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Australia's offshore  
energy regulator

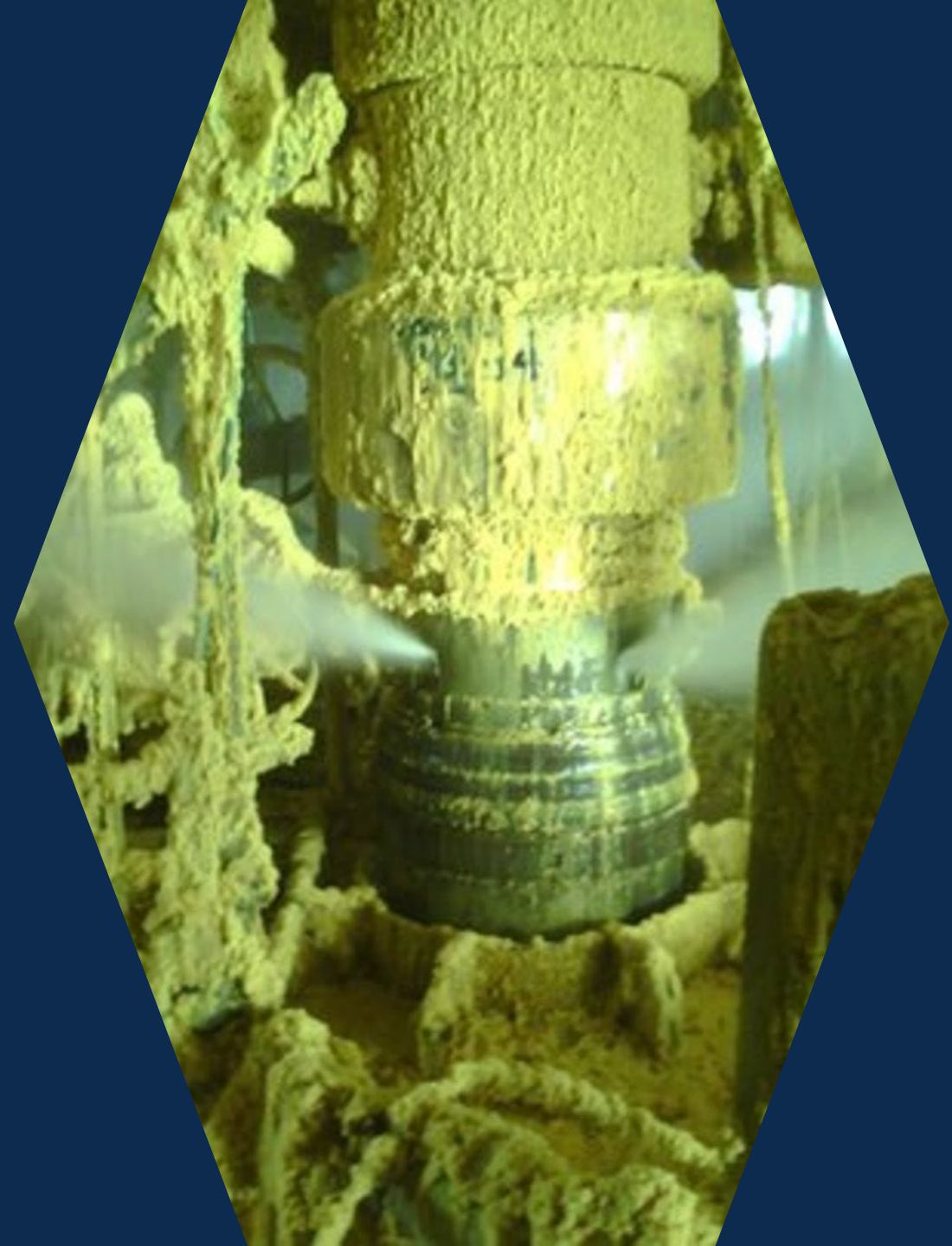
# Cradle to Grave: Planning for All Well Decommissioning

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# Problem Statement

Australia's Well Decommissioning Challenge

**The backlog of  
unused wells**



**Current  
operating wells**



**Going forward –  
new wells**





# Expectations

## NOPSEMA decommissioning compliance plan

## COMPLYING WITH YOUR DECOMMISSIONING OBLIGATIONS

## Decommissioning Compliance Strategy

2021 to 2025

**Purpose:** To set the direction for how NOPSEMA will work with its stakeholders to ensure that decommissioning of wells, structures, equipment and property is undertaken in a timely, safe and environmentally responsible manner and is considered across the full life cycle of a project. The strategy intends to reinforce and clarify decommissioning related requirements of titleholders under the *Offshore Petroleum and Greenhouse Gas Storage Act 2006* (the Act) and ensure appropriate planning for, and execution of, decommissioning activities in Australia's Commonwealth waters.

### Decommissioning of offshore petroleum wells, structures, equipment and property completed in a timely, safe and environmentally responsible manner

Objectives	Ensuring titleholders have appropriate plans for decommissioning all wells, structures, equipment and property, and are executing activities to complete decommissioning in a timely manner	Providing certainty to the oil and gas industry regarding the obligations to decommission all wells, structures, equipment and property	Improving understanding and capacity building of safety, well integrity, and environmental outcomes for

INFORMATION PAPER

## Planning for proactive decommissioning

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### Key points

- It is imperative that risks associated with petroleum projects are managed proactively throughout the life of the project. Property should be progressively decommissioned to minimise inherent risks to people and the environment.
- Recent experience indicates that some titleholders do not develop appropriate decommissioning plans in a timely manner, potentially increasing risk exposure to people and the environment.
- The safe and environmentally responsible decommissioning of property is a key objective that titleholders should plan for over all stages of the life cycle of a petroleum project. Decommissioning life cycle planning is a requirement of a holistic asset management system as described by ISO 55001 (2014).

Key points	• All new and revised permissioning documents demonstrate how decommissioning requirements have been considered	• Titleholders are aware of decommissioning requirements in place and how to prepare permissioning documents • Suite of NOPSEMA guidance available outlining expectations in relation to the different phases of decommissioning	• Research project/s have scopes and inputs identified, to better understand and address information gaps • Guidance released clarifying requirements and expectations in relation to decommissioning

# Targets for Well Decommissioning

## 01 By end of 2021 ✓

All new and revised permissioning documents address decommissioning requirements

## 02 By end of 2023

All wells risk assessed and have accepted abandonment plans in place

01

02

03

## 03 By end of 2025

All wells plugged or closed off within three years of becoming non-operational

# 1. The Backlog of Unused Wells

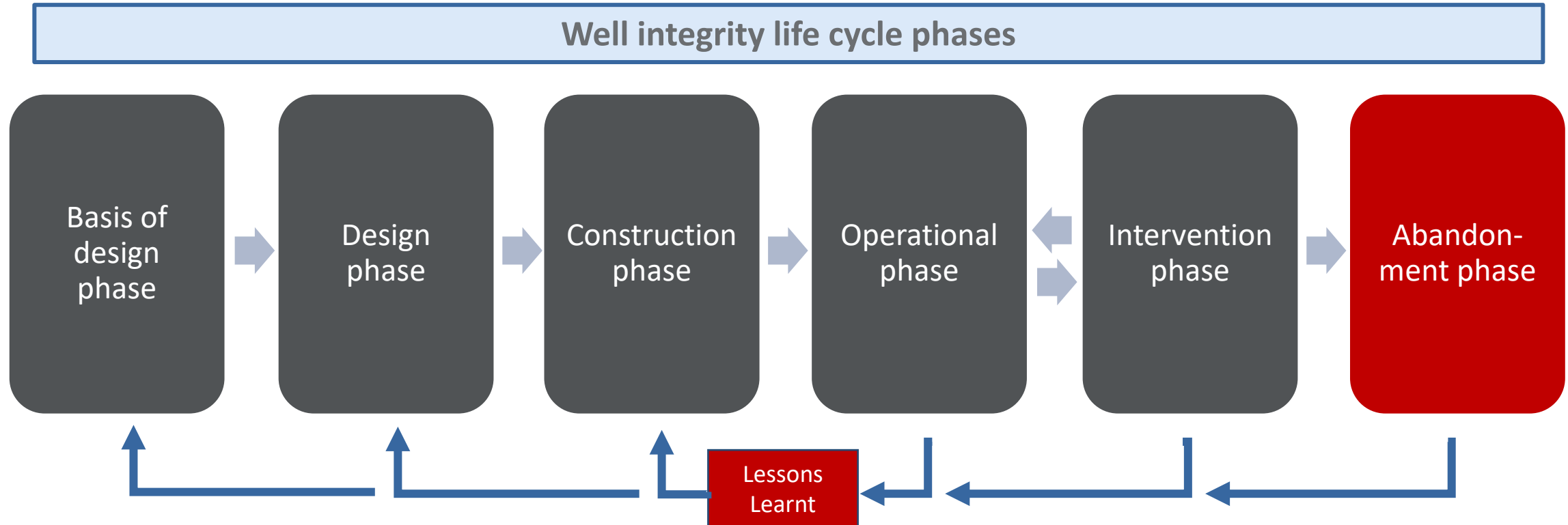


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# The Backlog of Unused Wells

Reference: ISO 16530-1



 Expectation: catch up on the backlog

 Challenge: old wells not designed for P&A



# Case Study – Jabiru/Challis P&A Campaign

“The wells were not designed with abandonment in mind”<sup>1</sup>  
– complex P&A campaign

Despite this, P&A campaign completed successfully 2 years after CoP

Learnings – better contingency planning;  
optimise P&A – “abandonment thinking” across well lifecycle



<sup>1</sup>Source: IADC/SPE-170523-MS (Iain Clyne and Neil Jackson, PTTEP Australasia)

<sup>2</sup>Source: Jabiru FPSO photo (ShipsNostalgia.com)

## 2. Current Operating Wells



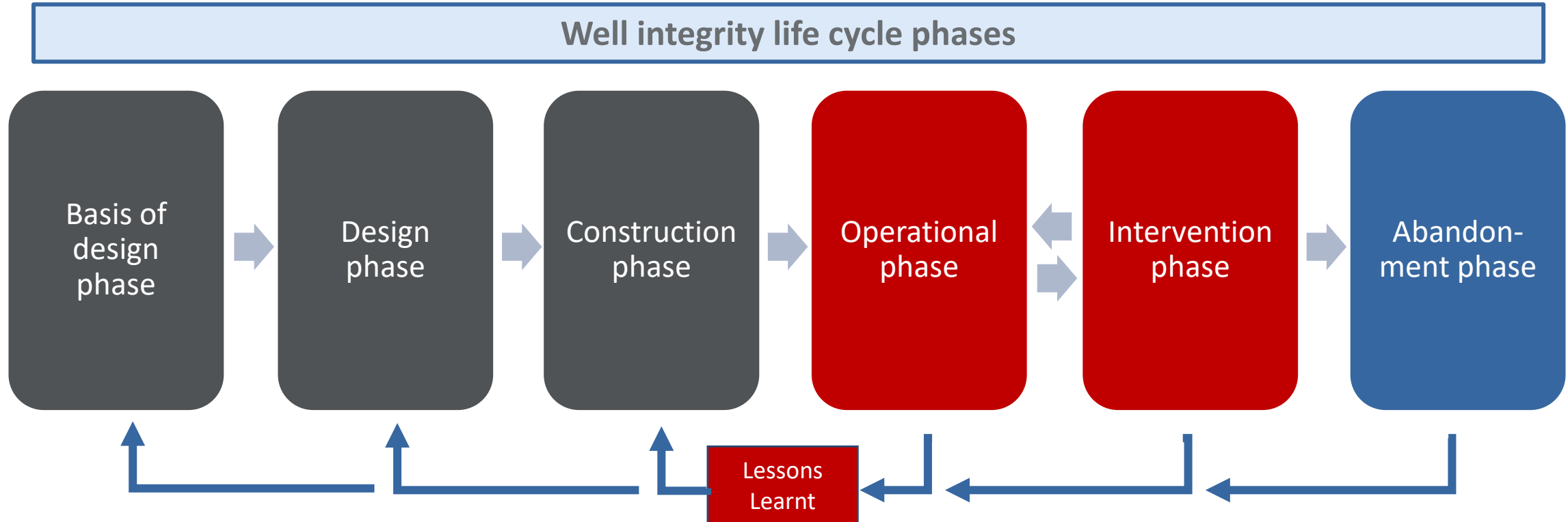
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# Current Operating Wells



Expectation: proactive management, not waiting for well failure



Challenge: How is industry managing wells to enable P&A in a timely and safe manner?

# Case Study – Gas Storage

Gas injected and extracted via up to 30 wells

Well integrity failures on two wells triggers investigation on well stock

Age & degradation of the wells = unacceptable HSE risk (gas injection)

Cease gas storage operations; move towards timely well abandonment

Learning – don't wait for failure to act; can one well tell you the rest of the story?



### 3. Future Wells

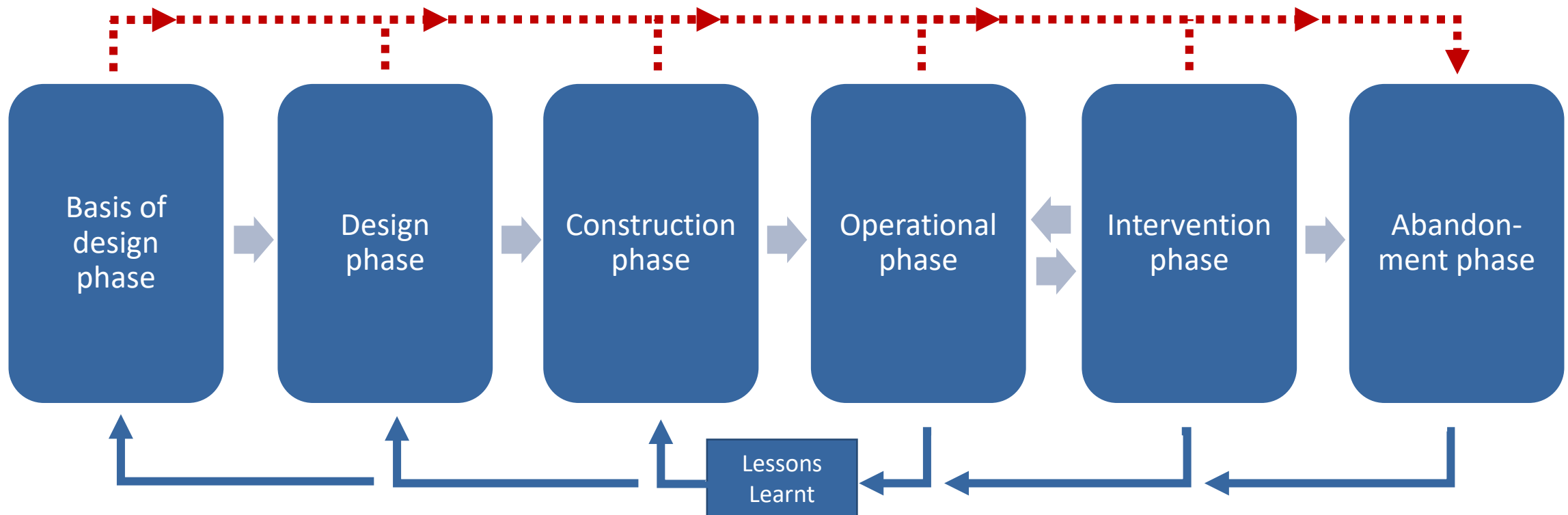


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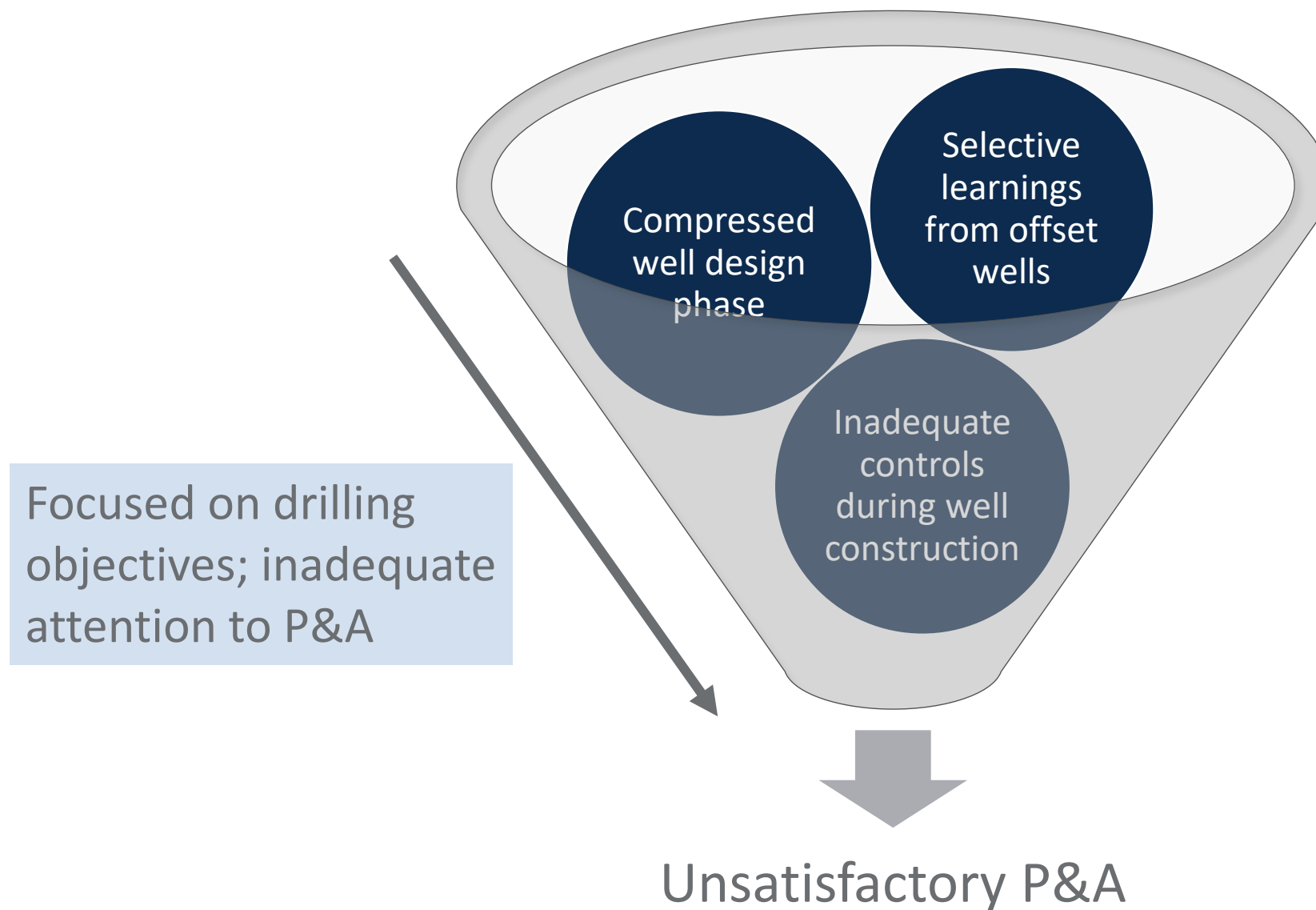
## Well integrity life cycle phases

*“Well abandonment requirements should be considered throughout the life cycle of the well”*



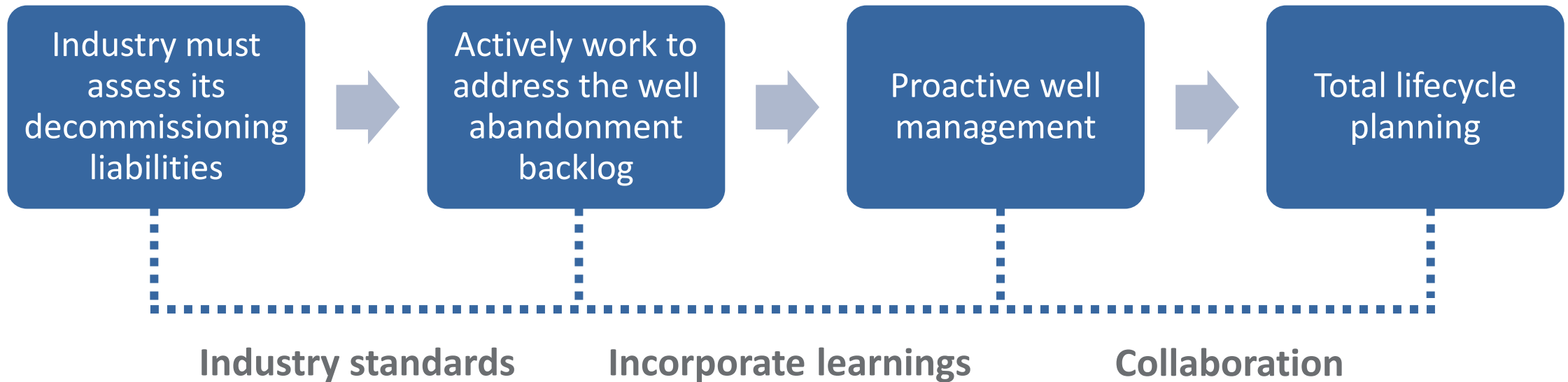


## Case Study – New Well



## Next Steps

Achieve successful well P&A safely & timely



**MISSION ACCOMPLISHED**

# Questions?



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