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FLYING THE NEST

Andrew Tyler talks to *MER* on the achievements of an initiative to protect the UK's naval engineering, science and technology base.

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Dr Andrew Tyler
Director General Ships,
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The UK Naval Engineering Science and Technology (UKNEST) forum was set up two years ago as a platform to address the lack of focus in sustaining and developing the UK's naval design and engineering intellectual base. One of the founding members was Dr Andrew Tyler whose career has spanned the commercial shipping, offshore oil and gas, and naval defence sectors. In 2001, he was appointed as Managing Director of BMT Defence Services, the UK's largest independent naval design and engineering consultancy. He was later promoted to Chief Executive, BMT Defence with responsibility for the strategic development of BMT's defence businesses, before crossing the divide and becoming Director Land and Maritime in the MoD Defence Procurement Agency and, this year, Director General Ships in the new Defence Equipment and Support (DE&S) organisation. Among numerous duties, he has charge of the Maritime Industrial Strategy for the Ministry of Defence (MoD).

Recalling the formation of UKNEST, Tyler believes that it has been particularly successful in building a comprehensive and diverse membership. 'It was a challenge getting all the partners – many who were competitors – sitting around a table together talking comfortably,' he says. The current membership boasts such names as Converteam (formerly Alstrom), Lloyd's Register, Qinetiq, Rolls Royce, Vosper Thornycroft and BAE Systems among others.

Tyler adds that having the MoD onboard participating as equals with the industry members was quite unusual but at the same time a distinct advantage. 'Industry trade bodies can sometimes be isolated from the needs of their customers, but MoD's presence has given UKNEST a unique ability to tackle issues that affect the whole UK naval engineering, science and technology community,' he enthuses.

During 2006, three Working Groups were formed focussing on training and development, science and technology, and design processes. The first of these found that while there was no systematic skill shortage facing the sector, measures are required to ensure this remains the case.

'Naval science and technology has some very niche areas. For example, the merchant navy is rarely, if ever, concerned about the signature of its vessels, or survivability. It certainly doesn't have areas of discipline like mine countermeasures,' says Tyler. Much in submarine technology does not map to anything done in the commercial world. Tyler warns that these are the areas requiring most attention. 'In some cases, there are only a handful of individuals who are sustaining a particular capability. And you might only need that capability on a periodic basis, for example when new projects are underway. Sustaining these capabilities during lull periods is quite tricky.' He adds that the problem is exacerbated due to the diminishing size of the Navy.

Proposals aimed at sustaining these critical sectors include better utilisation of resources across the entire naval programme; increased use of export opportunities; and pro-active fostering of the next generation of naval design leaders.

The Maritime Industrial Strategy had identified a need to sustain in the UK the ability to design complex naval vessels from concepts to the point of build. MoD had decided in future to own and manage the risk in translating the maritime capability requirement into a product specification for a complex warship (the performance risk), and contract with industry on the basis of the product specification.

In 2006, MoD proposed a generic solution to this requirement in which a number of UK companies currently providing maritime design and technical services (amongst others) would work with MoD in a form of partnering. This title of Naval Design Partnership was used to describe a multi-company solution in which the available talent in industry and the MoD would be deployed to best effect across the naval programme, covering ships and submarines, new construction and in-service. Through a series of workshops and off-line work, a joint MoD/Industry team has developed a shared understanding of the objectives of the NDP, its scope, method of operation and interfaces, most particularly with the proposed BAE Systems and VT Joint Venture.

Their proposed solution now needs to be tested by carrying out real work in support of a live programme. The MoD will shortly be contracting for a 12 month NDP Pilot to support the Frigates IPT in carrying out the concept studies that it needs to meet the Future Surface Combatant Initial Gate programme and also develop the detail of an Enduring NDP.

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