



BAE Systems Naval Ships T26 Programme

Irshad Booly – Supplier Development Manager





BAE Systems Naval Ships T26 Programme

- **Manufacturing contract for Type 26**
- BAE Systems have been awarded a contract by the UK Ministry of Defence **worth c£3.7 billion** to manufacture the first three ships for the Type 26 Global Combat Ship programme, with steel being cut on the first ship in Glasgow in the coming weeks.
- This provides a strong foundation for the next two decades of shipbuilding in Scotland, securing more than 3,400 jobs across BAE Systems and the wider UK maritime supply chain.
- UK Defence Secretary Sir Michael Fallon said: "The Type 26 Frigate is a cutting-edge warship, combining the expertise of the British shipbuilding industry with the excellence of the Royal Navy."



BAE SYSTEMS NAVAL SHIPS T26 PROGRAMME

11TH JULY 2017

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Type 26 Global Combat Ship

A highly capable multi mission warship optimised for Anti-Submarine Warfare and designed to deliver the full range of complex combat operations and contribute to global security.



Range
In excess of
7000 nautical miles



Speed
26+ knots



Beam
20.8 metres



Crew
157



Accommodation
Up to 208,
including Embarked Forces



Propulsion
2 electric motors
4 high speed diesel generators
1 gas turbine



Flexible mission bay
Space for 10 x 20ft
ISO containers
or boats and
unmanned vehicles



Flight deck
Capable of landing
a Chinook helicopter



OPV
1,800 tonnes 90 metres



Type 26
6,900 tonnes 149 metres



Type 45
7,500 tonnes 152 metres



QEC
65,000 tonnes 280 metres



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BAE Systems Naval Ships T26 Programme

- The Type 26 programme currently employs more than 1,200 people in the UK supply chain, with a number of contracts already in place for the manufacture of major equipment for the first three ships. In total, there are already 33 UK and international companies working in the supply chain to deliver the Type 26 ships – with further announcements to be made shortly.

Cat A

High value, developmental, project specific, high risk equipment.

High level of design; Systems Integration; Equipment Integration; significant impact on the functional and/or spatial design.

Low volume; bespoke; Programme critical. Very large and complex systems.

Typically combat system equipment, power/propulsion systems and platform management systems

29 Packages

Cat B

Medium value; established equipment/ systems; medium risk; medium volume.

Modified part where complete systems have been modified for the programme, although they remain recognisable as the original equipment or system.

Significant impact on the functional and/or spatial design.

Contain Design / Transversal requirements.

Typical systems/equipments: Treatment Plants, Doors, Scuttles & Hatches, Valves, Pumps

54 Packages

Cat C2 (Equipment Parts)

C2-Complex - Project specific modified part, medium value; low volume; medium risk. Specific supplier data reqts for product maturity
Product examples: Roller Shutters, Ships General Furniture, Marine Evacuation System

C2-Modified - Minor modification to a Commercial Off the Shelf product or specific data requirement (e.g. drawings).

Medium value, low volume; low risk
Product examples: Guardrails & Stanchions, Ship-wide Rigging, Partition Bulkheads & Linings

C2-COTS - Commercial off the shelf items. Non-complex; low individual value; high volume; & low risk.

Zero tolerance to modifications
Product examples: Electrical Switches & Sockets, Signs, Warnings and Notices

230 Packages

C2-Consumables

A part consumed during the build, support or operation of the ship(s). High volume; very low individual value; low risk. Specific catalogue parts provided under a Service Level Agreement (SLA). Managed supply on ship / KANBAN (min/max bins) Demand vs Consumption vs Wastage focus
Typical products: wetting rods, screws, washers

Raw Materials (Cat C1- Commodities)

A part considered to be a raw material. High value; high volume; Off The Shelf; high BOM risk

High BoM churn / change driver / rework High price sensitivity - worldwide metal markets

Focus on proactive measurement of Demand vs Consumption vs Wastage in order to reduce wastage levels

High level of handling of heavy materials.

Specific category of steel

13 Packages

Cat D (On-Site Subcontracts)

Subcontracted platform services which include subcontract on-site labour used by the operations team in executing the work. May also include the supply of the relevant materials.

Programme critical; intrinsic linkage to build programme; service to the project. Focus on integrated supplier planning.

Typical scope: Cable Reeling, Blasting & Painting, Electrical installation, Access & Containment.

22 Packages

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Suppliers – Team 26



Marine Systems
Technology Ltd
a PaR Systems company



Score **Group plc**



Lloyd's
Register



Salt Separation Services



ASPIRATIONS FOR TEAM 26

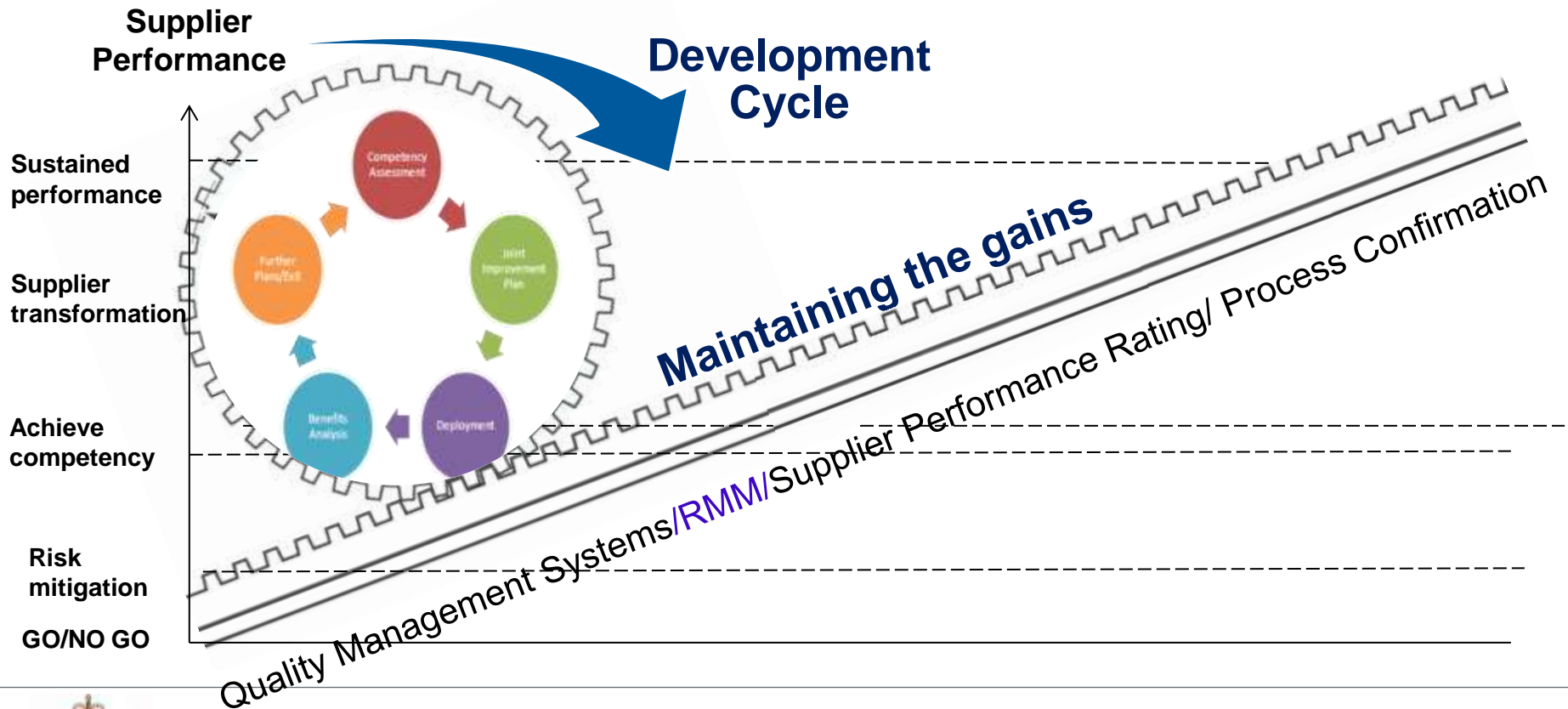


- The successful delivery of the Type 26 programme is reliant on the skills and commitment of everyone in the Supply Chain
- Engender a 'partnering' approach from the outset
- Aspire to build a common Team 26 identity between all companies involved
- Create an environment where we can have open transparent communications and can communicate equally
- Enable early recognition of issues and develop collaborative relationships between supplier companies – **Through Competency Assessments & SC21 RMM workshops**
- Potentially 46 companies identified for SC21 RMM workshops – 3 months from contract placement.
- Establish information sharing channels
- Set the global naval industry benchmark
- Unite behind our common goals, share best practice and support each other to meet our commitments





T26 Supplier Development Journey

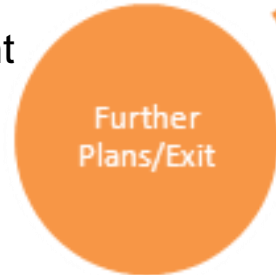


Competency Assessment

What We Do



Further Plans/Sustainability
Process confirmation
Re-assessment, further improvement process embed



Assessment
In-depth assessment of supplier to Identify improvement priorities



Joint Improvement Plans
Gaps highlighted and improvement plans agreed



Benefits
Soft & Hard Benefits captured and agreed with stakeholders



Deployment
Hands on practical support to deliver improvement plans





Assessment Criteria's

Management	Operations	Quality	Skills, Training & Development
Company Strategy	Process Design	Quality Management System	Skills, Training and Development Policy & Strategy
Strategy Deployment	Organisation Capacity and Control	Quality Culture	Skills & Competence
Leadership	Layout & Flow	Quality Improvement	Evaluation & Deployment
Empowerment & Feedback	5S Workplace Organisation	Supplier Approval & Maintenance	Training Methodologies
Metrics	Visual Management	Receipt Verification	Benefits
Risk Management	Control of WIP	Supplier Improvement	
Customer Relationship Management	Standardised Work	Quality Planning	
New Part Introduction	Set Ups	Key Features	
Programme Management	Total Productive Maintenance	Measurement System Analysis	
Supplier Management	Continuous Improvement	Non Conformance Process	
Cost Modelling	7 Wastes	Customer Escapes	
	Problem Solving		
	Production Teams		
	Error Proofing		
	Lean Value Stream		

Counterfeit Parts
Company Counterfeit Policy
Purchasing
Test & Verification
Control of Counterfeit Materiel

Additional Assessment models if required:

- Sub Tier assessment
- Non Conformance Assessment





Assessment Report

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Assessment summary ACME RR Engineering Ltd

Overall assessment results			Assessment detail			
Supplier:	ACME RR Engineering Ltd	Main business activity: Rocket propulsion system, marine propulsion systems, automotive propulsion systems, engine overhauls				
Key contact:	W Coyote					
Date of assessment:	1st April 2015	Main BAE products: Marine propulsion systems				
Location/Site:	Dundee					
Assessment reason:	New supplier	Key customers: BAE Systems, Boeing, Airbus				
BAE team:	M Farrell	Key tier 2: D & R Trotter, A Daly Enterprises				
	S McClafferty					
Employees	50	ISO9001	SC21			
SWOT Analysis						
Strengths			Weaknesses			
Overall management process is fairly robust especially Customer Relationship Management			Inflexible workforce - training should be provided to allow individuals to carry out 2 - 3 different jobs. Production Control: greater Performance to Plan development required			
Opportunities			Threats			
5S Workplace Organisation - opportunity for greater deployment 7Waste - opportunity for cost savings within the organisation with correct implementation			Lack of Continuous Improvement Initiatives Suppliers have no means of preventing non-conforming material release No in-house trainers No assessment / evaluation of training on completion Weak PFMEA / Risk Management processes			
Key gaps and opportunities						
Key Gap	Action	Owner	Action type			
Workforce inflexibility	HR to develop training plans	HR Head	Continuous Improvement			
Performance to Plan development	Op Manager to further develop	Op Head	Continuous Improvement			
Implement Continuous Improvement initiatives	All engineers to identify areas initially	All	Continuous Improvement			
Supplier NC material handling	Quality to develop process with suppliers	Quality Head	Continuous Improvement			
In-house trainers	HR to identify individuals initially	HR Head	Continuous Improvement			
Training evaluation	HR to develop survey media for evaluation	HR Head	Continuous Improvement			
PFMEA implementation	Engineering to liaise with supplier initially to determine PFMEA requirements i.e training etc	Engineering Head	Risk Mitigation			





Joint Improvement Plan

- Joint Improvement plan with supplier
- Sign off by BAE and supplier stakeholders
- Estimated; activity, timelines and benefits

BAE Naval Ships		Humber Elec		Joint Improvement Plan					
Supplier	Humber Elec	Site							
Project Sponsor		BAE Project Sponsor							
Project Champion		BAE Project Lead							
1. What are the Gap's/Opportunities identified from the Competency Assessment			7. What is out of Scope						
2. What will this project deliver			8. Key Risks						
				Risk	Mitigation	Owner			
			1						
			2						
			3						
			4						
3. What KPI's will be used to measure the projects benefits			9. Project Milestone Summary						
				Activity	Owner	Date Due	Actual		
			1						
			2						
			3						
			4						
			5						
			7						
			8						
			9						
4. Who are the key stakeholders			10. Benefits						
			Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7
			Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14
			Week 15	Week 16	Week 17	Week 18	Week 19	Week 20	
5. What Assumptions have been made									
6. What is in Scope									
Project Start Review Sign Off									
BAE Project Sponsor		Project Sponsor							
Project Champion		BAE Project Manager							





What Benefits we will bring

- Intelligence provided on competency of Type 26 supply chain
- Better informed supplier selection
- Embedded change management culture in supplier
- Implement Joint Improvement Plans that will;
 - Identify and mitigate risks
 - Reduce rework,
 - Improve delivery
 - Improve efficiency
 - Improve lead times
 - Eliminate process waste





Summary

- **Supplier Engagement Scoring Process.**
 - 88 Suppliers on the Supplier Engagement Scoring Process over 3 Programmes.
 - ✚ **T26** Suppliers on or due to go onto the Supplier Engagement Scoring Process.
 - 35 Suppliers on the Supplier Engagement Scoring Process.
 - 8 Supplier due to start in Q3 / Q4 2017

- **SC21 Program Activity 2017**
 - ✓ **SC21 Journey / Awards**
 - 2 Suppliers on the through SC21 Journey (Pipex & SCA)
 - 1 Supplier (Pipex) successfully awarded Bronze award March 2017
 - 13 Suppliers to be targeted for SC21
 - **RMM's**
 - 2 held
 - 3 being scheduled
 - Further workshops being scheduled in line with T26 contracts for lessons learned
 - **ManEx**
 - 1 completed
 - **BusEx**
 - 1 being scheduled for Q3 2017
 - **CSIP**
 - 4 in Place





Thank you



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