National Shipbuilding Research Program

Program Update

Ship Production Process Technologies, Business Process Technologies, Systems Technology, Product Design & Material Technologies, Crosscut Initiatives Joint Panel Meeting

May 6-7, 2009

San Diego, CA

Program Funding and Ops: 2009 & beyond

- **FY 2009 Funding**
  - Not in Navy budget & no Congressional add
  - PEOs (Ships, Carriers) have committed $4.5M – ***on board***
  - $700K for Documents for Ship Cost Reduction (Specs initiative)
  - $500K for Naval Engineering Education initiative (COMNAVSEA)
  - $500K for SecNav 'Culture of Quality' study (Asst SecNav for RDA)
- **ECB Spending Decisions To Date**
  - Phase 2 of ongoing major (RA) projects
  - Shipyards' engagement in Navy Product Data Initiative
  - New round of panel projects
    - » $777K, 9 projects covering 8 panels
    - » 4 additional projects on standby pending receipt of more funding
    - » Details follow...

NEW Panel Projects

2008 Selected Panel Projects

Project	Participants	Panel	NSRP Funding
Risk Reduction in the Primary Scantling Design and Approval Process for Structurally Complex Vessels	NASSCO, ABS	PDMT	$99,876
Implementation of Navy Standard Welding Procedures	Edison Welding Institute, NGSB-NN	Welding	$97,014
Retention of Pre-Construction Primer	Atlantic Marine, Elzly Technology Corporation, NASSCO, BIW, NAVSEA 05P23, NGSB-Gulf Coast	SPC	$91,580
Developing Emissions Factors for Electrodes Commonly Used within the Shipbuilding Industry for use in Regulatory Reporting	Concurrent Technologies Corporation, Penn State University Applied Research Laboratory, Softek Systems, Inc., BAE Systems Norfolk Repair, BIW	Env.	$92,091
Assessing the Need for 50% Relative Humidity during Tank Painting	Elzly Technology Corporation, Desert Polymers, NASSCO	SPC	$47,687
Ship Production Rigging Planning Guide	NASSCO, Bath Iron Works, Noran Engineering	SPPT	$99,720
Performance-Based Language for Preservative Coating Removal in New Construction Shipyards	Bath Iron Works, Collier Scott Shannon PLLC, Electric Boat, NASSCO, Northrop Grumman Shipbuilding Newport News, Northrop Grumman Shipbuilding Gulf Coast, Shipbuilders Council of America	FTRM	$59,200
Leadership 2010 - Improving Supervision	Alaska Ship & Drydock	Crosscut	$89,800
Interim SCIM and STEP Implementation	Intergraph Corporation, NGSB-GC, NGIT, Product Data Services Corporation, NSWCCD	Systems	$99,870
			$776,838

Standby List

Project	Participants	Panel	NSRP Funding
Pilot Tool for Linking Ship Design to Shipyard Simulation	Mississippi State University, ShipConstructor USA, VT Halter, Bollinger, Bender Shipbuilding, Todd Pacific, Atlantic Marine, Northrop Grumman - GC	SPPT	$98,813
Comparison of SAW and Tandem Electrode Gas Shielded Processes for Productivity and Distortion in Thin Panel Butt Joints for Thin Panel Structures	Todd Pacific Shipyard, Nassco, CD-adapco, Weaver Engineering, Dwight Laboratories, Machinists Inc., ESAB, Wolf Robotics, Abicor Binzel Corp.	Welding	$100,000
Cost-Effective Specifications and Requirements Definition	ABS, NASSCO, BIW, NGSB, Bollinger, Victoria Dlugokecki, Malone Consulting, Tedesco Consulting	PDMT	$100,000
Vessel General NPDES Permit Applicability to Shipyard Vessels and Operations	BAE Systems Ship Repair Norfolk, CH2M HILL	Env.	$28,000

Recent Navy Tasking

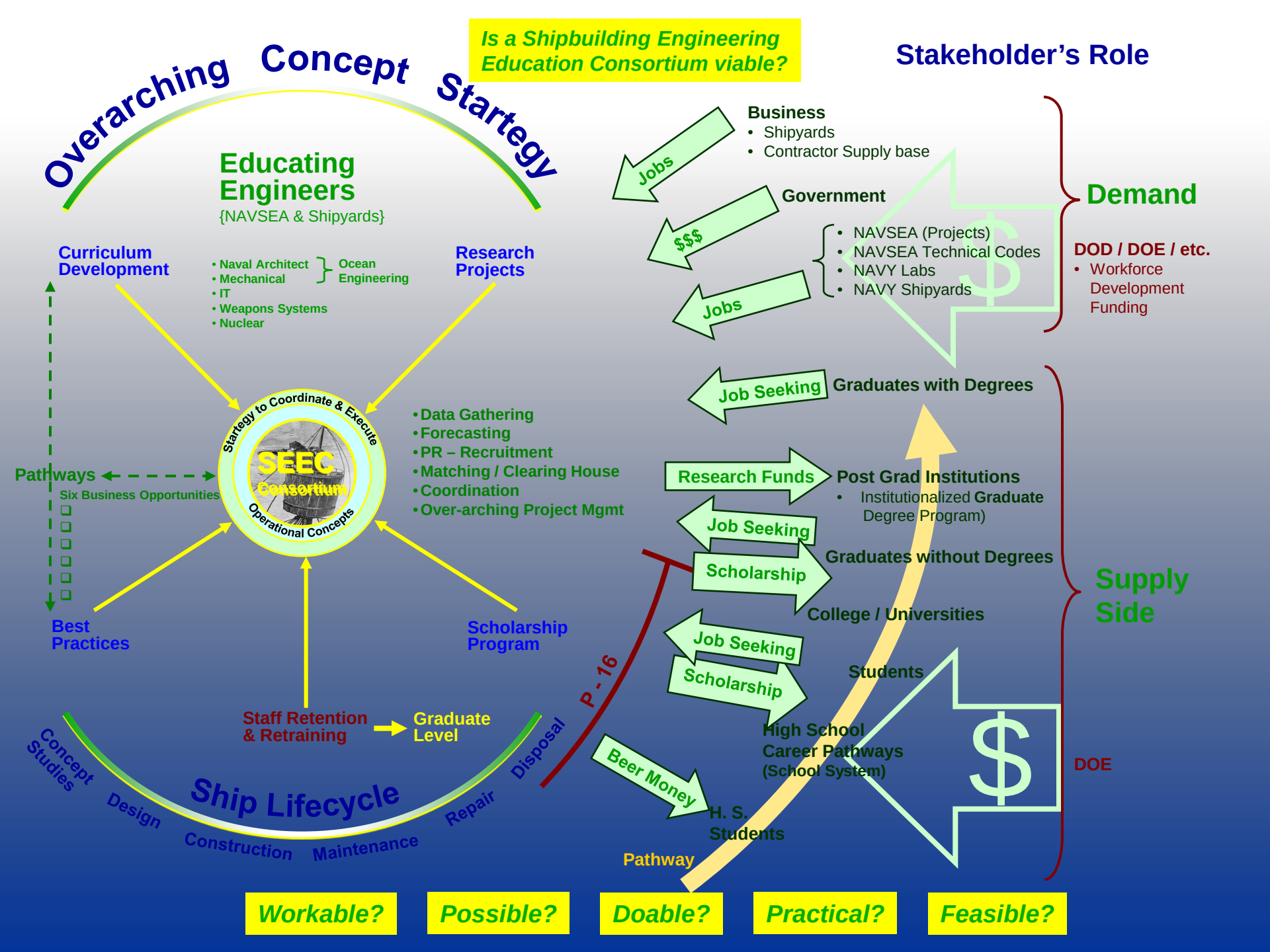
- **Shipbuilding Engineer Education Consortium (SEEC)**

- **SEEC Task Statement**
  - "Develop an overarching concept strategy for educating engineers across the spectrum of engineers in NAVSEA and the shipyards. Explore issues such as best practices in engineering education, research projects, scholarship focus, curricula development and staff retention as applicable to the shipbuilding engineering work across the ship lifecycle (e.g., concept studies, design, construction, maintenance, repair, disposal). Develop the viability and operational concepts of a consortium to coordinate and execute this strategy."

Is a Shipbuilding Engineering Education Consortium viable?

Possible? *Practical?*

Workable? *Doable?* *Feasible?*


Is a Shipbuilding Engineering Education Consortium viable?
Overarching Concept Startegy
Educating Engineers
{NAVSEA & Shipyards}
Curriculum Development
• Naval Architect
• Mechanical
• IT
• Weapons Systems
• Nuclear
Ocean Engineering
Research Projects
Pathways
Six Business Opportunities
Best Practices
Scholarship Program
Startegy to Coordinate & Execute
SEEC Consortium
Operational Concepts
•Data Gathering
•Forecasting
•PR – Recruitment
•Matching / Clearing House
•Coordination
•Over-arching Project Mgmt
Staff Retention & Retraining
Graduate Level
Ship Lifecycle
Concept Studies
Design
Construction
Maintenance
Repair
Disposal
P-16
Pathway
Stakeholder's Role
Business
• Shipyards
• Contractor Supply base
Jobs
Government
$$$
Jobs
• NAVSEA (Projects)
• NAVSEA Technical Codes
• NAVY Labs
• NAVY Shipyards
Demand
DOD / DOE / etc.
• Workforce Development Funding
Job Seeking
Graduates with Degrees
Research Funds
Post Grad Institutions
• Institutionalized Graduate Degree Program)
Job Seeking
Scholarship
Graduates without Degrees
College / Universities
Job Seeking
Scholarship
Students
High School Career Pathways (School System)
Beer Money
H. S. Students
Supply Side
DOE
Workable?
Possible?
Doable?
Practical?
Feasible?

Documents for Ship Cost Reduction

- **Effort picking up speed**
- **NAVSEA working on**
  - Shock
  - Vibration/Noise ***(New SOW being reviewed by SYs)***
  - Welding (NVR Chp 8, MIL-STD-1689, -278)
  - Motors (MIL-M-17060)
  - Switchgear
  - MIL-STD-777 Schedule of Piping
  - Electromagnetic Interference & Environmental Effects
  - Radar Engineering
- **Planning on 15 SY visits by Summer 2009**
- **Visits will be announced via ATI to the Shipyard POC – ensures logistics are in place**

Recent Meetings & Events

Dates	Event / *Location*	Comments
Mar 24-25	Surface Prep & Coatings *Atlanta, GA*	Panel Meeting
Apr 7-8	Welding (sponsored by ESAB Welding) *Hanover, PA*	Panel Meeting
Apr 8-9	ASNE Day 2009 *National Harbor, MD*	Conference
Apr 30	ISE-6 Demo; NPDM Mtg *Washington D.C.*	

Upcoming Meetings & Events

Dates	Event / *Location*	Comments
May 6-7	Shipyard Prod'n, Business, Systems Product Design & Mat'l, & Crosscut Initiatives *San Diego, CA*	Joint Panel Meeting
June 9	ECB Meeting *Washington D.C.*	
TBD IN JUNE	Electrical Technologies *Washington D.C.*	Panel Meeting
June 10	Surface Prep and Coating *Norfolk, VA*	Panel Meeting
June 10-11	Facilities, Tooling & Risk Management *New Orleans, LA*	Panel Meeting

Upcoming Meetings & Events

Dates	Event / *Location*	Comments
June 16-18	Environmental Technologies *Ketchikan, AK*	Panel Meeting
Sept 15-17	NSRP All-Panel Meeting *Philadelphia, PA*	Joint Panel Meeting
Oct 21-23	SNAME Maritime Technology Conference & Expo *Providence, RI*	NSRP Booth

For More Information -- *New, Improved* Website!*

www.nsrp.org

Questions?