



# SEVA-PORT\* Project Update

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# Agenda

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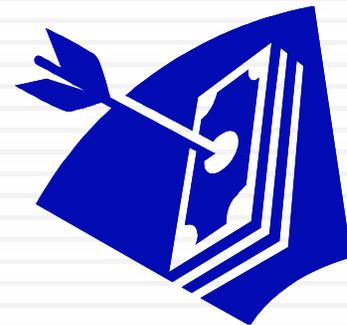
- SEVA-PORT Research Project
  - Goals
  - Progress to date
  - Next steps
- Web site
  - For Transportation, Warehousing and Distribution (TWD) related activities
- Ongoing Work



# SEVA-PORT Project Goals

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- Understand the supply chains that flow through Hampton Roads and analyze their performance
- Determine training needs to maintain world class TWD operations in Hampton Roads
- Facilitate curriculum development for TWD
- Provide Training Seminars for TWD



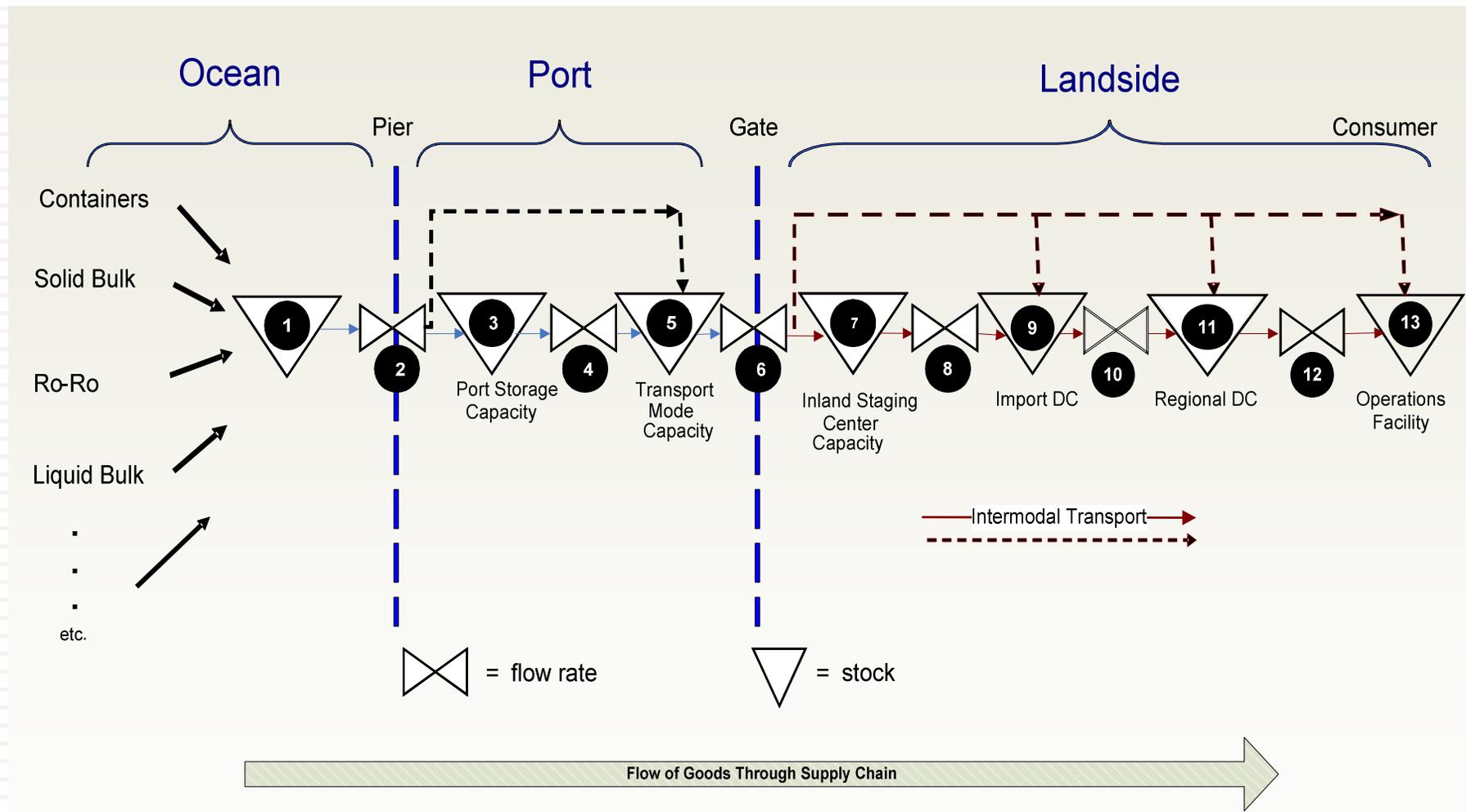
# SEVA-PORT Progress To Date

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- Extensive site visits, interviews, process analyses
- White paper contents:
  - Overview of supply chain management
  - 4 prototypical supply chains
  - Evolving supply chain strategies
  - Metrics
  - Technology Benchmarking
  - Opportunities for M&S applications in TWD
  - Training Opportunities
- Download white paper from:
  - [masonweb.wm.edu/sevaport/](http://masonweb.wm.edu/sevaport/)



# SEVA-PORT Research Scope



# SEVA-PORT Research Take-Aways

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- Most important take-ways
  - TWD companies in Hampton Roads are in general world class
  - More than “one” good approach
  - Supply chains are evolving quickly
    - Technology and automation
    - Improved flows
  - Interesting developments at the port
    - CenterPoint and others have made a multi-billion bids
    - APM-VPA potential agreement
  - Potential CenterPoint intermodal complex
  - New transportation alternatives (barge service)



# Next Steps

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- Curriculum Development
- Modeling & Simulation seminars



# Curriculum Development

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- Create detailed curriculum to be developed by educational institutions
  - Distribution Centers 101
  - Supply Chain Management 101
  - Importing 101
  - Problem Solving in Logistics and Distribution
  - Process Improvement in Logistics and Distribution
  - Understanding Distribution Technology
- If your organization would benefit from additional training, please contact us



# M&S Seminars

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- Delivery of M&S seminars for TWD
- Your input is needed to identify relevant topics:
  - Modeling processes to improve LOS, reduce lead time, and improve efficiency
  - Data mining for quality/productivity improvement
  - Excel for Six Sigma quality improvement
  - Simulating DC processes for design and improvement
  - Simple automation of business processes
- If you have input, please contact us



# TWD Web Site

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- A possible hub for this forum
  - [masonweb.wm.edu/sevaport/](http://masonweb.wm.edu/sevaport/)
- Main features:
  - SEVA-PORT White Paper
  - Contact List
  - Research Papers
  - Event Calendar



# Ongoing Work

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- Optimization of logistics systems
  - Within the four walls (e.g., DCs)
  - Supply chain optimization and strategy
  - Network flows
- Supply chain security and catastrophic response
- Methodologies
  - Simulation
  - Applied probability
  - Optimization



# Q&A

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# How Shippers Choose Transport Modes

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- Ports compete with one another based on:
  - Port Characteristics
    - Deep Water
    - Access to Logistics choices (e.g. Heartland Corridor, Virginia Inland Port, Local Distribution Centers)
  - Supply chain cost
    - Charges, Fees, and Ease of Use
  - Delivery time constraints
    - Their own and Customers
- Reasons why Port of VA has fared better than most



# How Shippers Choose Transport Modes

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Many Strategies:

- Logistics Modes

- Truck, rail, barge, inland ports, intermodal parks, creative combinations, etc

- Distribution and Warehousing

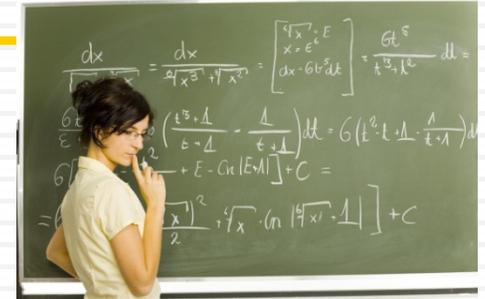
- Import Distribution Centers
- Regional Distribution Centers
- Crossdocking/Trans-loading

- Shippers consider *all-in* costs and delivery time in decision making



# Important Similarities/Dissimilarities

- Lessons Learned
  - Alameda Corridor
    - Achieved intended congestion reduction results?
  - Application of fees to modify behavior
    - Do fees help or hinder or both?
  - Intermodal Parks
    - Centralized facilities—focuses planning, traffic
    - What about existing infrastructure?
  - Changes in Logistics Strategies by shippers
    - Can change on the proverbial dime!
    - Costs drive strategies-quickly!



# Conclusions and Recommendations

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- Big Picture decision making
  - Participants only see only a small part of the supply chain picture
  - Planning solutions need to consider the complexity and network characteristics of the supply chain
- Cost to shippers drives decision making so any slight change can lead to significant results—good and bad
- Loss of traffic is problematic because of the difficulty in regaining new and old traffic
- Economic conditions create even more risk

