

THE UNIVERSITY OF BRITISH COLUMBIA

# BioProducts Institute

## Building a low carbon economy together

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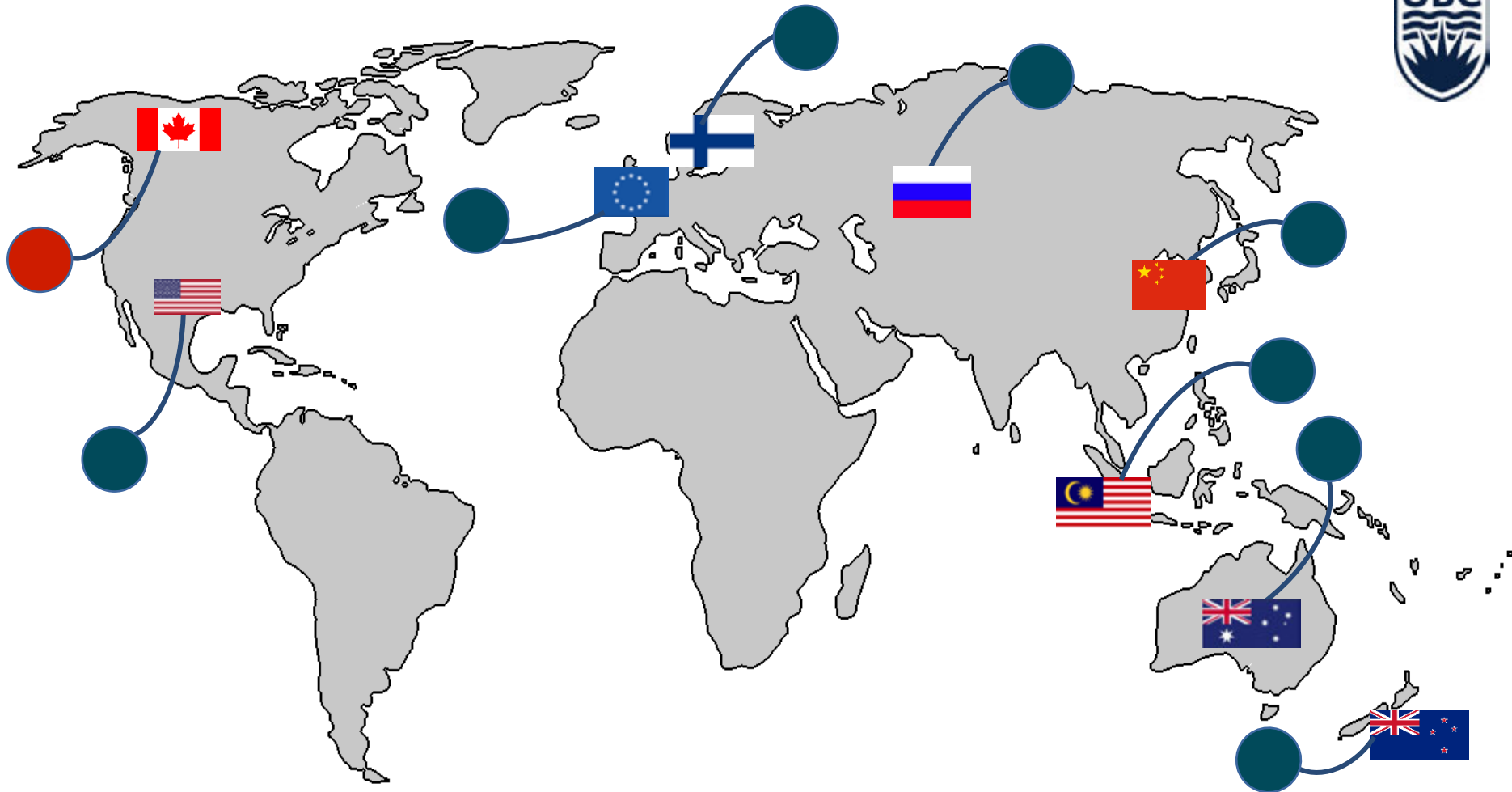
BioProducts Institute

[bpi.ubc.ca](http://bpi.ubc.ca)

Time for commitment is now



# Bioeconomy strategies – Global synergies



● National Bioeconomy Strategy in place ● No National Bioeconomy Strategy in place

# Good first step to bioeconomy - Forestry

A Forest Bioeconomy Framework for Canada



**VISION**  
Canada will be a global leader in the use of sustainable forest biomass as part of the transition to a low carbon economy.

**COMMUNITIES and Relationships**

**SUPPLY**  
of Forest Resources and Advanced Bioproducts

**DEMAND**  
for Advanced Forest Bioproducts and Services

**Support for INNOVATION**

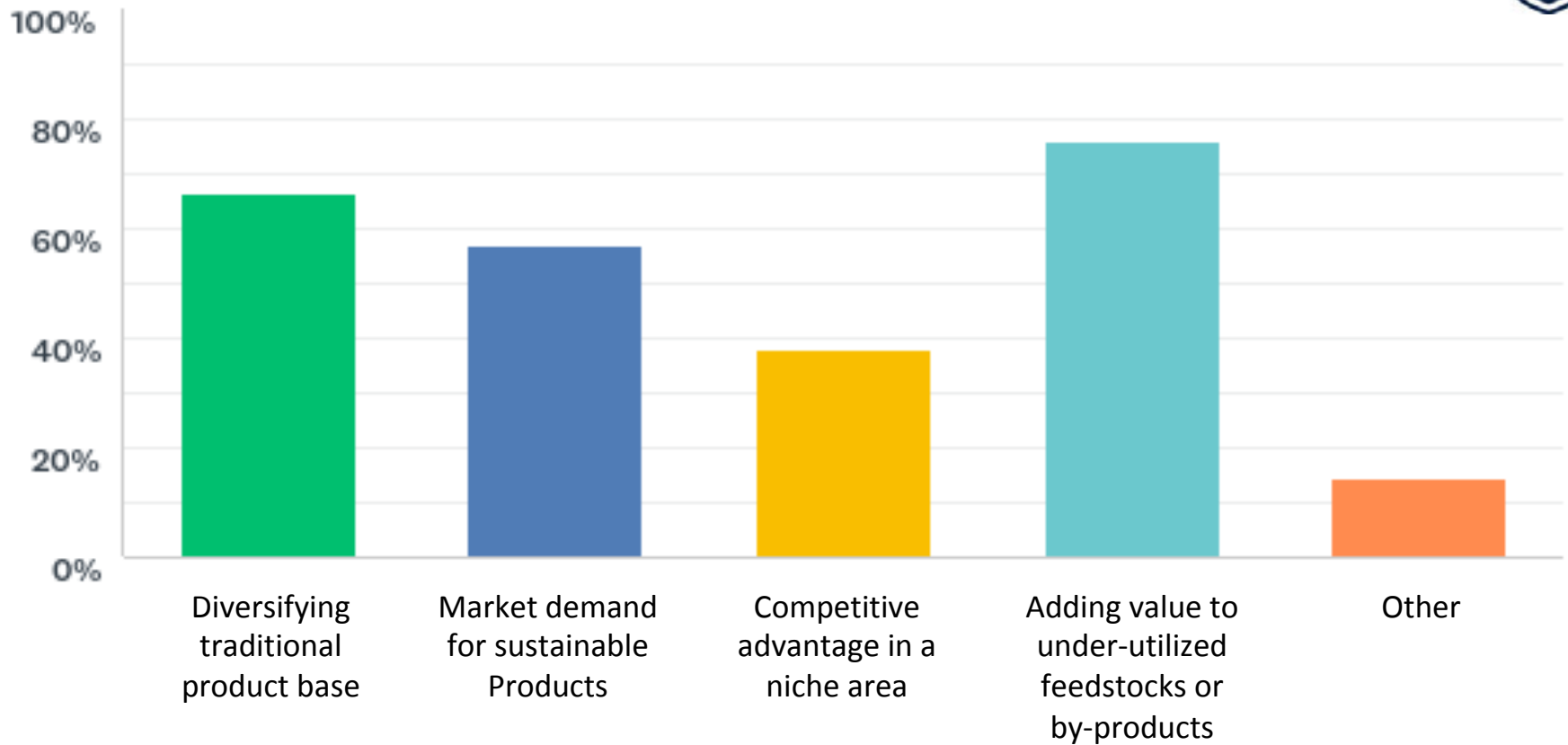


# Leading by example – British Columbia



Clean-Tech  
Innovation Strategy  
for the B.C. Forest Sector  
2016-2024

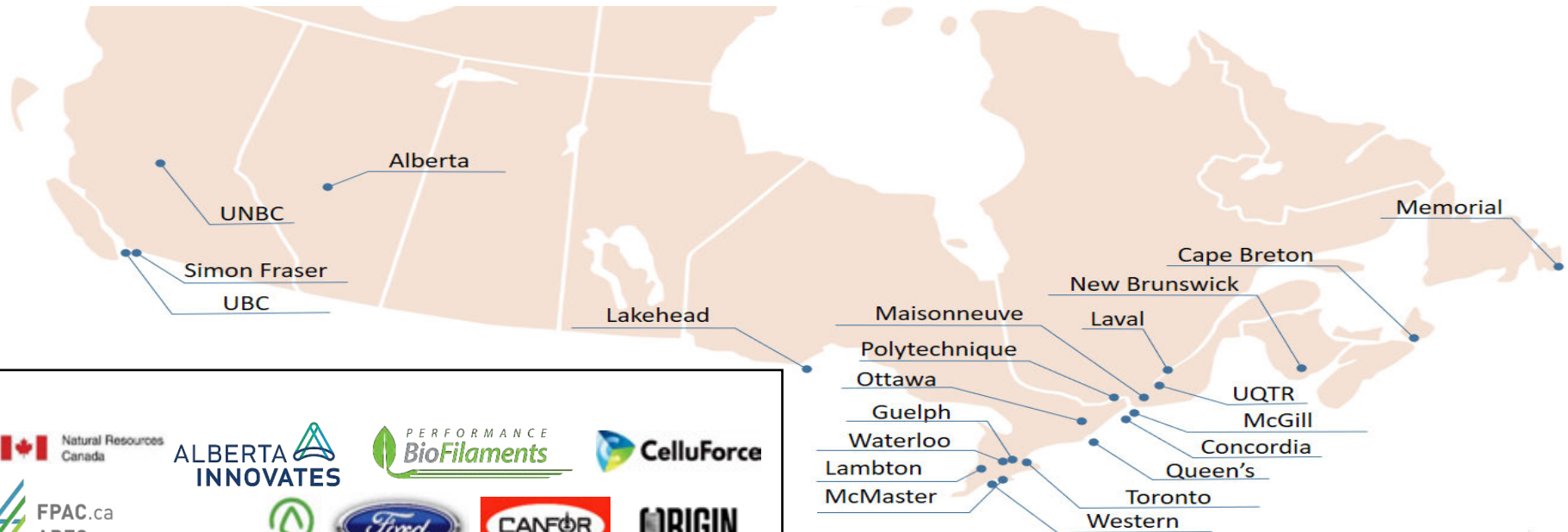
# Drivers for bioeconomy investment



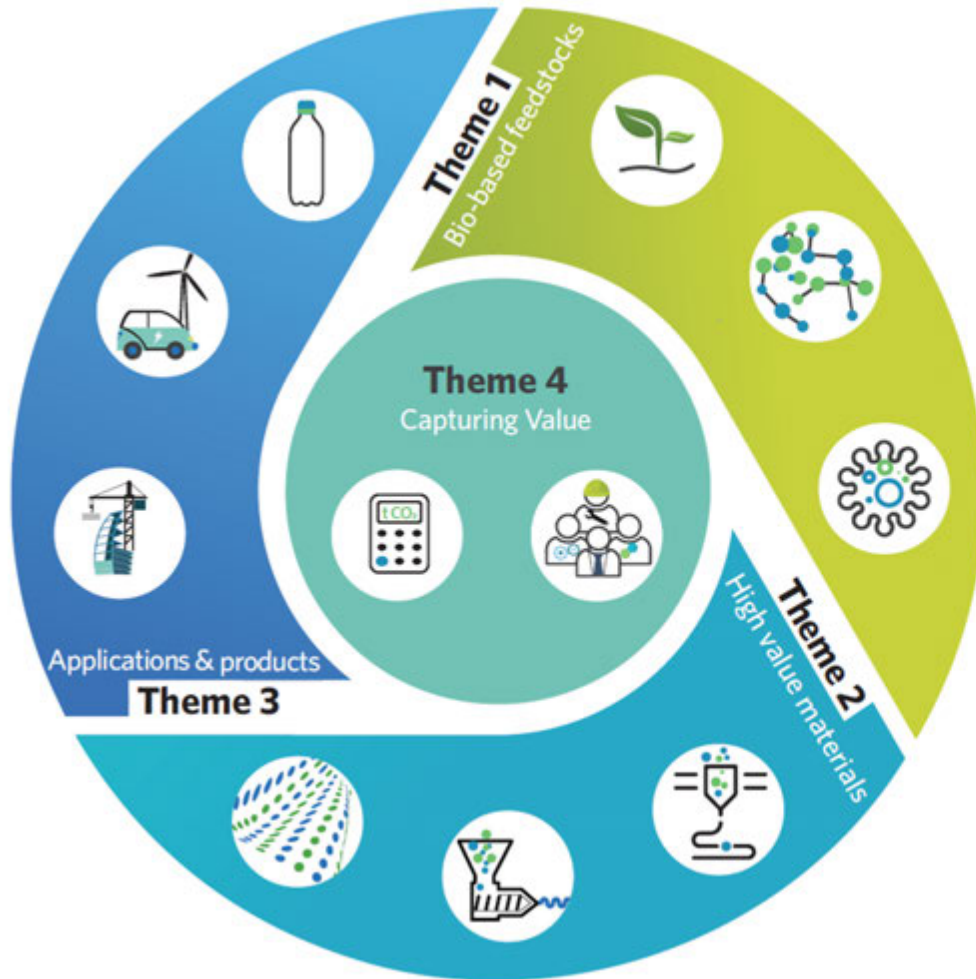
# BioInnovative Renewables Network

Network Centre of Excellence for the Bioeconomy

- 22 Universities and colleges
- 20+ Industry and government investors/partners



# Structured approach to bio-innovation



## Theme One

Bio-based materials  
feedstock development  
and conversion

## Theme Two

High-value chemicals  
and biomass-derived  
materials

## Theme Three

Innovative applications  
and hybrid composite  
products

## Theme Four

Capturing value for  
Canada's circular  
bioeconomy



# BiRNet vision and focus

Align and lead Canada's applied research to create a cost-competitive bioeconomy focused on renewable and recyclable products from Canada's abundant and sustainable forestry & agricultural resources



## Green communities

### Next generation buildings

- Lower embodied energy
- Decrease construction costs
- Minimize maintenance costs
- Optimize lifecycle performance

### Urban ecosystems

- Maximize carbon storage
- Minimize environmental footprints



## Sustainable transportation

### Tomorrow's transport systems

- Advanced bio-composites
- Renewable (bio)energy concepts
- Light-weighting
- Alternatives to petrochemicals

### Domestic and export markets

- Lower carbon footprint of goods
- Optimize supply chain infrastructure



## Healthy living

### Sustainable consumer products

- Personal care
- Medical applications
- Smart packaging
- Bioactives from nature

### Carbon-efficient society

- Meet social license metrics
- Build a circular economy

# Why BiRNet is different

## Academic-led projects - Institutions

- 50% of Core Funding allocated on Research Push basis
- Generated and selected through Open Innovation process
- Composition determined by Academic team



## Industry-directed projects – Partners and Stakeholders

- 50% of Core Funding allocated on Market Pull basis
- Generated and selected through EOI+RFP process
- Each Major Partner guaranteed 20% Discretionary Funding
- Composition determined by Academics and Industry

## Token allocations – selection mechanism for Core Funding

- \$5K Direct funding = 1 Token
- \$20K In-kind funding = 1 Token

# Benefits to industry and stakeholders

## Substantial leveraging of investment

- 50% of funding under direct control of industry partners
- Can expect minimum 1:1 leverage ratio
- Capacity to define priorities is proportional to relative investment in Network



## Transparent decision making process

- Token system is fair and formalized
- Selection criteria encourages tackling priority industry needs collectively

## Principles on IP access pre-defined

- Negotiation by exception allowed
- Mechanisms to deal with proprietary IP needs

## Accessing the best research capacity

- Network acts as partnership broker for priority projects
- Macro-manage PDF projects to shorten delivery times
- Mechanisms ensure sector access to broader capacity
- Access to sector specific HQP



Thank you!

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