ABOUT
ACCENTURE

5 core businesses
STRATEGY  CONSULTING  DIGITAL  TECHNOLOGY  OPERATIONS

411,000 employees
serving clients across 120 countries

94 of Fortune Global 100 served
and more than 3-quarters of Fortune 500

14,000 professionals
with Energy industry experience

30+ Energy hubs globally

Copyright © 2017 Accenture All rights reserved.
SHYAN YIH HON

Senior Manager
Technology Consulting in O&G
Accenture Consulting, Malaysia

shyan.yih.hon@accenture.com
linkedin.com/shyanyhon
Big Data/ Analytics is seen as a key opportunity to transform O&G companies

Accenture-Microsoft Upstream Oil & Gas Digital Trends Survey 2016

36% of business leaders are already investing in Big Data/ Analytics

40% believe Big Data/ Analytics is ‘Most Important’ opportunity to transform their companies

For more survey insights, visit www.accenture.com/digitalenergytrends

Copyright © 2017 Accenture All rights reserved.
O&G companies are still in the early stages of monetizing their information.

Most operators today:

- **Basic**: Data captured manually after and reviewed, with judgment-based decisions.
- **Reactive**: Data captured but average in quality and with limited analytics applications.
- **Proactive**: Quality data captured in real time and analyzed with decision analytics.
- **Prescriptive**: Real-time prediction and optimization based on data available to drive optimal decisions.

Adoption of digital technology & trust in data-driven decision making is less prominent in Production & Operations.

Applications of Big Data/Analytics:
- Operational excellence
- New operating models
- Capital efficiency
- Regulatory management

Stage Duration:
- Exploration: 4–8 years
- Appraisal: 2–4 years
- Development: 10–30 years
- Production & Operations: 2–5 years
- Abandonment: 2–5 years
Harvesting information from data remains a challenge

Useful insights
Unlock trapped values

Structured
- Cost & budgeting
- Technical history
- Inspection reports

Unstructured
- Operator log
- Maintenance records
- Work planning
- Transport manifest

Sensor feed
SCADA
Data historian
Real-time personnel tracking

Video/ CCTV feed

Manual

Automated
How Predictive Maintenance could equal Reactive Maintenance

True predictive maturity is built upon solid foundation of prior maturity level

- Corrective
- Planned
- Preventive
- Condition Based
- Predictive
- Collaborative
- Prescriptive
- Predictive
- Diagnostic
- Descriptive
Dealing with Unstructured Data

- Promote culture shift to an insight-driven enterprise
- Identify existing talent who are analytically astute
- Recognize business value of data entered

Visualize business value at speed

- Emphasize speed-to-value in analytics development
- Adopt an end-to-end process view, integrating enterprise and operations

People

- Promote culture shift to an insight-driven enterprise
- Identify existing talent who are analytically astute
- Recognize business value of data entered

Process

- Aggregate/ transform at point of data input
- Embed automation and metadata tagging
- Utilize file analysis software to manage glut

Tools
Do people trust your data?
Do your processes allow for the fast generation of actionable insights?
Do your tools transform data?
What do you do now?
The data is already there...

Wait and See

**Exploit Today**

Build for the Future

People <> Trust
Process <> Speed to Insights
Tools <> Transformative

Copyright © 2017 Accenture  All rights reserved.
We drive end-to-end transformation for clients across our five businesses and lead with innovation

ACCENTURE RESEARCH
Trends
Ideate through thought leadership

ACCENTURE VENTURES
Investment & Open Innovation
Shape emerging technologies

ACCENTURE LABS
Research & Development
Prototype through applied R&D projects

ACCENTURE STUDIOS
Solution Innovation
Build with speed and agility

ACCENTURE INNOVATION CENTERS
Use Cases & Assets
Scale re-use with clients

ACCENTURE DELIVERY CENTERS
Industrialization
Industrialize sales & delivery
WE HAVE CREATED AN IMMERSIVE DEMONSTRATION ENVIRONMENT TO FOSTER BREAKTHROUGH THINKING

San Jose, CA
Washington, D.C
Houston, TX
Belo Horizonte, Brazil
Bangalore, India

Accenture Digital Energy Showcase, Sophia Antipolis
Accenture Digital Energy Showcase, Bangalore
Accenture IoT Centre of Excellence, Singapore
Liquid Studios, Melbourne & Sydney Australia

The Dock, Dublin

San Jose Technology Lab
Houston Innovation Hub

Accenture Plant Optimization Centre, Belo Horizonte

Accenture Labs

We work at the intersection of digital customer, business and technology trends to incubate the next generation of customer experience, marketing, content and commerce solutions.

ACCENTURE INTERACTIVE R&D

We explore new and emerging technologies to create a vision of how technology will shape the future and invent the next wave of cutting-edge business solutions.

Copyright © 2017 Accenture All rights reserved.
WE SHOWCASE INNOVATION IN REAL OPERATING SITUATIONS

The Internet of Things Center of Excellence (CoE) for Resources in Singapore and the Accenture Innovation Hub in Bangalore are state-of-the-art facilities that showcase innovations to help companies get the most out of new digital services and business models.
How are you using unstructured data to optimize Production & Operations?