DXC Technology

Shipyard of the Future — Digital Manufacturing

PROBLEM STATEMENT

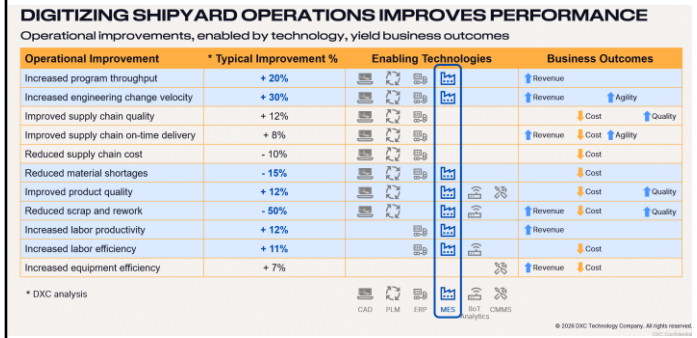
• Shipyards face record backlogs and need to produce them faster — skilled-labor shortages, aging workforce, and tribal knowledge walking out the door.
• Design, engineering, and the shipyard operations run on disconnected systems and paper-based work instructions, creating rework, delays, and quality issues.
• Legacy IT and technical debt block modernization; data is siloed across CAD (TeamCenter NX), PLM (TeamCenter), ERP, with no single source of truth.
• Sustainment and new-build compete for the same constrained capacity, eroding fleet readiness.

BENEFITS

• Higher throughput without adding headcount.
• First-time-quality gains and less rework through connected, model-based work instructions.
• Real-time production visibility for supervisors; faster, data-driven decisions.
• Captures retiring-workforce expertise into reusable digital work packages.
• Improved fleet readiness by freeing constrained sustainment capacity.
• 60+ years of A&D/DoD heritage (CSC lineage); cleared delivery, AWS and Azure partnership.

TECHNOLOGY SOLUTION

• DXC Shipyard of the Future: a connected Digital Thread linking requirements → design → production → sustainment.
• MES modernization delivering smart, paperless work instructions and real-time shipyard visibility.
• Digital Thread / PLM integration (Aras) and SAP ECC-to-RISE migration for discrete manufacturing.
• Cloud, data, and AI on AWS — augmenting the workforce and automating routine tasks.
• Advisory-led transformation (DXC AdvisoryX) tying it to throughput outcomes.



DIGITIZING SHIPYARD OPERATIONS IMPROVES PERFORMANCE

Operational improvements, enabled by technology, yield business outcomes

Operational Improvement	* Typical Improvement %	Enabling Technologies	Business Outcomes
Increased program throughput	+ 20%		Revenue
Increased engineering change velocity	+ 30%		Revenue, Agility
Improved supply chain quality	+ 12%		Cost, Quality
Improved supply chain on-time delivery	+ 8%		Revenue, Cost, Agility
Reduced supply chain cost	- 10%		Cost
Reduced material shortages	- 15%		Cost
Improved product quality	+ 12%		Cost, Quality
Reduced scrap and rework	- 50%		Revenue, Cost, Quality
Increased labor productivity	+ 12%		Revenue
Increased labor efficiency	+ 11%		Cost
Increased equipment efficiency	+ 7%		Revenue, Cost

* DXC analysis

CAD PLM ERP MES IIoT Analytics CMMS

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