



## **GE Marine Geotechnics**

**Sharing best practice in the onshore and nearshore geotechnical environments and exploring future developments**

*26 March 2020, Inmarsat, London*

### **Main conference agenda – 26 March:**

08:00 – Registration

08:30 – **Breakfast briefing: International case study: Uncovering how the ground investigation was conducted for the €7.4bn Fehmarn Belt Fixed Link and how the findings have shaped the design.**

09:00 – Chair welcome

### **Strategic outlook for marine**

09:10 – **Keynote: Improving our knowledge of the sea beds and understanding the risks pose by climate change**

Exploring the implications climate change and rising sea levels will have on sea beds and what this mean for existing and new marine infrastructure, their design and geotechnical risks they pose

09:30 – Question and answer

09:40 – **Government address: Determining the future focus for UK maritime, energy and industrial strategy and how that impacts the geotechnical sector.**

Revealing government marine priorities and strategies in a post Brexit world.

- 1) What will be the focus for government and how role with our ports and marine environments play?
- 2) What does this mean for major national infrastructure projects?
- 3) How can the engineering sector help drive forward developments and drive UK productivity and efficiency?

09:55 Question and answer session

10:00 – **Future marine developments: Revealing how clients plan to drive forward geotechnical projects and what they are seeking from the supply chain.**

Gain insight into the opportunities in the marine sector as clients share their development plans and growth areas for the next decade and understand what this will mean for geotechnical engineers.

10:15 – Question and answer session

10:30 – **Networking and refreshments**

### **Nearshore project updates**

**11:00 – Technical case study: Exploring the geotechnical challenges facing Aberdeen’s South Harbour expansion**

Diving into the technically challenging dredging for the £350million expansion project. What were the biggest geotechnical obstacles and what solutions have been employed? How is the deep-water construction developing? How has the GI data influenced the approach and design of the port to accommodate larger vessels?

**11:25 – Technical case study: Utilising the GI to shape the designs for the Lake Lothing Third Crossing**

Analysing the findings of the ground investigation period and how the examination period was conducted? What was discovered during the GI and ground surveying and how has it influenced the design and construction plans for the foundations?

**11:50 – Technical case study: Delving into the marine and nearshore works for Hinkley Point C**

What are the biggest geotechnical challenges to working in the Bristol Channel? How has the GI and ground conditions influenced the designs for the shafts and nearshore assets?

12:15 – Question and answer session

12:30 – **Networking and lunch**

### **Digital technology and marine projects**

**13:30 – Harnessing data and technology to reduce cost and improve accuracy of marine ground investigation**

- Unearthing technological best practice within the industry which could save cost without increasing the risk to project value
- Exploring what technological innovations are already having an impact on how we gather and analyse marine data
- Future gazing at where the industry could be in the next five years and what changes we need to be prepared for

**13:50 – Case study: Using technology to influence the marine project’s design and drive efficiency**

Exploring the full extent and impact technology can have on a live project, and the major advantages and lessons learnt from embracing digital technology early in the marine geotechnics sector.

**14:10 – Panel discussion: How can we ensure the marine sectors is fully embracing data and technical changes on geotechnical projects?**

- How is technology already transforming approaches to geotechnics?
- To what extent do you think technology will continue to revolutionise the sector in the next decade?
- How can we create more adaptable projects and teams, who can respond to change?

14:45 – **Networking and refreshments break**

**Working in marine environments**

15:15 – **Case Study – London City Airport: Creating new and in King George V Dock and establishing an efficient way of working when onshore meets offshore.**

Discover the lessons learned from installing 1,000 20 m long concrete piles to support the new 75,000m<sup>2</sup> concrete deck in a brown water site. Bam reflect on the obstacles that they needed to overcome to create a functioning delivery team when maritime, geotechnical and construction meet.

15:40 – **Case study: What can onshore, and nearshore projects learn from geotechnical solutions used on offshore windfarms**

Delving into the offshore expertise to examine the intricate crossover and best practise methodologies which can be applied to nearshore geotechnical marine projects. To what extent has extreme conditions made offshore teams innovative and better use technological? How could future offshore wind developments shape demand and challenging projects ahead for nearshore geotechnics?

16:05 – **Case study: discovering how to successfully design and build a functioning tidal lagoon**

Unveiling the method, challenges and solutions in the tidal lagoon project.

16:35 – Question and answer session

16:50 – Closing remarks

17:00 – Drink reception

18:00 – close of conference

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