

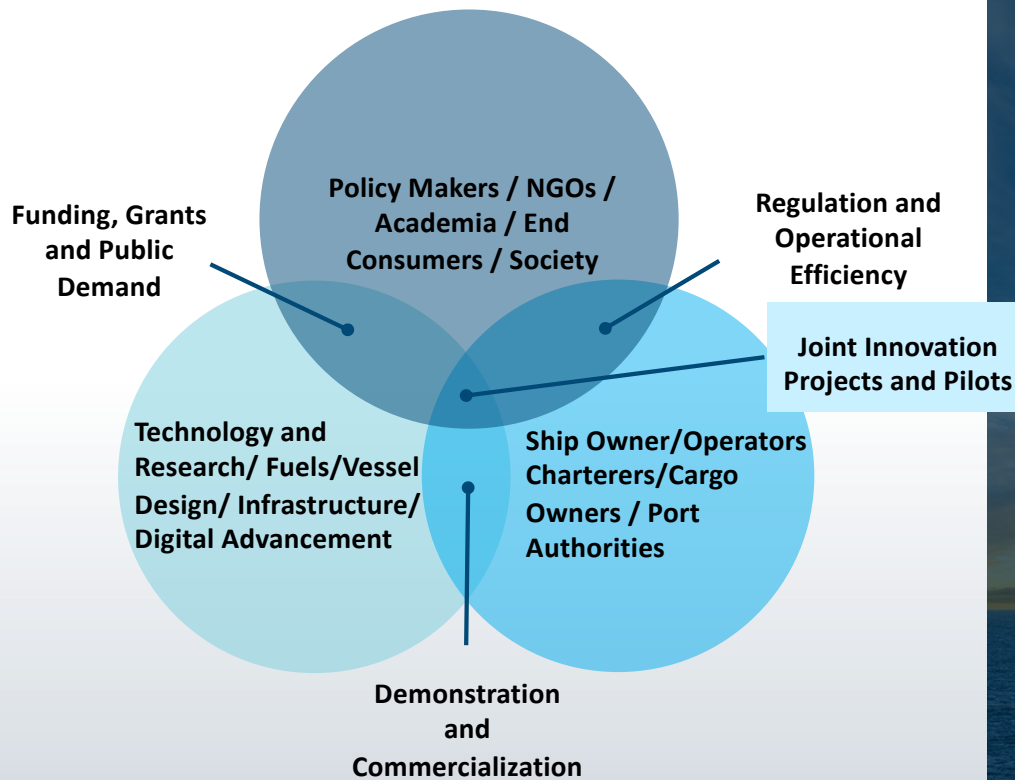


# Collaborative Efforts to Achieve Greenhouse Gas Emission Reductions

David H. Cummins  
Blue Sky Maritime Coalition President & CEO

American Great Lakes Ports Association Annual Conference  
Chicago, IL | 8<sup>th</sup> August 2024

# Who is the Blue Sky Maritime Coalition?

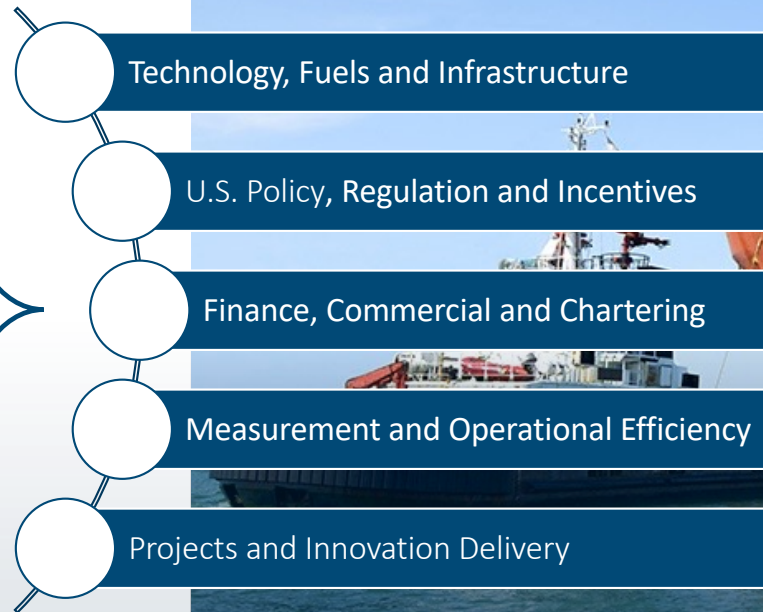


We are a non-profit group of like-minded companies, NGOs, public entities and individuals in North America coming together to:

- Collaborate among stakeholders on how to achieve net zero emissions through various workstreams
- Evaluate, encourage and engage -- through varying pathways and projects -- innovation that reduces emissions
- Accelerate the North American maritime value chain's pathway to net zero emissions

# Value Chain Approach

- **Direct Organizations**
  - Ship Owner/Operators
  - Charterers
  - Fuel Manufacturers
  - Shipbuilders
- **Indirect Organizations**
  - Classification Societies
  - OEMs
  - Port Authorities
  - Design Engineers
- **Supporting Organizations**
  - Financiers and Insurance
  - Legal/Service Providers
  - NGOs and Academia
  - Infrastructure/Other Sectors
- **Other Stakeholders**
  - Community Organizations
  - Society and End Consumers





# Key Challenges: Innovation and Systems Thinking

Vessels that will operate in 2050 are being built now, Jones Act vessels up to 50-60 year lifespans

Energy density and bespoke vessels: There is no "one-size fits all" fuel solution

Long lead time in clean energy technology supply chain and infrastructure development

Workforce shortages in traditional maritime sector, plus new experience needed

## Innovation

- ❑ Disruptive; challenge the status quo
- ❑ Thrive on creativity, dissent and friction
- ❑ "Use" focus on problems / solutions
- ❑ Learn by doing; be the future

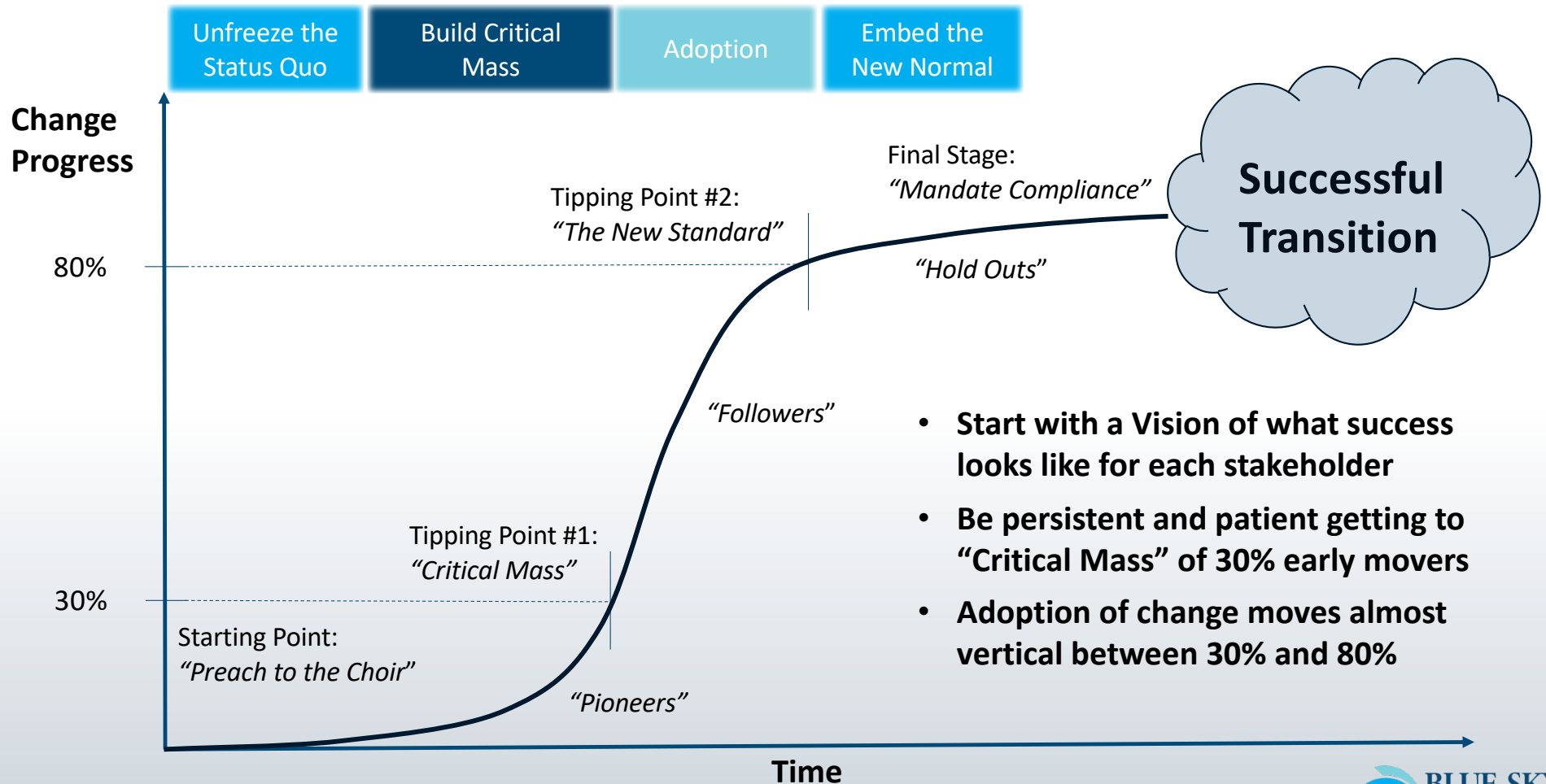
## Systems Thinking

- ❑ Solve system optimization first
- ❑ Eliminate "Tragedy of the Commons"
- ❑ Incremental AND vision-led milestones
- ❑ Preach to the choir to reach critical mass

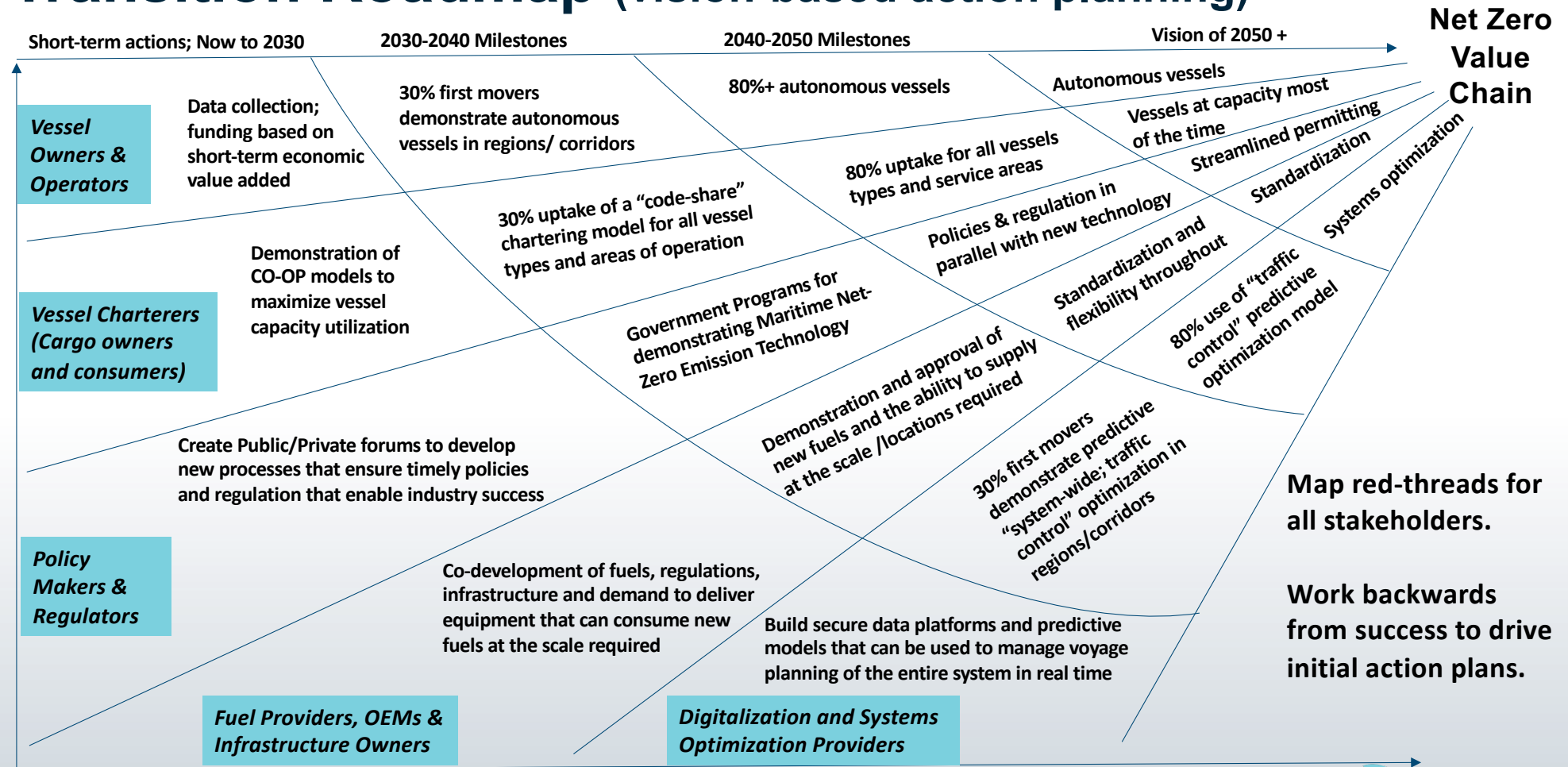
## Transition Management

- Change management fundamentals
- Low hanging fruit; early wins; economical
- Innovative technology, fuels and infrastructure
- Policy enablers; Regulatory clarity
- Innovative commercial / financial constructs
  - Financing and market measures
  - Chartering and owner/operator models
- Digital Innovation; machine learning predictive algorithms
- Collaborative action; green shipping corridors
  - Primary focus on GHG emissions vs. fuels
  - Pragmatic/profitable; fuel flexibility and efficiency
  - Connectivity with multiple value chains

# Principles of Change (or Transition)



# Transition Roadmap (vision-based action planning)



# Short-term Challenges and Actions

## Built in Maritime System Inefficiencies and Siloed Approaches

- Enable Optimization Through Digitalization
- Accelerate Green Shipping Corridor Initiatives
- Monetize Value Chain Approach

## Lack of Trusted, Accurate & Verifiable GHG Emission Inventories for NAWT

- GHG Emissions Study for North American Waterborne Transportation
- Emissions Data Collection System
- Establish Common Emission Methodologies

## There Is No “One-size Fits All” Solution for Vessels

- Support Development of Pilot/ Demonstration Projects
- Develop Condition-based Approaches for Retrofits

## Fuel and Energy Infrastructure Lacking Demand to Reach Scale

- Green Shipping Corridors Fuel Clusters
- Fuel Production & Utilization Mapping
- Multimodal Aggregated Fuel Demand
- Port/ Utility/ Maritime Collaboratives

## Patchwork of Policy and Regulations

- Develop Approval Roadmap for Regulatory Processes
- Design Inclusion Pathway for Domestic Maritime in National Action Plans
- Develop Incentives for Uptake of Emission Reduction Technology Solutions for Maritime

## Customer Willingness to Pay

- Develop Innovative Commercial/ Financial Constructs
- Grow Maritime Participation in Carbon Credit Markets
- Develop Consistent Carbon Intensity Values

# Short Term Actions for Great Lakes Ports

- **Systems Efficiency:** Work with the same vision binationally, and (eventually) globally, to drive systems changes and efficiencies.
  - **Collaborative Innovation:** Embrace innovation and disruptive change. Enable optimization through US and Canada collaboration.
  - **Drop in Fuels:** Work with other transportation sectors on drop in fuels (renewable Diesel for maritime).
- Use data collection for predictive algorithms that drive fuel efficiencies (“air traffic control” and “code share partnerships”)
  - Build anonymous data files for eventual autonomy (somewhat similar to aviation)
  - Compatibility and not standardization
  - Develop an approval process for regulation
  - Ballast water treatment a good place to start?
  - Work with other transportation sectors on drop in fuels (renewable Diesel for maritime)
  - Multimodal aggregated fuel demands



# Q&A





**Thank You**

[www.bluesky-maritime.org](http://www.bluesky-maritime.org)

