



Australian Government

Department of Defence

Plan Galileo: Horizon Two Implementation Plan

September 2020



Foreword

In 2025, we will operate in a nationally integrated sustainment environment that consistently provides affordable, reliable and fit-for-purpose systems and ships to Navy to fight and win at sea

A modern naval warship is a technically sophisticated, integrated system of systems which is as complex to sustain and upgrade as it is to build. The launch of Plan Galileo in early 2020 started us on a journey to deliver a new standard of continuous sustainment in order to support continuous shipbuilding.

To deliver on the promise and opportunity of our National Naval Shipbuilding Enterprise, we must have a common language, common goals, and common approaches to risk and program management, thereby ensuring success as Navy's new platforms transition into service. We must do this at the same time as we support the current fleet and evolve our sustainment environment with Navy and with industry to ensure operational superiority is achieved and maintained. This goal requires us to change how we think and act, and to be bold in how we deliver.

To meet these challenges we will need to deliver the following:

- Implement a world class approach to transition and support across shipbuilding and sustainment
- Integrate seaworthiness and asset management across the entire Capability Life Cycle
- Leverage new technologies and learning to improve productivity, collaboration and knowledge-sharing in the maritime domain
- Attract, develop and retain outstanding people to deliver exceptional outcomes across all facets of program management, commercial management, engineering, logistics and technical expertise
- Operating and commercial models that generate opportunity, Australian Industry Capability and outstanding support to our Navy
- Development of our supply chain and infrastructure to maximise resilience, availability and certainty of supply and that builds sovereign capacity and agility

To deliver these outcomes, Plan Galileo has been segmented into three Horizons. This document is the plan for how we will achieve Horizon Two and sets the foundation for reforming surface fleet maintenance, and is to be achieved by December 2021.

By the end of Horizon Two, we will have:

- Arafura Class Offshore Patrol Vessels and Cape Class Patrol Boats operating under the Future Maritime Sustainment Model with Capability Life Cycle Managers and Regional Maintenance Centres in operation
- Regional Maintenance Centres at the Henderson precinct and HMAS *Cairns*
- A plan to transition the remaining fleet to the Future Maritime Sustainment Model based on lessons learned
- A career roadmap and workforce plan for the Maritime Acquisition and Sustainment Profession that drives excellence and professionalism
- IT infrastructure that forms the backbone for through-life vessel asset management

This reform will be an evolution, not a revolution. We will implement Plan Galileo by establishing a baseline from which improvements can be made over time based on lessons learned from experience.

I invite you to join me as we continue on the journey.



W.A. Malcolm, CSM
Rear Admiral, Royal Australian Navy
Head Maritime Systems



Contents

Introduction and purpose	4
Integrated Project Team Overview	7
Implementation Schedule	10
Horizon Two: Task breakdown and project plan	12
Implementation Lines of Effort	15
Assumptions and constraints	25
Annexes	27
A: Target Operating Model	28
B: Additional Documentation	33

Introduction and purpose



Executive Summary

Australia has recently embarked upon the largest maritime shipbuilding program since World War 2; on average, one ship is planned for delivery each year for the coming decades through the Continuous Naval Shipbuilding program

The Continuous Naval Shipbuilding (CNS) program is in response to a rapidly changing global environment. Australia requires a modern, innovative and highly skilled sustainment organisation that delivers warships that are available, reliable and fit-for-purpose. Responding to this challenge, Maritime Systems Division's (MSD) Plan Galileo lays out the vision and strategy for achieving this in the coming years.

Plan Galileo sets out an ambitious but achievable reform program for surface fleet sustainment. Horizon One (Development) was completed in June 2020, with Horizon Two (Implementation) due for completion by December 2021 and Horizon Three (Success) by 2025. At the end of this evolution, Navy will have a streamlined Capability Life Cycle (CLC) that considers sustainment implications across all areas to deliver superior operational availability for the surface fleet.

Our approach must be deliberate, yet sufficiently agile to respond to new opportunities. Plan Galileo will realise continuous sustainment across nine functional lines of effort and will ensure enduring support to Navy in the Continuous Naval Shipbuilding environment.

The nine lines of effort will work together to deliver Plan Galileo by 2025. This focus achieves an integrated, consistent approach that considers sustainment across the CLC.



1. Delivering effective transition through a continuous shipbuilding sustainment environment



2. Embedding Seaworthiness across the maritime CLC



3. Embedding asset management (including design) across the maritime CLC



4. Establishing Regional Maintenance Centres at key Navy home ports to provide an integrated and consistent approach to continuous sustainment



5. Modernising the Navy Logistics Information System to deliver a nationally based IT enterprise



6. Delivering a resilient National Supply Chain to maximise sovereign Australian Industry Capability and Content



7. Evolving Maritime Acquisition and Sustainment Professional Mastery



8. Standardising FMSM operating and commercial models so Navy's needs are sustainably met by industry



9. Developing infrastructure to support long-term continuous sustainment nationally

HORIZON ONE : DEVELOPMENT

Complete

Key Activities: Further development of concepts and testing initiatives through two Proofs of Concept

- Sustainment considerations are clearly defined within each phase of the CLC
- A future sustainment operating model is developed
- A Seaworthiness mapping methodology is developed and endorsed for consistent application
- A completed review of industry engagement enablers

HORIZON TWO : IMPLEMENTATION

1 July 2020 – 31 December 2021

Key Activities: Implementing the Future Maritime Sustainment Model (FMSM) across the two Proofs of Concept, the Arafura Class Offshore Patrol Vessels (ACOPVs) and Cape Class Patrol Boats (CCBPs), focussing on embedding asset management and Seaworthiness through the transition of vessels from shipbuilding to sustainment

- A clear future operating model has been designed and developed
- Commercial model has been developed as a key driver of continuous improvement
- A professionalisation strategy is finalised to identify and upskill the current and future workforce

HORIZON THREE : SUCCESS

1 January 2022 – December 2025

Key Activities: Seeing the benefits of the strategy come to fruition and realising Plan Galileo's vision

- A fully integrated CLC operating model
- Seaworthiness compliance is aligned with Navy's assurance framework and is business as usual
- An implementation strategy and plan will be developed and followed to progressively roll out the new operating model
- A sustained, effective technological integration with industry
- Continuous development of a professionalised Maritime Acquisition and Sustainment (MAS) workforce to retain and build upon sovereign capability

Horizon Two: Implementation

Horizon Two will focus on implementing the FMSM across the Arafura Class Offshore Patrol Vessels and Cape Class Patrol Boats, embedding asset management and Seaworthiness through the transition of vessels from shipbuilding to sustainment

Effective transition through a Proof of Concept

ACOPVs and CCPBs Capability Life Cycle Managers (CLCMs) are operational and being serviced by two RMCs at Henderson (RMC W) and HMAS Cairns (RMC NE).

The CLCMs and RMCs will be designed to provide a standardised level of maintenance and support in the region as a template to roll out in the future.

Functions and roles to deliver effective transition are clearly defined and scaled across the surface fleet based on the lessons learned from ACOPVs and CCPBs.

Refined operating model

The Horizon One operating model is refined and enhanced based on the Proofs of Concept, and takes into account multiple CLCMs and RMCs operating across the surface fleet. Each class is tailored to the operating model so that all sustainment and transition functions are taken into account.

Risk-based program for seaworthy vessels

The N4 library is updated to support assurance of materiel Seaworthiness across the CLC. Data requirements for the Naval Logistics Information Systems (NLIS) are specified and included into the NLIS refresh and IT plan.

Standardised commercial model

ACOPVs and CCPBs CLCM and RMC contracts are reviewed and rolled into a standardised commercial model supporting Plan Galileo. The contracts are designed so that industry can deliver sovereign sustainment capability under Plan Galileo.

Professionalisation and workforce strategy

The Commonwealth workforce required for effective transition and continuous sustainment of the Proofs of Concept are defined and continually developed to meet MAS requirements.

Activities

Two Proof of Concept CLCMs and RMCs

- ACOPVs and CCPBs CLCM contracts drafted, evaluated and stood up
- RMC West and North East tenders released, evaluated and contracts established
- Incorporate lessons learned from both programs into future contracts

Refine Future Maritime Sustainment Operating Model:

- Refine and promulgate transition model
- Define the functions for System Program Office 2.0 (SPO 2.0) and Cross-Class SPOs for ACOPVs and CCPBs
- Tailor the roll out of the operating model to each class (fleet-in-being and future fleet)
- Detail roll out and practical implementation guides across the fleet-in-being and future fleet
- Identify IT systems and interfaces the Fleetwide Information Environment (FIE), Maritime Information Environment (MIE), NLIS and deployment timeline
- Define the commercial model guiding principles based on the FMSM
- Define sustainment influence into shipbuilding particularly around driving asset management throughout the CLC
- Actively incorporate lessons from the ACOPVs and CCPBs into the FMSM operating model
- Define configuration baseline management processes across shipbuilding and sustainment

Develop a risk-based program to assure Seaworthy Vessels

- Define Seaworthiness functional responsibility based on FMSM operating model
- Allocate accountable persons to assure materiel Seaworthiness across the CLC
- Draft and provide N4 library updates to Navy

Develop a standardised commercial model

- Draft standardised contracting requirements for sustainment across the CLC that can be tailored to suit each class
- Refine the basic terms for each phase of the CLC to contractually link shipbuilding and sustainment under the FMSM

Promulgate a professionalisation and upskilling strategy for the FMSM

- Draft future skill requirements based on the FMSM operating model
- Determine resourcing required for the Commonwealth of Australia (CoA) to be a smart owner and allocate to the relevant organisation

Outcomes

- An Implementation Guide for seamless roll out of the tailored FMSM across the fleet-in-being and future fleet
- A refined operating model to address key nuances in operationalising the links between shipbuilding and sustainment
- A tailored FMSM roll out schedule that is optimised based on the opportunities and risks to Plan Galileo implementation
- Functional design for SPO 2.0 and Cross-Class SPOs for each class based on the FMSM to ensure the building blocks of Plan Galileo are all used and sufficiently linked to support continuous sustainment
- An endorsed risk-based materiel Seaworthiness assurance framework with updates provided to Navy to revise the N4 library
- Defined contract requirements that link the functions required from each shipbuilding project to SPO, to the contracts required to deliver them so that industry sustainably meets the needs of the CoA

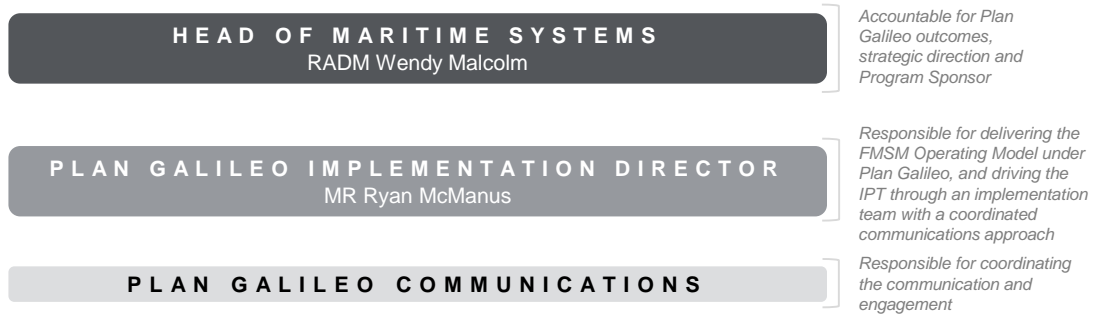
Integrated Project Team Overview



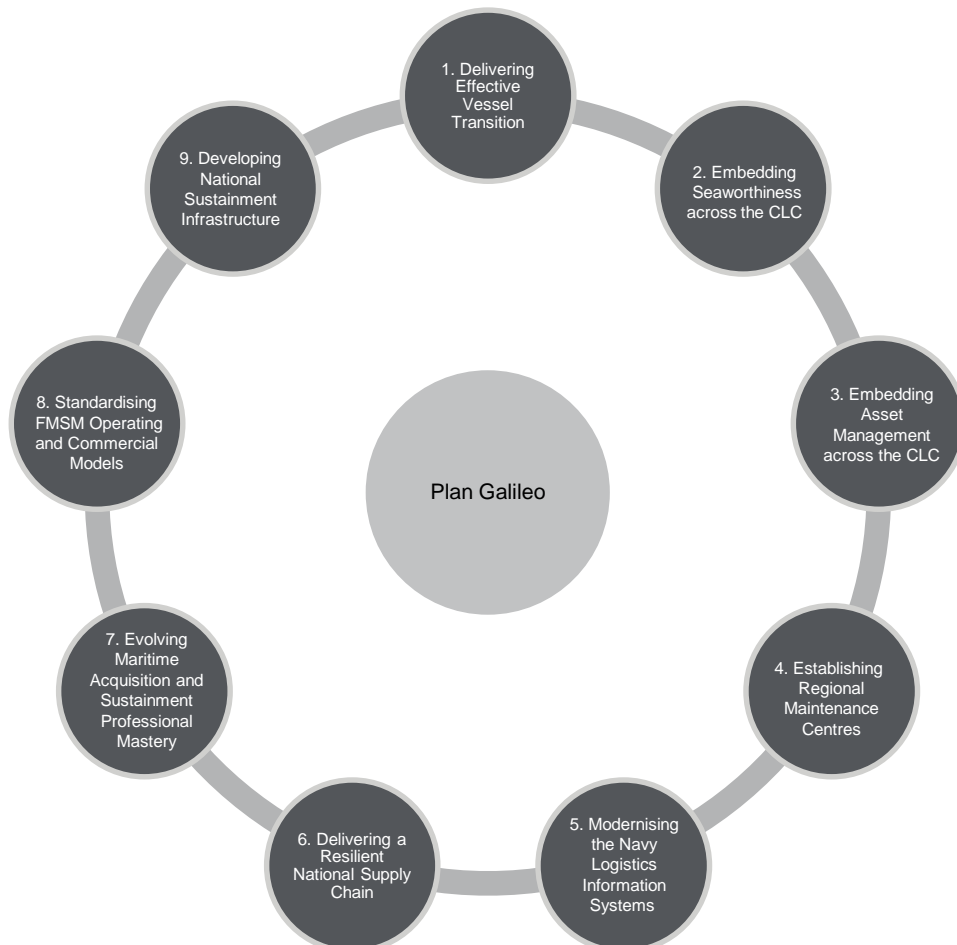
Integrated Project Team Overview

Deliverables and outcomes for Plan Galileo will be delivered by an Integrated Project Team (IPT) with nine lines of effort. Plan Galileo is led by Head of Maritime Systems, and the IPT is driven by a Plan Galileo Implementation Director

Project Organisation: Plan Galileo Implementation



Integrated Project Team Structure



Plan Galileo lines of effort: Outcomes

Each of the nine IPT lines of effort have clear outcomes that must be achieved in order to deliver Plan Galileo. The below table details Plan Galileo's goals and the outcomes that will be achieved through Horizon Three and beyond

LINE OF EFFORT	HORIZON THREE OUTCOMES
1. Delivering effective vessel transition	<ul style="list-style-type: none"> Transition arrangements are formalised, integrating shipbuilding and sustainment with ships in continuous build, transition, service and refit Shipbuilding and sustainment are integrated with defined handoff points The Plan Galileo operating model clearly accounts for transition, while accounting for variations across classes Sustainment considerations have increasing influence in the CLC, particularly during the shipbuilding process The Fleet Activity Schedule (FAS) and Fleetwide Usage and Upkeep Cycle (UUC) are known
2. Embedding Seaworthiness across the CLC	<ul style="list-style-type: none"> Materiel Seaworthiness is assured using a risk-based method throughout the CLC, particularly with vessels in continuous transition and sustainment The N4 library defines the risk-based materiel Seaworthiness assurance framework for the CLCM Each organisation in the FMSM clearly understands their Seaworthiness accountabilities across the CLC Data requirements supporting Seaworthiness are specified and incorporated into the N LIS refresh, IT plan, and data models to maintain integrity between the OSI components through-life
3. Embedding Asset Management across the CLC	<ul style="list-style-type: none"> CLCMs are established for the surface fleet Asset management practices and discipline are embedded across all stages of the CLC and forms the foundation of continuous vessel support Asset management requirements are known pre-sustainment and aid with transition into sustainment Sustainment considerations are clearly defined within each phase of the CLC and a strategy for incorporating it is approved to roll out to the fleet. This includes assuring and maintaining data integrity between engineering support, maintenance support and supply support datasets Designer agreements clearly document through-life accountability for keeping vessels within approved certification, even with modifications MSD provides consistent asset management to an approved standard, tailored for each class
4. Establishing Regional Maintenance Centres	<ul style="list-style-type: none"> RMCs are established in key ports and are able to deliver a consistent standard of maintenance for the surface fleet using Fleet Support Unit (FSU) and Joint Logistics Unit (JLU) resources where appropriate Local communities support the RMCs with an ecosystem of the right skills, supply chains, tools, and technology to deliver requirements of the FMSM RMCs foster the development of an expeditionary logistics capability, and trialling of a deployable intermediate maintenance capability Each RMC has an innovation hub supporting deploying new technologies (e.g. 3D printing, Artificial Intelligence, drones etc.), staffed by Sailors, DSTG, Navy, CASG, and industry participants, including academia
5. Modernising the Navy Logistics Information Systems (NLIS)	<ul style="list-style-type: none"> Fit-for-purpose IT solutions are identified and implemented across all classes Data flows seamlessly across shipbuilding, sustainment, the MIE, and industry with appropriate considerations for security and IP, to support digital innovation, collaboration, and knowledge sharing Collectively shape, contribute and migrate to the Defence Enterprise Resource Planning (ERP) solution
6. Delivering a Resilient National Supply Chain	<ul style="list-style-type: none"> Shipbuilding and sustainment supply chains are linked in a national shipbuilding and sustainment enterprise and work seamlessly across the CLC The National Supply Chain (NSC) balances sovereign capability outcomes with commercially viable Australian industry solutions to deliver a resilient national supply chain that is globally integrated An Australian Industry Capability (AIC) performance framework that monitors, incentivises, and maximises AIC Common platform and payload systems are managed across classes under strategic contract arrangements
7. Evolving Maritime Acquisition and Sustainment (MAS) Professional Mastery	<ul style="list-style-type: none"> CASG has the right capabilities to deliver its objectives and has the workforce system design and a pipeline of talent to meet changing future needs A greater Commonwealth presence will exist in the SPOs, ensuring that the Commonwealth maintains the ability to make informed decisions The right people with the right skills are recruited to support continuous sustainment The SPOs have maturity in applying the smart buyer / smart owner constructs to continuous sustainment Career streams that allow for agility of the workforce to meet changing future needs
8. Standardising FMSM Operating and Commercial Models	<ul style="list-style-type: none"> Standardised FMSM operating and commercial models, applied to each phase of the CLC Operating and commercial models are clearly defined and standardised based on the CLC Functional Reference Set (FRS) across shipbuilding and sustainment and are flexible to the changing needs of Navy, while aligning incentives with industry so that the CoA's needs are sustainably met
9. Developing National Sustainment Infrastructure	<ul style="list-style-type: none"> Infrastructure to support continuous sustainment across shipbuilding and sustainment is available, enabling the capability of the growing fleet and meeting evolving sustainment requirements Clear demand signals from Defence will allow industry and State and Territory Governments to plan and invest in the necessary infrastructure with enough lead time to deliver for Plan Galileo Infrastructure decision-making is appropriately informed by comprehensive demand studies and current state assessments to meet our strategic requirements as they change Infrastructure requirements are defined to support expeditionary logistics capability and trialling of a deployable intermediate maintenance capability



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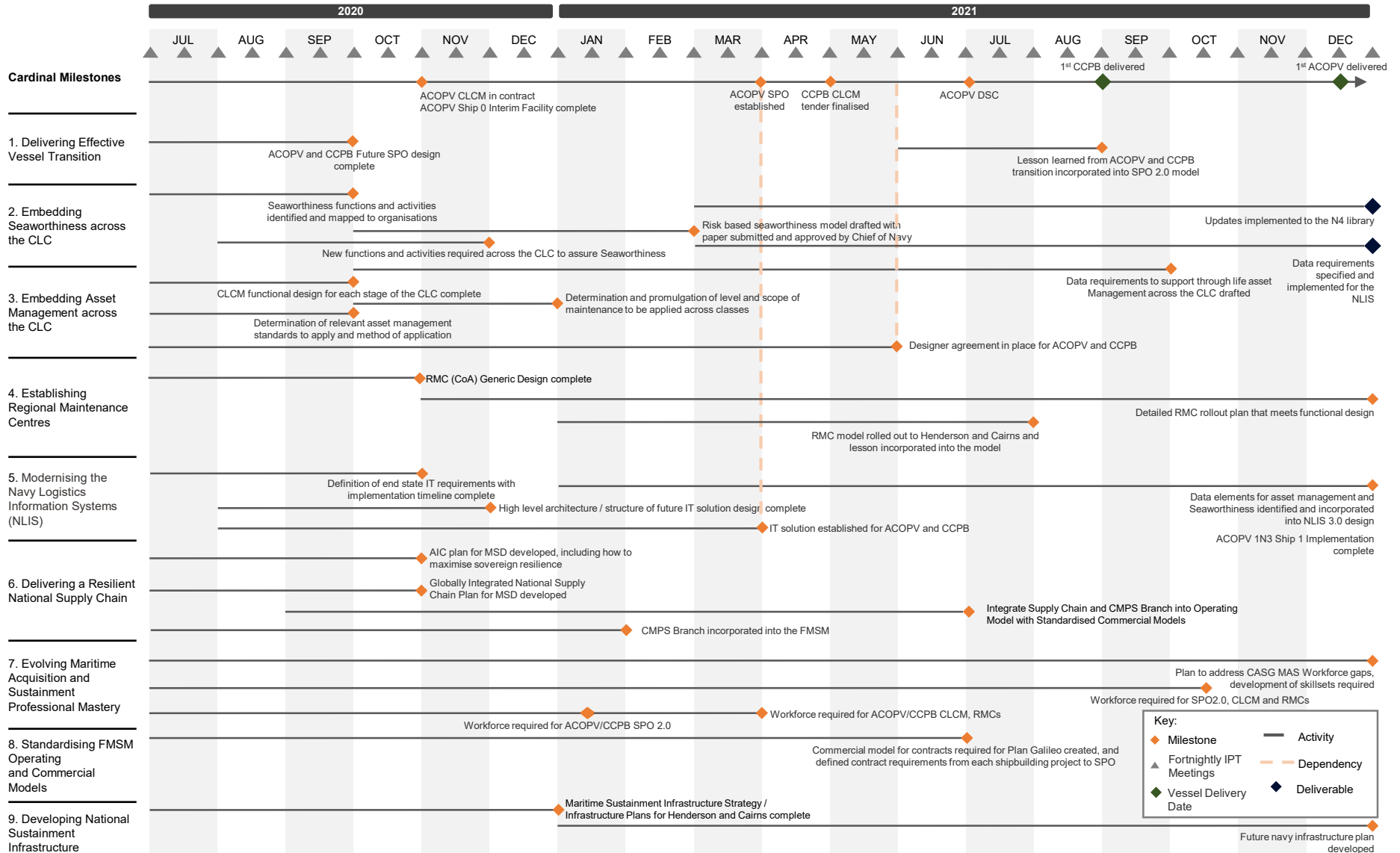
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Implementation Schedule



Horizon Two: Implementation Schedule

The Implementation Schedule outlines important activities of the lines of effort to achieve Plan Galileo



Horizon Two: Task breakdown and project plan



Horizon Two: Major task breakdown

Each line of effort needs to deliver the below outputs in order to achieve Horizon Two (December 2021) requirements. Remaining activities must be achieved in Horizon Three in order to deliver on Plan Galileo

Line of effort	Outcomes (Horizon Two)	Remaining activities (to 2025)
1. Delivering Effective Vessel Transition	<ul style="list-style-type: none"> • A refined operating model to formalise transition in continuous build and sustainment that delivers on all functions within the CLC FRS • ACOPV and CCPB future SPO design, and functional design for SPO 2.0 for each class based on the FMSM • ACOPV and CCPB SPO established • CLCM established for ACOPVs and CCPBs • Activities, gates and specific tasks for standing up a CLC, RMC and SPO at each stage of the Naval CLC are known for a seamless roll out of the tailored FMSM across the fleet-in-being and the future fleet • CCPBs delivered 	<ul style="list-style-type: none"> • Update Australian Standard for Defence Contracting (ASDEFCON) suite • CLCM / SPO design for transitioning capabilities
2. Embedding Seaworthiness across the CLC	<ul style="list-style-type: none"> • Seaworthiness functions and activities identified and mapped to organisations • New functions and activities required across the CLC to assure Seaworthiness • Seaworthiness RACI finalised • An endorsed risk-based materiel Seaworthiness assurance framework with updates provided to Navy to revise the N4 library • Data requirements for NLIS specified and included into NLIS refresh and IT plan 	<ul style="list-style-type: none"> • Provide updates to Navy to revise the N4 library and assure material Seaworthiness across the CLC • Incorporate NLIS data elements into NLIS 3.0 and Enterprise Resource Planning (ERP) • Roll out assurance framework across surface fleet and incorporated across CLC
3. Embedding Asset Management across the CLC	<ul style="list-style-type: none"> • Lessons learned from ACOPV and CCPBs transition incorporated into SPO 2.0 model (for future CCPB SPO design) • CLCM functional design for each stage of the CLC • Determination of relevant asset management standards to apply and how they are to be applied (e.g. ISO accreditation or guidance) • Lessons learned from ACOPV and CCPBs incorporated into CLCM design • Determination and promulgation of level and scope of maintenance to be applied across class (e.g. Embarked, RMC agnostic, home port) • Data requirements to support through-life asset management across the CLC • Designer agreement in place for ACOPV and CCPB 	<ul style="list-style-type: none"> • Implement CLCM functional design for identified capabilities across the surface fleet ensuring traceability forwards and backwards from the OSI • Finalise designer agreement template for roll out across the surface fleet • Apply asset management standards to the remainder of the fleet
4. Establishing Regional Maintenance Centres	<ul style="list-style-type: none"> • Generic RMC functional design • Detailed RMC roll out plan that meets functional designs • Model rolled out to Henderson and HMAS <i>Cairns</i> and lessons incorporated into the model • RFT release RMC W/NE • RMC W/NE Operational 	<ul style="list-style-type: none"> • Roll out plan for deployable intermediate sustainment capability • Design, planning, and development of innovation hubs at RMCs

Horizon Two: Major task breakdown cont.

Each line of effort needs to deliver the below outputs in order to achieve Horizon Two (December 2021) requirements. Remaining activities must be achieved in Horizon Three in order to deliver on Plan Galileo

Line of effort	Outcomes (Horizon Two)	Remaining activities (to 2025)
5. Modernising the Navy Logistics Information Systems (NLIS)	<ul style="list-style-type: none"> • Definition of end state IT requirements with implementation timeline (NLIS strategy) • High level architecture / structure of future IT solution design (inc. MIE and FIE) • IT solution implemented for ACOPVs and CCPBs • Implement and integrate AMPS7 • Data elements for asset management and Seaworthiness identified and incorporated into NLIS 3.0 design • PCA Uplift, aligned to a data certification and improvement process • Progression of Cross Class Implementation Projects 	<ul style="list-style-type: none"> • Integrate MIE with NLIS • Prepare NLIS for ERP, and incorporate data elements for Seaworthiness and asset management • Design and stand up of a digital test environment at all regions to support innovation • Design and develop connections from IT infrastructure to industry software, within approved security constraints • ACOPV on-boarding and additional roll out projects
6. Delivering a Resilient National Supply Chain	<ul style="list-style-type: none"> • Shipbuilding and sustainment supply chains are linked in a national ship building and sustainment enterprise • Develop AIC strategy for MSD, including how to maximise sovereign resilience • Develop Globally Integrated National Supply Chain Plan for MSD • Incorporate Combat Management and Payload Systems (CMPS) Branch into FMSM • Integrate the global supply chain and CMPS Branch into operating model with Standardised Commercial Models • Establish MCPSPO as the lead provider of cross-Class Outfit Allowance List items to drive common sparing working with Naval Construction Branch 	<ul style="list-style-type: none"> • Develop a resilient national shipbuilding and sustainment enterprise • Roll out the Globally Integrated National Supply Chain solution as planned • Roll out CMPS Branch updates through relevant SPOs • Provide updates to Outfit Allowance List and Sparing policy owners as required to deliver Plan Galileo intent
7. Evolving Maritime Acquisition and Sustainment (MAS) Professional Mastery	<ul style="list-style-type: none"> • Commonwealth workforce required for ACOPV and CCPB SPOs (including CLCM and RMC W and RMC NE elements) defined • Commonwealth workforce for ACOPV and CCPB SPOs in place. Navy and APS Workforce gaps addressed through use of ESPs in short term. • Development of specific skillsets in areas of program management, commercial management, engineering, technical and logistics expertise • Plan to address CASG MAS Workforce gaps published • Workforce templates for SPO 2.0, class-agnostic CLCMs and class-agnostic RMCs published 	<ul style="list-style-type: none"> • Create workforce strategy and plans to build the future workforce profile and deliver on required capability while ensuring adaptability and flexibility of the workforce to meet Defence's changing needs • Create career pathways to headmark positions in Maritime Acquisition and Sustainment fully implemented
8. Standardising FMSM Operating and Commercial Models	<ul style="list-style-type: none"> • Operating and commercial models for contracts required for Plan Galileo • Defined contract requirements that link the functions required from each shipbuilding project to SPO, to the contracts required to deliver them, ensuring that industry sustainably meets the needs of the CoA and consistent and repeatable arrangements are established at each SPO 	<ul style="list-style-type: none"> • Develop standardised operating and commercial models that tie together the delivery of sustainment across the CLC
9. Developing National Sustainment Infrastructure	<ul style="list-style-type: none"> • Maritime Sustainment Infrastructure Review (MSIR) • Maritime Sustainment Infrastructure Strategy (MSIS) • Henderson Shipbuilding Infrastructure and Sustainment Review • Infrastructure plans for Henderson and HMAS Cairns 	<ul style="list-style-type: none"> • Implement infrastructure plans at Henderson and HMAS Cairns • Develop infrastructure plans for other regions, incorporating lessons learned from Henderson and HMAS Cairns, linking shipbuilding and sustainment infrastructure • Infrastructure can begin to mobilise to support expeditionary logistics capability, and trialling of a deployable intermediate maintenance capability

Implementation Lines of Effort



1. Delivering Effective Vessel Transition

Delivering effective transition through a continuous shipbuilding sustainment environment

HORIZON TWO OUTCOMES

- A refined operating model to formalise transition in continuous build and sustainment that delivers on all functions within the CLC FRS
- ACOPV and CCPB future SPO design, and functional design for SPO 2.0 for each class based on the FMSM
- ACOPV and CCPB SPO established
- CLCM established for ACOPVs and CCPBs
- Activities, gates and specific tasks for standing up a CLC, RMC and SPO at each stage of the Naval CLC are known for a seamless roll out of the tailored FMSM across the fleet-in-being and the future fleet
- CCPBs delivered

HORIZON TWO MEASURES OF SUCCESS

- ACOPVs and CCPBs successfully transitioning into service
- SPOs established for ACOPVs and CCPBs
- DSCs established and working for ACOPVs and CCPBs
- Clearly defined shipbuilding and sustainment interfaces, including stage gates and time horizons for standing up the FMSM across each class
- Lessons learned from ACOPVs and CCPBs are incorporated into the transition operating model

RISKS

- Documented processes regarding transition of vessels into service is limited compared to documentation available in the shipbuilding and sustainment phases of the CLC

INTERDEPENDENCIES

Effective vessel transition has direct and indirect project interfaces and interdependencies with many of the other lines of effort, noting it will require the collaboration of all streams to ensure that the fleet-in-being is effectively transitioned to the new model. Key interdependencies include the asset management and Seaworthiness lines of effort, regarding the development of the fleetwide UUC, Specific, measurable, achievable, realistic, timely (SMART) Issues Dashboard and Analytics, as well as the identification of the MIE solution.

PLAN GALILEO OUTCOMES TO 2025 AND BEYOND

- Transition arrangements are formalised, integrating shipbuilding and sustainment with ships in continuous build, transition, service and refit
- Shipbuilding and sustainment are integrated with defined handoff points
- The Plan Galileo operating model clearly accounts for transition, while accounting for variations across classes
- Sustainment considerations have increasing influence in the CLC, particularly during the shipbuilding process
- The FAS and fleetwide UUC are known

2. Embedding Seaworthiness across the CLC

Embedding Seaworthiness across the maritime CLC

HORIZON TWO OUTCOMES

- Seaworthiness functions and activities identified and mapped to organisations
- New functions and activities required across the CLC to assure Seaworthiness
- Seaworthiness RACI finalised
- An endorsed risk-based materiel Seaworthiness assurance framework with updates provided to Navy to revise the N4 library
- Data requirements for NLIS specified and included into NLIS refresh and IT plan

HORIZON TWO MEASURES OF SUCCESS

- Chief of Navy endorsement of the risk-based material Seaworthiness assurance framework
- A repeatable assurance model ready for roll out into MSD
- Maritime Support Program Office (MARSPT) endorsement of the data elements required to support Seaworthiness for inclusion into the NLIS

RISKS

- The span of control of Plan Galileo does not cover the entire sustainment workforce, which presents challenges to assuring Seaworthiness across the fleet
- There is significant Seaworthiness work in-train and pending that has not been rationalised against Plan Galileo, highlighting a need for a clear view of the future state of Seaworthiness under Plan Galileo
- N4 Implementation risk

INTERDEPENDENCIES

Direct and indirect project interfaces and interdependencies intersect with Seaworthiness, across the Plan Galileo lines of effort, particularly with the IT and Systems, and asset management lines. Maintenance systems, Master Data Assurance, and logistics information refreshes and uplifts all require significant IT and Systems work, and impact on the ability of the Seaworthiness line of effort to assure Seaworthiness across the fleet.

PLAN GALILEO OUTCOMES TO 2025 AND BEYOND

- Materiel Seaworthiness is assured using a risk-based method throughout the CLC, particularly with vessels in continuous transition and sustainment
- The N4 library defines the risk-based materiel Seaworthiness assurance framework for the CLCM
- Each organisation in the FMSM clearly understands their Seaworthiness accountabilities across the CLC
- Data requirements supporting Seaworthiness are specified and incorporated into the NLIS refresh, IT plan, and data models to maintain integrity between the OSI components through-life

3. Embedding Asset Management in the CLC

Embedding asset management (including design) across the maritime CLC

HORIZON TWO OUTCOMES

- Lessons learned from ACOPV and CCPBs transition incorporated into SPO 2.0 model (for future CCPB SPO design)
- CLCM functional design for each stage of the CLC
- Determination of relevant asset management standards to apply and how they are to be applied (e.g. ISO accreditation or guidance)
- Lessons learned from ACOPV and CCPBs incorporated into CLCM design
- Determination and promulgation of level and scope of maintenance to be applied across class (e.g. Embarked, RMC agnostic, home port)
- Data requirements to support through-life asset management across the CLC
- Designer agreement in place for ACOPV and CCPB

HORIZON TWO MEASURES OF SUCCESS

- CLCMs in place at both ACOPVs and CCPBs, with approved designer agreements that manage vessel certification through life
- Identified asset management standards and specifications for inclusion across SPOs
- Sustainment considerations within the CLC are refined based on key learnings and a repeatable solution is approved for wider implementation
- Data requirements for asset management incorporated into the NLIS plan
- Asset management incorporated into functional design for SPO and CLCM, traceable to the Operating and Support Intent (OSI) through-life

RISKS

- CoA may not own the IP it requires (e.g. to manage a design baseline) for particular classes, and the process to manage this is unclear
- Design Support Contractor is limited by the SPO's ability to negotiate contracts
- Background and foreground IP not well known at the time of writing and agreeing contracts
- Funding to support development activity is not currently available

INTERDEPENDENCIES

Direct project interfaces and interdependencies exist between the asset management line of effort and the Seaworthiness, Modernising the Navy Logistics Information Systems, national supply chain, workforce, and commercial models lines of effort.

PLAN GALILEO OUTCOMES TO 2025 AND BEYOND

- CLCMs are established for the surface fleet
- Asset management is embedded across all stages of the CLC and forms the foundation of continuous vessel support
- Asset management requirements are known pre-sustainment and aid with transition into sustainment
- Sustainment considerations are clearly defined within each phase of the CLC and a strategy for incorporating it is approved to roll out to the fleet. This includes assuring and maintaining data integrity between engineering support, maintenance support and supply support datasets
- Designer agreements clearly document through-life accountability for keeping vessels within approved certification, even with modifications
- MSD provides consistent asset management to an approved standard, tailored for each class

4. Establishing Regional Maintenance Centres

Establishing Regional Maintenance Centres at key Navy home ports to provide an integrated and consistent approach to continuous sustainment

HORIZON TWO OUTCOMES

- Generic RMC functional design
- Detailed RMC roll out plan that meets functional designs
- Model rolled out to Henderson and HMAS *Cairns* and lessons incorporated into the model
- RFT release RMC W/NE
- RMC W/NE Operational

HORIZON TWO MEASURES OF SUCCESS

- Two RMCs (West and North East) will be stood up in 2021 to deliver a consistent standard of maintenance
- Local communities will support the RMCs with an ecosystem of the right skills, supply chains, tools, and technology to deliver requirements of the FMSM
- A repeatable methodology for rolling out RMCs across Australian Naval Bases
- FSU has a clearly defined role within the RMC concept, and the FSU capability is appropriately leveraged to deliver maintenance

RISKS

- Risks related to poor data to permit regional execution of Service Requirements
- Commercial risk of regional monopoly creation

INTERDEPENDENCIES

RMCs have direct and indirect project interfaces and interdependencies with all Plan Galileo lines of effort. Key interdependencies exist with the national sustainment infrastructure line of effort, noting the need for existing and improved infrastructure in the regions in order to stand up the RMCs. There are also interdependencies with the commercial models line of effort, given the critical role of industry and effective commercial contracts in ensuring the RMCs are fully operational within Plan Galileo's timeframes.

PLAN GALILEO OUTCOMES TO 2025 AND BEYOND

- RMCs are established in key ports and are able to deliver a consistent standard of maintenance for the surface fleet using Fleet Support Unit (FSU) and Joint Logistics Unit (JLU) resources where appropriate
- Local communities support the RMCs with an ecosystem of the right skills, supply chains, tools, and technology to deliver requirements of the FMSM
- RMCs foster the development of an expeditionary logistics capability, and trialling of a deployable intermediate maintenance capability
- Each RMC has an innovation hub supporting deploying new technologies (e.g. 3D printing, Artificial Intelligence, drones etc.), staffed by Sailors, DSTG, Navy, CASG, and industry participants, including academia

5. Modernising the NLIS

Modernising the Navy Logistics Information System to deliver a nationally based IT enterprise

HORIZON TWO OUTCOMES

- Definition of end state IT requirements with implementation timeline (NLIS strategy)
- High level architecture / structure of future IT solution design (inc. MIE and FIE)
- IT solution implemented for ACOPVs and CCPBs
- Implement and integrate AMPS7
- Data elements for asset management and Seaworthiness identified and incorporated into NLIS 3.0 design
- PCA Uplift, aligned to a data certification and improvement process
- Progression of Cross-Class Implementation Projects

HORIZON TWO MEASURES OF SUCCESS

- IT solution for ACOPVs is delivered and operational
- A repeatable process for on-boarding new ship platforms and products, including cross class management onto the NLIS. This includes:
 - The adoption of new technologies as they become available
 - Demonstrate early engagement with the shipbuilding project teams
- A flexible IT model that can be tailored to the needs of each Class as the FMSM is implemented across the surface fleet
- Data elements for Seaworthiness and asset management are identified for roll out in NLIS 3.0
- Completion of future NLIS architecture and solution design
- Seamless integration of MIE and NLIS

RISKS

- NLIS data elements may not support risk-based Seaworthiness assurance or required asset management, this includes ERP
- Complexities and dependencies associated with IT infrastructure (e.g. FIE, MIE), including security and cyber worthiness may induce delays

INTERDEPENDENCIES

This stream has direct and indirect project interfaces and interdependencies with the Seaworthiness, asset management, RMCs, and resilient national supply chain lines of effort. Specifically, the integration of the AMPS7 solution and the identification of an MIE solution has significant impacts on the Seaworthiness and asset management lines of effort. The final design and implementation of the FMSM is will also impact on the high level architecture and structure of the future IT solution design. A

PLAN GALILEO OUTCOMES TO 2025 AND BEYOND

- Fit-for-purpose IT solutions are identified and implemented across all classes
- Data flows seamlessly across shipbuilding, sustainment, the MIE, and industry with appropriate considerations for security and IP, to support digital innovation, collaboration, and knowledge sharing
- Collectively shape, contribute and migrate to the Defence Enterprise Resource Planning (ERP) solution

6. Delivering a Resilient National Supply Chain

Delivering a resilient National Supply Chain to maximise sovereign Australian Industry Capability and Australian Industry Content

HORIZON TWO OUTCOMES

- Shipbuilding and sustainment supply chains are linked in a national ship building and sustainment enterprise
- Develop AIC strategy for MSD, including how to maximise sovereign resilience
- Develop Globally Integrated National Supply Chain Plan for MSD
- Incorporate CMPS Branch into FMSM
- Integrate the Supply Chain and CMPS Branch into operating model with Standardised Commercial Models
- Establish MCPSPO as the lead provider of cross-Class Outfit Allowance List items to drive common sparing working with Naval Construction Branch

HORIZON TWO MEASURES OF SUCCESS

- CMPS Branch has been incorporated into the FMSM, incorporating lessons learned from DDG Combat Systems Category Strategy and Management
- JLU's are included and have a clearly defined role at Henderson and HMAS *Cairns* and are contributing
- ACOPV and CCPBs shipbuilding supply chains are effectively transitioned to sustainment
- Fleet Logistics Support Element (FLSE) support as part of continuous sustainment

INTERDEPENDENCIES

Delivering a resilient National Supply Chain has direct and indirect project interfaces and interdependencies with several of the Plan Galileo lines of effort. Notably, its activities regarding defining a Cross-Class SPO operating model, a common framework for AIC activities, and the maritime supply chain review, have impacts on effective vessel transition, Seaworthiness, Asset management, the RMCs, and standardised commercial models lines of effort.

PLAN GALILEO OUTCOMES TO 2025 AND BEYOND

- Shipbuilding and sustainment supply chains are linked in a national shipbuilding and sustainment enterprise and work seamlessly across the CLC
- The National Supply Chain (NSC) balances sovereign capability outcomes with commercially viable Australian industry solutions to deliver a resilient national supply chain that is globally integrated
- An Australian Industry Capability (AIC) performance framework monitors, incentivises, and maximises AIC
- Common platform and payload systems are managed across classes under strategic contract arrangements
- Provide updates to Outfit Allowance List and Sparing policy owners as required to deliver Plan Galileo intent

7. Evolving MAS Professional Mastery

Implementation of a professionalisation strategy to upskill the current workforce and build a pipeline of expertise for the future, with a preliminary focus on the Requirements to In-Service stage of the CLC, while supporting and feeding into Needs and Disposal. This will include an active role in developing sustainment-related learning initiatives and training programs

HORIZON TWO OUTCOMES

- Commonwealth workforce required for ACOPV and CCPB SPOs (including CLCM and RMC W and RMC NE elements) defined
- Commonwealth workforce for ACOPV and CCPB SPOs in place. Navy and APS Workforce gaps addressed through use of ESPs in short term
- Development of specific skillsets in areas of program management, commercial management, engineering, technical and logistics expertise
- Plan to address CASG MAS Workforce gaps published
- Workforce templates for SPO 2.0, class-agnostic CLCMs and class-agnostic RMCs published

HORIZON TWO MEASURES OF SUCCESS

- SPO 2.0, CLCM and RMC workforce design that is repeatable can be rolled out across the enterprise
- Commonwealth workforce required to deliver Plan Galileo's objectives across shipbuilding and sustainment is known. This is supported by a generic and enduring workforce system design that includes a planned pipeline of talent to meet changing future workforce requirements
- The Navy and APS workforce have detailed career pathways to headmark positions in future maritime acquisition and sustainment
- Industry has a clear understanding of future workforce requirement to support sufficient investment to deliver a fit-for-purpose workforce to meet future maritime sustainment capability requirements
- A greater Commonwealth presence will exist in the SPOs, ensuring that the Commonwealth maintains effective governance and quality assurance to support informed decision-making

RISKS

- The Gate 2 workforce for ACOPVs - which was defined pre-Plan Galileo - may not be aligned with workforce requirements
- The span of control of Plan Galileo does not cover entire sustainment workforce, which makes it more difficult to assure Seaworthiness, for example FSU
- There may be a lack of skilled resources to manage contracts that support the intent of Plan Galileo
- The current gaps in the CASG MAS workforce means the Commonwealth is not meeting the requirements of Plan Galileo and CNS to provide an effective and skilled workforce.

INTERDEPENDENCIES

This line of effort has significant interdependencies with all Plan Galileo lines of effort, given the need for each line of effort's respective workforce to be able to deliver on the required capabilities. A significant interdependency exists with the Seaworthiness line of effort, regarding the upskilling of CoA workforce to capabilities and responsibilities regarding Seaworthiness and Seaworthiness Assurance. There is also a significant dependency on broader Navy and CASG Professional Mastery initiatives.

PLAN GALILEO OUTCOMES TO 2025 AND BEYOND

- CASG has the right capabilities to deliver its objectives and has the workforce system design and a pipeline of talent to meet changing future needs
- A greater Commonwealth presence will exist in the SPOs, ensuring that the Commonwealth maintains the ability to make informed decisions
- The right people with the right skills are recruited to support continuous sustainment
- The SPOs have maturity in applying the smart buyer / smart owner constructs to continuous sustainment
- Generic and enduring career streams that allow for agility of the workforce to meet changing future needs

8. FMSM Operating and Commercial Models

Standardising FMSM operating and commercial models so that Navy's needs are sustainably met by industry

HORIZON TWO OUTCOMES

- Operating and commercial models for contracts required for Plan Galileo
- Defined contract requirements that link the functions required from each shipbuilding project to SPO, to the contracts required to deliver them, ensuring that industry sustainably meets the needs of the CoA and consistent and repeatable arrangements are established at each SPO

HORIZON TWO MEASURES OF SUCCESS

- Operating and commercial models are clearly defined based on the CLC FRS, and are flexible to the changing needs of Navy, while aligning incentives with industry
- Operating and commercial models within the FMSM applied as a proof of concept on ACOPVs are repeatable and can be rolled out across MSD

RISKS

- Existing commercial arrangements may not support the intent of Plan Galileo, given many were written beforehand
- There may be a shortage of skilled resources to manage contracts that support the intent of Plan Galileo
- A large volume of RFTs released in a short period of time could constrain the industry's ability to respond and deliver optimally
- The Design Support Contractor requires ample time and appropriately skilled resources to be established consistently across the enterprise

INTERDEPENDENCIES

This line of efforts has direct and indirect project interfaces and interdependencies with all lines of effort. This is due to the significant role of industry and contracted work within the FMSM, and the need for effective, standardised, and optimised operating and commercial models and contracts required to deliver this work.

PLAN GALILEO OUTCOMES TO 2025 AND BEYOND

- Standardised operating and commercial models that link supports the FMSM, applied to each phase of the CLC
- Operating and commercial models are clearly defined and standardised based on the functions across shipbuilding and sustainment and are flexible to the changing needs of Navy, while aligning incentives with industry so that the CoA's needs are sustainably met

9. National Sustainment Infrastructure

Developing infrastructure to support long-term continuous sustainment nationally

HORIZON TWO OUTCOMES

- Maritime Sustainment Infrastructure Review (MSIR)
- Maritime Sustainment Infrastructure Strategy (MSIS)
- Henderson Shipbuilding Infrastructure and Sustainment Review
- Infrastructure plans for Henderson and HMAS Cairns

HORIZON TWO MEASURES OF SUCCESS

- Infrastructure to support continuous sustainment is planned and provided at Henderson and HMAS *Cairns* and will enable the capability of the growing fleet and meet evolving sustainment requirements and is supported by a plan for the existing fleet
- Infrastructure decision-making is appropriately informed by comprehensive demand studies and current state assessments to meet our strategic requirements as they change

RISKS

- The infrastructure required to support medium to large vessels may not be available or be sufficiently resilient across all bases
- Defence infrastructure is currently approved without visibility of state and industry infrastructure plans, which creates a risk of gaps in the infrastructure required to deliver capabilities
- Funding for office spaces in Cairns is outside of current funding scope

INTERDEPENDENCIES

This line of effort has direct and indirect project interfaces and interdependencies with several lines of effort, most significantly with the RMCs, given the requirements for national sustainment infrastructure to be stood up and suitable for use by the time RMCs are required to be operational. There are also interdependencies with lines of effort regarding workforce and industry effort, given the infrastructure line of effort's reliance on capable and available industry workforce to deliver the required infrastructure work.

PLAN GALILEO OUTCOMES TO 2025 AND BEYOND

- Infrastructure to support continuous sustainment across shipbuilding and sustainment is available, enabling the capability of the growing fleet and meeting evolving sustainment requirements
- Clear demand signals from Defence will allow industry and State and Territory Governments to plan and invest in the necessary infrastructure with enough lead time to deliver for Plan Galileo
- Infrastructure decision-making is appropriately informed by comprehensive demand studies and current state assessments to meet our strategic requirements as they change
- Infrastructure requirements are defined to support expeditionary logistics capability and trialling of a deployable intermediate maintenance capability

Assumptions and Constraints



Assumptions and constraints

Assumptions regarding Plan Galileo schedules, budgets, resources, and the nine lines of effort

- **Schedule and timeframes:** Plan Galileo Implementation Horizon Two will be complete by December 2021. But Plan Galileo itself will be continuing until 2025, with some implementation activities continuing beyond this timeframe
- **Budget and resources:** Plan Galileo focusses on realigning existing activities and projects towards a common goal, rather than creation of new projects from scratch. At the moment it is considered cost neutral. Where appropriate, some lines of effort can seek additional funding from various funding programs (e.g. IIP, Gaps and Opportunities Funding, etc.)

Line of effort	Assumptions
1. Delivering Effective Vessel Transition	<ul style="list-style-type: none"> • Vessel shipbuilding dates and ISSC roll over dates are as provided by projects and SPOs • ASDEFCON contract suites can be updated • Where able, sustainment contracts can be modified
2. Embedding Seaworthiness across the CLC	<ul style="list-style-type: none"> • The FMSM implementation timelines for each class are based on ACOPVs as the Proof of Concept. Details of these dates are included in the Plan Galileo Implementation Performance Framework but will be varied by class
3. Embedding Asset Management across the CLC	<ul style="list-style-type: none"> • The FMSM implementation timelines for each class are based on ACOPVs as the Proof of Concept. • Details of these dates are included in the Plan Galileo Implementation Performance Framework, but will be varied by class • CLCMs and DSCs will be established in time to support ACOPVs and CCPBs
4. Establishing Regional Maintenance Centres	<ul style="list-style-type: none"> • RMCs W/NE will provide a consistent standard of maintenance and will be delivered in time to support ACOPVs and CCPBs • RMCs will provide a consistent standard of maintenance across Australia, but they will provide a different level and scope (depending on vessels that are home-ported)
5. Modernising the Navy Logistics Information Systems (NLIS)	<ul style="list-style-type: none"> • Navy will continue to be aligned with Defence ERP, except where specific requirements may exist to deviate (e.g. CMT-U) • Updates and use of the NLIS is expected to increase • The MIE will be established in January 2021
6. Delivering a Resilient National Supply Chain	<ul style="list-style-type: none"> • MCPSPPO will manage Cross-Class systems, Common items and CMPS Branch will coordinate the delivery of Combat Management and Payload Systems
7. Evolving Maritime Acquisition and Sustainment Professional Mastery	<ul style="list-style-type: none"> • RMC delivery should take place three months in advance of first of class in-service / ISSC renewal includes the ability (and any necessary training) of the workforce at these sites (contracted and CoA) to maintain the ship as required • CASG, Navy and industry personnel are accounted for in workforce and professionalisation plans
8. Standardising FMSM Operating and Commercial Models	<ul style="list-style-type: none"> • Timeframes assume adequate lead time has been allowed for industry involvement to allow for planning and investment • Timeframes assume adequate lead time has been allowed to account for training of the industry workforce
9. Developing National Sustainment Infrastructure	<ul style="list-style-type: none"> • Infrastructure certification activities for facilities delivered by industry will need to commence 12 months ahead of scheduled delivery date to ensure lag times are met • Submission of Gaps and Opportunities to the annual Defence Capability Assessment Process (DCAP) has been brought forward this year from December to August 2020. The subsequent submission will be due in December 2021

Annexes



Annex A: Target Operating Model



Operating Model Functions

The Assessment Framework provides a benchmark of lead times to start considering and deliver key aspects of the FMSSM in a Continuous Naval Shipbuilding environment that can be used to guide effort taken for implementation

CONTINUOUS SUSTAINMENT

Coordinating the delivery functions to make informed trade-off decisions to support Navy to fight and win at sea

Delivery Functions

GOVERNANCE

The set of responsibilities and practices, policies and procedures exercised by the CoA to provide strategic direction and ensure that objectives are achieved, risks are managed and resources are used responsibly and with accountability

ASSET MANAGEMENT

Asset management functions include the effective control and governance of assets, to realise value through managing risk and opportunity to achieve the desired balance of cost, performance and risk

ENGINEERING

Engineering functions (inc. Configuration Management) include responsibility to create specifications and then ensure the assets meet those specifications and are traceable forwards and backwards from the OSI to deliver Seaworthy material

MAINTENANCE

The maintenance functions include execution and acquittal of maintenance and renewal of material to ensure Naval capability and Seaworthiness is delivered when it's needed

LOGISTICS / SUPPLY CHAIN

Logistics and supply chain functions include ensuring materials, supplies, underlying technical data and allowance lists are maintained and aligned with the configuration baseline, engineering and maintenance data to deliver Seaworthiness

Fleetwide Supporting Functions

WORKFORCE AND TRAINING

INFRASTRUCTURE

ADMINISTRATION

(inc. Commercial, Legal, and Finance functions)

IT

The configuration of these building blocks must be considered in line with the Plan Galileo Design Principles, to ensure strategic alignment with the program

Operating Model Design Principles

The Assessment Framework provides a benchmark of lead times to start considering and deliver key aspects of the FMSM in a Continuous Naval Shipbuilding environment that can be used to guide effort taken for implementation

DESIGN PRINCIPLE

JUSTIFICATION



Delivers Plan Galileo's vision

Plan Galileo's vision is a nationally integrated sustainment environment that consistently provides available, reliable and fit-for-purpose systems and ships to Navy to fight and win at sea. The operating model required to implement this vision must be fully aligned with Plan Galileo's strategy to ensure this vision is delivered in a continuous shipbuilding sustainment environment



Aligns with the Functional Reference Set¹

The Functional Reference Set details the value-adding activities required to deliver the Seaworthy assurance across the Naval Enterprise. These functions must underpin the key players and activities defined in the operating model, to ensure all required activities are executed under the Future Maritime Sustainment Model, enabling the CoA with sufficient visibility and control over the outcomes



Delineates responsibility and accountability

Clear delineation of responsibilities and accountabilities is critical to ensuring the success of the operating model, supporting the CoA to effectively manage performance based on clear and known touch-points across the organisation



Supports consistent operations across SPOs balanced with operational effectiveness

Regional Maintenance Centres will rely on integrated and consistent operations, however the consistency of operations must be balanced with operational effectiveness, supporting each SPO with the appropriate delegation of powers to make day-to-day decisions across geographies and time zones



Leverages all key building blocks to drive commonality

Commonality and standardisation is a key tenant of Plan Galileo's vision that will reduce through-life cost and increase interoperability of the Naval Enterprise. Leveraging all of the functional building blocks will ensure this can be achieved, noting their configuration is flexible



Seamlessly links shipbuilding and sustainment through the modernised and digitally-enabled IT backbone

Traceability between shipbuilding and sustainment relies on a digitally-enabled sustainment organisation, underpinned by a robust IT backbone to support the use of new technologies over time while preserving the integrity of existing systems in use

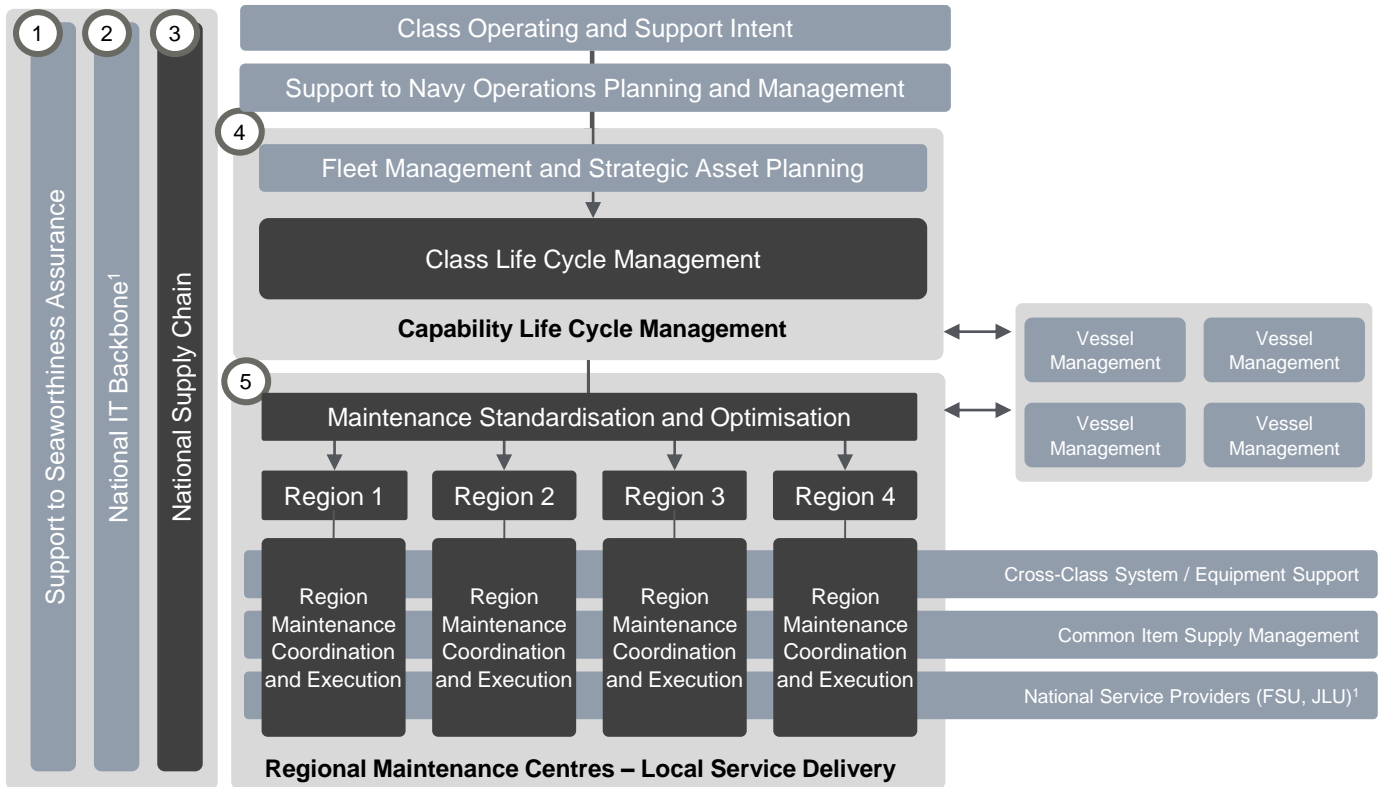


Implemented through an evolution, not a revolution

The implementation of Plan Galileo will be an evolution, not a revolution. This means step changes to grow the capability and connectedness of the Naval Enterprise will occur over time, leveraging not disregarding the successful work and practices that have been in place to date

Future Maritime Sustainment Model

The Assessment Framework provides a benchmark of lead times to start considering and deliver key aspects of the FMSM in a Continuous Naval Shipbuilding environment that can be used to guide effort taken for implementation



1 Support to Seaworthiness Assurance

- All functions are aligned to Seaworthiness frameworks to maximise the likelihood of achieving the specified operational effect

2 National IT Backbone

- The target operating model is supported by a nationally based IT backbone, which provides a secure and effective IT environment, with real-time data and status enabling instantaneous operational awareness, empowering effective through-life management decisions

3 National Supply Chain

- The target operating model is enabled by a national supply chain that is integrated globally, aiming to maximise AIC while supporting our allies and industry partners. This means growing national capability and seeking opportunities to achieve supply chain resilience, sustainability and excellence

4 Capability Life Cycle Management

- Fleet Management and Strategic Asset Planning, in coordination with Life Cycle Management and supply across Classes, enables capability management decisions to be made

5 Regional Maintenance Centres

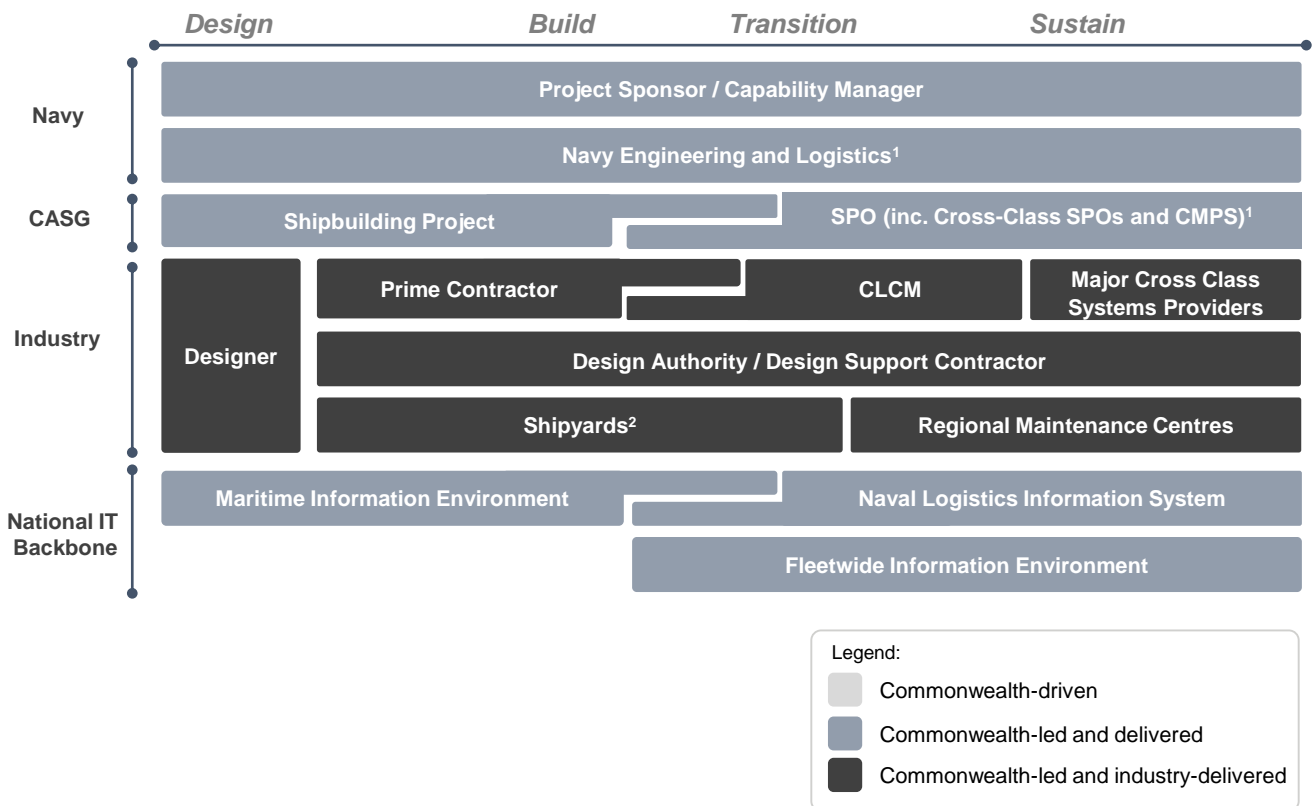
- Maintenance delivery (including update and upgrade) is regionally based – the development, transformation and incentivisation of sovereign capabilities are geographically centred around Navy home ports / points of embarkation / regional maintenance precincts

Legend:

- Commonwealth-driven
- Commonwealth-led and delivered
- Commonwealth-led and industry-delivered

Operating Model Design Principles

This diagram is the time-based view of an Asset Class Enterprise across the CLC



Notes:: 1. Also includes other joint supporting organisations such as JLC, DSL, Supply Chain Branch, FLSE etc.. 2. Includes Osborne and Henderson.
Sources: Created in consultation with the IPT stream leads; MSD analysis

Annex B: Additional Documentation



Project Interfaces

When projects are making decisions affecting cost, scope, or schedule, they should consult other lines of effort if directly or indirectly interfaced

Lines of effort	Activity ¹	1. Delivering Effective Vessel Transition	2. Embedding Seaworthiness	3. Embedding Asset Management	4. Establishing Regional Maintenance Centres	5. Modernising the N LIS	6. Delivering a Resilient National Supply Chain	7. Evolving MAS Professional Mastery	8. Standardising FMSM Operating and Commercial Models	9. Developing National Sustainment Infrastructure
1. Delivering Effective Vessel Transition	ACOPV and CCPB SPO Design		Direct	Direct	Indirect			Direct	Direct	
	Lessons learned activities from ACOPV and CCPB		Direct	Direct	Indirect		Indirect	Indirect	Direct	
2. Embedding Seaworthiness	Seaworthiness functions identification and mapping	Indirect		Direct						Indirect
	Risk based seaworthiness model activities	Indirect		Indirect						Indirect
	Data requirements for N LIS activities			Indirect		Direct				
	Updates to N4 library activities			Indirect		Indirect				
3. Embedding Asset Management	CLCM functional design activities	Direct			Indirect			Direct	Direct	
	Asset Management standards activities	Direct	Indirect		Indirect	Indirect		Indirect		
	Determination and promulgation of maintenance levels/scope	Indirect	Indirect		Direct			Indirect		
	Designer Agreement activities for ACOPV and CCPB	Indirect								Indirect
4. Establishing Regional Maintenance Centres	RMC Generic design	Direct					Indirect	Indirect	Direct	Indirect
	RMC model rolled out at Henderson and Cairns	Direct					Indirect	Indirect		Indirect
	Detailed RMC rollout Plan	Indirect								Indirect
5. Modernising the Navy Logistics Information Systems (NLIS)	Definition of end state IT requirements			Indirect						
	High level architecture / structure of future IT solution		Indirect	Indirect						
	IT solution for ACOPV and CCPB	Indirect	Indirect	Indirect						
	Data elements for asset mgmt. and seaworthiness identified, incorporated for NLIS 3.0		Direct	Direct			Direct			Indirect
6. Delivering a Resilient National Supply Chain	ACOPV 1N3 Implementation activities	Indirect								
	AIC planning activities			Indirect	Indirect				Indirect	Indirect
	Globally integrated national supply chain planning activities	Indirect			Indirect				Direct	
	CMPS incorporation activities	Indirect			Indirect				Direct	
7. Evolving MAS Professional Mastery	Integration of supply chain, CMPS, into operating and commercial models	Indirect			Indirect				Direct	
	ACOPV and CCPB SPO2.0, CLCM, RMC workforce activities	Indirect	Indirect	Indirect	Indirect		Indirect		Indirect	
	Workforce activities for SPO2.0, RMCs, and CLCM	Indirect	Indirect	Indirect	Indirect				Indirect	
	Workforce Gaps planning and development activities	Indirect	Indirect	Indirect	Indirect				Indirect	
8. Standardising FMSM Operating and Commercial Models	Commercial models required for Plan Galileo	Direct	Direct	Direct	Direct		Indirect	Indirect		
	Defined contract requirements from each shipbuilding project to SPO	Direct		Direct			Direct	Indirect		
9. Developing National Sustainment Infrastructure	Maritime Sustainment Infrastructure Strategy activities	Indirect			Direct					
	Infrastructure planning activities for Henderson and Cairns	Indirect			Direct			Indirect	Direct	
	Future Navy Infrastructure Plan development	Indirect			Direct			Indirect		

Notes: 1. Where activities (from the Implementation Schedule) have multiple deliverables, these have been noted as one activity line
Sources: MSD Analysis, IPT Stream Leads.

Glossary

Acronym	Description	Acronym	Description
ACOPV	Arafura Class Offshore Patrol Vessel	JLU	Joint Logistics Unit
AIC	Australian Industry Capability	MAS	Maritime Acquisition and Sustainment
APS	Australian Public Service	MARSPT	Maritime Support Branch
ASDEFCON	Australian Standard for Defence Contracting	MIE	Maritime Information Environment
CASG	Capability Acquisition Sustainment Group	MSD	Maritime Systems Division
CCPB	Cape Class Patrol Boat	MSIR	Maritime Sustainment Infrastructure Review
CLC	Capability Life Cycle	MSIS	Maritime Sustainment Infrastructure Strategy
CLCM	Capability Life Cycle Manager	NCB	Naval Construction Branch
CNRs	Capability Needs and Requirements	NLIS	Naval Logistics Information System
CoA	Commonwealth of Australia	NSC	National Supply Chain
DSC	Designer Support Contractor	OQE	Objective Quality Evidence
E&IG	Estate and Infrastructure Group	OSI	Operating and Support Intent
ERP	Enterprise Resource Planning	PoC	Proof of Concept
ESP	External Service Provider	RAM	Reliability, Availability, Maintainability
FAS	Fleet Activity Schedule	RMC	Regional Maintenance Centre
FIE	Fleetwide Information Environment	RMC W/NE	Regional Maintenance Centre West/North East
FLSE	Fleet Logistics Support Element	SMART	Specific, Measurable, Achievable, Realistic and Timely
FMSM	Future Maritime Sustainment Model	SPO 2.0	System Program Office 2.0
FRS	Functional Reference Set		
FSU	Fleet Support Unit		