

MARINE & OFFSHORE

TRANSFORMATION TOOLKIT

For Business Leaders:

Solve real operation bottlenecks, build workforce capabilities and implement practical change

WHY TRANSFORMATION MATTERS

Marine & Offshore (M&O) companies face relentless pressure to execute projects faster, safer and with leaner resources.

- Surging costs amidst manpower constraints
- Tighter project timelines and zero-tolerance safety standards expectations
- Accelerating demand for digital, AI and advanced engineering capabilities

Standing still is becoming risky.

START WITH THE BUSINESS NEEDS

True transformation does not start with buying technology. It starts by targeting the core business problems, preparing your workforce and executing practical changes that fundamentally upgrade how work gets done.

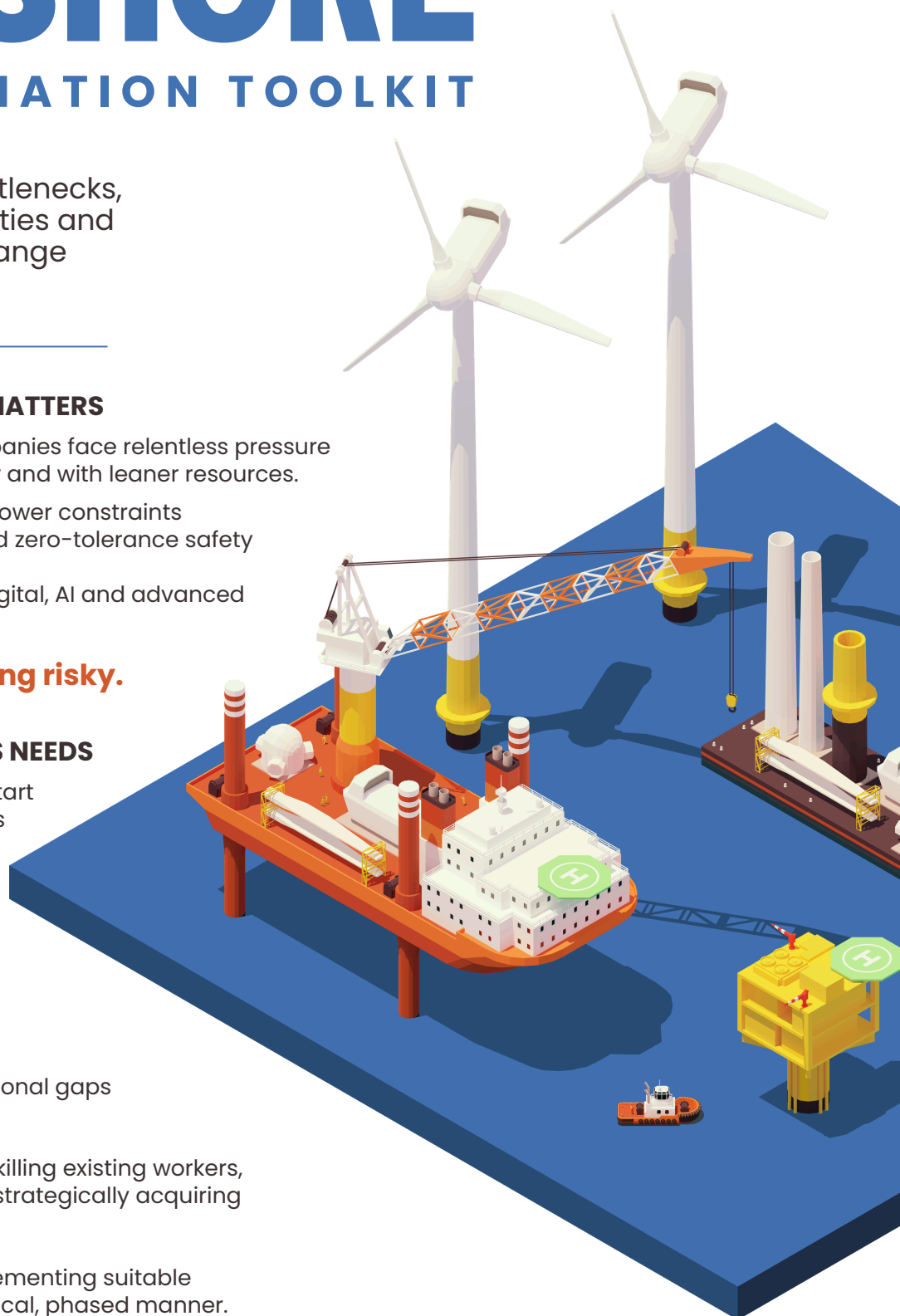
THINK A-B-C

Assess business needs, operational gaps and workforce implications.

Build talent by upskilling or reskilling existing workers, redesigning affected jobs and strategically acquiring talent where needed.

Change by adopting and implementing suitable technology solutions in a practical, phased manner.

Sustainable transformation delivers better business outcomes and better jobs for workers.



THE A-B-C TRANSFORMATION LOOP

ASSESS
Identify business, workflow and workforce needs

BUILD TALENT
Train existing workers, redesign jobs and hire new talent

CHANGE
Pilot, implement and scale the right technology solutions

ASSESS

Review the business holistically, including operations, workflow, manpower, safety, data, technology and customer requirements. Identify key pain points, improvement opportunities and possible projects.

AI Readiness Index

Enables companies to assess their organisation's and workforce's AI readiness through an online diagnostic, providing a personalised report that identifies key gaps and areas for improvement.

Operations & Technology Roadmap

Facilitates the development of a structured roadmap that aligns business needs, technology plans and workforce strategies, and prioritises practical transformation projects.

BUILD TALENT

Identify affected roles and skills gaps early. Train users, supervisors and key workers. Prepare job redesign and worker communication before implementation.

AI Playbook

Provides practical AI training pathways to build workplace AI capabilities across different job roles.

Career Conversion Programme

Provides funding support for mid-career hires into growth roles within the M&OE sector or reskill existing staff whose jobs are redesigned as a result of business or technology changes.

Hiring and Placement Support

Personalised manpower support to help companies identify hiring needs, source and screen candidates, and connect with shortlisted jobseekers.

Overseas Markets Immersion Programme (OMIP)

Supports companies in sending local employees with little or no prior overseas work experience on overseas posting. This supports the reskilling of workers into global or regional roles with good prospects, while supporting international business growth.

Capability Transfer Programme (CTP)

Provides funding to facilitate capability transfer from foreign specialists to the local workforce, helping companies build and retain critical skills.

CHANGE

Implement the solution in a practical, phased manner. Update SOPs and job roles. Track business results and worker outcomes. Improve, then scale what works.

Company Training Committee Grant

Supports on qualifying equipment, software, consultancy and training for transformation projects with business and worker outcomes.

EDGE Grant¹

Supports companies to upgrade capabilities, improve efficiency and expand overseas. For more information, please visit the EnterpriseSG website.

Workforce Development Grant (Job Redesign+)

Provides funding support for workforce transformation and job redesign projects, covering consultancy, capability building and workforce technology solutions.

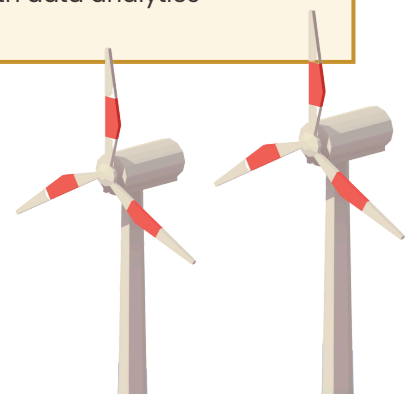
Support schemes are subject to eligibility, project scope and the prevailing programme guidelines.

¹ EDGE streamlines EDG, MRA, and PSG into a single grant.

COMMON M&O CHALLENGES AND PRACTICAL SOLUTIONS

The table below highlights common issues faced by M&O companies and practical solutions that can help companies get started.

Business touchpoints	Key challenges	Practical solutions
Customer Service - Customer Relationship Management - Content Generation and Customer Engagement - Sales Management	Limited visibility of end-to-end customer journey, slow handling of diverse customer enquiries accurately and creation of marketing content, lack of consolidated financial data	CRM, AI chatbot for customer engagement, GenAI marketing and sales content generation, sales management
Design and Engineering, R&D - Additive Manufacturing - Vessel/Product Design	Long design cycles, manual iterations, poor as-built data	CAD/CAM, AI-assisted design, additive manufacturing
Procurement - E-Procurement - Inventory Tracking - Warehouse Operations	Inaccurate view of inventory, manual fragmented procurement processes, weak supplier coordination	Inventory management, supplier portals
	Manual warehousing and operational inefficiencies	Automated storage, automated warehousing and robotics (AMR, ASRS, robotic arms)
Production and Manufacturing, MRO - Permit to Work Management - Workplace Safety - Workforce Optimiser - Equipment Management - Digital Asset Model - Fabrication and Assembly	Manual permits, inconsistent checks, blind spots at yard/vessel, slow incident follow-up, uneven induction	E-permits, AI video analytics for workplace safety
	Inefficient staff allocation	Field service management
	Slow inspection or validation, sudden equipment failures, limited simulation	Predictive equipment monitoring and maintenance, digital twin
	Labour-intensive welding, painting, cutting, testing or material handling; inconsistent output and bottlenecks	Digital/robotic welding
Corporate - HR and Payroll - Accounting - Project Management - Business Insights	Manual processing of HR tasks (e.g., payroll, leave, claims and appraisal), inaccurate tracking of cost allocation	HRMS, HRSS, accounting management
	Poor project and manpower visibility due to fragmented data, excel trackers, slow reports, limited data-driven insights	ERP, project management, centralised platform with data analytics



ABOUT THIS TOOLKIT

The Marine & Offshore Transformation Toolkit is a practical guide designed for business leaders to solve pressing operational challenges, upskill the workforce, and drive sustainable digital change.

Built around the A-B-C Framework (Assess, Build Talent, Change), it aligns business needs with workforce capabilities to ensure high-impact, phased technology adoption.



FOR MORE DIGITALISATION IDEAS

Companies may also refer to the [Marine & Offshore Energy Industry Digital Plan](#) to find digital solutions mapped to your business challenges and AI use cases organised across the five key business touchpoints (customer service, design and engineering, procurement, production/manufacturing and corporate functions).



Scan to explore the M&OE IDP on SMEs Go Digital

Your partners in transformation:

