



# Virginia Logistics Research Center

**Update Presentation to Logistics Task Force  
Richmond, Virginia**

November 4, 2011

*Virginia Logistics Research Center*



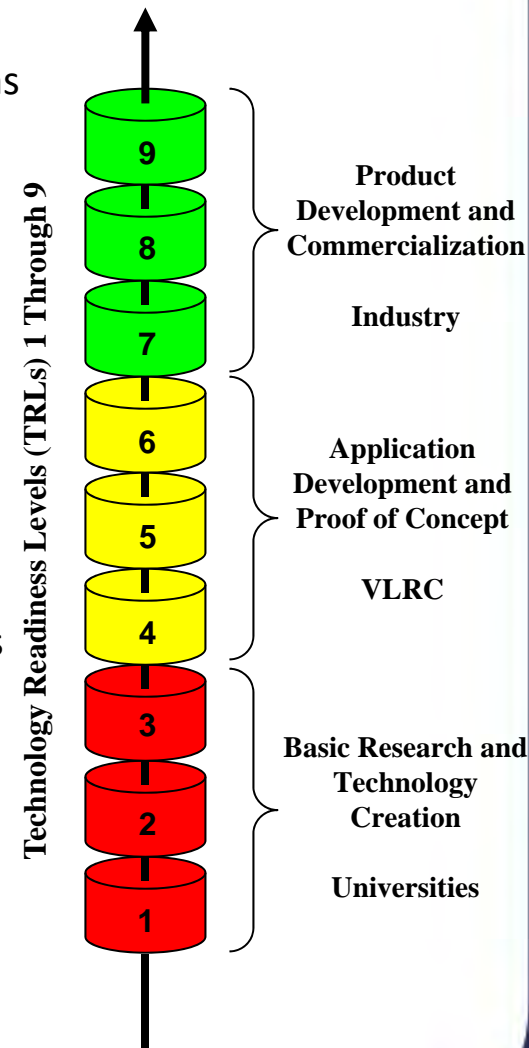
# Presentation Outline

- Update on VLRC
  - Mission
  - Vision
  - Partners
  - Research Agenda
  - Workforce Development
  - Governance
  - Financial
  - Milestones
- Open Issues
- Work Stream Priorities
- Questions and Discussion



# Mission

- Provide transformational improvements in logistics systems
  - Reduce cost
  - Improve quality and dependability
  - Reduce time to market
- Bridge the gap between research and commercialization
  - Accelerate solutions into markets
  - Solve real problems for industry and government
- Foster collaboration among diverse industry sectors
  - Directed Research for the benefit of an individual member
  - Generic Research for the benefit of all member companies
- Lower the cost of applied research for member companies
  - Shared facilities and personnel
  - Shared pre-competitive research
- Train the next generation of technology leaders
  - Provide market ready experience to students
  - Connect industry with students



# VLRC



## Vision

- A global Center of Excellence in logistics systems
  - Creating new technologies
  - Enabling new solutions
  - Fostering collaboration across industry sectors
- A cornerstone of a Virginia Logistics Innovation Zone
  - Expanding research capability
  - Improving workforce quality and quantity
  - Stimulating economic development
- VLRC growth in 10 years to:
  - 49 full-time resident PhD-level research staff
  - 35 resident graduate research assistants
  - 35 resident undergraduate interns
  - More than 30 Industry Members
  - Sustainable and diversified research portfolio



**Transportation**



**Energy**



**Modeling and Simulation**



**Information Technology**



**Commercial Industry**



**Defense**



**Emergency Response**

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# Partners

- **Academic Partners**
  - Longwood University
  - University of Virginia (New, January 2011)
  - Virginia State University
- **Defense Community**
  - Sustainment Center of Excellence (Fort Lee)
  - Army Logistics University
  - Defense Supply Center Richmond (DLA)
- **Public Sector**
  - Virginia Economic Development Partnership (VEDP)
  - Crater Planning District Commission (CPDC)
- **Industry**
  - Logistics Management Resources (LMR)
  - Boehringer Ingelheim Chemicals, Inc
  - LMI (New, April 2011)



Longwood  
University



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# University Expertise



Paul Barrett  
Financial Planning  
Workforce Development



Melody Eaton  
Health Care Management  
Nurse/Patient simulation



Jim Haug  
Contracts Management  
Federal Acquisition Planning



Ron McPherson  
System Engineering  
Operations Research



Christopher Caldwell  
Ethical Theory  
Inference Models



Peter Beling  
Optimization Theory  
Decision Making



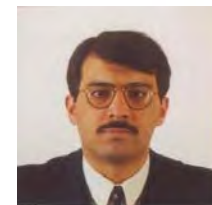
Barry Horowitz  
Supply Chain Security  
Service Software Systems



Randy Cogill  
Process Modeling  
Optimization and Scheduling



James Lambert  
Multimodal Transportation  
Risk & Decision Analysis



Majid Amini  
Learning Systems  
Applied Ethics



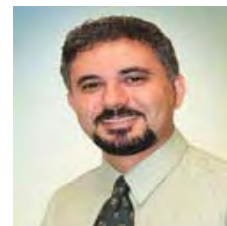
John Gaskins  
Marketing and Retail  
Geographic Information Systems



Ephrem Eyob  
Resource Planning  
Reverse Logistics



Coray Davis  
Transportation Systems  
Geographic Information Systems



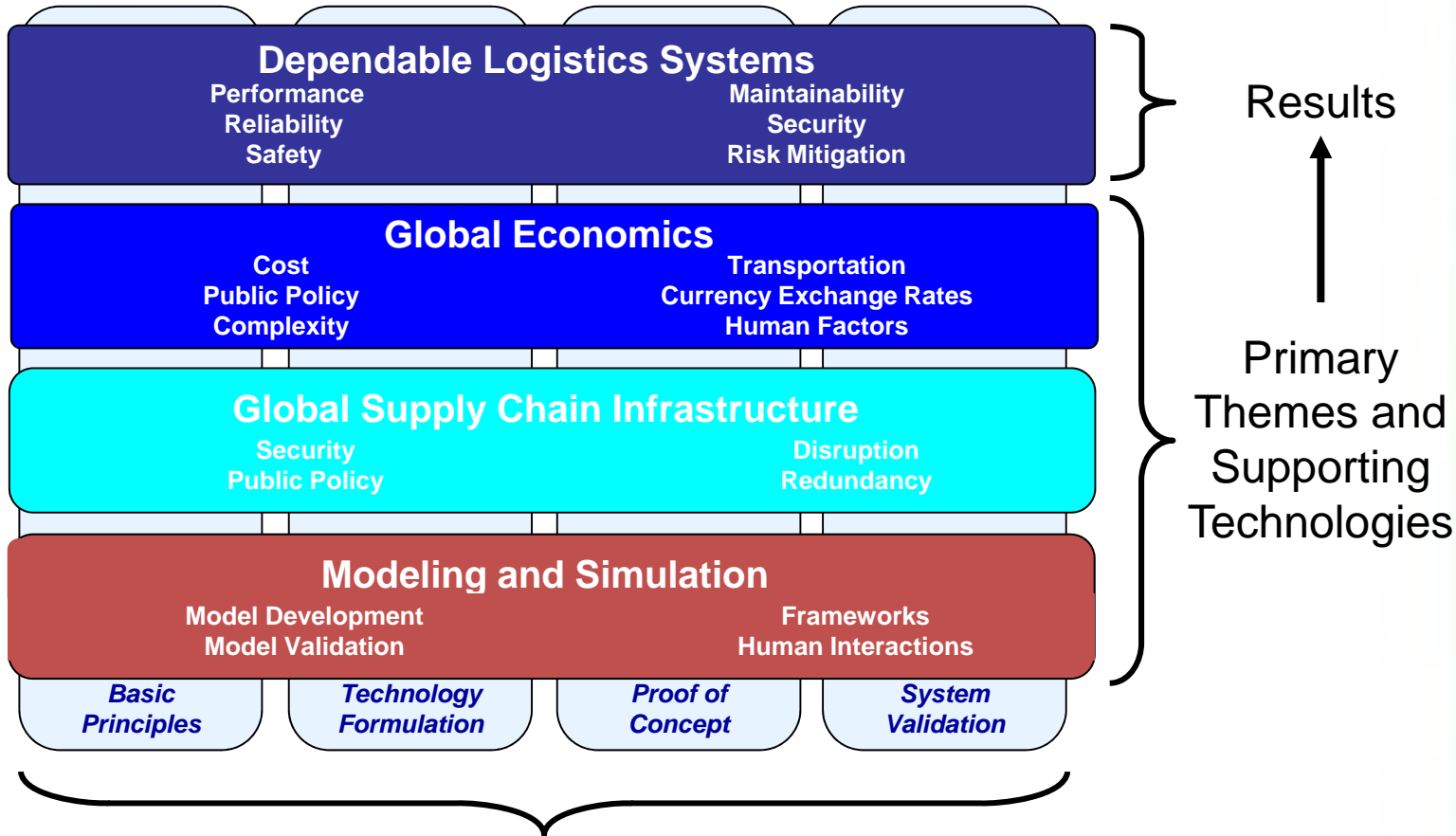
Amir Javaheri  
Resource Optimization  
Game Theory



Oliver Hill  
Human Behavior  
Health Outcomes



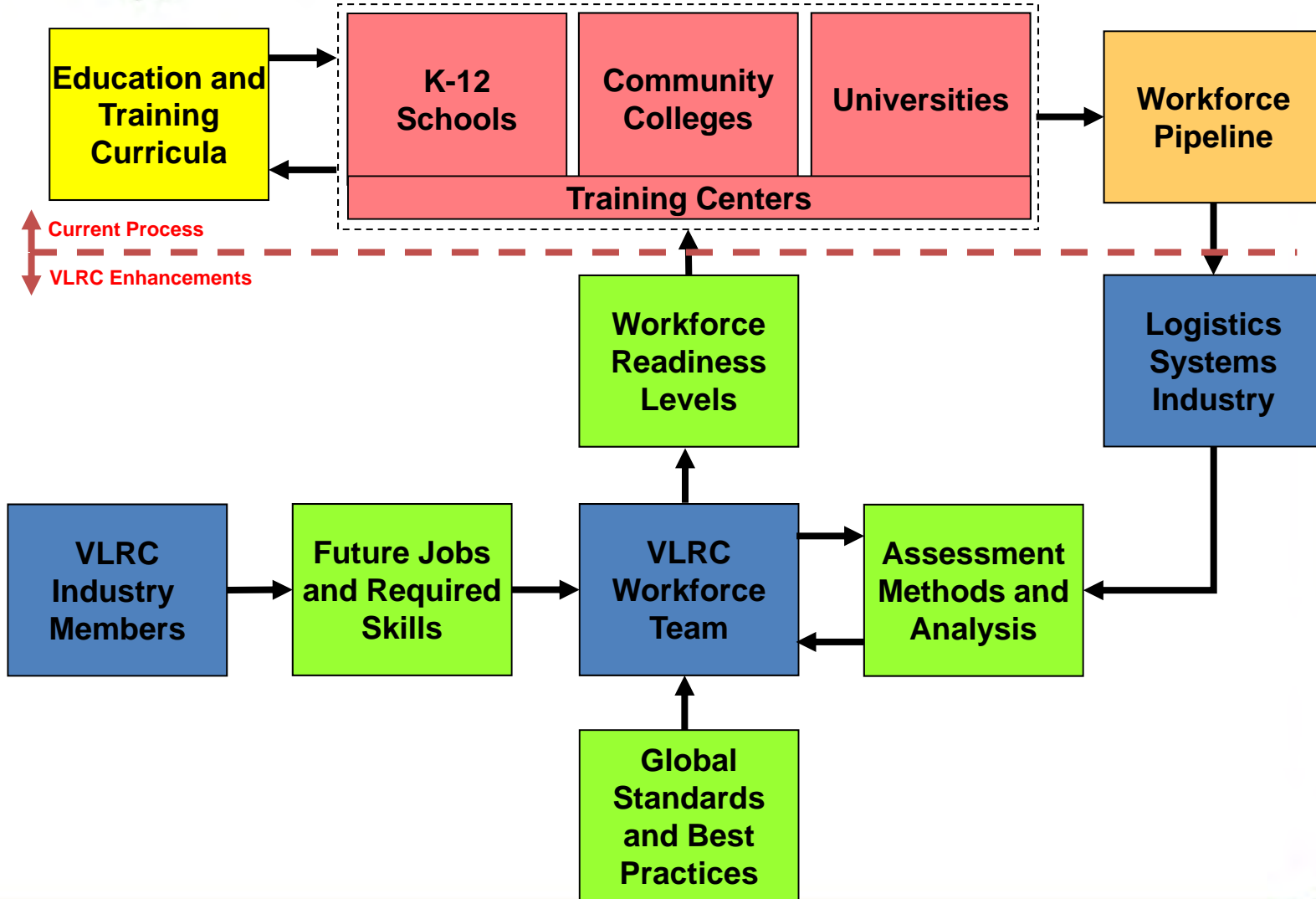
# Research Agenda



Industry/University Collaboration Provides a Broad Base of VLRC Capabilities



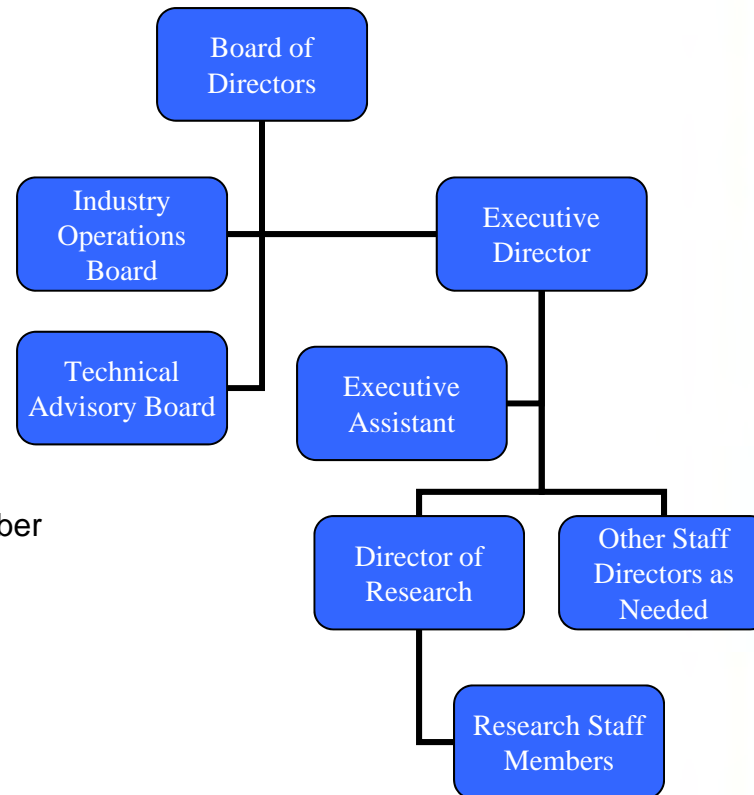
## Workforce Development





## Governance

- Virginia non-stock corporation
- Multiple levels of membership
  - Organizing Industry Members
  - Organizing University Members
  - Tier 1 Industry Members
  - Tier 2 Industry Members
  - Academic and Government Partners
- Board of Directors
  - Establishes all policies
  - Approves budgets
  - One member from each Organizing Member
  - Chair of Industrial Operations Board is a member
- Industrial Operations Board
  - Provides oversight of day-to-day operations
  - One member from each Organizing Member
  - One member from each Tier 1 Member
  - One member elected by Tier 2 Members
- Technical Advisory Board
  - Establishes technology roadmap
  - Creates research agenda
  - One representative from each Member



**VLRC**



# Financial

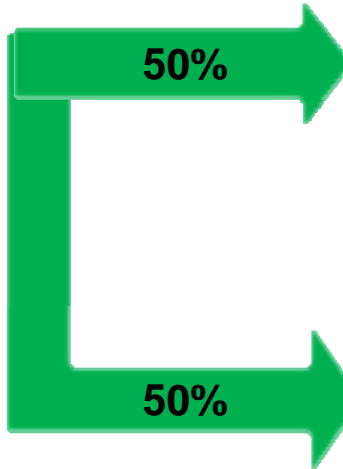
**Tier 2 Fees**



**Generic  
Research**

All Members have non-exclusive, royalty-free license to IP from Generic Research

**Tier 1 Fees**



**Directed  
Research**

Tier 1 Members will own IP generated from the Directed Research that they sponsor.

**Federal  
Funding**



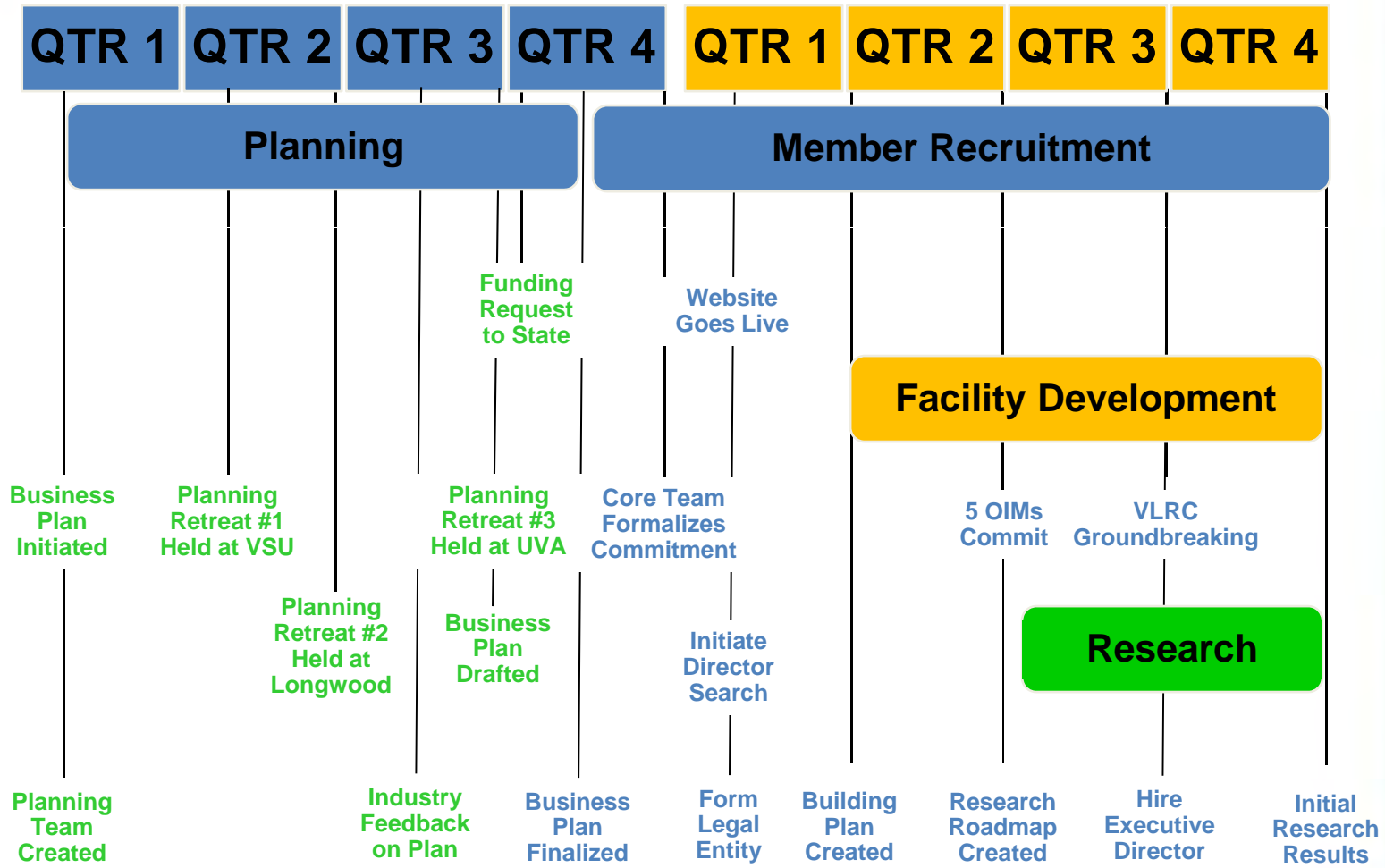
**Other  
Research**



# Milestones

2011

2012





# Open Issues

- Name
  - Virginia Logistics Research Center
  - Commonwealth Center for Applied Logistics Systems
  - Others
- Location
- Additional Partners
  - Academic – VCU, William and Mary, Virginia Tech, others
  - Industry
  - Government
- Initial Industry Member
- Seed and Facility Funding
- Leadership



# Work Stream Priorities

- Programs
  - Capabilities
  - Examples
  - Benchmarking
- Member Recruitment
- Funding
  - Members
  - State
- Facilities
  - Location
  - Funding
- Corporate Services
  - Legal
  - Financial
- Human Resources
  - Key Personnel
  - Leadership



# Questions and Contacts

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