INVEST IN CANADA
CANADA’S COMPETITIVE ADVANTAGES

BIOPRODUCTS
CANADA’S BIOPRODUCTS SECTOR

Canada is a recognized global leader in the development of a bio-based economy, providing foreign investors with unique competitive advantages over other international destinations. Because it has one of the world’s largest available bio-feedstocks1 and world-class research institutions, many global companies such as Archer Daniels Midland, BioAmber and ARLANXEO have established operations in Canada.

Canada is known internationally for the commercial application of its R&D expertise in important bioproducts verticals, including areas such as bio-based materials and composites, cellulosic ethanol, fermentation technologies, nanocrystalline cellulose processing, pyrolysis technologies, and waste-to-energy technologies.

Canada offers foreign investors several unique advantages in the bioproducts industry. Canada has more biomass resources per capita than any other country in the world,2 with a diverse wealth of feedstock, ranging from crops, trees, and marine life to microorganisms and waste material. It is also home to a highly educated workforce that specializes in the commercialization of bio-based technologies, and features a highly integrated bioeconomy, where new and innovative bioproducts are used in many industrial applications.

Through its efforts to take advantage of these competitive strengths, the Canadian bioproducts sector is consolidating its status as a global player in the growing bioeconomy. Significant bioproducts produced in Canada include biofuels (the leading bioproduct by revenue), biopolymers, and biochemicals2.

CANADA’S KEY STRENGTHS IN BIOPRODUCTS


1 World Bank, World Development Indicators, 2017.


QUICK FACTS – CANADA’S BIOPRODUCTS SECTOR

190 firms employing 4,118 people
$4.3 billion in revenues
$1.4 billion of exports
$112.1 million invested in R&D
88 percent of firms are small and medium-sized enterprises (SMEs)
Active in biofuels, chemicals, plastics and composites, fibreboard, biocontrol agents, and biocatalysts
RECENT INVESTMENTS

In 2017, US-based Origin Materials announced plans to construct its first commercial-scale demonstration facility in Sarnia, Ontario by late 2018. The facility will transform multiple bio-based feedstocks into a broad range of chemical intermediates.

In 2017, Finland-based Neste Corporation and Bioénergie La Tuque (BELT), located in Quebec, announced a R&D partnership agreement to study the feasibility of producing renewable diesel from forest harvest residues in La Tuque, Quebec.

In 2016, Envergent Technologies, a joint venture of US-based Honeywell and Canada-based Ensyn, began construction of a new biocrude facility in Port-Cartier, Quebec.
CANADA’S ADVANTAGES

WORLD-CLASS BIOECONOMY

Canada is building a strong bioproducts industry and welcomes foreign direct investment in this high-growth sector. Governments at all levels are investing in R&D for feedstock improvement, purpose-grown crops, technologies to produce new bio-based materials, chemicals, and energy—all to position Canada as an important player in the global bioeconomy. Canada fosters a vibrant R&D environment that promotes public-private-university collaborative research in the bioproducts sector, and foreign firms can leverage this effort to their benefit.

FEEDSTOCK AVAILABILITY

Canada has vast forest and agriculture resources and a well-established forest products and agri-processing sector. In addition to traditional resources such as soft- and hardwoods, grains, and oilseeds, Canada produces dedicated crops such as industrial oilseeds, switchgrass, miscanthus and algae. With the combination of purpose-grown crops and trees, forest residues, crop residues, fish processing waste, and municipal and industrial waste, there is abundant biomass feedstock to offer investors wishing to establish bioprocessing facilities in Canada.

DUTY-FREE MANUFACTURING

Canada is the first country in the G20 to offer a tariff-free zone for industrial manufacturers, having reduced tariffs on all industrial manufacturing inputs to zero in 2015. Along with straight-line depreciation for manufacturing and processing equipment, these duty-free policies mean that businesses can quickly write off capital investment in Canada. This is an important consideration for bioproducts manufacturers, where input costs continuously impact profitability.

LOGISTICS AND MARKET ACCESS

Canada has a highly developed transport infrastructure that is critical to the cost-effective transportation of high-volume bioproducts. According to the World Bank, Canada has one of the best logistics infrastructures in the world.4 Foreign investors in Canada’s bioproducts sector have duty-free access to the large North American market under the North American Free Trade.

With provisional application in force, the Canada-European Union Comprehensive Economic and Trade Agreement (CETA) allows companies operating in Canada to have preferential market access, through 12 trade agreements, to 44 countries with almost 1.2 billion consumers and a combined GDP of over US$41.2 trillion, representing over half of the world’s output of goods and services.6 These trade agreements allow investors in Canada to benefit from integrated global supply chains and seize new export market opportunities.

“EcoSynthetix made a strategic decision to establish our global operations in Canada because of the ability for our scientists to develop new technologies with university researchers, Canada’s “open for business” policies and strong commitment to the bioeconomy through supporting associations like Bioindustrial Innovation Canada. This decision has paid off, giving us strong relationships with world leading universities and support from government throughout our growth. This has led to success for our innovative, green technology with customers in international markets.”

— Jeff MacDonald
CEO, EcoSynthetix

5 World Bank, Logistics Performance Index 2016.
Sustainable Development Technology Canada (SDTC) finances and supports innovative clean technology projects through development and pre-commercial demonstration.

Natural Resources Canada’s Investments in Forest Industry Transformation (IFIT) program supports Canada’s forest sector through targeted investments in innovative technologies, including bioproducts.

National Research Council Canada’s Advanced Manufacturing Program provides technology commercialization support on industrial biomaterials.

National Research Council Canada’s Algal Carbon Conversion Flagship Program researches recycling CO$_2$ through incorporation into algal biomass and evaluates commercialization of algal cultivation technology.

National Research Council Canada’s Industrial Research Assistance Program (IRAP) provides innovation assistance to SMEs. Funding is provided for advisory services, R&D, networking and youth employment.

Export Development Canada (EDC) and Business Development Bank of Canada (BDC) provide flexible financing programs and solutions tailored to support foreign direct investment in Canada.

For more information about these and other programs, please visit: investincanada.com

A DYNAMIC RESEARCH AND INNOVATION NETWORK

Agri-Food Discovery Place | Alberta Biomaterials Development Centre | Bioénergie La Tuque | Bioindustrial Innovation Canada | BioNB | Bioproducts Discovery and Development Centre | Biorefining Conversions Network | Biorefining Research Institute | Centre for Applied Synthetic Biology | Centre for Biocomposites and Biomaterials Processing | Composites Innovation Centre | Consortium de recherche et innovations en bioprocédés industriels au Quebec (CRIBIQ) | Drayton Valley Bio-Mile | IFPInnovations | Green Aviation Research and Development Network | GreenCentre Canada | Natural Products Canada | Innovacorp Demonstration Centre | Institute for Chemicals and Fuels from Alternative Resources | MaRS Discovery District | Perennia Innovation Centre | POS Bio-Sciences | University of Toronto BioZone | Waterloo Institute for Sustainable Energy
AN ENABLING BUSINESS ENVIRONMENT

WORLD-CLASS CLUSTERS OF INNOVATION, WITH GOVERNMENT AS PARTNER

Canada has strong geographic and sectoral clusters, as well as R&D-intensive sectors with the lowest business costs in the G7.

Source: KPMG

A HIGHLY EDUCATED AND TALENTED WORKFORCE

Canada has the most educated talent pool in the OECD with more than half of its population aged 25-64 having a tertiary level education.

Source: OECD

LOW BUSINESS TAX RATES

Canada is the most tax competitive country in the G7.

Source: KPMG

A GREAT PLACE TO INVEST, WORK AND LIVE

Canada ranked first among 60 countries for quality of life. Canada is ranked first in the G7 and G20 for overall prosperity of citizens.

Sources: U.S. News and the Legatum Prosperity Index

Unless otherwise noted, all values in this publication are in Canadian dollars. The content is based on the latest available information at time of publication.

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