

# MICEDD

## DEEPWATER DEVELOPMENT

28 - 30 March 2023 | Millennium Gloucester Hotel | London, UK

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Quest Offshore

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# Agile Subsea Production System Demonstrates the Value of a Standardized Approach for Operators

*Leading the change to a streamlined, inter-Operator driven product portfolio*

**Kevin Kappes**, OneSubsea Senior Customer Standardization Engineer

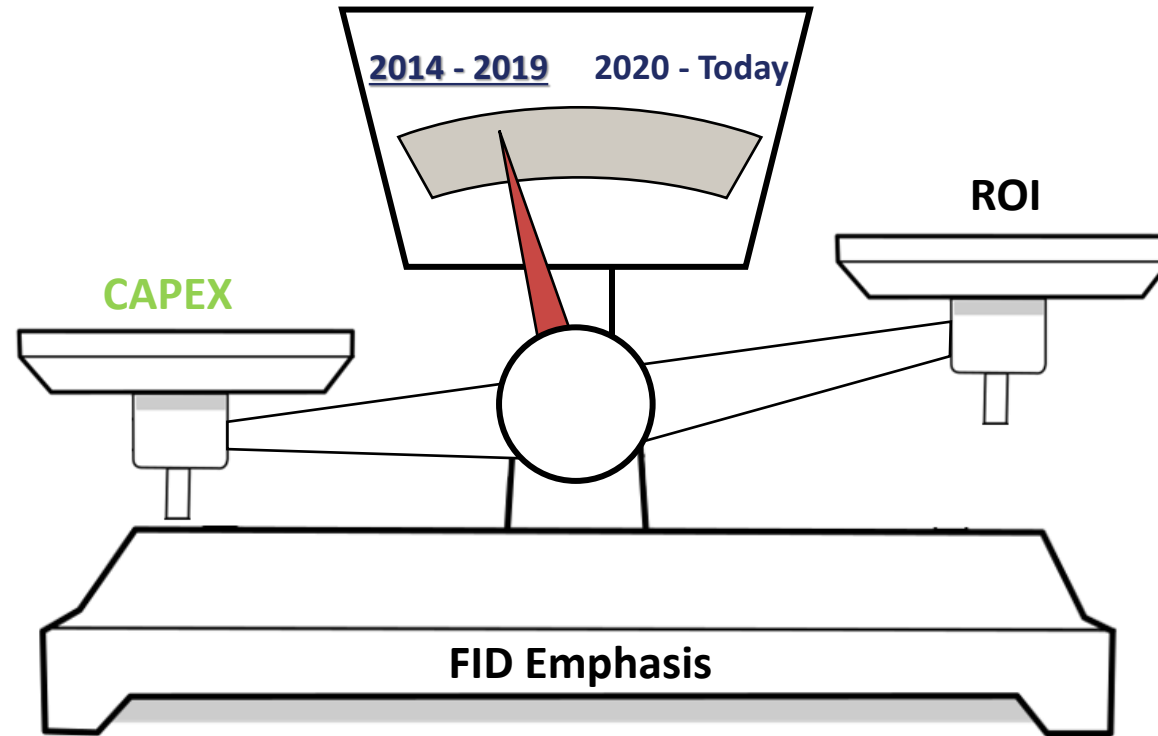
**Kaitlin Haymaker**, OneSubsea Senior Internal Standardization Engineer

# Where We Are Today | FID Landscape

## Minimized CAPEX

Restricted expenditure due to depressed oil market

Focus shifted to Supplier-Led Solutions to achieve this



## Accelerated ROI

Schedule predictability is of importance due to volatile supply chain

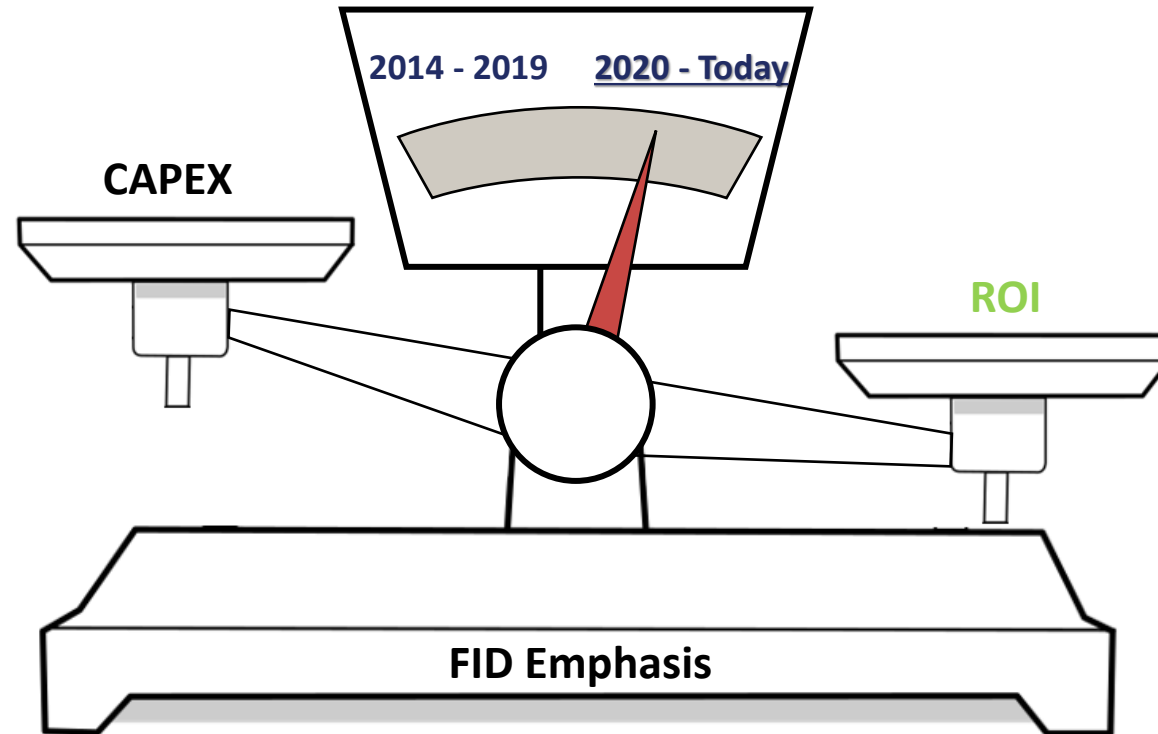
Underpinning of Supplier Standards with emergence of new Industry Specifications

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# Approaches to Standardization | Universal & Configurable

## Universal

<b>Method</b>	Single solution to fit to all situations
<b>Cost</b>	Increased CAPEX per item
<b>Benefit</b>	Reduced maintenance of optionality across ENGR and Robust Supply Chain
<b>Value</b>	Single solution utilized across all projects, no reconfiguration cost

## Configurable

<b>Method</b>	Scalable Functional Modules to meet specific requirements
<b>Cost</b>	Development and maintenance of a suite of options, Project change impacts
<b>Benefit</b>	Reduced CAPEX per Assembly
<b>Value</b>	Operational Flexibility, Fit-for-Purpose

# Approaches to Standardization | Enabling Agility



Ex. DNV RP-0034

Ex. IOGP S-561

Project Execution

**Universal**

**Configurable**

**Agile**

Where We Are Today

Approaches to Standardization

Emerging Industry Specifications

The Operator Approach

Configurable Solution Focus

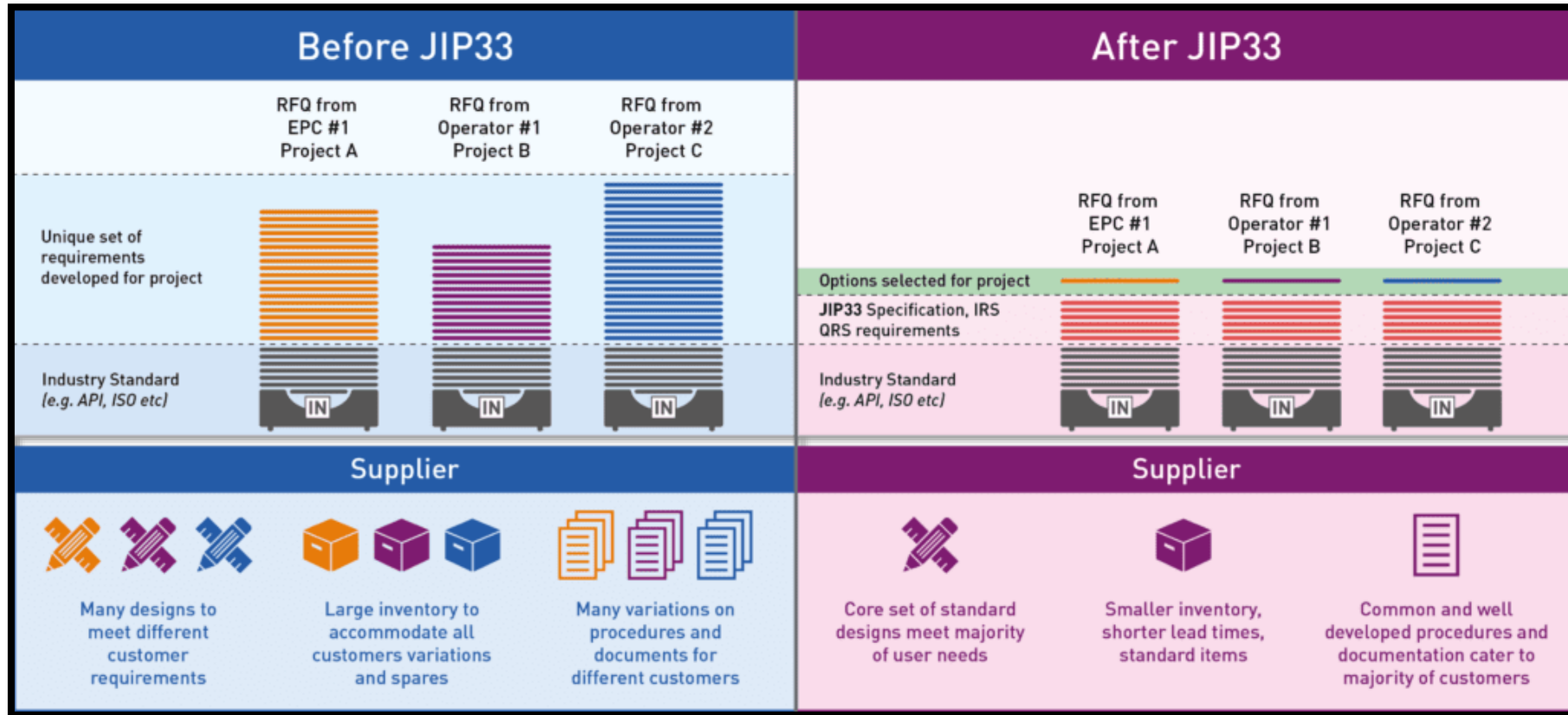
Disciplined Approach

Subsea Performance Agility

The Future of Standardization

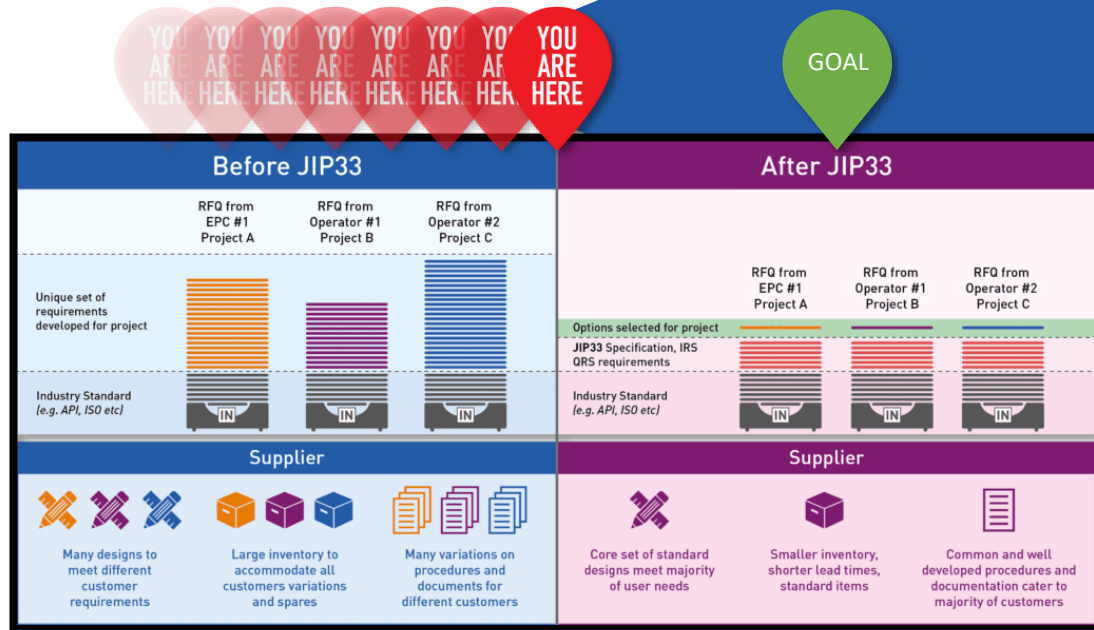


# Emerging Industry Specifications | Current Trends



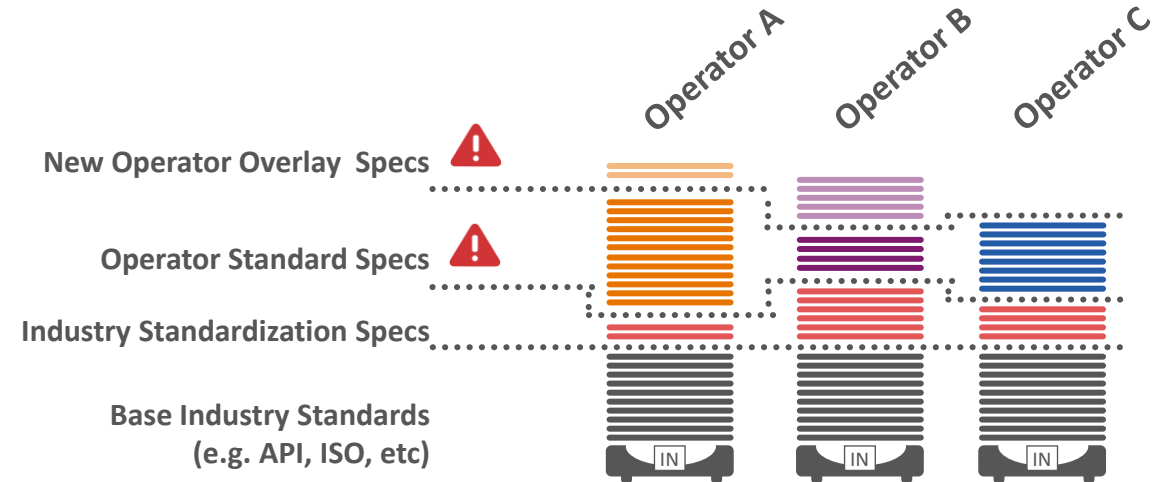
Source: <https://www.iogp-jip33.org/about/>

# Emerging Industry Specifications | Current Trends



Source: <https://www.iogp-jip33.org/about/>

Snapshot of Today...



Varied enforcement of new industry specs

Operator legacy specs remain enforced

Overlaying internal specs against industry standard specs

Where We Are Today

Approaches to Standardization

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The Operator Approach

Configurable Solution Focus

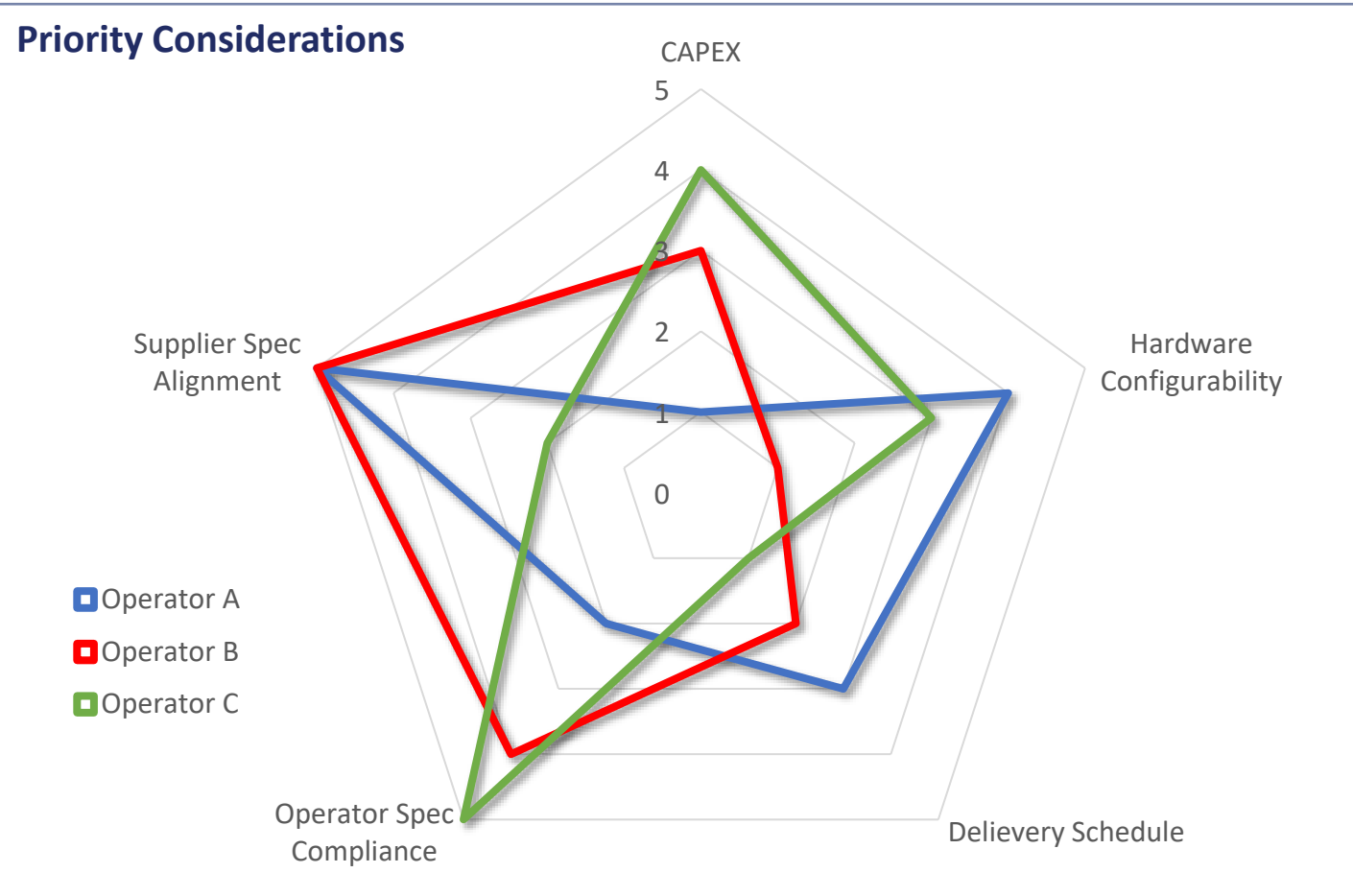
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# The Operator Approach | Finding the Balance



## 01

### Operator Spec Adoption

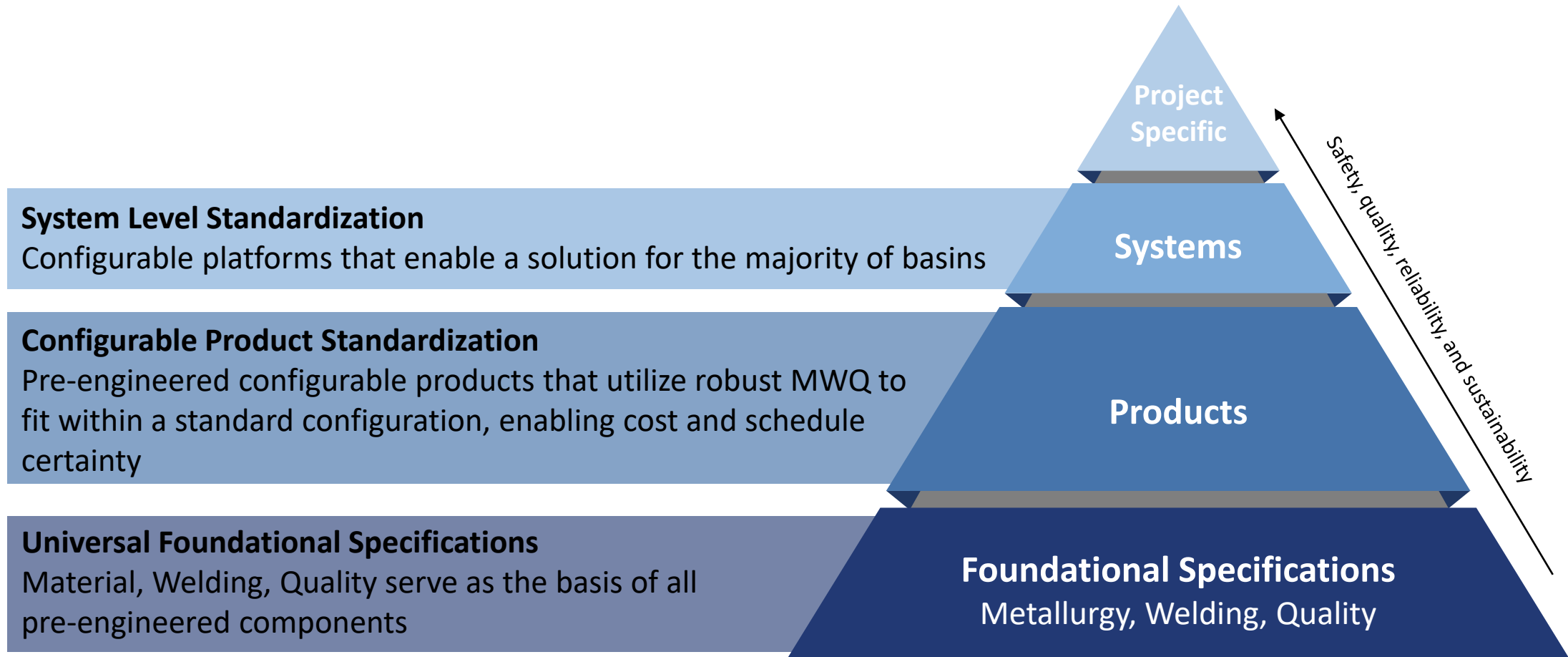
Corporate objectives and operational history clash with universal spec adherence

## 02

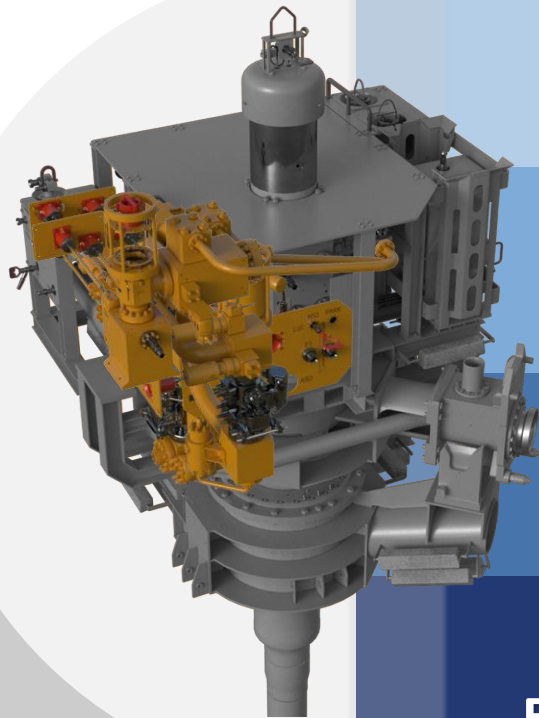
### Industry Standardization Spec Development

Over-restrictive requirements - development need to include industry suppliers

# Configurable Solution Focus | Standardization Approach



# Disciplined Approach | Governing the Standard



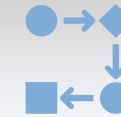
## Disciplined Approach

Operational discipline  
Change only when needed  
Allows for new technology integration



## Supplier Driven

Robust internally managed process  
Objective and calculated evaluation



## Functional Alignment

Entire value chain involvement  
Consistent internal visibility



## Operator Engagement

Operator feedback incorporated  
Collaborative acceptance  
Regular engagement sessions



# Delivering Subsea Performance Agility | Case Study

A subsea horizontal tree platform with a common core adapts to operator requirements using configurable functional modules and cost-efficiently expedites subsea development

## Realized Benefits

- 50% reduction in documentation reviews
- 11% reduction in non-conformances
- 7% reduction in overall XT manufacturing time
- 3-week decrease XT assembly/test time
- 0 non-productive time across more than 1,000 critical path hours



# The Future of Standardization | Collaborative Alignment

- Industry-wide collaborative effort to align on universal foundational specifications
- Drive towards embracing a standardized execution model
- Maximize economic viability of subsea execution
- Further improve reliability and quality
- Achieve cost and schedule certainty





# THANK YOU

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