Bioproducts in Canada

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A Snapshot of the Canadian Investment Climate for Bioproducts

Fiscal restraint (to balance the budget in 2015); Focus on jobs and economic growth.

Innovation has been identified as a major priority of the Government of Canada.

“The Government of Canada is taking action to ensure Canada has the necessary conditions in place to foster innovation. By consistently supporting advanced research and technology, the Government is choosing to invest in the current and future prosperity of Canadians.”

- Budget 2013

“To help increase private sector investments in early-stage risk capital, and to support the creation of large-scale venture capital funds led by the private sector, Economic Action Plan 2012 proposes to make available $400 million for venture capital activities.”

- Budget 2012

Investors are showing interest in the Canadian bioeconomy, although there continues to be a pronounced gap in venture capital availability to the Canadian agricultural sector at large.

The Government of Canada has made major investments in biofuels and an established biofuels industry now exists in Canada.

The agriculture sector is interested in building on our investments in biofuels and many biorefineries are at the stage of scale up (demo and commercialization).
A vibrant biofuels industry has emerged across Canada and agriculture is benefitting from new markets for farmers…

… but this is just the first step.
Canada is building on existing infrastructure to develop the bioproducts sector...
Also building on traditional strengths and petroleum based infrastructure to establish key bio-hybrid clusters across Canada.

Drayton Valley
- CO2 Capture + Conversion
- Forestry and oil/gas
- Infrastructure
- Agri and Forest Biomass

Saskatoon
- Internationally Renown Agricultural Reputation
- Innovation Place
- Infrastructure
- Agri Biomass

Sarnia-Lambton
- First BioHybrid Cluster
- Petrochemical, Energy, Manufacturing Infrastructure
- Close to Markets
- Agri and Forest Biomass

Working with and leveraging existing industry and market infrastructure

Source: Murray McLaughlin, Executive Director, Bioindustrial Innovation Centre
A quick glimpse at the Canadian bioproducts sector shows that Canadian companies are developing a range of bioproducts.
The Government of Canada played a key role in developing the bioproducts sector...

Most notably through a coordinated Canadian Renewable Fuels Strategy.

The Government of Canada has provided for increased retail availability of renewable fuels through regulation:

- 5% in the gasoline pool and 2% in the diesel pool

New opportunities for farmers

- $200 million ecoAgricultural Biofuels Capital Initiative (ecoABC) for repayable capital contributions (ended March, 2013)

Expanded Canadian production of renewable fuels

- $1.5 billion ecoENERGY for Biofuels program provides production incentives to renewable fuel producers (ending March, 2017)

Accelerated commercialization of next generation technologies

- $500 million NextGen Biofuels Fund™ for large scale, next-generation renewable fuels demonstration facilities (ending March, 2017)
...but also through research along the Bioproducts Value Chain.

**Seed-to-product**

Engages industry and supports the development of the entire supply chain

**BIOMASS**
Supply, selection, harvesting, standards

**RAW MATERIALS TREATMENT**
Characterization, fitness for use, handling

**PROCESSING/ MANUFACTURING**
Flexible platforms, high throughput, reliability, new markets

**COMMERCIALIZATION**
Cheaper, lighter, stronger materials for the construction and automotive industries
... and through programs to derisk and encourage innovation.

The $500M NextGen Biofuels Fund™ supports the establishment of commercial scale demonstration facilities for next-generation renewable fuels and co-products.

The $590M SD Tech Fund™ supports late-stage development and pre-commercial demonstration of clean technology solutions.

The $100M Investments in Forest Industry Transformation (IFIT) program funds new technologies that will lead to non-traditional high-value products and renewable energies in the forest sector.

The Forest Innovation Program received an additional $61 million in Budget 2013 over two years to continue to advance innovation across the forest sector value chain.
... and finally through Trade Commissioner Services to enhance access to and partnerships with international markets.

2013-2014 Cleantech Priorities

- Air pollution control for industrial processes (APC)
- Water management and wastewater treatment
- Carbon capture and storage/sequestration (CCS) for climate change mitigation and adaptation
- Bioproducts, Bioenergy & Waste to energy
- Hydrogen and fuel cell
- Wind – large and small, onshore and offshore
Agriculture and Agri-Food Canada’s Roadmap for Agriculture-Based Industrial Bioproducts lays out a vision to guide the department moving forward.

The Roadmap lays out what needs to be accomplished to achieve the following goals:

• To stimulate new opportunities for farmers, processors, and rural communities
• To foster sustainable resource use and environmental and social benefits

...in line with our principles

• Industry Led
• Government as an enabler
• Flexible
• Feedstock Neutral
• Product Neutral
• Environmentally and Socially Beneficial
...and has helped to establish key activities to support the Canadian bioproducts sector.

The Industrial Bioproducts Value Chain Committee
An industry-led forum to bring together key industry representatives with governments to enhance Canadian competitiveness and profitability within the industrial bioproducts sector.

The Federal-Provincial-Territorial Bioproducts Working Group
A FPT Working Group has been established to foster further cooperation on bioproducts among governments.

AgrilInnovation Program (2013-2018)
It will accelerate the pace of innovation by supporting research and development activities in agri-innovations and facilitate the demonstration, commercialization and/or adoption of innovative products, technologies, processes, practices and services.


Biomass Inventory Mapping and Analysis Tool (BIMAT)
The BIMAT is a web-based tool that allows users to evaluate the sustainable availability of Canadian agricultural, forestry, and sorted municipal residual biomass.

http://www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1226509218872