

COMMON GOALS: INDUSTRY PERSPECTIVE ON COLLABORATION IN THE ATLANTIC

European Parliament – Science Policy Meeting Gareth Parry 23 March 2017





This presentation contains forward looking statements that are subject to risk factors associated with oil and gas businesses. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including but not limited to: price fluctuations, actual demand, currency fluctuations, drilling and production results, reserve estimates, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory developments, economic and financial market conditions in various countries and regions, political risks, project delay or advancement, approvals and cost estimates.

All references to dollars, cents or \$ in this presentation are to US currency, unless otherwise stated.

References to "Woodside" may be references to Woodside Petroleum Ltd. or its applicable subsidiaries.

About Woodside



- Australia's largest independent oil and gas company
- Woodside's global exploration portfolio includes emerging and frontier provinces in Australia and the Asia-Pacific region, the Atlantic margins and Sub-Saharan Africa
- We have a range of oil and gas production facilities in northwest Australia, and is an explorer, a developer, a producer and a supplier of oil and LNG
- 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's Approach to Environmental Management



Systematic and risk based approach

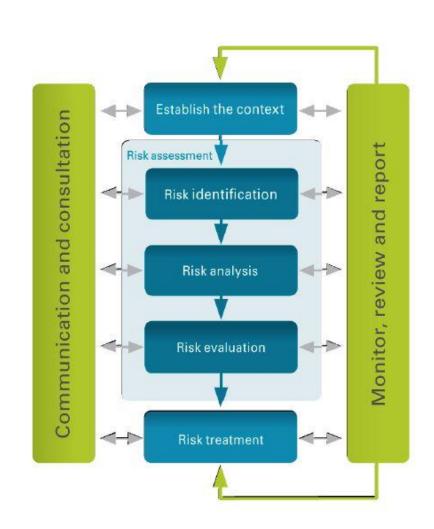
- Consistently address and manage any potential environmental impacts and risks associated with our activities and developments
- Focus efforts and resources following an assessment of the likelihood and risk of potential consequences

Underpinned by robust science

- Environmental baselines, stress-response understanding
- Understand spatial and temporal environmental sensitivities

Stakeholder identification and engagement

- Addressing local concerns and issues
- Local expertise input
- Partnerships and transparency



Understand before we act



- Where required undertake science to fill knowledge gaps
- Feed collected knowledge into our environmental management process
- Partner with government funded organisations and local groups
- Partner in industry funded programs
- Be transparent with our scientific knowledge



Assess predicted residual risk

Identify prevention and mitigation measures

Science underpins the Woodside approach



- Strong partnerships, sound research and transparency are the key elements of Woodside's approach to the environment.
- A range of science programs are funded and supported (in key focus areas).
- Focus areas have included coral reefs, deepwater biodiversity, cetaceans, noise, emissions and outreach.
- In the last eight years, our science programs have produced over 120 international peer-reviewed publications, four videos and three books.









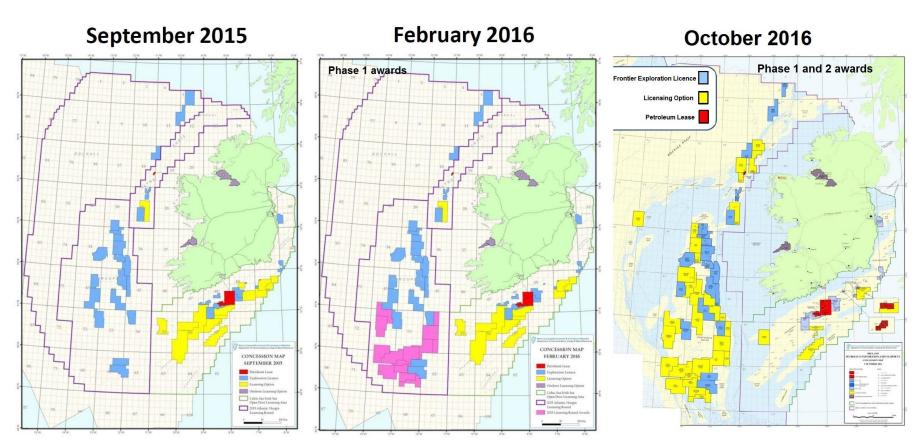


CO₂

Engagement/ Outreach

Activity in the Porcupine Seabight



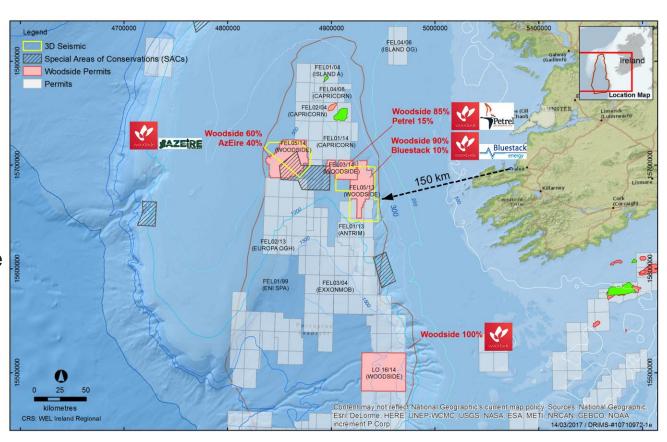


Source: Irish Petroleum Affairs Division

Woodside Ireland licenses

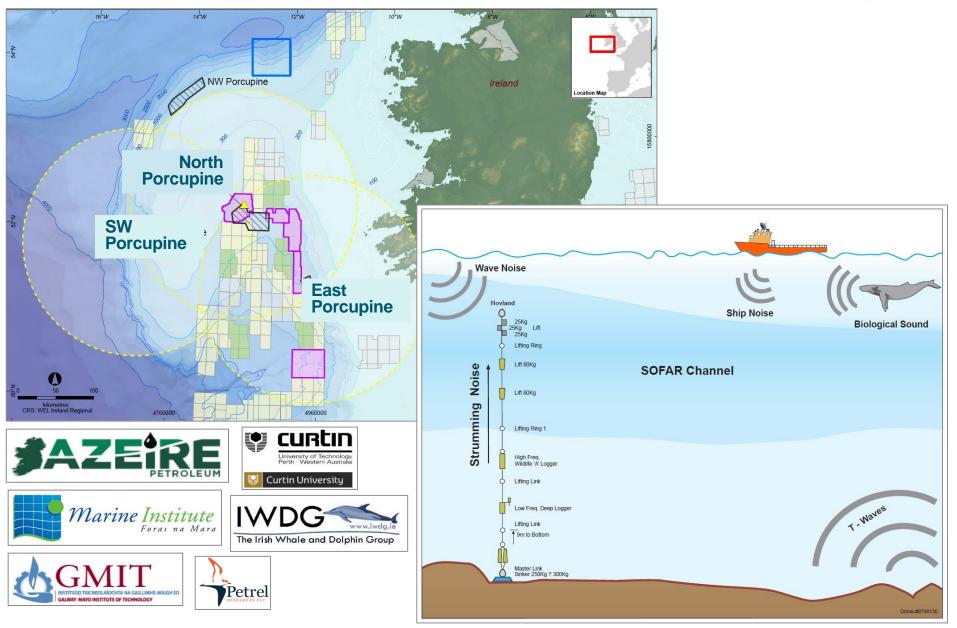


- Woodside currently hold four authorisations
- Water depths 500-2200 m
- 150-200 km west of Shannon estuary
- Operate on behalf of our three joint venture participants
- Early exploration phase
- Exploration well as early as 2018



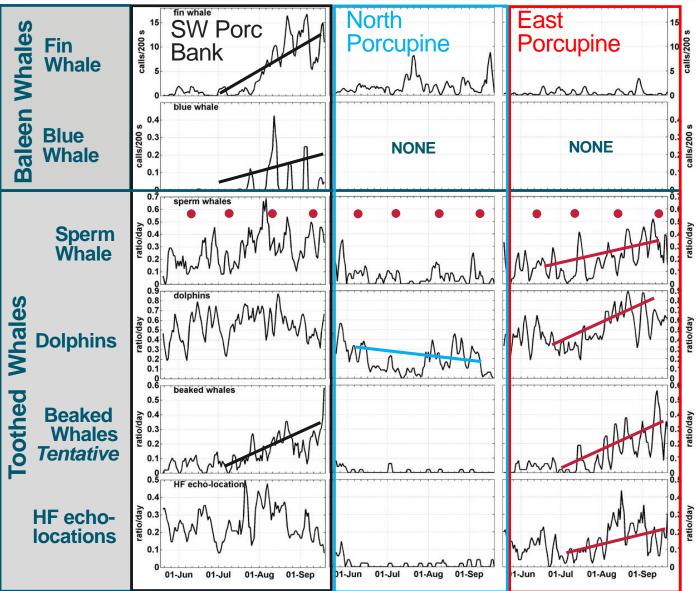
Porcupine Basin: 2014 Whale and dolphin study

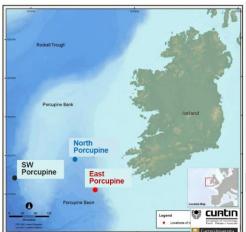




Results summary









Seismic Surveys in 2016 – Minimise footprint

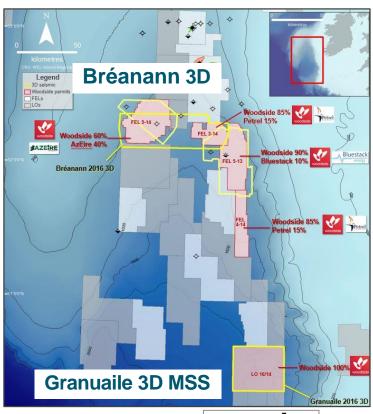


2014 study trends – 18 categories

Location	Fin Whales	Blue Whales	Dolphins	Sperm Whales	Beak Whales (Tentative)	Minke, Humpback and Sei whales
Northern Porcupine Basin	Moderate – with two small peaks during study	No recorded vocalisations	Low – higher in Aug/ Sept	Low – periodicity in abundance	Low – intermittent during deployment	No signals detected
East Porcupine Basin	Low – no seasonality	No recorded vocalisations	High – higher in Aug/ Sept	Moderate – periodicity in abundance	Moderate – some increase in Aug/ Sept	No signals detected
Southwest Porcupine Bank	High – major increase during Aug/ Sept	High – more in Aug/ Sept	High – higher in Aug/ Sept	High – periodicity in abundance	Moderate – some increase in Aug/Sept	No signals detected

	North Porcupine Breanann 3D MSS	South Porcupine Granuaile 3D MSS
Commerical fishing	July onwards preferable Prawn fishery	Leave by early August ideal - Tuna fishery
Concurrent seismic surveys	No ops planned in area	Mid-June other seismic planned
Whales and dolphins	No clear trend	Leave by early August ideal

First - Early as possible Second - Later















ATLAS and Woodside



- Associate member since 2015
- ATLAS aligned with Woodside Environmental Partnership values
- Direct contribution to Work Package 6 (WP6) the Porcupine Basin case study
- Woodside can provide industry perspective and experience; particularly into the Porcupine Basin case study
- Knowledge of Atlantic deepwater habitats is limited. ATLAS can support better understanding of deepwater habitats and ecological processes
- Knowledge outputs can help support our business decisions and approach



