

# Industrial Biotechnology

A Region of Opportunity

## FREDERICTON NEW BRUNSWICK

One of  
Canada's  
Most Fertile  
Bioscience  
Ecosystems

Located in the heart of Canada's most diverse biomass, Fredericton houses the province's largest cluster of biotechnology/biosciences companies. Our biotech operations have convenient access to a rich array of privately-held forests, waterways, coastlines and agricultural lands. The city's extensive research infrastructure and talent pool – comprised of more than 60 research chairs, organizations, and institutions – contribute significantly to the success of emerging and established commercial operations in forestry, fisheries, healthcare, agriculture, and clean-tech.

Biotechnology is flourishing in Canada. We now boast the second largest biotechnology industry in the world, with the fastest rate of growth in external patent applications. Canadians get behind biotechnology: our businesses are investing in biotechnology R&D at a greater rate than any other industrialized nation.

**5%** of 4.5 M ha prime agriculture land is farmed

**112** fish processing plants, 90 salmon production sites

**50%** of NB's productive forest land privately owned

Canada:  
**Lowest biotech**  
business costs of the G7

*"Biorefining and bioprocessing aimed at developing multiple products from biomass assets is a huge opportunity here based on our abundance of biomass assets, diverse cluster of non-academic research organizations, skilled workforce, and availability of privately-owned assets."*

Meaghan Seagrave, Executive Director BioNB

### Your Location Advantage

- Close proximity to abundant, diversified biomass
- 60+ Research organizations, chairs & 14 non-academic research institutes
- NB's largest knowledge industry cluster with deep engineering expertise
- One of Canada's most trade active provinces
- Fredericton, NB ranked #1 most cost competitive city in Canada (KPMG Competitive Alternatives 2016)
- Lowest gigabit connectivity rates in Atlantic Canada
- Best Micro City (fDi Magazine Financial Times 2013-2014)
- Canada's 4th highest university-educated labour force (2011)
- Most convenient time zone for NA, Europe and South American markets

## Rich Resources. Opportunity Assets.



### Agriculture

- Lowest entry cost in Canada
- 4.5M hectares
- 5% in production
- Two agriculture research centres



### Fisheries and Aquaculture

- 112 processing plants (1B/yr)
- Over 90 salmon production sites
- Canada's 2nd largest seafood producer (1B annual sales)
- Four fisheries and marine institutes



### Forest

- 6M Ha (85% productive, 50% privately owned)
- Two forest research centres

## Regional Opportunities

Over 100 years of innovation in forestry, agriculture, aquaculture and marine has resulted in entrepreneurial successes and opportunities in:

- Biochemicals and Bioenergy (Agriculture)
- Bioactives (Aquaculture and Fisheries)
- Value Added Wood and Biomaterials
- Forest Biorefining Innovation
- Medical Technologies
- Health Care
- Clean Tech



**ignite**  
FREDERICTON

Fuelling Entrepreneurs

## World Renowned Research

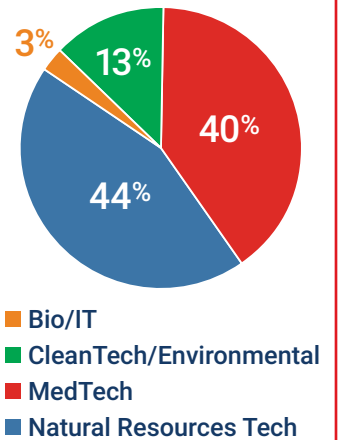
- Agriculture and Agri-Food Canada – Fredericton Research and Development Centre
- Atlantic Cancer Research Institute
- Atlantic Forestry Centre - Canadian Forest Service
- Biorefinery Technology Scale-Up Centre (CCNB)
- Coastal Zones Research Institute Inc. (CZRI)
- Fisheries and Oceans Canada - Gulf Fisheries Centre
- Fisheries and Oceans Canada - Saint Andrews Biological Station
- Horizon Health Network
- Northern Hardwoods Research Institute (NHRI)
- Research and Productivity Council
- Institute of Biomedical Engineering
- Stan Cassidy Centre for Rehabilitation
- The Huntsman Marine Science Centre
- Vitalité Health Network

## Research Chairs

In addition to eight biotech-related Research Chairs, examples of groundbreaking UNB bioscience research include, among others:

- Novel aquaculture technologies
- The development of new technologies and their fundamentals for pulp and paper
- Advanced materials research
- World leading myoelectric prosthetics research

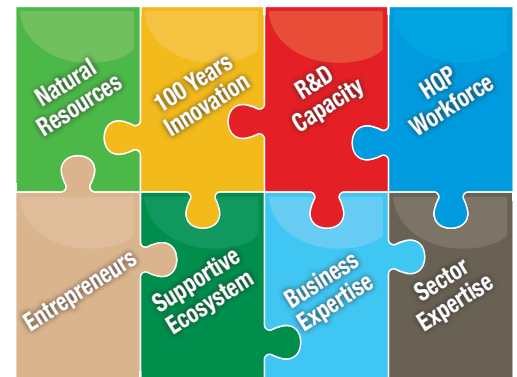
## Areas of Focus for Bio Companies



## Location Advantage. Market Access.



## Fredericton, New Brunswick All the Pieces of the Puzzle



### Ignite Fredericton and BioNB foster commercialization opportunities in bioscience with:

- One-stop shop for support & services
- Diverse quality building and facility options
- Help recruiting and training
- Pro bono office space at start-up stage
- Attractive financial incentives & innovation funding
- Supportive aftercare during growth and expansion

## Among Fredericton biotech companies:



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