

## Lecture 13 December 2016

Joint Meeting with IESIS and RINA

# UK Warship Design and Build: How to remain competitive



**Paul Feely** was educated at Glasgow University where he studied Electronic Engineering. He has worked across the UK on a wide range of naval projects for the UK MoD and foreign navies including 3 years as Chief Engineer for the Type 45 Destroyer programme. His current role is Engineering Director for BAE Systems Naval Ships. In this role he has functional responsibility for 1,600 engineers across BAE Systems ship design, build and Combat Systems businesses.

### Synopsis

With a focus on creating and sustaining a world class UK Warship Design and Build capability, this talk will discuss the key attributes required to remain competitive. There are increasingly complex customer requirements for warship design, manufacture, integration and testing, which demands a wide range of bespoke skills and capabilities. If we are to secure a long-term future for these capabilities we need to win further UK and international orders which we will only do if we remain competitive. Looking across the lifecycle of design and integration of complex warships, examples of modernised process, technology investment and fresh ideas will be discussed.

### Summary



A main issue in continuing to be competitive is the competence of the people involved. Continuity of work is essential because 70% of staff that are laid off due to lack of orders are not available when the workload increases again. BAE Systems identify 14 sub disciplines and 3,500 competencies for the design and build of naval vessels. Talent management is a very important issue for the company.

They work with a worldwide supply chain and take a long term outlook on the development of that.

Technology uptake includes use of virtual reality (VR) methods in design, immersive and large screen techniques. VR is especially useful where members of design teams are working remotely. The quality and efficiency of the design and the manufacturing processes are kept under constant review.

For the smaller craft they are developing the use of submersible barge (see photo) rather than traditional dynamic launching