

# MICEDD

## DEEPWATER DEVELOPMENT

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

ORGANIZED BY



Quest Offshore

World Oil®



# MCEDD 2023 – Gloucester Hotel

## Technologies Track

Operator Perspective – Remote Operations

Eric Primeau. Senior Technical Specialist BP  
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# MCEDD Technology Track

## An Operators view:

**BP's vision is the delivery of innovative offshore energy systems targeting net zero across operations, production and sales by 2050 or sooner, and 50% in Operations by 2030.**

**'Our purpose is reimagining energy for people and our planet. We want to help the world reach net zero and improve people's lives.'**

**The future of energy generation and delivery systems (traditional and new) is the All Electric Field, Remote Operations, Automation, and Autonomy.**

**Our target in the IMR space is a reduction in operational CO2, reduction of personnel exposure, increase in deliverable quality, speed of execution and automated delivery of products.**

# HOW?

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As one vision statement boldly states:

**“A full suite of complimentary multi-functional un-crewed vessels and underwater vehicles working in a common dynamic and resident environment.**

**Communicating and navigating employing common protocols, existing as part automated and part autonomous systems, monitored in a virtual environment.**

**Clean supporting energy derived from docking stations energized by new energy systems and underwater electric energy storage and distribution facilities.**

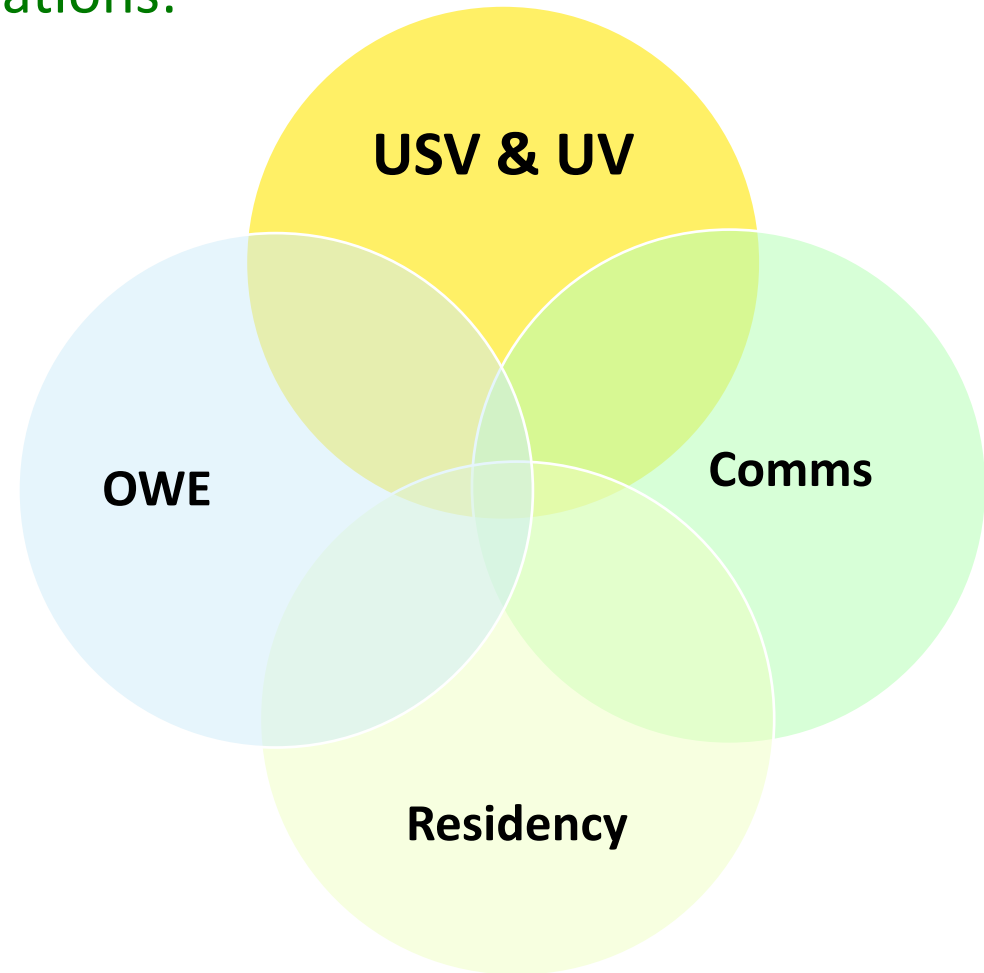
**Mission management via Remote Operations Centres, with data collection, processing, and compilation of deliverables an automated process feeding the Data as a Service contracting strategy”**

**So it’s a connectivity between complimentary technologies?**

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Technologies to enable low carbon Subsea operations:

- **USV & integrated UV**
- **Underwater communications**
- **Ocean Wave Energy**
- **Resident systems**



**Holistic engagement offers more value and opportunity than any single item**

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## Business Purpose:

- Remote Operations supports Resilient Hydrocarbons and New Energy
- Operators who will benefit most from technical innovation will have relationships with developers to structure solutions towards specific requirements
- Bridge the gap between medium TRL products to products 'Market Ready' (5-7)
- Develop the link between Uncrewed Surface Vessels (USV), Underwater Vehicles (UV) and supporting technologies
- Adopt an agnostic underwater communications protocol standard
- Reduction in Subsea IMR costs – needed in New Energy space
- 3 ways to reduce costs: Challenge Suppliers / Reduce Scopes / Advance Technology

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## Projects:

- **Uncrewed Vessel + underwater vehicle operations:**
  - **Develop 'See' of Inspection, toward the 'Touch' and 'Control' requirements of M&R activities.**
  - **Decision making for real-time underwater operations onboard the underwater vehicle**
  - **Spatial awareness and correlation between the synthetic and real environments**
  - **Confidence to act**
- **Ocean Wave Energy:**
  - **Energy generation / Energy storage / Energy distribution**
- **Communications:**
  - **Common protocols – Interoperability / Interchangeability**
- **Residency:**
  - **Robust, interchangeable, Reliable, interoperable, economically viable**

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Thank You

# Questions?



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