



**CRIBE**

centre for research & innovation  
in the bio-economy

# **ORGANIZATIONAL OVERVIEW & NETWORK DEVELOPMENT**

Using Collaboration to Enable Innovation & Competitiveness

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# CRIBE HISTORY

- › Formed in 2009 with initial 4 year mandate and funding commitment; mandate extended annually.
- › Catalyst for commercialization of research and innovation.
- › Focus on new products, processes, jobs and businesses using forest biomass.
- › Small lean organization with a senior experienced Board of Directors.
- › Project funding support up to 50% of project.
- › Close coordination with other research organizations.

# MANDATE

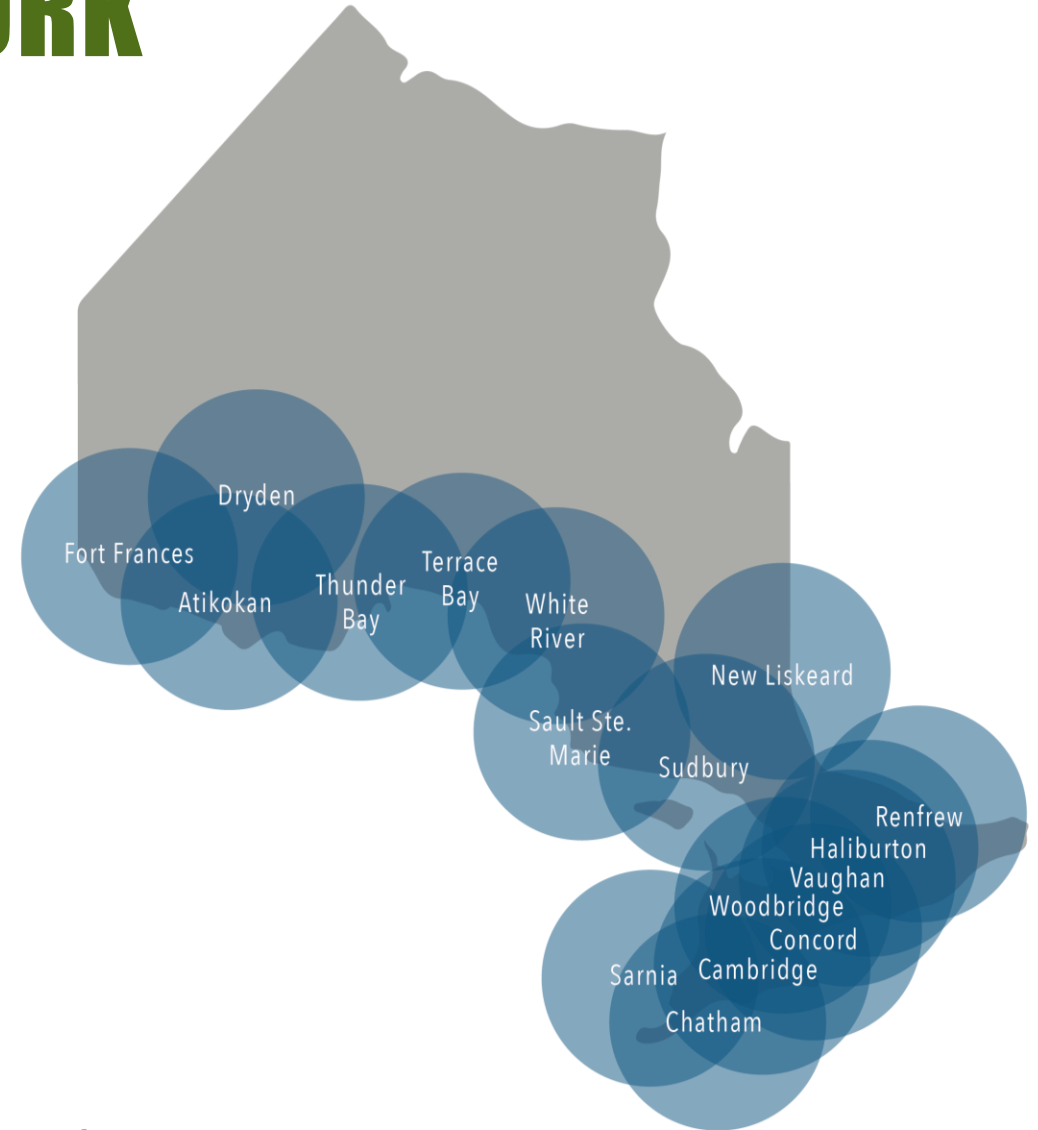
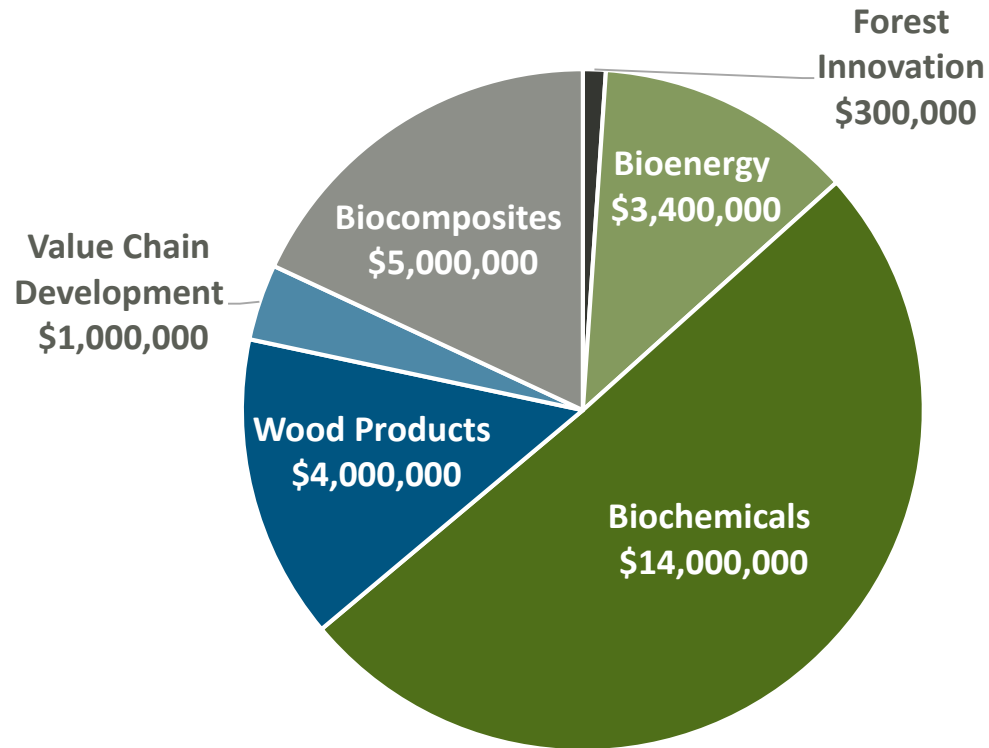
- › Fund **applied research, development and commercialization projects/partnerships** related to the innovative use of forest biomass;
- › **Coordinate and communicate** strategically important knowledge and resources on how to navigate the innovation, entrepreneurship, marketing and export pathways in the bio-economy technologies sectors;
- › **Facilitate** innovative applied research and development that leads to the **creation of products and processes that creates higher value commercial uses** for the Province of Ontario's forestry resources;
- › **Accelerate commercialization** by facilitating the creation and advancement of emerging companies;
- › Establish a strong **network of collaborations** across the sector.

# A QUICK GEOGRAPHY LESSON!

› Size of Ontario	1,076,395 km <sup>2</sup>
› Population	13 500 000
› Total GDP	\$763 billion
› Per Capita	\$55,322
› Forest Area	71.1 million hectares
› Area of Undertaking	45 million hectares
› Forest Industry GDP	\$15.3 billion
› Value of Forest Product Exports	\$6.63 billion
› Merchantable Timber Harvested	14.7 million m <sup>3</sup>



# OUR INVESTMENTS AT WORK



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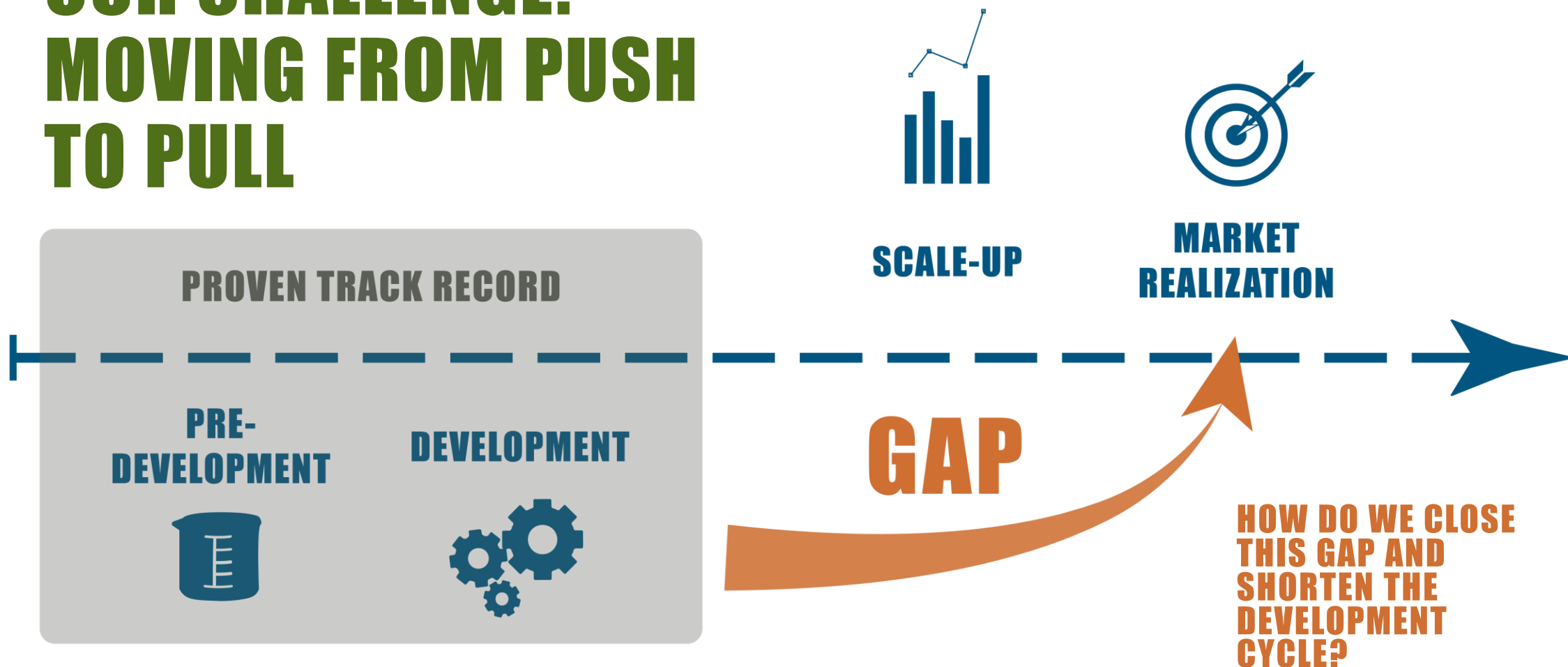
# OUR INDUSTRY PARTNERS



# WHY THUNDER BAY?

- › A primary pillar of CRIBE's original mandate was to support Thunder Bay to become a 'bio-economy cluster'
- › CRIBE investment over \$12 million directly in Thunder Bay based projects; leveraging over \$46.8 million in investments;
  - › FPInnovations BETC and 2 pilot plant facilities
  - › Support to LU (BRI, Natural Resource Management, Chemical Engineering)
  - › Support to Confederation College (Biomass Learning and Research Centre)
  - › SME support
- › Major Primary and Secondary Industry; Transportation Infrastructure;
- › Highly Qualified People and Services;

# OUR CHALLENGE: MOVING FROM PUSH TO PULL





# THE NEED TO CHANGE DIRECTION....

- › In 2018 CRIBE undertook extensive benchmarking nationally/internationally, engaging well over 125 government, research, & industry stakeholders, including three lignin value chain workshops and three cluster workshops

## CONSENSUS = BUSINESS AS USUAL ISN'T WORKING.....

- › What we heard....there is a clear need for:
  - › **Information sharing & collaboration** along value chain
  - › Improved **understanding of customer needs** across value chain
  - › **Targeted interactions** around key issues
  - › Support mechanisms to **overcome scaling-up challenges**





Industry leaders working together to accelerate new technologies & products for Ontario's Forest Bio-Economy.

- › CRIBE has launched a new Ontario forest-based innovation network
- › The network will consist of a **system of open collaboration forums** focused on targeted value chains
- › This **ecosystem of industry leaders** will work together to create innovation roadmaps
- › Funding challenges to support market realization

# nextfor **COLLABORATION FORUMS**

Given the current state of industry in Ontario, we have identified three target areas for intentional collaboration:

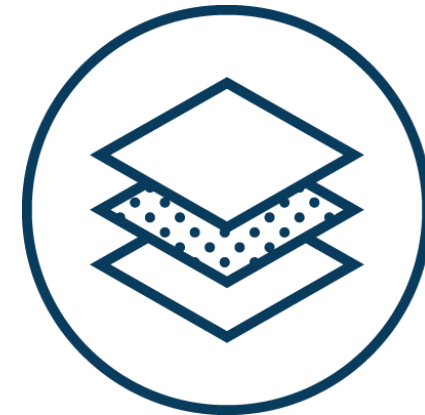
## **Forest Innovation**



## **High-Performance Lignin-Based Products**



## **Biocomposites**



# COLLABORATION FRAMEWORK



# LIGNIN FORUM - VOICE OF THE VALUE CHAIN



# SHARED COLLABORATION ECOSYSTEMS ARE ESSENTIAL!

Creating an effective feedback loop through the value chain is critical - shared collaboration is a great tool to achieve this!



# CHALLENGES/OPPORTUNITIES

- › Coalesce Thunder Bay Cluster...
- › Primary industry know business as usual isn't working - keen to collaborate.....how do we maintain engagement?
- › End user engagement – how do we do it?
- › How to transform ideas/innovation into tangible economic development and investments?