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### In relentless pursuit of offshore safety: **A Privileged Perspective**

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#### Outline



- Major offshore safety events remain a global concern
- Quality information is key to risk management
- Offshore safety regulators have industry-wide perspectives on risks – and effective controls
- Examples of risks highlighted and shared
- Opportunities for a safer offshore industry

#### **Re-thinking offshore safety**





"If I had an hour to solve a problem I'd spend 55 minutes thinking about the problem and 5 minutes thinking about the solution"

- Albert Einstein

How do we **sustainably** improve offshore safety?

### Is offshore safety improving?





Source: International Regulators' Forum (IRF) Safety performance indicators project.

IRF members 2018: Australia, Brazil, Canada, Denmark, Ireland, Mexico, The Netherlands, New Zealand, Norway, UK, USA



Fatalities



How do we change this pattern of offshore safety incidents?

#### **Risk basics**



Risk: The chance of something happening that will have a negative effect. The level of risk reflects the likelihood and potential consequences.

**Controls:** Measures used to decrease the likelihood and consequences from an unwanted event.

### **Good information is key**





Are we working with the **right** information?

### Limitations of industry information



• Good sources:



• But there are challenges:

incident focus, inconsistent reporting, administration
 effort, analysis, legal, commercial, reputation

 Limited public information (e.g. compared to the US National Transportation Safety Bureau)

This leads to inputs to help define the problem .....

#### The offshore safety problem?



- Bad-outcome incidents vs 'weak signals'
- Personal safety vs process safety
- Data quality and quantity
- Learn faster from **other** industries?
- Leadership's role



Challenge

Accessing useful data and supporting its application to offshore safety

#### **Introducing Privileged Perspectives**



- We all look at information in different ways and for various reasons
- Organisations develop a unique Privileged Perspective using qualitative and quantitative analysis
- Creates a competitive advantage

Safety insights form part of this Privileged Perspective

#### Enter an offshore safety regulator



- Legal rights to gain in-depth knowledge of operator safety systems and performance
- Compare to identify good .... and less good
  Nationally and globally



Creates a regulator's Privileged Perspective

How can this be applied to benefit offshore safety?

#### **Regulatory profile and effectiveness**



• Core roles: oversee activities and enforce the law

.... and from a Privileged Perspective:

• Influence operators to best manage their risks, using insights obtained from industry: national & global

So what might an effective offshore safety regulator look like?





# Australia's regulatory approach to offshore safety:

Building and applying a Privileged Perspective

#### Representative of global industry





#### An approach to global challenges





#### • Stopping old incidents

• Find One, Fix many

• Respond to evolving trends





Major accident Loss of well events control







Asset Stewardship

#### **Global challenges & local market trends**

- Ageing assets and operator change
- Increasing complexity of offshore industry
- Changing workforce and workforce engagement







#### Common across the international environment





#### Ageing assets



Sale of late life assets to smaller companies

• capability and financial capacity

Equipment and systems

- maintenance
- decommissioning
- regulatory actions



#### Increasing complexity

#### Commissioning challenges

- equipment & installation quality
- contractors and permit to work systems

# Community expectations & media scrutiny

- the workforce has a voice
- Freedom of Information disclosures





#### Changing workforce and engagement

#### Workforce risks

- loss of experience since 2014
- Covid-19 effects
- Valuable contribution
- identifying safety issues
- front-line risk assessment due to their understanding of operations
- early stage procedural development



#### **A Regulator's Privileged Perspective**



A "competitive advantage"

• access to operator information; comparisons

local issues magnified in a global context
 Communication of risks and practical measures

- knowledge of where risks might lie; Big Data?
- opportunities to control risks

Communicate to industry -The basis of a "Find One, Fix Many" strategy



#### Applying an offshore regulator's Privileged Perspective:



# Practical examples developed through international collaboration and sharing

#### **Dynamic Positioning Risks**



- Dive vessel dynamic positioning switched off by dropped notebook.... undetected by crew
- Diver raised the alarm as he was dragged by umbilical recovered unharmed
- Isolated incident or a "weak signal"?





#### Or a big data prevention opportunity?





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#### Well testing – international implications



- Untested well test package sent to rig to test HP gas well
- Multiple system failures: an industry-wide problem?
- Held open-door industry workshop; engaged internationally. Improvements underway.







### Trends and predictions in wells

- Australian study\* of 500+ production wells mapped well barrier failures (1967 – 2018)
- Multiple operators
- International industry risk assessment and response practices shared through workshop







\* Inspired by a Norwegian study from 2008

#### Fragmented well data





#### **Global opportunity to reduce risks**



Find One Fix Many



#### **Risk Reduction Opportunities**



#### Take-aways – Understanding Risks



- Major offshore safety events remain a global concern
- Information is key to risk identification and reduction

- data analytics reliant on the "right" data

- "weak signals" can be highly significant
- Opportunities from increased data availability and analysis
- Global issues international collaboration vital

#### Take-aways – Pursue risk reduction



- Regulators have a Privileged Perspective on safety risks from their ability to access, and compare operator qualitative and quantitative information
- Sharing these Privileged Perspectives can help reduce risk
- Industry has a collective interest in data sharing and access to reliable, quality information: global databases?

Information sharing will reduce offshore safety risk Leadership commitment required to overcome barriers



### In relentless pursuit of offshore safety: A Privileged Perspective Thank you.... Any questions?

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