

REAL WORLD EXPERTISE. REAL WORLD TRAINING.

LEADERSHIP IN APPLIED RESEARCH

Dr. Alex Zahavich, Vice President, Corporate Development and Applied Research



REAL WORLD EXPERTISE. REAL WORLD TRAINING.

To be a global leader in applied education.

- Which includes applied research

**SAIT POLYTECHNIC
MISSION**



REAL WORLD EXPERTISE. REAL WORLD TRAINING.

A global leader in applied education.

- A top Canadian research college
- Serving over 50,000 students annually
- 94 per cent graduate employment rate
- 81 certificate, diploma, applied- and bachelor-degree programs
- 34 apprenticeship trades programs
- 214,800 alumni in 76 countries
- Workforce-development solutions delivered around the world

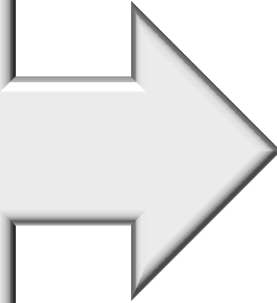
SAIT CORPORATE PROFILE



REAL WORLD EXPERTISE. REAL WORLD TRAINING.

Schools by Industry for Industry

- Business
- Construction
- Health and Public Safety
- Hospitality and Tourism
- Information and Communications Technologies
- Manufacturing and Automation
- MacPhail School of Energy
- Transportation



Preparation

- English language
- Academic Upgrading
- Basic Skills Development

Certificate
Diploma
Applied Degree

Corporate Training

Trades Training

- Apprenticeship
- Pre-employment

Baccalaureate Degree

Continuing Education

SAIT PROGRAMMING



Research

- Explore, gather, analyze

Innovate

- Look at things differently

Incubate

- Seed, nurture and terminate

Accelerate

- Advance quicker

APPLIED RESEARCH



Research and/or Innovation Continuum

- Idea or concept
 - Explore, gather and report
 - Model, test, report and protect
 - Prototype, test, report and protect
 - Scale up, test and report
 - Implement or commercialize
- } Basic or fundamental
- } Applied
- } Incubate, Accelerate

APPLIED RESEARCH



Acronyms

- **CEGEP** – Collège d'enseignement général et professionnel
- **BCIT** – British Columbia Institute of Technology
- **CFI** – Canadian Foundation for Innovation
- **NSERC** – Natural Sciences and Engineering Research Council
- **SSHRC** – Social Sciences and Humanities Research Council

**APPLIED RESEARCH IN
CANADA**



History

- **1980's CEGEP's, BCIT**
 - Provincial initiatives
- **1990's Olds College**
 - CFI first attempt
- **2000's Polytechnics**
 - NSERC pilot and scale up
- **2010's Colleges**
 - NSERC expansion, CFI and SSHRC

**APPLIED RESEARCH IN
CANADA**



History

- Federal regional economic development agencies
- Provincial incentive programs and vouchers
- Matching or leveraged funding
- Direct industry investment

**APPLIED RESEARCH IN
CANADA**



Successes

- \$65 M annual investment by the Federal government through the Tri-Councils and CFI
- Over two thirds of Colleges are eligible for funding
- Over 500 companies are engaged annually
- Over 1000 students are engaged annually
- Progressive leveraged private sector investment
- Economic benefit to the immediate regions

**APPLIED RESEARCH IN
CANADA**



The SAIT Story

Creating a small enterprise within a bureaucracy

What

- +\$6 M CDN annual activity
- +75% probability of winning a grant, submitting +15 applications annually
- Engage +40 companies each year
- Engage over 250 students each year
- Dedicated SAIT Innovation awards
- Endowed applied research fund and student fund

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The SAIT Story

What

- A top Canadian research college
- Applied research projects involve industry, students and faculty
- Worldwide recognition for research in:

Green Building Technologies – Net Zero Homes

Environmental Technologies – Brackish Water Remediation

Information and Communications Technologies – RFID

Sports and Wellness Engineering Technologies – Sleds

Design, Testing and Fabrication

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When

- **Early 2000's**

 - dabbled – elephant tusks, taser testing

 - Provincial funding for a “traditional” tech transfer office

- **2005**

 - Created Applied Research and Innovation Services

 - Received Tri-Council Eligibility

 - Created Policies and Procedures

 - Created Research Ethics Board

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When

2008

Won first major 5 year grant

2010+

\$5M donation for Enerplus Innovation Centre

Won five more major grants

Department of 45+ employees

Awarded over \$1,000,000 in SAIT grants

Opened 3,000 m² of new labs and offices

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Who

- Support from the President and VP Academic
- Director
 - Operations Manager
 - Grant Coordinator
 - Coordinator for Students
 - Research Associates
 - Communications

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How

1. Students, community partners and industry are the first criteria.
2. Fee for service contracting model.
3. It's not about the first contract or grant.
4. Manage scope creep.
5. Recognition, reputation and credibility.
6. Structural alignment.
 - Incubator or accelerator
 - Best Division

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How

6. Think like a business.
 - a) Stewards of taxpayers money.
 - i. Accountability in decision making.
 - ii. Assess and manage risk.
 - b) Customer service.
 - i. Customer relationship management
 - ii. Confidentiality
 - c) Intellectual property management.
 - d) Accurate timely reporting.

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How – the lessons

1. Sustainable government funding.
 - Indirect cost and overhead
 - Managing grant application reviews.
2. Workload management
 - 530+ person hours per major grant application
 - Onerous reporting
3. Manage expectations: client, government, faculty.

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How – the lessons

4. Have a marketing strategy.
5. Manage the “skin in the game”.
 - Cash is king
 - In-kind contributions
6. Applied research and scholarly activity often clash.
 - Applied research is a subset
7. Build out incrementally.
8. Leverage, leverage, leverage

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Successes

- Over 1200 students have carried out research activity
- Number one research college in Canada in 2013
- Over 300 companies engaged
- Applied for over \$35M in grants and won over \$26M
- Identified as a “Top Secret Researcher” for Olympic Team
- Winner of an Alberta Emerald Award
- Winner of Alberta Science Technology Award

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Successes – International

Performance Engineered Solutions	Sheffield, UK
Alberta – Saxony Exchange	Germany
Whitefox	UK ((Canadian Subsidiary)
Prionics AG	Zurich, Switzerland
Maneroo Partnership	Victoria, Australia
Alien User Conference	Las Vegas, USA
RFID Journal Live Conference	San Diego, USA
International Committee for Animal Recording (ICAR)	European Union
Silverwing Energy, Cenovus and H. Beaujean	Germany
Institutes for Higher Education Strategy Conference	Germany
International Builders Show	Las Vegas, USA
Timber association – collaboration with UK, Japanese timber frame companies and BC Log and Timber Association	UK, Japan
International Federation for Bobsleigh and Skeleton	Austria
Stanford University	USA

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Corporate Development

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403.210.5757

1.866.884.7117

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