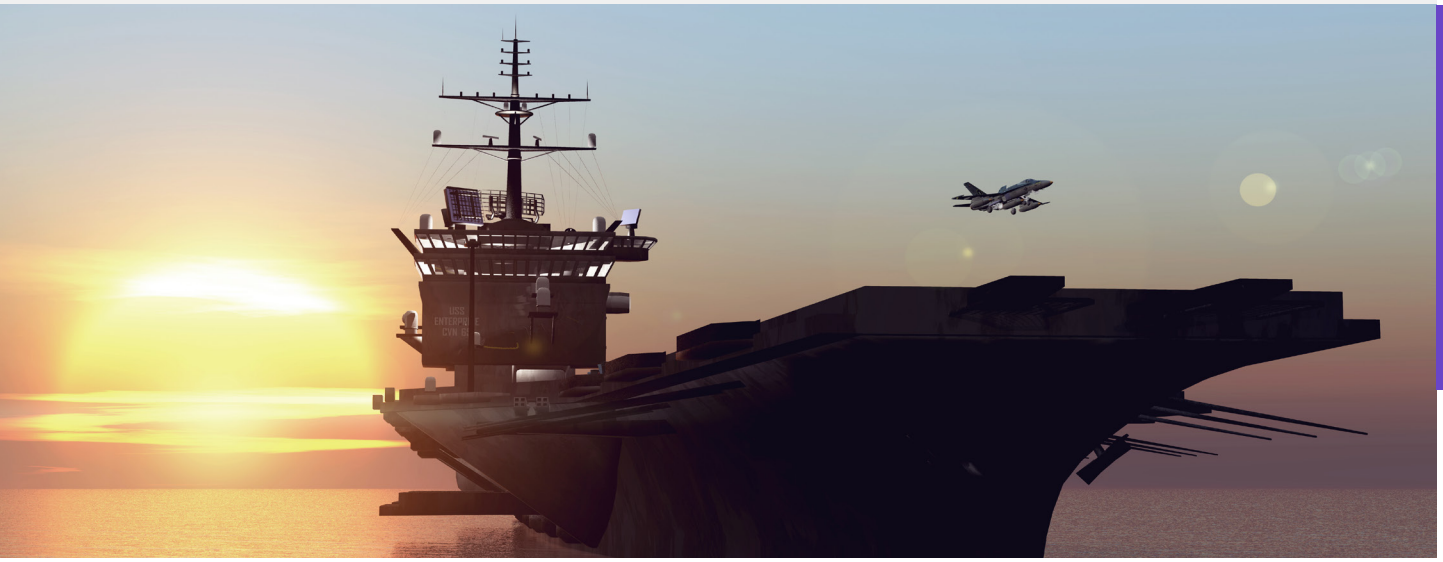
CLIENT CASE STUDY

Robotics and digitalisation to push new boundaries in defence engineering

Expleo is providing naval engineering design and innovative digital solutions to major defence primes to deliver extensive time and cost efficiencies.



Defence - Sea

The Challenge

With tight margins, shorter timescales and a limited resource pool, the defence market is increasingly turning to digital technology to reduce costs and accelerate project outcomes.

Expleo was tasked with securing process efficiencies for the major design element of a critical project for a large defence prime. Innovative digital solutions and a proven track record of driving value through process automation expertise were critical to their selection.

As a result of this solution, it enabled 35,000 Stage 3 production outputs to be delivered directly into the client's operations teams and more than 40,000 hours of complex Stage 2 change requests. These skills and solutions are transferable beyond the production stages into downstream support and in-service, as well as across a range of different production projects within the secure defence arena, to achieve wider and longer-term efficiency gains.

Solutions

Process automation was key to unlocking cost savings and efficiencies. Expleo's engineering and quality teams introduced RPA (Robotic Process Automation) to reduce repetitive tasks that would typically take up 30% of an engineer's time. Previously digits that were inputted for a 2D drawing would then be manually added again into a separate form for the 3D design. By implementing RPA, the software 'robot' could do the administrative workload automatically, freeing up valuable engineering resources and generating cost savings of £1 million on a single process.

Alongside this, Expleo's project management team used SQCDP (Safety, Quality, Cost, Delivery and People), Power BI and LeanKit applications to reduce costs through task optimisation and data analysis. A digitised Kanban was screened on the production floor to allow real-time progress monitoring which in turn meant rapid identification and rectification of errors. A centralised dashboard provided a one-stop-shop for data and project management to improve project visibility and efficiency to all relevant stakeholders.

Outcome

Expleo is already delivering significant gains across the project in the form of quality improvements that reduce the need to rework faults. This is due to the higher right first time (RFT) completion rates with outputs delivered on time and above customer-set quality RFT targets of 95%.

The elimination of manual processes also enables resources to be refocused on critical design blockers or allocated to other programmes, saving the client £1 million. More efficient use of technical expertise also creates motivational benefits, essentially engineers are able to engineer.

Expleo continues to identify further process automation opportunities for this defence prime contractor. Repetitive, traditional and rules-based processes, high transaction volumes and issues with process adherence and/or quality within naval engineering are benefitting from the application of robotics and digitalisation.

> **This is just the beginning for the client. There is huge scope to implement further process automation solutions, including machine learning and AI, across multiple streams of work that will extensively increase efficiencies across the business.**
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> Paul KENYON, Client Director, at Expleo