

CAPABILITY STATEMENT

AN INCLUSIVE PRIME MODEL
FOR NAVAL SUSTAINMENT
AND SUPPORT

AN INCLUSIVE APPROACH TO NAVAL SUSTAINMENT

Naval Ship Management (Australia) Pty Ltd (NSM), is a leading provider of complete maritime sustainment solutions. Our team of sustainment experts, strategically located across Australia, work with our broad international supply chain to provide cost-effective and responsive solutions that optimise the availability, capability and seaworthiness of critical maritime assets.

Established in 2012, as a Joint Venture between Babcock Pty Ltd and UGL Ltd, we now support assets across the Royal Australian Navy's fleet - most notably the *Anzac* Class Frigates as a member of the Warship Asset Management Agreement (WAMA) and the *Canberra* Class Landing Helicopter Docks (LHD), LHD Landing Craft (LLC) and associated assets.

Headquartered in Henderson, Western Australia, NSM's national footprint and highly responsive supply chain is ideally placed to support our customers' critical assets wherever and whenever the need may arise.

Our capability spans the full spectrum of naval sustainment services:

- Asset management
- Ship repair, refit and refurbishment
- Maintenance support
- Engineering support
- Supply chain management
- Procurement and logistics support

“Our closer partnerships with industry, combined with the asset management skills of our people, is delivering a strong and competitive sovereign naval sustainment capability for Australia”.

Joe Smith
General Manager, NSM

Enabling the Navy to Fight and Win at Sea by the delivery of enhanced materially seaworthy assets

Our naval sustainment evolution

Core to how NSM operates is our Inclusive Prime model. From our origins in 2012, NSM was designed to focus expertise and people on where most value is provided to the customer. We recognised there was no need to replicate capabilities existing within Australian industry and adopted the 'Thin-Prime' partner approach.

The Thin-Prime model proved extremely successful in providing industry with opportunities to contribute to naval sustainment and develop their capability. The Inclusive Prime model is an evolution of this – rather than simply integrating industry, it incorporates four key building blocks for effective and efficient naval support services:

- **Establishing the right partnerships** with shipbuilders, system manufacturers, industry and of course the Navy.
- **Australianising the naval support supply chain** and a commitment to capability development, not simply maximising Australian content.
- **Building effective collaborative partnerships** and being an Australian leader in adopting formal collaborative relationships standards.
- **Implementing a digitally-enabled asset management approach** that combines ISO standards with Industry 4.0 technologies such as big data analysis and predictive modelling.

The four key building blocks that underpin NSM's strategy

-  **The right partnerships**
-  **Australianised supply chain**
-  **Effective collaborative relationships**
-  **Robust, digitally-enabled asset management**



QUALITY, HEALTH, SAFETY AND ENVIRONMENT

Safety is, and will always remain, our highest priority

To keep our people and all those we work with healthy and safe, particularly within the complex environment in which we work, requires:

- Committed leadership that instils a cultural mindset throughout the company to continually improve performance.
- Implementation of proven systems.
- A close relationship with all stakeholders to identify and safely manage all risks.

Everyone is empowered to stop work if they observe hazardous or unsafe working practices. Our wider team responds immediately to these situations, ensuring efficient rectification and return to work.

Partnering with industry to protect all workers



NSM have developed and implemented a Critical Risk Management Guide and associated processes to establish a consistent approach to managing our critical safety risks and effectively communicating this to our workers, partners and customers. This guide was the product of a collaboration with five key suppliers and has been recognised by customers as an important augmentation of existing process that strengthens the protection of workers.

Our SAI Global certifications

SAFETY FIRST 

			
Quality ISO 9001	Environment ISO 14001	Asset Management System ISO 55001	Health & Safety AS/NZS 4801
 SAI GLOBAL	 SAI GLOBAL	 SAI GLOBAL	 SAI GLOBAL

‘Our Critical Risk Program has delivered better transparency, task planning and more proactive reporting. This has resulted in a substantial reduction in the risk profile of naval sustainment services ‘

Gavin Stewart - Operations Director, NSM





ASSET MANAGEMENT

The 'keel block' for effective naval sustainment

Asset management is like the 'keel block' of naval sustainment – providing a solid platform for the effective delivery of all the associated services that work together to maintain ship availability, capability and seaworthiness.

NSM's asset management capability focuses on balancing costs, opportunities and risks, against the desired asset performance throughout the naval vessel lifecycle, and is founded on our:

- **Processes**, that are aligned to the ISO 55001 standard for complex and critical equipment, and tailored to the needs of all stakeholders.
- **People**, who provide the '**Know-How**' and '**Know-Why**' required to develop an effective long-term asset management strategy.
- **Competencies**, our ability to apply knowledge and skills to achieve intended results.
- **Technologies**, with a particular focus on '**Know-What**' to deliver a single, accurate and complete source of truth for the delivery of asset management services. This ensures that asset management decisions and planning are not compromised by a poor knowledge of the ships and their systems.

Applying asset management best-practice from other industries

Working with our parent companies, Babcock and UGL, enables our customers to also benefit from their wider commercial asset management experience in sectors such as transport, power, and resources. They also support our investment in digital asset management solutions that they have already proven in these sectors. For example, Babcock's Enterprise Asset Management (BEAM) 4.0 that enables deep analytical analysis of asset performance data.

Asset management capabilities:

- Stakeholder needs analysis
- Demand management
- Systems engineering
- Acquisition
- Configuration management
- Operations and maintenance
- Continuous improvement

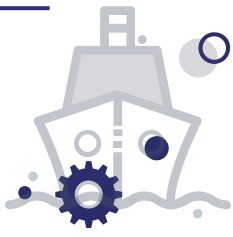
Overseas asset maintenance planning and support

In 2017, our team was instrumental to the planning and delivery of the first Major Fleet Unit Extended Maintenance Period delivered overseas – for HMAS *Arunta* in Bahrain. Our planning strategy included bringing high-risk works forward to earlier maintenance periods and engaging with local industry.

“the successful
coordination and
planning of this
complex activity
is an exceptional
example of industry
partnering”

Senator the Hon Marise Payne





SHIP REPAIR, REFIT AND REFURBISHMENT

Successful delivery of complex maintenance periods

NSM can provide a full turn-key solution for complex maintenance periods, either for planned refit and refurbishments, or repairs required as the result of an incident.

Key to our success in delivering these programs is our ability to:

- Work collaboratively with our customers to identify windows of opportunity
- Undertake non-invasive maintenance and survey
- Survey tasks that de-risk and inform subsequent maintenance periods.

While we can provide a full turn-key solution, including provision of all trade types to undertake preventative maintenance, corrective maintenance, engineering change and habitability tasks, we can also integrate works undertaken by our customers and their suppliers.

Support when and where our clients need it

NSM operate a centralised, 24/7, urgent defect response cell. Combining this with a broad and close relationship with our supply chain means we can quickly and efficiently respond to emerging issues, regardless of location – ensuring that ships are returned to service as soon as practicable.


The flexibility of our supply chain was demonstrated during the height of the Phase-In period for our *LHD* services when the Commonwealth asked us to take ownership of a Maintenance Window of Opportunity in Townsville. In a very limited timeframe, NSM planned and executed the full scope of work on HMAS *Canberra* with zero safety incidents.

Ship repair, refit and refurbishment capabilities:

- Full project delivery and implementation
- Original Equipment Manufacturer and contractor management
- Integration of third-party concurrent works
- In-water and dry-dock maintenance
- Engineering change embodiment
- Test and trials coordination
- Urgent defect response

Working alongside Fleet Support Unit

NSM is very proud of the partnership we have established with the Fleet Support Unit (FSU); a partnership which has seen them become an integral part of our services. We have expanded this relationship to also incorporate the *LHD* Enterprise, where FSU is a preferred maintenance provider. This means we work with the FSU, in the first instance, so they can take responsibility to deliver tasks within their capability. This strategy is a continuation of our existing approach, that most recently resulted in 37% of the work activity on HMAS *Parramatta* being delivered by FSU.



“Parramatta’s ability to proceed to sea on time and in fantastic condition is deeply appreciated by me and the entire crew. Thank you”

CMDR van Tienhoven, CO HMAS Parramatta



MAINTENANCE SUPPORT SERVICES

Robust maintenance support planning and implementation

NSM's maintenance philosophy focuses on lowering costs, reducing operational risk and improving asset reliability and safety. This is achieved through our five-step process for the development of an optimal maintenance program:

Step 1 – Set targets

Develop performance targets, health indicators and bespoke reporting suites that meet specific requirements, such as the Naval Technical Regulatory Framework, and consider both short-term and whole-of-life perspectives.

Step 2 – Develop worklist, schedule and cost

Define the work scope, including all planned and corrective maintenance and engineering change activity, together with scheduling and costing to inform any trade-offs required between cost and scope.

Step 3 – Understand the Class requirement

Consider the aggregate work scope and identify any class risks and opportunities.

Step 4 – Resources

Conduct resource planning to identify any resource conflicts particularly for specialist resources.

Step 5 – Trade off option consideration

Review work scope to ensure it will meet the required performance outcomes and consider trade-off options when these are compromised.

Extensive Work Instruction experience

NSM has a range of staff trained in the development of Work Instructions that reduce the cost of maintenance and improve data integrity through standardised easy to understand documentation – ensuring all tasks are efficiently completed first time.

Maintenance support capabilities:

- Maintenance requirements analysis
- Condition based monitoring
- Maintenance performance reporting and modelling
- Maintenance planning
- Work instruction authoring
- Scheduling
- Estimating

Anzac Class Frigate Maintenance

In 2012, NSM won the Group Maintenance Contract for the repair and maintenance of the *Anzac* Class Frigates delivering directly to the *Anzac* Systems Program Office (SPO). This contract quickly delivered significant program outcomes including:

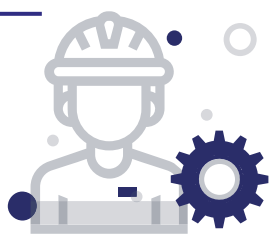
- **60% reduction in project management** and other overheads
- **20% cost savings compared** to previous maintenance contracting arrangements
- **135% increase in predictive maintenance tasks** and corresponding decrease in corrective maintenance.

Building on this, in 2016 NSM was a key player in developing the Warship Asset Management Agreement (WAMA Alliance), for the continued sustainment of the *Anzac* Class Frigates through to the end of their life.



20%

**cost savings compared
to previous maintenance
contracting arrangements**



ENGINEERING SUPPORT SERVICES

Engineering underpinned by a sound asset management approach

NSM maintains an extensive set of core engineering functions tailored to support each asset class we work with and underpinned by our asset management methodology. This delivers services that are timely, accurate, efficient, agile and traceable and, importantly, delivered within applicable engineering governance frameworks.

To ensure technical integrity is maintained for all engineering services, we apply the following core two principles:

- **Acknowledging that every engineering decision** has a level of technical risk attached to it.
- **Meticulously applying NSM's Business Management System** to ensure that work is:
 - » Aligned to, and meets, the RAN's Seaworthiness requirements
 - » Undertaken by competent and authorised individuals
 - » Completed to approved standards
 - » Assessed as correct by separate competent and authorised individuals
 - » Comprehensively and accurately documented.

Strategic partnering

We recognise that some engineering services can be better delivered through a collaborative approach, working together with the ship and/or major system designers. As an example, we have established strategic partnerships with companies such as Navantia and L3 Harris to augment our engineering services for the *LHD* Asset Class Prime Contractor.

Engineering support capabilities:

- Engineering analysis
- Engineering investigations
- Engineering change management
- Configuration management
- Technical instructions
- Systems engineering and reviews
- Supportability and logistical engineering analyses
- Software engineering and support
- Engineering and technical advice
- Verification and validation
- Tests and trials

A commitment to developing the local skilled and engineering workforce

NSM was the first Australian company to adopt a 'Thin-Prime approach' to naval ship support that delivers a much closer and deeper relationship with local industry. A relationship that can focus on delivering outcomes for the Commonwealth rather than our suppliers being protective about workshare. In 2018, we engaged skilled tradesmen and engineering professionals from 125 companies to provide 620,000 hours of support for the *Anzac* fleet.



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SUPPLY CHAIN MANAGEMENT

A closer partnership with industry

NSM's Inclusive Prime model delivers a scalable, responsive and diverse international supply chain of more than 250 companies. This, combined with our in-house expertise, means we can provide more agile and resilient services that can ramp up and down as required by our customers, irrespective of location.

Our support for Australian Small Businesses and their engagement in the sustainment and support of Australia's naval assets is often what we are most associated with. We recognise that Australian Industry Capability development is more than a simple headline number on supply chain participation. We support this development through:

- **Providing suppliers assurance**, stability and an environment that encourages investment in training, systems, equipment and facilities.
- **Facilitating engagement with CDIC** and access to Commonwealth development grants.
- **Identifying and supporting specific capability development** opportunities for Australian SMEs

Australian Industry Development in action

Existing deck systems are susceptible to mechanical damage, staining, detachment and water ingress and we identified Tefroka as a potential replacement coating. Our Supply Chain Management team subsequently identified Echo Marine Group (EMG) as an Australian company capable of supporting this product. Working with CDIC and GTF Freese in Germany (Tefroka's OEM) we helped upskill EMG's workforce and following approvals, Tefroka was successfully applied to HMAS *Arunta*. The company is now well-positioned to support this product throughout Australia and regionally.

Supply chain management capabilities:

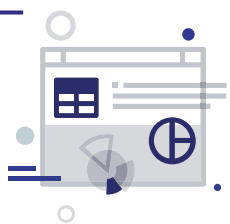
- Strategic procurement
- Supply chain optimisation
- Performance based contracting
- Australian industry development
- Enhancing indigenous participation

Industry collaboration delivering innovative sustainment solutions

In partnership with IKAD Engineering and Neptune Marine Services we completed the first underwater replacement of bracket bearings on an RAN ship – HMAS *Parramatta*. This innovative solution meant the work could be undertaken without the need for a lengthy and expensive docking.

88%

**of the activities our supply chain
delivers are provided by Australian
small and medium enterprises**



PROCUREMENT AND LOGISTICS

Embedding integrated logistics support into our sustainment services

We are experienced at developing logistics strategies specific to the needs of our customers. These strategies take a broad perspective on key dependencies including:

- Slow and fast-moving stock items
- Minimising inventory holdings
- Maximising just-in-time delivery
- Operational priorities and deployment activities
- Home and foreign port logistics.

Our access to facilities located close to key maritime sustainment hubs, across Australia, enables NSM to provide rapid support to our customers and ultimately maximises the availability of equipment, systems and ships. Supply performance is measured, analysed and periodically benchmarked to ensure our customer service is continually improving.

We also apply an asset management approach to our customers' support and test equipment. This includes the ongoing management of maintenance and calibration of items from initial purchase/issue through to end-of-life, disposal and replacement.

Whether procuring items directly or via our customers' existing supply chain, NSM ensures that interfaces and information exchanges between Enterprise Resource Planning (ERP) systems provide full visibility of stock holdings.

Procurement and logistic capabilities:

- Receipt and staging
- Warehousing
- Logistics
- Disposal
- Rotable management
- Inventory investment planning
- Codification
- Procurement
- Materials planning
- Obsolescence management

The benefits of an Inclusive Prime approach

Our Inclusive Prime approach means that when planning for the provision of services, one of the first questions we consider is what partnerships with existing Australian capability will add value for our customers. As a result we have close and effective relationships with key companies across Australia's naval-industry sector, including ship designers, ship builders and OEMs of major systems. Our strategic partners are integrated into our services and provide access to important technical data, knowledge and capabilities relevant for effective and efficient sustainment of the RAN's assets.

**We can more readily
partner because we
don't compete with
shipbuilders or OEMs**

THREE FOR ONE A PARTNER BACKED BY GLOBAL LEADERS

Delivering tangible and local reach-back

NSM is more than the sum of our people and their experience, our services are backed by strong proactive shareholders - Babcock and UGL. This is more than just the vague promise of 'reach-back', which is typically promoted by international companies. Instead, because both companies are committed to further long-term investment in NSM, they ensure that our clients continue to benefit from tangible access to their capabilities and resources. This deep connection has been an important factor in NSM successfully adopting new capabilities and applying them to Commonwealth programs.



- **ISO 55001 accredited** systems and processes
- **Digitally-enabled** asset management technology
- **Proven** defence engineering management
- **Global leaders** in ship sustainment

Babcock International Group, is a defence and aerospace company trusted to deliver bespoke, highly skilled engineering services for over a century. Babcock helps customers improve the capability, reliability and availability of their most critical assets within the four market sectors of marine, land, aviation, and nuclear.

In Australia and New Zealand, Babcock operates nationally, employing over 850 people across defence, marine, aviation, mining and construction, cyber security, communications, emergency services and engineering consultancy.

Babcock has supported NSM's alignment with ISO55001 and provided digitally-enabled asset management technologies proven both in commercial Australian industry sectors and in their international naval sustainment services.

www.babcock.com.au



- **Experience** in LLC sustainment and fleet support
- **Contemporary** best asset management practice
- **Local resources** and infrastructure across Australia
- **Robust supply chain** across many markets

UGL, a member of CIMIC Group, is a market leader in end-to-end asset solutions. The team's whole-of-life offer delivers operational value and enhanced customer experiences for critical assets in power, water, resources, transport, defence and security, and social infrastructure.

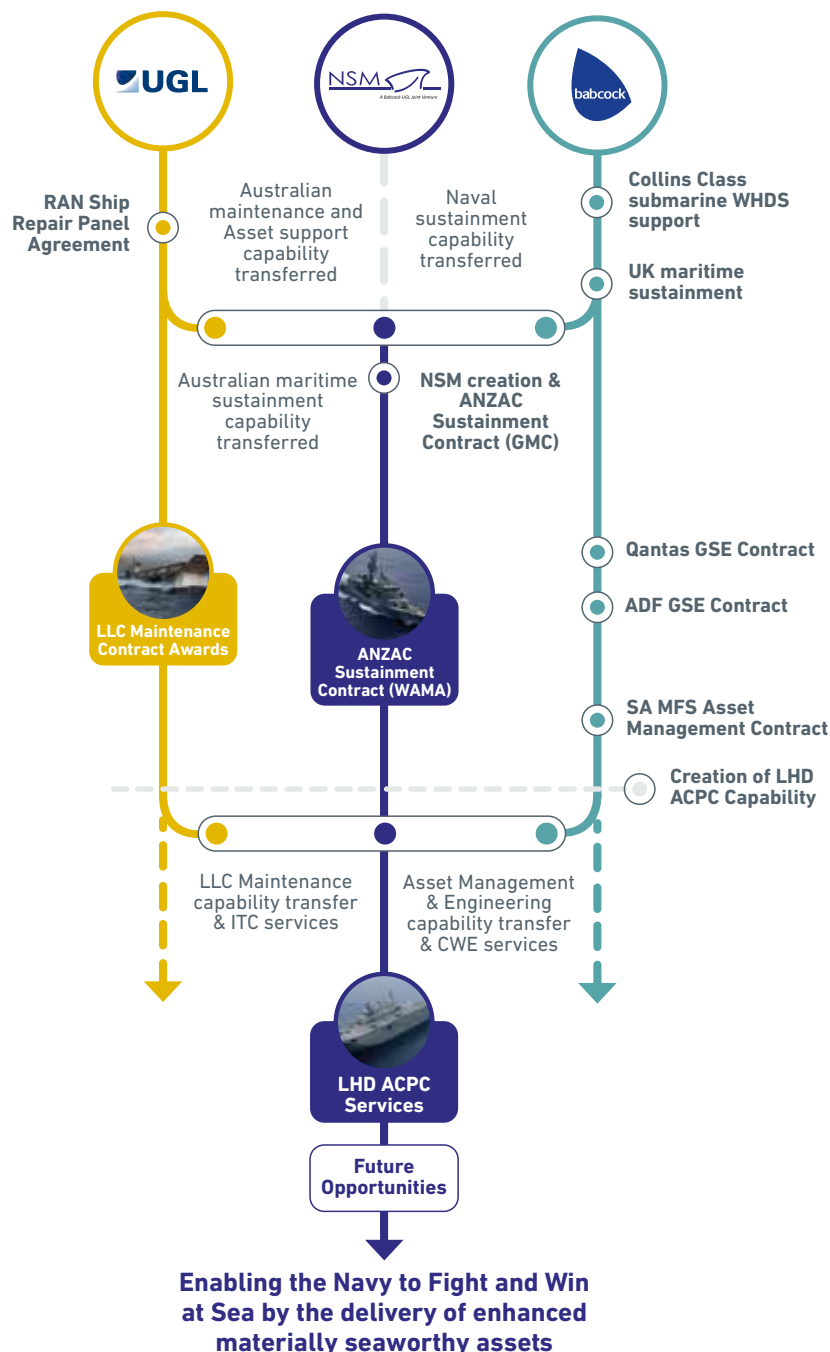
Its services-led approach supports real business needs, now and into the future, by connecting clients with leading thinking across all stages of a project's lifecycle, including engineering design; construction and commissioning; manufacturing; operations, maintenance and facilities management; upgrades and overhauls; and asset management.

UGL supported the transfer of its LLC sustainment services into NSM's LHD Asset Class Prime Contractor contract and the depth of its supply chain further strengthens our capability across Australia.

www.ugllimited.com

Our future journey

Our number one priority is continuing to deliver availability, capability and seaworthiness to our customers and partners in support of the *LHD* and *Anzac* capabilities. Without disrupting these services, we are currently planning how we can extend the benefits of our Inclusive Prime model to other naval and maritime sustainment support programs that require services relevant to our core capabilities.



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