



# Building International Relationships

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## Part of Developing the BioEconomy



Europe, April, 2019

Dr. Murray Mclaughlin

# OUTLINE

- Why CANADA
- Doing Business – Educated,
  - Business Climate, Trans border
- Economic Fundamentals
- Why Bioeconomy
- Value Chain
- Partnerships
- Canada's Biomass
- Canadian Clusters
- Biomass Opportunities
- Canada the Natural Choice for Investing
- Summary





## Doing Business in Canada

- Canada is the 2<sup>nd</sup> BEST country in both the G7 and G20 for doing business over the next 5 years, according to Economist Intelligent Unit (EIU) in their 2019-2023 ranking.
- Canada has created an environment to encourage success in the business community



# EDUCATED

- Canada has one of the most highly educated talent pools and some of the best Universities in the OECD countries – over 55% of the population have attained tertiary level education

- OECD, Education at a Glance, Sept., 2018

## LAMBTON COLLEGE, Sarnia



Centre Excellence in Bioenergy and Bioindustrial Technologies

# Business Climate

.....and has one of the world's best business climates for entrepreneurs.

According to the “Global Entrepreneurial Index” - a measure of the health of a country’s entrepreneurial ecosystem – Canada rank’s second in G7

# Doing the Deal





# StreamLined Trans-Border in North America

- Canada has a streamlined trans-border transportation system – with DIRECT access to North American market by rail, boat or trucks.
- Most of our production hubs are within 1.5 hours or less of the US border – 486 million (US/Mexico) consumers with a combined GDP of over US 22 trillion .

Canada's economic fundamentals and relative cost advantages provide a first-rate business environment

CANADA offers:

- Excellent economic fundamentals
- A dynamic workforce
- Easy access to markets
- Highly Competitive Business Environment
- Support programs from Idea to Commercialization
- A Promising Venue for Innovation and Investment
- An Excellent place to Live and to Position your Company for the North American market





A portrait of Justin Trudeau, the Prime Minister of Canada, wearing a dark suit and tie, standing in front of a Canadian flag.

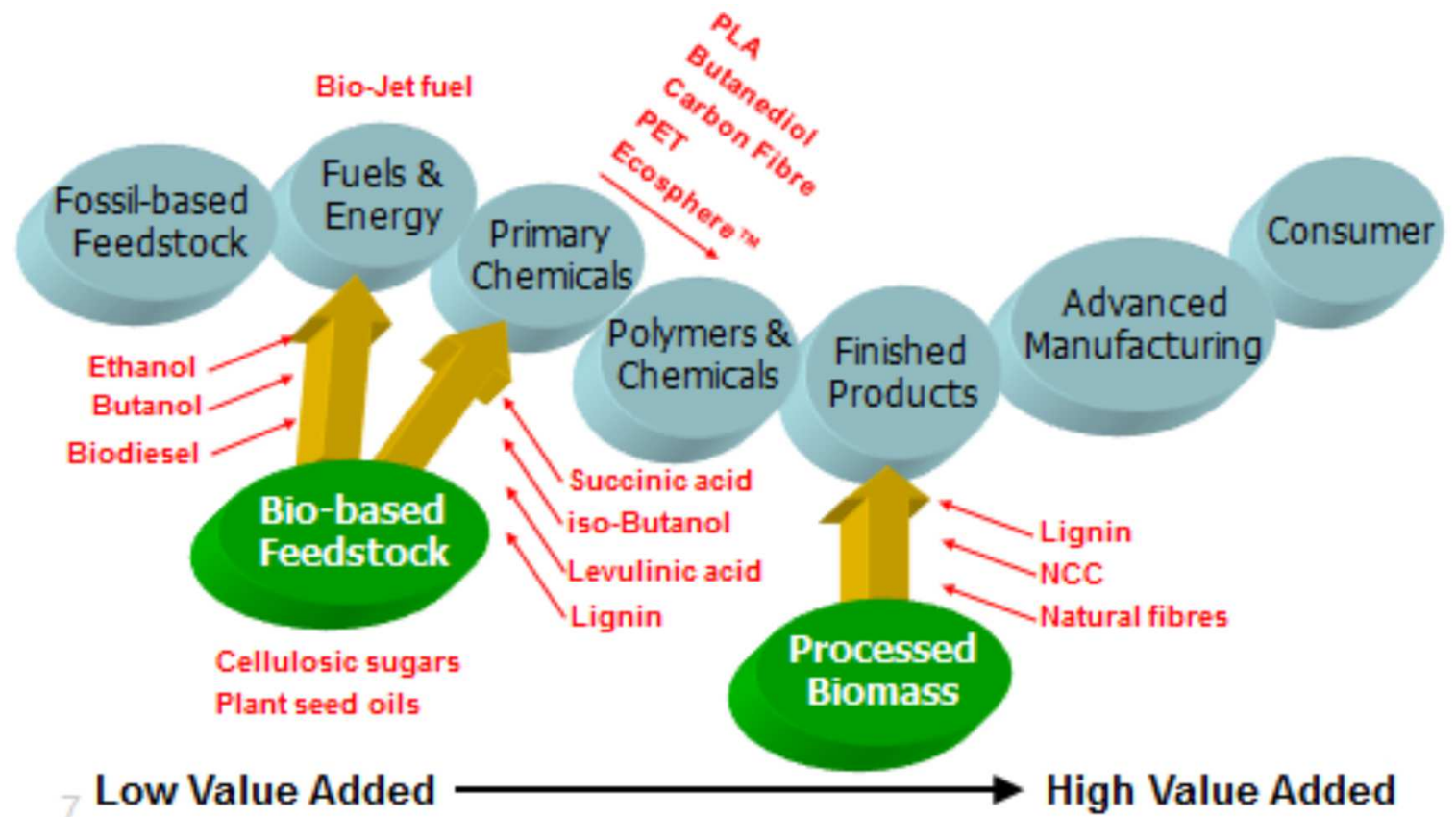
# Support for a Global Partnerships in Bioeconomy

*“If you are looking for a country that has the diversity, the resilience, the positivity and the confidence that will not just manage this change [the next industrial revolution] but take advantage of it, there has never been a better time to look to Canada”*

**- Prime Minister Justin Trudeau, Davos, January 2016**



The Value Chain for Bioproducts to Commercialization



# Global Relationships with Accelerators and Cluster Builders



- Bio-based Delta (Netherlands)



- CLIB (Germany)



- Malaysian Biotechnology Corp. (Malaysia)

- Life Sciences Queensland (Queensland, Australia)



- eGoliBIO Lifesciences Incubator (South Africa)



- Foro Argentino de biotecnología (FAB) (Argentina)



- MBI (Lansing, Michigan)



- VITO, Belgium

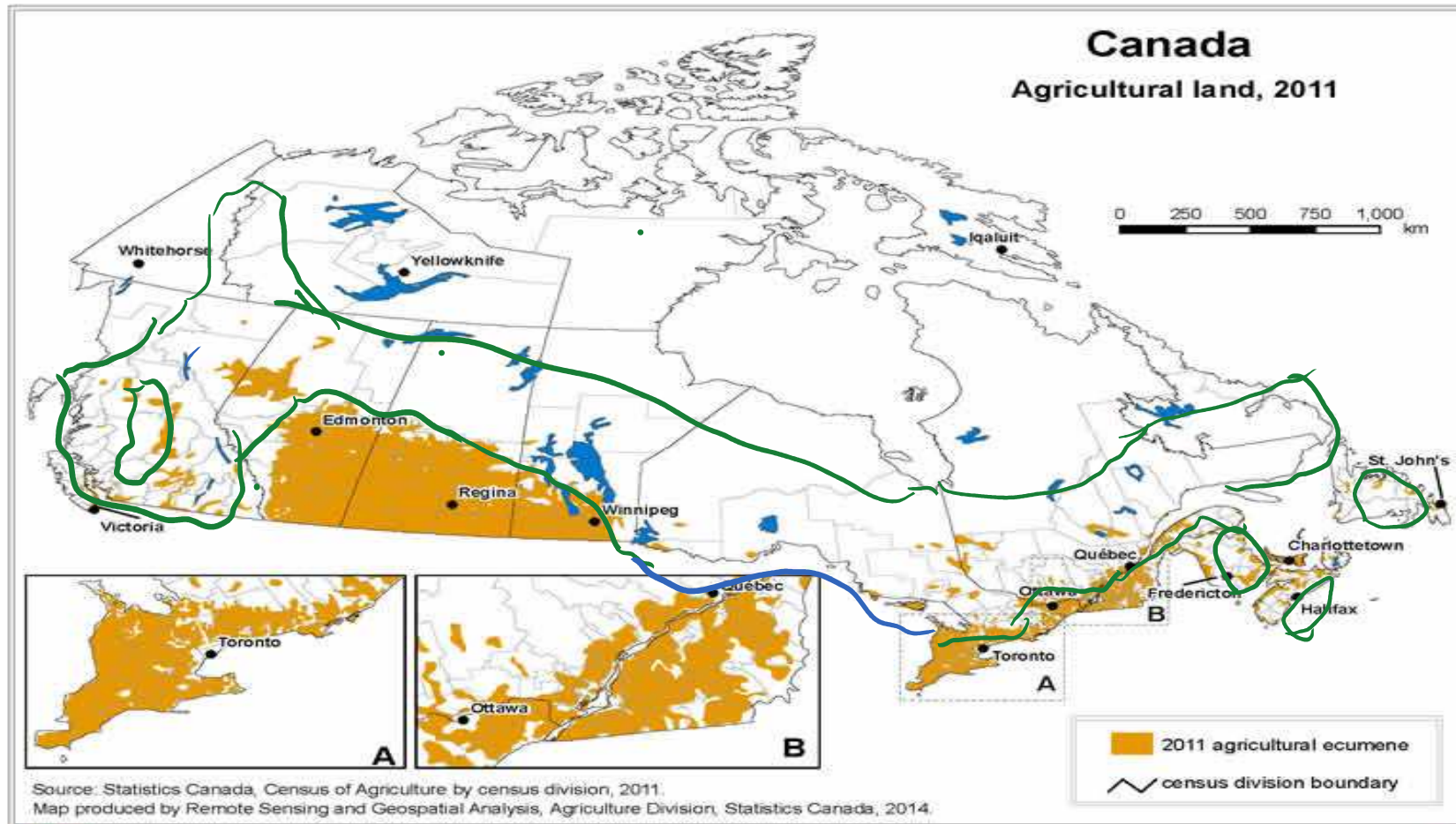


- Italy - federchimica



# BIOMASS GEOGRAPHY IN CANADA

Green outline is forestry biomass





# Sustainable Fiber Management

- In Canada our agriculture and forests fibres are sustainably managed using a mix of our social, economic and environmental values, such as recreation, production of forest products and conservation.
- Our sustainable biomass management is more than a goal – it is the framework and principles for how provinces and territories manage the resource
- Because of Canada's sustainable fibre management, our forests and Ag-biomass are part of the global climate solution
- Sustainably managing our fibres creates jobs in thousands of communities across Canada.





# Fibre Innovation in “Green” and Sustainable.

- Canada is transitioning to a ‘greener’ low carbon economy and our sustainably managed forests and agricultural biomass and the products manufactured have a vital role in this emerging circular economy.
- The fibre products sector is transforming with cutting-edge science and game-changing clean technology to create exciting renewable, bio-based products and materials from fibre that contribute to tackling climate change.
- Innovative “green” products are now being produced from fibre – everything from car parts to cosmetics to Sugars for bio based chemicals to clothing and engineered wood products – and are complementing or replacing traditional fossil fuel based products.
- Canada’s advantage in the bioeconomy, which is largely fueled by biomass, is our sustainably managed forests and the biomass innovation within the forest and agriculture sector



# CLUSTERS are Unique – What it Takes

- Belief in the need
- People
- Total commitment
  - every one on same train
- Patience
- Leadership
- Focus on the future
- Partnerships
  - governments, academic researchers, industry  
and international partners

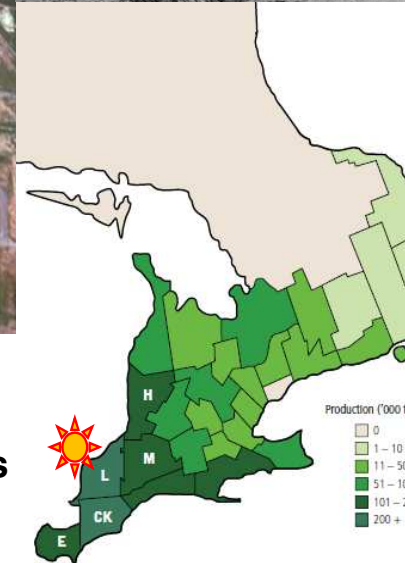
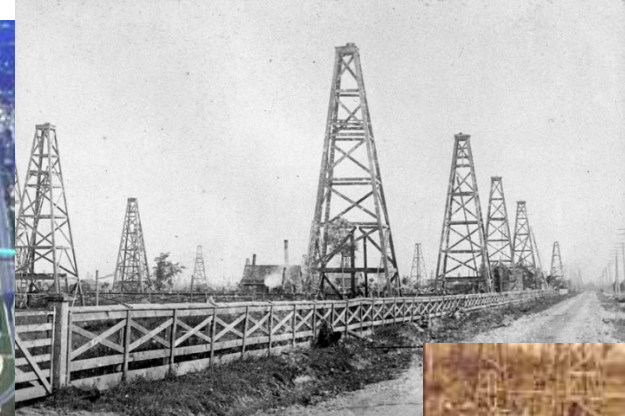




# Sarnia Cluster last Century and Earlier

## Fossil Based

- Air Products
- BP Energy
- CF Industries
- DuPont
- Ethyl Corporation
- Exxon-Mobil
- Arlanxeo
- NOVA Chemicals
- Pembina
- Praxair
- Royal Dutch Shell
- Styrolution
- Suncor Energy
- TransAlta Energy



•80% of Ontario soybeans and corn within 200km

# Sarnia Hybrid Cluster - 21<sup>st</sup> century

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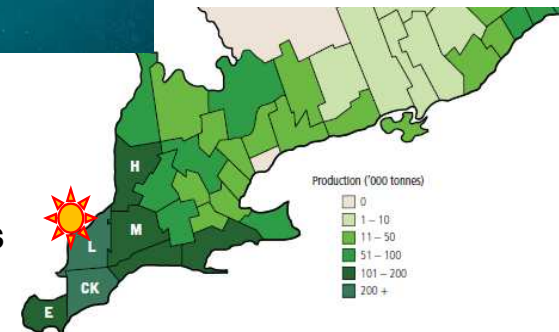


## Bio/Renewable Based

- LCY
- Cargill
- Enbridge
- Greenfield Energy
- BioX
- KmX
- SuncorEthanol
- Woodland Biofuels
- Renix
- Comet
- Cellulosic Sugar Coop
- Origin Materials
- Benefuel
- Forge

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# Canada – the Natural Choice for the Bio-economy business in North America

## BENEFITS

- Access to Biomass – agriculture, forestry, marine and Municipal
- Access to market population of almost 480 million
- Access to ship, truck and rail transportation
- Access to a strong educated workforce
- Access to labour, fabricators, and funding support



## Summary

### Key to Building the Bioeconomy

- Build international partnerships
- Focus on Cluster development
- Strong support for Research and Development
- Recognize that Innovation is a key step to a solid Bioeconomy
- Commercialization is critical to success
- Remember, no one has all the answers, **it takes partnerships**



- From Field to Sugar to Chemicals



For More info on Partnering with Canada



## **Contacts for More Information**

Speak to your local Canadian Trade Commissioner  
or visit the Canada booth at the Summit.

Website: <http://www.investcanada.ca/>

Twitter: @invest\_Canada





# Thank you for Listening

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