

The Navy: purpose and procurement- Submission by Dassault Systèmes (May 2021)

Summary

1. The Government's Integrated Review, Defence Command Paper and Defence Industrial Strategy set out ambitious objectives for the Navy. We believe that these will be extremely challenging to deliver to deadline and on budget without a fundamental transformation of the procurement process. In addition to examining specific pinch points in equipment, we suggest that the Committee also considers the benefits that a more holistic approach could deliver for the Navy. The construction of a single digital acquisition platform would improve joint working between individual suppliers and provide a clear overarching view of delivery. This would address the inherent fragmentation tendencies within supply chains, which drive rising costs and delays.

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2. Dassault Systèmes provides world-leading software solutions, which transform the way products are designed, produced and supported. The group brings value to over 290,000 customers of all sizes in all industries (from Aerospace and Defence to Life Sciences, Mobility, Cities and Industrial Equipment) in more than 140 countries. Our products and digital twin solutions have driven innovation in engineering, design, professional services, logistics, workforce planning.

Our point of view and recommendations

3. The next generation of Naval Capability, in common with Air and Land, will operate in a more complex environment and will need to adapt more quickly to emerging threats. However, the capability will be delivered within a constrained fiscal environment and under significant political scrutiny.
4. At present, defence systems are procured from a network of different specialist industrial organisations and delivered principally through individual documents rather than data and models. This builds a high risk of misinterpretation or non-communicability into the procurement process, which, in turn, drive delays, rising costs and gaps in capability. We believe that this should be addressed by a transformation of the acquisition process, reflecting broader HMG commitments to digitise defence and to progress with a "One Defence model" and integrated Backbone.
5. A new collaborative platform of 'Model Based Acquisition' would act as the glue between delivery partners, improve value for money and generate greater predictability within programmes by:
 - Enabling different organisations to develop solutions on a single platform;
 - Using the new connectivity to understand and manage complex execution, by bringing together previously siloed programme management and product development processes;
 - Creating the capability to make continuous upgrades in response to evolving threats and opportunities.
 - Applying Artificial Intelligence to compare different components/parts between each other (design, shape, technical specifications) to identify duplicates/substitutions. It will help to minimize the risk of being undersupplied due to poor contractor performance by identifying reuse opportunities and finding alternative suppliers.
6. A 'Model Based Acquisition' platform would catalyse a culture change away from a system of exchanging documents towards working with data and models. In doing so, it could create a single and authoritative 'source of the truth' against which to judge delivery. As envisaged by the Integrated Review, a 'Model Based Acquisition' platform would also enable Government to scrutinise the performance of a 'digital twin' in advance of sign-off. This data-driven approach is vital during the concept phase, where 80% of the costs are committed.
7. We believe that the Navy could pioneer a Model Based acquisition approach, driving a procurement transformation across the wider MoD. In concrete terms, it would mean implementing a platform that enables collaboration between supply chain partners, fed from model-based definition of requirements developed by the Navy.
8. We would be delighted to provide the Committee with a demonstration of how such a solution would work in practice.