

# A DEEPER DIVE

July 21, 2020

*A Deeper Dive*, 10:30 a.m. to 1:30 p.m. (MDT)

#MaxFunding







**Ask your questions to presenters by using the Q&A  
button below**





# A DEEPER DIVE SCHEDULE

10:30 to 11 a.m.	11 to 11:30 a.m.	11:30 to noon	Noon to 12:30 p.m.	12:30 to 1 p.m.	1 to 1:30 p.m.
<ul style="list-style-type: none"><li>• NRC-IRAP</li><li>• NSERC</li></ul>	<ul style="list-style-type: none"><li>• Alberta Innovates</li></ul>	<ul style="list-style-type: none"><li>• Clean Growth Hub</li><li>• SDTC</li></ul>	<ul style="list-style-type: none"><li>• NRCan (CFS)</li></ul>	<ul style="list-style-type: none"><li>• EDC</li></ul>	<ul style="list-style-type: none"><li>• ERA</li><li>• BDC</li></ul>





# MAXIMIZING FUNDING POTENTIAL

JULY 21 & 22, 2020

INDUSTRIAL RESEARCH  
ASSISTANCE PROGRAM - IRAP



National Research  
Council Canada

Conseil national de  
recherches Canada





# The National Research Council of Canada

- **MANDATES**

- Business innovation
- Policy solutions for government
- Advancing knowledge

- **RESOURCES**

- 2,151 scientists, engineers, technicians, other specialists
- 255 IRAP industrial technology advisors
- 179 buildings in 22 locations





# Industrial Research Assistance Program

## Mandate

**STIMULATE WEALTH CREATION** for Canada through innovation

## Mission

**ACCELERATE THE GROWTH** of small and medium-sized businesses by providing them with a comprehensive suite of innovation services and funding

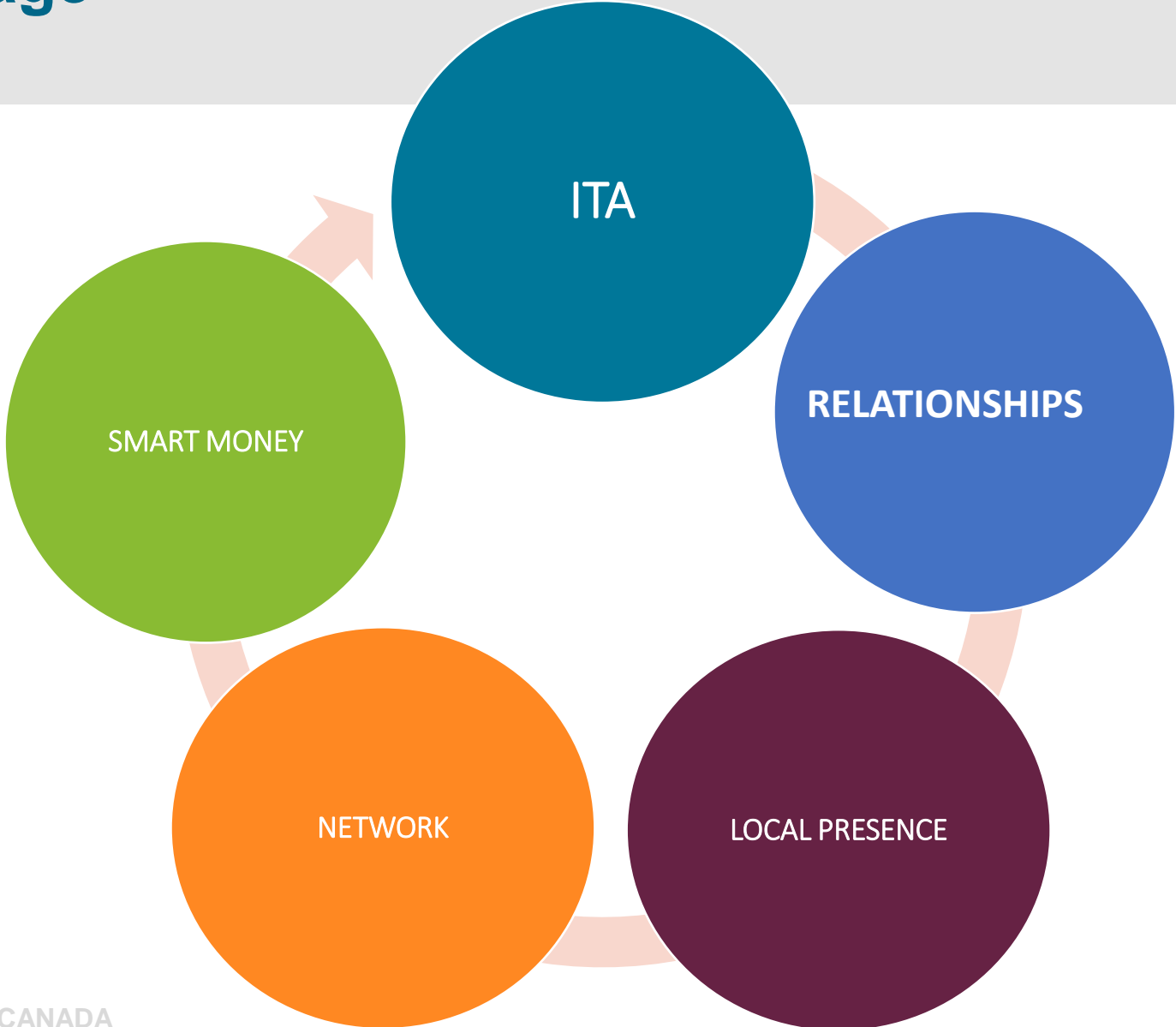
## Vision

**BE THE MOST IMPACTFUL PROGRAM** of its kind in the world, where Canadian firms go first to transform their ideas into commercial success





# IRAP advantage





# Industrial technology advisors

- Private sector experience
- Later in career cycle (typically 20+ years experience)
- Senior managers and entrepreneurs
- Most have an engineering or science background
- Get to know an IRAP ITA!





# Advisory services

## OUR ITAs WORK WITH CLIENTS THROUGH EVERY ASPECT OF THE INNOVATION PROCESS, PROVIDING

- technical and business advice;
- referrals to other programs and services;
- linkages and networking with appropriate resources/ expertise searches;
- strategic intelligence





# IRAP engagement model



## ADVISORY SERVICES

- Business advice
- Linkages
- Strategic intelligence
- Technical expertise



- IRAP R&D projects
- Youth employment
- International





# Who can we select?

## BASIC ELIGIBILITY

- Incorporated SME operating in Canada
- 500 or fewer employees
- Objective to grow through innovation

## ASSESSMENT OF THE BUSINESS

- Business opportunity
- Management & financial capabilities
- Potential to achieve expected outcomes
- Plan to commercialize results



# Who can we select?

## ASSESSMENT OF THE PROJECT

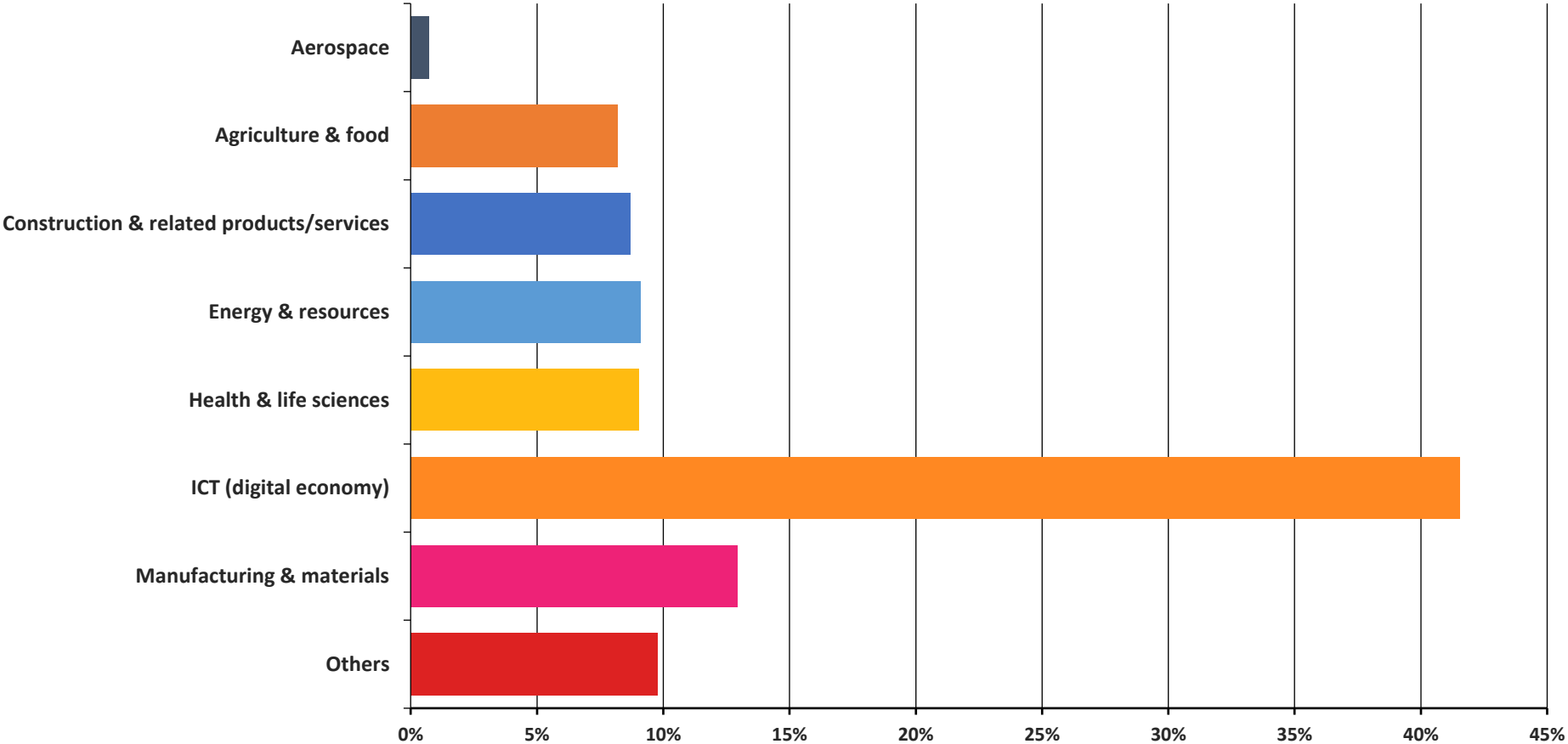
- Project plan and challenges
- R&D team's capacity to achieve success
- Potential impact on the firm and Canada





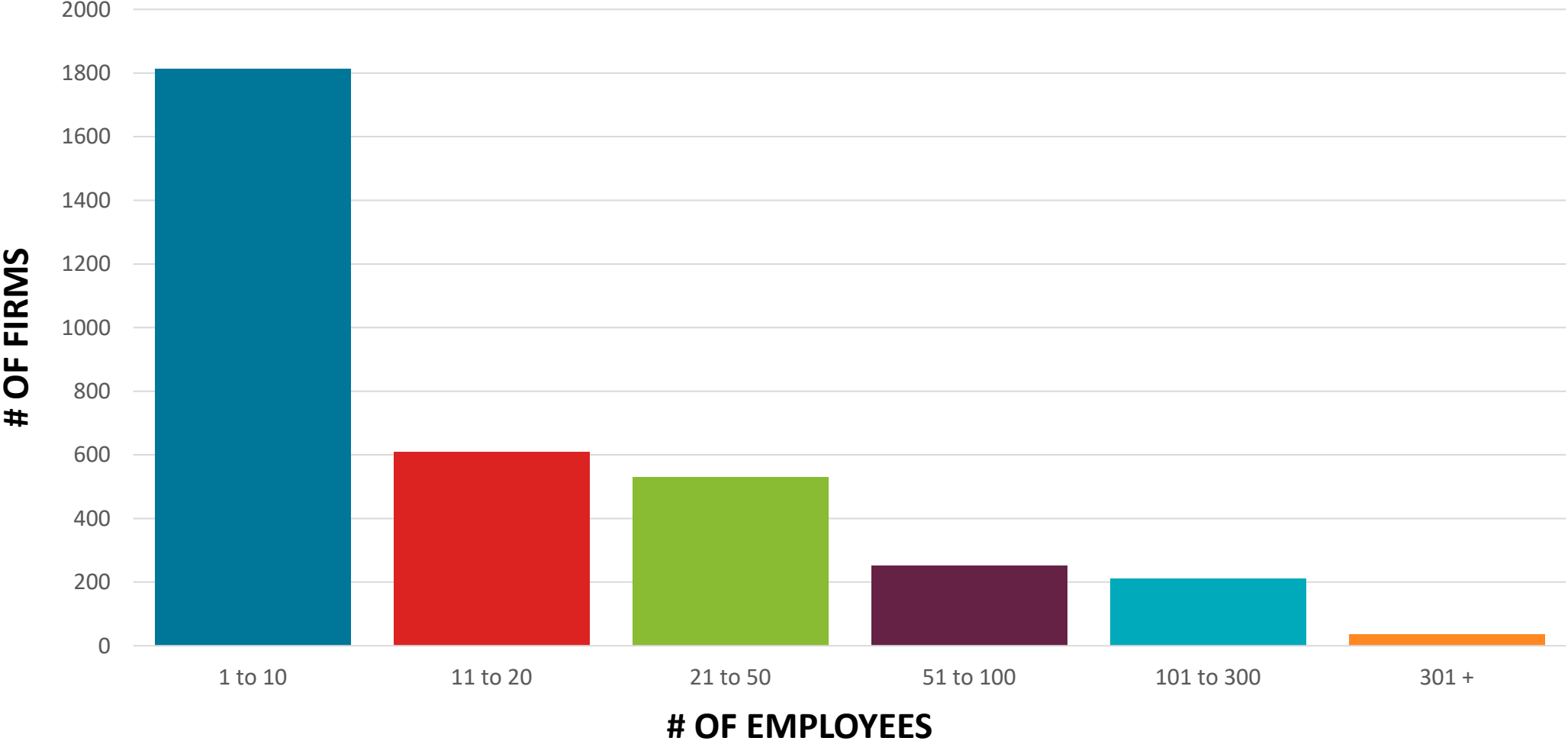
# IRAP clients by industry sector

Source: FY 2018-2019



# IRAP clients by company size

Source: FY 2018-2019





# IRAP sector teams

- Link innovative Canadian SMEs to global value chains
- Support SME growth by providing access to current technology and business market intelligence on priority industry sectors
- Increase the positive impact of NRC on innovative SMEs.
- Contribute to the competitiveness of Canadian industry.
- Strengthen Canada's innovation system.

**Advanced Manufacturing  
Aerospace • AgriFood  
BioMedical • BioProducts  
CleanTech • Construction  
ICT • Mining**



# GROW GLOBAL

## International co-innovation opportunities for Canadian SMEs

- Connect to programs and expertise
- Improve competitiveness
- Tap into emerging markets and innovative developed markets



# Helping SMEs succeed globally

## IRAP CONNECTS CLIENTS TO THE GLOBAL VALUE CHAIN

- Large enterprise initiative
- Sector teams
- Tools to support international growth

## SUPPORTED PROGRAMS:

- EUREKA
- Eurostars™
- Canadian International Innovation Program (CIIP)
- CanExport







# THANK YOU

Julie Kennett

Acting Regional Director, IRAP Prairies Alberta South

1-877-994-4727

[Julie.kennett@nrc-cnrc.gc.ca](mailto:Julie.kennett@nrc-cnrc.gc.ca)



National Research  
Council Canada

Conseil national de  
recherches Canada







# MAXIMIZING FUNDING POTENTIAL

JULY 21 & 22, 2020

Natural Sciences and Engineering Research  
Council of Canada (NSERC)







# Outline

1. Brief overview of Alliance Grants for universities
2. Brief overview of two partnership grants for colleges:
  - Engage Grants
  - Applied Research and Development Grants
3. Answer questions





# Alliance Grants...



**One**  
**New**  
**Flexible**  
**Simplified**  
**Enhanced**  
**Responsive**  
**Partnerships**  
**Program**

**Alliance Grants...**

**Key points:**

- NSERC funds flow to universities to support the direct costs of a research project
- Research must be primarily in natural sciences or engineering fields
- Projects are collaborations between universities and non-university partner organizations (private sector, public sector, or not-for-profit sector)
- Project costs are shared between NSERC and partner organizations

[nserc.ca/alliance](https://nserc.ca/alliance)





# Alliance Projects

ONE PROGRAM

1 to 5 years

\$20,000 to  
\$1,000,000  
per year

Single researcher  
and partner to  
multiple  
participants and  
multisectoral

Focus on NSE  
based research  
activity



# Examples of partner organizations

whose contributions can be recognized in cost-sharing calculations for Alliance grants

Private Sector	Public Sector	Not-for-profit Sector
<ul style="list-style-type: none"><li>• Canadian private companies</li><li>• Multinationals with presence in Canada</li><li>• Foreign companies (not as sole partner)</li></ul> <p>* Companies must have a minimum of 2 full-time employees</p>	<ul style="list-style-type: none"><li>• Municipalities, local/regional governments</li><li>• Federal/provincial/territorial government departments (not funding agencies)</li><li>• Public utilities</li><li>• Crown corporations</li><li>• Indigenous governments</li></ul>	<ul style="list-style-type: none"><li>• Producer groups</li><li>• Industrial associations</li><li>• Registered charities with a research mandate</li><li>• Museums/libraries</li><li>• Indigenous groups</li><li>• Community groups</li></ul>





# Cost-sharing options

NSERC will provide:

## OPTION 1

**50%** (1:1 leverage ratio) – large organizations from a single sector – public, private, or not-for-profit

**66%** (a 2:1 leverage ratio) – projects with small/medium sized partners, or those from more than one sector

## OPTION 2

**90%** of the shareable costs for partnerships with private-sector companies

**100%** of the shareable costs for partnerships with exclusively public-sector and not-for-profit organizations





# College and Community Innovation Program (CCI)



Natural Sciences and Engineering  
Research Council of Canada

Conseil de recherches en sciences  
naturelles et en génie du Canada

Canada



## CCI Grants

- › Innovation Enhancement
- › Engage, Engage Plus for Colleges
- › Applied Research and Development
- › Technology Access Centre
- › Industrial Research Chairs for Colleges
- › Innovation Links
- › Synergy Awards
- › Connect
- › Community & College Social Innovation Funds





# Engage Grants for Colleges

Support short-term research and development projects aimed at addressing a company-specific problem with a new research partner (no prior collaboration)

- Six-month project; up to \$25,000 from NSERC
- No company cash required; just in-kind
- College can apply anytime



# **ARD** | Applied Research and Development Grants

Support well-defined applied research and development projects by college researchers and their private-sector partners

**Up to \$75K**

**Between \$75K–150K**

**1 to 3 years**

**1 to 3 years**

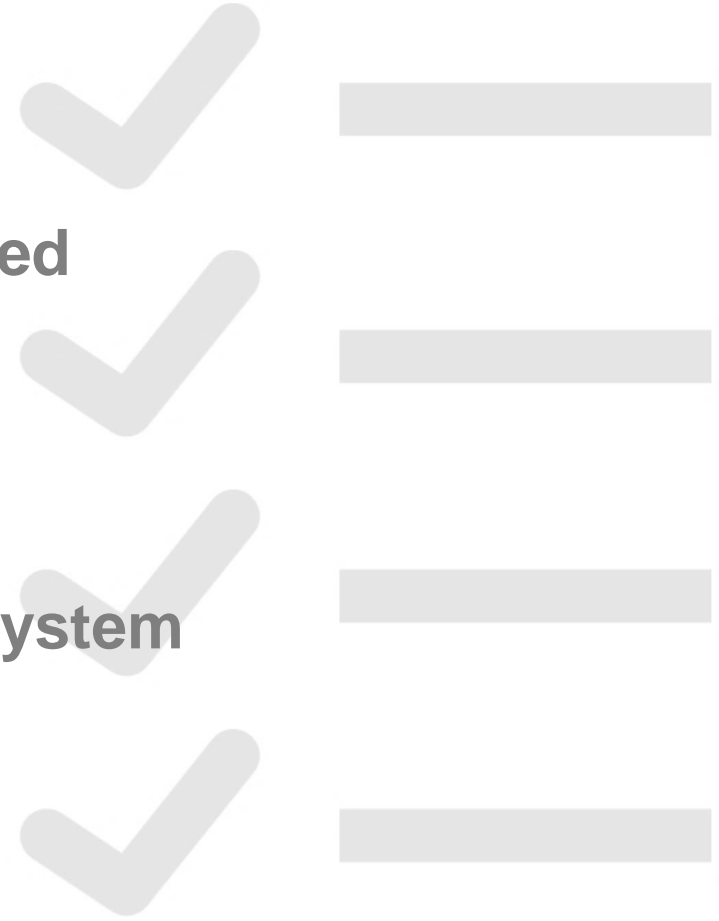
Partner matches  $\frac{1}{2}$  of  
NSERC's contribution  
Min 25% cash

Partner matches  
NSERC's contribution  
Min 40% cash

# **NSERC-Funded Collaborations**

## **- Key Advantages for Partners**

- Significant savings in research costs
- Access to high levels of expertise and advanced research facilities
- Enhanced internal R&D capacity
- Students are potential future employees
- Built-in quality control – NSERC peer-review system







For more information: [www.nserc.ca](http://www.nserc.ca)

**Alliance Grants:**

- [www.nserc.ca/alliance](http://www.nserc.ca/alliance)
- [alliance@nserc-crsng.gc.ca](mailto:alliance@nserc-crsng.gc.ca)

**College & Community Innovation Program:**

- [www.nserc.ca/innovate-innover](http://www.nserc.ca/innovate-innover)
- [colleges@nserc-crsng.gc.ca](mailto:colleges@nserc-crsng.gc.ca)







# MAXIMIZING FUNDING POTENTIAL

JULY 21 & 22, 2020

ALBERTA INNOVATES



# Alberta Innovates

## Maximizing Funding Potential Workshop

### Support for Clean Tech Innovators

Carla Otto

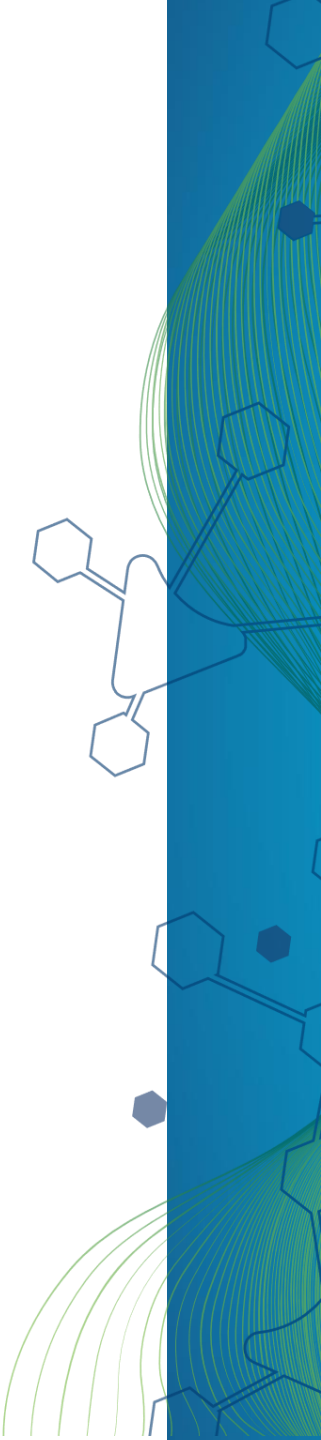
Director, Regional Innovation

Candice Paton

Executive Director, Clean Technology

John Zhou

VP, Clean Resources





# ALBERTA INNOVATES

## At-A-Glance

2

Subsidiaries

G-FER Technologies  
Innotech Alberta



Investment

of \$189 million  
for 2020-21



558

Employees

Alberta Innovates 219

G-FER 99

InnoTech Alberta 240



11

Locations

*“Alberta’s research and innovation engine, solving problems, creating possibilities”*

# 4 CORE EMERGING TECHNOLOGY AREAS



Data-enabled Innovation



Digital Tech for Business Transformation

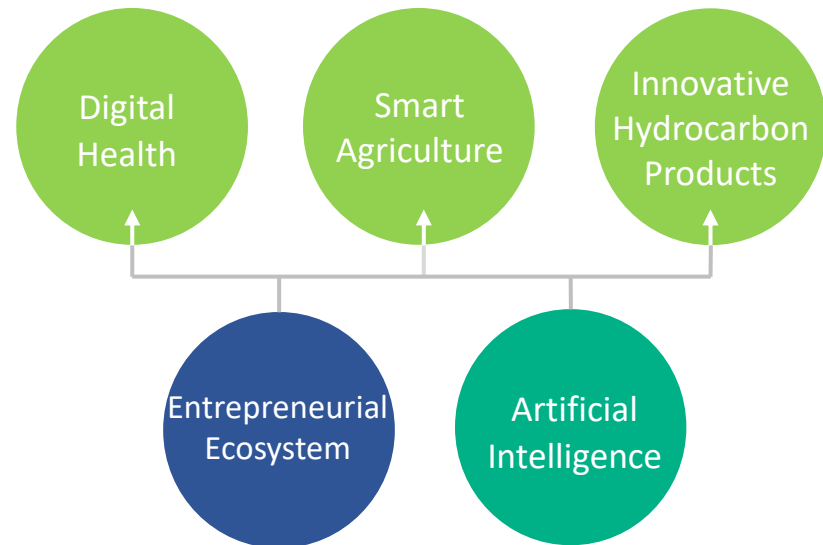


Clean Tech



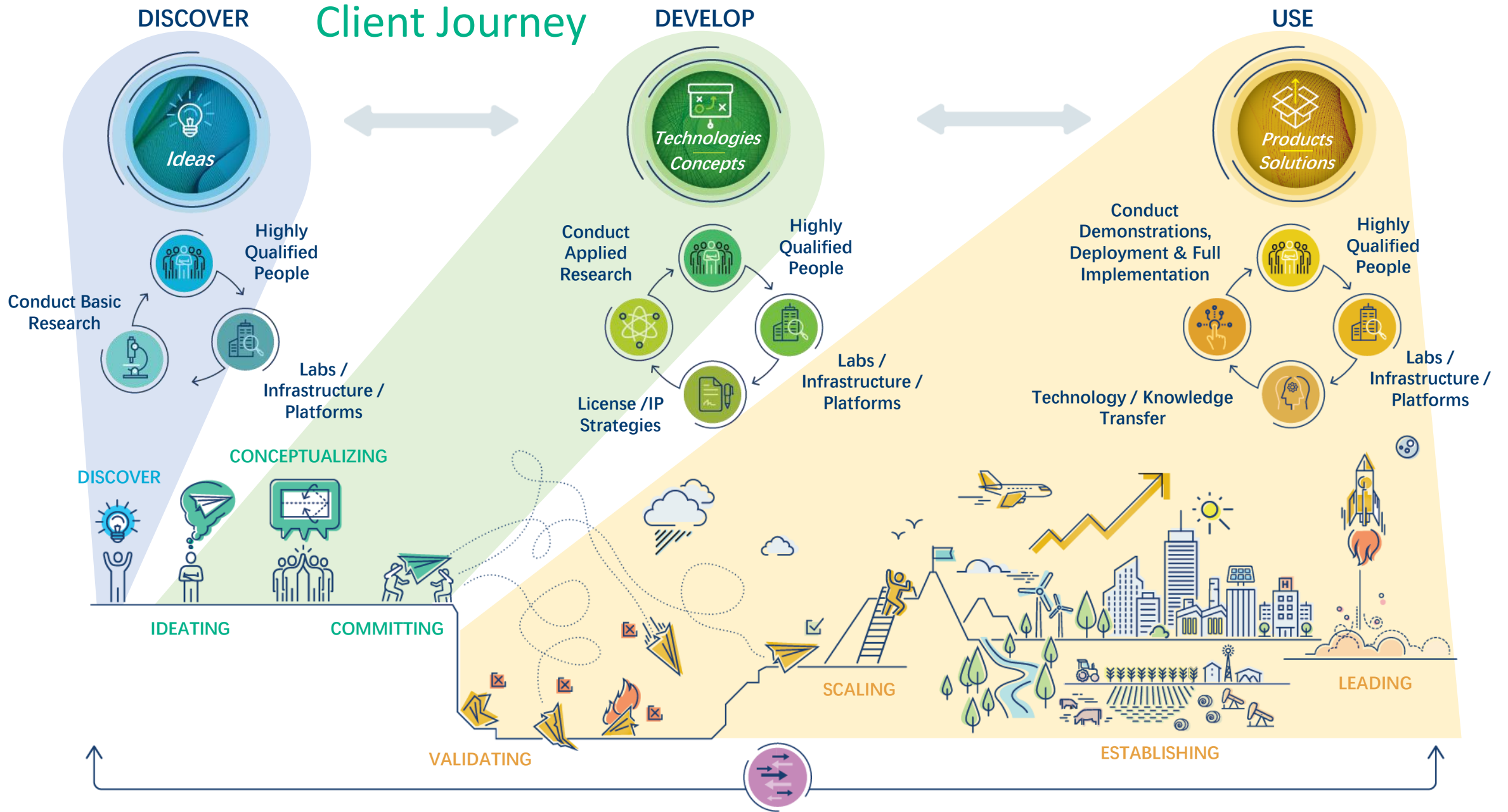
Innovative Production & Distribution

## Focus Areas of Investment



# Who We Serve

## Client Journey





# Alberta Innovation Network

Composed of 8 Regional Innovation Networks



Entrepreneur-centric, community-based networks with the goal of providing programs and services to accelerate growth of technology and knowledge-based businesses in those jurisdictions.

### Contact Information

Calgary Innovation Coalition: <https://www.calgaryinnovationcoalition.ca/>

Central Alberta Regional Innovation Network: <http://www.ca-rin.ca/>

Edmonton Regional Innovation Network: <https://www.edmontonrin.ca/>

East Central Alberta Regional Innovation Network: <https://www.eastcentralrin.com/>

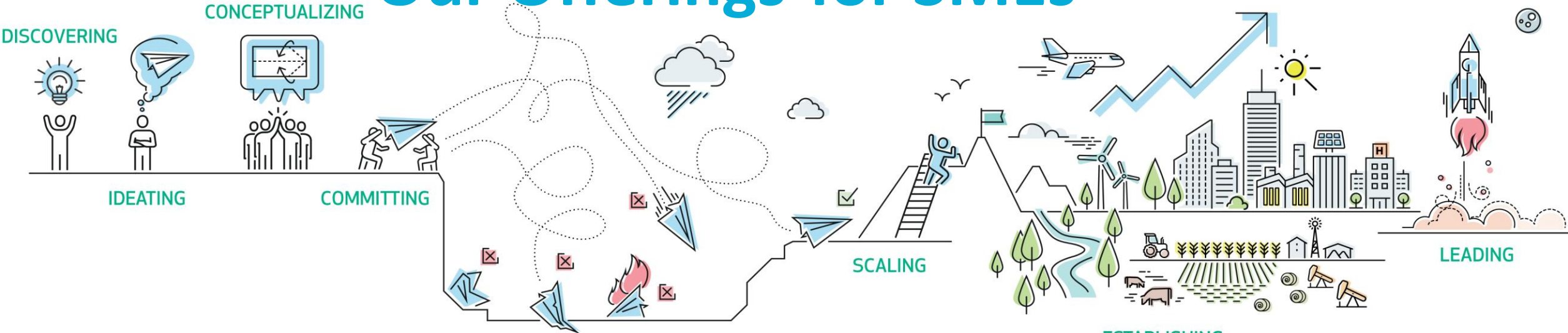
Wood Buffalo Regional Innovation Network: <https://www.wbrin.ca/>

Grand Prairie Regional Innovation Network: <https://www.gprin.ca/>

APEX Southeast Alberta Regional Innovation Network: <https://www.apexalberta.ca/>

Regional Innovation Network of Southern Alberta: <https://entrepreneur.chooselethbridge.ca/rinsa>

# Our Offerings-for SMEs



Graduate Students,  
Strategic Research/ CASBE

**Micro-Voucher**  
up to \$10,000, up to 1 yr, no milestones, AI funds 75%

**Voucher**  
Up to \$100,000, 75% total costs

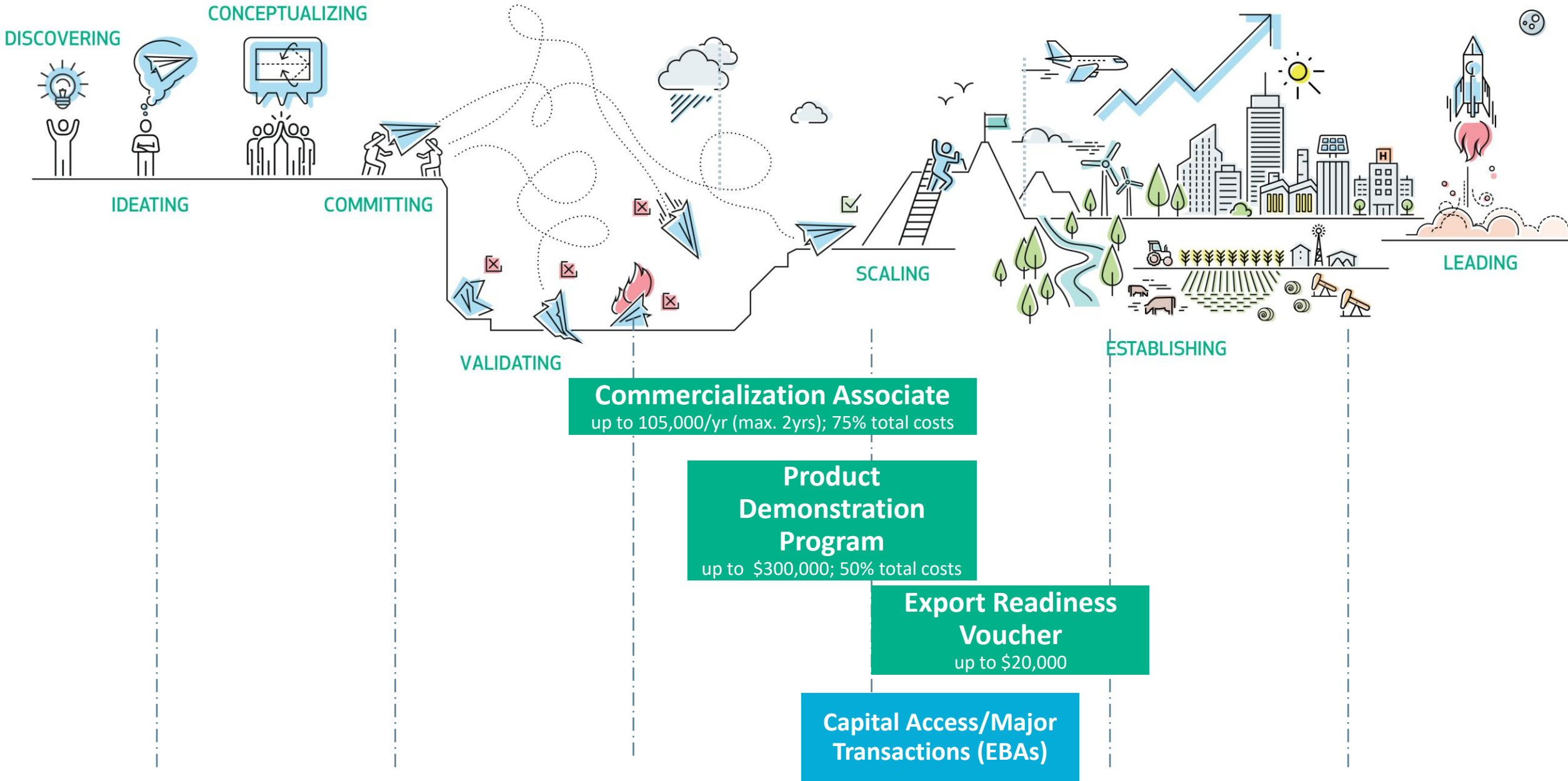
**r&D Associate**  
up to \$67,500/yr (max. 2yrs); 75% total costs

**Technology Development Advisor (TDA)**  
coaching, community, capital



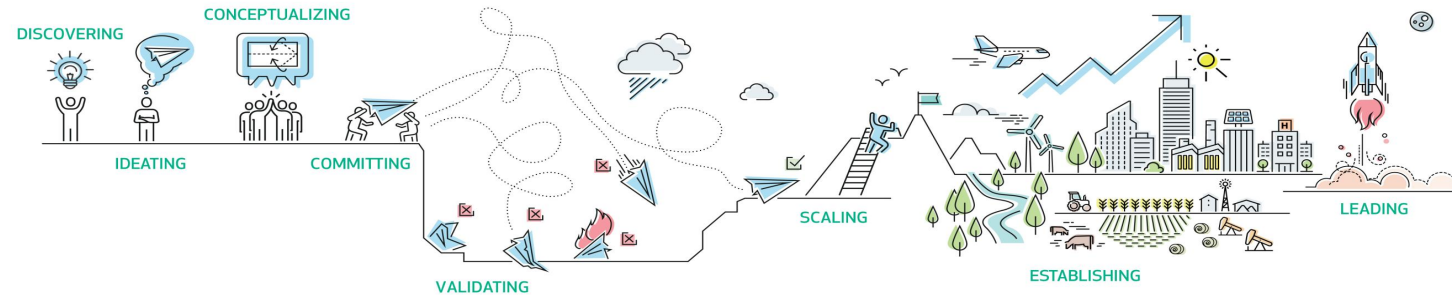


# Our Offerings-for SMEs



# Our Focus Areas

## Clean Resources



### Clean Resources

- Advanced Hydrocarbons
- Clean Technology
- Environmental Innovation
- Bio-Industrial Materials
- Smart Agriculture and Food
- Alberta Prion Research Institute

### Aligned Priorities

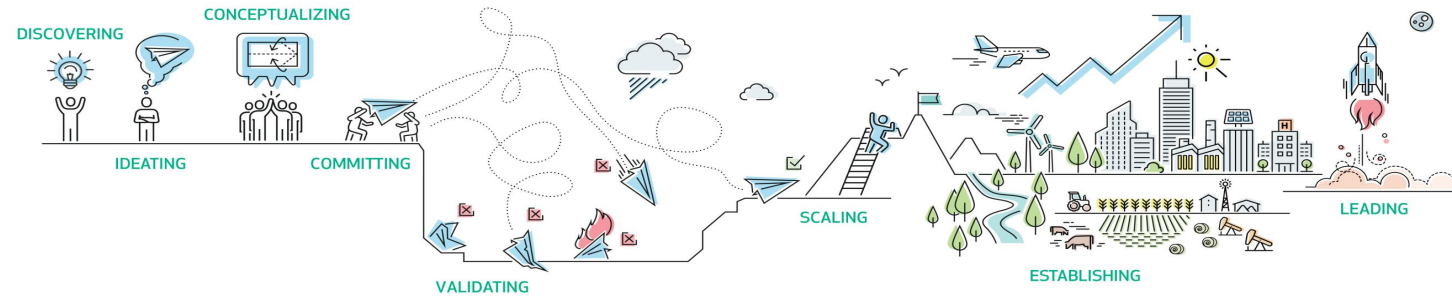
- GHG (CCUS, CH4, etc.)
- Water
- Land
- Tailings
- Wellsite Reclamation
- Biodiversity

Continuous Intake

Open Targeted Calls

# Our Focus Areas

## Clean Resources



### Clean Resources

- Advanced Hydrocarbons
- Clean Technology
- Environmental Innovation
- Bio-Industrial Materials
- Smart Agriculture and Food
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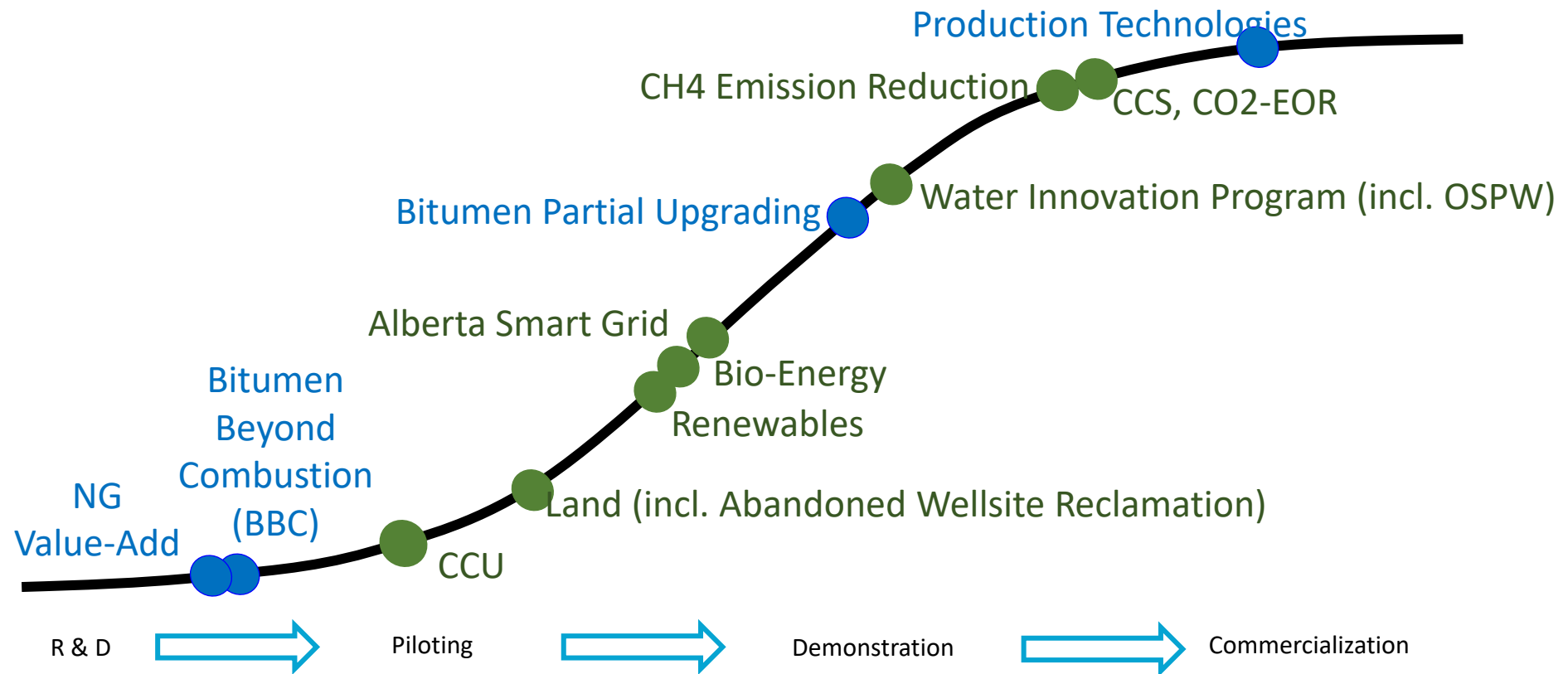
## How to Apply?

Get In Touch with A Project Advisor

Head to the Clean Resources Programs on the Alberta Innovates website



# INNOVATIONS IN CLEAN TECHNOLOGY

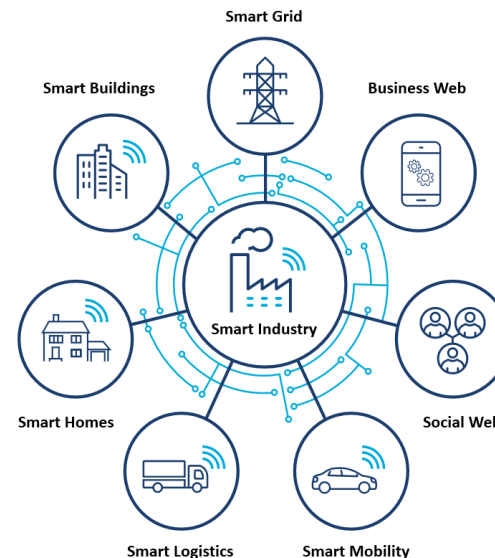
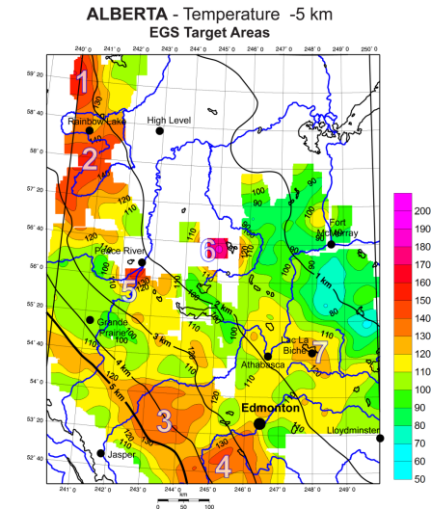
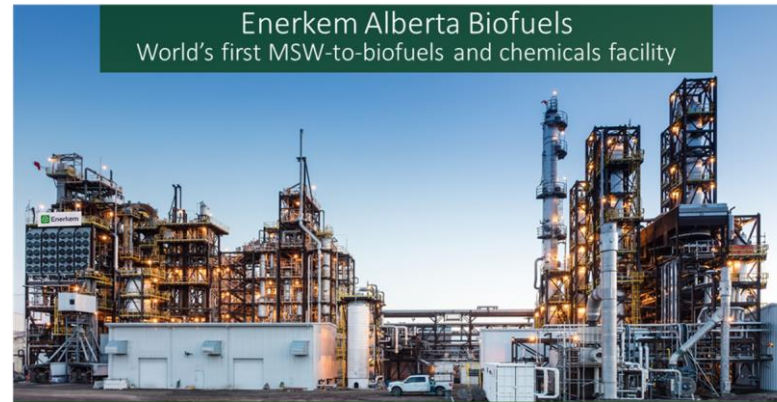


# Clean Technology

Diversify Alberta's economy through cleantech development

## Clean Technology

- Waste Conversion
- Renewable Fuels
- Electricity Generation
- Grid Modernization
- CCUS
- Hydrogen
- Clean Tech Materials & Metals

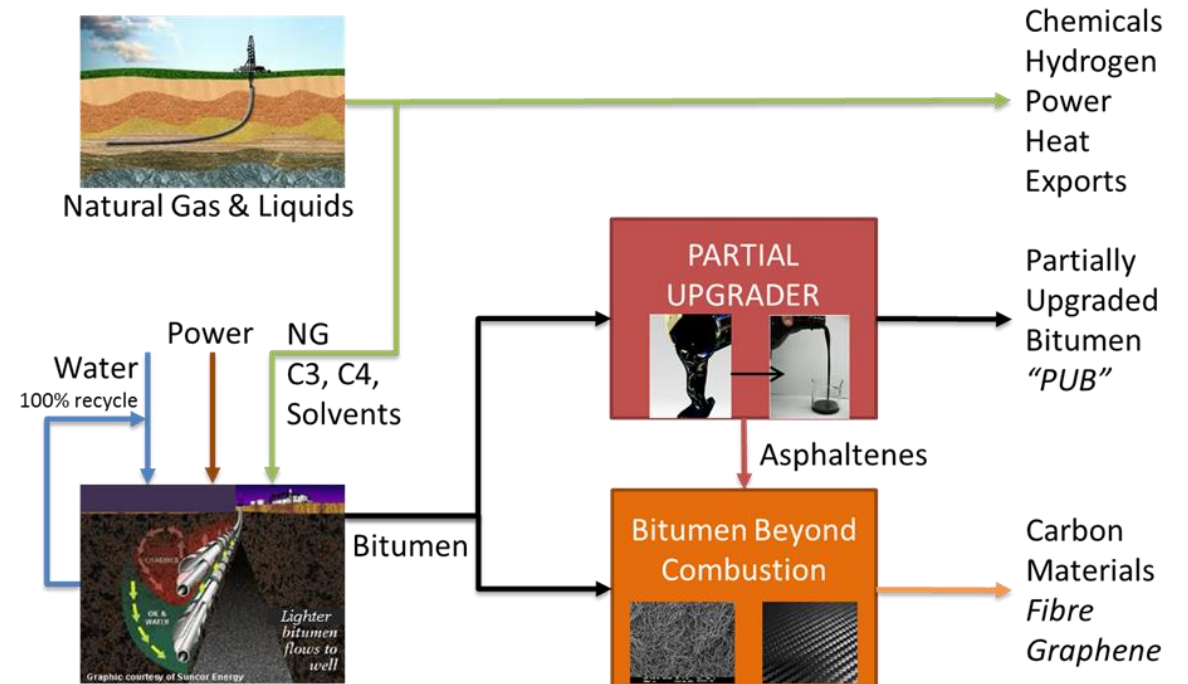


# Advanced Hydrocarbons

Objective: improve industry competitiveness, market access, energy diversification, value-add to natural resources, and reduce GHG emission and environmental footprint

## Advanced Hydrocarbons

- Cleaner Hydrocarbon Production
  - Recovery Technologies
  - Digital Innovation
- Innovative Hydrocarbon Products
  - Partial Upgrading
  - Bitumen Beyond Combustion





# Environmental Innovation (Water + Land)

Safe, secure drinking water for 6M population while enhancing aquatic ecosystems; reduce industry footprints and fugitive emissions; increase biodiversity intactness;

## Environmental Innovation

- Land & Biodiversity
  - Abandoned Wellsite Reclamation
  - Tailings
  - Biodiversity
- Water Innovation
  - Water Supply/Watershed Management
  - Healthy Aquatic Ecosystem
  - Water Technologies
  - Water Quality Protection



Land Reclamation



Biodiversity



Water Supply and Watershed Management



Water Use Conservation, Efficiency, & Productivity

# Our Investments in Smart Agriculture and Food

## AgBioTech

- Accelerated improvement of crops & livestock

## Transition to Digital

- Transformation of big data information into intelligence

## Automation

- Efficiency gains to address labour shortages

## Network of Smart Farms

- Validation & demonstration sites for industry adoption

Transformative change across the agri-food value chain:

Breeding (e.g., linking omics to desired traits, genetic improvement, etc.)

Producer (e.g., sensors, SaaS, AV, PA, financials, forecasting, etc.)

Value-add (e.g., robotics, safety compliance, etc.)

Retail (e.g., demand forecasting, waste reduction, etc.)

Consumer (e.g., apps, chatbots, provenance & traceability)

# Bio-Industrial Materials

## Solution for Biomass Utilization



Bio Resource

- Alberta BioFuture
- Alberta Aspen Utilization
- Value-added Biomass
- Green Construction



Products & Production  
Innovation



Alberta Producers



Domestic & Foreign

## Market Diversification

- Economic Impact
- Socioeconomic Benefits
- Environmental Sustainability
- GHG Mitigation



# CONTACT US

Thank You



**CONNECTING WITH A TDA**

[www.connectwithus.albertainnovates.ca](http://www.connectwithus.albertainnovates.ca)



**CONNECTING WITH CLEAN RESOURCES**

<https://albertainnovates.ca/focus-areas/clean-resources/>



**EMAIL**

[intake@albertainnovates.ca](mailto:intake@albertainnovates.ca)

**For more information please visit:**

- Our website: <https://albertainnovates.ca/>
- Connectica: <https://connectica.ca/>
- INVENTURE\$: <https://inventurescanada.com/>





# MAXIMIZING FUNDING POTENTIAL

JULY 21 & 22, 2020

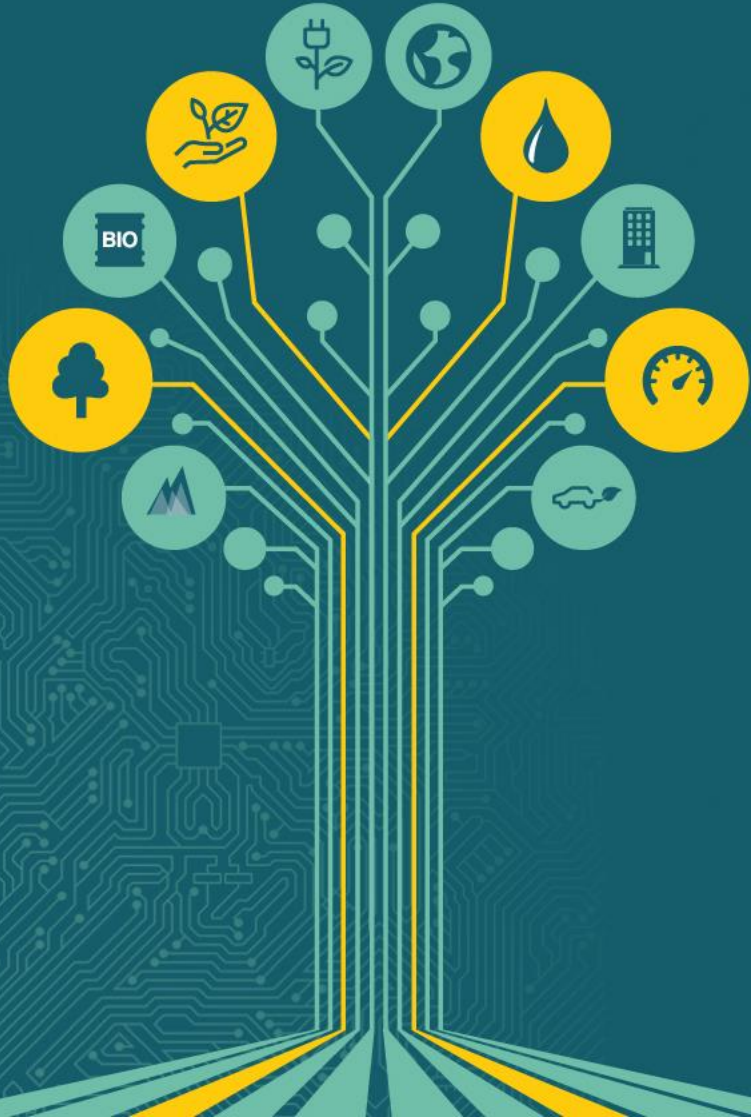






Government  
of Canada

Gouvernement  
du Canada



# CLEAN GROWTH HUB

[Canada.ca/clean-growth](https://Canada.ca/clean-growth)

[#CleanGrowthHub](https://twitter.com/CleanGrowthHub)

July 21, 2020

Allison Christie, Director

Canada



# Whole of Government Clean Growth Hub

<b>Innovation, Science and Economic Development Canada (Co-Chair)</b>	<b>Natural Resources Canada (Co-Chair)</b>
Agriculture and Agri-Food Canada	Global Affairs Canada (Trade Commissioner Service )
Business Development Bank of Canada	Indigenous Services Canada
Canadian Commercial Corporation	National Research Council Canada
Crown-Indigenous Relations and Northern Affairs Canada	Standards Council of Canada
Environment and Climate Change Canada	Sustainable Development Technology Canada
Export Development Canada	Transport Canada
Fisheries and Oceans Canada	Treasury Board of Canada Secretariat (Centre for Greening Government)



# How we work with clients

1. Clients connect with the Hub to discuss clean technology projects via [info.cgh-ccp@canada.ca](mailto:info.cgh-ccp@canada.ca)
2. Hub officers gather basic information about clients and their projects; may set up a meeting to better understand the situation
3. Hub officers provide advice from across government to help clients navigate programs and services for any stage of development

RESEARCH, DEVELOPMENT,  
& DEMONSTRATION

GROWING YOUR  
CLEAN TECH COMPANY

EXPORTING YOUR TECH

ADOPTION OF  
MARKET-READY TECH





# How we coordinate with programs

- The Hub supports a whole-of-government approach to better enable clean technology outcomes
  - “No wrong door”: Access to a strong network of expertise across our sixteen member organizations, and beyond
  - Receive and provide referrals from/to program colleagues
  - Regular information exchanges





# Who we work with

Some of our program colleagues -

- Clean Growth in Natural Resources Program (NRCan)
- Green Infrastructure (NRCan)
- Investments in Forest Industry Transformation (NRCan)
- Strategic Innovation Fund (ISED)
- Low Carbon Economy Fund (ECCC)

As well as funding organizations -

- Sustainable Development Technologies Canada
- Business Development Bank of Canada
- Export Development Canada

# Examples of Current Programming



## Research, development and demonstration

- SDTC SD Tech Fund (\$400M)
- Impact Canada's Sky's the Limit Challenge (\$1M)

Continuous Intake  
Open



## Deployment/adoption of market-ready tech

- DFO Fisheries and Aquaculture Clean Technology Adoption Program (\$20M)
- NRCan Investment in Forestry Industry Transformation Program (83M)

Open  
Open



## Government procurement

- ISED Innovative Solutions Canada (~\$100M)

Food Pathogen Challenge Open

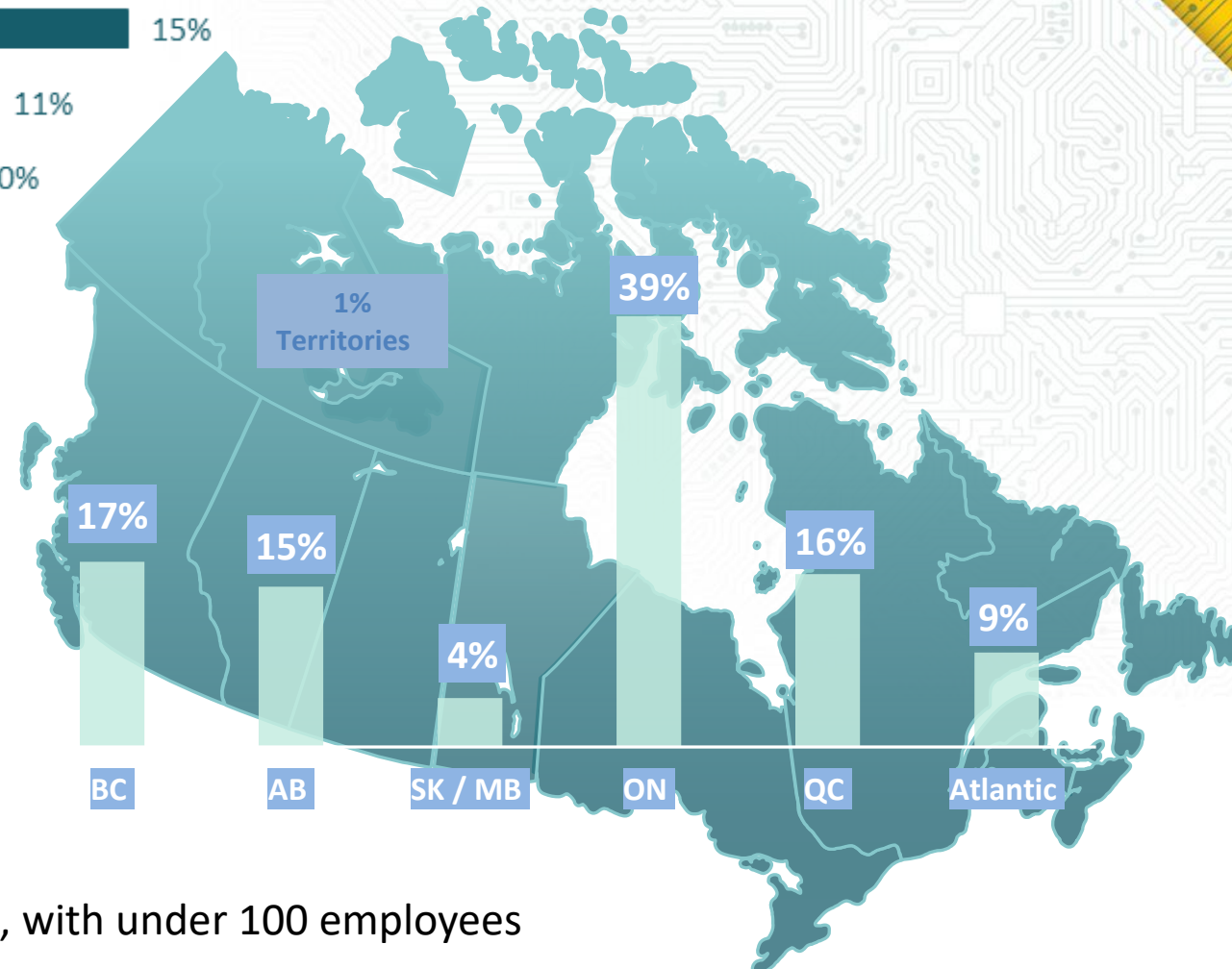
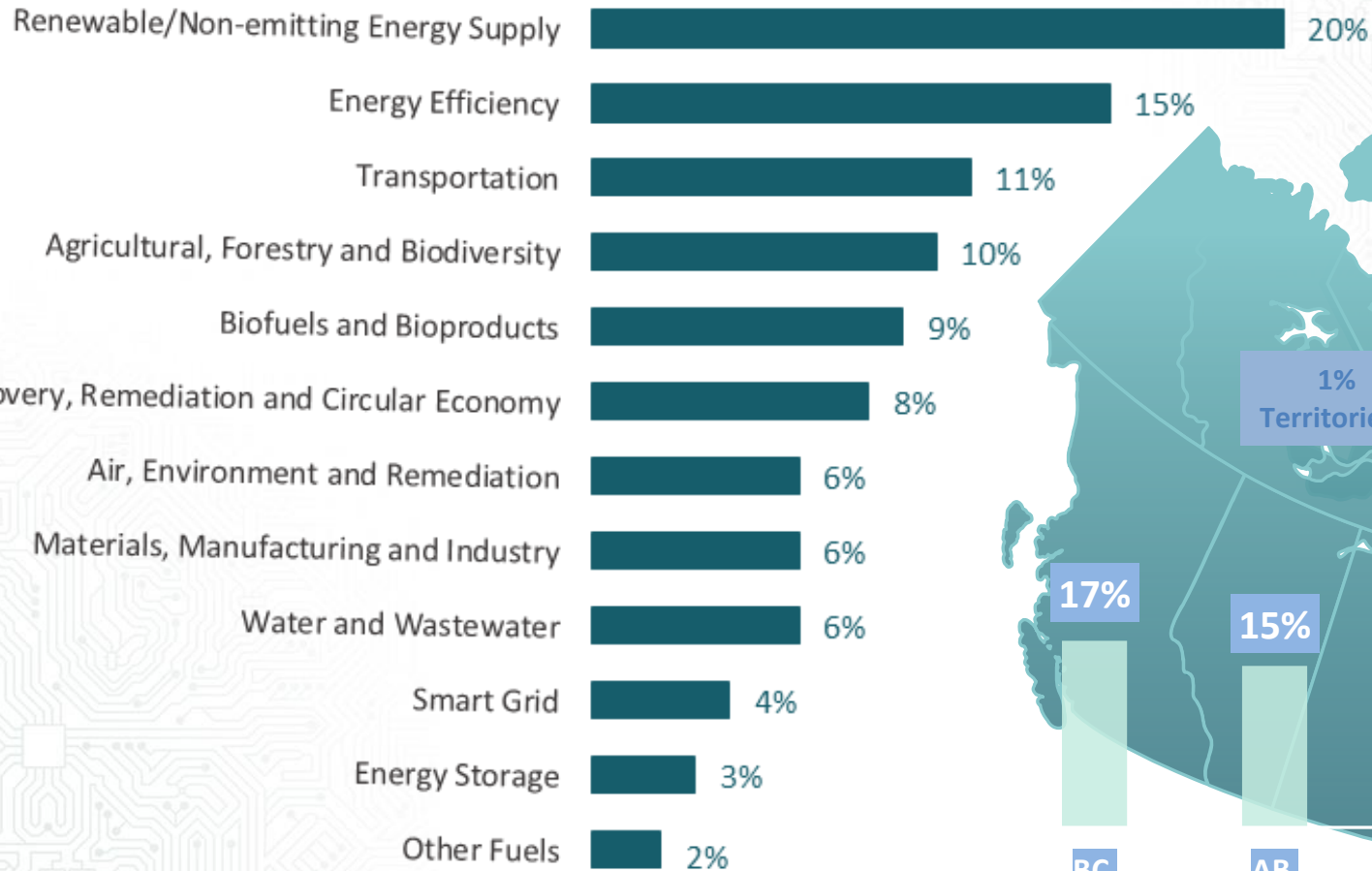


## General innovation supports

- ISED Strategic Innovation Fund (\$1.26B)

Continuous Intake

# Hub Clients



\*Over 60% of Hub clients are small companies, with under 100 employees





# CLEAN GROWTH HUB

[Canada.ca/clean-growth](https://Canada.ca/clean-growth)

# CARREFOUR DE LA CROISSANCE PROPRE

[Canada.ca/croissance-propre](https://Canada.ca/croissance-propre)

[info.cgh-ccp@canada.ca](mailto:info.cgh-ccp@canada.ca)

# EVALUATION CRITERIA



- 33% (up to 40%) of eligible projects costs
- Average investment \$3M, complete in five years or less
- 25% of the eligible project costs must be funded through private sector contributions (including in-kind)
- Funding from all levels of government must not surpass 75% of eligible costs
- At least 50% of eligible project costs must be incurred in Canada



# ECCC Climate Funding Programs: General submission & review process

## Submission and review requires the following key actions:

1. Managing stakeholder enquiries and supporting applicants through the application process
2. Receiving online applications e.g. ECCC's online portal, the Grants and Contributions Enterprise Management System (GCEMS), or fillable PDF
3. Assessing applications and selecting recipients
4. Implementing funding agreements and claims

## Resources to develop for applicants include:

- Website, FAQs and Applicant Guide
  - Example: [Climate Action Incentive Fund SME Project stream](#) (intake closed)

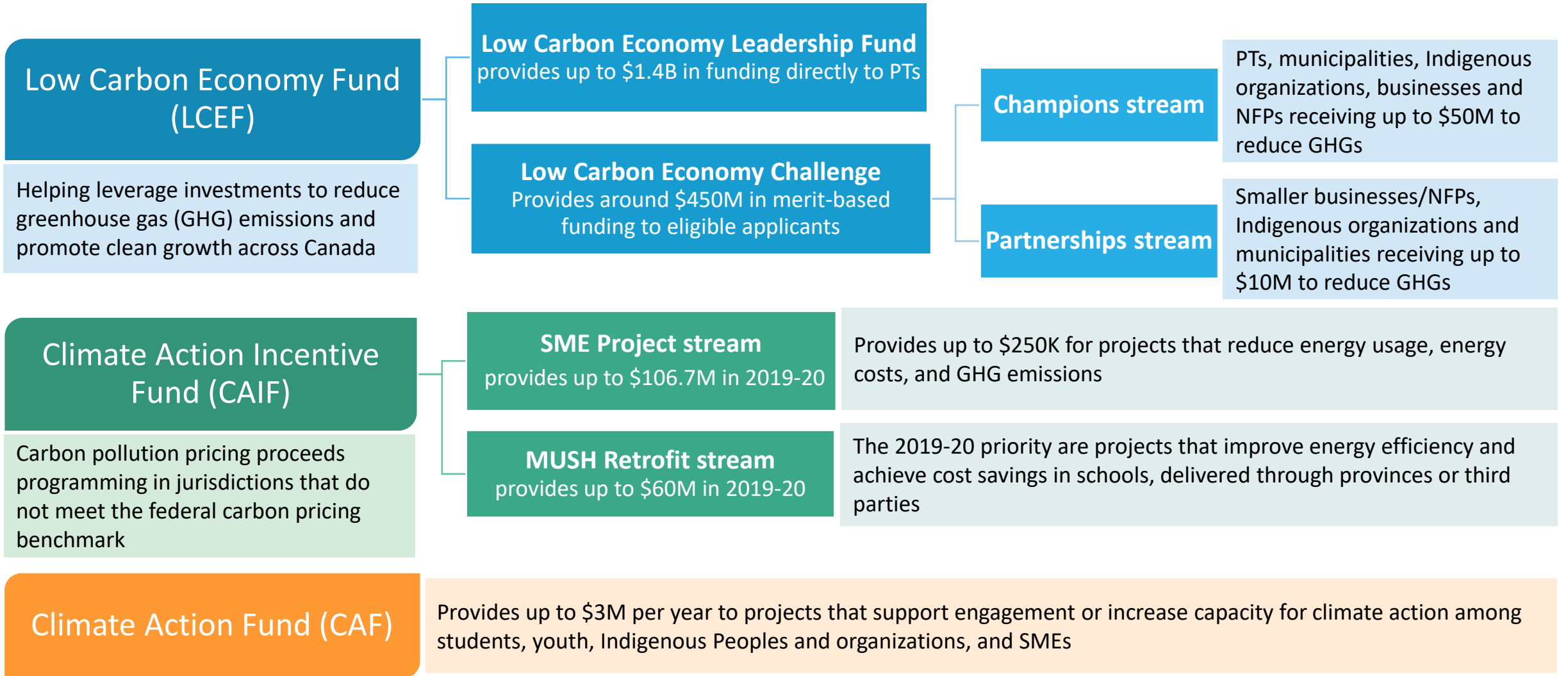
## Assessment criteria are based on key principles such as:

- Clarity and appropriateness
- Risk assessments
- Feasibility
- Key performance indicators (e.g. GHG emissions, cost savings, jobs, energy savings)
- Reporting ability of applicants





# ECCC climate change programming as of spring 2020







# Agriculture and Agri-Food Canada Clean Tech Programming

AAFC has a number of programs that can support clean tech in the agriculture sector:

- Agricultural Clean Technology Program (ACT)
- AgriScience (Projects)
- AgriInnovate
- Canadian Agriculture Strategic Partnership Program



Agriculture et  
Agroalimentaire Canada

Agriculture and  
Agri-Food Canada





# AgrInnovate Program



Agriculture et  
Agroalimentaire Canada

Agriculture and  
Agri-Food Canada

## The AgrInnovate Program supports the CAP priority Science, Research, and Innovation

- The program provides repayable contributions for projects involving the commercialization and/or adoption of innovative products or processes across the agriculture and agri-food sector
- Allocation of \$127.7M over five years (2018-19 to 2022-23)
- Applicants may apply for funding up to 50 percent of total eligible costs, to a maximum of \$10 million
- Funding is available to for-profit organizations, including:
  - Businesses and/or corporations
  - Co-operatives
  - Corporations and cooperative in Indigenous communities
- The program prioritize activities/projects that advance the government agenda including adoption of new or world leading clean technology



# Questions?



# Annex



# ACT Program



Agriculture et  
Agroalimentaire Canada

Agriculture and  
Agri-Food Canada

The Agricultural Clean Technology (ACT) Program supports research, development and adoption of clean technologies through investments in, and promotion of precision agriculture and agri-based bioproducts.

## Program Description

The program provides a non-repayable, federal contributions to implement and deliver clean technology projects for the agriculture and agri-food sector  
Project range from research and development, to technology and knowledge transfer, to commercialization and adoption

## Program Objective

The program is intended to create an enabling environment for the development and adoption of clean technologies in the agriculture and agri-food sector, while reducing the intensity of greenhouse gas (GHG) emissions in agricultural production.

## Program Funding

- Total funding available is \$25 million over three years (2018-19 to 2020-21)
- Applicants may apply for funding for up to 50% of total eligible projects costs, to a maximum of \$5 million per project
- Program ends on March 31st, 2021 and all project activities must be completed by this date

## Eligible Applicants and Activities

- Provincial and territorial governments
- For-profit organizations, incorporated in Canada, including business and/or corporations, co-operatives, and indigenous groups
- Not-for-profit organizations, incorporated in Canada, including academic institutions, co-operatives, and indigenous groups



# AgriScience - Projects



Agriculture et  
Agroalimentaire Canada

Agriculture and  
Agri-Food Canada

The AgriScience Program (Project component) supports the CAP priorities of Science, Research, and Innovation and also Value-Added Agriculture and Agri-Food Processing

Program  
Description

The Program is designed to accelerate the pace of innovation by supporting pre-commercialization activities and investing in cutting-edge research to benefit the agricultural and agri-food sector.

Program  
Objective

The Program aims to support projects to help industry overcome challenges and address fiscal barriers experienced by small and emerging sectors. It will also seek to mitigate high risk opportunities that have the potential to yield significant returns.

Program  
Funding

- National allocation of \$123.5M over five years (2018-19 to 2022-23)
- The maximum AAFC funding amount for a project will be less than \$5 million over five-years. If you have multiple approved projects within this program, total AAFC funding cannot exceed \$10 million per year.

Eligible  
Applicants  
and Activities

- Funding is available to:
  - For-profit organization including business/corporations, cooperatives and indigenous groups
  - Not-for-profit organizations (association, corporations, co-operatives, indigenous groups)
- Projects are expected to address at least one of the five priorities, with one being to enhance efforts in clean growth, environment and climate change.

# AgrilInnovate Program



Agriculture et  
Agroalimentaire Canada

Agriculture and  
Agri-Food Canada

## The AgrilInnovate Program supports the CAP priority Science, Research, and Innovation

Program Description	The program provides repayable contributions for projects involving the commercialization and/or adoption of innovative products or processes across the agriculture and agri-food sector
Program Objective	The program aims to accelerate the demonstration, commercialization, and/or adoption of innovative products, technologies, processes, or services that increase agri-sector competitiveness and sustainability
Program Funding	<ul style="list-style-type: none"><li>○ Allocation of \$127.7M over five years (2018-19 to 2022-23)</li><li>○ Applicants may apply for funding up to 50 percent of total eligible costs, to a maximum of \$10 million</li></ul>
Eligible Applicants and Activities	<ul style="list-style-type: none"><li>○ Funding is available to for-profit organizations, including:<ul style="list-style-type: none"><li>• Businesses and/or corporations</li><li>• Co-operatives</li><li>• Corporations and cooperative in Indigenous communities</li></ul></li><li>○ The program prioritize activities/projects that advance the government agenda including adoption of new or world leading clean technology</li></ul>



# Canadian Agricultural Strategic Partnership Program (CASPP)



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CASPP helps the sector to find innovative approaches to respond to growing domestic and global demand while addressing emerging challenges and maintaining its environmental sustainability

Program Description	The program provides funds (\$50.3 million over five years, 2019-2024) for projects that address national or sector-wide priorities that help industry address emerging issues and capitalize on opportunities.
Program Objective	The program aims to facilitate the Canadian agriculture sector's ability to seize opportunities, respond to emerging issues, and to pathfind and pilot solutions to new and ongoing issues.
Program Funding	<ul style="list-style-type: none"><li>○ CASPP is a \$10M per year program and provides non-repayable contribution funding</li><li>○ Projects are cost-shared on a 50:50 basis, however where a project is deemed high priority AAFC has the flexibility to provide more</li><li>○ The maximum AAFC contribution for a project will normally not exceed \$1 million</li></ul>
Eligible Applicants and Activities	<ul style="list-style-type: none"><li>○ Eligible applicants are not-for-profit organizations including associations, cooperatives and marketing boards; and indigenous groups.</li><li>○ Projects should be within the following priority areas: adaptation to new technology; environmental sustainability; strategic planning and capacity building; and emerging issues. These may include projects that:<ul style="list-style-type: none"><li>• Apply emerging technologies (for example, robotics, sensors, artificial intelligence, big data analytics)</li></ul></li></ul>





# Resources

Should you have any detailed questions or just want further information, please visit the program websites below:

- Agricultural Clean Technology Program <https://www.agr.gc.ca/eng/agricultural-programs-and-services/agricultural-clean-technology-program/?id=1521202868490>
- AgriScience Projects <https://www.agr.gc.ca/eng/agricultural-programs-and-services/agriscience-program-projects/?id=1516993063537>
- AgriInnovate <https://www.agr.gc.ca/eng/agricultural-programs-and-services/agriinnovate-program/?id=1515682916298>
- CASPP <https://www.agr.gc.ca/eng/agricultural-programs-and-services/canadian-agricultural-strategic-priorities-program/?id=1549325740130>
- COVID-19 related information for the agriculture and agri-food industry: <https://www.agr.gc.ca/eng/covid-19-information-for-the-agriculture-and-agri-food-industry/?id=1584732749543>



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# Investments in Forest Industry Transformation (IFIT)



# Presentation Outline



IFIT Program Overview



Review Funding Streams



Question and Answer



# IFIT Program

## **IFIT objectives are to:**

- Deploy first-in-Canada applications of innovative technologies and processes
- Support the production of bioproducts
- Create new business models for the forest industry
- Improve sector competitiveness and environmental sustainability

## **Under IFIT's four prior calls for proposals:**

- 258 unique applications received
- \$5.8B in total proposals received
- \$1.5B requested from IFIT

# A Renewed IFIT Program

**Budget 2019 provided  
renewed funding:**

- \$82.9 million over 3 years

**Two funding streams:**

- Capital Investment Projects
- Studies

**Case-by-case funding for  
COVID-19 response  
projects**



# Stream 1: Capital Investment Projects





# Capital Investment Details

Provides **capital funding** to support transformational projects by forest sector firms to diversify into new product streams and implement innovative process improvements to ensure industry competitiveness.



- IFIT funds up to 50% of total project costs
- Program funds up to \$20M per project
- Non-repayable contributions

# Capital Investment Categories

## Category #1.a - General

- For companies of any size
- Can apply for funding up to of \$20M of IFIT funding per project

## Category #1.b – Small Enterprise

- For companies with 50 or fewer employees
- Can apply for up to \$1M funding for a project of \$3M or less

**Projects under the Small Enterprise Stream will be subjected to a streamlined process**

# Application Process – Stage One

## Expression of Interest

Expression of interest must  
be submitted by  
August 13, 2020



This is a mandatory document; the application will not be processed without it



Not intended as a pass/fail measure



Meant to assist applicants and NRCAN in ensuring that well-justified proposals are submitted



# Application Process – Stage 2

## Full Project Proposal

Project proposals must be submitted by September 10, 2020



Completed proposal form and supporting documentation required



See the Application Handbook for more details

# Mandatory Criteria

Capital investment projects must satisfy all mandatory criteria



1. Recipient eligibility
2. Technology advancement
3. Integrated within the forest sector supply chain
4. Based on wood fibre

# Rated Criteria Overview

01. Technical feasibility

02. Innovation

03. Partnerships

04. Business plan

05. Fibre supply

06. Timing

07. Value for money

08. Diversity and Inclusion



# When Should I Apply?

## 5<sup>th</sup> Call for Proposals July 2020

- Provide early COVID-19 recovery support
- Looking for “ready to build” projects
  - Project permits advanced
  - FEED studies underway/completed
  - Corporate approvals
  - Partners secured or in advanced stages of negotiation
- Demonstration of readiness required
- Significant eligible project capital costs accumulated November 2020 until March 2021

## 6<sup>th</sup> Call for Proposals Early 2021

- Provide support for companies in the medium-term that require additional time and preparation
- Eligible project capital costs accumulated Spring 2021 until March 2023
- Additional information will be released at a later date



# Stream 2: Studies



# Studies Details

Funded activities may include:

Market  
evaluation

Prototype  
fabrication

Product  
trials

Engineering  
studies

**Maximum of three studies per applicant**



\$

- IFIT funds up to 50% of total costs
- IFIT funding per study is \$100k - \$500k
- Non-repayable contributions



# Application Process

- Continuous intake process until all funding is allocated
- Reviewed and assessed by expert reviewers against mandatory and rated criteria

## Studies selected on the basis of:



First-to-apply; and



Demonstrate program eligibility and fulfilment of mandatory criteria; and

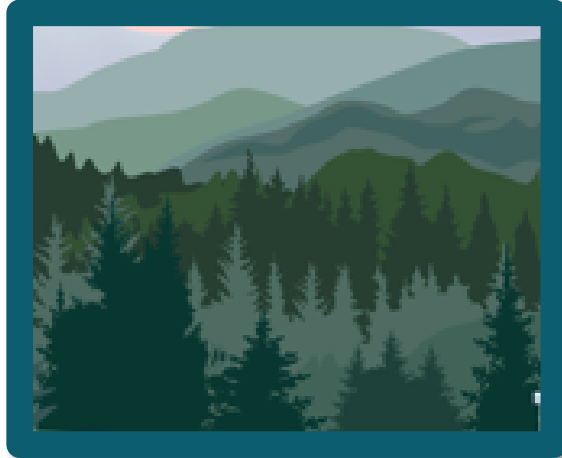


Achieve minimum threshold for rated criteria

# Program Eligibility

## Eligible recipients are

For-profit companies located in Canada that produce forest products



Have at least one existing forest product manufacturing facility located in Canada

OR



New entrants in the forest sector for the proposed project

# Mandatory Criteria

01.

Recipient Eligibility:

- For-profit
- Forest Sector
- Located in Canada

02.

Aligned with a  
Diversification  
Opportunity:

- Will Support the  
Organization's  
Competitiveness

03.

Incremental Activity:

- Outside of  
“Business as Usual”

04.

Timing:

- Temporary and  
Time Bound
- Defensible  
Timelines



# Rated Criteria Overview

**Studies will be evaluated against the following criteria:**

**01.** Relevance and Significance of Opportunity

**02.** Timing and Ease of Implementation

**03.** Level of Innovation

**04.** Benefits

**05.** Diversity and Inclusion

# Key Elements to a Successful Proposal



Be clear and concise when providing answers and relevant metrics



Have a well defined rationale, project scope and realistic timelines



Ensure corporate management supports application



Technical and financial supporting information helps credibility



Have a clear objective and clearly outline how you will achieve project outcomes, including market development

# Other Programs

- Indigenous Forest Initiative
- Expanding Market Opportunities Program
- Forest Innovation Program
- Green Construction through Wood (GCWood)





# Questions?



[nrcan.ifit-itif.nrcan@canada.ca](mailto:nrcan.ifit-itif.nrcan@canada.ca)

<http://forest-transformation.nrcan.gc.ca>

# Canada

© Her Majesty the Queen in Right of Canada, as represented by the Minister of Natural Resources, 2020



Natural Resources  
Canada

Ressources naturelles  
Canada

Canada





# MAXIMIZING FUNDING POTENTIAL

JULY 21 & 22, 2020

Export Development Canada (EDC)





Export Development Canada is  
Canada's export credit agency.

**OUR MISSION:  
HELP COMPANIES  
TO GO, GROW AND  
SUCCEED IN MARKETS  
ACROSS THE WORLD**



## CLEANTECH AT EDC

- Have been executing on a specific cleantech strategy since 2012
- Support for cleantech business was over \$2.4 billion in 2019
- In 2019 we provided financial solutions to 227 Canadian cleantech companies who exported to 89 countries.
- EDC facilitated close to \$9 billion worth of cleantech export business between 2013 and 2019.
- Our support is commercial and takes the form of credit insurance, loan guarantees, bonding guarantees, direct loans, project finance loans and equity investments.

# OUR SOLUTIONS

We manage and take on risk to help Canadian businesses grow internationally.

## FINANCING

---

We help Canadian companies get access to capital.

## INSURANCE

---

We offer protection that lowers the risk for Canadian businesses expanding beyond our borders.

## KNOWLEDGE

---

We provide expertise that enables our clients to make informed decisions and learn more about international markets.

## CONNECTIONS

We connect Canadian and international companies to help both parties grow.



# PARTNERS

- We are active members of the Canadian cleantech ecosystem
- We work closely with the following government agencies: BDC, SDTC, CCC, GAC/TCS, NRCan, ISED, Clean Growth Hub
- We also work closely with industry partners such as Alberta Clean Technology Industry Alliance (ACTIA), Foresight, Écotech Québec, MaRS, CleanTech North and the Ontario Clean Technology Industry Association (OCTIA).

# CLEANTECH EQUITY MATCHING PROGRAM

In response to COVID-19, we are supporting Canadian cleantech exporters by establishing an investment matching program to enable the rapid deployment of liquidity to support Canadian SMEs.

EDC will match qualified private sector fund investments up to 2.5 M

Eligibility:

- Canadian cleantech company with commercial revenues of 250,000
- Qualified co-investment partner

# QUESTIONS AND WRAP-UP



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**TAKE ON**

**THE WORLD**





# MAXIMIZING FUNDING POTENTIAL

JULY 21 & 22, 2020

Deeper Dive: Emissions Reduction Alberta

Mark Summers, Executive Director, Technology and Innovation







## Deeper dive: a closer look at...

- Who we fund
- What we fund
- How we fund
  - Calls for proposals
  - Partnership intake program
- High level advice

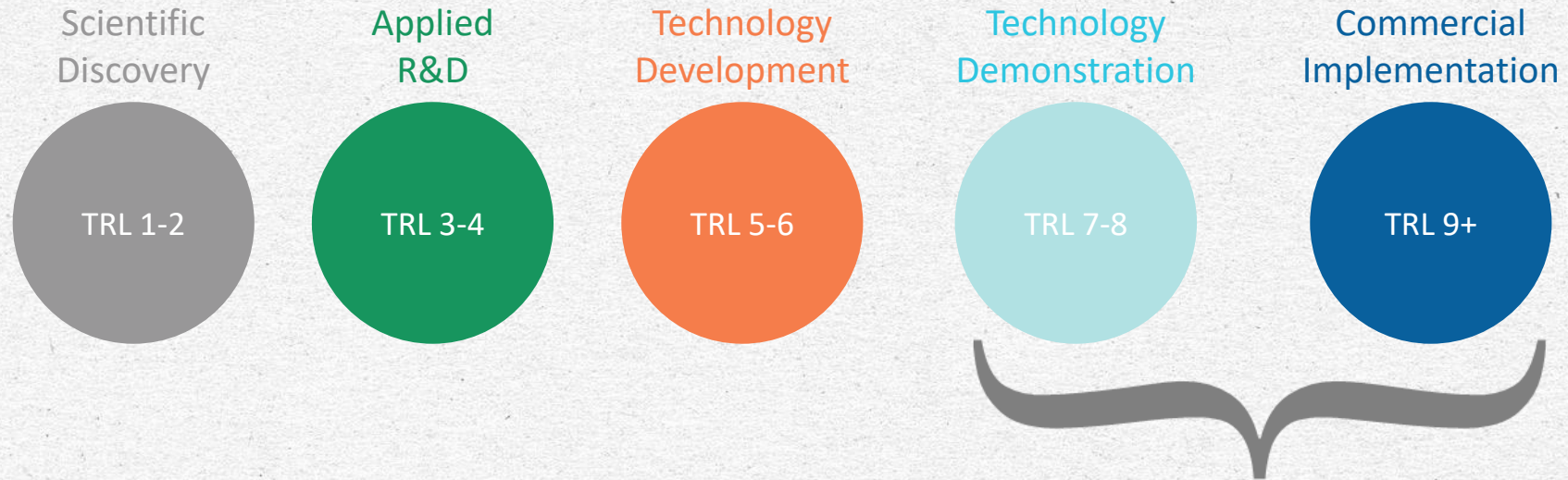






# What We Fund

Projects to accelerate innovative solutions that secure Alberta's success in a lower-carbon economy



Low-Carbon Industrial Processes & Products



Food, Fibre, & Bioindustries



Low Emitting Electricity Supply & Demand



Cleaner Oil & Gas





# Technology Roadmap: Areas of Focus

## CLEANER OIL & GAS

Transformative technologies and innovation to reduce the GHG footprint of Alberta's fossil fuel supply chain and explore alternative fuel and value-add opportunities that can help sustainability grow and diversify the province's energy economy.

## LOW EMITTING ELECTRICITY SYSTEM

Technology and innovation to support a reliable, lower carbon electricity system, including reducing the GHG footprint of Alberta's electricity supply mix, increasing the deployment of renewable energy, and enabling a smarter electricity grid that can power Alberta's homes and businesses.

## FOOD, FIBRE, & BIOINDUSTRIES

Innovation processes and technologies to advance Alberta's bioeconomy, and reduce GHG's, including novel agriculture and forestry practices; bioenergy and biomaterials; waste management and waste energy; and enhanced carbon retention.

## LOW-CARBON INDUSTRIAL PROCESSES & PRODUCTS

Technologies to deliver GHG reductions through energy efficiency, industrial process innovation, and low-GHG materials and chemicals.





# ERA's Investments



TOTAL  
PROJECTS:

183



TOTAL FUNDS  
COMMITTED:

\$607M



TOTAL PROJECT  
VALUE:

>\$4.1B



CUMULATIVE GHG  
REDUCTIONS BY 2030:

34.8 Mt CO<sub>2</sub>e



GDP IMPACT IN  
ALBERTA BY 2024:

>\$3B



JOB CREATION IN  
ALBERTA BY 2024:

>21,000 PERSON-YEARS

EMISSIONS  
REDUCTION  
ALBERTA



ALBERTA  
INNOVATES



# How We Fund

## Calls for Proposals

- Targeting market needs
- Open and competitive
- Detailed guidelines document
- Applicant information webinar
- Fairness monitor oversight

## Partnership Intake Program

- Trusted partners
- Co-funding basis
- Selected referrals

## Two-Stage Evaluation Process

### ERA Call for Proposals Process

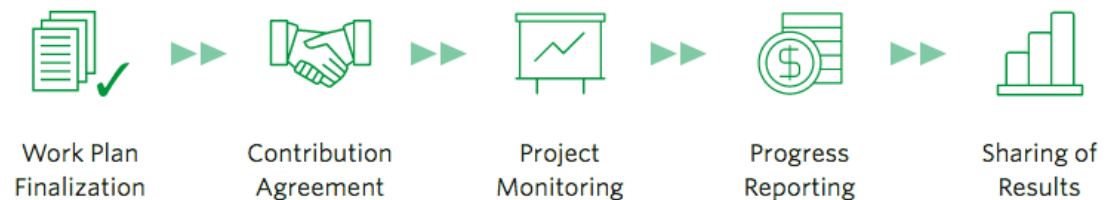
#### 1 EXPRESSION OF INTEREST (EOI) STAGE



#### 2 FULL PROJECT PROPOSAL (FPP) STAGE



#### 3 PROJECT EXECUTION STAGE





EMISSIONS  
REDUCTION  
ALBERTA



EMISSIONS  
REDUCTION  
ALBERTA



OIL SANDS  
INNOVATION  
CHALLENGE

EMISSIONS  
REDUCTION  
ALBERTA



INDUSTRIAL  
EFFICIENCY  
CHALLENGE





# FOOD, FARMING, AND FORESTRY CHALLENGE

*\$40 million to accelerate innovation  
for long-term sustainable growth*

EMISSIONS  
REDUCTION  
ALBERTA





# Partnership Intake Program

- Designed to capture high-potential opportunities between our challenges
- Referral basis (from trusted partner network)
- Co-funding with applicants and trusted partner

**Note:** Applications received by ERA through our calls can be referred to trusted partners



# ERA's Trusted Partners

- Alberta Innovates (AI)
- Sustainable Development Technology Canada (SDTC)
- Natural Resources Canada (NRCan)
- EVOK Innovations (EVOK)
- Canadian Gas Association / Natural Gas Innovation Fund (NGIF)
- Ontario Centres of Excellence (OCE)
- Business Development Bank of Canada (BDC)
- XPRIZE Foundation (XPRIZE)
- University of Alberta (through the Canada First Research Excellence Fund)
- University of Calgary (through the Canada First Research Excellence Fund)
- Northern Alberta Institute of Technology (NAIT) (through funding activities)
- Government of Alberta (through funding programs)







## Helpful Hints

- Sign up for our **Newsletter** to stay up to date
- Make sure ideas align with areas of focus identified in our **Technology Roadmap** (on our website)
- For open opportunities – read the **Guidelines Document** (on the funding pages of our website)
- Familiarize yourself with the **Funding Process** for further details about the application process (on our website)
- Attend our webinars and lessons learned events





# Stay Connected

Website: [eralberta.ca](http://eralberta.ca)

Twitter: [@ERAlberta\\_](https://twitter.com/ERAlberta)

Phone: 780-498-2068

Email:

- General Inquiries: [info@eralberta.ca](mailto:info@eralberta.ca)
- Application Questions: [applications@eralberta.ca](mailto:applications@eralberta.ca)

Newsletter: [eralberta.ca/newsletter](http://eralberta.ca/newsletter)







Maximizing Funding Potential  
July 21, 2020

Part II

BDC Cleantech Practice  
Cheri Corbett, Director  
Calgary





# Investment Focus



## Highly selective approach, focussing on Canadian cleantech firms with the greatest potential to scale

- \$600M to be deployed from 2018-2023
- Partnerships – including a partnership with ERA; with client consent we share DD information and they support us with technical expertise
- Invested as debt or equity directly into companies (no project finance)
- Targeted investments demonstrate:
  - ✓ **Validated Technology** and differentiated / defensible IP
  - ✓ Real commercial traction (*revenue growth / contracts*)
  - ✓ Clear **pathway to profitability**
  - ✓ Realistic potential to scale **>\$100 million in annual revenue**
  - ✓ **Strong management** and a **compelling business plan**

# BDC Cleantech Practice – What a deal looks like



## Deals structured to underpin a “Growth Program”

- A BDC Cleantech Practice deal typically:
  - ✓ Fully funds the company to profitability (cash flow positive)
  - ✓ Invests alongside existing and / or new investors / lenders
  - ✓ Helps fund new talent, expanding into new markets, increasing production capacity, building a new plant, developing new products, securing IP
  - ✓ Deploys capital over tranches, against “growth” milestones (*equity raises, contracts, revenues, EBITDA*)

# BDC Cleantech Practice – Deal Primer



Full spectrum of financing and investment options to optimize a company’s capital structure and balance sheet

Risk	Return	Instruments Available	Considerations for Company (Investee)
<p>Increasing Risk</p>	<p>Increasing Cost of Capital</p>	Equity	<ul style="list-style-type: none"> <li>• <b>Preserves cash</b> – vs. debt which requires servicing</li> <li>• <b>Strategic Value Add</b> – operational, strategic support, leverage investor network</li> <li>• <b>Reduced control</b> – investors often require a board seat and preferred shares</li> <li>• <b>Dilutive</b> - to founders / existing shareholders</li> </ul>
		Convertible Debt	<ul style="list-style-type: none"> <li>• <b>Complimentary</b> - to existing / new shareholders / lenders</li> <li>• <b>Optimized capital structure</b> - higher leverage vs. commercial banks and venture lenders</li> <li>• <b>Flexible covenants</b> - vs. commercial banks and venture lenders</li> <li>• <b>Reduced dilution</b> – by minimizing equity issuances</li> </ul>
		Subordinated Debt	<ul style="list-style-type: none"> <li>• <b>Maximize valuation</b> - longer financial runway to hit value creation milestones before next raise</li> <li>• <b>Flexible repayment terms</b> - bespoke structure preserves working capital early on</li> <li>• <b>Increased borrowing power</b> - security may be subordinated to secured lenders</li> <li>• <b>Personal guarantee not required</b> - in most circumstances</li> </ul>



# Company Name



## RESOURCES AND ENERGY



Equity

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**Confidential**

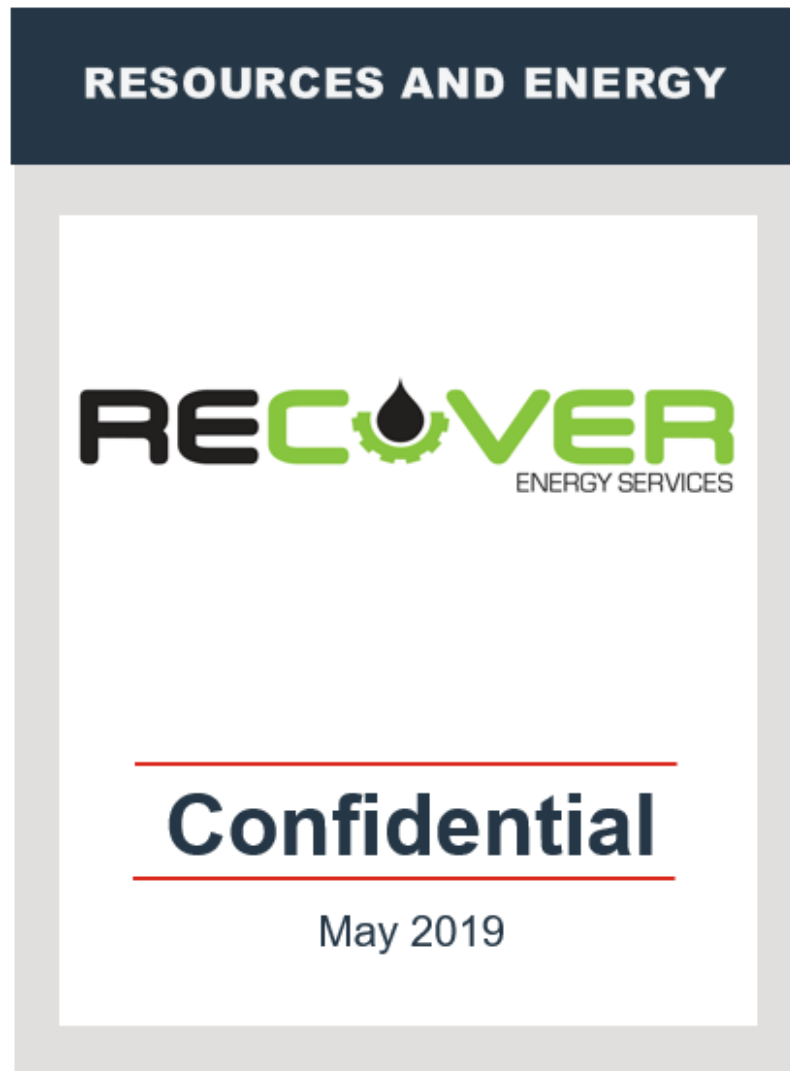
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June 2019

## Company Overview:

- Developed a specialized, ultra sensitive fiber optic sensing technology that has been commercialized in pipeline and downhole applications for the oil and gas industry.
- Hifi sells both directly to major midstream and E&P companies in the oil and gas ("O&G") industry, and through third party consulting firms.

# Recover Energy Services Inc.



## Company Overview:

- Environmental tech company with patented process for cleaning oil-based drilling waste
- Builds, owns and operates drill waste processing facilities, aims to have 9 facilities throughout North American Shale plays
- Technology caters waste generators and drilling fluid companies
- **Environmental impact** – Recovers and refines base oil from drilling waste >> providing a significant reduction in carbon dioxide emissions
- BDC's Cleantech Practice provided funds to support plant modifications on the first commercial scale facility in Lodgepole, AB and provided working capital for growth

# GHGSat Inc.



## Company Overview:

- GHGSat deploys a network/constellation of nano-satellites which can monitor the release of GHG emissions from specific industrial sites.
- Instruments measure the amount of light absorbed at specific wavelengths to quantify the concentration of gases of interest.



# JOIN US TOMORROW!

JULY 22, from 9 to 10:00 a.m. (MDT)

*Lessons Learned From Expert Reviewers,*  
Experts from ERA and Alberta Innovates  
will share insights, advice, and helpful tips  
on how to put forwards your best funding  
application







# THANK YOU

Keep in touch



[ERAlberta.ca](http://ERAlberta.ca)

