

# SUSTAINABLE DEVELOPMENT REPORT 2016





### On the cover

Woodside places great value in supporting and recognising indigenous cultures.

The cover shows West Australian Aboriginal theatre company Yirra Yaakin performing Boodjar Kaatijin. The performance takes the audience on a cultural journey about Noongar knowledge sharing, caring for country and environmental sustainability.

Woodside has supported the Yirra Yaakin Theatre Company since 2012 and the Sustainable Development Report is our way of sharing our sustainability story and demonstrating how we have grown in 2016.



### Our Annual Report 2016

Our Annual Report 2016 is a summary of Woodside's operations, activities and financial position as at 31 December 2016. Copies of the Annual Report 2016 are available on request or from our website.

## Our Compass



### Who we are

#### Integrity

We are open, honest and fair. We do what we say we will do. We have the courage to do the right thing.

#### Respect

We give everyone a fair go. We listen.

#### Working sustainably

We are here for the long term. We look after each other, our communities and the environment. We keep each other safe.

#### Working together

We are on the same team.  
We build long-term partnerships.

#### Discipline

We play by the rules.  
We set goals and we hold ourselves to account.

#### Excellence

We achieve great results.  
We learn. We get better.

### Where we're going

#### Our mission

To deliver superior shareholder returns.

#### Our vision

Our aim is to be a global leader in upstream oil and gas.

#### Our strategic direction

Maintain our leading Australian position by optimising our producing assets and commercialising our growth projects and other premium opportunities.

Grow our portfolio by leveraging our core capabilities for global upstream growth.

### How we'll get there

#### Partner of choice

We are the premium choice for partnerships based on our distinctive capabilities, culture and track record as a great partner.

#### Engaged people

We work for a highly regarded and successful company. We are part of a team working together for great results and have opportunities to contribute and grow.

#### Functional excellence

We leverage our core capabilities and the latest technology to create new opportunities and sharpen our competitive edge.

#### Decision effectiveness

We make and execute decisions in line with our business priorities and our values.

### Additional information

In this report, we have indicated where additional information is available in other sections of this report and online like this:

1 Notes and definitions and a glossary of key terms are on pages 62-63.

2 For more information go to our website.

### Report feedback

To help us improve our report, we welcome your feedback.

Email: [communities@woodside.com.au](mailto:communities@woodside.com.au)



We are working with Green Reports™ in an initiative that ensures communications minimise environmental impact and create a more sustainable future for the community.



# About this report

## Scope

This report is published for key stakeholders to understand Woodside's sustainability approach, actions, performance and key material issues for the 12-month period ended 31 December 2016. The report was approved by the Woodside Board of Directors on 14 March 2017.

Woodside Petroleum Ltd (ABN 55 004 898 962) is the parent company of the Woodside group of companies. In this report, unless otherwise stated, references to 'Woodside', the 'Company' and the 'Group' refer to Woodside Petroleum Ltd and its controlled entities. The information in this report covers all sites and production facilities wholly owned and operated by Woodside or that are operated by Woodside in a joint venture.

Our share of production and revenues from non-operated assets is reported on an equity share basis. In these instances, we have only reported the Woodside interest. Health, safety, environment and people performance data is reported as total, although environmental performance data also includes a Woodside equity share reporting basis. Health and safety data includes international exploration activity.

All dollar figures in this report are expressed in USD currency, unless otherwise stated.

## Reporting approach

The Sustainable Development Report 2016 has been restructured from previous years to reflect our updated sustainability principles. This change in reporting structure demonstrates our maturity in reporting, setting targets and approaching issues holistically as well as addressing stakeholder feedback. It also better links our sustainability principles to our company mission, vision and values.

The report has been prepared in accordance with the Global Reporting Initiative (GRI) G4 core-level reporting. The GRI guidelines provide a globally accepted framework of principles and indicators for reporting an organisation's economic, environmental and social position, practices and performance. This report includes indicators from the GRI G4 Oil and Gas Sector Disclosures.

Woodside also reports in accordance with IPIECA and Oil and Gas Industry Guidance on Voluntary Industry Reporting (2015). IPIECA is the global oil and gas industry association for environmental and social issues.

A GRI and IPIECA content index, which cross-references the GRI and IPIECA indicators to the relevant sections of this report and the Annual Report 2016, is summarised on page 57 and more information can be found on our website.

In determining the report content, we have been guided by the AA1000 standard. The AA1000 standard provides a framework for our organisation to identify, prioritise and respond to sustainability challenges.

## Inclusivity

We acknowledge the importance of stakeholder participation in developing and implementing our response to sustainability reporting. We sought the opinions of a range of stakeholders as part of the materiality process that helped to define the content of this report. More information on our stakeholders, their interests and our responses can be found on pages 14 and 15.

## Materiality

Issues are considered material if they have the potential to impact our ability to achieve our business strategy or affect our reputation, or they are of material concern to our stakeholders. The materiality assessment process is discussed on page 12. This year we selected six material issues. Each material issue has a case study included.

## Responsiveness

The report aims to respond to those issues identified as material for Woodside and our stakeholders. Information on our response to material issues can be found throughout the report (see page 13 for specific locations).

## External assurance

Ernst & Young has conducted reasonable assurance over information in the Sustainable Development Report 2016 related to Woodside's material issues and limited assurance over the balance of the report.

A copy of Ernst & Young's assurance statement is on page 64.

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# About Woodside

Woodside is Australia's largest independent oil and gas company with a global portfolio, recognised for our world-class capabilities – as an explorer, a developer, a producer and supplier of energy.

Our mission is to deliver superior shareholder returns through realising our vision of becoming a global leader in upstream oil and gas.

Our assets are renowned for their safety, reliability and efficiency, and we are Australia's most experienced liquefied natural gas (LNG) operator. We operate 8% of global LNG supply.<sup>1</sup>

Our producing assets in Australia include the landmark North West Shelf (NWS) Project, which has been operating since 1984. In 2012, we commenced production from the Pluto LNG Plant and will add additional volumes from our non-operated Wheatstone LNG interests in mid-2017.

Today, we continue to be at the forefront of our industry by seeking to grow new markets for LNG. To achieve this we are planning for Australia's first LNG fuel hub to capture growing land and marine LNG fuel markets.

We also operate a fleet of floating production storage and offloading (FPSO) facilities. From mid-2019, we will add additional oil production from the Greater Enfield Project via our existing Ngujima-Yin FPSO facility.

We continue to expand our capabilities in marketing, trading and shipping and have enduring relationships that span more than 25 years with foundation customers throughout the Asia-Pacific region.

As a low-cost energy supplier with a sustainable business model, we are pursuing opportunities to deliver affordable energy to the world's growing markets.

Our global exploration portfolio includes emerging and frontier provinces in Australia and the Asia-Pacific region, the Atlantic margins and Sub-Saharan Africa.

We have significant equity interests in high-quality development opportunities in Australia, Senegal, Myanmar and North America and are pursuing new concepts, technology and contracting strategies to enable the earliest commercialisation of these resources in line with global demand.

We believe that technology and innovation are essential to bringing down costs and unlocking future growth. Today, we are pioneering remote support and the application of artificial intelligence and advanced analytics across our operations.

We recognise that long-term meaningful relationships with communities are fundamental to maintaining our licence to operate, and we work to build mutually beneficial relationships.

Woodside is characterised by strong safety and environmental performance in all locations where we are active and we are committed to upholding our values of integrity, respect, working sustainably, discipline, excellence and working together.

Our success is driven by our people and we aim to attract, develop and retain a diverse high performing workforce. Our proven track record, distinctive capabilities and ability to manage risk and volatility are underpinned by more than 60 years of experience, making us a partner of choice.

<sup>1</sup> Source: WoodMackenzie LNG Tool, Q4 2016

# Our areas of activity

Woodside has areas of activity across the value chain, exploring, developing, producing and supplying to market. This table outlines our activities and operated and non-operated roles. Activities and locations across the value chain are shown diagrammatically on pages 8 and 9 more detailed information is available in Woodside's Annual Report 2016.

## PRODUCING FACILITIES

Australia						
<b>North West Shelf</b>	<b>Karratha Gas Plant</b>	<b>North Rankin Complex</b>	<b>Goodwyn Platform</b>	<b>Angel Platform</b>	<b>Okha FPSO</b>	
Role	Operator	Operator	Operator	Operator	Operator	Operator
Equity	16.67%	16.67%	16.67%	16.67%	33.33%	
Product	LNG, pipeline natural gas, condensate and LPG	LNG, pipeline natural gas, condensate and LPG	LNG, pipeline natural gas, condensate and LPG	LNG, pipeline natural gas, condensate and LPG	LNG, pipeline natural gas, condensate and LPG	Condensate and oil
<b>Pluto LNG</b>	<b>Pluto LNG Platform</b>	<b>Pluto LNG Plant</b>				
Role	Operator	Operator				
Equity	90%	90%				
Product	LNG and condensate	LNG and condensate				
<b>Australia oil</b>	<b>Ngujima-Yin FPSO</b>	<b>Nganhurra FPSO</b>	<b>Armada Claire FPSO<sup>1</sup></b>	<b>Northern Endeavour FPSO<sup>2</sup></b>		
Role	Operator	Operator	Operator	Operator		
Equity	60%	60%	65%	59.9-66.7%		
Product	Oil	Oil	Oil	Oil		
International						
<b>Canada</b>	<b>Kitimat LNG</b>					
Role	Non-operator					
Equity	50%					
Product	Pipeline natural gas					

## PROJECTS

Australia						
	<b>Persephone Project</b>	<b>Greater Western Flank Phase 2 Project</b>	<b>Wheatstone LNG</b>	<b>Julimar Project</b>	<b>Greater Enfield Project</b>	
Role	Operator	Operator	Non-operator	Operator	Operator	
Equity	16.67%	16.67%	13%	65%	60%	
Product	LNG, pipeline natural gas and condensate	LNG, pipeline natural gas and condensate	LNG, pipeline natural gas and condensate	LNG, pipeline natural gas and condensate	Oil	

## DEVELOPMENTS

Australia						
	<b>Browse Development</b>	<b>Sunrise LNG</b>	<b>Scarborough</b>			
Role	Operator	Operator	Operator and non-operator			
Equity	30.60%	33.44%	25%-50%			
International						
<b>Canada</b>	<b>Kitimat LNG</b>	<b>Senegal</b>	<b>SNE</b>	<b>USA</b>	<b>Port Arthur LNG</b>	
Role	Non-operator		Non-operator		Non-operator	
Equity	50%		35%		Project Development Agreement	

1. Operations ceased at the Balnaves oil field in March 2016, with the permanent departure of the Armada Claire FPSO facility in early April 2016.

2. In September 2015, Woodside entered into a conditional agreement to sell its interests in the Laminaria-Corallina Joint Venture. This transaction was completed in April 2016.

**EXPLORATION**

Australia and Asia-Pacific

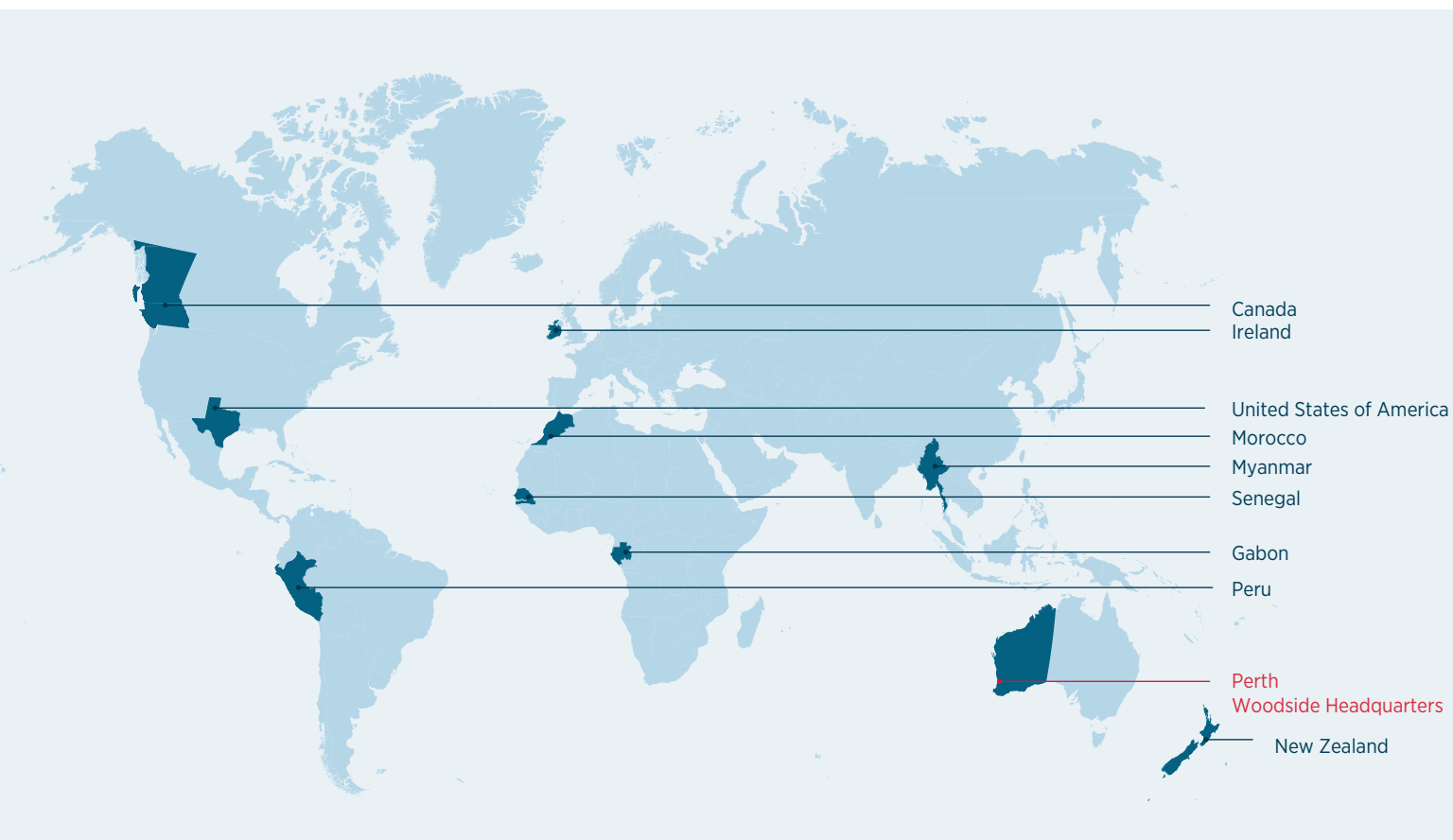
<b>Australia</b>	<b>Various titles<sup>3</sup></b>	<b>New Zealand</b>	<b>PEP-55793 and PEP-55794</b>
Role	Operator and non-operator		Operator
Equity	Various equities		70%
Target	Oil or gas prone basins		Oil or gas prone basin
<b>Myanmar</b>	<b>AD-5 and A-7</b>	<b>AD-7<sup>4</sup> and A-6</b>	<b>AD-2 and A-4</b>
Role	Operator	Joint operator	Non-operator
Equity	55% and 45%	40%	45%
Target	Gas prone basin	Gas prone basin	Gas prone basin

Atlantic Margins

<b>Senegal</b>	<b>Rufisque Offshore, Sangomar Offshore and Sangomar Deep Offshore</b>	<b>Morocco</b>	<b>Rabat Deep I-VI</b>	<b>Ireland</b>	<b>FEL 3/14, 4/14, 5/13, 5/14 and LO 16/14</b>
Role	Non-operator		Non-operator		Operator
Equity	35%		25%		60%-100%
Target	Oil prone basin		Oil prone basin		Oil or gas prone basin

Sub-Saharan Africa Latin America

<b>Gabon<sup>5</sup></b>	<b>F15 Doukou Dak and E13 Luna Muetse</b>	<b>Peru</b>	<b>Block 108</b>
Role	Non-operator		Non-operator
Equity	40%		35%
Target	Oil prone basin		Oil prone basin



3. For further information on Woodside's Australian titles, please refer to the titles register website ([www.neats.nopta.gov.au](http://www.neats.nopta.gov.au)).

4. Operator for deep-water drilling.

5. Woodside farm-in to Luna-Muetse Block is awaiting final Government approval.

# Message from our Chief Executive Officer



Woodside maintained its ongoing commitment to sustainable, responsible and safe operations in 2016, despite the challenge presented early in the year by low oil prices.

Woodside's approach has matured significantly since we published our first Sustainable Development Report in 2006. Ten years on and our sustainability principles are embedded at every level of our company and underpin our vision, mission and values.

We are committed to operating with transparency and integrity, fostering our organisation and culture, building a resilient business, operating responsibly and creating shared value through relationships with our stakeholders.

These principles are integral to our company's vision to be a global leader in upstream oil and gas. Our commitment to sustainability encompasses not just the environmental footprint we leave but also our long-term engagement with communities.

Even in challenging economic times, Woodside maintains a substantial contribution to the communities in which we operate.

Our focus on health and safety is unwavering. Over the last five years, we have significantly improved our safety performance, achieving a 60% reduction in our total recordable injury rate. Our aim is to continuously improve year on year towards a goal of industry leading health and safety performance.

We recognise the impact of climate change and are committed to being part of the solution. We believe that natural gas will play an increasingly important role globally, both in the energy mix and in reducing greenhouse gas emissions. This belief underpins our decision to support the emergence of a market for LNG as a fuel for shipping and onshore transport, starting in northern Western Australia.

We are striving to improve our emissions performance. For the third consecutive year we reduced our flared gas intensity, decreasing by 33% from 2015.

In the global Dow Jones Sustainability Index, Woodside ranked in the top 5% of companies in the oil and gas upstream and integrated section, with an overall score of 80/100. This demonstrates the maturity of our sustainability approach and the ongoing commitment of our employees and contractors.

We embarked on our third Reconciliation Action Plan (RAP) in 2016 and are making progress in engagement with Indigenous communities. The RAP was awarded the highest of four ratings by Reconciliation Australia, making Woodside the only oil and gas company to attain the Elevate level.

In line with our global approach, we feel it is important to demonstrate in our operations and supply chains our commitment to preventing the occurrence of modern slavery and human trafficking. With this in mind, we have voluntarily published a Modern Slavery and Human Trafficking Statement for the 2016 financial year (see page 22).

This year's Sustainable Development Report is a step-change for the company. Content has been restructured to better demonstrate how our company strategy links to our sustainability performance and to reflect the integrated approach we are taking to sustainable development as our global footprint grows.

Woodside's social licence to operate relies on maintaining effective relationships with our stakeholders. We value the views of our stakeholders and, through this report, we have sought to better understand and respond to the material issues that concern them.

I would like to thank David McEvoy for the dedication and vision he has shown as Chairman of the Sustainability Committee since its formation in 2007. In that role, he has overseen continuous improvement in our performance.

Our success is made possible by the support of our people, partners and communities and I thank everyone for their contribution to our outstanding performance this year.

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## Peter Coleman

*Chief Executive Officer and Managing Director*



# Message from our Sustainability Committee

The Sustainability Committee assists the Board in its oversight responsibilities in relation to Woodside's sustainability policies and practices.

At four meetings throughout the year, the Committee was briefed on topics including health and safety, process safety, the environment, heritage and land access, security and emergency management and community relations.

Across these areas, the Committee focused on sustainability metrics that allow Woodside to track its performance and strive to improve each year.

Progress was recorded, for instance, on environmental measures. In 2016, we significantly decreased flaring intensity, due to improved facility reliability and turnaround practices. It was the first year that Woodside introduced a fuel-intensity target.

As part of our ongoing response to the challenge of climate change, Woodside will seek to further improve the energy efficiency of producing assets, respond to stakeholder concerns and look for new opportunities to promote natural gas as a way of reducing greenhouse gas emissions and improving air quality.

Process safety continued to be a focus for the Committee, which was briefed on the ongoing success of Woodside's Process Safety Management initiative, including the roll-out

of 250 training courses to more than 4,000 attendees. Woodside's attention to process safety helps to ensure risks are managed at all facilities, from the design phase through to development and into the production lifecycle.

In addition, it was an outstanding outcome that the largest ever North West Shelf Project integrated turnaround was executed safely, without any recordable incidents.

In 2016, our Stand Together for Safety event underlined the importance of health and wellbeing to positive safety outcomes across the company. Staff were also offered mental health training that recognised the impact of external factors including changing economic circumstances, drug use and domestic violence.

The Committee recommended to the Board a change in Woodside's approach to political contributions, such that the company would not donate funds to a politician, individual candidate or campaign in any country but would continue to engage with government through meetings, policy forums and events. This update to Woodside's Code of Conduct reflects the company's considered commitment to transparency and integrity in its dealings with governments in Australia and around the world.

In the year ahead, Woodside intends to consider how the United Nations Sustainable Development Goals apply to its operations and what meaningful contribution the company can make to promoting them.

It has been an honour to serve as Chair of the Sustainability Committee since its formation in 2007. During this time, Woodside has embedded the principles of sustainability in its daily operations and overseen the adoption of targets across a range of areas to support and monitor continuous improvement in the company's performance as it delivers sustainable growth.

I'm pleased to advise that the Board has appointed Ann Pickard as the Chairman of the Sustainability Committee following my retirement at the Annual General Meeting on 5 May 2017. Throughout her extensive career in oil and gas, Ann has shown a dedication to building sustainable energy resources and will bring this long-term approach to the leadership of the Committee as it continues to enhance the company's sustainability performance.

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**David McEvoy**  
*Committee Chairman*



DAVID MCEVOY



MELINDA CILENTIO



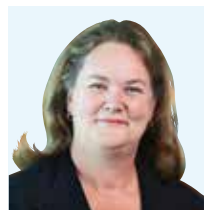
CHRISTOPHER HAYNES,  
OBE



IAN MACFARLANE



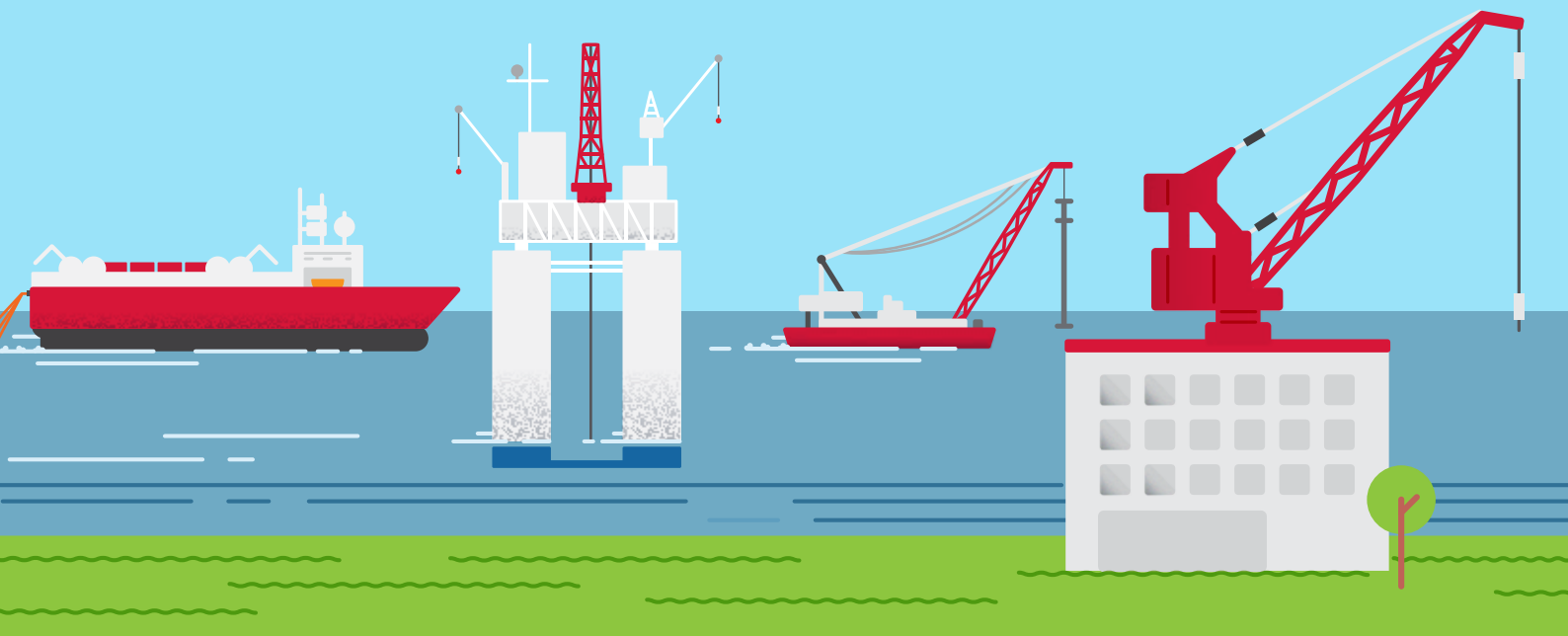
ANN PICKARD



SARAH RYAN

# Woodside value chain

We have long recognised that our activities have environmental, social and economic impacts. Our value-chain graphic illustrates the key components of our business, how we contribute at each stage and the locations where these activities occur.



Seismic survey

Drilling

Offshore construction

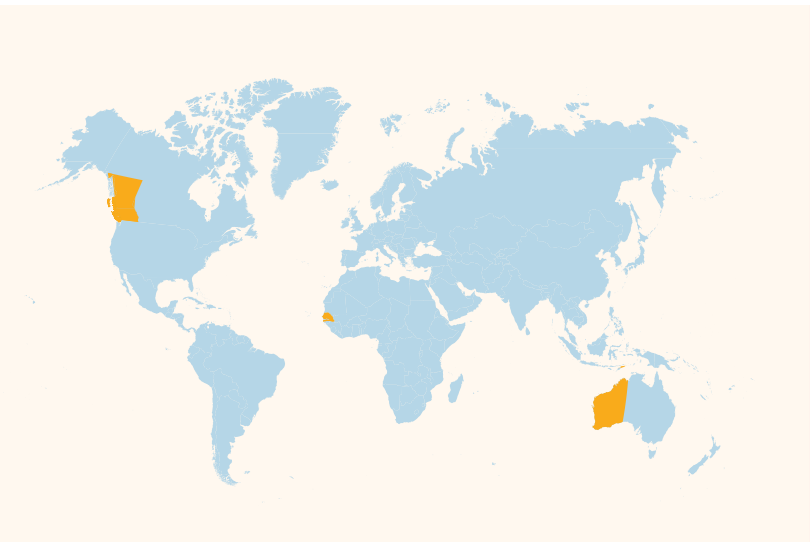
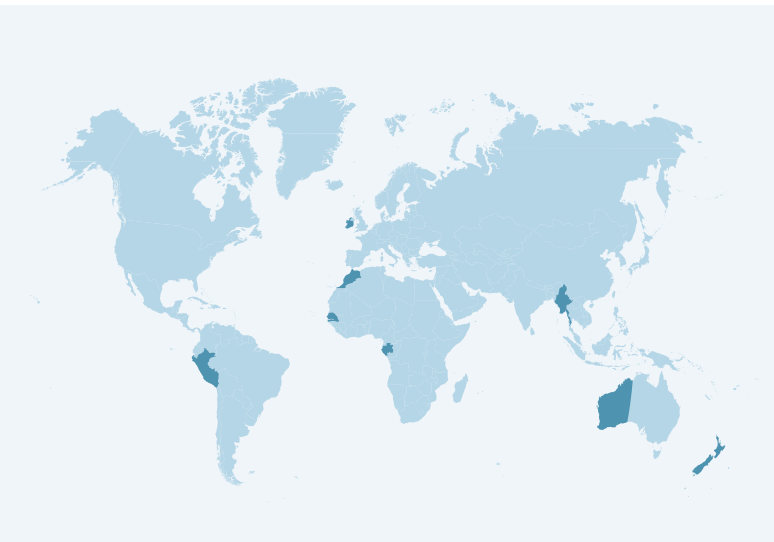
Onshore construction

## Acquire and explore

By maintaining a disciplined approach to managing risk and increasing shareholder value, we seek to grow our portfolio through global exploration and asset acquisitions. At the completion of this phase, the asset moves into the development phase.

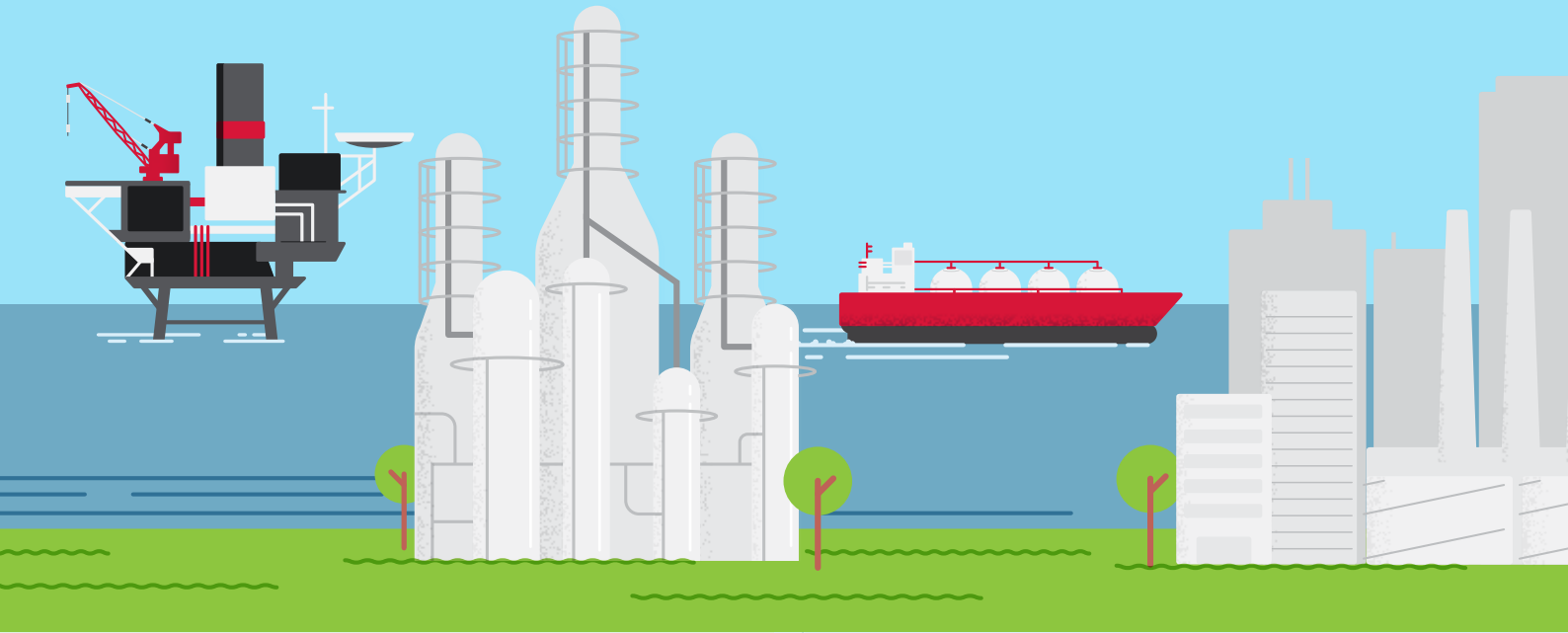
## Develop

We work closely with our customers, fellow joint venture participants, suppliers, governments and communities to realise the opportunities across the development life cycle. After resources are confirmed and approved, the development moves into project execution.



## Decommission and divestment

When we look towards end of field life of our oil and gas assets, we aim to bring forward optimal value wherever we can, including divestment of late life assets. We work together with our stakeholders to ensure that the most sustainable options are considered at various stages to minimise financial, social and environmental impacts.



Offshore processing  
(Fixed platform, floating production storage and offloading facilities, floating liquefied natural gas facilities)

Onshore processing

Delivery

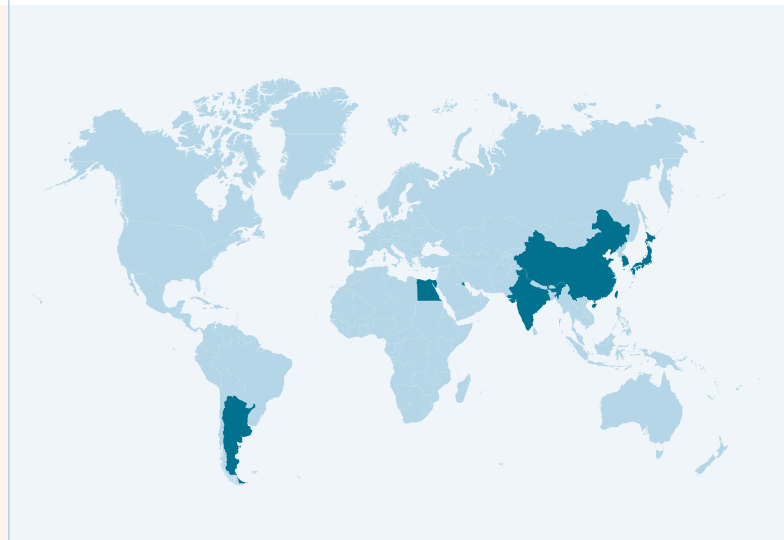
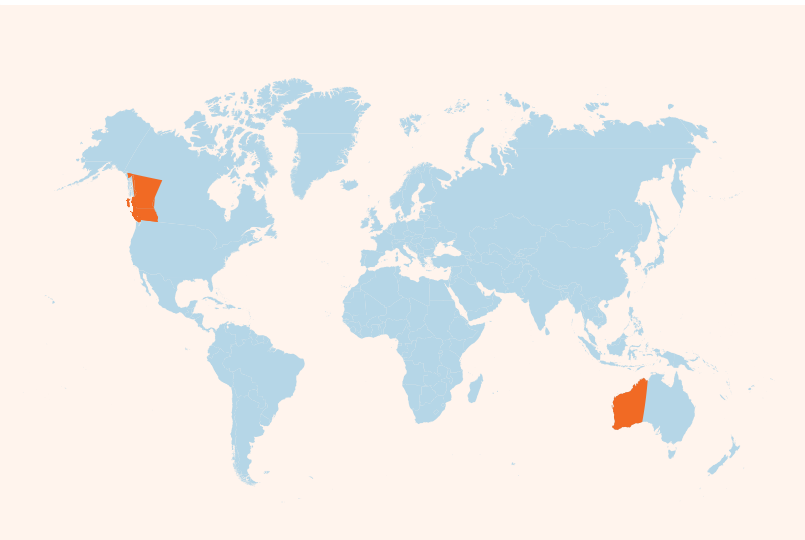
End user

### Operate

At the completion of construction, the asset moves into its operation phase. We have over 30 years' experience, characterised by strong safety and environmental performance, in operating some of the world's premier oil and gas facilities.

### Market

Our valuable long-term customer relationships and our track record of safe and reliable delivery make us a leading supplier of energy to the Asia-Pacific region and the Australian domestic gas market. We have world-class capabilities across marketing and trading.



# Our approach to sustainability

Working sustainably is a core value embedded at every level of our company and is fundamental to realising our vision to be a global leader in upstream oil and gas.

## Woodside Compass value

We are here for the long term. We look after each other, our communities and the environment. We keep each other safe.

### Governance

Our approach to sustainability is incorporated in our policies, standards and Code of Conduct.

🔗 These are available on our website.

The Woodside Management System (WMS) provides a structured governance framework with defined accountabilities and performance requirements.

It describes our Woodside way of working enabling us to undertake activities across our value chain that are consistent with our internal standards.

In 2016, Woodside launched the revised WMS following an extensive streamlining activity of all documentation across the business. The WMS is now company-wide and its content is grouped by key business activities to ensure the system remains independent of organisational structure, is globally applicable and is scalable where required.

### Sustainability performance

Woodside's sustainability performance is linked to remuneration for employees and executives. Woodside's corporate scorecard links to metrics related to our material issues. Refer to page 54 for our performance targets.

To help us evaluate our progress in a more objective way, we track our performance against a number of external benchmarks including the Dow Jones Sustainability Index (DJSI), Carbon Disclosure Project (CDP), FTSE4Good and other environmental, social and governance indexes. We maintained leader group status for our sector in the RobecoSAM 2017 Sustainability Yearbook and were awarded silver class for our 2016 DJSI results. Refer to page 55 for our scores.

### Governance structure

Woodside's Board of Directors has oversight of the company's management and business activities. The Sustainability Committee assists the Board to meet its responsibilities in relation to the company's sustainability policies and practices. The Sustainability Committee, as at 31 December 2016, was comprised of independent, non-executive directors.

### Identifying and managing risk

By understanding and managing our risks, we provide greater protection to our people, communities and environment. We recognise that effective management of risk is vital to a sustainable future.

Woodside's Audit & Risk Committee oversees our Risk Management Policy and is responsible for satisfying itself that management has developed and implemented a sound system of risk management and internal control.

During 2016, the Audit & Risk Committee reassured the company's risk management framework.

Our most significant risks, and how they are being managed, are continually reviewed and summarised in a corporate risk profile. Stakeholder feedback and the risks and responsibilities outlined in our management framework are the two primary sources of information considered when determining our material issues. Refer to pages 12 and 13 for more detail on the materiality process and material issues.









Read more on our approach to risk management in Woodside's Annual Report 2016.

### United Nations Sustainable Development Goals

On 25 September 2015, the United Nations adopted the 2030 Agenda for Sustainable Development, which establishes the global agenda launching 17 Sustainable Development Goals (SDGs). The SDGs target some of the world's most serious economic, social and environmental issues with 17 goals and 169 targets that set out global development priorities.

We acknowledge that achieving these goals will require a concerted and collaborative global effort. Woodside intends to review how the SDGs apply to its operations and what meaningful contribution the company can make to promoting them.



SUSTAINABILITY PRINCIPLES	TOP 6 MATERIAL ISSUES IN 2016		
OPERATING WITH TRANSPARENCY AND INTEGRITY	 Transparency, anti-bribery and corruption	 Regulatory compliance	
FOSTERING THE ORGANISATION AND CULTURE	<b>MATERIAL ISSUE IS NOT REPRESENTED IN TOP SIX</b>		
BUILDING A RESILIENT BUSINESS	 Climate change		
OPERATING RESPONSIBLY	 Major incident response	 Major incident prevention	 Health and safety performance
CREATING SHARED VALUE	<b>MATERIAL ISSUE IS NOT REPRESENTED IN TOP SIX</b>		

Our Sustainable Development Report has been restructured this year to reflect how our sustainability principles underpin our company mission, vision and values. A description of each section is provided below.

### Operating with transparency and integrity

We are open, honest and fair and we have the courage to do what's right, balancing short- and long-term interests. This section focuses on our values-led approach in the areas of regulatory compliance, code of conduct, anti-bribery and corruption, payment transparency and human rights.

### Fostering the organisation and culture

We focus on having a values-led, high-performance culture. We develop our people so we can meet our own leadership and technical talent requirements. All employees are assessed against the company values in their performance reviews. This section focuses on how we are growing outstanding leadership, building diverse capability from within and driving an inclusive high-performing culture enabled by technology.

### Building a resilient business

We acknowledge economic risks and uncertainties in a changing world. We are committed to supporting a sustainable energy future. This section focuses on the future we see for oil and gas and on our ability to build a resilient business capable of responding to challenges and creating new opportunities.

### Operating responsibly

We believe that it is our responsibility to ensure that our operations are safe. Effective risk management is essential to ensuring that we are best positioned to prevent and respond to any incidents that have the ability to impact our people, our communities and our environment. This section focuses on the personal health and safety of our employees, the integrity of our facilities, our ability to respond appropriately to unplanned events, our community engagements and our environmental performance. An overview of stakeholder engagement is also included in this Report.

### Creating shared value

We understand that our social licence to operate relies on establishing and maintaining meaningful and long-lasting relationships with our stakeholders. We believe that there is shared value for our business and our communities in the co-creation of opportunities in education, employment and enterprise as well as supporting communities to be resilient and maximise value of these opportunities. This section focuses on providing an overview of our economic and social contribution, commitment to relationships with indigenous peoples and a summary of our supply-chain performance.

# Materiality

Each year we conduct a materiality assessment to identify the sustainability issues of significance to our stakeholders and our business. The outcomes of this process guide the content of our Sustainable Development Report.

The materiality matrix on page 13 illustrates the output from the materiality process, specifically the 'prioritise' and 'validate' steps.

Materiality process steps	Description	Key inputs
<b>IDENTIFY</b>	To identify the material issues, an initial desktop study of corporate documents is undertaken followed by meetings with key internal and external stakeholders. Sources of information at the 'identify' step are summarised in key inputs.	<ul style="list-style-type: none"> <li>+ 2015 material issues</li> <li>+ Corporate risk register</li> <li>+ Company strategy</li> <li>+ Internal stakeholder interviews</li> <li>+ Stakeholder issues register</li> <li>+ External stakeholder interviews</li> <li>+ Global risks<sup>1</sup></li> </ul>
<b>PRIORITISE</b>	A quantitative assessment undertaken against key criteria to rank the material issues.	<p>Internal:</p> <ul style="list-style-type: none"> <li>+ Survey employees on key issues</li> <li>+ Corporate risk register</li> <li>+ Policies and commitments</li> </ul> <hr/> <p>External:</p> <ul style="list-style-type: none"> <li>+ Survey stakeholders on key issues</li> <li>+ Community group input</li> <li>+ Peer benchmarking</li> <li>+ Media analysis</li> <li>+ Industry issues (i.e. IPIECA)</li> </ul>
<b>VALIDATE</b>	Our top material issues, as identified in the 'prioritise' step, are validated by our Board's Sustainability Committee and our Executive Committee.	Committee meetings
<b>REVIEW</b>	Each year we review the Sustainable Development Report and material issues with our internal and external stakeholders, and address learnings.	Benchmarking report

1. The Global Risks Report 2016, 11th edition, World Economic Forum.

# Materiality matrix

Woodside considers sustainability issues to be material if they have the potential to impact our ability to achieve our business strategy, our reputation, or are of material concern to our stakeholders.

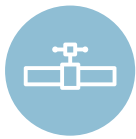
## Material Issues for 2016



Climate change



Transparency, anti-bribery and corruption



Major incident prevention



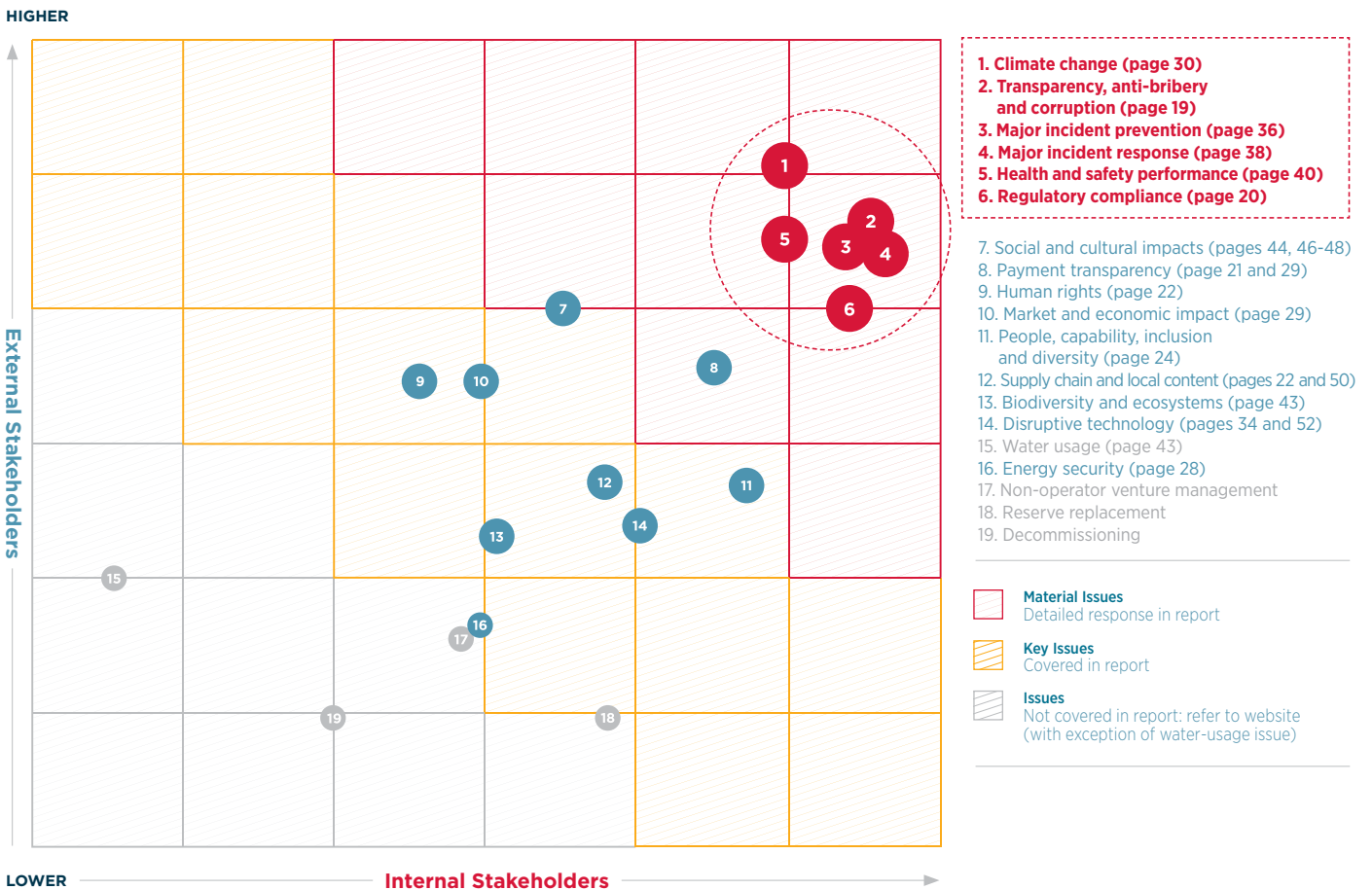
Major incident response



Health and safety performance



Regulatory compliance



In comparison to previous years, all material issues, including those considered less significant to stakeholders and Woodside, have been plotted on our materiality matrix. Details on GRI boundaries for material issues are available on page 58.

# Understanding our stakeholders

Woodside applies a clear, integrated and consistent approach to stakeholder engagement to protect our reputation, grow shareholder return, support the social and economic prosperity of the communities where we operate and maintain our licence to operate.

We work hard to build relationships with a wide range of stakeholders who are interested in and affected by our activities. We acknowledge and, where appropriate, seek to address and resolve key stakeholder concerns and complaints.

We identify our stakeholders based on the location, timing and potential impacts and opportunities of our activities.

Our External Stakeholder Engagement Procedure mandates the minimum requirements for engaging with our stakeholders. We have guidelines to assess the potential effects and benefits of our current and future activities and how best to engage to encourage open and transparent communication and feedback.

The table below identifies our eight stakeholder groups across the business, their key interests and concerns, and our company-wide engagements with each group during 2016.

Woodside staff, in compiling this report, consulted representatives from each stakeholder group to identify issues of material concern as part of the process outlined on page 12.

Stakeholder and key interests	Summary of 2016 engagements/response
<p><b>CUSTOMERS</b></p> <p>Reliability and safety of supply, product quality, cost and delivery. Maintain strong relationships based on mutual understanding and open communication.</p>	<ul style="list-style-type: none"> <li>Regular engagements to manage commercial and operational aspects of LNG and liquids delivery and scheduling</li> <li>In-country representatives</li> <li>Annual delivery programs for LNG supply</li> <li>Reciprocal staff exchanges to promote understanding of respective businesses</li> <li>Ongoing quality control of our hydrocarbon production</li> <li>Regular site visits to build understanding of respective businesses</li> <li>Proactive engagement to understand short and long-term needs</li> </ul>
<p><b>JOINT VENTURE PARTICIPANTS</b></p> <p>Reliability and safety of supply, product quality, cost and delivery. Maintain strong relationships based on mutual understanding and open communication. Non-operator governance.</p>	<ul style="list-style-type: none"> <li>Regular meetings with joint venture boards and committees</li> <li>Participation in business reviews and audits</li> <li>Assurance programs</li> <li>Regular operations overviews</li> <li>Regular site visits</li> <li>Regular collaborative participation in government meetings and industry events</li> </ul>
<p><b>INVESTORS AND FINANCE PROVIDERS</b></p> <p>Delivery of top-quartile Total Shareholder Returns (TSR) and continuous improvement in TSR, mitigation and management of financial and non-financial risks and high-quality corporate governance.</p>	<ul style="list-style-type: none"> <li>Regular investor briefings are webcast and archived on our website</li> <li>Full-year and half-year results briefings</li> <li>Regular meetings with financiers, institutional shareholders and investor representatives</li> <li>Annual General Meeting</li> <li>Australian Securities Exchange (ASX) announcements</li> <li>Environmental social governance briefings with Australian institutional investors</li> <li>Remuneration briefings</li> </ul>
<p><b>EMPLOYEES</b></p> <p>Providing a safe and productive work environment, a values-led organisational culture and career development opportunities that align to Woodside's strategic direction.</p>	<ul style="list-style-type: none"> <li>Annual staff briefing in Perth and Karratha with the CEO and the Executive Committee</li> <li>Ongoing productivity program to drive efficiencies in our business</li> <li>Ongoing campaign to embed continuous improvement principles</li> <li>Cascaded strategic themes to annual performance agreements</li> <li>Annual performance reviews and personal development plans for all employees</li> <li>A Leadership and Management Development framework and expanded leadership training programs</li> <li>Ongoing communication and targeted programs for employee safety, health and wellbeing</li> <li>Annual Woodside Awards to recognise outstanding employee achievement and contribution</li> <li>Regular staff volunteering</li> <li>FutureLab Exchange events enable employees to engage with industry experts and researchers</li> <li>CEO facilitated discussions with employees to promote engagement, involvement and two-way communication</li> <li>Actively involved employees in our internal inclusion and diversity focused community groups</li> </ul>





The Karratha Community Liaison Group completing a site tour as part of the planned turnaround activities at the Karratha Gas Plant.

**Stakeholder and key interests**

**Summary of 2016 engagements/response**

**GOVERNMENTS:  
LOCAL, STATE, FEDERAL  
AND INTERNATIONAL**

Development of oil and gas resources through the whole project life cycle. Environmental, social and fiscal performance and compliance.

- Ongoing liaison with Australian State and Federal regulators, State, Federal and Local Government agencies and a broad range of political stakeholders (including members of Government and the Opposition)
- Direct submissions to Federal Government
- Direct submissions to State Government
- Contribute to domestic and international industry and business association submissions
- Representatives from key regulators, government agencies and political stakeholders in areas where we are active internationally

**SUPPLIERS AND  
CONTRACTORS**

Working together with suppliers in an environment where joint ownership of outcomes exists. Transparent and effective communication throughout the contract award process.

- Contract life-cycle management system embedded as single contract-management tool
- Regular reciprocal supplier performance reviews
- Review and revise category strategies that identify key opportunities and supplier relationships
- Embedded supplier relationship management strategies with our tier 1 suppliers
- Woodside and joint operator contractor audits
- Regular collaboration with sector partners, governments and suppliers to identify continuous improvement and innovation opportunities
- Annual supplier continuous-improvement forum

**NON-GOVERNMENT  
ORGANISATIONS**

Ethical, social and environmental management of our activities, including revenue transparency and efficient use of resources.

- Provided opportunity for non-government organisation input into social and environmental impact assessments
- Annual recognition of the Extractive Industries Transparency Initiative
- Regular participation in industry forums and associations
- Regular participation in the Voluntary Principles on Security and Human Rights events

**LOCAL AND INDIGENOUS  
COMMUNITIES**

Potential environmental and social impacts associated with operations. We have a broad range of local community and indigenous community interests and concerns: local content, employment, education and business opportunities; cost of living; workforce planning impacts; access to community services and amenities; and culture and heritage impacts.

- Regional community offices
- Community grievance mechanism
- Regular community consultation and engagement including community liaison groups and networks
- Community events and programs
- Consultation information and activity updates on the Woodside website
- Regular social impact assessments and management planning that involves community input
- Reconciliation Action Plan and yearly report
- Ongoing social investment implementation and compliance with related protocols, frameworks and legally binding agreements
- Strategic partnerships with organisations to support local enterprise development in Perth, the West Pilbara and West Kimberley

# A year in review

## Achievements



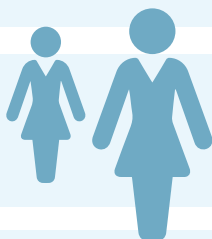
Embedded Woodside regulatory compliance management system

**94.9**  
**MMboe**  
**Second-highest**  
annual production



**33%**

**Reduction** in flaring intensity and exceeded 2016 targets



**Exceeded goals for female representation** across executive, senior management and mid-level groups

Reconciliation Action Plan was awarded the highest ranking,

**ELEVATE** by Reconciliation Australia

**95th** **PERCENTILE** Ranked in the top 5% of companies in our sector in the Dow Jones Sustainability Index

## 2017 focus areas



**INCREASE**

Knowledge of regulatory compliance in non-Australian jurisdictions to support growth



**INCREASE**

Improving our Indigenous employee participation rate

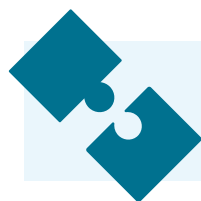


**ADAPTING FOR GROWTH**

Continue to pursue energy efficiencies and evaluate the resilience of our portfolio

**SUSTAINED**

Delivery of leading Health and Safety performance



**LEVERAGING**

Social investment benefits in host communities



**GLOBAL BENCHMARKING**

Seeking continuous improvement in our sustainability benchmarking performance

## Awards



**WINNER**

APPEA Environmental Excellence Award

**SILVER**

Awarded RobecoSAM Silver Class for 2016 Dow Jones Sustainability Index results







Operating with  
transparency  
and integrity

# Business ethics

The Woodside Compass clearly sets out our core values of integrity, respect, working sustainably, working together, discipline and excellence. These values underpin our Code of Conduct (the Code), which sets out our commitment to ethical principles and describes the behaviour Woodside expects from its directors, employees and contracted third parties.

## Woodside Compass and the Code

It is the responsibility of every director, employee and contractor to be familiar with and comply with the Code, and for leaders to embed our Compass values across our business. All employees undergo mandatory training on the Code when they join the company and every year thereafter. Records of training are maintained electronically and monitored by Woodside's General Counsel. In addition to this, directors and senior managers are required to provide annual certification of their compliance with the Code and related policies.

Woodside expects all directors, employees, and contractors to report potential violations of the Code. All breaches are recorded, investigated, and the outcomes reported. Woodside undertakes appropriate disciplinary action if matters are substantiated.

Woodside's Whistleblower Policy sets out our commitment to maintaining an open working environment that enables the reporting of misconduct and outlines processes for responding to allegations of unacceptable conduct.

Employees and our stakeholders have access to a confidential, externally managed helpline for reporting misconduct. All calls are referred to Woodside's Chief Executive Officer, General Counsel, Vice President Internal Audit and General Manager Security and Emergency Management for investigation as appropriate. In 2016, there were eight calls to the confidential helpline.

Woodside's Audit & Risk Committee reviews reports on misconduct investigations, breaches of the Code, and matters reported to the external helpline. The company also maintains a specialist anti-fraud and corruption team.

There were 53 reports of improper behaviour or breaches of the Code investigated in 2016. Of these matters, 27 were substantiated, 17 unsubstantiated and nine matters remain under or pending investigation. Of the substantiated matters, eight resulted in contracts being terminated or not renewed, 15 resulted in written warnings (including one reduced performance rating) and four resulted in verbal warnings. No terminations were fraud related, and none of the matters investigated in 2016 related to corruption.

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For more information on the Woodside Compass and the Code, go to our website.

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# Transparency, anti-bribery and corruption



Bribery and corruption present a threat to commercial organisations and communities worldwide. They undermine fair competition, erode public trust in governments and business and disadvantage economies.

## Our approach

Woodside has a zero-tolerance approach to fraud, bribery and corruption and complies with all relevant Australian and international anti-bribery and corruption laws.

Woodside's standard contracting terms and conditions mandate compliance with Australian and international anti-bribery and corruption laws and address specific obligations in relation to our policies. When entering non-operated joint venture agreements, Woodside requires compliance with anti-bribery and corruption obligations by the operator and other participants in the joint venture.

As part of continuous improvement and our goal to mature our approach to sustainability, Woodside reviewed its anti-bribery and corruption processes and made the following improvements in 2016:

- + Woodside's Fraud and Corruption Control Program was updated to emphasise operational aspects. This included the production of a catalogue of fraud and corruption controls to ensure prevention and detection measures are in place and

working. Woodside's anti-bribery and corruption compliance audit program was extended to include operators of joint ventures.

- + Updated e-learning corruption training was delivered to 1,582 managers and personnel in business areas exposed to elevated corruption risk, which represents 45% of the company. Advanced anti-bribery and corruption training is now an annual requirement at Woodside to maintain awareness of corruption risks.
- + Acquired a new due-diligence software management system that is improving third-party monitoring capabilities, providing real-time monitoring of suppliers, joint venture participants, agents, representatives and social investment recipients.

Woodside undertakes fraud and corruption risk assessments across our activities. The criteria used to determine risk level include country of operation, activities undertaken, the level and nature of engagement with government, history of enforcement, and susceptibility to fraud and corruption.

Woodside's fraud and corruption risk is reviewed at least twice yearly, in line with Woodside's corporate risk reporting cycle.

Woodside's anti-fraud and corruption team undertook forensic analysis of information systems to identify potential anomalies and continue to employ data analytics in support of fraud and corruption control.

## 2017 focus areas

Woodside's fraud and corruption control program was reviewed externally during 2016 and was determined to be appropriate for Woodside's global operations.

Recommendations for improvements will be implemented during the course of the year.

There were no violations of anti-bribery and corruption laws detected within or in connection with Woodside in 2016.



## CASE STUDY

### Testing our corruption response

As part of its program of crisis-management training exercises in 2016, Woodside conducted an exercise focused on the response to a fictitious corruption-related event concerning a producing asset purchased by Woodside in another country.

Approximately 70 Woodside personnel from a range of functions across the company participated in the exercise, which was conducted in an open-forum style to maximise participation and learning.

The exercise demonstrated the potential for broad-ranging impacts of a foreign bribery incident and regulatory investigations upon a company, its people and its external stakeholders. It also underscored the importance of governance designed to prevent violation of applicable anti-bribery and corruption laws.

# Regulatory compliance



Woodside must operate an effective management framework to maintain our licence to operate, comply with regulatory requirements and meet the expectations of joint venture participants and stakeholders.

Legislative regimes set the balance between the legal rights and interests of the people and entities they regulate. Laws protect our interests in relation to the commercialisation of natural resources; likewise our stakeholders rely on the same regimes to protect their rights and interests. An effective legislative regime provides clarity and certainty for both our business and our stakeholders.

## Our approach

Regulatory compliance touches every aspect of Woodside's business. A thorough understanding of the regulatory compliance obligations impacting our activities, and their effective management, is integral to Woodside's ongoing work.

Our compliance process has four core elements - knowledge, planning, compliance and assessment:

- + Understanding the regulatory landscape in which we operate.
- + Planning to comply as part of the way we work.
- + Meeting our obligations.
- + Assessing our performance.

These are supported by enabling elements such as clarifying accountability, developing competency, communicating with regulators, using appropriate systems and managing change.

This year saw a significant strengthening of regulatory compliance management at Woodside through the addition of centralised compliance roles, and the deployment of a pan-Woodside software solution, WiRCS, to facilitate our regulatory compliance management process (see case study below).

The centralised regulatory compliance team's focus is on these three areas:

- + Clarifying accountabilities and developing competency across Woodside in its understanding and management of regulatory compliance obligations.
- + Setting the standard for implementation of the regulatory compliance processes across Woodside.
- + Providing tools and systems to sustain the regulatory compliance knowledge base and achieve compliance.

## Our performance

Woodside's internal regulatory-compliance dashboard is used to drive performance, behaviours and transparency. Internal deadlines provide leading indicators for prescribed regulatory deadlines and non-compliances are reported centrally.

In 2016, five regulatory infringement notices were received for lower-level regulatory contraventions.

## 2017 focus areas

In 2017, Woodside has several focus areas for continuous improvement:

- + Increasing our collective knowledge of our regulatory compliance obligations in non-Australian jurisdictions in order to improve our support for Woodside's future global operations.
- + Responding more effectively to changes in legislative regimes affecting our operations.
- + Improving regulatory compliance competencies across Woodside in order to integrate compliance with the way we work.

## CASE STUDY

### Regulatory compliance management systems

The decision to invest in a software solution - WiRCS - is driven by Woodside's Compass: we play by the rules, we set goals and we hold ourselves to account.

Woodside's regulatory compliance capability has significantly matured with the implementation of the first release of WiRCS in June 2016. This has provided Woodside with a single, accessible library capable of housing our regulatory compliance information for our global business.

The action-management functionality within WiRCS enables the business to manage the actions required to meet identified regulatory obligations, wherever we operate, within prescribed regulatory deadlines.

As at the end of 2016, the system is being used to manage obligations relating to 61 internal exploration and production centres (includes projects, facilities and key infrastructure groupings), and 10 offices, across 18 countries.

The information housed in WiRCS is open to all Woodside personnel. This facilitates improved data integrity and ongoing responsibility for that data integrity across the business. It also means that gaps in data and opportunities for improvement are more visible and can be remedied.



# Payment transparency

## Financial transparency

The Extractive Industries Transparency Initiative (EITI) is a global standard to promote the open and accountable management of extractive resources.

The EITI is used by a growing number of resource-endowed countries to improve transparency via the publication and verification of company payments and government revenues from industries such as oil, gas and mining. As a member of the EITI since 2005, Woodside is committed to reporting our petroleum tax and fee payments in respect of operations in implementing countries.

Countries in which we have an interest that are members of EITI include Timor-Leste, Cameroon, Senegal, Peru and Myanmar. In 2016, the Australian Federal Government announced Australia would join the EITI.

## Tax transparency

Woodside operates within a defined control framework for the identification and management of tax risks at the strategic, operating and transactional levels. Central to this is the Board-approved Group Taxation Policy that mandates a taxation governance and reporting framework. It establishes that the company must comply with all applicable taxation laws and regulations, and, pursuant to these, will pay an appropriate amount of tax. To adhere to the Board's risk oversight mandate, the Policy provides for a reporting framework to the Board and Audit & Risk Committee. The Tax function reports directly to the Chief Financial Officer.

Woodside acknowledges that the payment of tax is a significant way we contribute to the communities in which we operate.

We believe in paying taxes according to where value is created. Arm's-length principles are applied to international related-party transactions.

Woodside is supportive of transparency initiatives and has adopted the Board of Taxation's voluntary Tax Transparency Code (TTC).

Ongoing transparent and constructive engagement with government stakeholders in the countries in which we operate is central to achieving our Group Taxation Policy objectives.

Woodside has voluntarily participated in an Annual Compliance Arrangement with the Australian Taxation Office (ATO) since 2013. This arrangement provides a compliance and risk management framework for both income tax and Petroleum Resource Rent Tax (PRRT) under which either party can raise compliance risks and other technical and administrative uncertainties. In addition Woodside discloses details of any material tax risks and issues relating to publicly disclosed or completed transactions. This facilitates an open and transparent relationship between Woodside and the ATO.

Woodside also regularly engages with the ATO on indirect taxes, which include GST and excise, and the WA Department of Mines and Petroleum in relation to the administration of royalties.

As an Australian headquartered company with the majority of our producing assets in Australia, these engagements cover the majority of Woodside's global taxes paid.

More information on our tax contribution can be found in the Building a resilient business section.

## Political donations

Woodside seeks to have open and constructive relationships with the governments of all countries where we have a presence. Woodside may engage in debate on policy and share its views on policy matters when related to our business. The exchange of information and opinions is essential to informed decision-making.

In 2016, the Board strengthened its position on not donating to campaign funds for any political party, politician or candidate for public office in any country. Woodside's Code of Conduct was updated accordingly.

For more information on the Woodside Compass and the Code, go to our website.

Woodside subscribes to attend party political events where those events allow for discussion on policy issues related to our business. A way in which we achieve this in Australia is by subscribing to annual memberships of the Federal Liberal Party Australian Business Network and the Australian Labor Party Federal Business Forum.

For the year to 30 June 2016, Woodside paid A\$110,000 each for membership of the federal business network forums and annual subscriptions to the Australian Labor Party (ALP) and Liberal Party of Australia (LPA). Woodside spent an additional A\$30,480 attending conferences and other business events associated with the ALP and the LPA. All payments were declared as donations with the Australian Electoral Commission. More information is available in the 2016 Corporate Governance Statement.

Woodside's Corporate Governance Statement can be viewed at: [www.woodside.com.au/Working-Sustainably/governance-andcompliance](http://www.woodside.com.au/Working-Sustainably/governance-andcompliance).





# Human rights, security and supply chain

Woodside recognises the importance of operating with transparency and integrity, particularly regarding human rights, in all locations where we do business.

## Our approach

To support a holistic and integrated approach to ensuring that human rights are respected across our business, Woodside established a human rights working committee in 2016. This committee will work throughout 2017 to undertake benchmarking of Woodside's policies and systems against industry leaders.

In 2016, Woodside undertook human rights risks assessments in a number of countries where we have activities. These assessments primarily focused on Myanmar and countries in West Africa.

Woodside also participated in a number of national and international forums that aim to advance the protection of human rights, including the Australian UN Global Compact Annual Plenary and the Australian Government National Action Plan process. We also participated in the Multinational Investors Group, coordinated by the International Labour Organisation and Myanmar Centre for Responsible Business (MCRB), and joint government-investor workshops conducted by MCRB and the Norwegian Environment Agency in Myanmar.

Woodside continued to be committed to respecting human rights in its dealings with communities, contractors and suppliers in 2016.

## Managing security

Woodside's approach to managing security is underpinned by our values and aimed at supporting the company's increasingly global position. This ensures respect for human rights and humanitarian law, wherever we operate across the globe.

Risk analysis, assurance and controls are all embedded in our approach to security.

At the centre of our security philosophy, Woodside recognises and respects the basic human rights of all people and seeks to ensure that we are not complicit in human rights abuses of others. Through close engagement with communities, governments and security professionals, we continue to seek positive outcomes for all communities that our operations may impact.

Woodside has a longstanding commitment to security and human rights and is now a signatory to the Voluntary Principles on Security and Human Rights (VPSHR), which are designed to guide companies in maintaining the security and safety of their operations within a framework that respects human rights.

In support of our security philosophy, we draw from the VPSHR framework and focus on three key objectives:

- + Identifying human rights risks as they relate to security
- + Building strength in our private security providers
- + Engaging with government security forces, if required, on our human rights approach

Key focus areas in 2016 included refining our process for human rights risk analysis, engagement with foreign governments on security matters, and building capability in our private security providers through due diligence, training and assurance activities.

At the strategic level, we continue to encourage our peers to participate in the VPSHR initiative and we seek opportunities where Woodside can lead by example.

In 2017, we will continue to review and enhance our processes that enable reporting, investigation and remediation of any potential security and human rights issues.

## Managing our supply chain

We seek to work with suppliers and contractors to prevent slavery and human trafficking in our supply chain.

This year we worked with four major suppliers to review their supply chains to identify potential human rights risks. In 2017, we will continue to review and benchmark our procurement processes and engage with our suppliers.

### Modern slavery and human trafficking

Woodside is committed to working towards preventing the occurrence of slavery and human trafficking in our operations.

To further demonstrate this commitment, Woodside has decided to voluntarily publish the following Modern Slavery and Human Trafficking Statement for the 2016 financial year:

*Woodside's Code of Conduct (the Code) recognises and respects the basic human rights of all people and seeks to ensure that we are not complicit in human rights abuses of others.*

*The Code also requires those working for Woodside to act ethically, consistent with Woodside's values of integrity, respect, working sustainably, working together, discipline and excellence. Those working for Woodside are expected to treat every person in line with Woodside values and support inclusion and diversity. Woodside personnel receive regular training regarding the company's Code of Conduct requirements and expectations.*

*Woodside requires suppliers to comply with a Supplier Code of Business Conduct that mandates that suppliers must respect the basic human rights of all people and ensure they are not complicit in human rights abuses.*

*Woodside maintains an effective Whistleblower framework for employees and suppliers to report suspected breaches of any laws, regulations, policies or the Code.*

*Woodside will continue to work with suppliers and contractors in relation to human rights risks including modern slavery and human trafficking.*



A blue-tinted photograph of a rocky landscape. In the foreground, there is a dense patch of tall, thin grasses. The middle ground is dominated by large, dark, jagged rocks. The background shows a hazy, blue sky. The overall mood is serene and natural.

# Fostering the organisation and culture



# People



Woodside has long understood that delivering superior shareholder returns depends on our ability to attract and retain an engaged, highly skilled and motivated workforce.

## Our approach

Our People Strategy focuses on growing outstanding leadership, building diverse capability from within and driving an inclusive high-performing culture enabled by technology. In line with our focus we maintain competitive remuneration to drive better performance outcomes for the company and shareholders, and to retain talented employees.

The Board's Human Resources and Compensation Committee oversees the company's human resources and compensation policies.

## Our performance

In 2016, we focused on improving organisational efficiency by sustaining changes from 2015 and implementing organisational and technological improvements. In 2015, our overall workforce was 3,456 and in 2016 it is 3,511 (including vacation students). Our global voluntary turnover rate continues to trend downwards from 5.7% in 2015 to 3.3% in 2016.

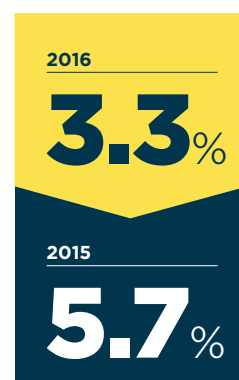
In the first half of 2016, Woodside implemented a number of organisational structure changes across the business, which better positioned us to accelerate and optimise activity across our growth portfolio.

This included co-locating the development planning team and a new subsurface team into our Science and Technology division. This change enables us to better leverage science, technology and integrated workflows, to identify and apply breakthrough solutions to both optimise and accelerate field development.

We introduced a new talent management software solution called SuccessFactors. SuccessFactors provides the platform for Woodside leaders to execute talent management activities in one integrated system, enabling more comprehensive, accurate and accessible talent data over the full employee life cycle.

This enhances our workplace and talent analytics, and improves our understanding and management of talent and the capability to support our global growth.

Woodside's global voluntary turnover rate



# Leadership and capability

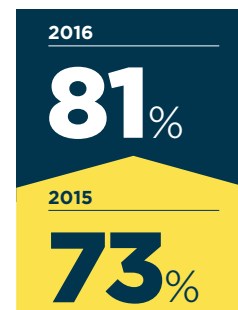
Woodside continues to focus on growing our own future leaders through targeted development opportunities. In 2016, 81% of senior leader appointments were internal promotions, an improvement on 73% in 2015. We also slightly increased the ratio of graduate hires over mid-career external hire from 66% in 2015 to 67% in 2016.

Our Leadership and Management Development Framework provides guidance to leaders on building their capability. In 2016, new Development Centres were successfully trialled to assess and develop leadership capability in a superior and cost-effective manner. A globally recognised diagnostic tool and team effectiveness workshops were also rolled out to accelerate team effectiveness across Woodside.

Our employee communities, such as Woodside Young Professionals and Woodside Leadership Community, continue to be active in facilitating events to strengthen our leadership capability.

Woodside continues to drive a values-led high-performing culture and in 2016 the cultural focus areas included innovation, collaboration and acceleration. These themes underpinned Woodside Week, where employees participated in activities designed to reflect on the successes of the year, share lessons learned and strive for further improvement.

Proportion of senior leader appointments who were internal promotions



## Employee engagement

The 2015 employee survey results showed we have an engaged and enabled workforce (70% and 66% respectively). Post-survey actions undertaken in 2016 were linked to established or planned activities. For example, Woodside chose the theme of “maintaining the connection” for its ‘Stand Together for Safety’ week.

Activities were designed to facilitate stronger connections between our employees to support their mental wellbeing and to improve our safety performance.

## Learning and development

Woodside continues to focus on building internal capability by providing all employees with high-quality learning experiences and development opportunities. During 2016, emphasis was placed on developing employees through cross-functional rotations and broadening assignments. There are currently 140 employees on cross-functional rotations, representing an increase of 20% on 2015.

Woodside continues to accelerate the development of our graduates. The action learning program was run for the second year in 2016, with 100 second- and third-year graduates participating. Graduates were required to collaborate with their peers to identify innovative solutions to meet real Woodside challenges. All first- and second-year graduates were also assigned a technical coach to support their leadership

and technical competency development. This approach accelerates a graduate’s time to technical autonomy and strengthens our leaders’ coaching capabilities.

The Production Training Academy in Karratha provides core skills development for operator trainees, apprentices, laboratory, IT, administration, warehouse trainees and operations support trainees.

In 2016, training was focused on core role-based competencies. We are also working across the Western Australian resources sector to deliver standardised and effective training and competency management. The launch of the resource industry Verification of Competency program for high-risk work licences is an example of working together to maintain a high standard of safety across operating assets.



# Inclusion and diversity

Woodside recognises that an inclusive culture that promotes diversity, respect and belongingness is a key contributor to our success. In 2016, our Diversity Policy was renamed as the Inclusion and Diversity Policy and updated to strengthen the emphasis on an inclusive culture.

In addition to the existing Woodside employee community groups, another group, Spectrum, was formed to focus on fostering an inclusive working environment for lesbian, bisexual, gay, transgender and intersex (LGBTI+) staff at Woodside.

To support Woodside's growth agenda, a software solution called Culture Wizard was also launched to provide employees with instant country profiles and information on specific cultural and business practices.

## Indigenous participation

In 2016, we commenced our third Reconciliation Action Plan (RAP), which Reconciliation Australia awarded its highest rating of Elevate. For additional information on the RAP see page 49.

We are proud to highlight these achievements:

- + We increased our directly employed Indigenous people from 94 employees (2.7% of the total workforce) to 103 employees (3% of the total workforce). Voluntary turnover has reduced from 3.2% (2015) to 2.9% (2016).
- + Woodside hired 14 Indigenous trainees and three apprentices as part of our pathways program. The total number of participants in our pathways program has increased to 21 trainees and 12 apprentices.

In addition to the RAP, Woodside has a range of social contribution partnerships and community capability-building programs in place designed to drive sustainable

employment opportunities for Indigenous peoples. For example, Woodside is working with 11 Western Australian private and government schools with sizeable Indigenous student populations. Woodside also has a wide range of community-based scholarships and scholarships directly linked to future employment opportunities. A total of 20 scholarships were active in 2016.

Woodside recognises that workforce cultural awareness is a key enabler to increasing Indigenous workforce participation and offers an expanded suite of educational programs. In 2016, Woodside increased its commitment to the Jawun immersion program with 10 employees seconded to the program plus one extended immersion and two executive visits. Woodside's Reconciliation Interest Group (RIG) was relaunched as the Woodside Reconciliation Committee. Membership has grown to 471 from 219 in 2015.

### Indigenous Employment Numbers



## Gender balance

In 2015, Woodside commenced a three-year strategy to drive sustainable improvements in gender diversity at all levels of the workforce.

Company-wide female representation has continued to increase, up to 28.4%, a favourable comparison with the industry average of 15.8%.<sup>1</sup> The voluntary turnover rate for female employees has decreased from 5.3% in 2015 to 3.6% in 2016.

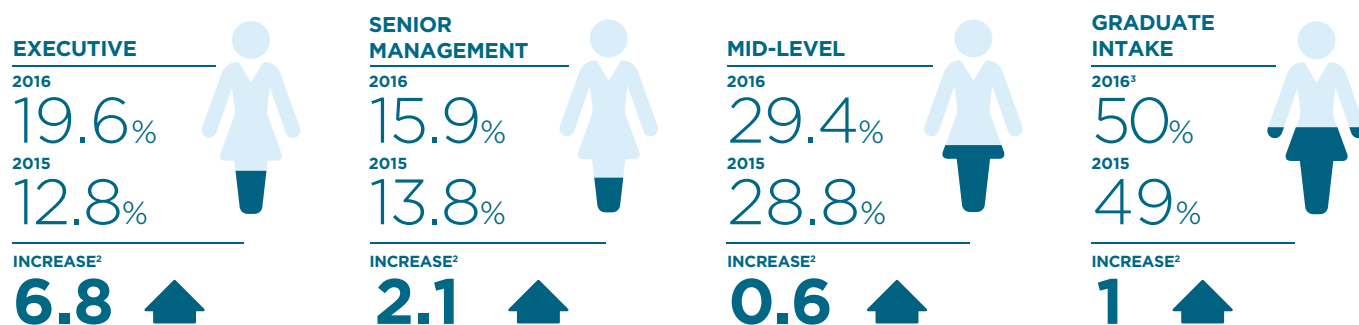
Executive and senior female representation has continued to increase in 2016, reaching 19.6% and 15.9% respectively compared to

12.8% and 13.8% in 2015. The pipeline of future executive women has doubled in part due to strong internal promotion and through the provision of gender-targeted opportunities such as offering MBA participation, executive sponsorship and running Women on Board workshops. Woodside achieved 30% female representation on the Woodside Board during 2016.

Woodside also continues to focus on driving gender balance through the graduate, apprentice and trainee programs.

The overall percentage of females in our Graduate Program has increased and improvements have been made in the number of female technical hires. A total of 23 female apprentices and trainees are currently engaged at the Production Training Academy.

Woodside continues to take specific action to broaden the pool of future female talent at school and university level. Nine gender specific scholarships were active in 2016 and 44% of Woodside's active professional scholarship recipients are Indigenous women.



This section reports on people targets from Sustainable Development Report 2015.

1. Workplace Gender Equality Agency 2016.  
 2. Increase is based on percentage points.  
 3. Offers and acceptances to commence in 2017.

The background of the image is a photograph of a rocky coastline, likely a cliffside or a rugged shore. The rocks are dark and jagged, with some lighter patches. The sky is a clear, light blue. The entire image is overlaid with a semi-transparent blue gradient that is darker at the top and bottom and lighter in the middle, where the text is located.

# Building a resilient business

# World energy outlook

The International Energy Agency (IEA) sees world energy demand growing at a compound annual average growth rate of 1% to 2040. The IEA expects the world will need 30% more energy in 2040 than it produces today. Economic development in emerging markets will be a key factor underpinning increased energy needs.

In its baseline energy outlook, the IEA sees gas and oil demand growing by 49% and 12% respectively to 2040. This compares with just 5% for coal. Gas demand will grow in most regions, with China and the Middle East expected to be the fastest growing markets.

## Oil: a key part of the energy mix into the future

The energy density and flexibility of oil means it will continue to play a key role in meeting global energy demand to 2040, particularly as a transport fuel and as a feedstock to petrochemical products. Demand for petrochemicals will see the oil market continue to grow into the 2020s despite competition in the transport sector from gas- and electric-powered vehicles.

Although global oil demand may peak towards the end of the next decade, the world will still need new supplies of oil. More than 16 million barrels per day of new production capacity is needed by 2025 just to offset expected field decline.

## Gas: an important role in assisting governments

Gas is set to play an important role in assisting governments in meeting their dual commitments to reduce greenhouse gas emissions while ensuring reliable power and utility services.

The commitments made by countries at the UN Climate Conference Paris 2015 (COP21) were an important step towards reducing global carbon emissions growth. Meeting the COP21 targets for limiting global average temperature change to 2°C or less will be challenging; emerging markets continue to place heavy reliance on coal. Many countries submitted plans at COP21 that feature greater use of gas as part of their plans to reduce emissions and reach ambitious climate goals.

Gas is a cleaner option for complementing renewable energy and is the cleanest hydrocarbon fuel. For every tonne of CO<sub>2</sub> emitted by producing LNG, at least 4 tonnes can be avoided by displacing coal-fired power generation. Woodside sees integrating gas with renewables in the energy grid as a more efficient, less expensive and cleaner energy solution.

## Gas: an affordable, sustainable component of the energy mix for the long term

We expect global gas demand to continue to grow through to 2040, with LNG demand nearly doubling due to strong economic growth in Asia and expanding gas markets in the Middle East and South America.

Renewables (solar and wind) will be the fastest growing segment of the energy mix to 2040 (in 2014 renewables represented 1% of total primary energy) but the intermittent nature of renewable-generated electric power, and the high cost of battery technologies mean that there will be a continuing role for gas.

The reliability, scalability and flexibility of gas are proven and will continue to make gas an attractive complement to renewables. Gas and LNG will also increasingly compete in transport fuel markets, particularly for heavy vehicles and marine fuel. Woodside is responding to this market by participating in a joint study with shipping and mining companies to assess the commercial feasibility of LNG-fuelled vessels transiting the 'Green Corridor' trade routes between Australia and Asia. Additionally, in January 2017, Woodside launched the first LNG-powered supply vessel in the southern hemisphere. The potential for LNG as a marine fuel has received a boost with the latest regulations from the International Maritime Organisation calling for tighter restrictions on air pollution by 2020.



Woodside's new LNG-powered marine support vessel — reducing vessel greenhouse gas and pollutant emissions and the reliance on imported diesel — while providing safe, reliable support to Woodside's assets in the Exmouth and Pilbara regions.

Gas is set to play an important role in assisting governments meet their dual commitments to reduce greenhouse gas emissions while ensuring reliable power and utility services.



# Economic performance

Woodside remains focused on creating sustained economic value for our partners, shareholders and the communities in which we operate, based on effective investment decision-making.

In 2016, we produced 94.9 MMboe, 3% higher than 2015 and the second-highest ever achieved. This was driven by record LNG production of 63.7 MMboe. Our production generated \$4,075 million in operating revenue and we reported a net profit after tax (NPAT) of \$868 million.

## Tax contribution

As Australia's leading LNG producer, we are proud of our contribution to the community and to the nation. This includes, but is not limited to, a significant financial contribution.

Woodside derives the majority of its income from the sale of petroleum products produced in Australia. The company pays tax in Australia on the profits made in relation to these sales. This tax contribution summary is limited to Australia, given it represents more than 95% of taxes paid globally.

In considering the Australian tax contribution made by Woodside, it is important to recognise that hydrocarbon production in Australia is subject to a complex mix of taxes including income tax, Petroleum Resource Rent Tax (PRRT) and Federal royalties and excise (both of which are applicable to the North West Shelf Project).

In 2016, Woodside paid approximately A\$525 million in taxes and royalties to Australian Federal and State governments as set out in the table provided.<sup>3</sup>

The amount of Australian corporate income tax paid is lower than the prior year mainly due to lower oil prices impacting revenues. The amount of PRRT paid was similarly affected by the industry downturn, the cessation of production, divestment of oil interests and increased capital expenditure in Australia.

Earnings per share were 104 US cents while proved plus probable (2P) developed reserves increased by 38.5 MMboe.<sup>1</sup> Woodside's economic performance continued to be impacted by a challenging environment of low prices for commodities.

In response we increased liquidity, maintained negligible near-term debt maturity, reduced our cost structures and delivered an extensive productivity program.

After three years Woodside has completed its productivity program. Cumulative benefits of the program are more than \$2.0 billion, including approximately \$830 million in 2016.<sup>2</sup> Most importantly the program has embedded a cultural change where continuous improvement has become part of the way we do business.

Woodside is committed to making available additional information in respect of its tax contribution for each income year.

Supplementary information for the 2014-15 income year is available on our website via the tax transparency information sheet.<sup>4</sup>

Australian Federal and State tax contribution (cash basis)	2016 (A\$m)	2015 (A\$m)
Corporate income tax	236	1,050
PRRT	(16)	10
Federal royalties and excise	246	290
Payroll tax	51	58
Fringe benefits tax	8	8
Carbon tax	0	2
<b>Subtotal</b>	<b>525</b>	<b>1,418</b>

Year	Effective income tax rate <sup>*</sup>
2015	31.5%
2016	30.5%

\* Woodside's effective income tax rate for Australian operations as per the Group's audited Financial Statements.

These entities are considered to be international related parties in respect to Woodside.

Woodside applies arm's-length principles to its international related-party transactions, the total value of which is not significant when compared to revenue from production activities.

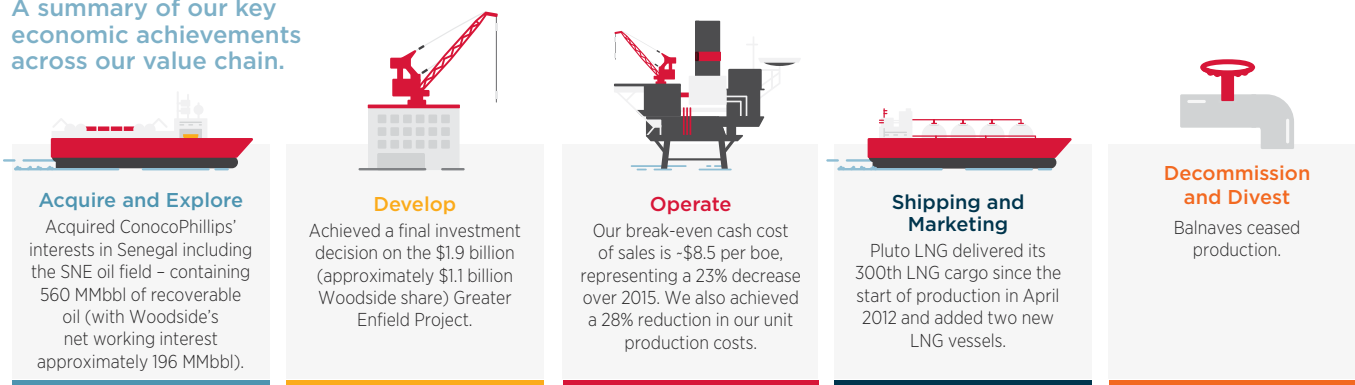
The primary form of international related-party transactions within the Woodside Group is administrative support services provided from Australia and the value of these services comprises less than 1.4% of sales revenue.<sup>5</sup>

A smaller subset of international related-party transactions arise from Woodside's office in Singapore. This office markets and trades internationally sourced LNG supply, as well as provides shipping capacity. This office also markets some uncommitted LNG production from Australia for an arm's-length fee. In 2016, the fee was less than \$1 million.

## Other risks and financial implications

Woodside's risk management process focuses on reducing threats to our existing business activities and enhancing opportunities across the value chain. We systematically assess the consequence of risk in areas such as health and safety, environment, finance, reputation and brand, legal and compliance, and social and cultural impacts. For further information on Woodside's approach to risk management, see the Risk section of the Annual Report 2016.

## A summary of our key economic achievements across our value chain.



1. For further information on Woodside's approach to reserves reporting, see the Reserves and resources section of the Annual Report 2016.

2. Benefits include impact of higher production volumes and reduced operating and capital costs. Volume benefits are relative to average performance for 2010 to 2013. Operating cost savings are relative to 2013 actual expenditure, and capital cost savings are relative to our 2013 forward plans adjusted for acquisitions, disposals and deferrals.

3. The cash basis of reporting includes all payments of taxes and receipts of refunds, including refunds of taxes overpaid in respect of prior years.

4. This information relates to tax payments for the 2014-15 income year and is on an accruals basis.

5. Based on Woodside's most recently filed tax return.

# Climate change



Efforts to limit climate change will have a significant impact on the energy mix over the next few decades and Woodside is adapting to these changes. This presents both risks and opportunities for Woodside's business.

## Impacts of climate change

Woodside recognises the scientific consensus on climate change and the challenge of providing safe, clean, affordable and reliable energy while reducing emissions in line with the Paris Agreement. Woodside is well positioned to assist in reducing climate change impacts while also providing a reliable and long-term energy supply.

### Opportunities

- + The relative low-emissions intensity of gas provides it with an advantage over coal in a decarbonising market.
- + High value-adding oil and gas applications, which require high energy reliability, such as peaking power, long-range transport and chemical plants and process.
- + New technology allows existing and future oil and gas facilities to reduce their greenhouse gas emissions.

### Risks

- + Demand for oil and gas in markets may subside, resulting in stranding of higher cost assets.
- + Divestment campaigns may target oil and gas operators and, if sufficient momentum is gained, could potentially impact shareholder value.
- + Changes to climate policies and stakeholder expectations can impact project approvals, schedules and costs.
- + Governments may introduce unilateral carbon prices in host countries, which would increase operating costs, relative to international competitors.

### The Paris Agreement

In December 2015, nearly every country in the world adopted the Paris Agreement, which provides an enduring framework for the world to address climate change.

Key elements of this agreement include the following:

- + Limiting climate change to well below 2°C above pre-industrial levels, with aspirations of 1.5°C
- + Achieving a balance between anthropogenic emissions by sources and removals by sinks
- + Strengthening national adaptation efforts
- + A five-yearly pledge-and-review process, to increase national ambition over time.

The Paris Agreement came into force in November 2016, just 11 months after the Paris Climate Conference (COP21). It has now been ratified by more than 100 countries, which are responsible for more than 80% of emissions.

## Sustainable and reliable energy

Acknowledging the interconnected challenges and opportunities of sustainable development, Woodside understands that society is increasingly demanding cleaner air and an energy mix that reduces climate change. This is leading to changes in the global energy mix. Woodside can play an important role supplying sustainable and affordable energy supporting the growth of renewables, while reducing climate change and air quality impacts.

To maximise these opportunities, we are developing new technologies, underpinned by our core business, to position Woodside as a supplier of sustainable and reliable energy.

### Woodside's strategic response to climate change risk

In 2016, we elevated climate change in our risk register and evolved how we will manage this risk. We have refined our approach to carbon and climate change and published a Climate Change Policy.

Our approach highlights our belief that the benefits of natural gas will see gas and LNG play an increasingly important role globally in reducing greenhouse gas emissions, supporting intermittency of renewable energy and improving local air quality. We will also continue to pursue energy efficiency, support global carbon pricing and will evaluate the resilience of our portfolio against a range of scenarios, including a 2°C scenario, to understand potential impacts, risks and opportunities.

 The policy is available on our website.

## CARBON AND CLIMATE APPROACH

OUR APPROACH INCLUDES THREE ELEMENTS:

1

Increasing the resilience of our portfolio

2

Improve our emissions performance

3

Address stakeholder concerns about the future of gas

## Gas in the emerging energy mix

As variable renewable energy generation increases, such as wind and solar, grids will require other power sources to ensure reliable power and balance the intermittency of renewable energy sources. Gas is well placed to provide this role. It is reliable, mature, fast acting, modular, available at scale today and is the cleanest fossil fuel.

We are working to ensure that Woodside will benefit from this expanding role for gas in the energy mix by helping to make LNG-fuelled power faster and cheaper to deploy.

We have also established a Power and New Markets function to explore and commercialise these opportunities.

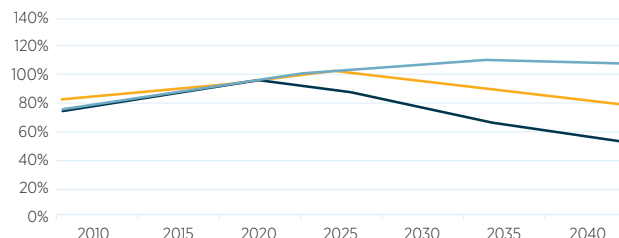
### Climate scenarios

Many organisations prepare scenarios exploring different ways that greenhouse gas emissions can be allocated between different sources such as energy, industrial processes and agriculture.

Woodside considers a range of impacts on the future energy mix when assessing our portfolio. Woodside's analysis, as well as that of independently published scenarios (including the IEA 450<sup>1</sup> scenario), sees ongoing growth in gas demand.

### Fossil demand in 450 scenario

— Gas  
— Oil  
— Coal



International Energy Agency, Woodside

### Oil in Woodside's portfolio

We have successfully rebalanced our exploration portfolio with an increased exposure to oil and emerging basins. This is supported by our recent acquisition in Senegal that offers new near-term oil production. There is room to develop new oil reservoirs in the IEA's 450 scenario and the world will need more than 16 million of barrels per day of new supply to offset field decline. Since most oil is used in sectors with few viable alternatives, such as petrochemicals, aviation and heavy freight, it may also be more resilient to carbon constraints than other fossil fuels.

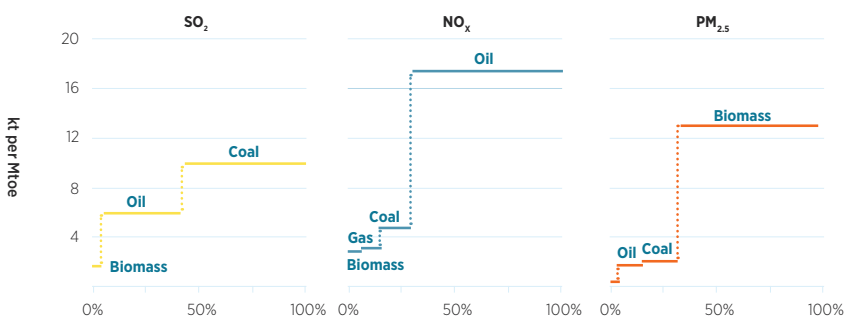
### The alignment of clean energy and climate change priorities

According to the International Energy Agency, poor air quality causes 6.5 million premature deaths per year, largely due to emissions from the energy sector. Gas is a particularly clean fuel, emitting about half the greenhouse gas emissions of coal-generated power, low

levels of nitrous oxides (NO<sub>x</sub>) and nearly no particulate matter (e.g. PM<sub>2.5</sub>) or sulphur dioxide (SO<sub>2</sub>).

Increased use of gas-fired power therefore presents an opportunity for those countries with severe air-pollution concerns and growing energy systems, notably China and India.

### Global average emissions factors and share of major pollutant emissions by fuel, 2015



International Energy Agency, 2016

### CASE STUDY

## LNG fuels

Woodside is actively promoting LNG as a transport fuel, with greenhouse gas emissions up to 25% lower than diesel and 30% lower than heavy fuel oil. Additionally, LNG produces almost no sulphur or particulate emissions.

In 2016, the International Maritime Organisation decided to restrict sulphur levels in global shipping fuels from 2020 and start tracking greenhouse emissions from large ships. This represents a major opportunity for LNG to replace fuels that will no longer be viable when the new caps on sulphur take effect.

Woodside considers the Pilbara region in Western Australia to be an ideal location from which to drive the transition to LNG as a transport fuel, with world-class LNG production facilities close to fuel-intensive industries that rely heavily on imported diesel and heavy fuel oil. Around 3 billion litres of diesel are imported into the Pilbara each year, and the mining industry alone uses around 5 billion litres of heavy fuel oil to ship its export product. If we can switch just a portion of this to LNG, the emissions reductions are considerable. Woodside is collaborating with many parties to convert

these energy-intensive operations in the Pilbara to LNG. It has potential to provide an important new market for Woodside and make a significant contribution to meeting Australia's emission reduction targets.

To demonstrate the flexibility of LNG as a transport fuel, Woodside took delivery of the *Siem Thiima* in January 2017. This is the first LNG-fuelled supply vessel in the southern hemisphere and joins our fleet as the primary supply vessel for Woodside's offshore operations.

1. The IEA models three climate relevant scenarios. The "Current Policies" scenario assumes no change to government policies and the baseline or "New Policies" scenario assumes that governments meet their announced emission targets. The "450" scenario is based on a pathway that will result in 450 parts per million of carbon dioxide in the atmosphere, which climate scientists equate to an average temperature increase of 2°C above pre-industrial levels.

# Improving our emissions performance

Woodside's greenhouse gas emissions come from three main sources:

- + Fuel gas used to power our facilities
- + Flaring to ensure safe production
- + Vented carbon dioxide from our reservoirs.

Each of the three main sources require different management techniques.

In recent years, we have made dramatic improvements in reducing flaring, but increases in fuel use due to acquisitions and new equipment have offset these emissions savings, resulting in a stable emissions profile.

## Flaring

Our ongoing improvements in operational reliability and flare reduction initiatives have allowed us to reduce our flare intensity by over 50% since 2013.

We continue to pursue improvements in our flare performance and our 2017 flare intensity target is 17% below our 2016 target.

## Fuel gas

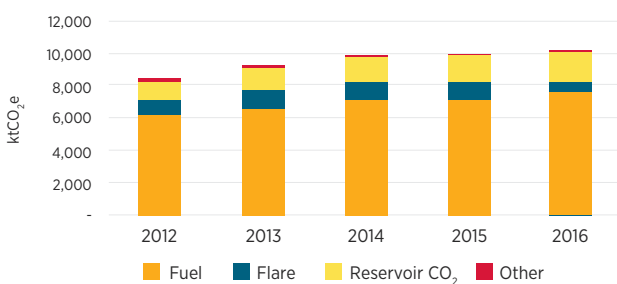
Fuel gas is the largest contributor to Woodside's emissions profile, comprising about 70% of our footprint. We set a 1% fuel-intensity-reduction target for 2016 (defined as gigajoules of fuel per tonne of exportable hydrocarbon product). The reduction is calculated by comparing actual fuel intensity with the expected fuel intensity prior to improving our technology, equipment or operational procedures.

In 2016, we met our target by implementing a number of energy and cost-saving initiatives. In order to make more significant, longer term changes in our fuel intensity, we are considering upgrades to capital intensive equipment that is approaching the end of its design life, such as gas turbines.

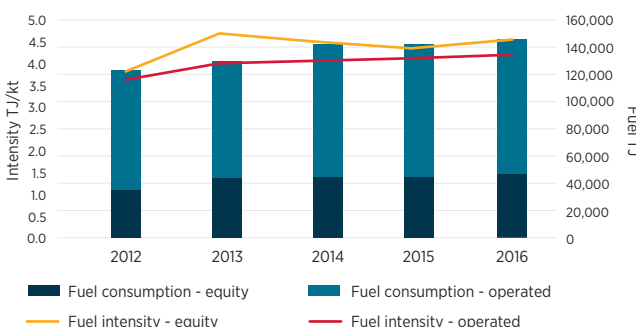
## Vented carbon dioxide

Vented reservoir carbon dioxide contributes about 20% to our greenhouse gas footprint. This is the most challenging source to mitigate. The carbon dioxide cannot be turned into a useful product and the only feasible technical option for an existing facility is to offset or geologically sequester the gas. Although this is unlikely to be commercially viable for existing facilities, we consider offsets and sequestration options for reservoir carbon dioxide on all new developments and projects.

Scope 1 and Scope 2 operated emissions by source



Fuel



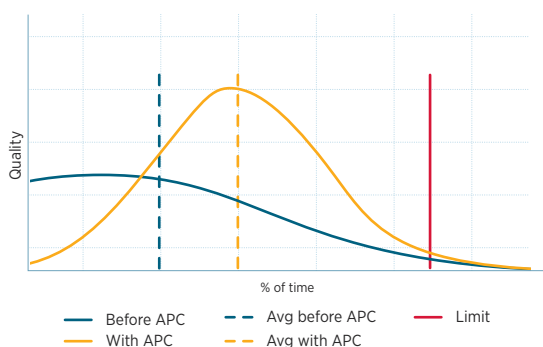
## CASE STUDY

# Advanced process control for reducing emissions

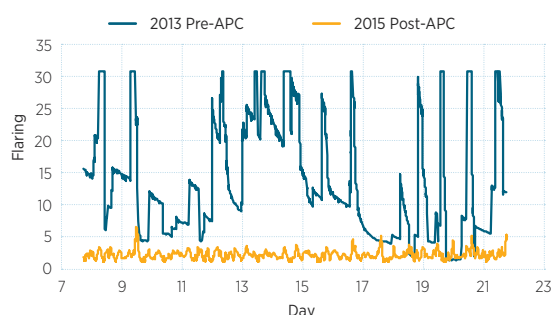
Many incremental energy-efficiency gains are possible with more precise control of the processes at our facilities. To capture these, Woodside installs Advanced Process Control (APC) systems, which use computer algorithms to make extensive incremental changes. When implemented properly, these changes allow facilities to operate closer to their design limits and increase performance, which may result in higher throughput, and/or reduced energy use.

An APC installed on part of the Pluto LNG facility improved the process stability and, reduced operator workload. It also reduced flaring by 10,000 tCO<sub>2</sub>e per year.

As we develop our data science capacity within Woodside, we are finding more opportunities to use our existing equipment in a smarter way to reduce emissions intensity and to add value.



Flaring







Woodside conducted its first Energy Efficiency Week in 2016 and is continuously looking at ways to get 'more from our energy'.

## Addressing stakeholder concerns

We acknowledge that investors, regulators and other stakeholders are increasingly demanding transparency over how a carbon-constrained world may impact our business.

Woodside believes that global carbon pricing is a tool to support a low-carbon energy transition. If implemented effectively, it will support businesses to make long-term investment decisions in line with Paris Agreement objectives.

In recent years, there has been a justifiable increase in the scrutiny of climate-related financial risk in large companies. The G20 Financial Stability Board Task Force for Climate Related Financial Disclosure has prepared a series of recommendations on how to present climate-related risk.

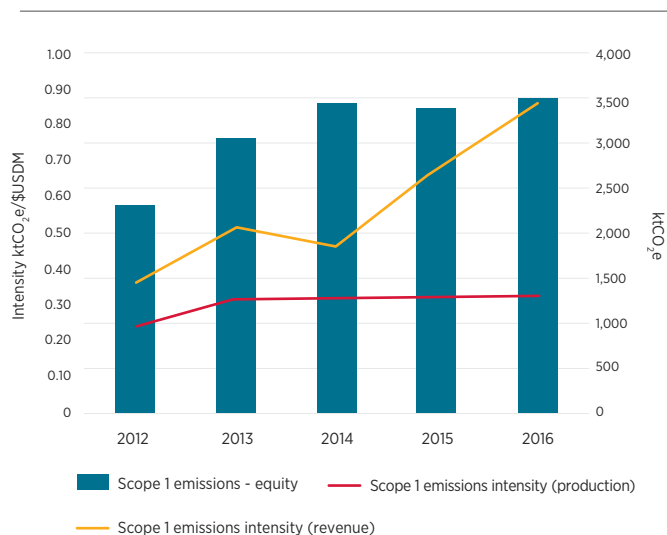
Many of these recommendations are covered by our Carbon Disclosure Project (CDP) disclosure, and we will review the remaining Task Force recommendations in 2017.

[Link to CDP response is available on our website.](#)

### Climate performance and risk metrics

One performance metric that is used broadly is the emissions intensity of a company, often measured as direct emissions per unit of revenue.<sup>1</sup> Emissions intensity (production) has remained relatively stable in line with production rates and emissions, other than a slight increase in 2013 due to an increase in the ratio of LNG to domestic gas when Pluto commenced. Emissions intensity (revenue) is strongly impacted by oil price so does not fully represent underlying emissions performance. Woodside's view is that measures of climate risk need to acknowledge the contribution our products can make in decarbonising the global energy mix. We do however understand that analysts will continue to use metrics to screen and categorise investments. To ensure that analysts have consistent data available, we have changed how we report our emissions. The data table in this report (page 60) includes both equity and operated emissions and also calculates an emissions intensity (calculated on an equity basis).

Scope 1 equity emissions intensity



1. Total operating revenue includes sales revenue, processing revenue, and trading revenue.

# Applying technology and innovation

We believe that technology and innovation are essential to unlocking new energy markets, reducing operating costs, managing cyber-security risks and ensuring our long-term sustainability. Woodside's technology strategy is focused on driving innovation across our value chain.

## Our approach

### Collaboration

Our collaboration program, FutureLab, is designed to enable our innovation culture with work streams that aim to deliver these outcomes:

- + An LNG plant of the future that is smaller, smarter and safer.
- + An intelligent enterprise that applies the latest analytics and cognitive computing to improve efficiency, maximise data usage and leverage the collective knowledge of our organisation.
- + An offshore transformation that extends our offshore capabilities.

### Innovation and new technology

Innovations across our value chain have allowed us to tap into new energy markets, reduce costs across our business and maintain operational excellence - all of which will help secure long-term sustainable growth.

In exploration, we are applying 3D full-waveform inversion (FWI) to reduce exploration cycle time and improve success rates. This advanced seismic imaging technique improves productivity by significantly reducing the cycle time from the traditional 12 months to just a few months. In 2016, FWI was successfully applied on two data sets from our Myanmar seismic surveys.

In developments, we continue to further advance our LNG plant of the future concept, Next Generation LNG, which aims to substantially reduce liquefaction costs to less than \$500 per tonne per annum of installed capacity.

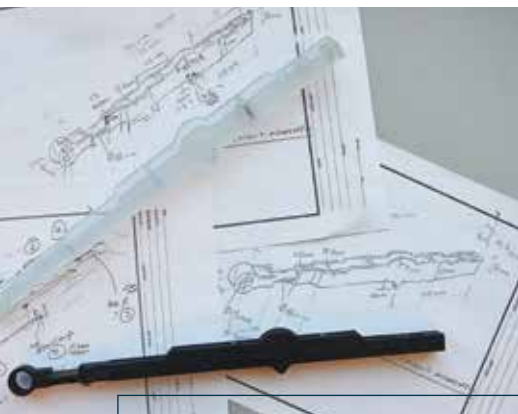
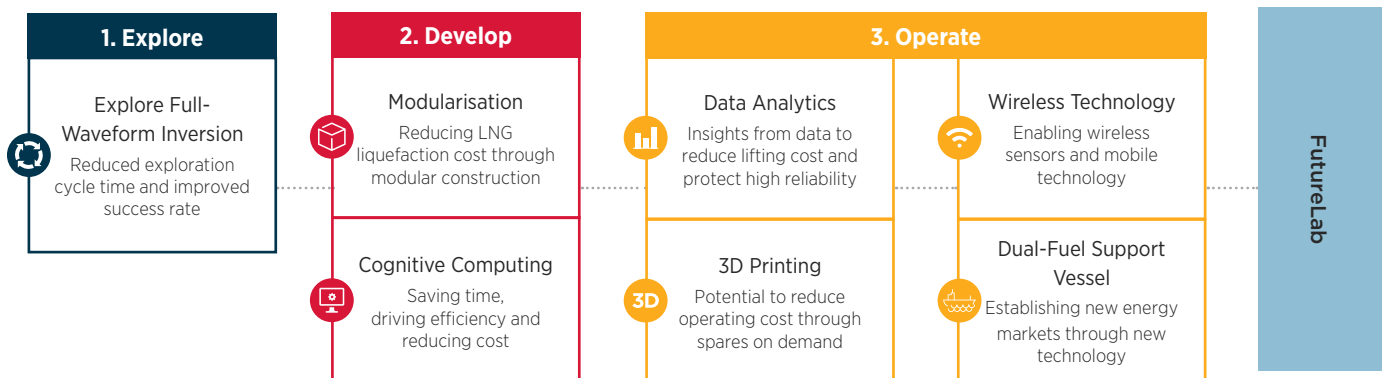
This work is complemented by work streams investigating new subsea technologies that allow for efficient recovery of hydrocarbons and an economical offshore development.

Through our cognitive computing program, we are optimising our expertise in projects, and passing this from one generation of employees to the next.

In real time, it would take a single person in our business more than five years to read the data in our IBM Watson for Projects System. Today, it is instantly available to everyone. This innovative approach is saving time and boosting productivity in our developments portfolio and is being expanded to other areas of our business.

Data analytics and cognitive computing continue to deliver insights from our business, helping to reduce costs and protect high-production performance and reliability. We note these achievements in 2016:

- + Advanced our capabilities in wireless technology at our Karratha Gas Plant.
- + Created 3D printed prototype parts with the potential for printing on demand across our operating facilities.
- + Introduced a maximum possible production data analytics platform that allows operators to target best-on-record production at our Pluto LNG facility.



3D printing prototypes being designed for use.

## Managing cyber security

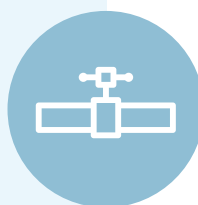
A cyber attack presents a risk to the integrity of production operations and corporate information. In 2016, we increased Woodside's cyber-security team and established a dedicated project to deliver improvements in the security of our process control environment. We continued to collaborate closely with government agencies, academia, industry peers and high-quality service providers to understand and build capability to respond to cyber-security threats.

In 2016, we deployed several new technologies to prevent malicious attacks on our network by leveraging technology, securing our cloud computing and storage environments, improving privileged access management and enhanced security of mobile devices. We also conducted drills and exercises to enhance our cyber-attack response procedures and promoted good cyber-security behaviours in our workforce through training and easy-to-understand policies.



Operating  
responsibly

# Major incident prevention



The oil and gas industry inherently works with flammable hydrocarbons at high pressure. The potential impacts of a loss of containment have serious consequences for people, communities, assets and the environment.

With more than 30 years of operating experience, Woodside has assets at varying life cycle stages. We fully appreciate that failure to manage ageing assets, maintain integrity or uphold maintenance schedules can lead to a loss of integrity of structures, equipment, wells or piping, causing loss of containment.

Process safety describes a disciplined framework for managing the integrity of systems and processes that handle hazardous substances over the exploration and production life cycle. Process safety management is critical to the oil and gas industry and has been subject to stronger stakeholder scrutiny since the Deepwater Horizon incident occurred in 2010 in the Gulf of Mexico.

## Our approach

In 2016, the Process Safety Management initiative (PSMi) implemented a framework to ensure that all of our assets and business functions have a standardised approach to managing process safety that is globally applicable. The requirements are based on the Energy Institute's globally recognised High Level Framework for Process Safety Management (PSM).

An assessment of PSM requirements against our Woodside Management System and their implementation across our assets identified a number of areas for improvement. PSMi implemented a number of high-priority improvements in 2016, deemed necessary for a step-change in performance and ability for sustainable improvements to support Woodside's growth strategy.

Woodside continues to support and make significant investment to understand and act to control our process safety risks.

There were several major achievements in 2016:

- + Planned execution of a 45-day integrated turnaround at the North West Shelf Project, involving all five LNG trains, the North Rankin Complex (NRC) and Goodwyn A platform to execute key scopes of work and eliminate key PSM vulnerabilities.
- + Execution of the Karratha Gas Plant Life Extension Program, which included a four-month marine facilities refurbishment campaign to revamp the LNG and LPG jetties (including marine loading arms).
- + Planned and sustained reduction of piping corrosion related defects (refer to case study).
- + Planned execution of a well intervention program on NRC and Goodwyn A platform facilities to assure the condition of our dry trees and remediate any identified vulnerabilities.
- + Completion of major dry-dock maintenance to the Okha FPSO and in infield riser replacement.

PSM improvements delivered in 2016 are summarised on page 37 under each of the relevant four focus areas of the PSM framework. PSMi was recognised by the Institute of Chemical Engineers (IChemE) as a Global Process Safety Awards finalist.

## Our performance

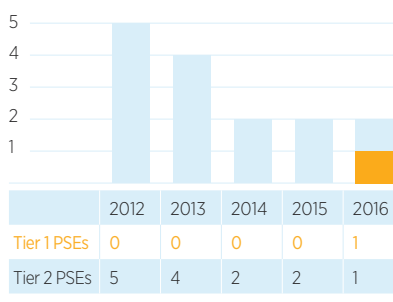
Woodside categorises and reports Process Safety Events (PSE) against the American Petroleum Institutes Recommended Practise 754.

There was one Tier 1<sup>1</sup> and one Tier 2 Loss of Primary Containment (LoPC) PSEs recorded in 2016. There were no well- or drilling-related PSEs in 2016.

There were no injuries or facility damage as a result of the two PSEs. Both PSEs were investigated in accordance with Woodside's investigation requirements to understand root cause and identify appropriate corrective actions for implementation.

Woodside is an active member of the International Oil and Gas Producers (IOGP) Process Safety sub-committee and has supported reporting of PSEs for benchmarking of the global upstream industry since 2012.

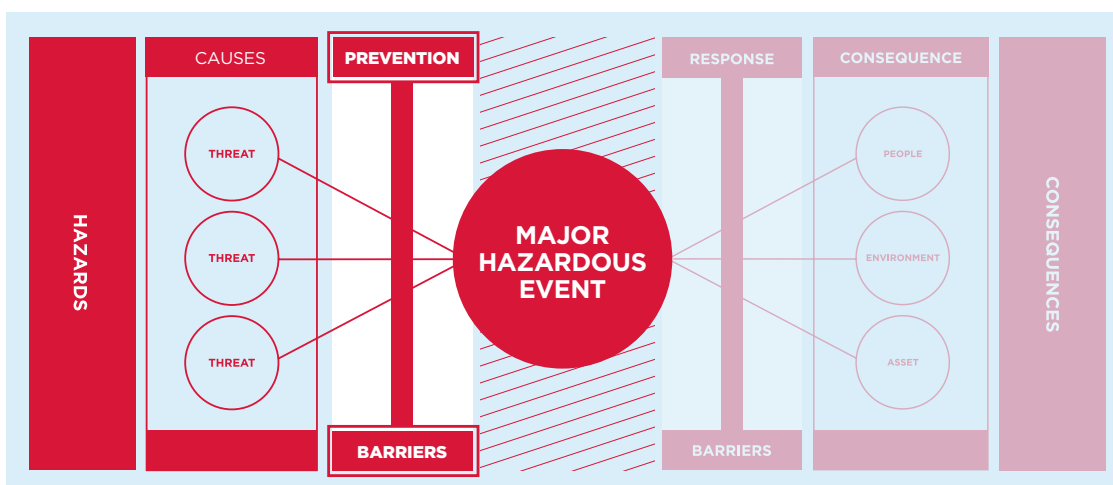
### Tier 1 and 2 PSE



Refer to page 62 for definitions.

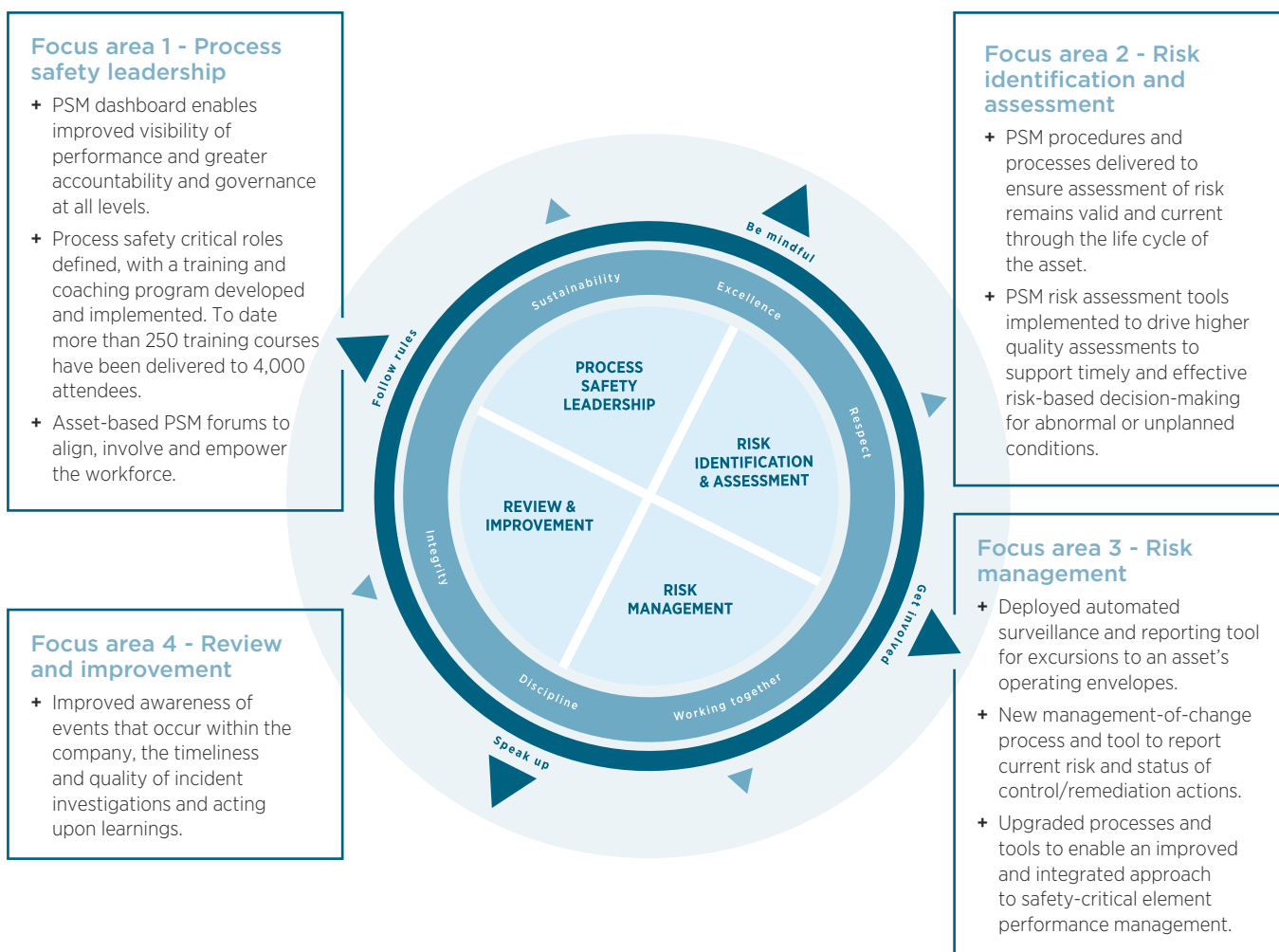
1. The Tier 1 PSE involved the release of stabilised condensate that was contained within the storage tank bund and was internally classified as low risk.

The bow-tie diagram depicts the barriers in place to prevent a major hazardous event, which is the primary focus of process safety management.





## PSM focus areas – improvements delivered in 2016



### 2017 focus areas

Planned improvement activities and focus areas for PSM in 2017 include the following:

- + To embed PSM behaviours as part of our way of working.
- + To expand and support application of PSM requirements to other value-stream business activities (including our non-operated joint ventures).
- + To focus on gaining insights from our leading performance metrics, recognising the potential opportunity to learn and act upon any weaknesses within our management system or its implementation.
- + To extend our competency and capability requirements to contractor and supplier selection and management activities.

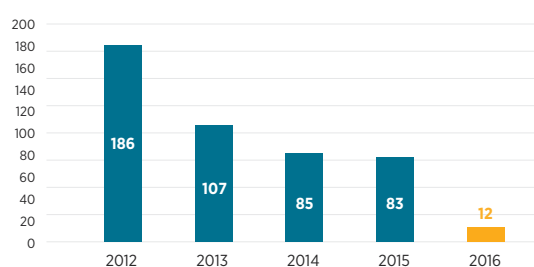
### CASE STUDY

## Managing process safety risks (corrosion management)

A key challenge when operating and maintaining ageing assets is the management of external corrosion defects, especially those present on hydrocarbon containing systems. The offshore Goodwyn A platform has been in operation for more than 20 years.

In 2012, a program of works was put in place to significantly reduce the number of corrosion defects being managed by the asset. Upon completion of the integrated NWS shutdown and by the end of 2016 the number of active corrosion defects on hydrocarbon containing systems had been reduced from 186 to 12 over the four-year period.

Sustained reduction of corrosion-related defects at Goodwyn A





# Major incident response



The oil and gas industry inherently works with flammable hydrocarbons at high pressure. The impacts of a loss of containment have high potential consequences for people, environment, assets, reputation, livelihood and communities. Oil and gas operators require robust major incident response capabilities to minimise these impacts.

Actively managing the impacts of a loss of containment event, loss of well control or loss of pipeline integrity is a key focus area for Woodside. In addition, our Western Australian stakeholders have an expectation that our domestic gas supply is resilient to adverse events.

## Our approach

Woodside maintains a comprehensive and integrated all-hazards approach to its emergency and crisis-management response arrangements by applying the emergency risk management process known as 'PPRR' to prevent, prepare for, respond to and recover from major incident events.

As part of our Emergency and Crisis Management capability strategy we have a 24/7 scalable response framework. Our training and testing of emergency arrangements (including exercise simulations) are aligned to existing or developing risks associated with Woodside's operations and activities.

Woodside conducts ongoing assurance reviews to assess our facilities' and operations' emergency management preparedness and to identify improvement actions.

In 2016, focus areas included the following:

- + Building global response capability within each region (i.e. Australasia, Africa, Europe and North America).
- + Development and testing of Business Continuity Plans for critical business activities, including an agreement with a fellow joint venture participant to facilitate the sourcing of critical operational spares when they cannot be obtained from suppliers in a timely manner.
- + Improved insurance and finance response capability in the event of a major incident.
- + Re-engineering spill testing and exercising, increasing our depth and rigour of testing.
- + Development of a capability calculator to assist in identifying gaps.
- + Creating an audit tool for use by industry to measure, compare and report on audits of key spill-response providers globally.

## Our performance

Woodside monitors its hydrocarbon-spill and emergency-management preparedness through a dashboard that tracks performance against capability, competency, compliance and plans.

In addition, we conduct annual benchmarking of Woodside's spill preparedness using the RETOS<sup>1</sup> Global Spill Benchmarking Tool. Woodside's current self-assessment received a score of 99% (refer to page 39 for further information).

In 2016, emergency exercises were conducted in the following areas:

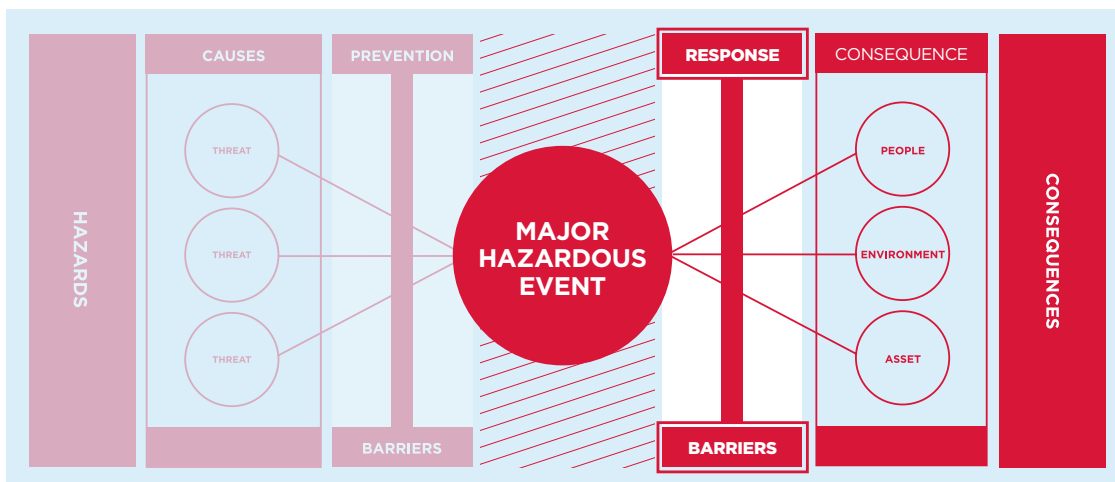
- + 494 Level 1 (site-only response) exercises that tested our initial response and involved exercising the responsibilities of the on-site Incident Management Team.
- + 21 Level 2 (operational support) exercises that tested our response coordination and control arrangements for larger incidents.
- + 4 Level 3 (crisis management support) exercises that tested our strategic management of major incidents impacting the company.

## 2017 focus areas

Focus remains on the four key pillars of hydrocarbon spill preparedness and response:

- + Contingency planning.
- + Competency (training and testing our arrangements).
- + Capability (equipment and specialist services).
- + Compliance and assurance (meet local, national and international legislation and conventions). Specific focus on non-operated venture assessment and assurance processes.

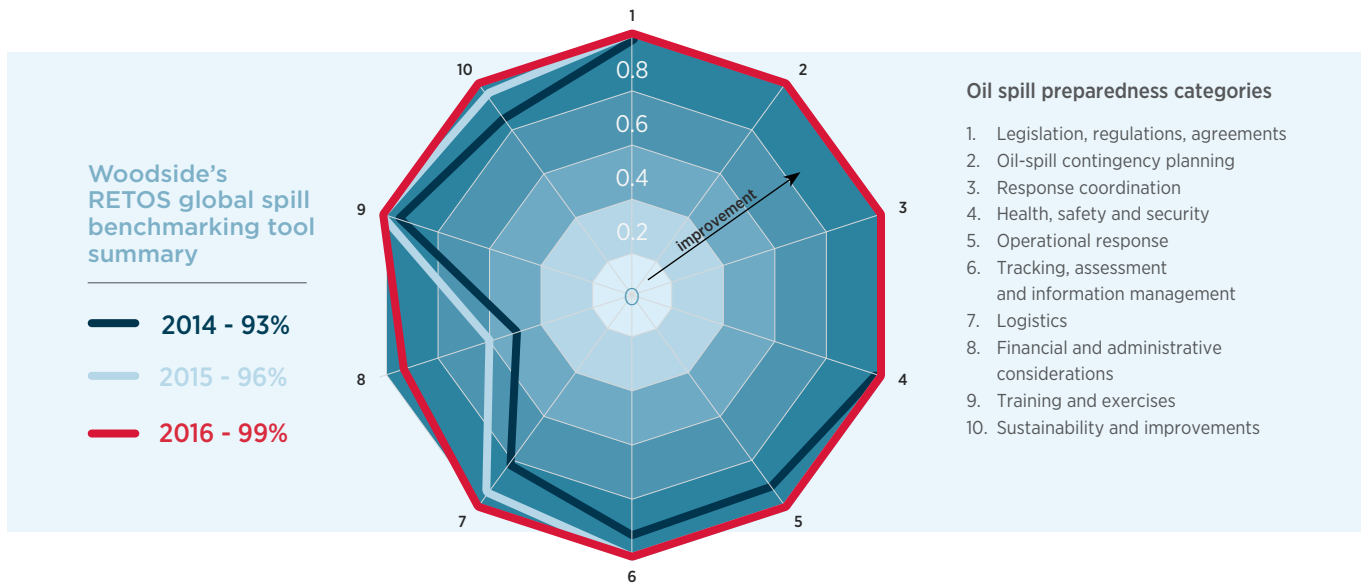
The bow-tie diagram depicts the barriers in place in response to a major hazardous event that mitigate the potential consequences



1. RETOS<sup>®</sup> Readiness Evaluation Tool for Oil Spills

RETOS is an international tool for self-assessment of oil-spill preparedness by companies, governments and regulators, and is supported by the International Maritime Organisation.

In 2016, Woodside significantly improved its rating on the RETOS Global Benchmarking Assessment in the Financial and Administrative section. Two key improvements included the appointment of a finance officer role within the Corporate Incident Coordination Centre in addition to the development of a specific spill-response insurance claims guideline.



**CASE STUDY**

**Global hydrocarbon-spill preparedness**

Hydrocarbon spill remains a key material risk to Woodside across our operated and non-operated activities. Our hydrocarbon-spill response capabilities for our Australian operations are mature, which allowed us to focus attention on our international processes in 2016.

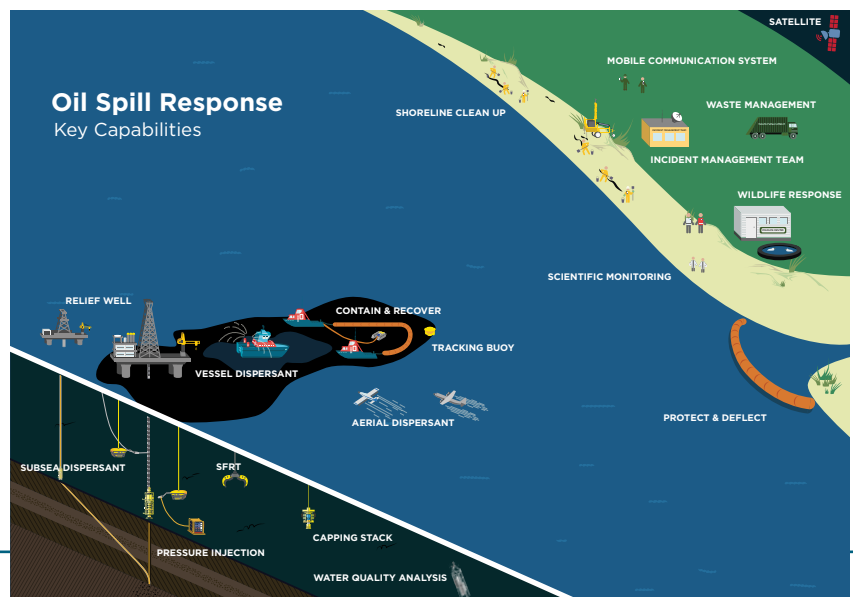
Woodside's international spill-planning-and-preparedness process has developed with capabilities growing in line with our footprint and risk exposure. We acknowledge some of the challenges in international locations including underdeveloped regulatory frameworks, lack of national and regional spill response arrangements, inadequate logistics services and infrastructure limitations.

Acknowledging these challenges as we increase our operational footprint is essential.

In 2016, Woodside was involved in international spill leadership events through its participation in global spill forums and the IPIECA<sup>1</sup> Oil Spill Working Group (OSWG). This included participation in developing the 2017-2020 Strategic Plan for IPIECA OSWG and the Global Initiative projects in both South-East Asia and West Africa.

Woodside's hydrocarbon spill preparedness and response capability was audited internally and externally in 2016, with no significant findings.

Woodside recognises the opportunity to collaborate across industry, regulators and responder groups in the area of oil-spill preparedness and response, both in Australia and internationally.



1. IPIECA is the global oil and gas association for environmental and social issues.

# Health and safety performance



Woodside's health and safety (H&S) performance is essential to our business success and growth. We are committed to managing our activities to protect our people and our host communities.

## Our approach

Woodside's Management System provides a clear and comprehensive set of requirements for managing risks from our activities. These include our Golden Safety Rules that have supported a continued reduction in work-related activity injuries since they were introduced 10 years ago. Our Safety Culture framework identifies the behavioural expectations required at all levels of the organisation to build and sustain an effective safety culture.

## Our performance

In 2016, we continued to deliver on our strategic focus areas, which included H&S leadership, process safety management, contractor management, and employee health and wellbeing. Supporting this has been our increasing use of data analytics to provide insights and inform future plans.

Highlights in 2016 included:

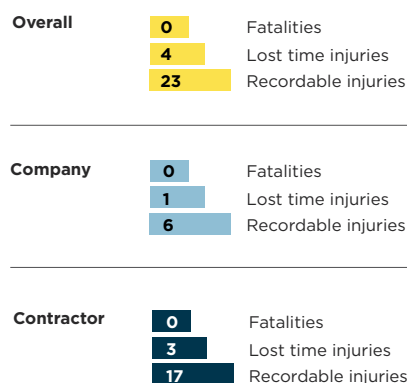
- + Exceptional H&S performance during the North West Shelf Project planned turnarounds and zero recordable injuries on the North Rankin Complex during Persephone Project execution.
- + Implementation of a process safety management framework to enable sustainable process safety performance (refer to Major Incident Prevention on page 36).
- + Zero H&S incidents on Balnaves Decommissioning – the first decommissioning project for Woodside.
- + Company-wide involvement in our annual safety week, referred to as Stand Together for Safety, which focused on improving our understanding of how health and wellbeing, in particular good mental health, contribute to positive safety outcomes.
- + Development of innovative technology solutions to support advanced data analytics of our H&S information.
- + Continued consistent emphasis on the importance of visible safety leadership and supervisor engagement.

- + Standardisation and simplification of contract documents, combined with the introduction of a technology solution for managing our contractor H&S data more efficiently.
- + Improved management of international travel-related health risks by embedding health-needs assessments in new country entry and improvements in travel medical processes and awareness.
- + Development of a suite of e-learning modules to support global operations and consistent H&S capability building. In 2016, more than 4,000 online courses were undertaken across the organisation, building awareness in subjects such as mental health, human factors and travel health.

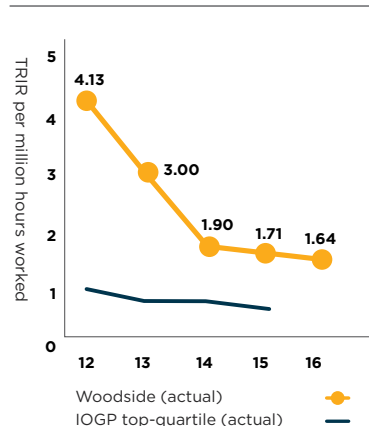
We had no work-related fatalities at Woodside operating sites in 2016 but experienced 23 recordable injuries.

Woodside's H&S performance is measured in part by total recordable injuries per million hours worked (TRIR). In 2016, Woodside's TRIR was 1.64, which demonstrated a 4.1% improvement on 2015.

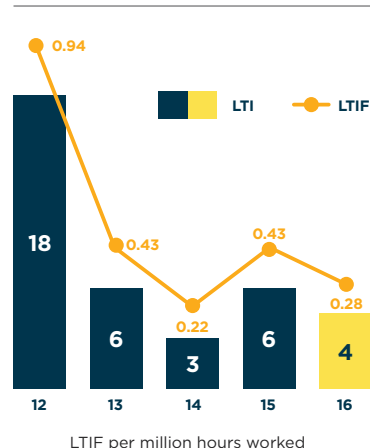
2016 injury performance (based on International Association of Oil and Gas Producers (IOGP) methodology 2013)



Total recordable injury rate (TRIR) performance



Lost time injury and lost time injury frequency (LTIF)



## 2017 focus areas

In 2012, Woodside launched an H&S strategy with a goal to deliver global top-quartile H&S performance in the oil and gas sector by 2017 as measured by the International Association of Oil and Gas Producers (IOGP).

Since the introduction of this goal Woodside's TRIR decreased by 60%. Woodside is proud of this achievement and will continue to strive towards industry-leading performance.

Woodside has revisited its strategy and focus on re-invigorating a safety culture founded on personal and collective accountability for occupational safety every day.

The strategy will continue to be matured in 2017, maintaining the focus on key risk areas for our business:

- + Visible leadership and supervisor engagement
- + Embedding process safety management systems into H&S processes and our business

- + Improving contractor management processes
- + Improving health and wellbeing programs
- + Continuous improvement foundations including our management systems, Golden Safety Rules and our safety culture framework.

We will achieve this through leveraging new technology solutions including advanced data analytics and through collaboration with our peers within industry forums to further improve H&S performance.



### CASE STUDY

## Health and safety in contract management

Approximately 50% of our exposure hours are executed by our contractors, typically performing higher-risk work activities. Woodside continues to place strategic and tactical focus on improving contractor relationships and management processes, recognising the key role contractors play in our H&S performance.

As part of a wider project to streamline our management system, work was completed in 2016 to standardise and simplify H&S sections of our contract documents and processes. The updated documentation aligns with international best practice and supports our global aspirations.

In 2016 an online database to store the H&S evaluation and performance management data for our contractors was also implemented. This will enable better management of contractor H&S capability and performance data. A pilot was conducted earlier in the year with eight contractors participating, with positive feedback.

There will be a phased approach for implementation of the database in 2017.

As well as these process-level improvements, frontline engagement with our contractors continued in 2016, and will be an ongoing part of our future plans to build collaborative working partnerships.



# Health and wellbeing

When we talk about health at Woodside, we include physical, psychological, emotional, intellectual and social wellbeing. Understanding and managing occupational exposures are key to our goal of maintaining a fit and healthy workforce.

In 2016, a secure, global and scalable medical database was implemented across all the operating assets, supported by training to all the clinical and industrial hygiene teams. This single database is now providing the means to record, monitor and note trends in important health indices such as exposure monitoring results for noise and airborne contaminants.

Protecting the health of our employees can be demonstrated in part by compliance

with occupational exposure limits, and in part by fitness-for-work assessments that include health surveillance elements. These assessments are also recorded for compliance, scheduling and for early detection of potential occupational illness.

The data build has enabled the development of leading health indicators for 2017, starting with a fitness-for-work metric and planned maturing of further elements during the year.



Woodside's 2016 Stand Together for Safety event focused on mental health and wellbeing.





# Managing our environmental impacts

Woodside recognises that strong environmental performance is essential to our success and continued growth.

## Our approach

Woodside's approach to environmental management is to understand the environments in which we work, minimise our impacts upon them and transparently report performance.

We do this by using science-based data and rigorous risk identification and management measures. We demonstrate our environmentally responsible management by contributing to programs that support sustainable management.

## Our performance

Our aspiration is sustained delivery of leading environmental performance to protect the environment in which we operate. We do this by setting leading and lagging key performance indicators (KPIs), benchmarked where possible against industry peers.

In 2016, Woodside maintained its clear commitment to the environment with these activities:

- + We introduced a 1% reduction in fuel-intensity (TJ per kt of hydrocarbon production) on business as usual for 2016.
- + Continued improvement in reliability saw an improvement in flaring intensity for the third consecutive year, culminating in a 33% reduction between 2015 and 2016.
- + We had three environmental incidents that were reported to regulatory authorities as part of our licence conditions. They were of minor environmental consequence.
- + We reviewed our long-term approach to fuel management to maximise our use of LNG as a shipping fuel in order to minimise our emissions footprint. Refer to case study on page 31 for further detail.

In 2016, for the second concurrent year, Woodside won the Australian Petroleum Production and Exploration Association (APPEA) Environmental Excellence Award, recognising our outstanding approach, leadership and performance within the Australian oil and gas industry.

Woodside was the recipient of the 2016 APPEA Environmental Excellence Award.

## Water usage

Woodside operates in remote and often dry environments and has a focus on minimising fresh-water use. At the Karratha Gas Plant (KGP), a Water Efficiency Management Plan is in place. This has contributed to a 24% reduction in water use between 2015 and 2016 at KGP. The majority of water consumed by Woodside's facilities is sourced from municipal supplies. In Karratha, this water originates from either a local dam or, when levels are low, groundwater sources. Offshore facilities have the capacity to desalinate their own water when required. Given that our operations are not intensive consumers of water, water use and disposal do not feature in the top ten issues for our company.

We recognise the importance of responsible water management and, as we expand and grow globally, will monitor our activities accordingly.

## Biodiversity and partnerships

Our practised approach to understanding the diverse environments in which we operate is to partner with leaders in environmental studies and with research organisations to deliver robust scientific data.

In 2016, we began a collaboration with the University of Western Australia to understand the biodiversity that resides upon our offshore infrastructure in the north-west of Australia. Knowledge from this work will be an important input in future decommissioning options for our assets in the region.

In Myanmar, we are collaborating with Fauna and Flora International, an international, science-based NGO and Myanmar's Patheingyi University.

This collaboration seeks to provide technical and capacity-building support for marine science academics and students, through international experts providing training to assess near-shore marine habitats. Secondly, the international experts and the recently trained students have undertaken habitat assessments along the Rakhine coast, which will feed into future marine spatial planning and decision-making.

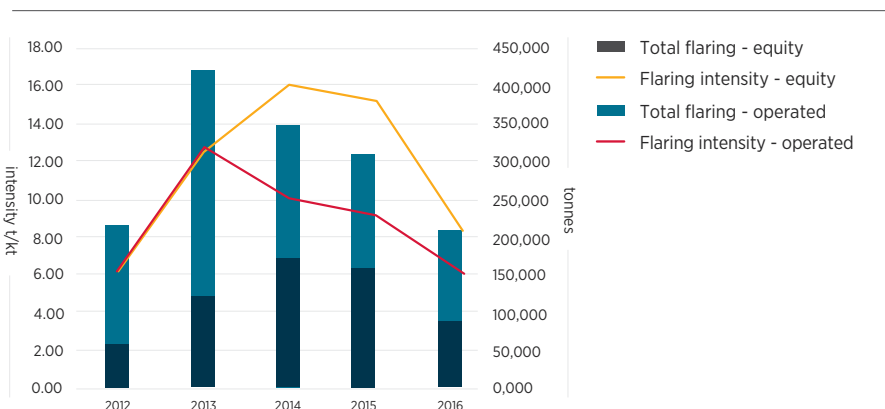
## Managing air emissions in international shipping

Woodside is aiming to reduce its airborne emissions in international waters. This has commenced with a review of how we manage fuel across our LNG shipping fleet.

Since December 2016, Woodside has maximised its use of LNG as a shipping fuel and is minimising emissions by reducing its use of heavy fuel oil (HFO). LNG also eliminates nearly all sulphur and particulate emissions, putting us in an ideal position ahead of the International Maritime Organisation's new global cap on sulphur content of ship fuel oil coming into effect.

Currently, all five ships that make up Woodside's fleet have the ability to use either LNG, HFO, diesel or a combination of these fuels. With our shipping operations, and our drive to convert other vessels to utilise LNG, we believe this could contribute to a reduction in emissions from international shipping. Refer to case study on page 31 for further detail.

## Flaring



# Engaging communities and managing impacts

Woodside's licence to operate relies on establishing and maintaining effective relationships with our host communities and stakeholders.

## Our approach

We seek to engage with a wide range of stakeholders and local communities to ensure we understand the potential impacts of our activities. We implement agreed mitigation strategies, including identifying and maximising the opportunities created by our projects, as well as contributing to community resilience. Our social investment approach is outlined on page 46.

In 2016, our communities framework was made part of the Woodside Management System. This ensures that we take a consistent approach to identifying and responding to stakeholder interests and concerns across all of our business activities.

Towards the end of 2016, Woodside commenced an integrated scope of social baselining work for the Australian communities in which we operate: Exmouth, Karratha and Roebourne.

As part of this social impact assessment process, surveys and interviews are being undertaken with local stakeholders and employees. Feedback provides valuable information to inform and refine our approach in these communities. It will enable us to measure the tangible impact we are having in our host communities.

Woodside has been operating in the north-west of Australia for more than 30 years. Our community team are based in offices in Karratha and Roebourne to ensure they are accessible and able to respond to queries or concerns. Community members can also contact the team via Woodside's community line. Key issues for communities of the north-west include creating local employment opportunities and ensuring the region's long-term economic development.

We are responding by reviewing our social contribution focus areas with a greater emphasis on investing for outcomes, by increasing our focus on social baselining and indicators.

We continue to engage with stakeholders in the north-west through our community liaison groups (CLGs) in Karratha and Exmouth. In 2016, the frequency of CLG meetings in Karratha was increased to quarterly and membership expanded to improve their effectiveness.

In Exmouth, three CLG meetings were jointly held with two other oil and gas operators. We consulted with community, government, industry and NGOs to support environment approvals for our ongoing exploration, project and operational activities.

Woodside also conducted engagement with communities and key stakeholders to support our activities and interests in Canada, Ireland, New Zealand, Timor-Leste, Senegal and the Republic of Korea.

## INTERNATIONAL CASE STUDY

### Engagement in Myanmar

In 2016, we undertook consultation within Myanmar at the national, regional and village level in support of future planned and contingent drilling activities in the Rakhine Basin. The consultation process included discussions with local fishermen and fishing associations to understand the nature of their fishing activities and the potential for our activities to impact on livelihoods. Consultation confirmed that potential impacts as a result of project activities are not expected to be significant in scale and duration, due to the offshore nature of the activities. This information was disclosed as part of the relevant Environment Impact Assessment reports.



## Grievance mechanism

Woodside has an international community grievance mechanism (CGM), which provides a structured approach to receive, acknowledge and respond to grievances. Our CGM provides a framework for community stakeholders to raise questions or concerns and have them addressed in a prompt and respectful manner. Community stakeholders have the ability to lodge grievances at local Woodside offices or via email on [communities@woodside.com.au](mailto:communities@woodside.com.au).

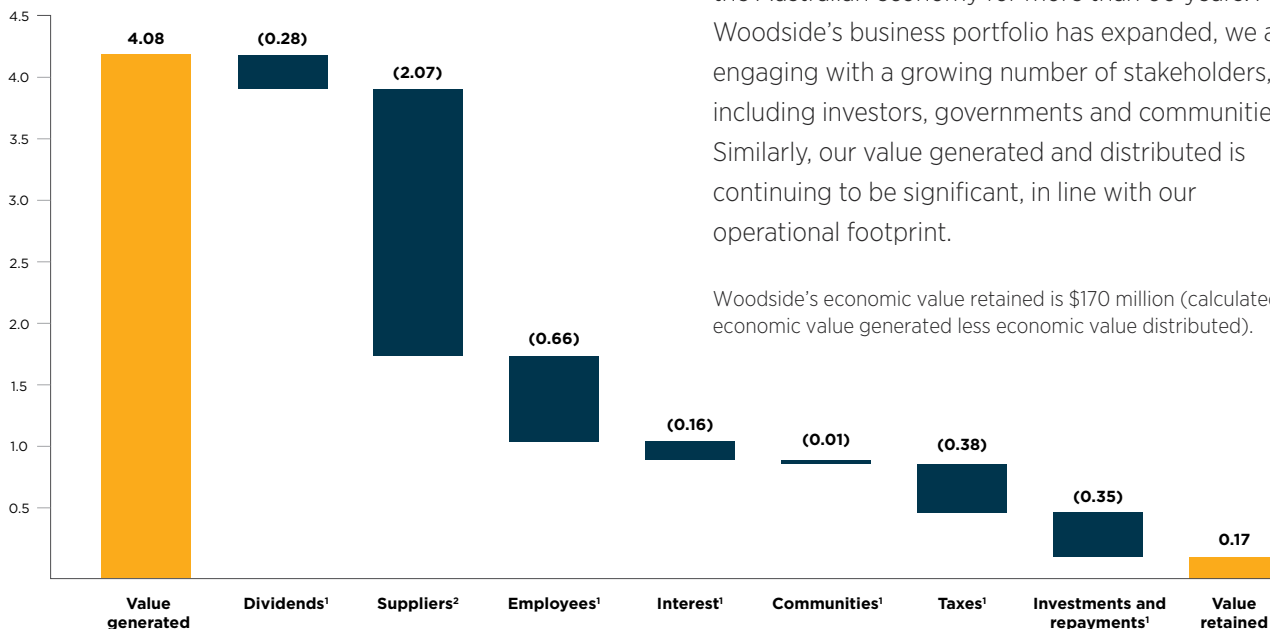
In 2016, Woodside received five community grievances, all of which have been resolved.

An aerial photograph of a suburban neighborhood, showing rows of houses, streets, and trees. The entire image is overlaid with a semi-transparent blue filter. The text "Creating shared value" is centered in the middle of the image in a white, sans-serif font.

# Creating shared value

# Value generated (economic contribution)

Value generated and distributed (\$ billion)\*



Woodside has been a substantial contributor to the Australian economy for more than 60 years. As Woodside’s business portfolio has expanded, we are engaging with a growing number of stakeholders, including investors, governments and communities. Similarly, our value generated and distributed is continuing to be significant, in line with our operational footprint.

Woodside’s economic value retained is \$170 million (calculated as economic value generated less economic value distributed).

1. Consistent with the Group’s Financial Statements, consolidated statement of cash flow. It includes Woodside’s gross payroll costs reported on a cash basis.  
 2. Supplier costs are consistent with the Group’s audited financial statements. They include operating, capital and exploration expenditure paid to suppliers and contractors for materials and services and exclude employee wages and benefits, payments to governments, payments to community groups, investments and repayments, interest, depreciation, amortisation, impairments and relevant indirect taxes.  
 \*Amounts have been derived from the Woodside Annual Report 2016, or converted into USD using the average rate of 0.74 AUD/USD.

## Social investment

Our social investment strategy aligns business and community needs; the level of investment increases with business activity and impact.

### Our approach

In 2016, Woodside began implementation of an integrated and phased approach to social investment that supports the company’s producing assets and growing exploration and development portfolios.

Consistent with our phased approach to social investment, we seek to support host communities as early as the acquire and exploration phase.

By engaging with stakeholders and understanding the social context, we are able to determine stakeholder needs and expectations and the potential impacts of our activities. This allows us to understand the best way we can invest for mutual benefit.

### Where we contribute

As Woodside’s business portfolio has expanded, we are engaging with a growing number of host governments and communities.





### Investing in our communities

Our strategy is to create shared value for both the local community and the Woodside business by creating capacity and capability in our host communities. We have aligned our social investment to support the United Nations Sustainable Development Goals (SDGs) by focusing on the three themes: opportunities, knowledge and resilience.

We believe there is shared value for our business and our communities by co-creating opportunities in education, employment and enterprise.

To do this, we take the time to improve our knowledge of what's needed, to understand the environment we work in, to minimise our impacts and to maximise the opportunities to work with and support both community and government.

This approach helps to build resilience in our host communities so they can take advantage of the opportunities we create.

### 2017 focus area

A key focus in 2017 is balancing our social investment portfolio while maintaining governance and compliance with fraud and corruption controls, including Woodside's Code of Conduct and Anti-Bribery and Corruption Policy. Woodside's procedures prohibit the provision of donations or social investments to influence business decisions in favour of Woodside.

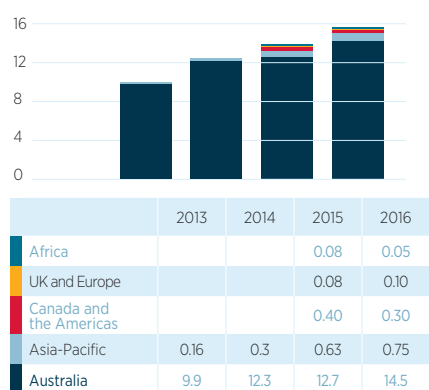
Additionally we will focus on leveraging our social investments to maximise benefits in host communities where we operate.

In addition to our contribution, an additional contribution of A\$13.9 million into our communities and social investment partner organisations was leveraged by Woodside from other funders, including Woodside's joint venture participants, government and Woodside employees.<sup>1</sup>

**Woodside Development Fund (WDF)**

In 2014, the WDF was launched, a 10-year A\$20 million commitment to pioneer a new approach to community development by focusing on childhood development to have a positive impact on health, productivity and participation outcomes.

Woodside Social Investment A\$M



**CONTRIBUTIONS**

A\$15.7 million

Contributed to our communities

Plus A\$13.9 million leveraged from other funders.<sup>1</sup>

**VOLUNTEERING**

895

Employees helped us achieve our goals

7500+

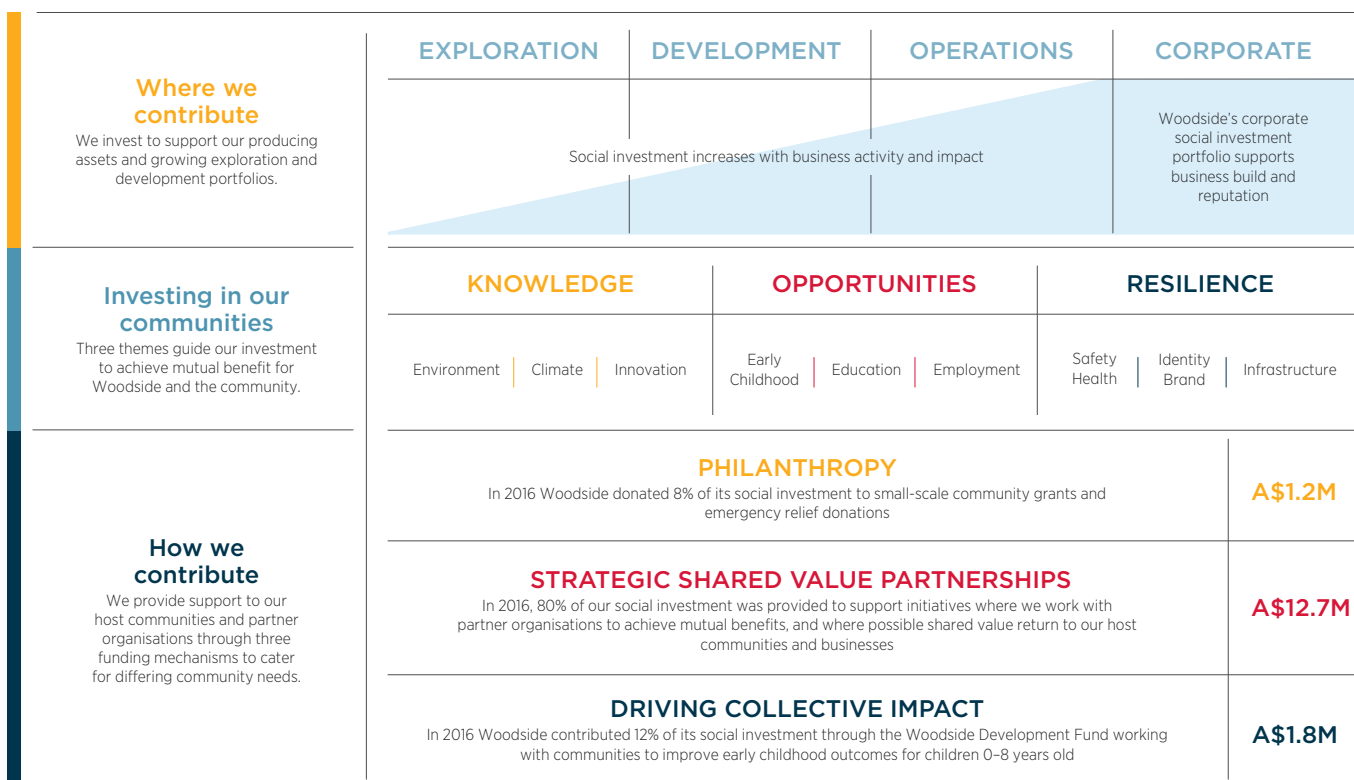
Employee hours = A\$1.4M value in time

62

Organisations directly benefited from our volunteering

### Woodside social investment framework (2016-2020)

We support our communities through an integrated social investment portfolio



<sup>1</sup> Leverage refers to additional contributions we facilitated through Woodside's joint venture participants, government and Woodside employees.

# Indigenous engagement

We continually work to strengthen our relationships with indigenous communities in the places where we are active.

## Our approach

Woodside places great value on working with indigenous communities in the places where we are active. Our Woodside Management System provides us with a framework to engage indigenous communities consistently.

Our Framework mandates the development of baseline indigenous community understanding and knowledge in locations in which we have significant activities. This may include community mapping and impact assessments to inform management of issues, identification of opportunities as well as ways to improve community resilience. In relevant situations we also manage our relationships and impacts through agreement-making.

A continuous improvement model frames our principles and focus for effort in our engagements with indigenous communities globally. Its features include these fundamental activities:

- + Developing workforce respect for indigenous cultures and communities through cultural awareness training and supporting initiatives promoting our host communities' cultures.

- + Building and strengthening relationships through inclusive heritage management processes and supporting community priorities, such as young people's wellbeing and the transmission of cultural knowledge from senior people to younger generations.
- + Increasing economic opportunities by growing the proportion of indigenous peoples working for us or our suppliers, by awarding more contracts to indigenous-owned businesses and by encouraging skills building in those businesses.
- + Developing and extending Woodside's Reconciliation Action Plan (RAP) for Australian Indigenous communities to be applicable to international settings. Woodside's third RAP includes a framework to ensure that the activities we commit to will have a lasting outcome in the communities where we operate.

For more information on our RAP report visit our website.

In 2017, we will continue engaging with indigenous communities.

## Respectful engagement

Woodside engages with indigenous communities locally and internationally. These are some examples of how we engaged with indigenous communities in 2016:

- + Continuing to build and strengthen our relationships with Indigenous communities in the Pilbara region, For more detail about our Pilbara Indigenous engagement see our section on Engaging communities and managing impacts on page 44.
- + Establishing a task group of respected Whadjuk Noongar community representatives to advise us about opportunities for respectful and meaningful acknowledgements of Noongar culture in the design of Woodside's new headquarters building. Engagement will continue throughout 2017.
- + Maintaining engagement with First Nations Peoples in North-West British Columbia, Canada, as well as Maori people from the area surrounding the Taranaki and Great Southern Basins in New Zealand about Woodside's potential developments. Given the limited nature of our activities in these regions, these initial engagements are setting the foundations of the long-term meaningful relationships we intend to develop as our activities evolve.



## CASE STUDY

### Creating a legacy

In July 2007, Woodside and the Australian Government entered into a Conservation Agreement for the Dampier Archipelago, which includes the Burrup Peninsula (also known as Murujuga) where our operating facilities are located.

Woodside committed up to A\$34 million under the Conservation Agreement to support projects that manage, transmit, protect and research the values of the place where we have successfully co-existed for more than three decades.

Since 2013, Woodside has been directly engaging traditional owners and Murujuga Aboriginal Corporation (MAC) in strategic planning and management of the Conservation Agreement.

At the 2016 Conservation Agreement Annual Strategic Meeting it was agreed that, in collaboration with MAC and other partners, our key focus areas would be the following:

- + To ensure transparency and obtaining community assurance in relation to the benefits of our contributions, since the inception of projects in 2008.
- + To develop and maintain the right partnerships and participation models from among Federal, State and local governments, as well as industry and community.

Woodside will continue to work directly with the community on these focus areas.

# Reconciliation Action Plan (RAP)

In 2016, Woodside launched its third RAP, committing us to practical actions to improve relationships with, and create opportunities for, Australian Aboriginal and Torres Strait Islander peoples.

The RAP program is overseen by national not-for-profit organisation Reconciliation Australia.

Reconciliation Australia awarded the highest of four ratings to Woodside's RAP: Elevate. Woodside is the 17th organisation in Australia, and the first oil and gas company, to attain this level of RAP.

Woodside's first two RAPs helped us embed the importance of recognising and working with Indigenous communities in the business.

This RAP reflects on Woodside's journey over the past 40 years: the impacts of our business on Australia's Indigenous people and their cultural heritage, and our journey to include communities in our work.

Our vision under this RAP centres on meaningful, mutual exchange. The activities we undertake need to have a lasting outcome in the communities where we operate. Aligned with this, our third RAP includes an outcomes measurement framework. It reflects a continuous improvement mindset and represents an evolution in our approach as we expand and grow our global business.

We use a 5-point scale to score our performance on 12 progress indicators. These indicators relate to our outcomes spanning respect, relationships, opportunities and national leadership.

For Woodside, 2016 was a baseline year under this new framework, and results will be captured in our forthcoming stand-alone RAP report, to be published on our website.

## RAP themes with 12 progress indicators

### Respect

1. Workforce cultural competency
2. Indigenous perceptions of Woodside

### Relationships

1. Indigenous input
2. Engagement and collaboration
3. Contribution aligned with community priorities

### Opportunities

1. Indigenous employment
2. Indigenous business participation
3. Indigenous employee growth and development
4. Social contribution outcomes

### National leadership (Woodside Development Fund, WDF)

1. Key early childhood outcomes
2. Partner capability build
3. Advocacy for early childhood dialogue and policy

Reconciliation WA Co-chair Carol Innes and Warren Mundine, Chair of the Prime Minister's Indigenous Advisory Council, talk to Woodside's Adam Lees and Niall Myles.



# Supply chain

Improving the sustainability of our supply chains is a strategic imperative of Woodside's approach to contracting and procurement.

## Our approach

We recognise that improvements in environmental, social and governance performance within supply chains can result in significant cost savings, improved compliance and productivity. We also acknowledge the importance of providing sustainable economic benefits through local employment and supply-chain opportunities, which have a positive impact on communities in which we conduct business.

Our supply chain incorporates procurement and logistics management across our value chain. In 2016, Woodside engaged a total of 2,088 suppliers and spent approximately \$3.5 billion across a range of locations. The number of suppliers engaged reduced by 22% compared to 2015 as a result of our category management approach, which seeks to consolidate the number of suppliers to create a greater transparency on spend and more attractive opportunities for small to medium enterprises.

We have a standardised approach to developing contracting and category strategies, supplier selection and evaluation, contract and supplier management and procure to pay activities.

We expect high standards of ethical conduct within our organisation and from

our suppliers. We have a Supplier Code of Business Conduct that describes how we seek to do business with our suppliers and how we set expectations to ensure they are consistent with our values.

Our processes ensure that supply-chain risks are identified and quantified with appropriate controls and performance measures included in contract and supplier management plans. Anti-bribery and corruption due-diligence processes ensure appropriate screening, evaluation and monitoring of all third parties with whom we do business.

## Our performance

Highlights in 2016:

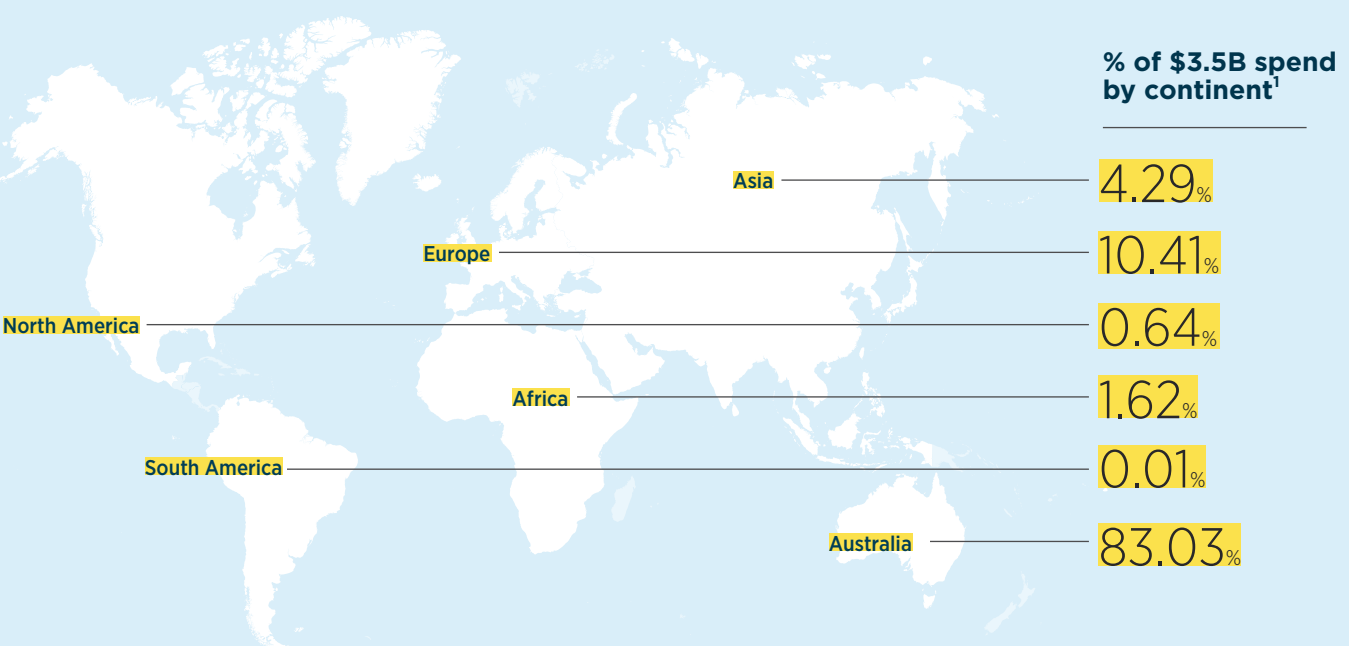
- + Creating an International Contracting and Procurement Team to respond to emerging international opportunities and growth.
- + Implementing a procedure with new supporting guidelines and a tender probity declaration form added to strengthen our tendering controls.
- + Implementing a Supplier Relationship Management (SRM) process to ensure long-term, strategic management of our relationship with 25 Tier 1 suppliers.
- + Focusing on participation of Indigenous-owned businesses within Australia with 29 contracts being delivered, which

included sub-contracts issued by our major suppliers, as well as direct contracts with Woodside. This represents a 16% increase on the cumulative number of contracts awarded in the period from 2011 to 2015.

- + Completing a supply-chain mapping project with four major suppliers. The project included a review of the material sourcing process and potential human rights issues within the supply chains and sought to inform the development of appropriate techniques and methodologies for these processes. No major issues were identified.
- + Commencing a mobility solution for warehousing to improve efficiencies at our Perth Distribution Centre.

## 2017 focus areas

- + Develop a supply-chain sustainability risk framework.
- + Conduct a supplier sustainability audit.
- + Strengthen the assurance process to ensure compliance with internal policies and procedures.
- + Implement a mandatory competency and learning program for key internal stakeholders, including training on local content, engagement and health and safety with indigenous peoples.
- + Increase fraud detection measures and controls.



1. Woodside spend under management by Contracting & Procurement. Shown in Woodside's capacity as operator (includes spend on behalf of joint venture participants). Summarised by location of suppliers registered office.



Woodside's presentation acknowledging the outstanding achievements by Subsea and Pipeline suppliers in creating business opportunities for Indigenous people.



## CASE STUDY

# Changing attitudes and outcomes

Woodside spends millions of dollars on external contracts every year, yet only a small portion are with Indigenous-owned businesses in Australia. In areas dominated by technical expertise, such as Subsea and Pipelines (SSPL), the historical misconception has been that the specialised goods and services required were not offered by any Indigenous-owned businesses. This perception was challenged resulting in new opportunities.

### What we did

The Contracting and Procurement (C&P) function sought to challenge this norm by exploring opportunities for Indigenous peoples' involvement in SSPL activities.

### Activities

- + Held an Indigenous Engagement Briefing Session with all major SSPL and offshore project suppliers, and emphasised how important Indigenous engagement is to Woodside, and that we expect suppliers to collaborate with Woodside in identifying opportunities to engage Indigenous-owned businesses and promote cultural understanding.
- + Maintained a sustained effort to reinforce with suppliers at all tender briefings that Indigenous engagement will play a part in the award decision. This position is also reinforced in our tender documentation.
- + Ensured all new engagement commitments with Indigenous people made by our suppliers are recorded and monitored.

### Outcomes

- + Four Indigenous employees in place with SSPL suppliers.
- + Five traineeship opportunities committed to by SSPL suppliers.
- + 11 Indigenous-owned businesses engaged for subcontracting opportunities within SSPL and offshore projects.
- + New SSPL contractor members for Indigenous-owned business advocacy organisations for Supply Nation and Local Contracting Alliance.
- + Provided a framework for other oil and gas operators and contractors to host similar briefings to improve engagement and contracting with Indigenous-owned businesses.

# Technology and innovation collaboration

We believe rapid innovation is crucial to our industry and we must be equipped to embrace disruptive change and seek the opportunities technology and innovation may bring, providing both Woodside and our partners shared benefits.

## Woodside FutureLab

We see an opportunity to accelerate innovation by collaborating with start-up companies that are able to quickly develop new techniques. We believe Western Australia provides the perfect hub for innovation excellence and expertise.

During the year, we rolled out our FutureLab exchange program that encourages Woodside employees and our collaboration partners to connect and create value.

Woodside FutureLab delivers collaborative innovation through key partnerships initially under three broad themes: offshore transformation, plant of the future and an intelligent enterprise.

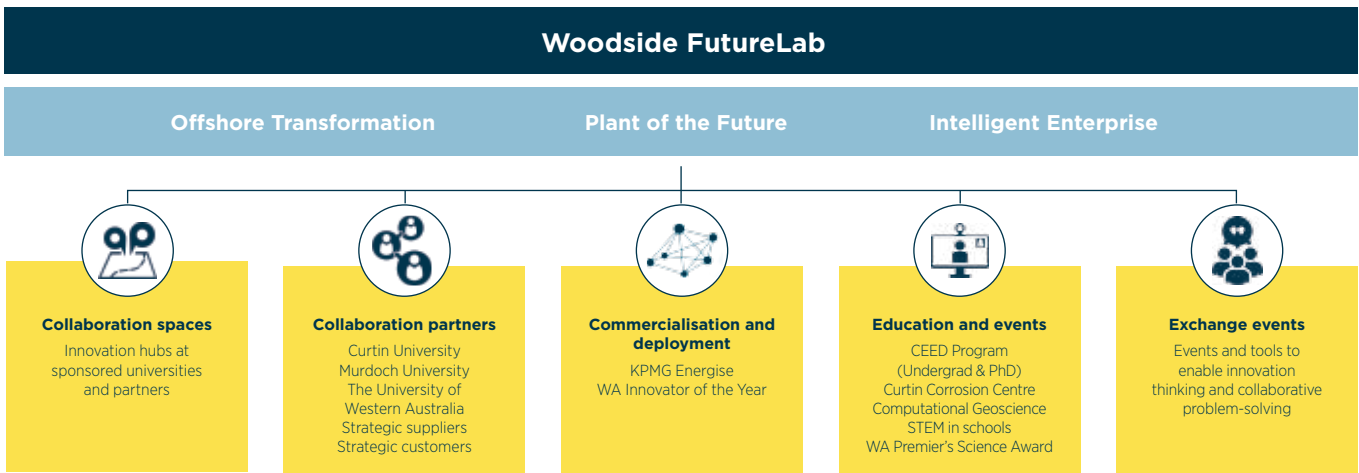
This dynamic network is creating a world-class legacy of technology excellence and subject matter expertise.

Through FutureLab, Woodside is building scientific and technological innovation via collaborations with local research institutions, start-ups, entrepreneurs and adjacent leading industries.

Through these collaborations Woodside benefits from the solutions identified, while our partners received potential funding, technical support and financial benefits. The companies we collaborate with also receive benefits via the publication of industry and academic articles.

We support three innovation centres – the Cisco Internet of Everything Innovation Centre at Curtin University, the Monash Innovation Centre delivering on our 3D printing program and our offshore transformation program at the University of Western Australia.

In 2016, we also supported programs that encourage innovation through programs including KPMG Energise and the Western Australian Innovator of the Year Awards.



An aerial photograph of a coastline, showing a winding river or inlet on the left and a sandy beach on the right. The entire image is overlaid with a semi-transparent blue filter. The text "Sustainability performance" is centered in the middle of the image in a white, sans-serif font.

# Sustainability performance

# Sustainability targets







We set sustainability targets in order to measure our ongoing performance and to help us monitor and drive our sustainable development. Woodside's sustainability targets are reviewed each year and reflect the outcomes of our materiality process.

Our sustainability targets are embedded throughout the company. Our internal business planning process involves setting targets at the following levels:

- + Corporate scorecard targets
- + Corporate executive committee dashboard targets
- + Divisional performance agreement targets
- + Functional performance agreement targets.

A number of targets and metrics associated with our material issues are linked to employee and executive compensation as part of our corporate scorecard.

The targets presented in the following table reflect our most significant sustainability issues, as identified by our materiality process. Sustainability targets not specifically relating to our six material issues are integrated into relevant sections of this report.

	2016 Material issue targets	2016 targets	2016 performance	Key 2017 targets
	Transparency, anti-bribery and corruption	Zero violations of anti-bribery and corruption laws within or in connection with Woodside	<b>Zero violations of anti-bribery and corruption laws within or in connection with Woodside</b>	Zero violations of anti-bribery and corruption laws within or in connection with Woodside
	Regulatory compliance	No significant fines or non-monetary sanctions imposed on Woodside for non-compliance with statutory requirements	<b>Five regulatory infringement notices were received for lower-level regulatory contraventions.</b>	No significant fines or non-monetary sanctions imposed on Woodside for non-compliance with statutory requirements
	Climate change	Reduction of fuel intensity by 1% (TJ/kt of hydrocarbon production)	<b>Met 1% reduction in fuel intensity (TJ/kt of hydrocarbon production)</b>	An additional 1% reduction below business-as-usual levels (compared to 2016)
		Flaring intensity less than 9 t/kt	<b>Flaring intensity 6.1 t/kt</b>	Flaring intensity less than 7.5 t/kt
	Major incident prevention	Zero Tier 1 PSEs AND three or fewer Tier 2 PSEs	<b>One Tier 1' PSE AND one Tier 2 PSE</b>	Zero Tier 1 PSEs and two or fewer Tier 2 PSEs
	Major incident response	93% Global Assurance Benchmark Spill Preparedness rating (RETOS 2) (Australia)	<b>99% Global Assurance Benchmark Spill Preparedness rating achieved (Australia)</b>	95% Global Assurance Benchmark Spill Preparedness rating (RETOS 2)
	Health and safety performance	Achieve TRIR target <sup>2</sup> to demonstrate sustained progress towards global top-quartile health and safety performance by 2017	<b>1.64 TRIR</b>	Demonstrated continuous improvement on 2016 to deliver leading health and safety performance

1. The Tier 1 PSE involved the release of stabilised condensate that was contained within the storage tank bund and was internally classified as low risk.

2. Woodside's official TRIR target was 1.8 as per Company Scorecard (refer to Annual Report 2016). In the Sustainable Development Report 2015, the TRIR internal stretch target of 1.5 was reported.



# Our performance

To help evaluate our progress in a more objective way, we track our performance against a number of recognised external benchmarks. We are seeking continuous improvement in environment, social and governance (ESG) global indices.

## Global benchmarks



### Dow Jones Sustainability Index

We have participated in this index since 2002. We have maintained membership of the World Index, Asia Pacific Index and Australia Index. We maintained leader group status for our sector in the 2017 Sustainability Yearbook.

**Score: 80/100, 95 percentile in upstream integrated oil and gas sector**  
**Industry average: 47/100**  
**RobecoSAM: Silver Class**

### Carbon Disclosure Project (CDP)

We have participated in CDP's climate change program since 2007. We improved our score from a C (2013 and 2014) to a B this year. CDP Performance band B represents Management – taking co-ordinated action on climate change issues.

**Score: B Management**  
**Industry group average: C Awareness**



### FTSE4Good

For the third year we achieved inclusion in this index. Our ESG rating was an absolute score of 3.6 out of 5.

**Score: 3.6/5, 93 percentile in supersector**



### MSCI

We have been rated by Morgan Stanley Capital International (MSCI) since 2011 when we achieved an A rating. We have improved our rating over the years and this year maintained a AAA rating with this index.

**Rating: AAA, top decile in industry group**

Read more about Woodside's sustainability performance at [www.woodside.com.au/working-sustainably](http://www.woodside.com.au/working-sustainably)

Relevant memberships and subscriptions for the Sustainable Development Report:

#### Australian memberships



#### International memberships

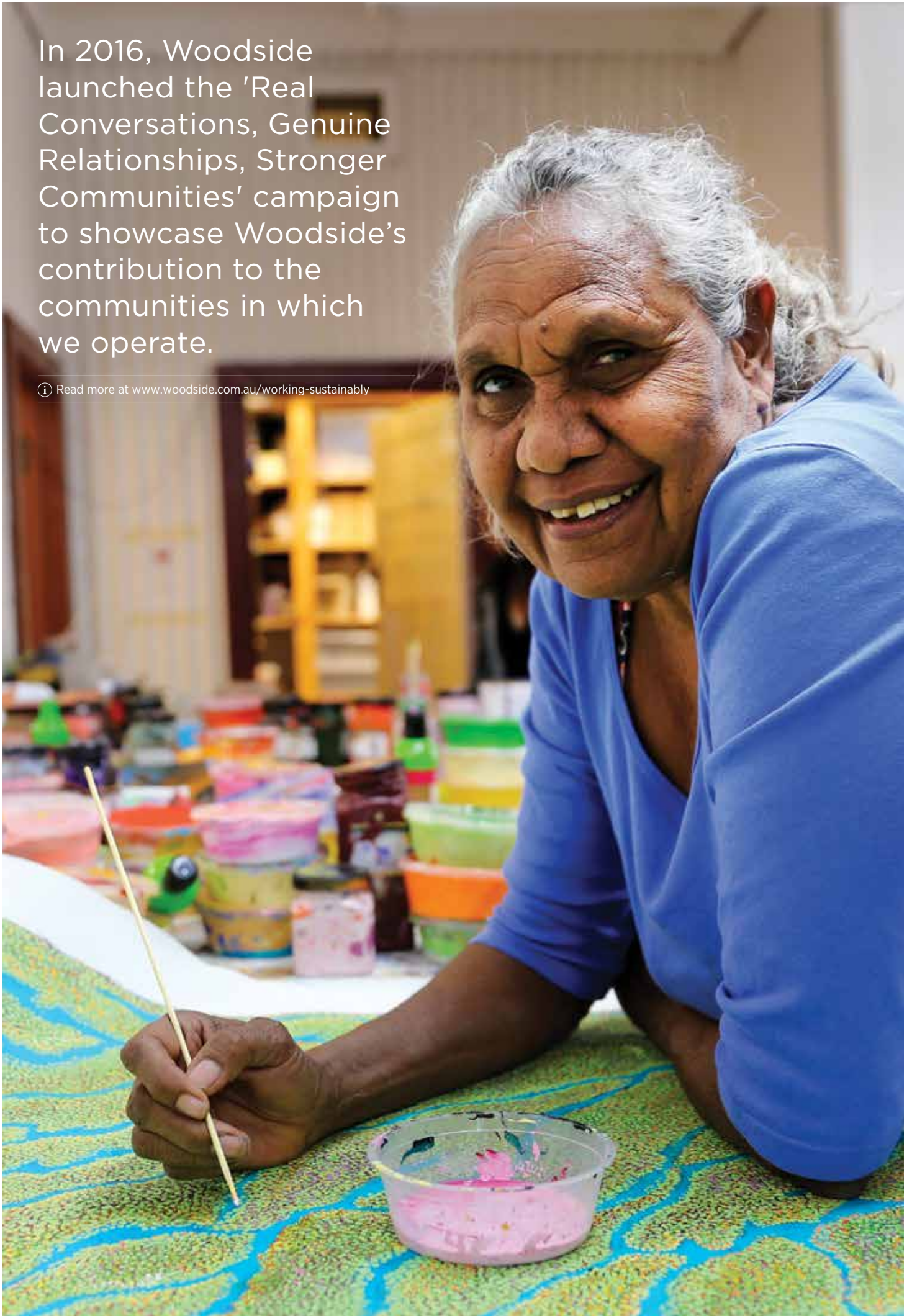


#### International subscriptions



In 2016, Woodside launched the 'Real Conversations, Genuine Relationships, Stronger Communities' campaign to showcase Woodside's contribution to the communities in which we operate.

[Read more at www.woodside.com.au/working-sustainably](http://www.woodside.com.au/working-sustainably)



# GRI and IPIECA indexes

This table references the Global Reporting Initiative's G4 Sustainability Reporting Guidelines and IPIECA's Oil and Gas Industry Guidance on Voluntary Sustainability Reporting, 3rd Edition.

## General Standard Disclosures<sup>1</sup>

	Page – SD Report 2016	Page – Annual Report 2016
<b>Strategy and analysis</b>		
G4-1	Statement from the most senior decision maker	6
<b>Organisational Profile</b>		
G4-3	Name of the organisation	1
G4-4	Primary brands, products and services	3-5, 8-9
G4-5	Location of headquarters	5, back page
G4-6	Countries of operations	3-5
G4-7	Nature of ownership	1
G4-8	Markets served	3-5
G4-9	Scale of the organisation	3-5, 24, 60
G4-10	Number of employees	24, 60
G4-11	Employees covered by collective bargaining agreements	information currently unavailable
G4-12	Description of supply chain	50-51
G4-13	Significant changes during the reporting period	4-6, 50
G4-14	Use of the precautionary principle	10, 43
G4-15	List of charters, principles or initiatives subscribed	55
G4-16	Memberships of associations	55
<b>Identified Material Aspects and Boundaries</b>		
G4-17	Entities included in financial statements	1
G4-18	Defining report content	10-15, 57
G4-19	Material aspects identified	13
G4-20	Aspect boundary within the organisation	1, 57
G4-21	Aspect boundary outside the organisation	1, 57
G4-22	Restatements of information	50, 54, 59
G4-23	Significant change to scope and aspect boundaries	no significant changes to scope or aspect boundaries, 50
<b>Stakeholder Engagement</b>		
G4-24	List of stakeholder groups engaged by the organisation	14-15
G4-25	Basis for identification of stakeholders	14-15
G4-26	Approach to stakeholder engagement	14-15
G4-27	Topics raised by stakeholders	14-15
<b>Report Profile</b>		
G4-28	Reporting period	calendar year
G4-29	Date of previous report	2015 calendar year
G4-30	Reporting cycle	1
G4-31	Contact point for questions	inside front cover, back cover
G4-32	In accordance option of GRI	1, 56
G4-33	Assurance	1, 63
<b>Governance</b>		
G4-34	Governance structure	10
<b>Ethics and Integrity</b>		
G4-56	Values, principles, codes of conduct	inside front cover, 18

1. The description of disclosures has been summarised. For full descriptions refer to [globalreporting.org](http://globalreporting.org).

## Specific Standard Disclosures 2017

	DMA and Indicators	Page	Omissions	Reason for Omission	IPIECA
<b>Material Aspects</b>					
Transparency, anti-bribery and corruption	DMA – Anti Bribery and Corruption G4- SO5	18-19			SE 11, SE 12, SE 13
Regulatory Compliance	DMA – Compliance G4- SO8	20-21			
Climate Change	DMA – Economic Performance G4-EC2	28, 30-33, 59	Costs associated with actions relating to climate change	Information not currently available. Reviewing FSB's Task Force for Climate Related Financial Disclosures for future reporting.	E 1, E 2, E 3, E 4
Major Incident Prevention	DMA – Asset Integrity and Process Safety G4 – OG13	36-37			HS 5
Major Incident Response	DMA – Emergency Preparedness	38-39			E 9
Health and Safety Performance	DMA – Occupational Health and Safety G4-LA6	40, 58	TRIR, LTIFR and Absentee rate by gender	Data collection processes do not enable the reporting of health, safety and absentee rates by gender. To be reviewed for business value over coming years.	HS 1,2,3



## GRI boundaries for sustainability issues

No.	Material issue	Report section	Boundary
1	Climate change	Building a resilient business	Company / Operations
2	Major incident response	Operating responsibly	Company / Partners / Suppliers
3	Major incident prevention	Operating responsibly	Company / Workforce
4	Transparency, anti-bribery and corruption	Operating with transparency and integrity	Company / Partners / Suppliers
5	Health and safety performance	Operating responsibly	Company / Partners / Suppliers / Workforce
6	Regulatory compliance	Operating with transparency and integrity	Company
7	People, capability, inclusion and diversity	Fostering the organisation and culture	Workforce
8	Payment transparency	Operating with transparency and integrity	Company/ Partners / Suppliers
9	Social and cultural impacts on local communities	Operating responsibly	Operations
10	Supply chain and local content	Creating shared value	Company / Suppliers / Operations
11	Disruptive technology	Building a resilient business	Company
12	Market and economic impacts	Building a resilient business	Company
13	Human rights	Operating with transparency and integrity	Myanmar
14	Biodiversity and ecosystems	Operating responsibly	Company / Operations
15	Reserve replacement	Woodside website	Operations
16	Non-operator venture management	Woodside website	Non-operators
17	Energy security	Building a resilient business	Company / Partners
18	Decommissioning	Woodside website	Company
19	Water usage	Managing our environmental impacts	Operations

## Assurance

Information presented here has been externally assured. Ernst & Young (EY) has conducted reasonable assurance related to Woodside's material issues and limited assurance over the balance of the report.

A copy of EY assurance statement is on page 64.

In a reasonable assurance engagement, EY gathers sufficient appropriate evidence to conclude that the subject matter conforms in all material respects with identified suitable criteria.

In a limited assurance engagement, EY gathers sufficient appropriate evidence to conclude that the subject matter is plausible in the circumstances.

The procedures performed in a limited assurance engagement vary in nature, and are less in extent than for a reasonable assurance engagement. As a result, the level of assurance obtained in a limited assurance engagement is lower than the assurance obtained from a reasonable assurance engagement.

**i** For more information, review ASAE 3000 at [auasb.gov.au](http://auasb.gov.au) (Assurance of Community Investment Programs)

## Report verification

Woodside became a member of the London Benchmarking Group (LBG) in 2009, joining many other companies around the world who report, by way of a consistent methodology, on contributions to the community, including financial support, time, in-kind donations and management costs.



**Verification Statement from LBG Australia & New Zealand – 2017**

The LBG model helps businesses improve the measurement, management and reporting of their corporate community investment programs. It covers the full range of contributions (cash, time and in-kind donations) made to community causes.

As managers of LBG Australia & New Zealand, we can confirm that we have worked with Woodside Energy to verify its understanding and application of the LBG model with regard to the wide range of community programs supported.

Our aim has been to ensure that the evaluation principles have been correctly and consistently applied and we are satisfied that this has been achieved. It is important to note that our work has not extended to an independent audit of the data.

We can confirm that Woodside Energy has invested the following amounts in the community in this 2017 reporting year as defined by LBG methodology.

Cash	\$ 14,294,069
Time	\$ 1,371,429
In-kind	\$ 27,015
Management costs	\$ 1,877,003
<b>TOTAL</b>	<b>\$ 17,569,517</b>

In addition to LBG verified figures, Woodside Energy also reported the following outputs in their submission:

<b>Leverage**</b>	<b>\$ 13,890,480</b>
<b>Revenue foregone<sup>^</sup></b>	<b>\$ 0</b>

\*\*leverage refers to additional third party contributions facilitated by the company  
<sup>^</sup>the revenue foregone for community benefit on fees, products and services provided free or discounted

Please refer to LBG for detailed definitions as required



Verified by Simon J Robinson

LBG Australia & New Zealand January 2017 (Amended 18/1/17)





# Data tables

## Health and safety performance<sup>1</sup>

	2016	2015	2014	2013	2012
<b>Workforce exposure (hours)</b>					
Employees	7,258,871	7,633,456	7,562,421	7,357,245	8,153,514
Contractors	6,778,640	6,393,049	6,117,328	6,637,001	10,952,768
Total	14,037,511	14,026,505	13,679,749	13,994,246	19,106,282
<b>Number of incidents</b>					
Fatalities – employees	0	0	0	0	0
Fatalities – contractors	0	0	0	0	0
Total fatalities	0	0	0	0	0
Recordable injuries – employees <sup>2</sup>	6 (16)	8 (20)	7 (12)	7 (13)	23 (24)
Recordable injuries – contractors <sup>2</sup>	17 (19)	16 (21)	19 (25)	35 (39)	56 (62)
Total recordable injuries <sup>2</sup>	23 (35)	24 (41)	26 (37)	42 (52)	79 (86)
Lost time injury events – employees <sup>2</sup>	1 (1)	3 (4)	0 (2)	2 (5)	9 (9)
Lost time injury events – contractors <sup>2</sup>	3 (3)	3 (4)	3 (4)	4 (5)	9 (10)
Lost time injury events <sup>2</sup>	4 (4)	6 (8)	3 (6)	6 (10)	18 (19)
High potential incidents	10	10	21	36	30
Recordable occupational illnesses – employees	10	12	5	6	1
Recordable occupational illnesses – contractors	2	5	6	4	6
Total recordable occupational illnesses	12	17	11	10	7
<b>Frequency rates<sup>3</sup></b>					
Total recordable injury rate – employees <sup>2</sup>	0.83 (2.20)	1.05 (2.62)	0.93 (1.59)	0.95 (1.77)	2.82 (2.94)
Total recordable injury rate – contractors <sup>2</sup>	2.51 (2.80)	2.50 (3.28)	3.11 (4.09)	5.27 (5.88)	5.11 (5.66)
Total recordable injury rate <sup>2</sup>	1.64 (2.49)	1.71 (2.92)	1.90 (2.70)	3.00 (3.72)	4.13 (4.50)
Lost time injury frequency – employees <sup>2</sup>	0.14 (0.14)	0.39 (0.52)	0 (0.26)	0.27 (0.68)	1.1 (1.1)
Lost time injury frequency – contractors <sup>2</sup>	0.44 (0.44)	0.47 (0.63)	0.49 (0.65)	0.60 (0.75)	0.82 (0.91)
Lost time injury frequency <sup>2</sup>	0.28 (0.28)	0.43 (0.57)	0.22 (0.44)	0.43 (0.71)	0.94 (0.99)
High potential incident frequency	0.71	0.71	1.54	2.57	1.57
Total recordable occupational illness frequency – employees	1.38	1.57	0.66	0.82	0.12
Total recordable occupational illness frequency – contractors	0.30	0.78	0.98	0.60	0.55
Total recordable occupational illness frequency	0.85	1.21	0.80	0.71	0.36
<b>Total recordable injury rate by region<sup>2,3</sup></b>					
Australia	1.74 (2.57)	1.74 (3.03)	1.92 (2.72)	2.79 (3.53)	4.21 (4.58)
Asia	0.00 (2.18)	0	0	13.33 (13.33)	0
Other	0.00 (0.00)	2.61 (2.61)	Not previously reported		
Overall frequency	1.64 (2.49)	1.71 (2.92)	1.90 (2.70)	3.00 (3.72)	4.13 (4.50)
<b>Total recordable occupational illness frequency by region<sup>3</sup></b>					
Australia	0.83	1.29	0.81	0.74	0.37
Asia	2.18	Not previously reported			
Overall frequency	0.85	1.21	0.80	0.71	0.36
<b>Lost days by region</b>					
Australia	23	225	158	107	513
Asia	0	0	0	4	0
Other	0	28	Not previously reported		
Total	23	253	158	111	513
<b>Lost days by gender</b>					
Male employees	10	119	30	39	336
Female employees	0	11	0	22	6
Male contractors	13	80	104	50	170
Female contractors	0	43	24	0	1
Total	23	253	158	111	513
<b>Number of injuries by gender</b>					
Male employees	5	6	7	7	21
Female employees	1	2	0	0	2
Male contractors	17	15	17	34	52
Female contractors	0	1	2	1	4
Total	23	24	26	42	79
<b>Occupational illness by gender</b>					
Male employees	9	11	4	4	0
Female employees	1	1	1	2	1
Male contractors	2	3	6	4	5
Female contractors	0	2	0	0	1
Total	12	17	11	10	7
<b>Training time spent on health and safety by region (hours)</b>					
Australia <sup>4</sup>	27,409	5,587	4,892	5,406	4,553
Asia	0	0	0	0	0
Total	0	5,587	4,892	5,406	4,553
<b>Employee absentee rate by region</b>					
Australia	1.41	Not previously reported			
Asia	0.63	Not previously reported			
North America	0.34	Not previously reported			
<b>Significant Loss of Containment (LOC) events<sup>5</sup></b>					
Total	No longer reported				6
<b>Major LOC events<sup>5</sup></b>					
Total	No longer reported				0
<b>Process safety events<sup>6</sup></b>					
Tier 1	1	0	0	0	0
Tier 2	1	2	2	4	5
Total	2				

1. Health and safety data includes international exploration activity.

2. In 2013, Woodside adjusted the calculation to report Total Recordable Injuries (TRIR) and Rates and Lost Time Injury (LTI) events and frequencies. All data is now stated in line with this methodology. The figures in the parentheses above reflect the previously publicly reported data, which includes all recordable illnesses.

3. Frequency rates are calculated per million hours worked.

4. Increase in training hours in 2016 was driven by mandatory Process Safety Management training.

5. As defined by the Reporting of Injuries Diseases and Dangerous Occurrences Regulations (RIDDOR) hydrocarbon release classification. Woodside ceased use of RIDDOR in 2013.

6. Classified in accordance with American Petroleum Institute Recommended Practice 754 (API RP 754).

## Environmental performance<sup>1</sup>

	2016	2015	2014	2013	2012
<b>Hydrocarbon production<sup>2,5</sup></b>					
Total - equity (kt) <sup>5</sup>	10,890	10,683	10,678	9,769	9,538
Total (kt) <sup>2</sup>	34,520	34,237	34,848	33,232	34,484
<b>Revenue<sup>5</sup></b>					
Revenue - equity (\$USDm)	4,075	5,030	7,435	5,926	6,348
<b>Greenhouse gas emissions<sup>4</sup></b>					
Scope 1 emissions - equity (kt CO <sub>2</sub> e) <sup>5</sup>	3,494	3,424	3,435	3,049	2,294
Scope 1 emissions (kt CO <sub>2</sub> e) <sup>6</sup>	10,084	9,974	9,822	9,184	8,402
Scope 2 emissions (kt CO <sub>2</sub> e) <sup>6</sup>	14	7	8	8	8
Scope 1 emissions intensity - equity (kt CO <sub>2</sub> e/kt) <sup>5</sup>	0.32	0.32	0.32	0.31	0.24
Scope 1 emissions intensity (kt CO <sub>2</sub> e/kt) <sup>6</sup>	0.29	0.29	0.28	0.28	0.24
Scope 1 emissions intensity - equity (kt CO <sub>2</sub> e/\$USDm)	0.86	0.68	0.46	0.51	0.36
<b>Greenhouse gas emissions by source</b>					
Fuel combustion (kt CO <sub>2</sub> e)	7,495	7,171	7,083	6,526	6,173
Flare (kt CO <sub>2</sub> e)	654	961	1,105	1,154	868
Venting (kt CO <sub>2</sub> e)	1,861	1,768	1,562	1,434	1,184
Other (kt CO <sub>2</sub> e)	88	81	80	78	186
<b>Flared gas<sup>1</sup></b>					
Total flaring - equity (tonnes) <sup>5,7</sup>	90,652	161,488	170,421	121,477	59,445
Total flaring (tonnes) <sup>6</sup>	210,045	311,834	349,845	421,394	216,589
Flaring Intensity - equity (t/kt) <sup>5,7</sup>	8.3	15.1	16.0	12.4	6.2
Flaring intensity (t/kt) <sup>6</sup>	6.1	9.1	10.0	12.7	6.3
<b>Non-greenhouse gas emissions<sup>6</sup></b>					
NO <sub>x</sub> (tonnes)	19,908	19,998	19,799	19,967	19,500
SO <sub>x</sub> (tonnes)	41	42	42	48	388
VOCs (tonnes)	18,508	20,574	18,497	18,395	11,073
<b>Refrigerants</b>					
CFC-11 (tonnes)	0.14	0.11	0.19	0.15	0.12
<b>Resource use<sup>1</sup></b>					
<b>Fuel consumption</b>					
Total fuel consumption - equity (TJ) <sup>5,8</sup>	49,800	46,496	47,949	45,585	36,898
Total fuel consumption (TJ) <sup>6,8</sup>	145,356	141,432	142,048	131,858	125,697
Fuel intensity - equity (TJ/kt) <sup>5,8</sup>	4.6	4.4	4.5	4.7	3.9
Fuel intensity (TJ/kt) <sup>6,8</sup>	4.2	4.1	4.1	4.0	3.6
Electricity consumption					
Grid electricity consumption (TJ) <sup>9</sup>	68.1	30.0	31.0	31.4	35.0
<b>Water</b>					
Fresh water use (m <sup>3</sup> ) <sup>10</sup>	381,919	403,361	358,408	524,408	417,245
Fresh water intensity (m <sup>3</sup> /kt)	11.1	11.8	10.3	15.8	12.1
Produced formation water - reinjection (m <sup>3</sup> )	8,187,635	7,553,687	5,826,162	3,442,947	-
Produced formation water - open marine (m <sup>3</sup> )	5,107,834	10,251,346	10,142,841	8,069,245	7,005,566
Produced formation water - oil load open marine (kg)	44,119	99,131	86,617	71,056	45,024
<b>Waste<sup>6</sup></b>					
Non-hazardous (tonnes)	1,426	3,216	3,357	6,619	4,794
Hazardous (tonnes)	8,085	8,729	8,508	9,645	7,718
Total waste (tonnes)	9,511	11,945	11,865	16,264	12,512
<b>Waste Disposal</b>					
Incineration (tonnes) <sup>6</sup>	7	6	1	848	976
Evaporation (tonnes) <sup>6</sup>	5,663	5,931	5,104	6,146	4,432
Landfill (tonnes) <sup>6</sup>	1,596	2,866	3,258	4,628	3,616
Reused / recycled (tonnes) <sup>6</sup>	2,174	2,812	3,377	3,884	3,488
Other (tonnes) <sup>6</sup>	71	239	125	758	0
<b>Environmental incidents</b>					
Total number of hydrocarbon spills (>1 bbl)	2	0	1		
Total - Quantity of hydrocarbon spilt for spills >1 bbl (m <sup>3</sup> ) <sup>11</sup>	0.51	0	0.7	0.21	0.32
Total number of non-hydrocarbon spills (>1 bbl)	3	8	0		
Total - Quantity of non-hydrocarbon spilt for spills > 1 bbl (m <sup>3</sup> )	19.8	13.8	0	2.8	0

1. Performance data is reported on both a total and Woodside equity share basis as appropriate. International exploration activity is excluded from environmental data.

2. Total hydrocarbon production includes liquid and gas products that are exported (sold) and gas used as fuel. Non-equity figures are based on production from operated assets only. Reinjecting gas and liquids are not included.

3. Total operation revenue includes sales revenue, processing revenue and trading revenue. Refer to page 33 for more information.

4. Data excludes all Scope 3 emissions.

5. The equity portion of greenhouse gas emissions, non-greenhouse gas emissions, flaring and fuel consumption and production values include data from non-operated ventures where Woodside owns an equity portion, where data has been made available.

6. Woodside's operated greenhouse gas emissions, non-greenhouse emissions, flaring, fuel consumption and waste values have been adjusted to exclude contractor facilities where Woodside does not have operational control.

7. Woodside's equity flare portion has been recalculated to align with production allocation rules.

8. Fuel consumption is a new metric for 2016 and includes liquid and gaseous fuels.

9. Grid energy consumption was previously represented as third party electricity.

10. Woodside Plaza water use has been estimated due to late acquisition of data.

11. 2016 volume of hydrocarbon spilt has been estimated in line with information available at the time of publication.

## People

	2016	2015	2014	2013	2012
<b>Number of staff by gender</b>					
Male	2,499	2,483	2,757	2,836	2,929
Female	1,012	973	1,046	1,053	1,068
Total	3,511	3,456	3,803	3,889	3,997
<b>Number of staff by employment type</b>					
Permanent	3,010	2,931	3,224	3,325	3,481
Fixed term	251	276	290	294	283
Part time	250	249	289	270	233
Total	3,511	3,456	3,803	3,889	3,997
<b>Number of staff by employment category<sup>1</sup></b>					
Administration – Male	90	82	112	111	121
Administration – Female	138	136	186	221	234
Technical – Male	1,013	1,002	1,068	1,085	1,076
Technical – Female	411	398	392	359	366
Supervisory/Professional – Male	863	879	997	1,040	1,089
Supervisory/Professional – Female	360	356	386	388	395
Middle Management – Male	496	479	543	560	602
Middle Management – Female	94	77	78	80	69
Senior Management – Male	37	41	37	40	41
Senior Management – Female	9	6	4	5	4
Total	3,511	3,456	3,803	3,889	3,997
Board Members – Male	7	7			
Board Members – Female	3	2			
<b>Number of staff by region</b>					
Australia	3,468	3,392	3,788	3,863	3,933
Africa/Middle East	0	1	1	0	0
Asia	21	32	8	4	9
Europe	11	17	2	2	4
New Zealand	0	1	1		
USA and Canada (Canada staff added in 2015)	11	13	3	20	51
Total	3,511	3,456	3,803	3,889	3,997
<b>Number of Contractors</b>					
Total	192	243	210	331	590
<b>Woodside staff age distribution (years)</b>					
≤30 Male	348	361	374	392	406
≤30 Female	289	295	285	291	316
31–50 Male	1,514	1,518	1,680	1,748	1,841
31–50 Female	624	588	642	643	649
51+ Male	637	604	703	696	682
51+ Female	99	90	119	119	103
Total	3,511	3,456	3,803	3,889	3,997
<b>Breakdown of employees per category according to indigenous workforce</b>					
Employees	103	94	99	101	92
Pathways	33	28	44	54	75
Contractors construction	0	0	0	0	0
Total	136	122	143	155	167
<b>Employee turnover (number)</b>					
Male employees	87	403	218	295	256
Female employees	38	151	82	105	91
Total	125	554	300	400	347
<b>Voluntary turnover (number)</b>					
Total	113	199			
<b>Turnover by region (number)</b>					
Australia	123	553	296	391	340
Africa/Middle East					0
Asia		1			1
Europe					
New Zealand					
USA	2		4	9	6
Total	125	554	300	400	347
<b>Employee turnover by age group (years)</b>					
≤30	22	56	50	73	53
31–50	58	271	165	236	202
51+	45	227	85	91	92
Total	125	554	300	400	347
<b>Returning from Parental leave (percentage)</b>					
Total	86	92	89	84	89
<b>Traineeship and apprenticeship program (number)</b>					
Total	109	142	149	125	117
<b>Employees in Graduate Program (number)</b>					
Male employees	143	114	89	80	89
Female employees	127	97	70	53	46
Total	270	211	159	133	135
<b>Total hours of training by gender</b>					
Male employees (excluding PSM training)	62,471	63,657			
Female employees (excluding PSM training)	15,752	13,887			
Total	78,223	77,544			
<b>Total hours of Process Safety Management (PSM) training by gender<sup>2</sup></b>					
Male employees	17,356				
Female employees	1,676				
Total	19,032				
<b>Average per person hours of training by gender<sup>3</sup></b>					
Male	31.94 (25.00)	25.64	29.42	23.03	
Female	17.22 (15.57)	14.27	17.09	11.44	
Total	27.70 (22.28)	22.44	26.03	19.89	
<b>Average per person training by gender – professional/management<sup>3</sup></b>					
Male	25.43 (16.42)	15.87	22.53	16.49	
Female	16.07 (13.32)	10.59	18.17	12.47	
Total	23.10 (15.65)	14.61	21.53	15.59	
<b>Total hours of training by employee type<sup>3</sup></b>					
Permanent	91,006 (72,734)	71,660			
Fixed term	3,719 (3,427)	3,830			
Part time	2,530 (2,062)	2,054			
Total	97,255 (78,223)	77,544			
<b>Average per person hours of training by employee type<sup>3</sup></b>					
Permanent	30.23 (24.16)	24.45	28.31	21.60	
Fixed term	14.82 (13.65)	13.88	15.27	12.13	
Part time	10.12 (8.25)	8.25	11.39	7.31	
Total	27.7 (22.28)	22.44	26.03	19.89	
<b>Percentage of employees receiving regular performance and career development reviews, by gender</b>					
Male	99%	99%	99%	97%	
Female	97%	98%	96%	93%	
Total	98%	99%	98%	96%	

1. Woodside determines employment category based on job level.

2. Increase in total hours training driven by mandatory Process Safety Management (PSM) training. A majority of process safety critical roles are operational or technical, predominately undertaken by male employees.

3. The figures in the parentheses above reflect the averages excluding PSM training.

# Notes and definitions

## Environment

Total hydrocarbon production	Includes gross liquid and gas products, but does not include reinjected hydrocarbons.
Total energy consumption	Comprises direct and indirect energy consumption.
Fresh water use	Supplied by water utility.
Produced formation water	Water that is brought to the surface during the production of hydrocarbons.

## Health and safety

Frequency rates	Frequency rates are calculated per million hours worked.
Workforce exposure hours	The total number of hours of employment including paid overtime and training but excluding leave, sickness and unpaid overtime hours. Hours are recorded separately for Woodside employees (includes permanent and fixed-term contractors) and contracting personnel. Contracting personnel are defined as people employed by another company to perform activities for Woodside (includes third-party contractors and service providers).
Total recordable injury rate (TRIR)	The number of recordable injuries (fatalities + lost work day cases + restricted workday cases + medical treatment cases) per 1,000,000 hours worked.
Lost time injury (LTI)	A fatality or lost workday case. The number of LTIs is the sum of fatalities and lost workday cases.
Incident	Is one, or more, of the following: an unplanned release of energy that actually resulted in injury, occupational illness, environmental harm or damage to assets, a near miss, damage or potential damage to company reputation, breach of regulatory compliance and/or legislation, security breach.
High potential incident (HPI)	Is an incident, regardless of actual consequence, which could have resulted in the worst realistic consequence of Category C or above in accordance with the Woodside Event Reporting Impact Table.
Occupational injury	Is harm to a person such as a cut, fracture, sprain, amputation etc. that resulted from a single, instantaneous incident. All injuries are classified for work-relatedness and severity in accordance with IOGP.
Occupational illness	Is any work-related abnormal condition or disorder, other than one resulting from a work injury, caused by or mainly caused by exposures at work such as inhalation, absorption, ingestion of, or direct contact with, as well as exposure to, physical and psychological situations. All illnesses are classified for work-relatedness and severity in accordance with IOGP.
Loss of Primary Containment (LoPC)	An unplanned or uncontrolled release of any material from primary containment, including non-toxic and non-flammable materials (e.g. steam, hot condensate, nitrogen, compressed CO <sub>2</sub> or compressed air).
Lost workday case (LWC)	Occurs where any work-related injury results in a person being unfit for work on 'any day' after the day of the event occurring. 'Any day' includes scheduled rest days, weekend days, leave days, public holidays or days after ceasing employment. Lost work days are calculated by counting the total number of calendar days from the date the person was declared unfit for work to the date the person was declared fit for restricted or normal duties.
Restricted workday case (RWC)	Occurs where any work-related injury or occupational illness results in a person being unfit for full performance of their regular job on any day after the event occurring. The number of Restricted Work Days is calculated by counting the total number of calendar days from the date that the person was declared fit for restricted duties to the date that the person was declared fit for normal/routine duties.
Medical treatment case (MTC)	This results where the management and care of the patient to address the injury or illness is above and beyond first aid, but does not involve fatality, lost days or restricted days.
Occupational illness frequency by region	This frequency rate includes total recordable illnesses only, i.e. the sum of all occupational-illness related fatalities, lost workday cases, restricted work cases and medical treatment cases. It does not include first aid cases.
Lost days	The count of lost days begins on the day immediately after the day of injury/illness. It includes the total number of calendar days that were not able to be worked due to injuries and illness. It does not include days lost for one case where information on the number of lost days was not available at the time of reporting. For purposes of calculation this has been counted as one day lost.
Training time spent on health and safety	Includes Woodside in-house training courses only. Training records for third-party contractors have not been collated by Woodside. Does not include health and safety site or office inductions. Does not include Helicopter Underwater Escape Training (HUET) or external training courses.
Number of injuries by gender	The figure expressed in the report is the number of recordable injuries only – it does not include first aid cases or illnesses.
Occupational illnesses by gender	The figure expressed in the report is the number of recordable illnesses only – it does not include first aid cases or injuries.
Process safety event (PSE) (Tier 1 and Tier 2)	An unplanned or uncontrolled loss of primary containment (LOPC) of any material including non-toxic and non-flammable materials from a process, or an undesired event or condition. Process safety events are classified as Tier 1 – LOPC of greatest consequence or Tier 2 – LOPC of lesser consequence. As defined by American Petroleum Institute (API) recommended practice 754.
Absentee	An employee absent from work because of incapacity of any kind, not just as the result of work-related injury or disease. Permitted leave absences such as holidays, study, maternity or paternity leave, and compassionate leave are excluded.
Absentee rate	A measure of actual absentee days lost expressed as a percentage of total days scheduled to be worked by the workforce for the same period.

## People

Total employees	Total number of employees including permanent, fixed term and part-time. Does not include secondees or contractors.
Contractors	Non-Woodside employees, working within Woodside to support specific activities.
Total turnover	Permanent and fixed term employees who left Woodside voluntarily or involuntarily.
Voluntary turnover	Permanent and fixed term employees who left Woodside voluntarily for reasons not initiated by the company.
Social investment	Social investment data has been verified by the London Benchmarking Group (LBG) methodology. The LBG verified data includes donations, community investment and commercial initiatives. For more information, visit <a href="http://lbg-australia.com">lbg-australia.com</a> .



# Glossary

APPEA	Australian Petroleum Production and Exploration Association Ltd
ASX	Australian Securities Exchange
ATO	Australian Taxation Office
Board	Woodside's governing body - the Board of Directors
Code	Woodside's Code of Conduct
Condensate	Hydrocarbons that are gaseous in a reservoir but that condense to form liquids as they rise to the surface
Downstream	Industry term for operations relating to refining crude oil into petroleum products, as well as marketing crude oil and products derived from petroleum
Flaring	The controlled burning of gas found in oil and gas reservoirs
FLNG	Floating liquefied natural gas
FPSO	Floating production storage and offloading vessel
Free cash flow	Cash flow from operating activities less cash flow from investing activities
Greenfield	The development of exploration outside the area of influence of existing operations/infrastructure
Greenhouse gases	Gases that trap heat in the atmosphere, including carbon dioxide, hydrofluorocarbons, methane, nitrous oxides, ozone, perfluorocarbons, vapour and water
GRI	The Global Reporting Initiative is a network-based organisation that promotes sustainability reporting worldwide. The GRI reporting framework sets out principles and indicators that organisations can use to measure and report their economic, environmental and social performance.
HSE	Health, safety and environment
IOGP	International Association of Oil and Gas Producers
IPIECA	International Petroleum Industry Environmental Conservation Association. The global oil and gas industry association for environmental and social issues
LBG	London Benchmarking Group
LNG	Liquefied natural gas
LPG	Liquefied petroleum gas
LTIF	Lost time injury frequency
NPAT	Net profit after tax
NWS	North West Shelf
PBT	Profit before tax
PSE	Process safety event
RAP	Woodside's Reconciliation Action Plan
Renewable energy	Any form of energy from biological, geophysical or solar sources that replenishes itself by natural processes at a rate that is equal to or greater than its rate of use
Sustainability	Achieving a decent standard of living for everyone today without compromising the needs of future generations. (United Nations, 2013)
TRIR	Total recordable injury rate
Upstream	Industry term for operations relating to exploring for, developing and producing as well as marketing crude oil and natural gas. This includes transporting crude oil, natural gas and petroleum products by pipeline or marine vessel
WMS	Woodside Management System. This is the company's structured governance framework

## Units

A\$	Australian dollars
bbl	barrel
bn	billion
boe	barrel of oil equivalent
CFC	chlorofluorocarbon
CO <sub>2</sub> e	carbon dioxide equivalent
GJ	gigajoules
kt	kilotonne
L	litres
mL	megalitres
MMbbl	million barrels
MMboe	million barrels of oil equivalent
MT	million tonnes
Mtoe	million tonnes of oil equivalent
mtpa	million tonnes per annum
NO <sub>x</sub>	oxides of nitrogen
SO <sub>x</sub>	oxides of sulphur
t	tonne
tCO <sub>2</sub> e	tonnes of carbon dioxide equivalent
TJ	terajoules
US\$	US dollars
VOCs	volatile organic compounds



## Independent Reasonable and Limited Assurance Report to the Directors of Woodside Petroleum Ltd in relation to its 2016 Sustainable Development Report

### Assurance conclusions

Based on our limited assurance procedures, nothing has come to our attention that causes us to believe that the subject matter in Woodside's 2016 Sustainable Development Report is not presented, in all material respects, in accordance with the criteria detailed below.

In our opinion, the subject matter for our reasonable assurance procedures, the six material aspects in Woodside's 2016 Sustainable Development Report, is presented fairly, in all material respects, in accordance with the reporting criteria.

### Scope

We have performed an assurance engagement in relation to the subject matter contained in Woodside Petroleum Limited's ('Woodside') 2016 Sustainable Development Report ('the Report') in accordance with the criteria as identified below for the year ended 31 December 2016.

### Subject matter

The subject matter for our **limited assurance** includes:

- The full content of the Report for the activities of the Woodside group of companies
- The Global Reporting Initiative's G4 disclosures 'in accordance' level to achieve 'core'

The subject matter for our **reasonable assurance** includes the published information in the Report specifically relating to the following six material aspects, as determined by Woodside's materiality assessment and communicated to us:

- Transparency, anti-bribery and corruption
- Regulatory compliance
- Climate change
- Major incident prevention
- Major incident response
- Health and safety performance

### Criteria

The criteria applied to the Report and the disclosures and performance metrics described above are:

- the Principles for Defining Report Content (materiality, stakeholder inclusiveness, sustainability context, and completeness) and the GRI Principles for Ensuring Report Quality (balance, comparability, accuracy, timeliness, clarity and reliability), as set out in the Global Reporting Initiative's ('GRI') G4 Reporting Guidelines
- Woodside's own criteria for the reporting of non-financial performance metrics, as detailed within the Report

### Management responsibility

The management of Woodside ('Management') is responsible for the collection, preparation and presentation of the subject matter in accordance with the criteria and for maintaining adequate records and internal controls that are designed to support the sustainability reporting process.

### Assurance Practitioner's Responsibility

Our responsibility is to express a limited and reasonable assurance conclusion as to whether the subject matter related to each level of assurance is presented in accordance with the criteria. Our assurance engagement has been planned and performed in accordance with the Australian Standard on Assurance Engagements 3000 (revised) *Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* ('ASAE 3000').

### Level of Assurance

A limited assurance engagement consists of making enquiries and applying analytical, controls testing, and other evidence-gathering procedures that are sufficient for us to obtain a meaningful level of assurance as the basis for a negative form of conclusion. The procedures performed in a limited assurance engagement are less in extent than for a reasonable assurance engagement.

A reasonable assurance engagement consists of making enquiries and applying analytical, substantive and other reasonable assurance procedures. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

### Our approach

Our assurance procedures performed included, but were not limited to:

- Assessing Woodside's process for determining material aspects;
- Determining whether material topics and performance issues identified during our procedures had been adequately disclosed;
- Interviewing selected corporate and site personnel to understand the processes for the collection and accurate reporting of performance information;
- Assessing the organisation's responsiveness and awareness of material aspects, through reviewing Woodside's policies, processes and targets, and communication of responses to stakeholders;
- Where relevant, gaining an understanding of systems and processes for data aggregation and reporting;
- Performing tests of details and substantive testing for material qualitative and quantitative information;
- Reviewing evidence to support key assumptions in calculations and other data;

- Checking the accuracy of calculations performed;
- Reviewing selected management information and documentation supporting assertions made in the subject matter;
- Comparing year-on-year and month-on-month data;
- Checking that data and statements had been correctly transcribed from corporate systems and/or supporting evidence into the Report; and
- Reviewing the presentation of claims and data against the relevant GRI principles contained in the criteria.

### Limitations

There are inherent limitations in performing assurance due to the selective testing of the information being examined. Therefore it is possible that fraud, error, or non-compliance may occur and not be detected. There are additional inherent risks associated with assurance over non-financial information, due to its nature and the methods used for determining, calculating, and estimating such information. Finally, adherence to GRI principles is subjective and will be interpreted differently by different stakeholder groups.

Our assurance was limited to the 2016 Sustainable Development Report only and did not include financial data or forward looking statements of Management.

Whilst our assurance procedures included reviewing information contained on Woodside's website at the date of this assurance report, our opinion does not extend to statements, data or information presented therein.

### Use of Report

This assurance statement is for the directors and management of Woodside only and in accordance with the terms for this engagement as agreed with them. We do not therefore accept or assume any responsibility for any other purpose or to any other person or organisation. Any reliance any such third party may place on the Report is entirely at its own risk. No statement is made as to whether the criteria are appropriate for any third party purpose.

**Dr Matthew Bell**  
Partner  
Perth Australia  
16 March 2017

**Ernst & Young**



**Sustainable Development Report 2016**

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