State of the Panel

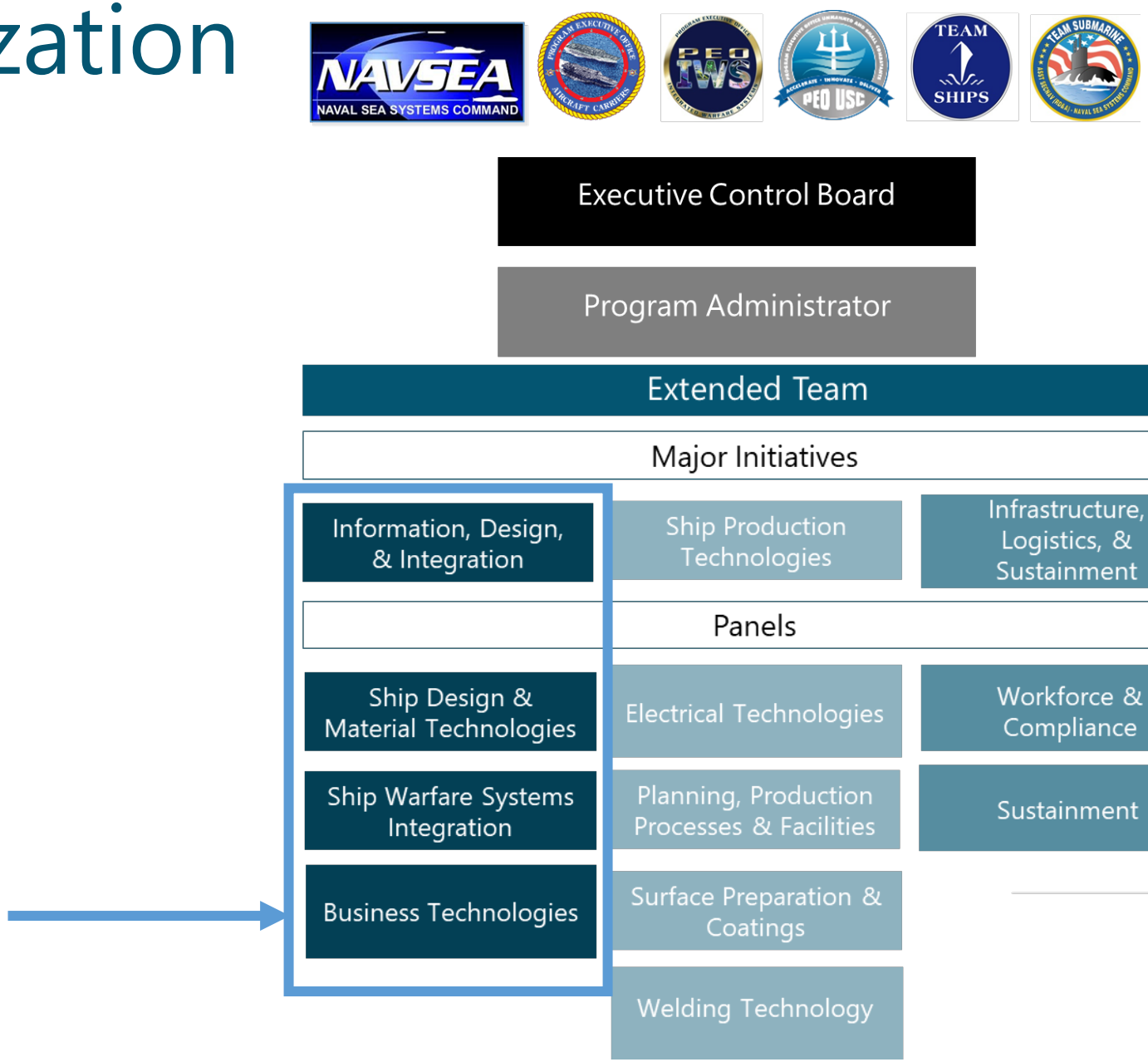
Business Technologies Panel

Terry Walley, Panel Chair

HII Ingalls Shipbuilding

NSRP
NATIONAL SHIPBUILDING RESEARCH PROGRAM™
Taking Shipbuilding and Repair to the Next Level

Organization



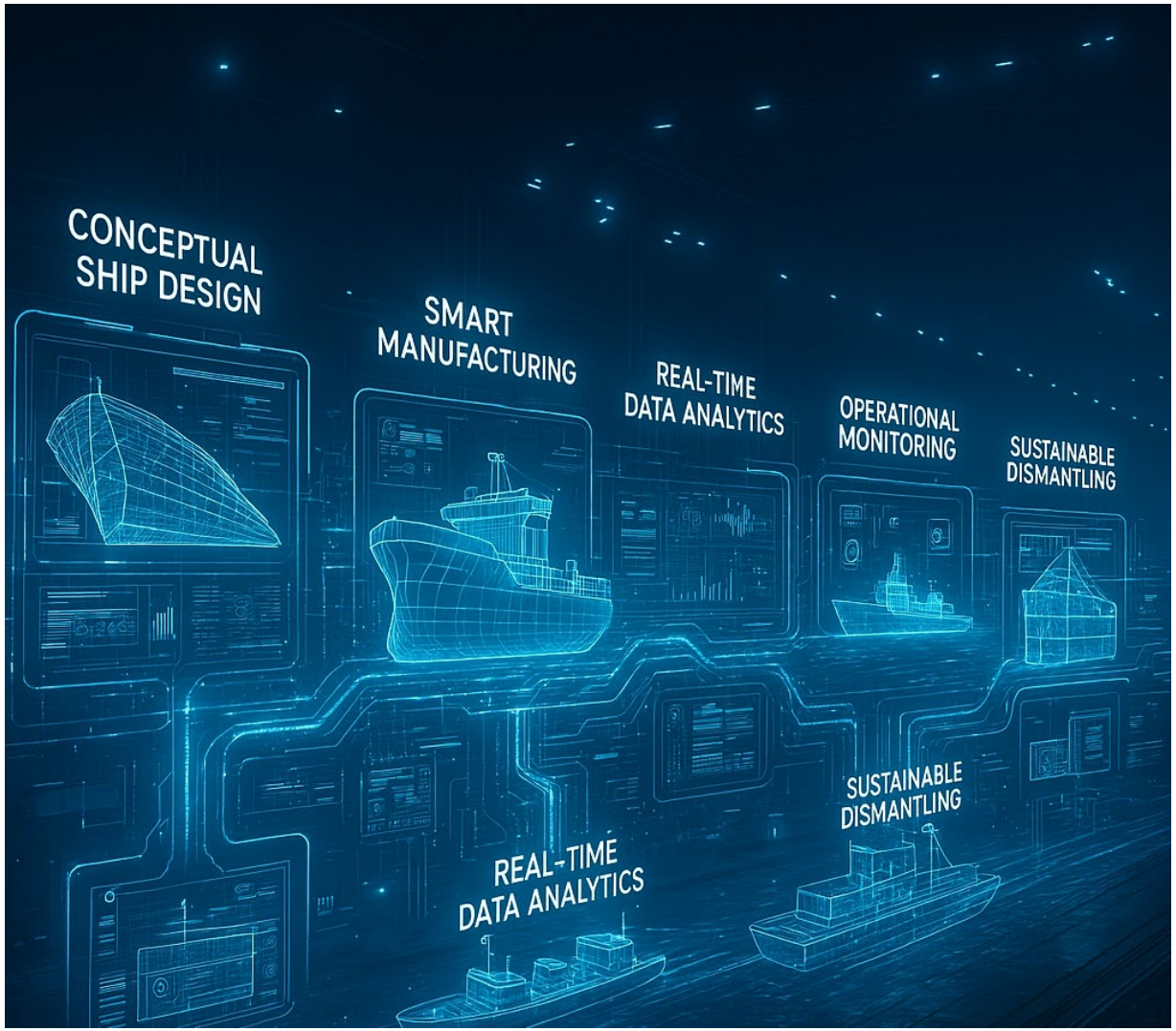
Business Technologies Panel Leadership

Panel Chair: Terry Walley, Ingalls Shipbuilding

Panel Vice-Chair: Patrick Roberts, SSI Americas

Business Technologies Panel's Mission

- The BT Panel focuses on emerging digital capabilities, blending process and information to develop advanced solutions that support product lifecycles from concept to disposal.



Panel's Purpose

- Strategically aligned with US Navy Initiatives & NSRP SIP 7.1.2 / TIP 7.1.2.2, 7.1.2.4, 7.1.2.7, 7.1.2.8

Business Technologies Targeted Initiatives

1. Advance and Leverage Digital Shipbuilding/Model Based (x)
2. Solutions and best practices to support enterprise business processes and information management (Informatics)
3. Incorporate autonomy in design processes and decision support tools (AI/ML, etc.)
4. Cybersecurity Compliance, Solutions, Education & Awareness (CMMC)

NSRP BT Panel – Benefit to Navy & Industry

- ***Provides a Forum*** for collaboration of Shipyards/Navy/Industry Partners
- Navy, Shipyards, Industry are in the midst of ***digital transformation***
- Focus on ***initiatives that benefit*** both the Navy and the shipbuilding and ship repair industries
- Seek exposure and understanding of common problems and vision towards ***providing solutions***

Recent Panel Projects

FY2024 - 2025 Panel Project

- Optimized Weld Records Phase Two (2021-481-002)
  - This project builds on the Optimized Weld Project 2021-481-001 by expanding the functionality of the software to include gauge integration, WPS form and others, welder qualification tracking and flagging, possible path to NMD integration and management by exception for business intelligence.

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INGALLS SHIPBUILDING
A Division of HII

NEWPORT NEWS SHIPBUILDING
A DIVISION OF HII

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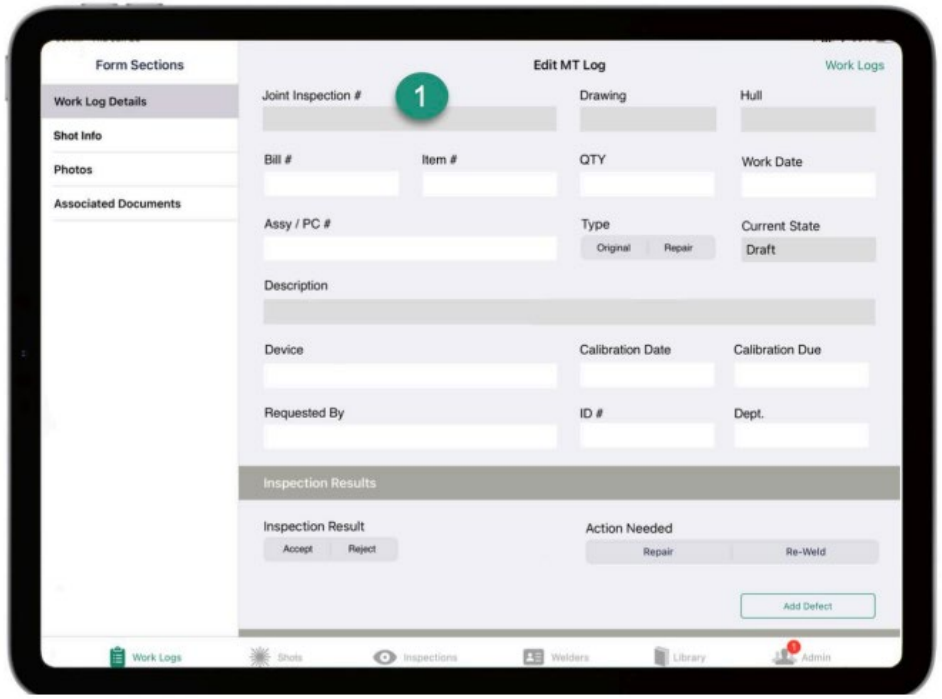
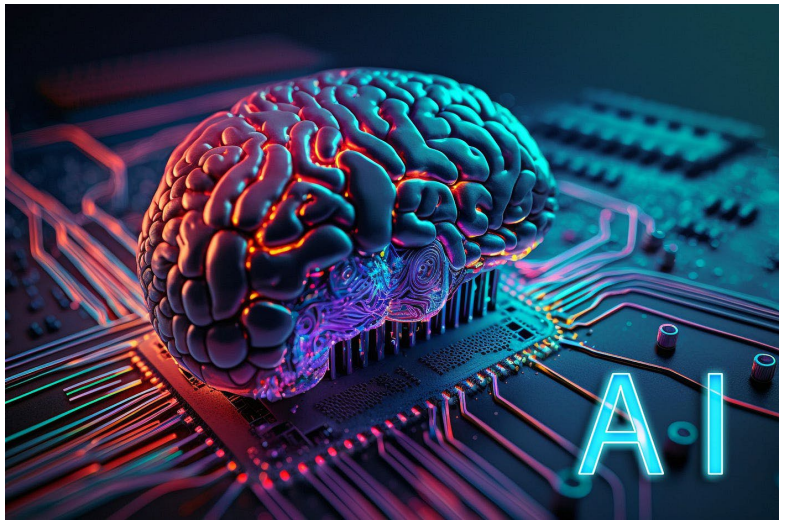


[Optimize Weld Records Phase Two (2021-481-002) – NSRP]

FY2025 - 2026 Panel Project

- Potential for Applying Artificial Intelligence (AI) in Shipyard Processes (2018-455-41)
  - This project will focus on identifying opportunities that AI can provide for Shipbuilders to drive efficiency throughout the business value stream. Some areas to be investigated are:
    - Engineering and design processes
    - Digital products for manufacturing data
    - Management of in-service data and sustainment products



Potential for Applying Artificial Intelligence (AI) in Shipyards Processes (2018-455-41) – NSRP

Panel Activities
Past, Current, and Future

Business Technologies Projects Submitted 2024
12 Projects Received

Project	NSRP Panels Submitted to for Vote	Submitted by	NSRP ECB Represented Shipyard(s)
BT01 - PPS25-027 - Adapting Cobots to Plasma Arc Cutting Thick Structures ***(BT, PPPF, WELD)***	BT, PPPF, WELD	EWI	HII-NNS
BT02 - PPS25-037 - AI-Driven Ship Design Optimization ***(BT, SDMT, SUST)***	BT, SDMT, SUST	FMM	FMM
BT03 - PPS25-026 - Best Practices for Rapid Qualification of Additively Manufactured Parts ***(BT, PPPF, SDMT)***	BT, PPPF, SDMT	ABS	GD-NASSCO
BT04 - PPS25-052 - Evaluation of Digital Twin Technologies for In-Situ Ballast Tank Inspection ***(SPC, SUST, BT)***	SPC, SUST, BT	Southwest Research	HII- Ingalls, HII-NNS, BAE
BT05 - PPS25-025 - Guidance for Large Scale Additive Manufacturing in Shipbuilding ***(BT, PPPF, SDMT)***	BT, PPPF, SDMT	ABS	GD-NASSCO
BT06 - PPS25-023 - Integrate MAESTRO Ship Structural Design Software with Femap/Nastran Software ***(BT, SDMT6***	BT, SDMT	MAESTRO Marine	HII-Ingalls
BT07 - PPS25-054 - Label Plate Management ***(BT, SDMT, SUST)***	BT, SDMT, SUST	SSI	FMM, GD-NASSCO
BT08 - PPS25-053 - Navy Product Lifecycle Management Data Requirements Interface Mapping ***(BT, SDMT, SUST)***	BT, SDMT, SUST	SSI	Austal USA, FMM
BT09 - PPS25-003 - Potential for Applying Artificial Intelligence (AI) in Shipyards Processes ***(BT, SDMT)***	BT, SDMT	HII-NNS	HII-NNS, HII-Ingalls
BT10 - PPS25-035 - Streaming Ship Sustainment & Modernization Through AI Insertion on Existing Processes ***(SUST, BT)***	SUST, BT	Pacific Shipyards	Pacific Shipyards
BT11 - PPS25-022 - Utilizing Virtual Reality in Ship Design ***(BT, ELECT, SDMT)***	BT, ELECT, SDMT	GD-NASSCO	GD-NASSCO
BT12 - PPS25-038 - Voice Origin Capture and Linguistic Retrieval Augmented Generation Project ***(BT, WORK)***	BT, WORK	HII-NNS	HII-Ingalls, HII-NNS

Business Technologies Projects Submitted 2024
Top 3 BT Projects & 1 Joint Project Submitted

Project	NSRP Panels Submitted to for Vote	Submitted by	NSRP ECB Represented Shipyard(s)
BT01 - PPS25-027 - Adapting Cobots to Plasma Arc Cutting Thick Structures ***(BT, PPPF, WELD)***	BT, PPPF, WELD	EWI	HII-NNS
BT02 - PPS25-037 - AI-Driven Ship Design Optimization ***(BT, SDMT, SUST)***	BT, SDMT, SUST	FMM	FMM
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BT12 - PPS25-038 - Voice Origin Capture and Linguistic Retrieval Augmented Generation Project ***(BT, WORK)***	BT, WORK	HII-NNS	HII-Ingalls, HII-NNS

35 BT Active Members (Companies) in 2024

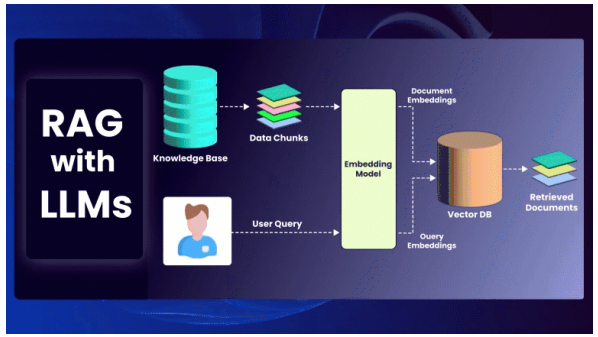
29 BT Active Members (Companies) Submitted a Voting Ballot on BT Panel Projects in 2024

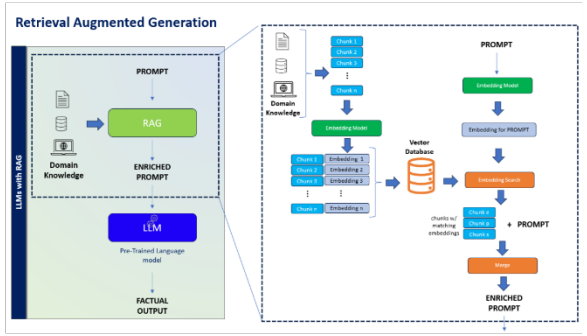
83% BT Active Membership Cast Votes in 2024 Ballot

Projects Down Select by Panel Member Vote

Voice Origin Capture Linguistic Retrieval Augmented Generation Project

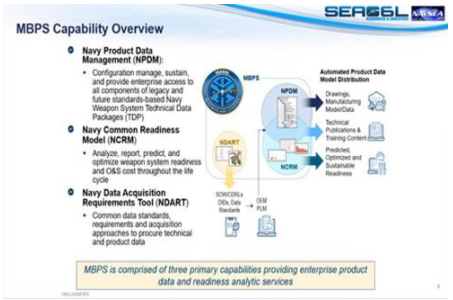
HII – Newport News Shipbuilding

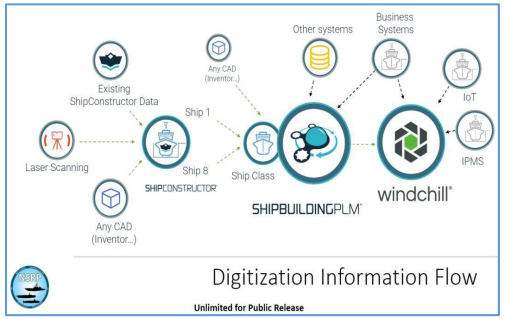




Navy Product Lifecycle Management (PLM) Data Requirements Interface Mapping

Austal USA, Fincantieri Marinette Marine, Gibbs & Cox (Leidos), PTC





Potential for Applying Artificial Intelligence (AI) in Shipyard Processes

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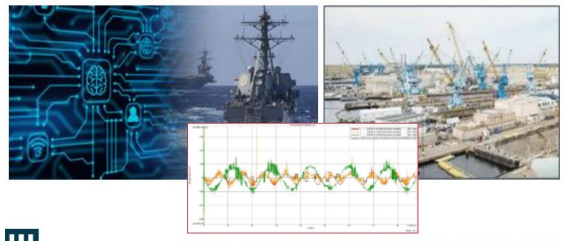
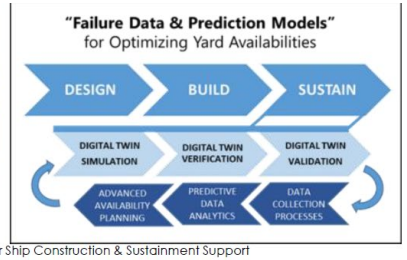




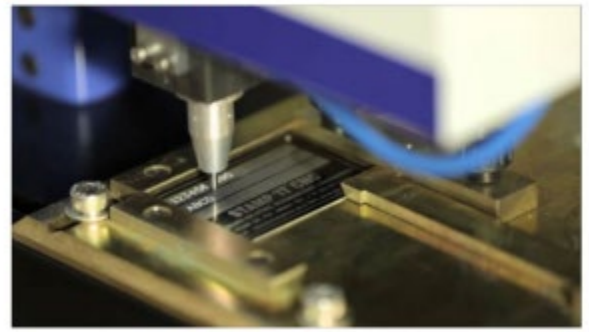
NSRP RA 2024-01 Building "Failure Data & Prediction Models" for Ship Construction & Sustainment Support

Label Plate Management

ShipConstructor, Fincantieri Marinette Marine, Bancroft Enterprises, GD – NASSCO, SEASPAN

Reusing the digital data from the 3D Model to the Label Plate Manufacturer / Supplier

Dry Stores
2 – 10 – 1 – A



Projects Down Select by ECB for Funding

Voice Origin Capture Linguistic Retrieval Augmented Generation Project

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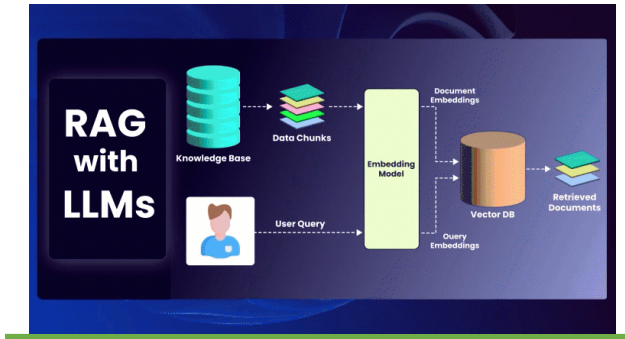

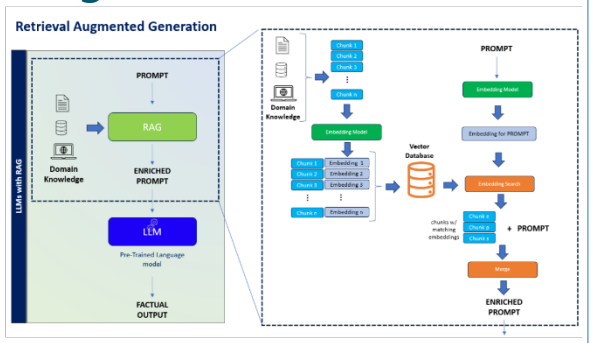

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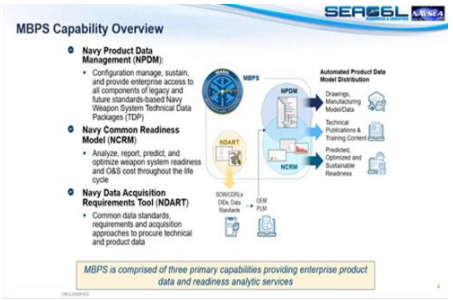

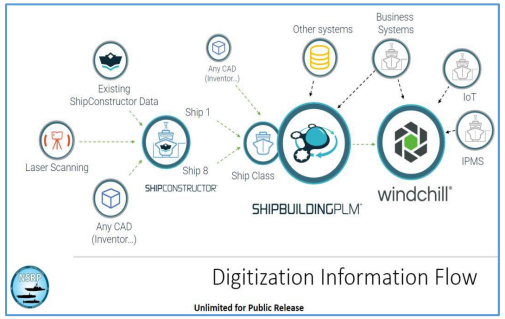

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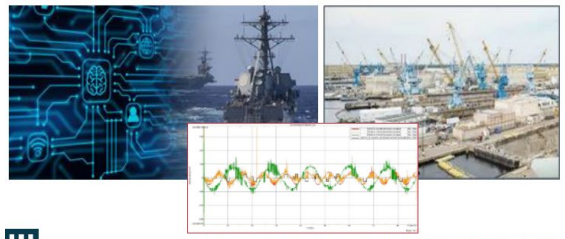

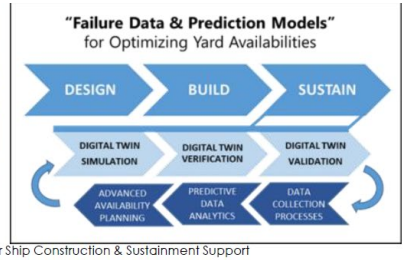

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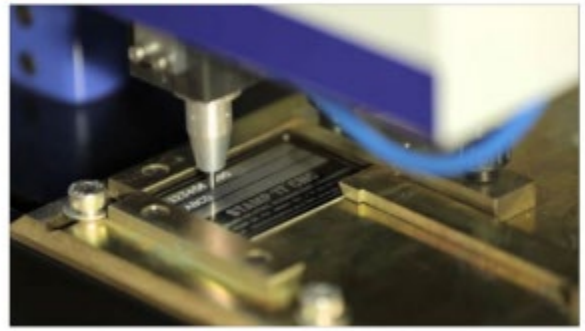

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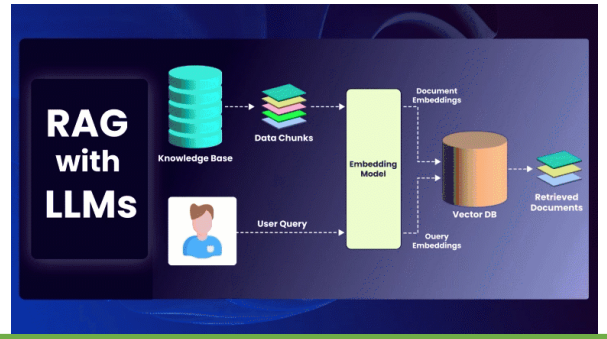

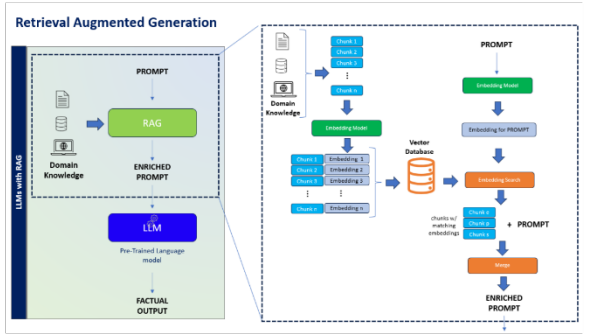

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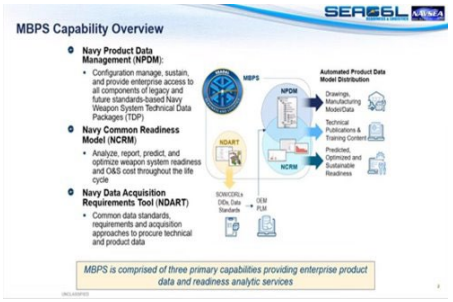

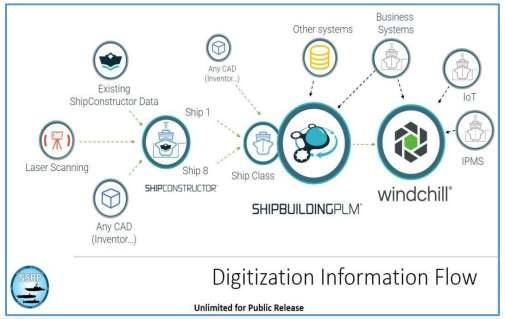

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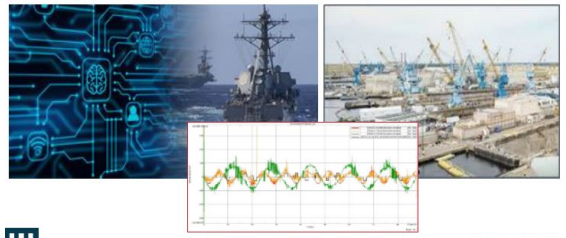

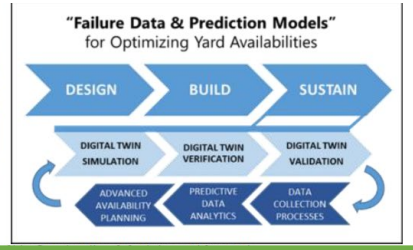

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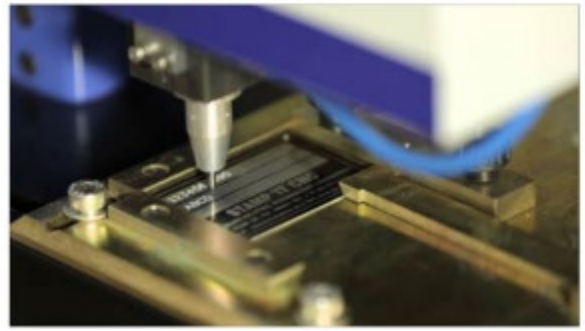

BT/SDMT Joint Panel Meeting Vancouver, BC

August 20 – 22, 2024

- Hosted by SEASPAN
- Tours of SEASPAN Shipyard
- 3 days
  - 23 Presentations
  - 65+ Attendees

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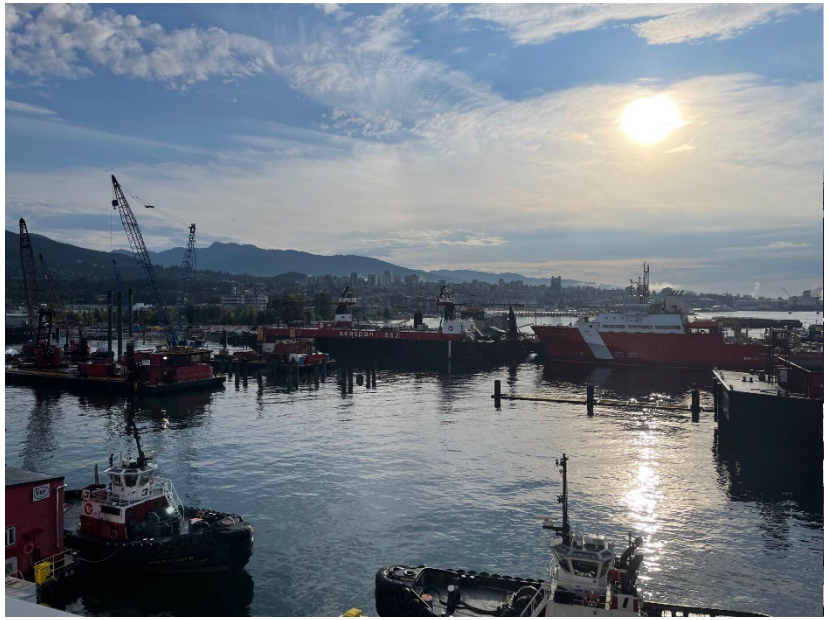
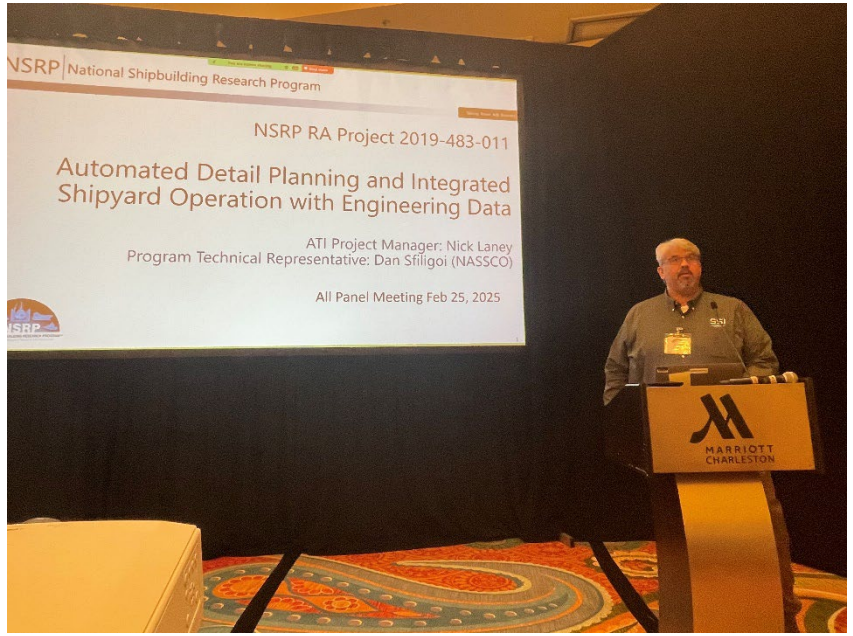


ALL Panel Meeting Charleston SC

February 2025 – Marriott Charleson SC

- Business Technologies Panel Breakout - February 25th, Room B
  - Number of In Person Attendees = 40+
  - Number of Virtual Attendees = 15
  - Number of Organizations = >25



Current & Future Activities

- BT/SDMT Joint Panel Meeting
  - August 5 – 6, 2025 Brunswick ME (Today)
- BT Panel Virtual Project Proposal Review Meeting
  - August 19th, 2025 (*Tentative*) 2 weeks
- Future Joint Panel and / or BT Virtual Meetings *(2025)*
  - TBD – Ship Design & Materials (SDMT) Welding (WT), Electrical (ET), Workforce Development (WDT), Planning Production Process & Facilities (PPPF)
- ONR ShipTech 2026
  - Feb / Mar 2026 Charleston SC (TBD)

NSRP Panel Project Solicitation 2026 Timeline / Deadline

9. DEADLINES

Deadline for Offerors to submit White Papers to BIDS is 4:00 p.m. ET on **August 26, 2025**.

Deadline for Panel Chairs to submit up to three White Papers and one joint White Paper to ATI is 4:00 p.m. ET on **September 26, 2025.** Panel Chairs shall submit White Paper(s).

Any Offeror whose White Paper is one submitted by a Panel Chair for ECB consideration must submit to ATI the Supporting Cost Data Table, as required by the Panel Project Guide – Vol 1 – Offerors FY26 (dated May 12, 2025), by 4:00 p.m. ET on **October 2, 2025**.

https://www.nsrp.org/wp-content/uploads/2025/05/Panel-Project-Solicitation-2026-FINAL.pdf

Thank you!

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