

### **Energy Institute**

Fugro remote & uncrewed capabilities

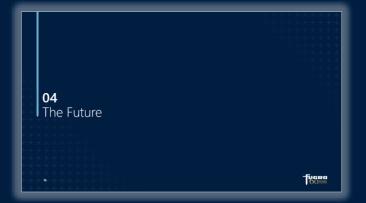
### Agenda

Accelerating the Energy Transition towards a Sustainable World











01

Fugro overview



### **Overview of Solutions**











Consulting
Geology, geohazards, ground models metocean and environmental

Consulting
Updates to the ground model to support O&M

**Geophysical surveys** 

**Environmental baseline surveys** 

**Environmental monitoring** 

Pre/post decom surveys

Geotechnical investigations and laboratory analysis

**UXO** risk mitigation

Desk studies, survey, identification and clearance

Metocean measurements, monitoring and forecasting

Desk studies, in-situ measurements, and real-time monitoring and forecasting of weather, currents and environmental conditions

Positioning and construction support

Positioning and (de)construction support

Subsea survey and inspection

Structural monitoring

Geo-data throughout the project lifecycle



02

Uncrewed assets



### Remote operations remit





### **USV Fleet for O&M**





### BLUE VOLTA BLUE ESSENCE BLUE ECLIPSE











### Blue Essence 12m USV Animation





Click HERE for Blue Essence animation

### **USV Approach - Safer**

## People offshore reduced from 35 POB to 0 POB







### **USV Approach - Faster**

# Data insights improved from 3 weeks to 3 hours







### **USV Approach - Sustainable**

# Fuel consumption reduced from 7,000 ltr per day to 200 ltr per day





### USV with eROV payload



80% of the capability for 5% of the fuel with O POB

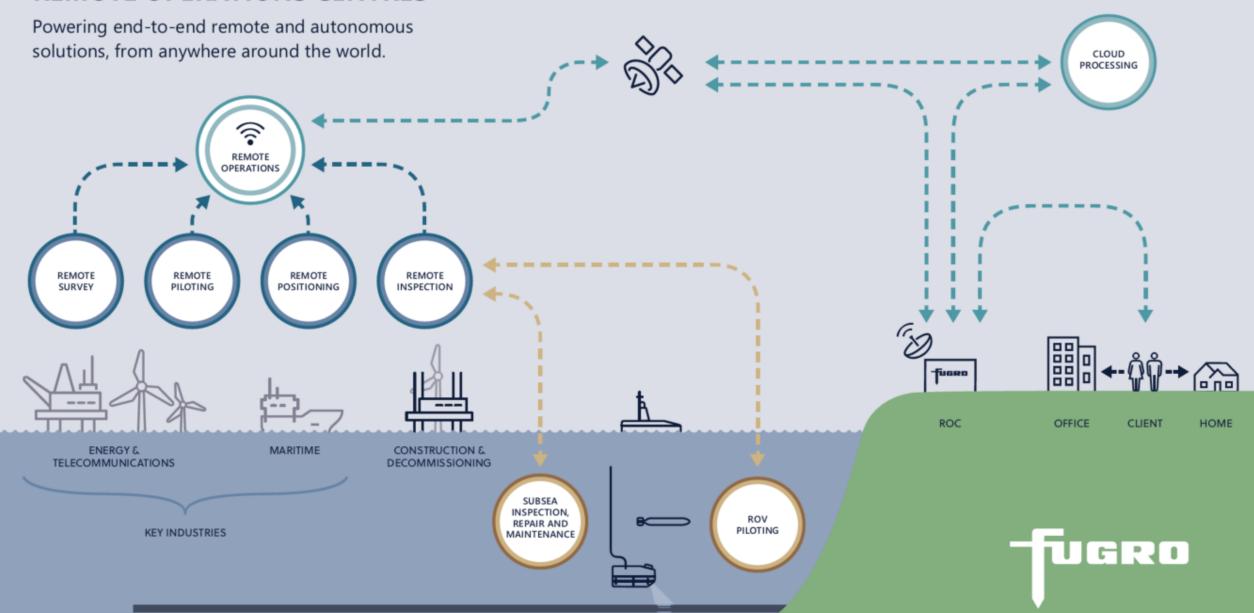


03

Remote infrastructure

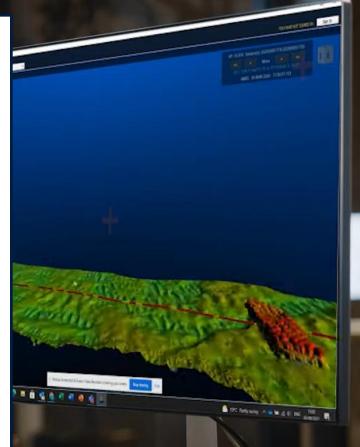


### **REMOTE OPERATIONS CENTRES**



Remote Operations Centre Video





Click HERE for ROC Video



### The Future



### A Carbon Neutral Robotic Fleet

Contributing to a safe and liveable world



- >20 Uncrewed Surface Vessels (USVs) by 2025
- Able to acquire, analyse and advise anywhere at anytime
- 5% of the fuel usage compared to current fleet



- Industry leading RemoteOperation Centre (ROC) network
- Capable of connecting our experts all over the world at anytime



- Robust communications
- Connecting people with robots around the world





### fugro

### Thank you

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# Unlocking Insights from Geo-data