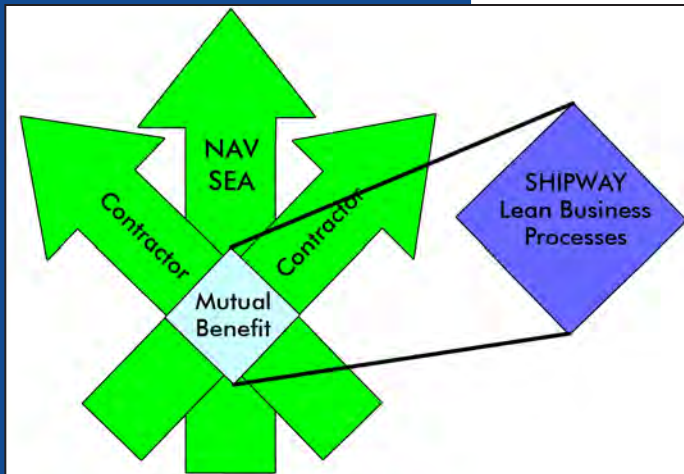


# SHIPWAY: Lean Business and Information Processes



**Reduces lead time by up to 50 percent and reduces cycle times by up to 25 percent**

The SHIPWAY series of projects extends earlier Lean Shipbuilding Initiative efforts that focused on internal shipyard and shipyard-supplier processes by targeting value chains associated with the shipyard-customer interface, specifically the Navy and Coast Guard customer. This project focused on the business and information processes that involve the shipyard customer base, both for new construction and repair.

The project approach involved identifying the most wasteful business and information processes in the shipyard-to-customer chain, then reducing or eliminating that waste through

lean process improvements. Project participants analyzed selected streams of activities that are undertaken to provide value in the construction and/or repair of Navy surface ships and submarines, as well as Life Cycle Maintenance for Coast Guard cutters. After those “value streams” were streamlined and standardized, the project teams continued to collaborate to integrate the improved processes across programs and platforms.

Expected benefits to the Navy’s Fleet Response Plan include reduction in life cycle cost and cycle time for both new construction and maintenance availabilities. Highlights of accomplishments in the initial project include:

- Atlantic Marine established an interface between the Navy Maintenance Database and Atlantic’s legacy computer system for faster, more efficient shipyard-customer information exchange associated with Naval ship repair and overhaul.
- Todd Pacific Shipyards realized a 26% increase in their ability to complete dailywork as planned due to their work on a Life Cycle Maintenance Model.
- As a result of work at Bollinger Shipyards on the Configuration Management value stream, a comprehensive effort to re-evaluate all existing management procedures was undertaken to ensure alignment with the Future State value stream map.
- Bollinger Shipyards received an Earned Value Management System Certification while performing their LCS value stream analysis.
- The Trident Submarine Refit Facility developed a plan to effectively execute remote maintenance availabilities on SSGN’s in Diego Garcia, Guam, or La Madalena, Italy.
- The Trident Submarine Refit Facility developed a preservation plant that will eliminate a large backlog of deferred preservation work on SSBNs by the end of FY08, resulting in a \$480K/yr cost avoidance for structural repairs.

After the initial year, the project team received additional funding to conduct similar efforts in six more value streams, two in each of the three Navy product lines addressed in the first year: Surface Ship Repair, Littoral Combat Ship New Construction, and Submarine Repair.

## Objective

To develop the lowest total cost, shortest cycle time, highest performing business processes for accomplishing naval ship new construction and repair.

## Performing Activities

Atlantic Marine, Todd Pacific Shipyards, Bath Iron Works, Bollinger Shipyards, NAVSEA Northwest Regional Maintenance Center, NAVSEA Southeast Regional Maintenance Center, NAVSEA Trident Refit Facility – Kings Bay, V2R Consulting, Northrop Grumman Ship Systems, Hepinstall Consulting Group

## Accomplishments

- Interface created between the Navy Maintenance Database and Atlantic Marine.
- 26% increase in ability to complete daily maintenance life cycle work at Todd Pacific Shipyards.
- Developed a Daily Planning model designed to reduce travel and idle time (projecting a 10% man-hour savings on current repair availability compared to last availability).

## Point of Contact

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**INDUSTRY INVESTMENT:** \$1.3M

**NSRP ASE INVESTMENT:** \$1.3M

