



The Bioproducts  
AgSci Research  
Cluster

Canada

CANADIAN  
AGRICULTURAL  
PARTNERSHIP

PARTENARIAT  
CANADIEN pour  
L'AGRICULTURE

# Bioproducts AgSci Cluster: Looking Forward to 2025

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**Bioindustrial**  
**Innovation Canada**  
*A Sustainable Chemistry Alliance*



# About BIC

- ▶ Bioindustrial Innovation Canada (BIC) is a nationally focused non-profit organization founded in 2008 and based in Sarnia, ON, with a satellite location in Brockville, ON
- ▶ Active participant in the support and development of the Canadian bioeconomy and industrial bioproducts sector
  - ▶ Bioproducts Cluster
  - ▶ Centre for Commercialization of Sustainable Chemistry & Innovation (COMMSCI)
  - ▶ Biomass Quality Network Canada (BQNC)
  - ▶ BioDesign Initiative

## Vision

Create jobs and economic value sustainably for Canada

## Mission

Provide critical strategic investment, advice and services to developers of clean, green and sustainable technologies. Our expertise in commercialization builds a stronger Canada.



# Cluster Background

## What are "Bioproducts"?

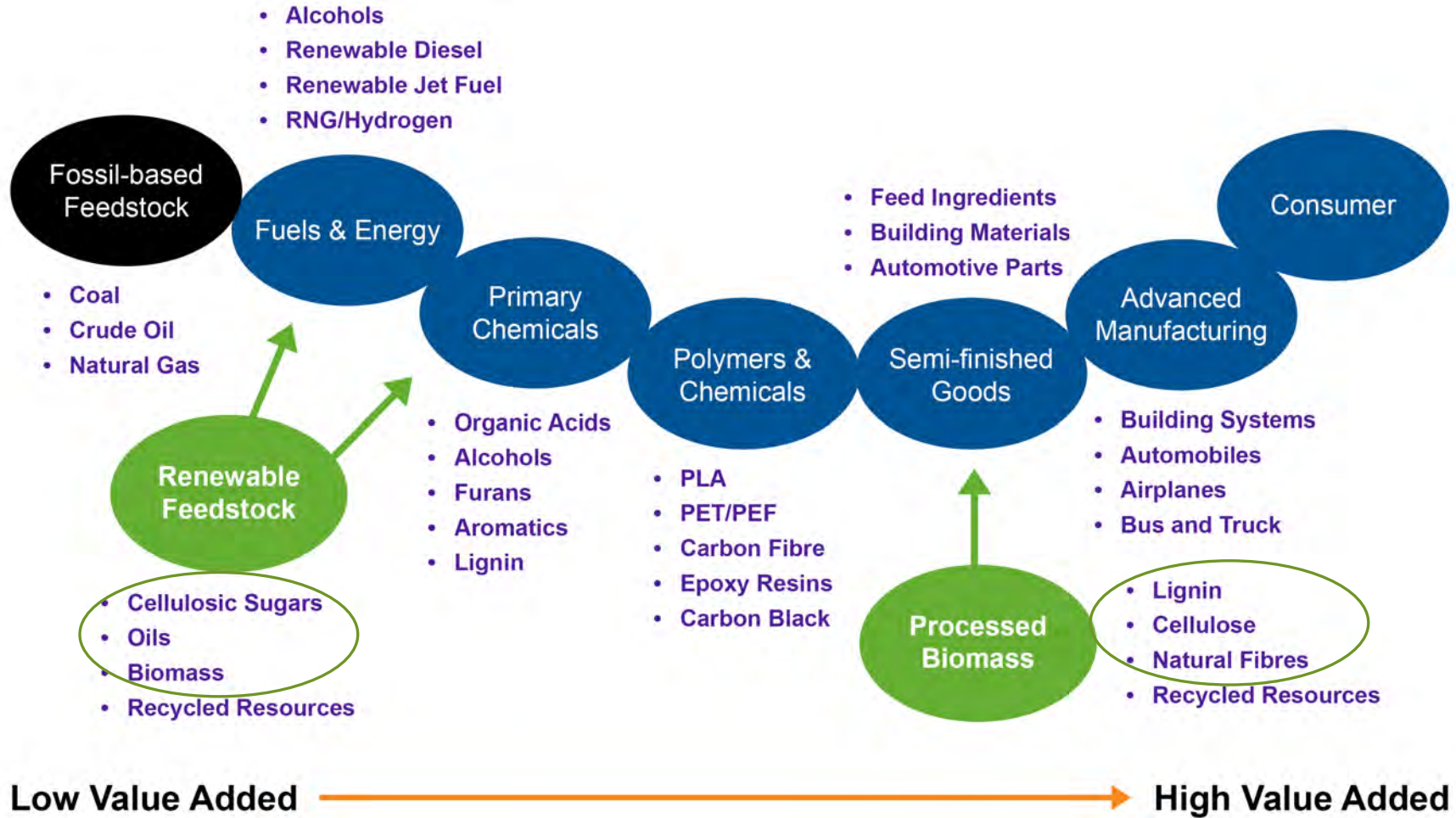
- ▶ Cluster focus is development of industrial bioproducts and their applications
- ▶ Technologies utilizing residues, by-products, and purpose-grown crops from the agriculture and agri-food sector
- ▶ Multiple technology categories
  - ▶ Biochemicals & co-products
  - ▶ Biomaterials
  - ▶ Biofuels & Bioenergy
  - ▶ Biomass Supply Chain Productivity, Quality & Sustainability





# Integrating into the Chemistry Value Chain

## Opportunity to secure a clean and low-carbon future







# Cluster Background

## Industry Driven

- ▶ No check-off program
  - ▶ Matching via direct industry support per activity
  - ▶ Engagement with SMEs
- ▶ Growing Forward 2 – Bioproducts Cluster
  - ▶ 9 activities – 7 industry, 2 AAFC (\$9.4M total; \$5.5M AAFC)
- ▶ CAP – Bioproducts Cluster
  - ▶ 14 activities – 12 industry, 2 AAFC (\$25M total; \$12M AAFC)
- ▶ Sector activity remains high



# Cluster Partners

## INDUSTRY



## ACADEMIA





# Priorities – Opportunities, Value Addition, Environmental Benefit

- ▶ The goal of the Cluster is to support development of technologies toward commercialization readiness and provide tangible benefit to Canada's agriculture sector
- ▶ Technologies that have potential to provide substantial value addition to producers and processors within the sector
  - ▶ Opening gateways to non-traditional and alternative opportunities not previously available or still in relative infancy
- ▶ Technologies that help transition the sector, and Canada, toward a lower carbon intensive economy
  - ▶ GHG emissions reduction
  - ▶ Sustainability improvements and practices





# Looking Forward: Technology Development

- ▶ Focus on technologies contributing to bioeconomy development, reduction in GHG emissions
  - ▶ Transition to a lower carbon intensive economy
  - ▶ Renewables use in place of fossil-based resources
  - ▶ Applications opportunities
- ▶ Methods to improve sector sustainability
  - ▶ Circular economy principles within the value chain
  - ▶ “Ag-source to Ag-use” e.g. Compostable packaging, row coverage, greenhouse applications, amendments, etc.
  - ▶ CO<sub>2</sub> sequestration








# Looking Forward: Value-Add Opportunities

- ▶ Technologies that have potential to provide substantial value addition to producers and processors within the agriculture and agri-food sector
  - ▶ Residue utilization & value-add
  - ▶ Novel developments & improvements in existing technologies (bioenergy & fuels)
  - ▶ Precision agriculture and biomass availability
- ▶ Non-traditional and alternative opportunities not previously available or still in relative infancy
  - ▶ Emerging crops opportunities
  - ▶ Emerging biomass opportunities
  - ▶ Applications opportunities





# Looking Forward: Sector Collaboration Opportunities

- ▶ Seeking opportunities with traditional commodity sectors
- ▶ Looking for input: areas of mutual interest & opportunity
  - ▶ Feedstock source
  - ▶ Application
  - ▶ Peripheral opportunities
- ▶ There is interest from downstream industries!





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Thank You

For more information, visit

[www.bincanada.ca/agsci-cluster](http://www.bincanada.ca/agsci-cluster)

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