

# GE Oil & Gas

Rafael Santana, VP & CEO Turbomachinery Solutions

Marco Caccavale, General Manager Africa

May 7, 2014 – JP Morgan OTC Investor Dinner



This document contains “forward-looking statements” – that is, statements related to future, not past, events. In this context, forward-looking statements often address our expected future business and financial performance and financial condition, and often contain words such as “expect,” “anticipate,” “intend,” “plan,” “believe,” “seek,” “see,” or “will.” Forward-looking statements by their nature address matters that are, to different degrees, uncertain. For us, particular uncertainties that could cause our actual results to be materially different than those expressed in our forward-looking statements include: current economic and financial conditions, including volatility in interest and exchange rates, commodity and equity prices and the value of financial assets; potential market disruptions or other impacts arising in the United States or Europe from developments in sovereign debt situations; the impact of conditions in the financial and credit markets on the availability and cost of General Electric Capital Corporation’s (GECC) funding and on our ability to reduce GECC’s asset levels as planned; the impact of conditions in the housing market and unemployment rates on the level of commercial and consumer credit defaults; pending and future mortgage securitization claims and litigation in connection with WMC, which may affect our estimates of liability, including possible loss estimates; our ability to maintain our current credit rating and the impact on our funding costs and competitive position if we do not do so; the adequacy of our cash flows and earnings and other conditions which may affect our ability to pay our quarterly dividend at the planned level or to repurchase shares at planned levels; GECC’s ability to pay dividends to GE at the planned level; our ability to convert pre-order commitments/wins into orders; the price we realize on orders since commitments/wins are stated at list prices; the level of demand and financial performance of the major industries we serve, including, without limitation, air and rail transportation, power generation, oil and gas production, real estate and healthcare; the impact of regulation and regulatory, investigative and legal proceedings and legal compliance risks, including the impact of financial services regulation; our capital allocation plans, as such plans may change including with respect to the timing and size of share repurchases, acquisitions, joint ventures, dispositions and other strategic actions; our success in completing announced transactions and integrating acquired businesses; our ability to complete the staged exit from our North American Retail Finance business or the acquisition of the Thermal, Renewables and Grid businesses of Alstom as planned; the impact of potential information technology or data security breaches; and numerous other matters of national, regional and global scale, including those of a political, economic, business and competitive nature. These uncertainties may cause our actual future results to be materially different than those expressed in our forward-looking statements. We do not undertake to update our forward-looking statements.

This document includes certain forward-looking projected financial information that is based on current estimates and forecasts. Actual results could differ materially.

GE’s Investor Relations website at [www.ge.com/investor](http://www.ge.com/investor) and our corporate blog at [www.gereports.com](http://www.gereports.com), as well as GE’s Facebook page and Twitter accounts, contain a significant amount of information about GE, including financial and other information for investors. GE encourages investors to visit these websites from time to time, as information is updated and new information is posted.

**Imagination at work.**

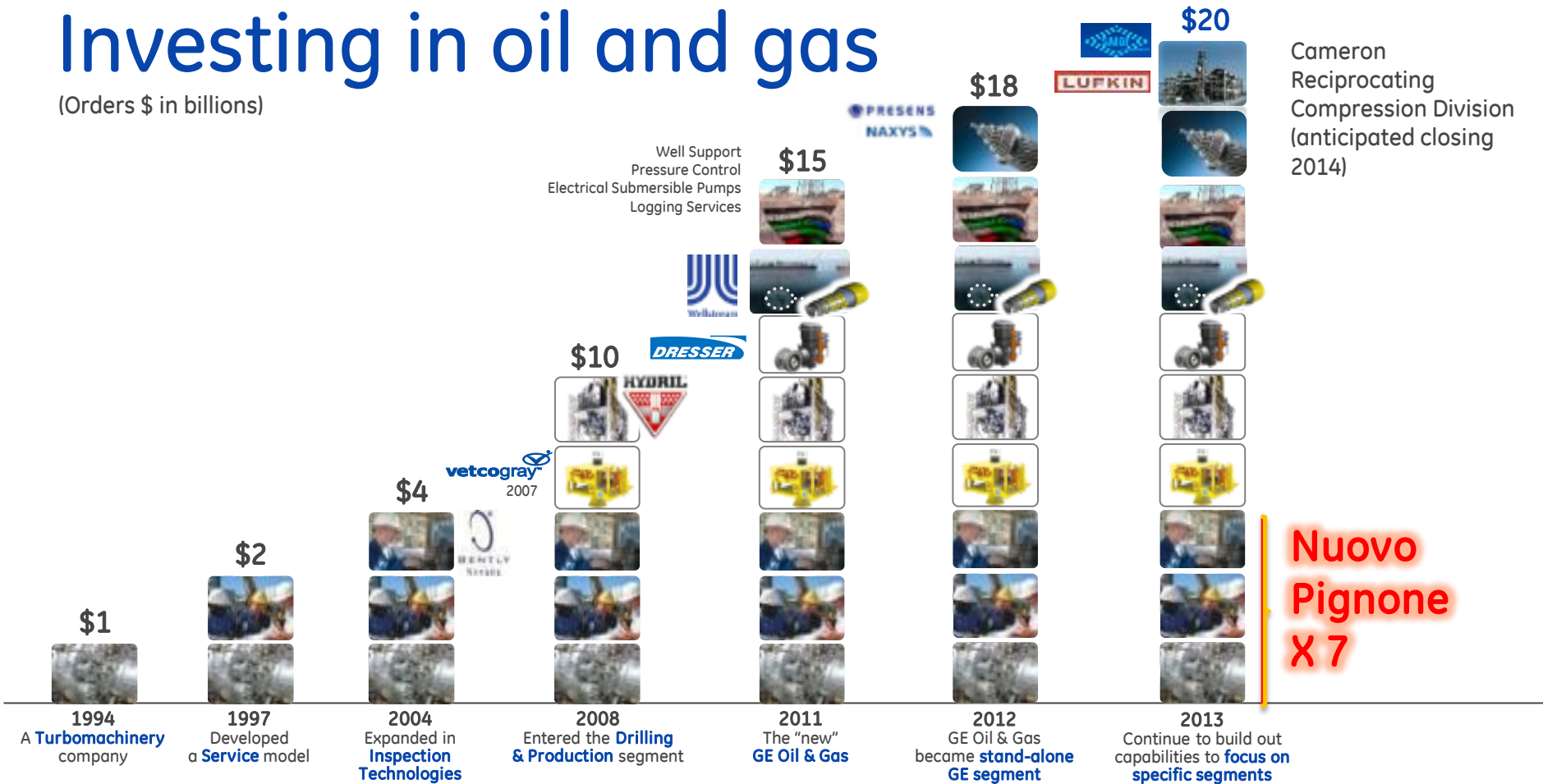
We fuel the future.

We push the boundaries of technology  
to bring energy to the world.



# Investing in oil and gas

(Orders \$ in billions)

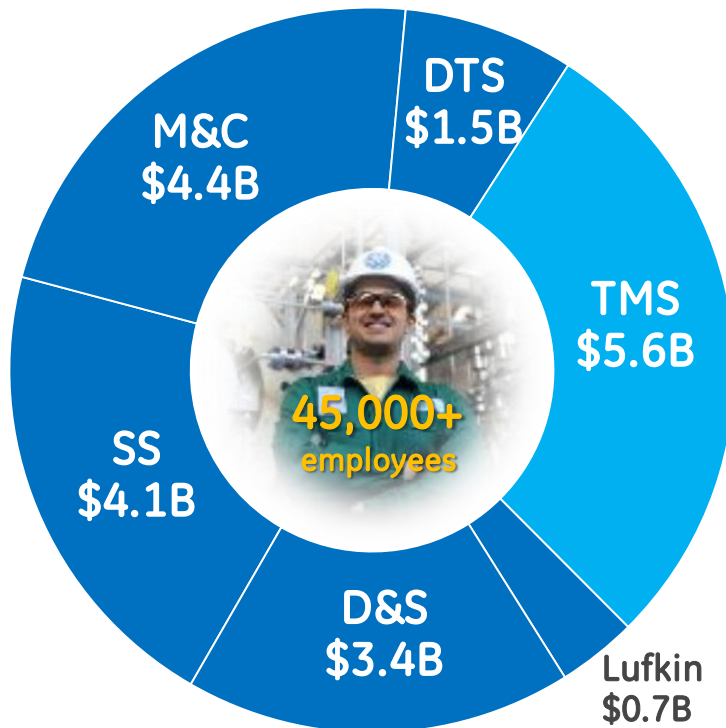


20 years of continuous growth built on a solid foundation of technology



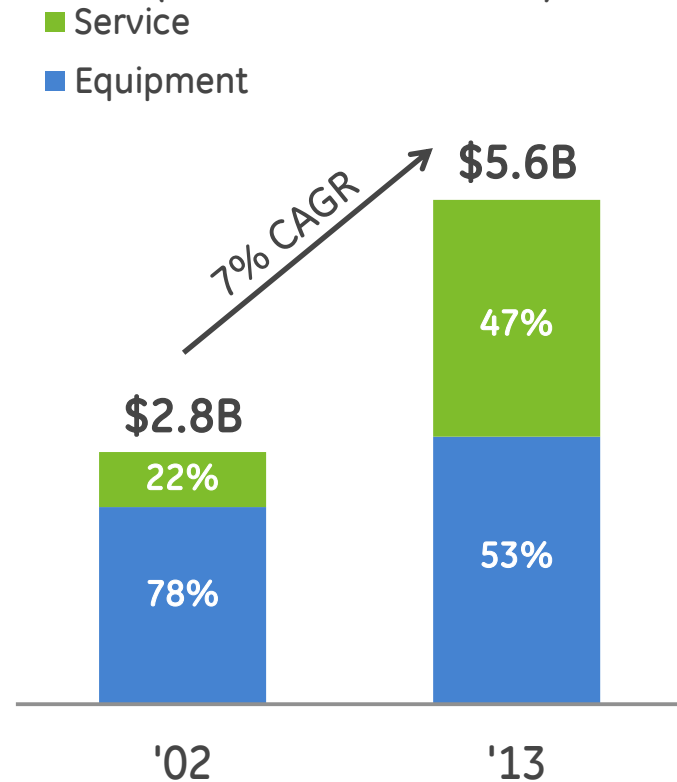
# GE Oil & Gas – a snapshot

**GE Oil & Gas 2013**  
(orders)



- ✓ Orders 2013: \$20B — 8%V
- ✓ Double-digit growth in 2013: revenues (11%) and op profit (13%)

**Turbomachinery Solutions**  
(orders mix evolution)



# Turbomachinery Solutions

6,000+ PEOPLE

ACROSS 6 CONTINENTS

## OUR PORTFOLIO

### DRIVERS



Aeroderivative Gas Turbines



Heavy Duty Gas Turbines



Synchronous & Induction Electric Motors

### COMPRESSORS



Centrifugal & Axial



Integrated



Subsea



Direct Drive High Speed



Turbo expanders

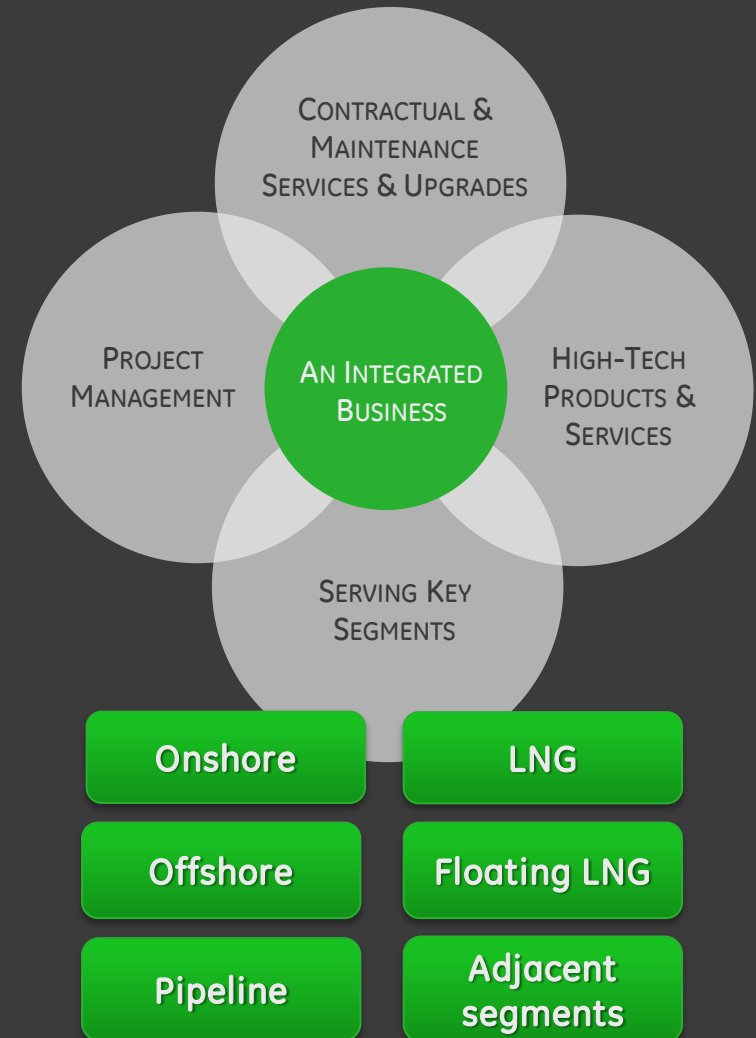
### TURN-KEY SOLUTIONS



Industrial Modules



Waste Heat Recovery





# Our competitive advantage

## Technology

- Innovating with proven solutions — robust NPI deck
- Best in class product integration, compressor and drivers

## Execution

- Project execution excellence — end-to-end project control
- Predictability — planning platform & testing capabilities
- Cost, cycle — scalability

## Expertise

- Global & local partnerships / teams
- Industry know-how

Robust processes to manage increasing complexity

## Australian Projects

Excellence Award in  
**Quarantine Management**



# Industry mega-trends

↑ **80**  
MMboe/da

of new production  
capacity needed by  
2020



**4-7%**

rate of industry  
growth between  
now and 2020

↑ **35%**

Subsea production  
by 2018

↑ **5x**

Increase in capex per  
barrel of new capacity  
2008-2016

↑ **50%**

Unconventionals  
production by 2018



# Our customers' expectations



- ✓ Dependable partner – safety, integrity, quality and predictable execution
- ✓ Innovation & technology – cost effective, new and improved solutions
- ✓ Global and local – scale and localization





# Different customers, common challenges

Harsh/remote  
locations



Environmental  
regulations



Labor  
shortage



Providing solutions to enable  
our customers' success

# LNG

# Traditional approach



## 5 years

Project duration

## 18 months

Commissioning time

## 1,700 x

Project site acreage





# Systems solution applied to different environments

EXTREME ENVIRONMENTS



SHALE GAS



OFFSHORE





# Systems solution applied to different environments

Two Boeing 747 aircraft are shown on the deck of a ship, stacked vertically. The aircraft are white with blue and grey accents on the tail. They are highlighted with a yellow glow. The ship's name 'NYK-HINODE' is visible on the hull.

EXTREME ENVIRONMENTS



SHALE GAS



OFFSHORE







# From Equipment to Systems into **Micro-plants**

**<2 years**

Project duration

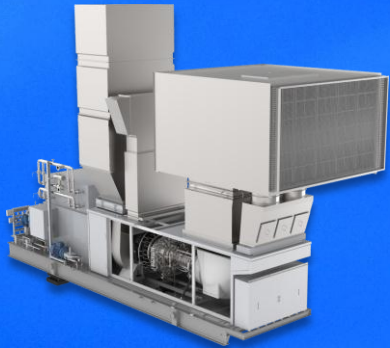
**<3 months**

Commissioning time

Up to **30%** ↓

Project site acreage

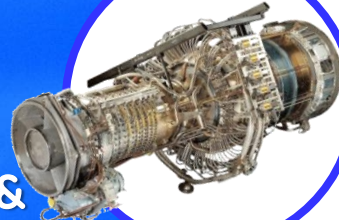
# Winning in Offshore



## SeaSmart™ Offshore Package

Enhanced efficiency & reduced weight

Aviation & Power Water



Durability, weight & efficiency

- Composite materials
- Enhanced combustion

Power Conversion



Electrification

- Power density
- Active magnetic bearings

M&C, Software CoE



Knowledge services

- Predictive maintenance
- Unmanned operations





# Keeping ahead of industry trends

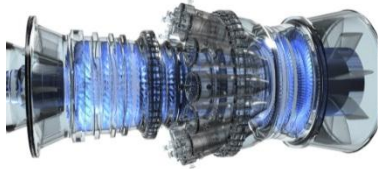
Shell Prelude

Freeport LNG



Applying proven GE technology & expertise to deliver transformational solutions

# Expertise: services driving *Predictivity*



Installed base & data acquisition ...  
the foundation

+



Experience & insight ...  
industry expertise

+



Connectivity & big data ... software & analytics

## After market services & installed base

- **100,000+** machinery control & protection systems
- **10,000+** compressors
- **5,000** turbines
- **~7,000** engineers
- Deep OEM domain knowledge & service expertise
- Integrated software architecture

Services

↑ ++

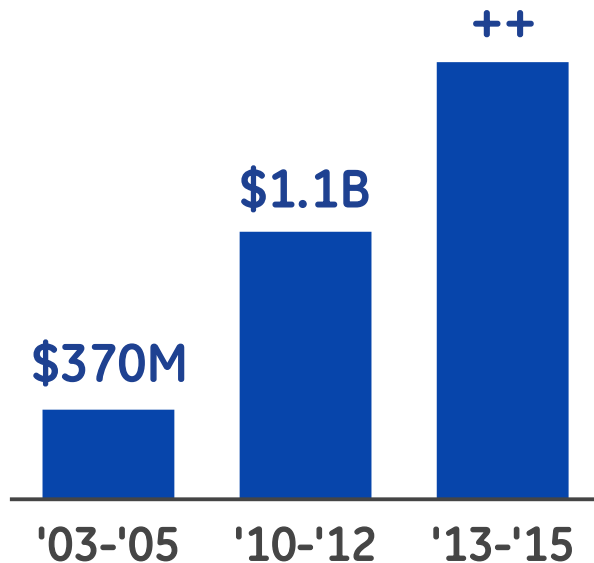
Applying GE services experience to the total portfolio





# Technology - our differentiator

## Our technology spend



Incubating new solutions for harsher, more extreme environments with our customers

**World's largest LNG Compressor Power**

Providing enhanced efficiency for the Gorgon project with a 96.3 MW power compressor



**1<sup>st</sup> System integrated electric motor driven compressor for offshore**

Reducing equipment footprint & costs for Total's Martin Linge offshore project in the North Sea



**Highest mass flow CO<sub>2</sub> centrifugal pump - up to 540 bar capability**

Reducing CO<sub>2</sub> emissions for Petrobras while enhancing oil recovery



**Highest pressure sour gas re-injection train - 820 bar**

Designed, system integrated & tested the Kashagan Project reinjection module systems



Investing to bring GE technology to the oil and gas industry



# Turbomachinery leading customer solutions

## Business growth

(\$ in billions)



- Leading through technology & expertise — services knowledge
- Inside Customers — fostering continuous improvement & flexible solutions
- Differentiated project execution, product testing and scalable supply chain capabilities
- Strategically positioned to take on major industry trends

Positioned to drive profitable growth

# Localizing to drive global capacity



# Africa – the time is right

**\$860B** Africa's consumer spending power **\$1.4T**

**\$430B** Production value of Africa's oil, gas and mineral sectors **\$540B**

**\$45B** Annual investment: infrastructure development and maintenance **\$93B**

## SSA has 7 of 10 fastest-growing global economies (2011-2015)

	%		%
Ethiopia	8.1	Ghana	7.0
Mozambique	7.7	Zambia	6.9
Tanzania	7.2	Nigeria	6.8
Congo	7.0		

## which means...

**Consumer demand rising from fast growing economies**

- Downstream is up: 2 new refineries in Angola and Nigeria
- Petrochem/fertilizers to support agriculture growth
- Connect gas to power in the private sector ... virtual pipeline

**E&P production values and infrastructure growth**

- Continued growth of upstream (SS/TMS developments)
- More SSA countries are finding offshore oil and gas: Ghana, Tanzania, Mozambique, Gabon...
- East Africa LNG transforming global gas trade

**Increasing capital and technology intensity**

- Quick monetization of gas through LNG solutions
- Artificial lift for aging/marginal wells
- Subsea ultra-deep and pre-salt technology key

7% of world production

6.8% of global industry spend

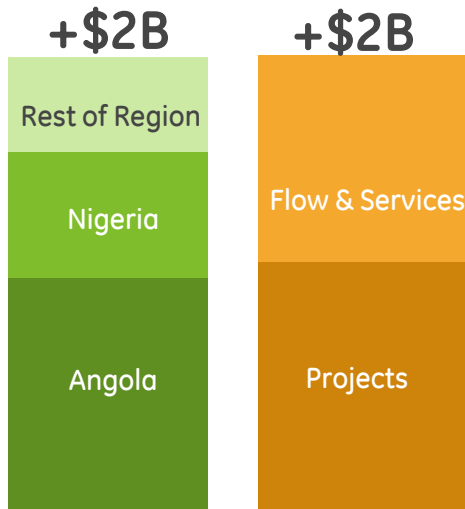
12% of GE Oil & Gas order book



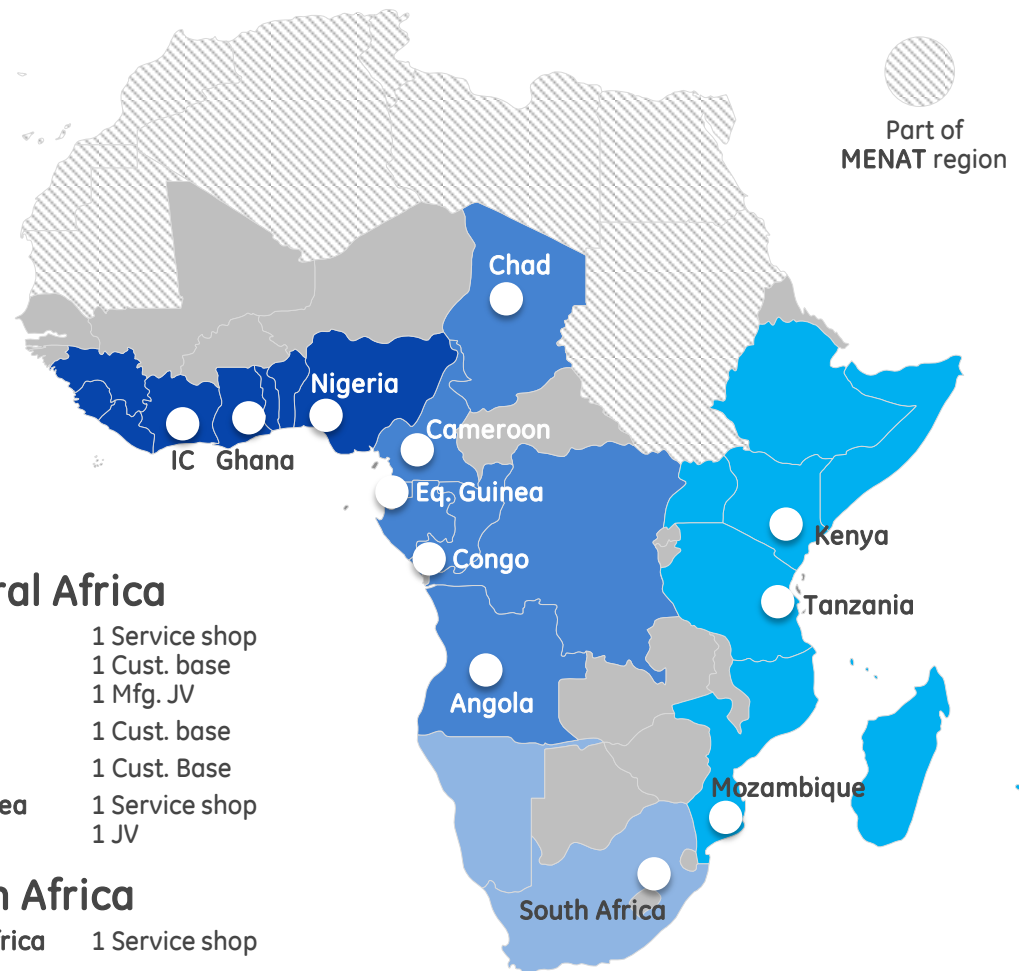


# GE Oil & Gas in Sub-Saharan Africa

## Financials 2013



## Our key locations



- West Africa**
  - Nigeria 2 Service shops
  - Ghana 1 Office
  - Cameroon 1 Office
  - Ivory Coast 1 Office

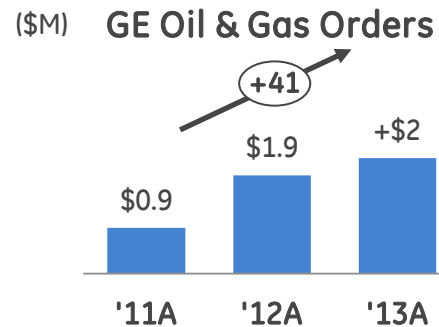
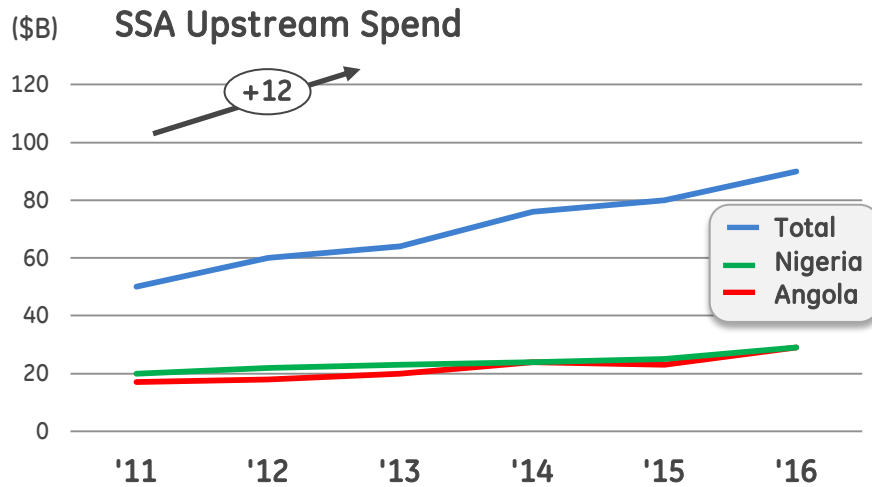
- East Africa**
  - Kenya 1 Office
  - Tanzania 1 Office
  - Mozambique 1 Office

- Central Africa**
  - Angola 1 Service shop  
1 Cust. base  
1 Mfg. JV
  - Chad 1 Cust. base
  - Congo 1 Cust. Base
  - Eq. Guinea 1 Service shop  
1 JV

- South Africa**
  - South Africa 1 Service shop



# GE Oil & Gas growing 3x SSA spend

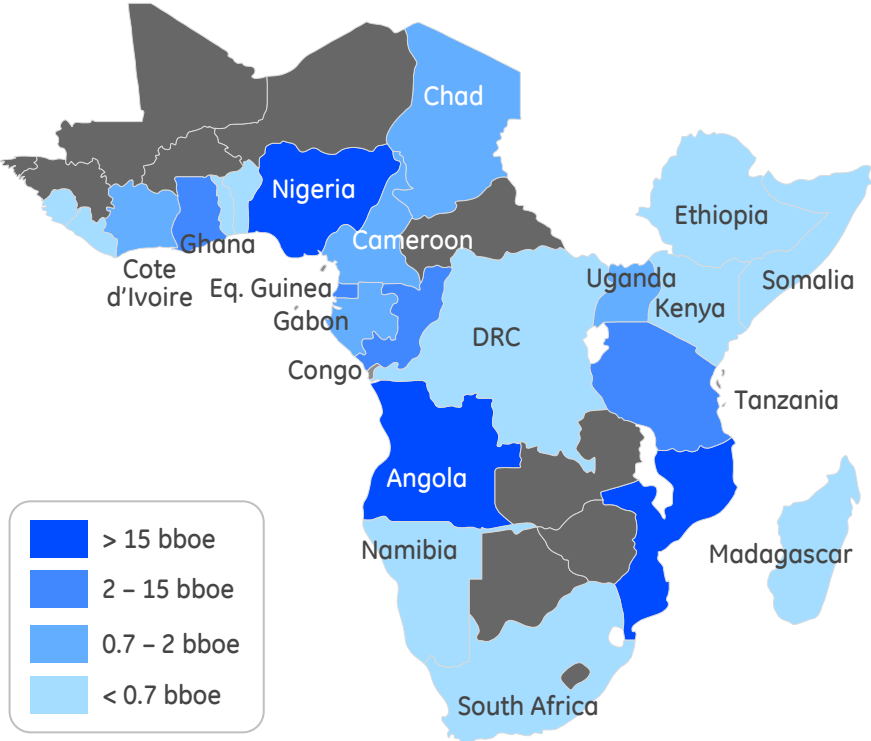


Angola & Nigeria are 70% of upstream spend



# What's next – and after next

## Recoverable reserves



## Exploration hot spots



One-third of world's new oil discoveries since 2000 have been in Africa





# Follow new trends & geographies

## Trends



Oil and gas availability  
+ Consumer demand  
**Refining & Petrochem**



Oil availability  
+ Consumer demand  
**New Refinery**



SSA  
Connect gas to power demand  
**Virtual Pipeline**

## Geographies



Ghana  
OCPT find  
Subsea and Turbomachinery



Tanzania  
Block 1 find  
Subsea and Turbomachinery

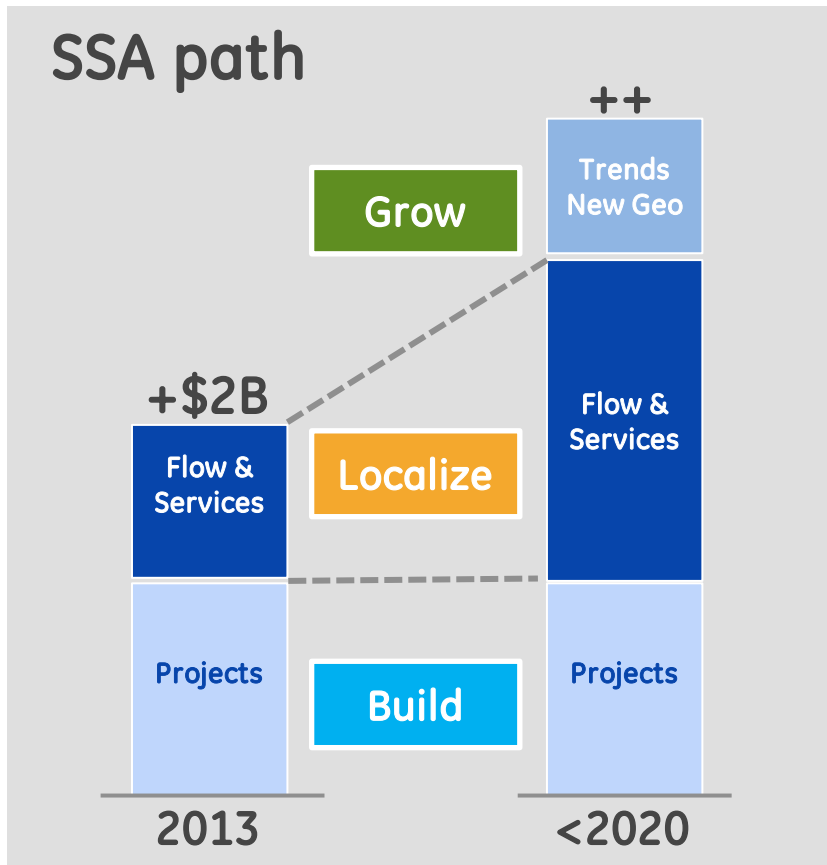


Mozambique  
Area 1 & 4 find  
Subsea and Turbomachinery

**\$6B of opportunities in the next 5 years**



# GE Oil & Gas SSA PATH



- Positioned to follow the trends
- Deploy expertise in Region
- Country/ site development focus
- Execution capability in SSA entities
- Angola JV facility
- ONE GE Nigeria facility
- Training partnerships
- Build Talent- Leadership programs

Fastest Growing Region for Oil & Gas industry



