

## Applied Research & Innovation at Selkirk College

Selkirk College's Applied Research & Innovation Centre links students and faculty with community and industry partners to find collaborative solutions to business and social challenges. Our applied research aligns with the college's goal of being a valued partner in community economic development, regional collaboration, social innovation, and rural capacity building.

### OUR AREAS OF EXPERTISE

#### GEOSPATIAL TECHNOLOGIES

- Unmanned aerial vehicles
- Remote sensing
- Web mapping
- 2D and 3D visualizations
- Virtual reality
- Spatial modelling

#### ADVANCED MANUFACTURING

- Rapid prototyping
- Large format 3D printing
- Combined additive and subtractive manufacturing
- By-product utilization
- Materials testing
- Process optimization

#### RURAL DEVELOPMENT

- Rural economic development
- Rural well-being indicators
- Social innovation research
- Local government research support

#### ADVANCED DIGITAL TECHNOLOGY

- App development
- Advanced computing
- Machine learning

#### CLEAN TECHNOLOGY

- Forestry innovation and bio economy
- Renewable energy
- Electricity infrastructure

#### TECHNOLOGY TRANSFER SERVICES

- Market investigations
- Feasibility studies
- Strategies to protect the technology's commercial value



### OUR RESEARCH ASSETS



The BC Regional Innovation Chair in Rural Economic Development assists in the diversification of the regional economy by supporting innovation and technology transfer in new and existing enterprises.



The Columbia Basin Rural Development Institute (RDI) supports evidence-based decision-making through the provision of rural indicators, applied research and related capacity building support.

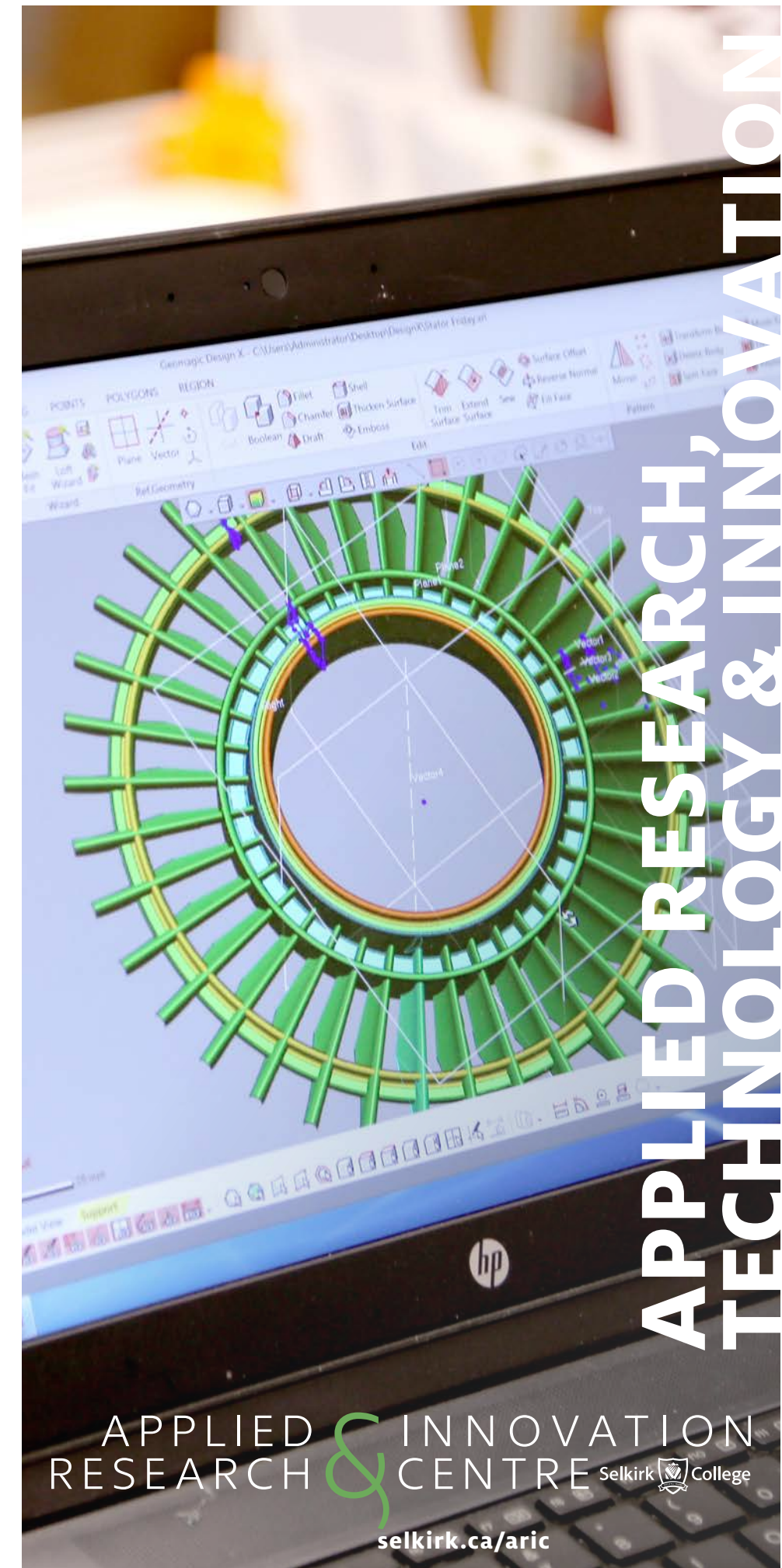
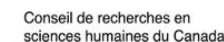


The Selkirk Geospatial Research Centre (SGRC) is a leading-edge research centre specializing in geospatial technologies to aid in solving critical issues pertaining to environmental and socio-economic problems.



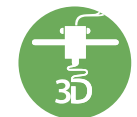
The SMARTS program connects small and medium sized enterprises with applied research to support rapid innovation and digital technology adoption.

### OUR FUNDERS



# Building Competitive Clusters in Rural BC

Our vision is to build competitive, technology-enabled clusters in the southeast interior region of BC that, over the long-term, will expand in terms of geographic and sectoral reach.



## APPLIED RESEARCH

- Geospatial technologies
- Advanced manufacturing
- Advanced digital technologies
- Clean technologies
- Market investigations & feasibility studies



## STUDENT EDUCATION & EMPLOYMENT

- Technology programs
- Co-op placements & capstone projects
- Experiential learning opportunities



## INDUSTRY TRAINING

- Business development
- Project based knowledge transfer
- Customized training
- Advanced technology & equipment



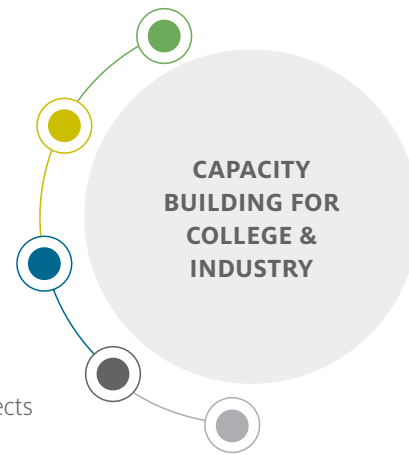
## KNOWLEDGE DISSEMINATION

- Workshops
- Publications
- Learning summits

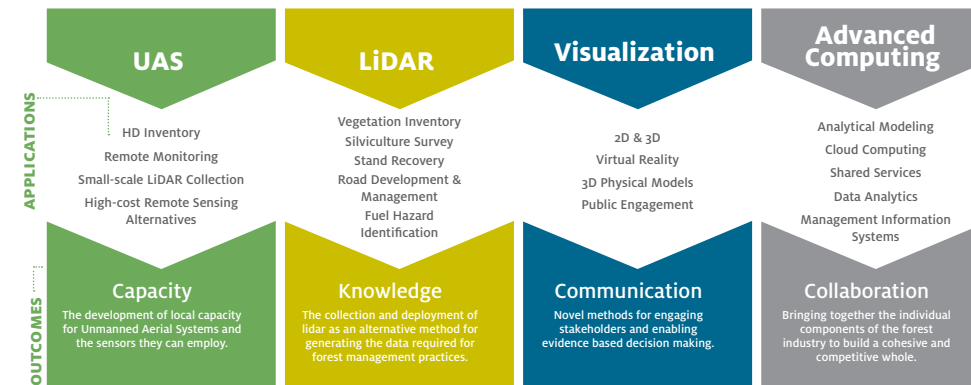


## RELATIONSHIP BUILDING

- Steering committee
- Work placements
- Networking



## OUR FORESTRY INNOVATIONS PROGRAM



## OUR ADVANCED MANUFACTURING PROGRAM



## OBJECTIVES OF OUR CLUSTER-FOCUSED RESEARCH & WORKFORCE DEVELOPMENT PROGRAMS

- Enhancing our rural clusters by facilitating the application of new, innovative technologies
- Supporting the advancement of technology-enabled, globally-competitive rural clusters through workforce training and development of in-demand highly qualified personnel
- Build on industry-college relationships that contribute to excellent student learning and economic development

## OUR TECHNOLOGY PROGRAMS

- Geographic Information Systems (GIS) Advanced Certificate & Degree
- GIS in the Workplace Certificate
- Digital Arts & New Media Diploma
- Digital Fabrication & Design Diploma (new)
- Advanced Internet Application Developer Certificate (new)

## CONTACTS

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## BENEFITS FOR STUDENTS & FACULTY

- Enriches student learning through hands-on experiences
- Builds industry relationships and links students to local employers
- Develops skills and professional currency in latest technologies and best practices
- Inspires an entrepreneurial mindset
- Accesses investment in new technologies, infrastructure, and equipment
- Advances currency of curriculum and training programs

## BENEFITS FOR COMPANIES

- Develops new or improved products and services
- Supports new market development and competitiveness
- Provides access to equipment, facilities, and highly qualified personnel
- Accesses R&D funding opportunities (including grants and tax credits)
- Advances employee skills and creates/maintains jobs
- Builds partnerships and demonstrates a community-oriented mindset

## BENEFITS FOR COMMUNITIES & REGIONS

- Enhances collaboration and community capacity
- Stimulates economic development and job creation
- Supports community well-being
- Drives innovative solutions to economic, social, and environmental challenges

Selkirk College engages in over \$2 million in applied research annually. Our research align with our areas of expertise and are funded by government agencies, companies, and non-profit organizations operating at local, regional, provincial and national scales.

