



# Asset Solutions Americas

December 2018

Robin Watson – Chief Executive, Wood

David Kemp – CFO, Wood

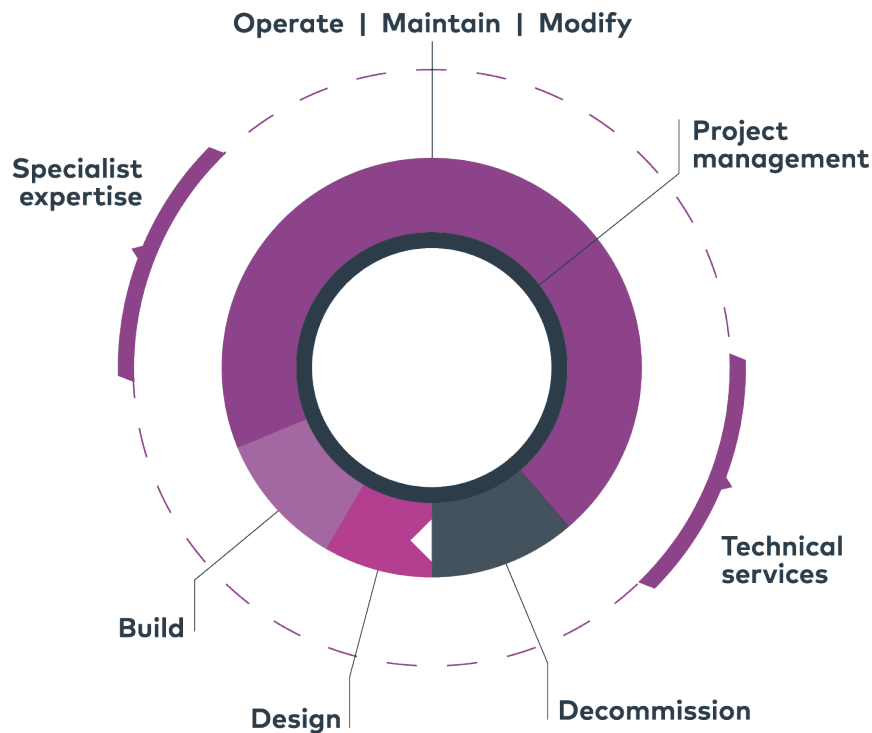
Andrew Stewart – CEO of ASA

Kent McAllister – President Capital Projects, ASA

[woodplc.com](http://woodplc.com)



# Asset Solutions: support across the asset life cycle



## Capital Projects (Capex driven)

- Engineering
- Project management
- EPC/EPCM projects
- Construction and field services

## Operations Solutions (Opex driven)

- Operations
- Maintenance
- Modifications
- Industrial services
- Commissioning
- Decommissioning

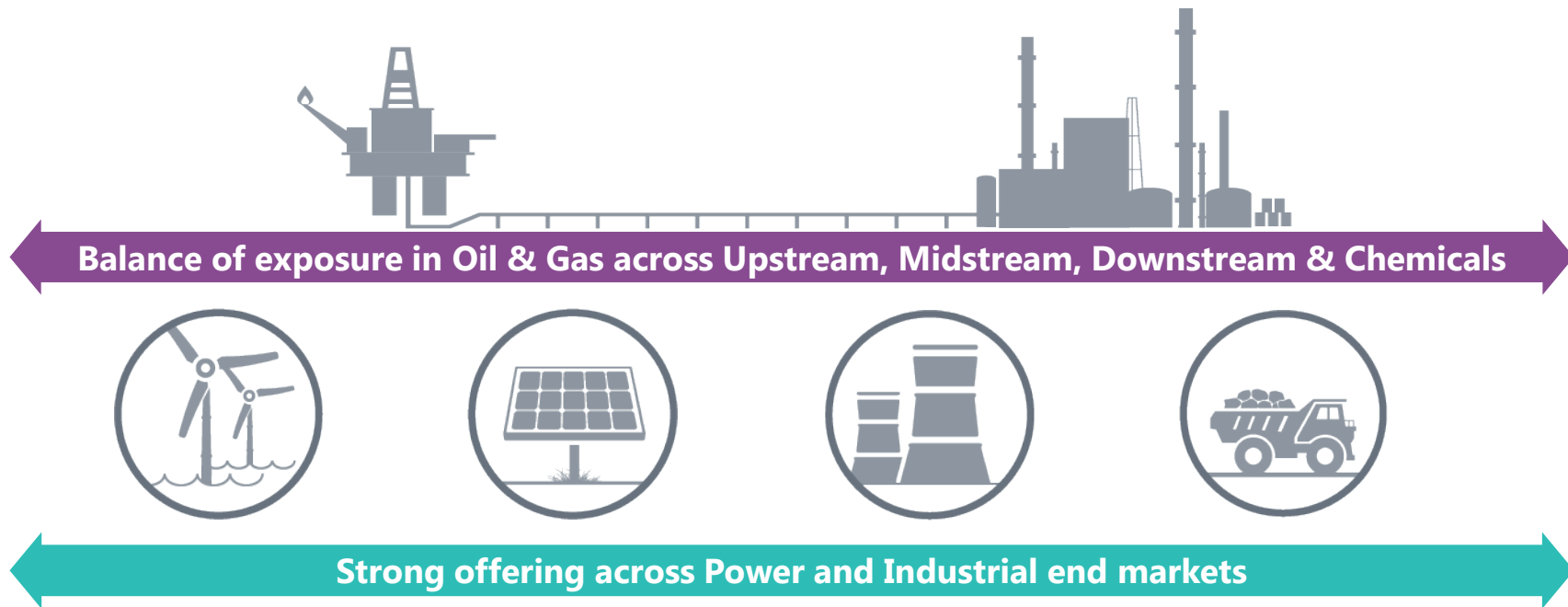
# Asset Solutions: the core business in our delivery model

Reportable Segments	Asset Solutions Americas (c35% of Revenue*)		Asset Solutions EAAA (c35% of Revenue*)		Specialist Technical Solutions (c15% of Revenue*)	Environment & Infrastructure Solutions (c12% of Revenue*)
	Capital Projects	Operations Services	Capital Projects	Operations Services	Integrator Solutions & Technology and consulting	E&I Solutions
Includes	Upstream & midstream	Operations & Maintenance	Upstream	Operations & Maintenance	Subsea & Export Systems	Environmental Remediation
	Downstream & Chemicals	Modifications	Downstream & Chemicals	Modifications	Automation & Control	Environmental Sciences
	Power & Industrials	Decommissioning Services		Industrial Services	Mining & Minerals	Permitting & Compliance Services
				Decommissioning Services	Nuclear	Public Infrastructure
				Turbine Activities	Technology & Consulting	Geotechnical & Materials
						Facility Operations

\* Based on H1 2018 revenue



# ASA: Strong operational platform with multi sector capability



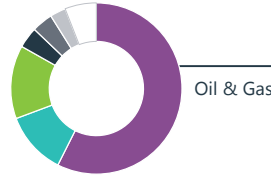


# ASA underpins Wood's key investment themes

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Broad sector exposure;  
lower volatility



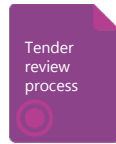
Leading & differentiated  
position in oil & gas



Balanced across opex  
and capex spending



Flexible, asset  
light business  
model



Commercially versatile  
with a measured risk  
appetite



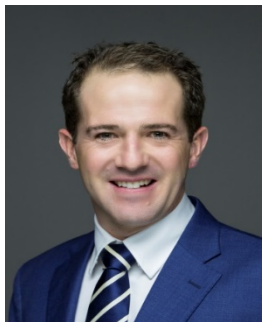
Blue chip customer  
base with OECD  
weighting



Strong cash  
generation

# Strong and experienced management team

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## **Andrew Stewart** | CEO Asset Solutions Americas

- BE Hons in Mechanical Engineering, University of Melbourne
- MBA, Melbourne Business School
- Previously led Wood's brownfield production services business in Australia & Asia Pacific. Prior president of construction, maintenance and operations for the United States, Canada, Latin America and the Caribbean
- Ten year career with Wood
- Awarded Houston Business Journal's Most Admired CEO in 2018



## **Kent McAllister** | President Capital Projects, Asset Solutions Americas

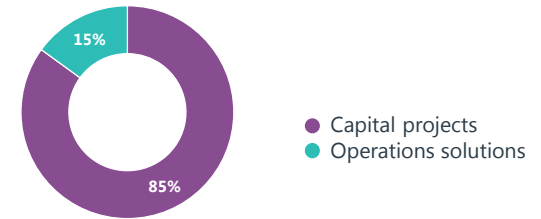
- BS Chemical Engineering from the University of Arkansas
- 25 years experience in deep water production facility design and business leadership
- Previously led Wood Group's offshore global operations group. Prior president of the offshore business in the United States
- 20 year career with Wood

# ASA : who we are and what we do

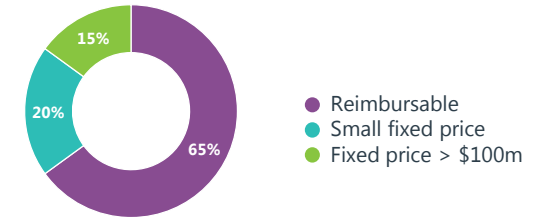
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- Life cycle services supporting assets from concept through to operation
- **Capital Projects:** Adding value to capital investment from concept to start-up through delivery of predictable project outcomes
- **Operations Solutions:** Increasing production, improving efficiency, reducing cost and extending asset life
- Operating across a diversified range of markets; oil & gas, power and industrial
- Commercially versatile with flexible delivery model

Our services

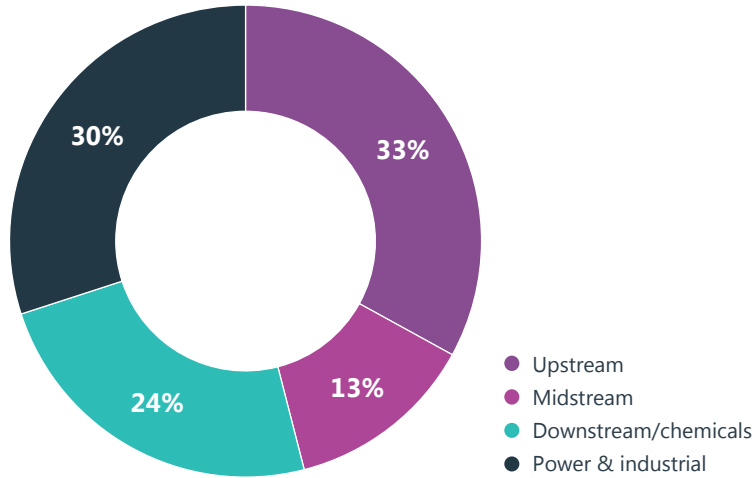


Our delivery model

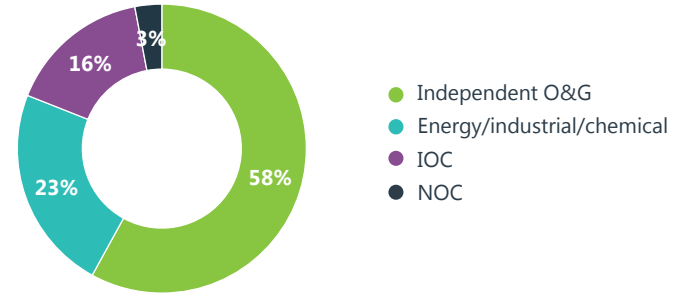


# ASA at a glance

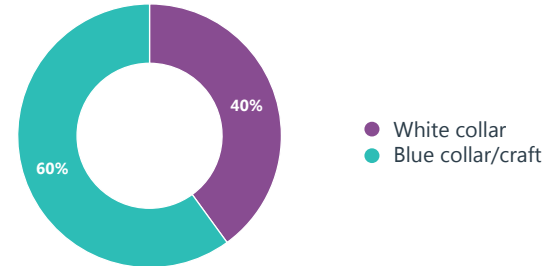
Revenue\* by Sector



Top 20 Customers by type

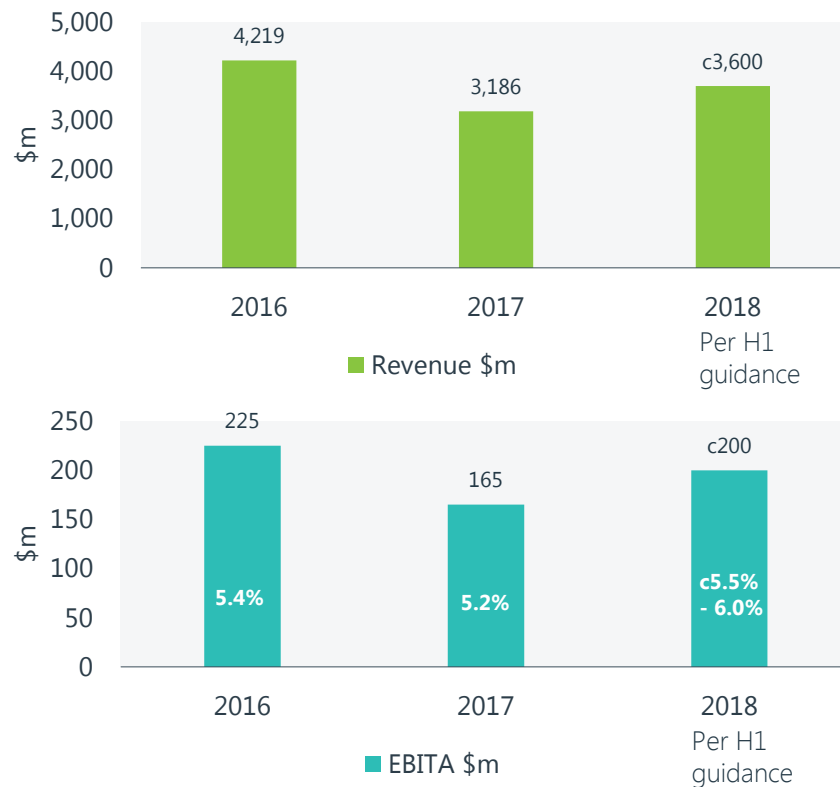


Headcount: c18,000\*\*



# Strong organic growth in 2018

- Good recovery into 2018 driven by US shale and downstream & chemicals activity
- Maintained market share in offshore greenfield engineering; challenging conditions in operations solutions
- H1 2018 margin guidance: c5.5% - 6.0% supported by cost synergy delivery
- Growth in US shale expected to continue near term



# Order book and revenue synergies

## Order Book

- Reflects short cycle nature of contracts
- Predominantly reimbursable/ lower risk fixed price
- Lump sum work reflects increase in downstream/chemicals, power & shale activity

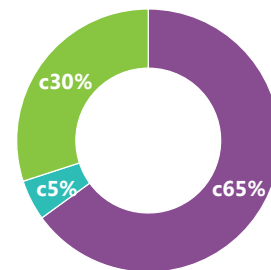
## Revenue synergies

- Over \$200m revenue synergies secured
- Opportunities driven by:
  - Scale
  - Breadth of services
  - Self performance capability

Order Book at 30 June 2018

c\$3.0bn

Order book by revenue type



● Reimbursable  
● Small fixed price  
● Fixed price >\$100m

# Enduring customer relationships

## Major customers by length of relationship





# Leading market positions across end markets

## Market leader in Upstream Capital Projects:

- Ranked #1 in Top Firms for Offshore facilities  
[Source: Engineering News Record]
- Designed 30 of 52 floater topsides in GoM
- Designed more compliant piled towers than any other company in the world

## Largest offshore Operations Solutions provider:

- Delivering Operations Solutions on 40% of GoM platforms
- Supporting c75% of clients in the GoM deepwater market

## Predominant player in shale facilities & midstream:

- Only company with presence in every shale basin
- Largest and most vertically integrated pipeline project offering in North America

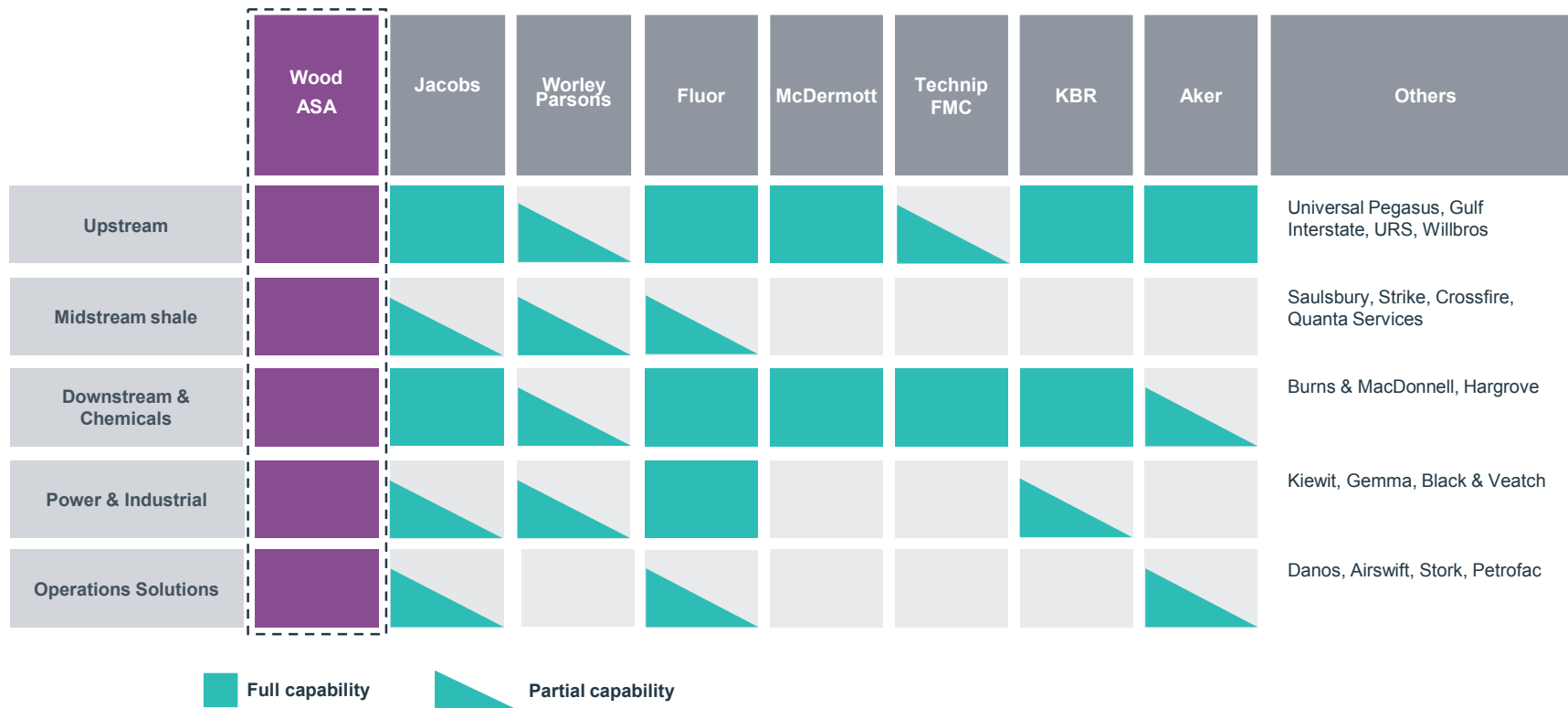
## Ranked #10 in Power & #5 in Solar Power

[Source: ENR's 2018 Top 400 Contractors]

## Significant presence in downstream:

Delivered \$3bn downstream projects along the Gulf Coast over 5 years

# Competitive landscape

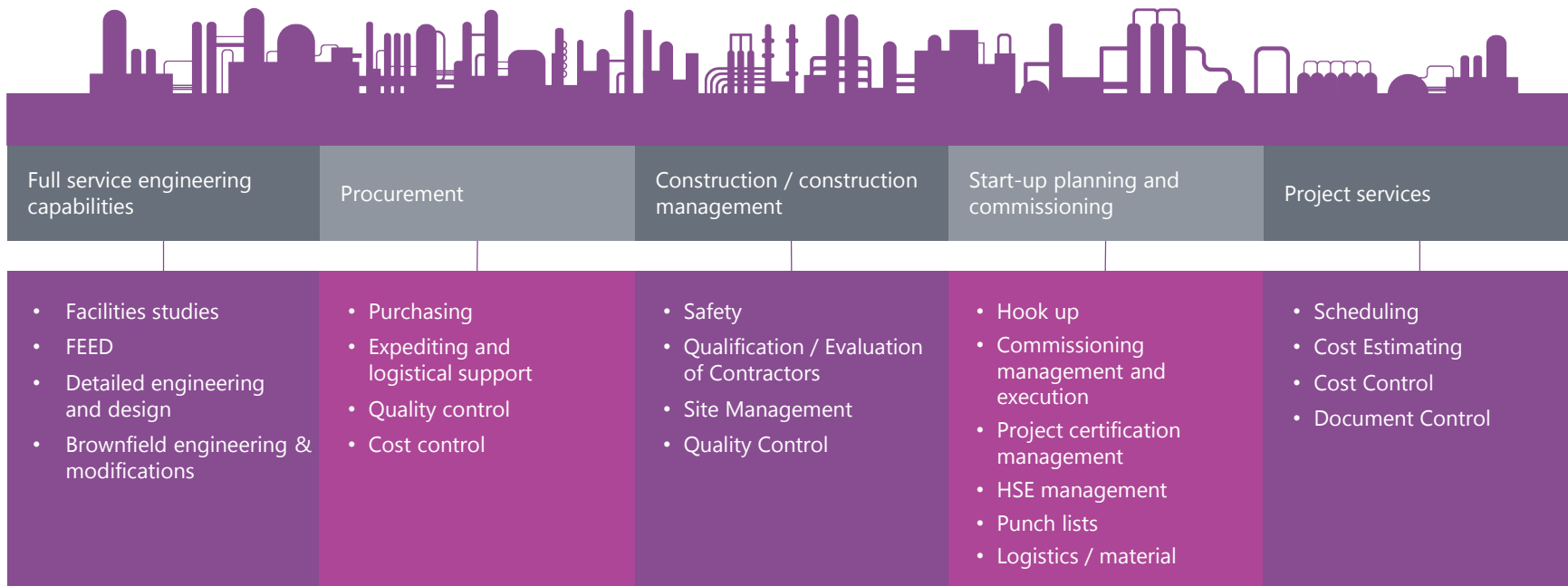


# Why choose us

- **Unmatched capability set and track record:**
  - Breadth and depth of asset services
  - Long track record of safe, successful delivery
- **Aligned with customer needs:**
  - Focused on cost effective & scalable delivery models
  - Innovative, technology enabled solutions
- **Unrivalled technical know-how:**
  - Providing solutions for some of the world's most complex projects



# Capital Projects – full service capability



# Capital Projects – Upstream

**Industry leader** in the **design, engineering & project management** of upstream facilities

## Key strengths:

- Conceptual development
- Front-end engineering design (FEED)
- Detailed design
- Follow-on engineering services
- Project management & procurement
- Brownfield facility upgrades

## Specialisms:

- Fixed offshore platform jackets & topsides
- Floating production systems lightweight topsides
- Subsea production & riser systems
- Offshore platform-based LNG facilities
- Innovative onshore well pad designs
- CO2/EOR

# Capital Projects – Upstream

## Noble Energy

Leviathan offshore platform



FEED, detailed design, procurement, project management for fixed production platform and jacket

**42 months**

to first gas from start of FEED

## Equinor

Peregrino II wellhead platform, offshore Brazil



FEED, detailed design, procurement, project management for wellhead platform

**Extended Operations Solutions relationship into Capital Projects**

## Suncor

Firebag well pad program, Alberta, Canada



Proprietary, standardized Wood SAGD design well pad design

**75%** cost improvements

**90%** reduction in engineering hours

**70%** reduction in construction hours

# Capital Projects – Midstream

**Self performed construction** capability and **industry leading** pipeline services

## Key strengths:

- Complete pipeline field services
- Compression and pumping facilities
- Enhanced oil recovery (EOR)
- Construction & construction management
- Measurement, pigging and storage facilities

## Specialisms:

- Oil, gas, condensate & LPG/NGL processing
- Pipeline engineering
- Compressor, pump & metering stations
- Field services



# Capital Projects – Midstream

## Anadarko

Mentone Gas Plant Project, Permian,  
Texas, US



Construction of two gas trains, two amine filtration units, high pressure stabilizers & inlet catcher

**6** Wood service lines involved in execution

## Great Western Oil & Gas

Raindance Pipeline Construction,  
Colorado, US



Engineering, design, construction and construction management for 60+ oil and natural gas pipelines

Delivered **60** pipelines over  
**45** miles

Trans-basin Pipeline Engineering &  
Design, US



Engineering, design and permitting services for a large crude oil pipeline in North America

**870**  
mile pipeline connecting Permian &  
Eagle Ford to refinery terminals

# US Shale

- Civils, Construction, Fabrication, Pipeline facilities & operations
- Strong top line growth
- Current focus on pipeline and infrastructure project management and construction
- Permian is largest footprint
- Driver is midstream projects not rig count
- Capacity constraints are driving growth
- Revenue up c40% in 2018



# Capital Projects – Downstream & Chemicals

Applying **technical innovation** to **successfully deliver** some of the world's most **complex** facilities

## Key strengths:

- Proprietary technology enabled; delayed coking, hydrogen & sulfur recovery
- Petrochemicals
- Utilities, infrastructure & offsites development
- Field construction support facility

## Specialisms:

- Technology provider
- Consultancy services
- Front end design
- Engineering, procurement, construction
- Fabrication
- Professional Technical Manpower

# Capital Projects - Downstream & Chemicals

## Yuhuang Chemical Inc (YCI) M1 Methanol Plant, Louisiana, USA



Full EPC services for the construction of onshore methanol plant

World scale chemical complex covering **1,300 acres**

## World-scale Olefins Complex, Texas, USA



Reimbursable EPC for key infrastructure facilities for a world-class olefins facility

**1,100+**  
employees at peak construction

## Field Construction Support Facility Clute, Texas, USA



Self performing fabrication facility for carbon, stainless & alloys

### **Delivers:**

- Improved quality
- Reduced risk
- Reduced cost

# Capital Projects – Power & Industrials

**Specialised** services focused on reducing risk in large scale conventional **power**, **renewable** energy and **industrial** projects

## **Key strengths:**

- Design and build capability
- Solar, wind, fossil fuel, industrial process
- Self performed construction capability

## **Specialisms:**

- Engineering, procurement, construction
- Project & construction management
- Safety & Environmental
- Operator training
- Commissioning & start up
- Plant outage

# Capital Projects – Power & Industrials

## Sempra US Gas & Power Copper Mountain, Nevada



EPC contract to install multi-crystalline silicone solar panels

**1,500,000**

Solar panels installed; one of the world's largest solar projects

## INEOS Olefins & Polymers Chocolate Bayou Works, Alvin, TX



Full EPC services to deliver a cogeneration project

### Delivering:

- cost efficiencies
- improved carbon footprint
- Increased steam capacity

## Veramaris (Evonik & DSM JV) Green Ocean Blair, NE



EPCM services to design and construct a fermentation facility to produce Omega 3 fatty acids

**First** of its kind production facility in terms of scale

# Operations solutions

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# Operations Solutions

## **ExxonMobil / HMDC**

Hibernia Platform, St. Johns,  
Newfoundland, Canada



Offshore operations & maintenance

**21 years**

of continuous services on Hibernia  
across the asset lifecycle

## **Carbon Creek Energy**

Coal Bed Methane Asset Management,  
Wyoming, USA



Onshore operations & maintenance  
& asset management

**15%**

Reduction in operating costs

**150%**

Increase in equipment run time

## **Hess**

Stampede, offshore Gulf of Mexico,  
USA

















Full lifecycle solutions from offshore  
design to operations services

**Continuity  
of services**

from engineering to Operations  
Solutions

# Medium term outlook – Asset Solutions Americas

Markets	Position / outlook	Rating
 <b>Oil &amp; Gas</b> Upstream - offshore	<ul style="list-style-type: none"> <li>Discipline in customer spending &amp; focus on supply chain efficiency</li> <li>Scope for additional brownfield work in GoM &amp; Brazil emerging</li> <li>Gulf coast export terminals opportunities in the medium term</li> </ul>	 
 <b>Oil &amp; Gas</b> Upstream - onshore	<ul style="list-style-type: none"> <li>Steady growth in shale markets in the near term</li> <li>North American crude and NGL production expected to improve</li> </ul>	
 <b>Oil &amp; Gas</b> Midstream	<ul style="list-style-type: none"> <li>Positive medium term outlook as shale activity continues to grow</li> <li>Expected to taper with the flattening of shale production</li> </ul>	
 <b>Downstream/chemicals</b>	<ul style="list-style-type: none"> <li>Continued investments in our core markets anticipated</li> <li>Supply of low cost feedstocks driving demand</li> <li>Clean fuels regulation (MARPOL) generating additional investment in refining</li> </ul>	
 <b>Power</b>	<ul style="list-style-type: none"> <li>Anticipate solar and wind capacity additions</li> <li>Natural gas-fired power generation project volumes expected to decline</li> <li>Coal retirement projects expected to decline as number of coal fired plants reduce</li> </ul>	 
 <b>Industrial</b>	<ul style="list-style-type: none"> <li>Strong economy and low interest rates stimulating capital investment</li> <li>Interest rates are expected to continue to rise</li> </ul>	

# Summary

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- Broad and deep capability across the asset life cycle
- Differentiated by innovative & efficient solutions, strong technical capability & track record of safe & successful delivery
- Leading positions in upstream, midstream, downstream & chemicals, power & industrial
- Enduring relationships across a broad blue chip customer base
- Strong organic growth in 2018