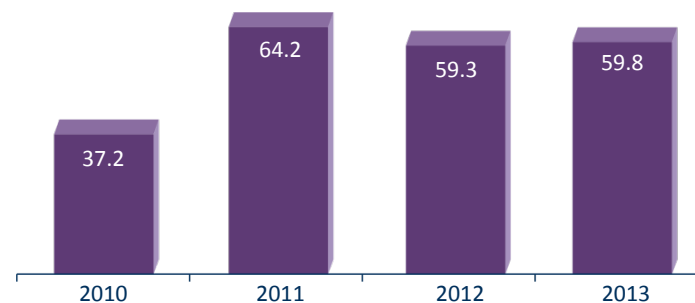
**Operating costs per boe (\$)²**



**Depletion, depreciation and amortization per boe (\$)**



**Operating cash flow per boe (\$)³**



- (1) Post hedging
- (2) Underlying cash operating costs are cost of sales excluding depletion, depreciation, amortization, impairment loss and under/over lift movements
- (3) Before working capital movements

**Realized oil prices near Brent-benchmark; strong operating cash flow per boe**

## Tullow is a well-funded company

Managed with a ***prudent financial approach***

Ample liquidity ***headroom*** to fund planned capital expenditures

Quality and ***highly cash flow generative*** portfolio of producing assets

***Multiple sources of capital***, including selective monetisation of assets

Track record of ***de-leveraging***

***Strong relationships*** and ***track record*** with bank and bond markets



# STRATEGY & PORTFOLIO MANAGEMENT

Les Wood

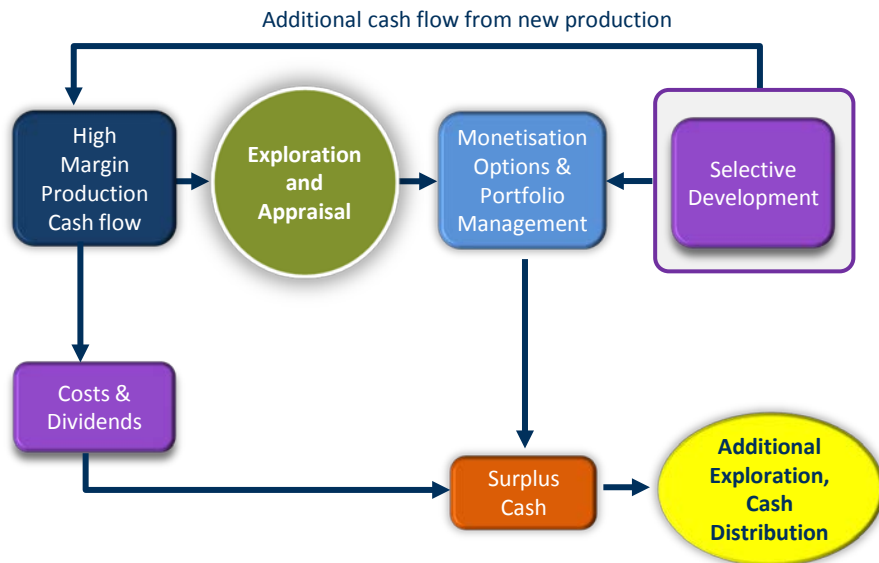




# Strategy in action



## Business strategy



## Strategy execution

- Grow and develop our commercial reserves to provide strong, stable cash flows
- Execute high impact exploration and appraisal
- Maintain a disciplined approach to financial management
- **Monetise value throughout the asset life cycle including portfolio management**

Execution of our strategy is focused on delivering long-term value growth



# Portfolio management environment

## Recent market environment

- E&P sector has been out of favour
- Majors focusing on divestments & cash returns to shareholders rather than acquisitions
- Small E&Ps are funding constrained
- Low levels of M&A activity in last 2 years; gradually returning in 2014
- Asset market has been saturated; varying quality and characteristics
- No longer able to rely on traditional buyers

## Our response

- Adapt sales/farm-out processes & timing, to respond to buyer universe
- Remain committed to delivering value
- Strengthen balance sheet to ensure well funded
- Rigorous capital management

Responding to a challenging market environment

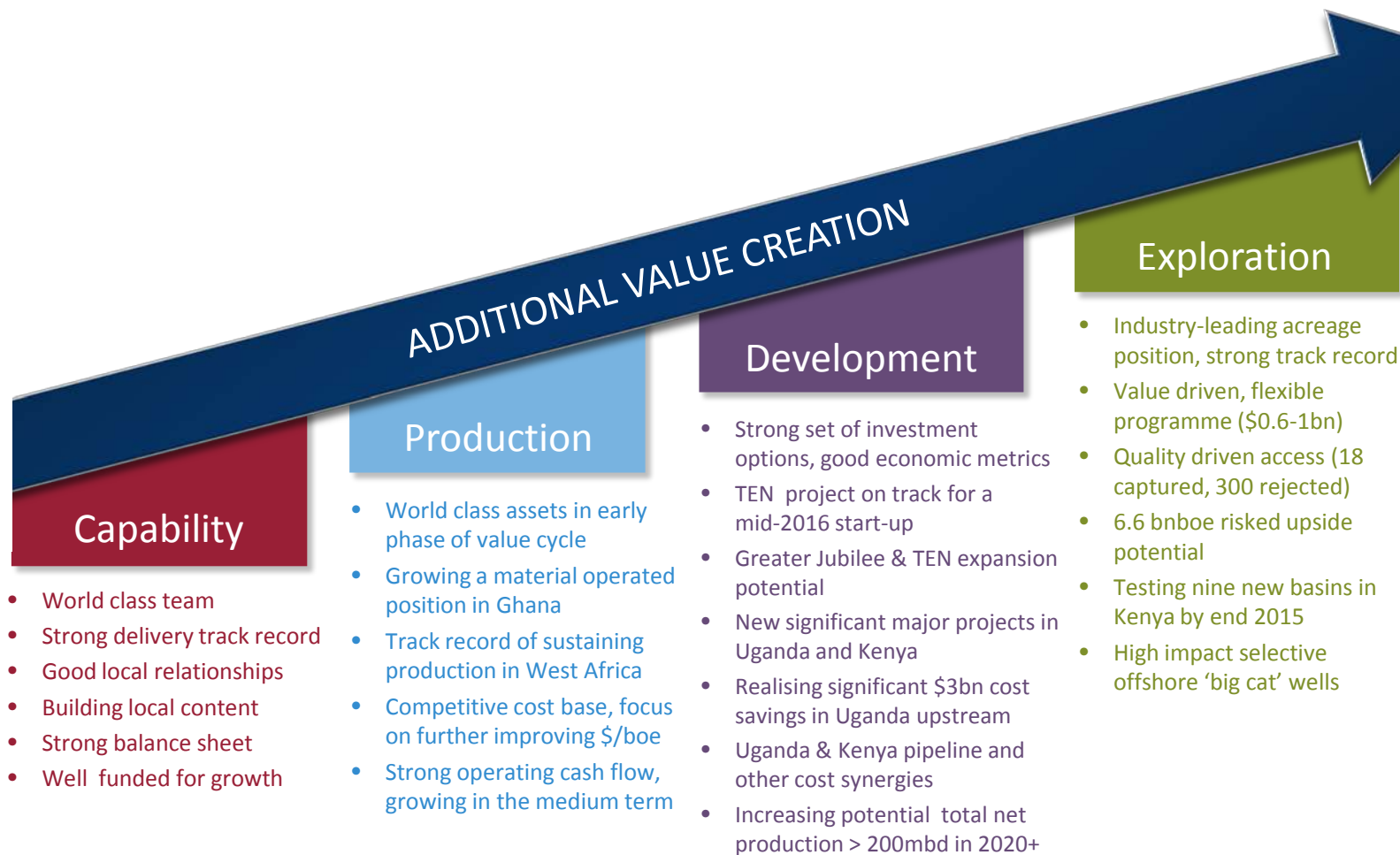
# Monetising options and portfolio management

## Portfolio management motivation

- **Capital allocation:** ensuring right balance of Exploration, Developments and funding
- **Optimising exposure:** right equity at right stage of value chain
- **Licence commitments:** retain flexibility where possible
- **Core assets:** retain and invest in assets with upside potential
- **Monetisation:** to accelerate value/manage risk
  - 2012 Uganda farm-out to Total & CNOOC
  - Ongoing TEN farm-out
  - Future major project dilution as appropriate
- **Exit:** mature/non-strategic assets
  - Bangladesh completed December 2013 (Kris Energy)
  - Pakistan awaiting Government consent (Ocean Pakistan Ltd)
  - UK (Schooner & Ketch) awaiting approvals (Faroe Petroleum Ltd)
  - Remaining UK & Netherlands in progress

Actively managing portfolio to deliver value growth and mitigate risk

# Tullow additional value potential being created



Significant additional value upside exists both within our core assets and exploration portfolio





# CLOSING REMARKS

Ian Springett



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