 Alberta Innovates (AI)
Campus Alberta Small Business Engagement program
AI CASBE NSERC Engage

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Role: Support economic diversification and job creation

Province’s largest research and innovation agency: the catalyst in an environment where invention, innovation and industry thrive.
ALBERTA INNOVATES AT-A-GLANCE

Post-Secondary Research & Innovation

Nanotechnology  ICT  Omics

Platform Strategies

Alberta Clusters

CLUSTER AND PLATFORM ALIGNMENT
CLUSTERS RELATIONSHIPS MAP

Post-secondary community

CASBE leveraged by NSERC Engage designed to strengthen the relationship between academia and SME community

Alberta

Large Industry

SME community
ABOUT THE PROGRAM

• Incentivizes academics and small businesses in Alberta to collaborate more

• Enables academics at colleges and universities within Campus Alberta to use their world-class knowledge, facilities and train students to assist and support Small and Medium Enterprises “SME”s in Alberta (Alberta Innovates Emerging Technologies)

• Leverages the Natural Sciences and Engineering Research Council “NSERC” efforts through the Engage program
Academics collaborate with Alberta SMEs to develop solutions aligned to Alberta strategic areas using platform & emerging technologies

### Alberta Platform & Emerging Technology Priority Areas

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<th>Area</th>
<th>Common Enabling Outcomes</th>
<th>Opportunity Areas (Not Exhaustive)</th>
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| Information and Communication Technologies (ICT) | • Infrastructure
• People
• Innovation environment
• System linkages                      | • **Data-enabled Innovation**: Artificial intelligence, Machine Learning, Big Data and Data analytics, Quantum Technologies, Communication Technologies, Cloud computing, Augmented Reality/Virtual Reality, Bioinformatics |
| Micro Nanotechnology                    |                          | • **Digital Technology for Business Transformation**: Visualization, Cryptocurrency, Cybersecurity, Geomatics, Geospatial technologies, Internet of Things (IoT) |
| Omics (Genomics, Proteomics, Metabolomics, Glycomics etc.) |                          | • **Innovative Production and Distribution**: Robotics, Autonomous transportation, advanced manufacturing technologies including 3-D printing & fabrication, Advanced Nano engineered materials, devices and systems, Atomic & molecular systems, Quantum Technologies, Sensors and MEMS |
|                                        |                          | • **Clean Tech**: Water technologies, emission reductions, Smart Grid and Smart communities, cleaner fuels, Bio, solar, wind, nuclear |
MARKETING STRATEGY

- University research facilitators
- SAIT and NAIT
- & Colleges Applied Research Directors and facilitators
- IRAP’s ITAs
- AI TDAs
- NSERC and AI joint CASBE presentations during AB networking activities funded through AI SND and NSERC Connect programs

ALBERTA INNOVATION SYSTEM IN ACTION
PROGRAM APPLICATION PROCESS

• Small Business identifies industry challenge

• Alberta Innovation in action facilitates connexion between SMEs and academics using strategic networking grants offered by AI Post secondary investments and NSERC

• Academic discusses with the industry partner a potential technological solution

• Once they have agreed, academic partner submits the application through NSERC Online portal
  
  • Complete the CASBE Program consent form downloadable from Alberta Innovates website (to indicate interest in the Provincial leverage)
  
  • One year r&D project and $50,000 max budget (strong knowledge transfer activity is encouraged; SME’s in-kind contribution)

  • Academic and company have to make a midyear presentation to Alberta Innovates to demonstrate successful collaboration. If collaboration is not successful the project is terminated and the other half of the grant is not paid to the academic institution
NSERC/AI APPLICATIONS DECISION PROCESS

• Academic submits complete CASBE NSERC Engage application including a CASBE NSERC Engage consent form using NSERC Engage online portal

• NSERC created a CASBE Extranet to share with AI all CASBE applications

• 2 people from AI and 2 people from NSERC review the application

• Review panel meets once a month to take decision (unanimous decision)

• Once the CASBE NSERC Engage has been approved, NSERC sends the NOD to the academic institution (1 year grant)

• AI sends a grant agreement to the academic institution (same start and end date as NSERC Engage)
**Outcome:** Increase in R&D activity within and between Alberta SMEs and Campus Alberta

**Measure:** Reported increase in R&D investment

**Outcome:** Increase in knowledge transferred to the Alberta SME

**Measure:** Enhanced skill and knowledge base of the organization; impact on products and/or services; impact on processes and/or practices; and impact on productivity

**Outcome:** Increase in HQP industrial/business experience

**Measures:** HQP gained experience and technical skills relevant to the SME, HQP more job ready for employment in the SME that they would have otherwise been

**Outcome:** Increase in SMEs hiring HQP from Campus Alberta

**Measure:** SME hiring any of the HQP involved in the CASBE project or from academia because of the project

**Outcomes:** Increase in Commercialization outcomes

**Measure:** Type of impacts on products and/or services (new products, improved products, new services, improved service, etc.)
HOW SMALL BUSINESSES BENEFIT

- Gain access to new talent
- Identify prospective employees and opportunities to apply for Federal and Provincial grants to hire new employees in Alberta
- Increase productivity, revenue and jobs
- Develop relationships with researchers to extend company’s research & development (R&D)
- Gain access to unique facilities and research equipment available in academic institutions
- Create marketable solutions to current end users’ (large companies, local government, Federal government, etc.) challenges
HOW ACADEMICS BENEFIT

• Have access to exciting research challenges that companies are facing during technology development
• Establish relationships with industry that could open new sources of funding from NSERC and Alberta Innovates
HOW STUDENTS BENEFIT

• Leverage knowledge and innovative ideas to solve industry problems in Alberta
• Gain real-world experience
• Build relationships with established companies in Alberta
• Gain access to NSERC’s and Alberta Innovates' industry and entrepreneurial networks
• Gain access to Provincial and Federal grants to gain employment in Alberta
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