The Oceans Sector and the

Emerging Economy of New Brunswick





The Ocean Economy in 2030









NB SITUATION ASSESSMENT

- NB has a 1000+ year history of successful and sustainable development of an ocean economy that includes:
 - Oceans-based industries
 - Land-based industries with mutual connections to oceans
 - Academic institutions and programs with regional and international relevance and reputation
 - Supportive government, financial, independent, and community organizations and programs
 - Indigenous communities and traditional knowledge
- The Global ocean economy is recognized as the fastest growing and is necessary to maintain and support broader global social, economic, and environmental processes.
- The UN, OECD, and the Government of Canada have all recognized the need to pro-actively develop clear strategies for development of the Blue Economy.
- Other jurisdictions are actively participating in, or are mobilizing to support, this global growth and need more than NB.
- Canada's Ocean Supercluster a federal government-led initiative intended to drive development of the ocean sector is about to begin its second 5-year term. OSC has seen tremendous success in terms of building the community and making investments in significant programs and projects. NB has been slower to participate than other provinces, and has a significant opportunity to directly benefit and position for further activity.

New Brunswick has tremendous strengths that, when aligned with global trends and needs, could be enhanced to bring economic and social benefits to the Province.



























OUR STRENGTHS AND NICHE IN THE GLOBAL OCEAN ECONOMY

There are many aspects of our Province that are firmly in place to support economic growth:

- SMEs, large companies, multinationals
- Start up and incubation environment
- Universities, colleges, schools
- Independent research, innovation, outreach, education centres
- Community groups
- Government departments and agencies
- Financial support organizations
- Mechanisms and processes for communication and collaboration

NB is well presented by primary ocean sectors with strong histories and growth potential:

- Seafood production and processing fishery and aquaculture
- Transportation shipping and ports
- Energy
- Bio resources

NB is also well represented by emerging technology showing recent success and growth potential:

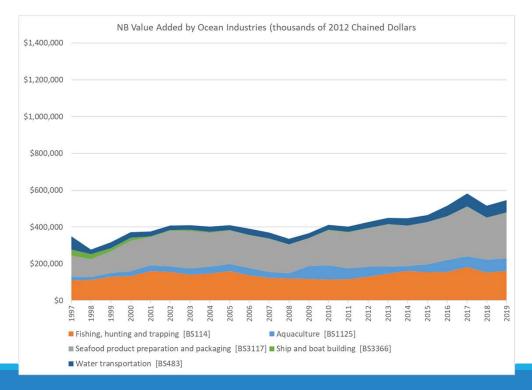
- ICT and Cybersecurity
- Advanced manufacturing
- Data analytics and visualization
- Ocean mapping and modelling

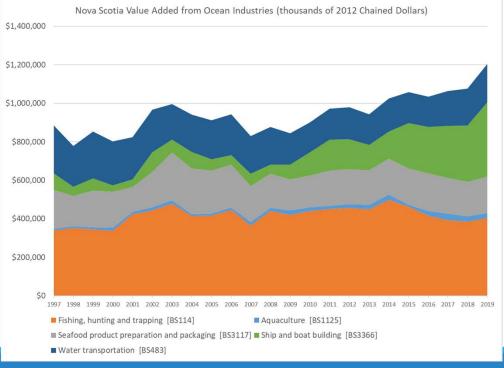
OUR NICHE:

Using and enhancing the features of our Province, combine the knowledge, expertise, and growth potential in primary industries with those of emerging technologies to address a globally unique opportunity.

GDP from Ocean Sector (NB and NS, Chained 2012 dollars) NB smaller as a share of GDP than NS's

NS Ocean industries booming with shipbuilding





Why isn't the Ocean Sector growing? Lack of innovation and R&D

Natural and market limits to sourcing feedstocks

- Now includes labour shortages
- Now includes social license and competing non-productive uses of the ocean
- Now includes climate and other environmental impacts to balance against incomes and jobs

Lack of productivity growth in traditional industries

Lack of movement up the value-added chain

Lack of new product development

Lack of penetration into new markets

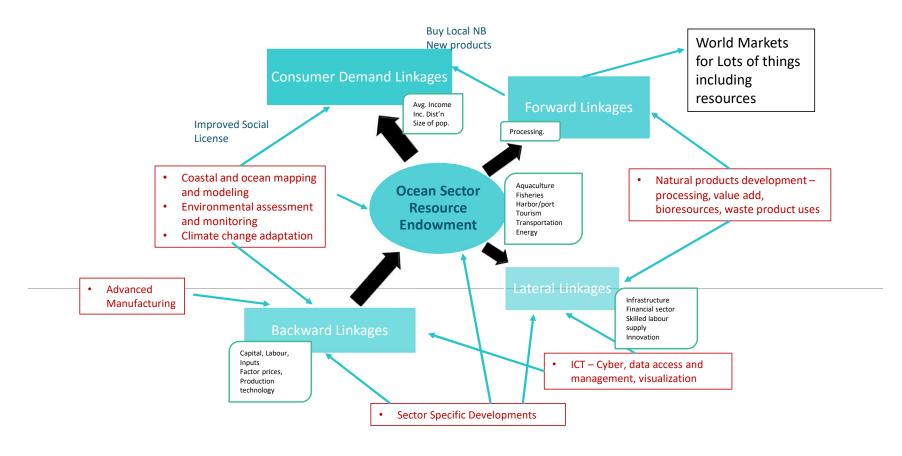






How NB strengths in RDI can be applied to grow our Ocean Economy

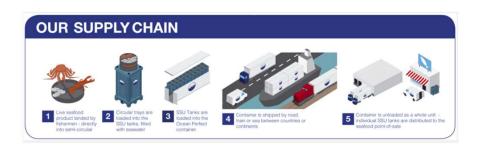
based on the focus areas identified in the NB Oceans Economy Development Strategy



How to make change?

- •Focus on products to fix the problem what are we producing, how do market trends suggest these need to change, what technology development will support these changes, who needs to be involved, what activities need to support this
- •Think ahead make investment in strategic initiatives that will support the product focus
- Collaborate across sectors



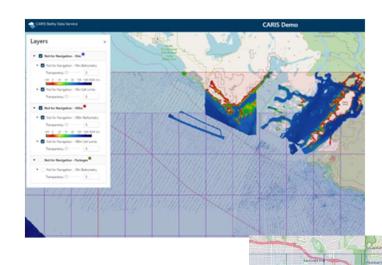






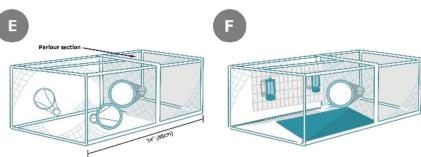




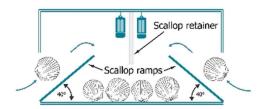








Cross section: Treatment F











Huntsman presently......

- 50 employees
- \$5M annual revenue with no core funding
- 50+ R&D projects per year
- Education aspects on workforce development – CRA registered for tuition tax credits

And poised for tremendous growth......

- Released bold Strategic Vision to 2044
- 200 employees
- \$20M annual revenue with no core funding
- 200 R&D projects per year
- Huntsman Ocean Park



20-year Lease



Aquatic Research Facilities

- 4,180 m² (45,000 ft²)
- Breeding, Taxonomy, Health, Toxicology



Huntsman Ocean **Park**



- 33 Acres of Land
- 2,000+ Employees





