

We believe in curiosity and a hunger for positive change.

We believe ideas can change the world.

We believe innovation and creativity drive human progress.



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 producing LNG assets in the north-west of Australia are among the world's best facilities, including the North West Shelf Project and Pluto LNG Plant.

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. 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 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.

For more information visit www.woodside.com.au



woodside

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Innovate. Collaborate. Accelerate.

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A world of change

New technologies are disrupting and accelerating how business success can be achieved and maintained. The oil and gas industry is inextricably part of this dynamic new world. Rising stakeholder expectations and alternative technology-led energy sources are creating an environment where only the most innovative will remain competitive.

Innovation has always been in our DNA. Dating back to the 1950s, we drilled world record depths in offshore southern Australia. We built the world's first modularised liquefied natural gas (LNG) plant and our multilateral wells in the deepwater Vincent field were a global breakthrough. Today, we're pioneering remote support and the application of cognitive computing, predictive analytics and artificial intelligence in our operations.

In fact, we've always relied on the ingenuity of our people to discover new resources, lower costs and minimise the impact of our operations.

What's changed is the scale and complexity of the challenges we face. An inward looking approach won't sustain our ability to compete against new or more agile competitors.

As the world becomes more interconnected, information, insights and ideas from disparate organisations can be quickly disseminated, shared and built on to deliver new solutions to old problems.

We believe collaborative innovation is the key to future growth. And that's the premise of Woodside FutureLab.

Our vision

We're growing a community of exceptional thinkers and innovators that can work shoulder to shoulder with us to accelerate growth for a better future.

By collaborating with researchers, entrepreneurs, subject matter experts and parallel leading industries, we aim to leverage our capabilities and maintain our leading position as a partner of choice. This dynamic network is expected to create a world-class legacy of technological excellence in Western Australia.

FutureLab is an imperative that aims to nurture and grow our culture of diversity and innovation, harness new commercial opportunities and secure our long-term future as a global leader in upstream oil and gas.

A world-leading community of innovative thinkers



Woodside
FutureLab

Our strategy

We plan to deliver our strategy of collaborative innovation by integrating both technical and non-technical work streams.

Technical work streams

Offshore Transformation: We are extending our offshore capabilities, looking for a step-change in all areas from offshore exploration technology through to floating, subsea offshore production facilities and offshore production wells. We intend to leverage our capabilities and requirements for floating production facilities, to become world leaders in harvesting and refining resources from remote stranded gas fields. We have major collaborative research programs in offshore floating facilities, and in flow assurance to enable long subsea tie backs.

Plant of the Future: Linking Woodside's LNG heritage with the emerging fields of process intensification, additive manufacturing, next generation digital and robotics, we will work towards enabling the competitive production of remote resources for tomorrow's customers from plants designed to be built and operated at a global scale.

Intelligent Enterprise: Applying the latest in analytics and sensor technology to control and automate high-cost, high-risk or error-prone tasks to improve efficiency and reduce unplanned downtime by being predictive. We are using data science to unlock our organisation's collective intelligence, both past and present.

Non-technical work streams

Education and events: Strengthening our knowledge networks with world-class education providers will help us to think progressively ahead of the curve.

Connecting thought leaders and encouraging pioneering new research projects.

Commercialisation and deployment: We aim to develop a commercialisation environment that enables new technologies to be deployed, converting ideas with high potential into commercial realities.

Collaborative spaces: Through purposeful world-class, collaborative physical and virtual spaces, we will link the world's leading facilities and thinkers to stimulate collaborative innovation.



Our program

	OFFSHORE TRANSFORMATION	PLANT OF THE FUTURE	INTELLIGENT ENTERPRISE
	<ul style="list-style-type: none"> Reliable production offloading Safer riser and moorings Anchoring and foundations Loads – extreme waves, underwater waves Lifecycle monitoring and decision support Flow assurance 	<ul style="list-style-type: none"> Process intensification Adaptive controls Non-intrusive inspection Intelligent layout Spares on demand Next generation digital and robotics 	<ul style="list-style-type: none"> High performance computing for geoscience Sensor fog and WiFi Analytics and sensor technology for control and automation Analysis and intelligence for continuous self-optimisation
Education and events	<ul style="list-style-type: none"> Cooperative Education for Enterprise Development (CEED) student placement – UWA 	<ul style="list-style-type: none"> Corrosion Centre – Curtin University Construction Technology and Augmented Reality – Curtin University 	<ul style="list-style-type: none"> Computational Geoscience Research – UWA
FutureLab network	<ul style="list-style-type: none"> Woodside Oceanworks – UWA RiverLab – UWA 	<ul style="list-style-type: none"> Woodside Innovation Centre – Monash University 	<ul style="list-style-type: none"> Innovation Central Perth – Curtin University
Collaboration partners	<ul style="list-style-type: none"> University of Western Australia (UWA) CSIRO 	<ul style="list-style-type: none"> Curtin University Monash University 	<ul style="list-style-type: none"> WA Energy Research Alliance (NERA) Massachusetts Institute of Technology (MIT)
Commercialisation and deployment	<ul style="list-style-type: none"> Bloom Entrepreneurial Program Sponsorship KPMG Australia's Energise Accelerator Program WA Innovator of the Year Award through the Woodside Oil and Gas Encouragement Award 		
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FutureLab has the potential to leave a lasting legacy of world-class technological excellence