



GE OIL & GAS ANNUAL MEETING 2016
Florence, Italy, 1-2 February

Digital Industrial Transformation

Jeff Immelt

Chairman and CEO

GE

The world



ENVIRONMENT

Slow Growth

Volatile

Populism



BUSINESS COMMITMENT

Invest to Win

Accelerate Productivity

Move Quickly



Global trends...Extraordinary times

3B

GROWTH IN GLOBAL
POPULATION
BY 2050

65%

GROWTH IN GLOBAL GAS
DEMAND
FROM 2010 TO 2040

50%

OF DEMAND FOR NATURAL GAS
WILL BE MET BY
LNG IMPORTS
OR LOCAL PRODUCTION OF
UNCONVENTIONAL GAS
BY 2040

40+

YEAR AGING
INFRASTRUCTURE
IN MANY MARKETS

International Energy Agency Market Report - January 2015
EXXONMOBIL - The Outlook for Energy: A View to 2040



DEMAND FOR ENERGY WILL CONTINUE TO RISE DESPITE CURRENT VOLATILITY

GE today

THE PORTFOLIO: World-class technology businesses

GE STORE: Foundation for world-class performance

DIGITAL INDUSTRIAL: Leading a new productivity revolution

CULTURE OF SIMPLIFICATION: Speed and customer outcomes

VALUABLE: Win in the market, build with investors



The GE Store

Our competitive advantage



What is the benefit from the larger GE organization?

Driving innovation ... delivering at scale



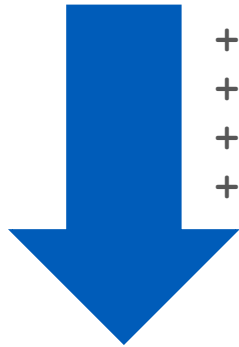
- GE R&D spend
- 50,000 engineers
- 7 Global Research Centers, including the O&G-focused GTC
- 1 Advanced Manufacturing Center
- 13 O&G Technology Solutions Centers
- *FastWorks* approach ... entrepreneurial; poised to pivot



Managing through cycles

Aviation (2001-03)

Engine shipments



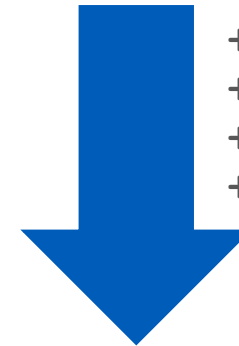
-25%

- + Sustained R&D investment
- + Supported customer solutions
- + Lowered cost
- + Expanded capability

Long Term Technical Leadership

Power (2004-06)

Turbine shipments

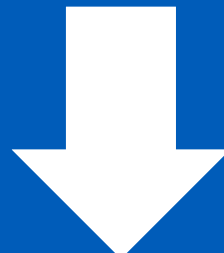


-60%

- + Diversified portfolio
- + Global investment
- + Lowered cost
- + Expanded capability

Stronger Business for future

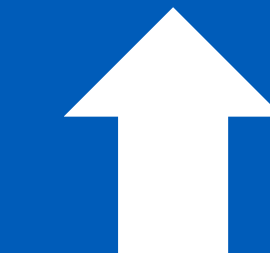
Oil price



-50%

Oil & Gas (2014-)

- + Building technical advantage
- + Lowering cost
- + Improving our capability & team
- + Expanding our capability
- + Offering customer solutions



GE aspirations



GE technology opportunity

Innovation approach



Reduce total system cost
Increase recovery factor



Redesign system architecture
Extend the digital thread



Develop disruptive technology
Digitize for outcomes

Automation

Architecture

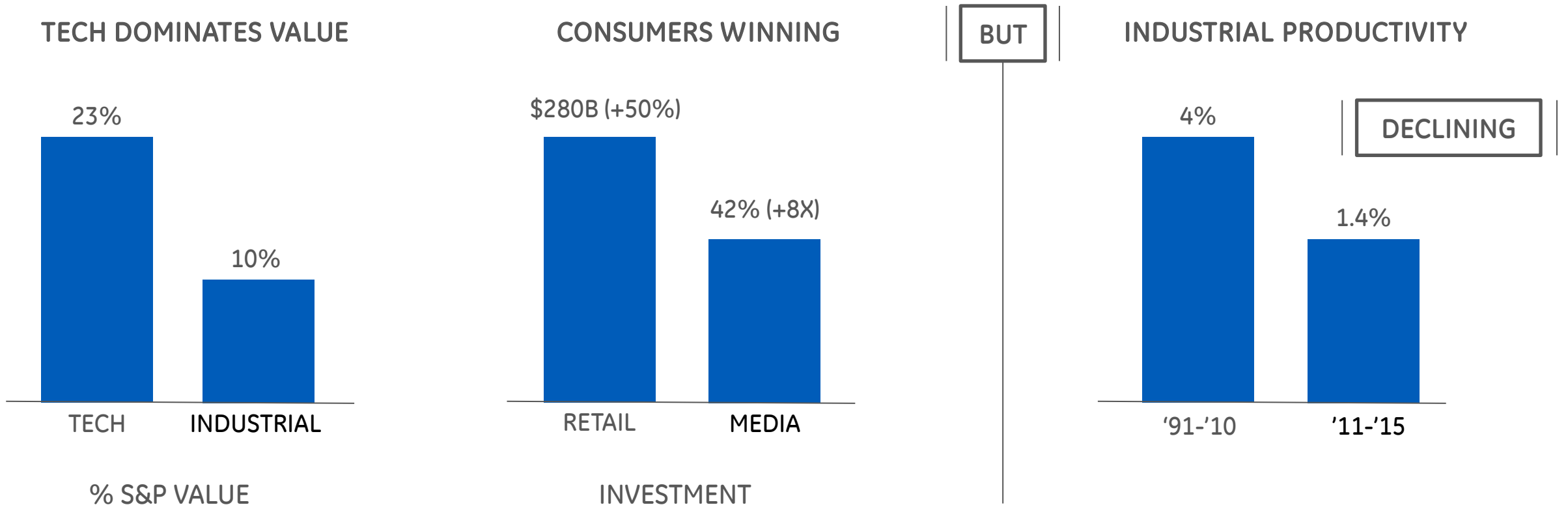
Modularization

Molecules that Matter

Outcome: Cost + Cycle + Throughput



Industry must go digital: It's our turn!



- Industrials have not benefitted from internet investments
- Industrial Internet changes the game ... "Power of 1%"
- Opens up a \$225B market



Physical + analytical

Physical

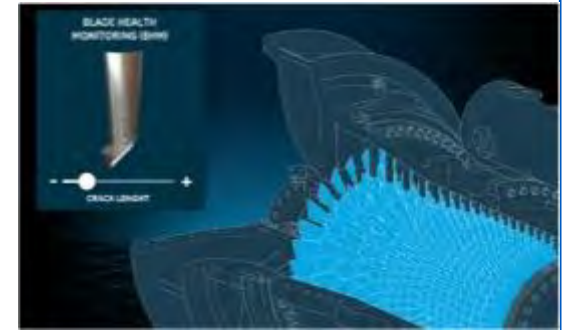
Multiple materials in complex systems — hundreds of patents in each product

Operating with high efficiency & durability in extreme conditions



Analytical

1 gas turbine compressor blade monitoring potential: 500 gigabytes per day



Capability of technology is changing

Every industrial company must be a software & analytical company



Digital Industrial framework

1

Smart machines
& digital thread



GE value
chain

Customer
outcomes

Industry
ecosystem



... design through installed base

2

“Analytical apps”
→ customer outcomes

Power
of 1%

Growth
Uptime
Efficiency
Safety
Capacity

Assets under management
apps
partners
\$ outcomes

3

Analytical
operating platform

Predix
Platform

Cloud-based platform for
the Industrial Internet

Capabilities for
industrial companies

Connected
assets

Industrial data
management

Monitoring &
diagnostics

Asset lifecycle

Industrial data
science

Cloud & mobile

Predictive
maintenance

Operations &
intelligence





Oil & Gas

Impact of unplanned downtime

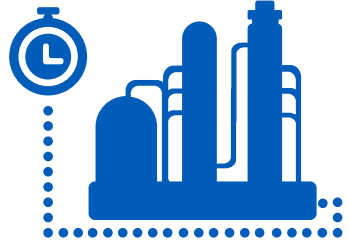


Lost production

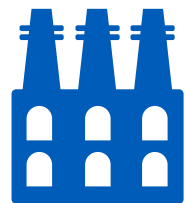


Each week a well is out of commission offshore, lost revenue to operators is:

>\$3 MM per week



Slowed deliveries



Average annual cost for a mid-sized LNG facility due to unplanned downtime is:

\$150 MM



Workforce downtime



Benefits of Predictive Maintenance



Maximize production



Predictable delivery



Lower maintenance costs

Digital Solutions: Outcomes for customers & industry



Realtime data + analytics to enhance pipeline integrity and safety

Intelligent Pipeline Solution



Guarantees uptime of more than 98% for the life of the 22-year deal

LNG Max Reliability



Connecting up to 4K offshore wells to optimize production

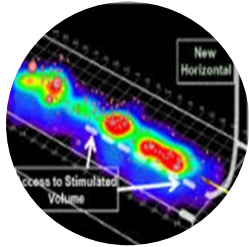
GE Data Management Software

Powered by Predix



FLEXIBILITY = MORE EFFICIENT ASSETS AND OPERATIONS

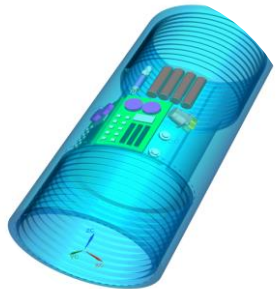
Onshore O&G Solutions



DIGITIZING THE ROCK:

Connectivity to the reservoir – Digital rock physics – Intelligent geological inventories – Sweet spot mapping – At-the-bit sensing – Reservoir and fracture characterization – Reservoir visualization and flow characterization – Reservoir performance optimization and sustainment

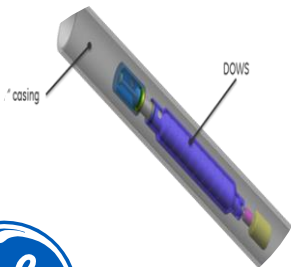
GE Store



SMART IRON:

Downhole sensing – Flexible and reliable artificial lift solutions – AL evaluation, selection, and lifecycle planning – Integrated hybrid AL solutions – Automation – Precision brilliant drilling systems – Predictive production systems – Advanced instrumentation AL systems

Physical + Digital



INVISIBLE OILFIELD:

Re-thinking hydraulic fracturing (initial, subsequent, and alternative stimulation) – Downhole processing – Downhole/Pipeline power induction – Harvesting natural reservoir energy – Multiphase fluid analysis – Remote operations – Zero discharge – Flexible, mobile, and modular fit-for-purpose water treatment – Secondary and tertiary recovery ecosystems

Yield @ Cost + Ecomagination



Consistency through a tough cycle

Build our team

- 1 **Customer-centric regions** ... Aligning our footprint to match your needs (manufacturing/services localization); Partnership/collaboration at core
- 2 **One commercial team** ... making commercial interactions easier with global consistency
- 3 **Technologically superior product companies** ... Designing, building & delivering market-leading technologies
- 4 **Lean enabling HQ** ... Driving simplification and sharing best practices globally to enable front-line focus on your results

Focus on solutions

- **Launched new technologies** including small & large scale gas turbine range, high pressure compressor, multiphase flow meter
- **Created GE Digital Solutions** for Oil & Gas with full stream offerings, including LNG, Pipeline and Downstream
- **Industrial Financing** solution for oil and gas infrastructure projects
- **New customer partnerships** Statoil Powering Collaboration, PEMEX MOU, co-creation agreements and CSAs

CUSTOMERS DETERMINE OUR SUCCESS.
WE HAVE TRANSFORMED OUR ORGANIZATIONAL
STRUCTURE TO SERVE YOU BETTER.



Leading through cycle

Focus on what you control

Few charts / Few studies / Few consultants

Believe in “Self Help”

Fast, Flexible + Customer focused

Protect the Future



Our path forward

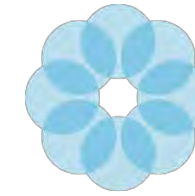
The core of GE is technology

Digital will drive productivity

We are focused on customers

Play for the long term





Annual Meeting 2016
Fueling the Future
GE OIL & GAS



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