



National Shipbuilding Research Program

Program Update

Facilities Tooling and Risk Management
Panel Meeting

June 10-11, 2009

New Orleans, LA

Program Funding and Ops: 2009 & beyond

- **FY 2009 Funding**

- 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)
- \$710K 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 (11/08 selection)
- SecNav Study and SEEC initiative
- Some standby panel projects...?

Standby Panel Projects

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 |

- **Standby projects may get funded pending ECB decision...**

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.”
- **Briefed to ECB, final deliverable to Navy this month**

Is a Shipbuilding Engineering Education Consortium viable?



Possible?

Practical?

Workable?

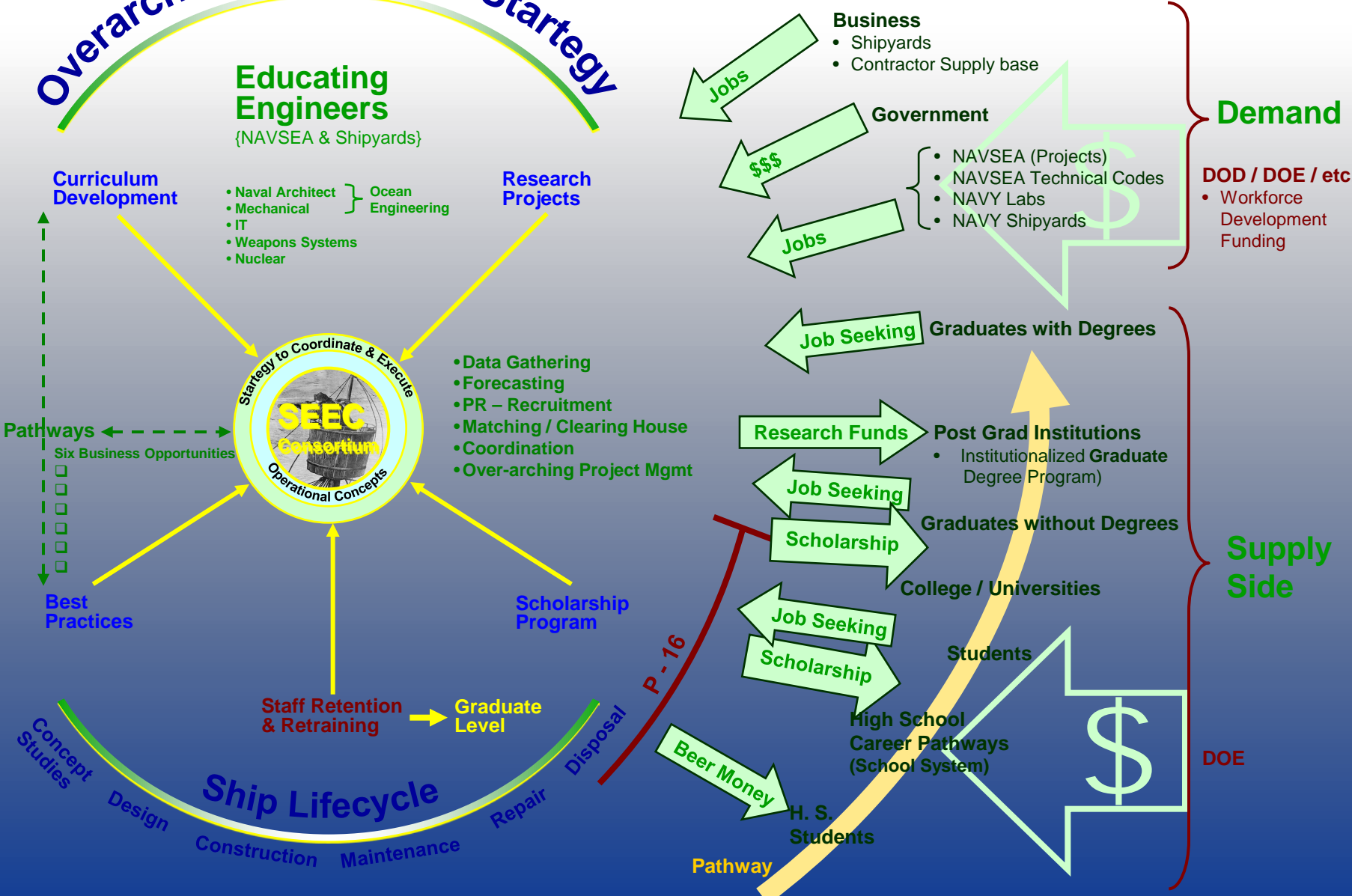
Doable?

Feasible?

Is a Shipbuilding Engineering Education Consortium viable?

Stakeholder's Role

Overarching Concept Strategy



Educating Engineers
{NAVSEA & Shipyards}

Curriculum Development

- Naval Architect
 - Mechanical
 - IT
 - Weapons Systems
 - Nuclear
- Ocean Engineering

Research Projects

- Data Gathering
- Forecasting
- PR – Recruitment
- Matching / Clearing House
- Coordination
- Over-arching Project Mgmt

Strategy to Coordinate & Execute

SEEC Consortium

Operational Concepts

Pathways

Six Business Opportunities

-
-
-
-
-
-

Best Practices

Scholarship Program

Staff Retention & Retraining → Graduate Level

Ship Lifecycle

Concept Studies, Design, Construction, Maintenance, Repair, Disposal

Business

- Shipyards
- Contractor Supply base

Government

- 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 Graduates without Degrees

Scholarship College / Universities

Job Seeking Students

Scholarship High School Career Pathways (School System)

Beer Money H. S. Students

Supply Side

DOE

Workable? Possible? Doable? Practical? Feasible?

Documents for Ship Cost Reduction

- **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

- **Over 30 Industry visits made so far**

- Visits will be announced via ATI to the Shipyard POC – ensures logistics are in place

- **All activities in “Risk Analysis” phase (except Shock)**

Recent Meetings & Events

| <u>Dates</u> | <u>Event / Location</u> | <u>Comments</u> |
|--------------|---|-----------------|
| Apr 30 | ISE-6 Demo; NPDM Mtg <i>Washington D.C.</i> | |
| May 6-7 | Shipyard Prod'n, Business, Systems Product Design & Mat'l, & Crosscut Meeting Initiatives <i>San Diego, CA</i> | Joint Panel |
| June 9 | ECB Meeting <i>Washington D.C.</i> | |

Upcoming Meetings & Events

| <u>Dates</u> | <u>Event / Location</u> | <u>Comments</u> |
|--------------|--|---------------------|
| TBD IN JUNE | Electrical Technologies <i>Washington D.C.</i> | Panel Meeting |
| June 10-11 | Facilities, Tooling & Risk Management <i>New Orleans, LA</i> | Panel Meeting |
| June 16-18 | Environmental Technologies <i>Ketchikan, AK</i> | Panel Meeting |
| Sept 15-17 | NSRP All-Panel Meeting <i>Philadelphia, PA</i> | Joint Panel Meeting |
| Oct 21-23 | SNAME Maritime Technology Conference & Expo <i>Providence, RI</i> | NSRP Booth |

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

www.nsrp.org

The screenshot shows the homepage of the National Shipbuilding Research Program (NSRP). At the top, the logo features an American flag and the text "NATIONAL SHIPBUILDING RESEARCH PROGRAM" and "ADVANCED SHIPBUILDING ENTERPRISE". Below this is the tagline "Reducing Naval Ship Construction & Repair Costs" and a search bar. A left-hand navigation menu includes links for Home, About Us, Project Information, Ship Production Panels, Events, Industry Initiatives, Key Downloads, Links, and Contact Us. Below the menu is a "Quick Links" section with categories like Solutions, Small Business Opportunities, Navy Product Data Initiative, Project Information Requests, and Strike Up/Strike Down. An "Updates" section lists recent project information and presentations. A central image shows a "Perable Automated Bulkhead Straightener" with a caption "Perable Automated Bulkhead Straightener Demos a Success...". Below this is a "Major Program Initiatives" section with six categories: Shipyard Production Processes, Systems Technology, Business Process Technologies, Product Design & Materials Technology, Facilities, Tooling & Risk Management, and Crosscut Initiatives. An "About NSRP" section explains the program's goal to reduce the cost of building and maintaining U.S. Navy warships, mentioning a collaboration of 13 major U.S. shipyards. At the bottom, a map of the United States is labeled "NSRP ASE" and shows the locations of various shipyards and research centers, including Ingalls, Bath Iron Works, and others. The footer contains links for Home, Links, Site Map, and Privacy Policy.

Questions?