

Welders Do It
In All Positions

Aligning Technology & People:

Getting best value from NSRP R&D projects

Crosscut Initiatives Panel

Update 2010



Crosscut Panel's Five Roles

2005 Strategic Investment Plan

- ▶ Workforce development and retention
- ▶ Education and training
- ▶ Organizational development and culture change
- ▶ Technology transfer
- ▶ Human resources management

These functions “cut across” other areas in shipyards – design, production & business processes

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WHERE TO FIND JOBS
HOW TO GET STARTED
SKILLS NEEDED
FAQ

[2-question goships survey!](#)

VIEW OUR COMMERCIALS

MY STORY

RESOURCES
There's no better time than today to begin your career in shipbuilding. Find out more now!

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EMPLOYERS CAREER ADVISORS CAREER CHANGERS

BROWSE JOBS BY REGION
ATLANTIC
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ABOUT SHIPS
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VIDEO LIBRARY

Listen to what people working in the industry are saying.

 Guillermo Maldonado Paint Line Foreman	 Mark Adams Welder	 James Moore Carpenter Foreman	 Jose Leguizamón Scaffold Foreman
 Kathy Deaneport 1st Class Electrician	 Lizbeth White Welding Leadman	 Paul Powell 1st Class Cutter	 Allen Ptas Superintendent
 Ron Wilson Site Signs Director	 Mella Swinton Labor Relations Representative	 Michael Robinson Pipe Foreman	 Mark Schmeibauch 2nd Shift Supervisor
 Juan Chaves Pipefitter	 Darryl Joe Paint General Foreman		

Learn while you earn! Watch a video about apprenticeship.

Apprenticeship

Get a feel for some of the different jobs found in a shipyard.

RESOURCES

[Back to Home Page](#)

STUDENTS

WHO AM I?

- Career Communications, Inc.
Not sure what you want to be when you grow up? Take a career interest inventory to get started in the right direction.

WHERE CAN I START MY CAREER?

Shipyards offer you rewarding and challenging careers and are located throughout the United States. Click on the links below to find out what shipyards are located in your region of the country.

- Atlantic
- Great Lakes & Inland Waterways
- Gulf Coast
- Northeast
- West Coast

HOW MUCH CAN I EARN?

Shipyards offer competitive wages. Your education and skill levels determine how much you make. Below are a few examples of what you can expect to earn working in today's shipyards:

- Foremen and computer-aided draftsmen earn between \$35,000 and \$60,000 a year.
- Skilled craftsmen such as welders, riggers, electricians, machinists, and carpenters earn between \$42,000 and \$45,000 annually.
- Naval architects and engineers make \$51,000 to \$95,000 each year.

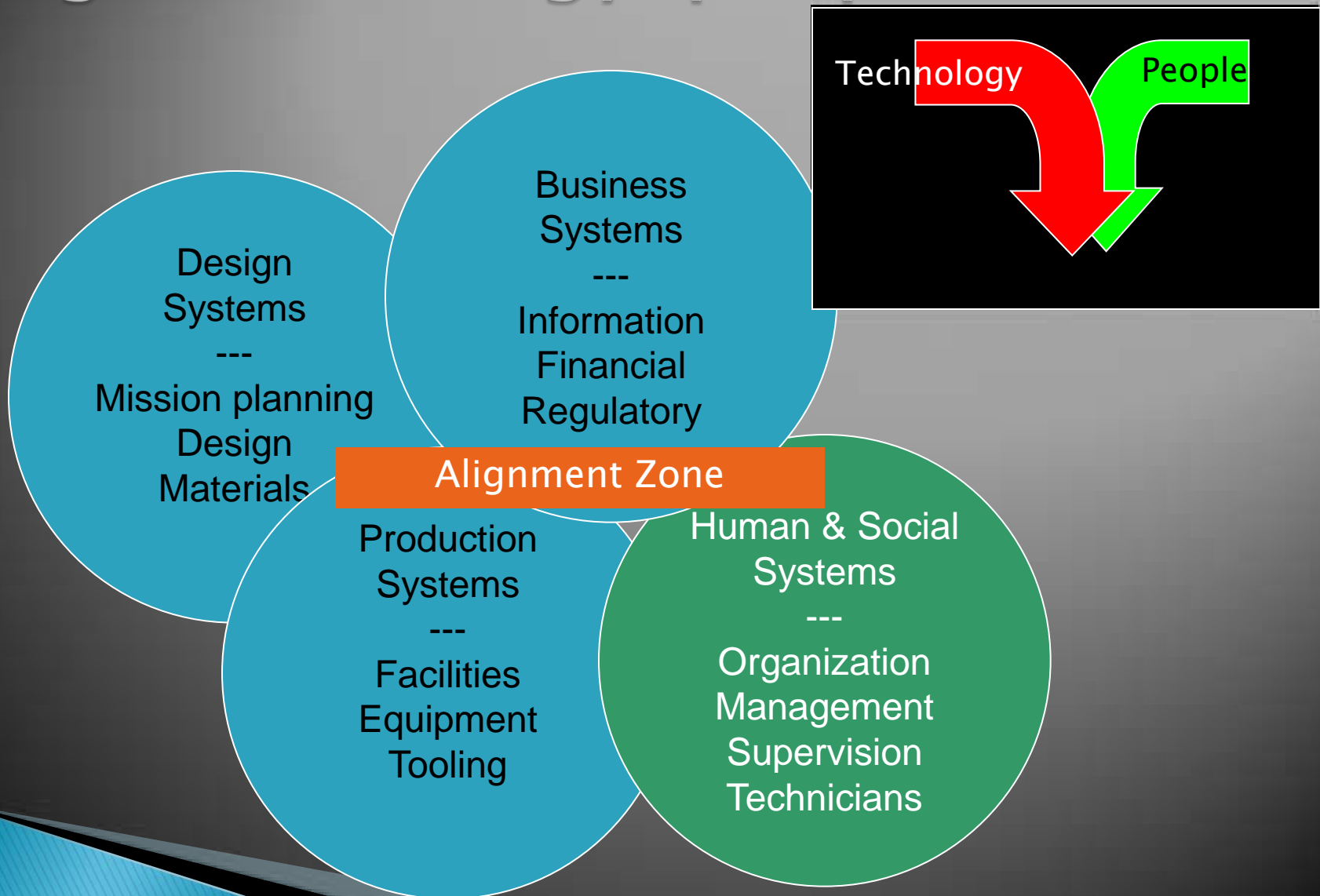
Visit the sites below to search for jobs where you live.

- Career One Stop
Job search tools and additional resources
- Monster.com
Job search tools and additional resources

CAN I MOVE UP ONCE I START WORKING AT A SHIPYARD?

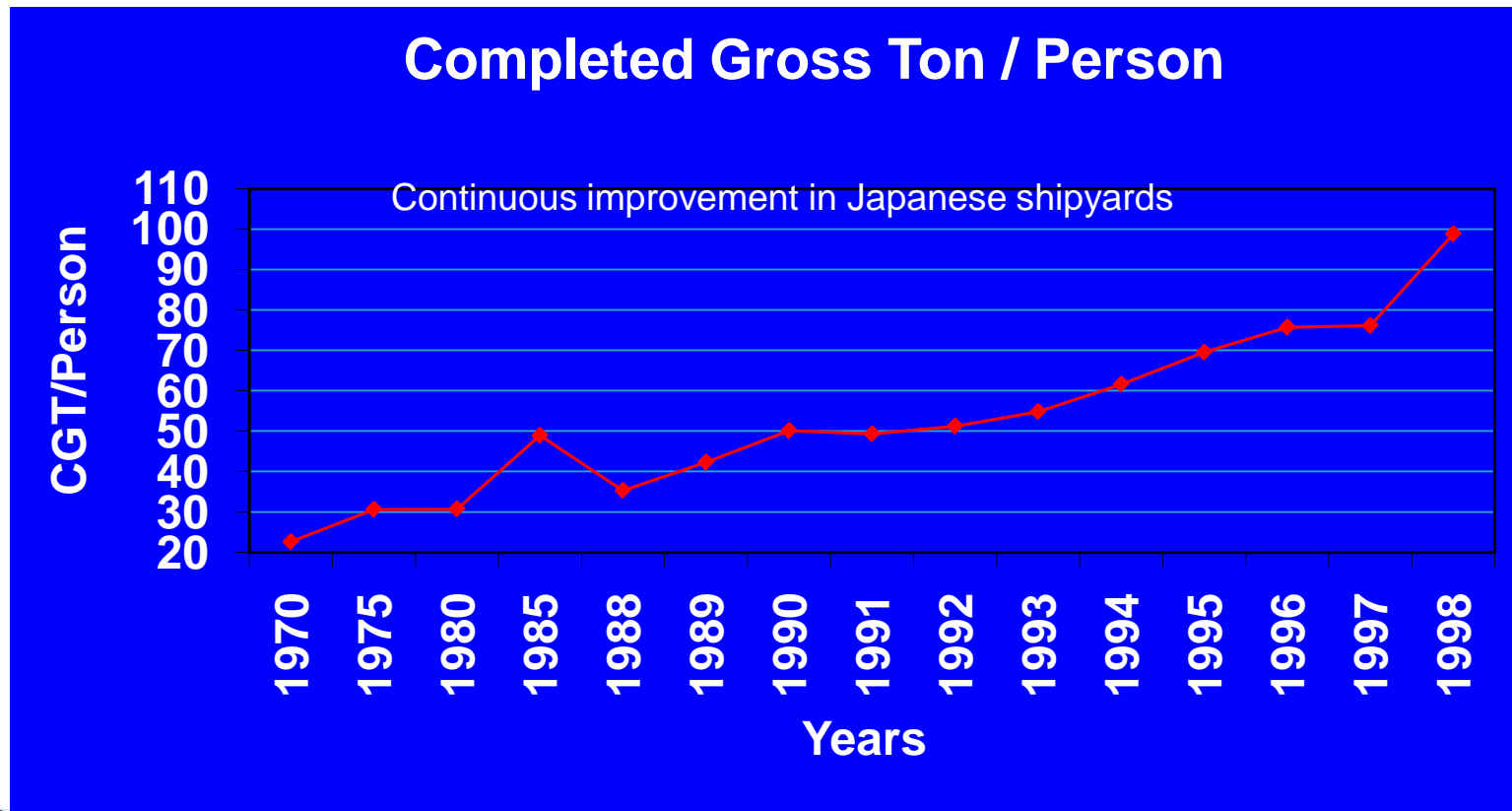
The shipbuilding and repair industry offers a variety of career paths and

Align technology-people



Result of technology–people alignment

- ▶ Are people a profit center or an asset investment?



Project Needs

▶ NAVSEA Goals


- Total Ownership Cost Reduction
- Improved quality – products & services
- ‘Green’ fleet and facilities

▶ Industry improvement

- Delivery, quality, cost

Project design for business value

- ▶ Technical projects meet customer demand:
 - Production/Delivery
 - Quality
 - Cost

 - ▶ People qualities: managers, supervisors, technicians
 - passion
 - skill
 - discipline
- 

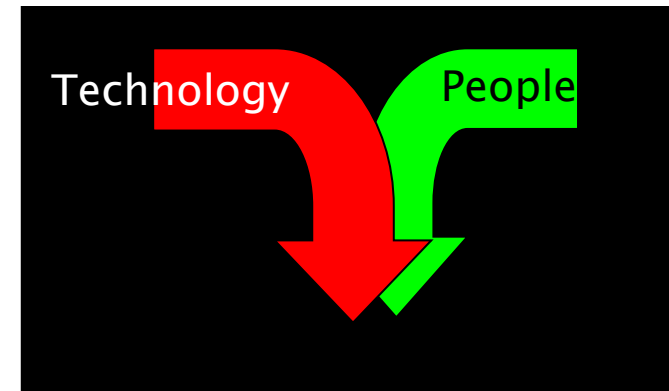
Human factors can inhibit technology

- ▶ Executive issues
- ▶ Cultural issues
- ▶ Management issues
- ▶ Implementation issues
- ▶ Technical issues.



Technology transfer and change management

- ▶ Design with transfer & change in mind
- ▶ Get buy-in from individuals, groups, companies
- ▶ Develop more effective education and training
- ▶ Help expand implementation in & across shipyards



Tech Transfer Problems



▶ Excuses

- “We are too busy right now.”
- “This doesn’t apply to us. We are different
- “We are too big/small.”
- “It wouldn’t work here.”

▶ Negative statements

- “We are going to lose our jobs.”
- “The change is an excuse to get rid of people.”
- “We’re better off the way we are.”
- “This place is bad and will stay that way.”
- “This is just another stupid idea.”

Tech Transfer & Change Management



- ▶ **Workforce Impact Domain**
 - Human factors in job design
 - Job enlargement probabilities
 - Job training & organizational impact evaluation
 - Personnel training requirements

Tech Transfer & Change Management



- ▶ **Organizational Impact Domain**
 - Organizational acceptance
 - Organizational processes maturity levels
 - Predictability, effectiveness, control and continuous improvement
 - Traditional improvement methods & process maturity

Tech Transfer & Change Management



- Individual & Group Behavioral Change Domain
 - Psychological & motivational applications
 - Cultural determinants toward quality
 - Industrial psychology factors of performance problems
 - Essence of leadership & supervision

More information

- ▶ The work of technology transfer and change management is mostly teaching and coaching.
- ▶ Contact Crosscut/Human Factors
 - Larry Gebhardt – Alaska Ship & Drydock, Inc.
 - Dick Boutwell – Northrop Grumman Newport News

