US Coast Guard Product Lifecycle Management System Data Requirements Interface Mapping

NSRP All Panel Meeting

February 2025

Project Background

- The Navy is moving toward a digital future state for lifecycle support by adopting the Model Based Product Support (MBPS) system as a PLM for in-service ships
- The Coast Guard perceives the need to transition to digital support of maintenance, repair, and overhaul (MRO) activity for their fleet, but their use cases are different from the Navy
- A life cycle PLM optimized for Coast Guard MRO activity will be a game changer and will lead to significant cost avoidance for life cycle support
- Shipyard product models and PLM systems have much data that can be used to populate a future Coast Guard life cycle PLM, but the interfaces between those systems must be developed

Project Overview

- Review sustainment data requirements for the United States Coast Guard (USCG) that can be harvested from the 3D Product Build Model.
- Determine additional data requirements needed for the USCG product lifecycle management (PLM) product and map them through an interface between the respective PLM products.
- Develop software connectors between the new construction Product Build Model, the new construction yard's PLM, and the USCG PLM.
- Project results will enable the USCG to extract useful lifecycle support data from authoritative sources with lower labor content.

Project Team Members

NSRP Project Manager
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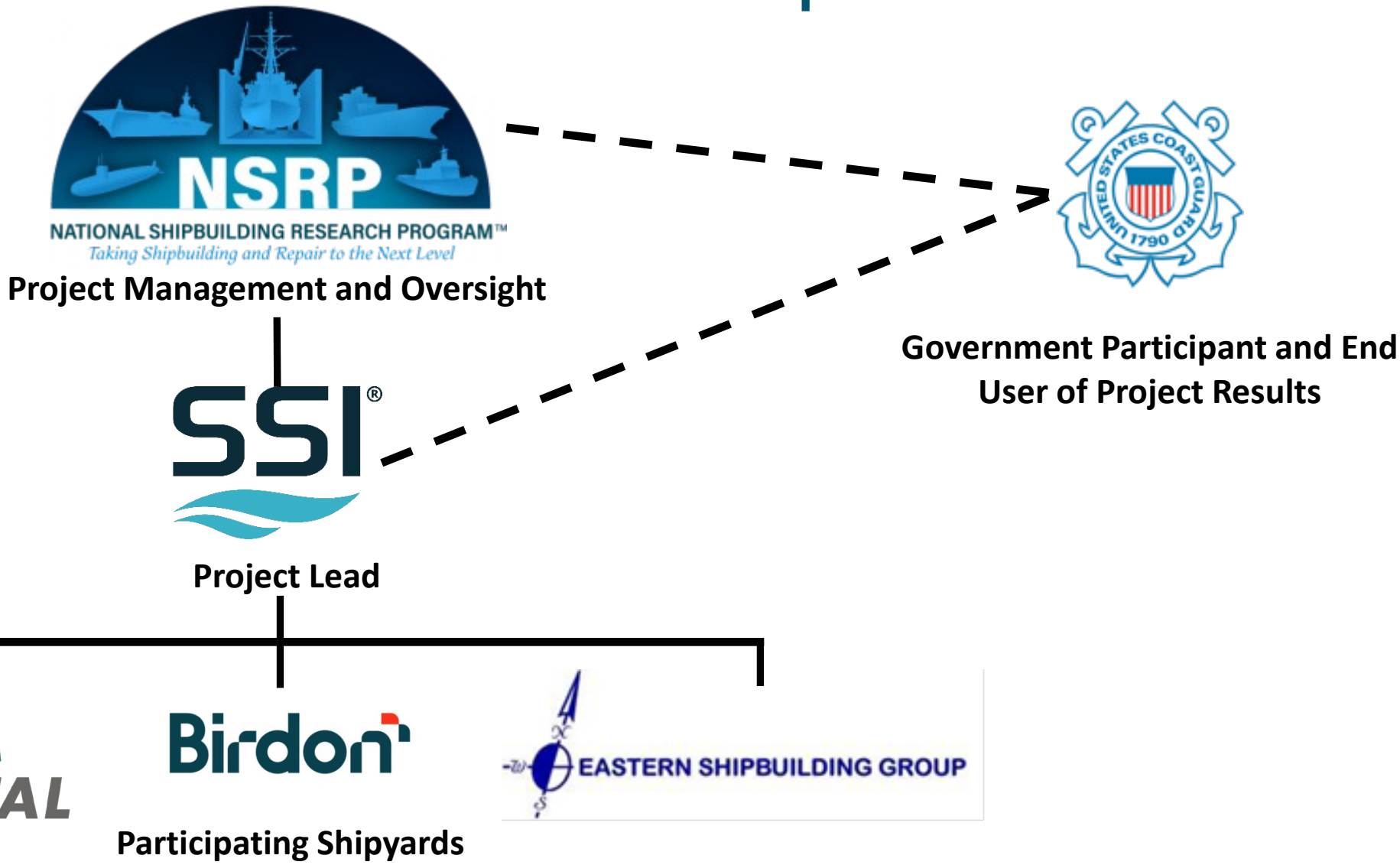
Project Roles and Relationship

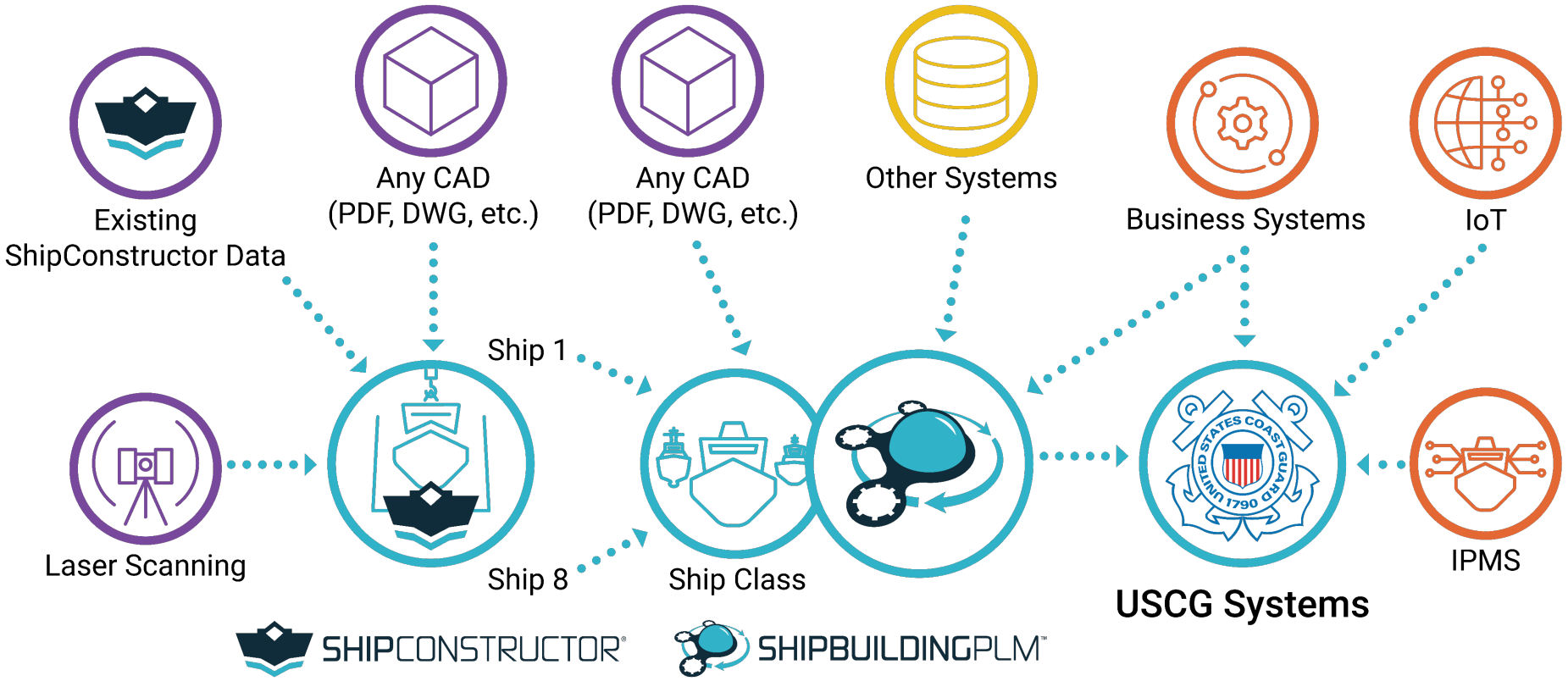


Project Goals

Expected Benefits for USCG upon Implementation (from project metrics)

- 60% reduction in time needed to retrieve data for Engineering Change
- 75% reduction in time needed to retrieve data for maintenance activities
- 90% reduction in time needed for data configuration management validation
- 75% reduction in duplication of effort due to having single authoritative data source

Desired Future State for USCG



Sustainable Digitization Information Flow

Phase 1 Tasks

- Task 1: Conduct Project Kickoff Meeting
- Task 2: Compile Data Transfer Requirements
- Task 3: Data Transfer Gap Analysis
- Task 4: Initial Configuration of PLM Software
- Task 5: Initial Evaluation of Software Configuration

Phase 2 Tasks

- Task 6: Follow-On Configuration of Software
- Task 7: Follow-On Evaluation of Software Configuration
- Task 8: Final Report and Final Project Workshop

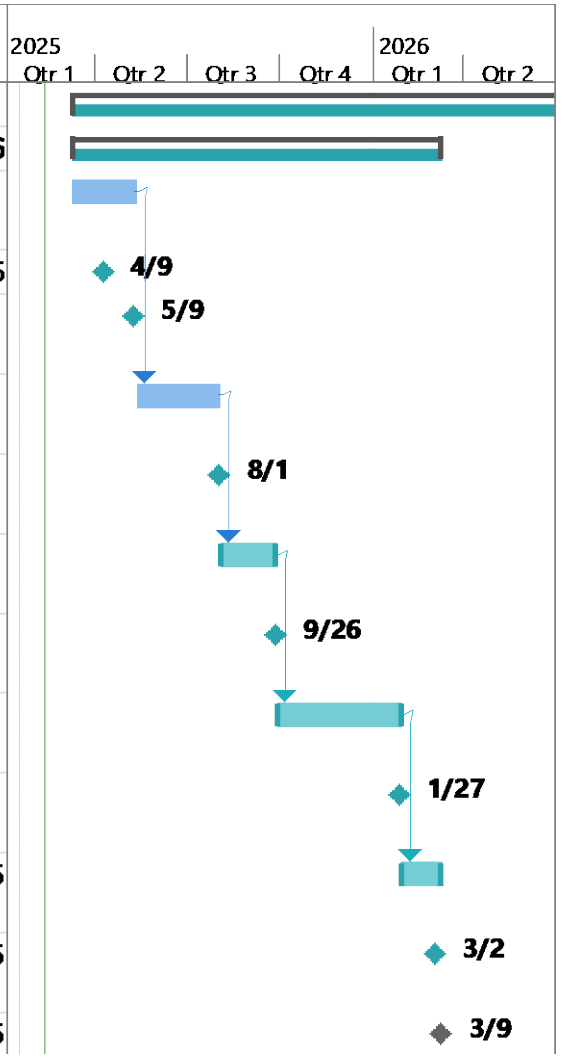
- Task 9: Project Management and Technology Transfer (spans both project phases)

Key Project Deliverables

Key Deliverables	Data Transfer Requirements Development Report Data Transfer Gap Analysis Report Initial Software Interface Development Report Initial Software Evaluation Report End of Phase 1 Report Phase 2 Software Interface Development Report Phase 2 Software Evaluation Report Final Workshop Presentation Final Report and Project Results Summary (Public Release)
Criteria for "Go/No-Go Decision"	Completion of Phase I deliverables Successful shipyard evaluation of Phase 1 use cases Updated Technology Transfer and Implementation Plan

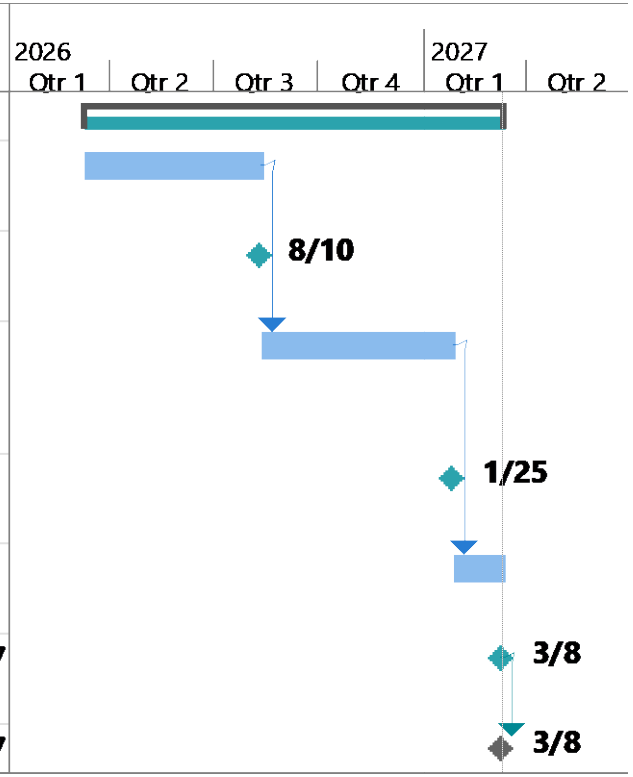
Phase 1 Project Schedule

ID	Task Mode	Task Name	Duration	Start	Finish
1		**Overall Project**	**522 days**	**Mon 3/10/25**	**Tue 3/9/27**
2		**Phase 1**	**261 days**	**Mon 3/10/25**	**Mon 3/9/26**
3		Task 1: Conduct Project Kickoff Meeting	45 days	Mon 3/10/25	Fri 5/9/25
4		Project Management Plan	0 days	Wed 4/9/25	Wed 4/9/25
5		Kickoff Meeting Presentation	0 days	Fri 5/9/25	Fri 5/9/25
6		Task 2: Compile Data Transfer Requirements	60 days	Mon 5/12/25	Fri 8/1/25
7		Data Transfer Requirements	0 days	Fri 8/1/25	Fri 8/1/25
8		Task 3: Data Transfer Gap Analysis	40 days	Mon 8/4/25	Fri 9/26/25
9		Data Transfer Gap Analysis Report	0 days	Fri 9/26/25	Fri 9/26/25
10		Task 4: Initial Configuration of PLM	87 days	Mon 9/29/25	Tue 1/27/26
11		Initial Software Interface Development Report	0 days	Tue 1/27/26	Tue 1/27/26
12		Task 5: Initial Evaluation of Software Configuration	29 days	Wed 1/28/26	Mon 3/9/26
13		Initial Software Evaluation Report	0 days	Mon 3/2/26	Mon 3/2/26
14		End of Phase 1 Report	0 days	Mon 3/9/26	Mon 3/9/26



Phase 2 Project Schedule

ID	Task Mode	Task Name	Duration	Start	Finish
15		**Phase 2**	**261 days**	**Tue 3/10/26**	**Tue 3/9/27**
16		Task 6: Follow-On Configuration of Software	110 days	Tue 3/10/26	Mon 8/10/26
17		Phase 2 Software Interface Development Report	0 days	Mon 8/10/26	Mon 8/10/26
18		Task 7: Follow-On Evaluation of Software Configuration	120 days	Tue 8/11/26	Mon 1/25/27
19		Phase 2 Software Evaluation Report	0 days	Mon 1/25/27	Mon 1/25/27
20		Task 8: Final Report and Final Project Workshop	31 days	Tue 1/26/27	Tue 3/9/27
21		Final Report and Project Results Summary	0 days	Mon 3/8/27	Mon 3/8/27
22		Final Workshop Presentati	0 days	Mon 3/8/27	Mon 3/8/27



Project Status

- Technical scope approved
- Cost estimate reviewed
- Awaiting task order to begin project

Questions?

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