Southeast Techhub S.E.T.H.

SEDA Presentation



Who am I

Founder and Past-President of IDS Internet dispatch Services Ltd

Currently enrolled at MIT in the Innovation and Technology Acceleration Program

Executive Director of S.E.T.H.



IDS Internet Dispatch Services

Let me start with a story





The two don't connect





ESTEVAN LOSING 3000 PEOPLE IF THE COAL MINE SHUTS DOWN.

BUT OUR INNOVATORS HAVE TO LEAVE TO FIND SUCCESS.



About SETH

The Southeast Techhub (SETH), located in Estevan, Saskatchewan, provides new and emerging technology businesses with an environment that supports their commercialization phase and increases their likelihood of success.

What Have We Already Done

Innovation Conversations

Dr Eric Grimson

Former Chancellor of MIT

From Estevan



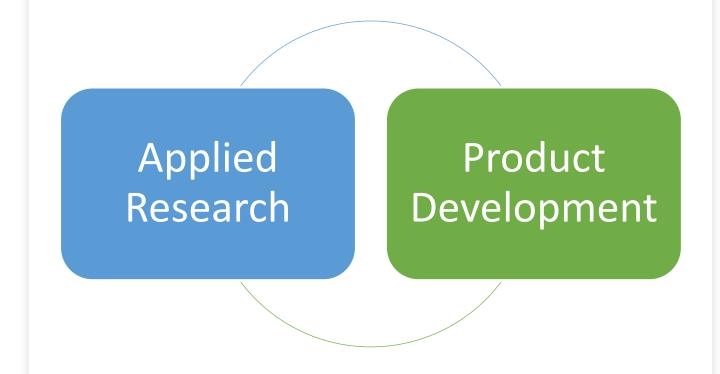


- Hosted Southeast Saskatchewan's first Innovation Pitch Competition for \$22,500
- Hosted several presentations including Dr. Eric Grimson, Chancellor of MIT, Dr. Aaron Genest from Siemens, and Ranjith Narayanasamy from the PTRC.
- Directly assisted 10 local start-ups.
- Worked with the education system to start a robot building club, computer science and a drone racing club.
- Hosted two Small Module Reactor Supply Chain events, which provided details to the regional manufacturing industry on participating in the SMR Supply Chain.
- Hosted numerous workshops on topics such as "How to Write a Business Plan" and "Essentials of Fundraising".

What Are We Doing



Market Segments





Applied Research for Energy

Of the 975 Labs and Research Centres across Canada.

There are 6 working on Utilities and 6 on Natural Resources.

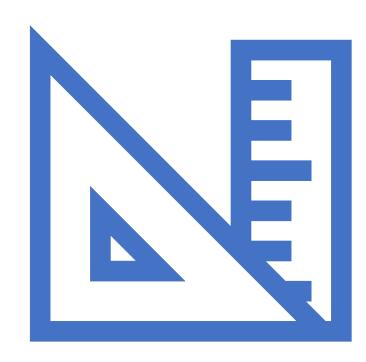
Within these 12 centres, only a few are focused on energy.



Applied Research Focus

The 9 stages of Applied Research are:

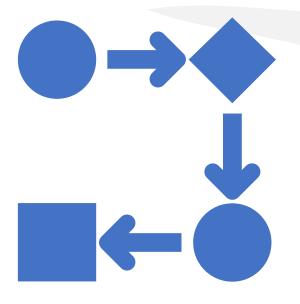
- 1. the potential and problem stage,
- 2. the data collection stage,
- 3. the product design stage,
- 4. the design validation stage,
- 5. the usage trial stage,
- 6. the product revision stage,
- 7. the product trial stage,
- 8. the design revision stage,
- 9. the product revision stage,





Product Development Focus.

The difference between applied research and product development is that applied research is the conception phase in the product life cycle.



While product development is the entire process of designing, creating, and marketing new products or existing products with new features.



Product Development Centres

Development Centres are where private industry goes to focus on product development.

Our GAP Analysis for Product Development Centres focused solely on energy, we found 0 centres in North America.

We did find less than 6 Product Development centres which have energy as part of their mix.

Product Development Focus

The 7 stages of product development are:

- 1. Ideation
- 2. Validation
- 3. Prototyping
- 4. Marketing
- 5. Development
- 6. Launch
- 7. Improvement



Geographic Market

US GDP is \$23.32 Trillion

US spends \$264 Billion on Research and Development, tying it with South Korea as the world's leaders on R&D.



Industry Sectors

- 1. Energy Generation.
- 2. Energy Transmissions.
- 3. Energy Storage.
- **4. Energy** in Transportation.



Operational Plan

Over the 3 – Years S.E.T.H. will

Create 500 new permanent full-time jobs.

Create or bring into the community 30 new companies.



Why Estevan?



Because of our Environment



-40C winters to +40C summers



Our powerful winds



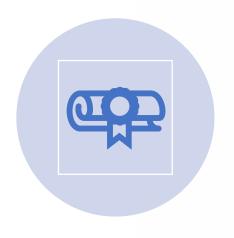
2500 hours of sunshine



Hot but deep geothermal formations



Our Skilled Work Force







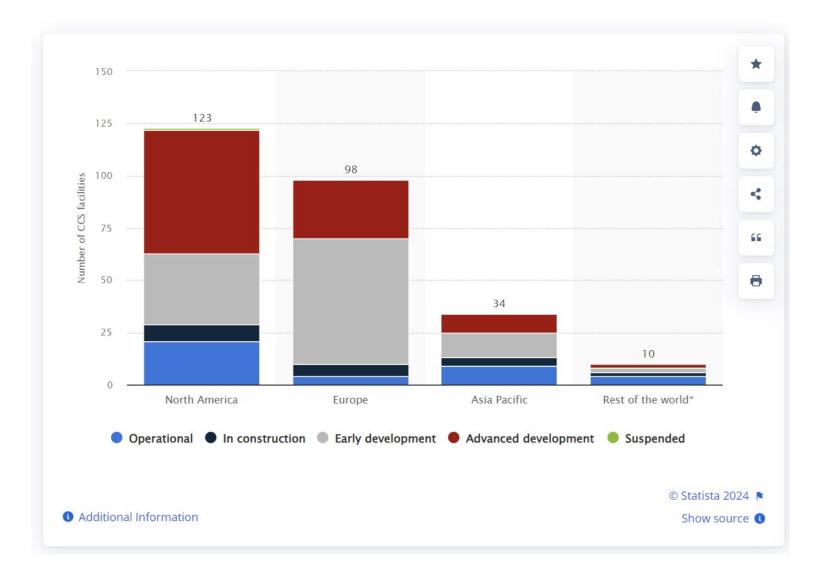
50% OF OUR WORKING POPULATION OBTAINING A POST-SECONDARY CERTIFICATE, DIPLOMA, OR DEGREE.

13% HAS A CERTIFICATION IN A TRADE

13% HAS A BACHELOR'S DEGREE OR HIGHER



CCS Infrastructure





Connections to NAFTA Nations

only 15 minutes away, via long-haul truck, from the largest GDP in the world.

CP Rail proposed merger with Kansas City Southern connects us with all 3 NAFTA Nations.



Aerospace

Estevan's Regional Airport has 2 paved runways.

The critical aircraft is a Boeing 737

Situated in Class G uncontrolled airspace, with little air traffic

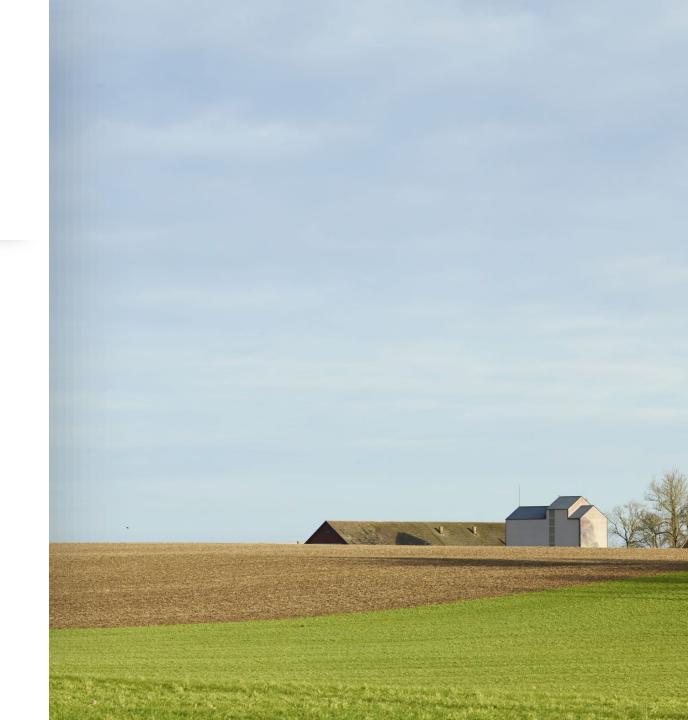


Agriculture

Saskatchewan has 60.3 million acres which is the largest share in Canada at 39.2%.

Plus direct access to:

- North Dakota 39.3 million acres.
- South Dakota 43 million acres.
- Montana's 58 million acres

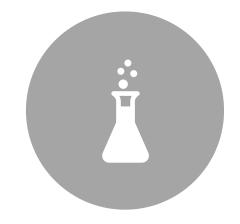




Labs and Projects







ORGANIC CHEMISTRY LAB



COMPUTER SCIENCE TRAINING THROUGH PROJECTS

Operational Plan



OPERATIONAL BUDGET \$1.22 MILLION FOR 3 YEARS.



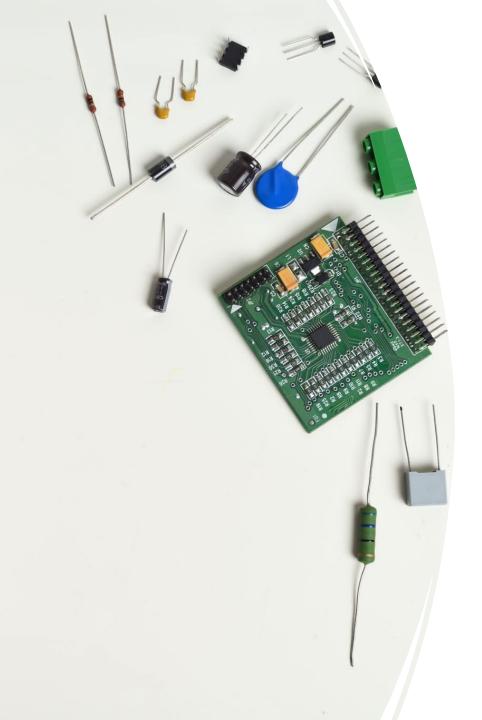
3 FULLTIME STAFF.
EXECUTIVE DIRECTOR, PROGRAM
DIRECTOR & MARKETING MANAGER



3D PRINTER, SOFTWARE AND SUPPLIES.



AUTOCAD AND A COMPATIBLE COMPUTER.



Computer Science Training Through Projects

Computer Science Literacy.

There are no post-secondary education programs that teach computer science in any community in Southeast Saskatchewan.



Computer Science Training Through Projects

SE College's Centre for Sustainable Innovation.

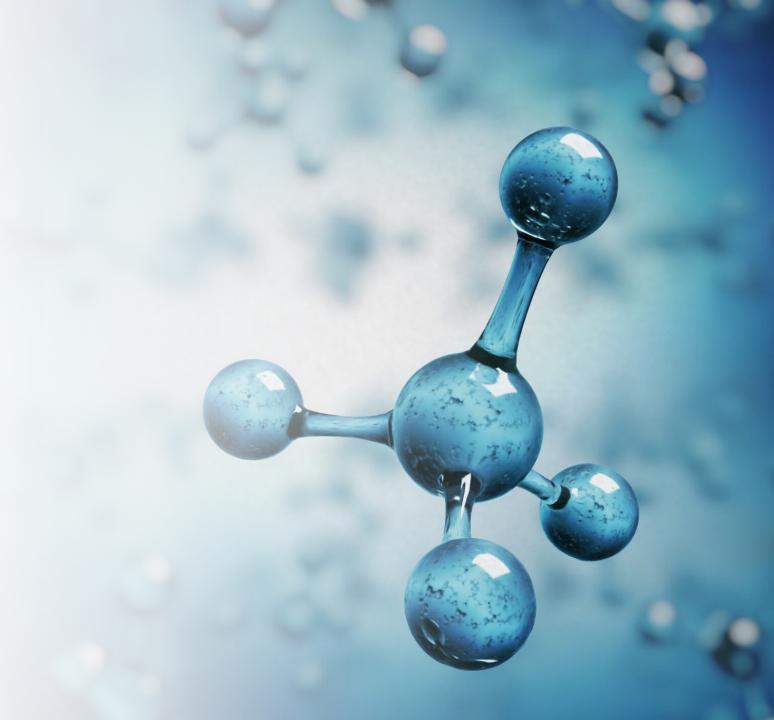
"Skunk Works" for our clients.

Students then learn through these projects.

Organic Chemistry Lab

For Applied Research & Product Development.

- For Lithium Extraction, Coal to Graphite.
- Entire companies to relocate to SE Sask.
- \$300,000 worth of equipment already donated by SaskPower.



Hydrogen Hub

HYDRØGEN PRINCIPIA, LLC

ESTEVAN, CANADA – ADVANCED ENERGY SOLUTIONS

Joint Venture to Develop State of the Art Technology and Energy Hub

Hydrogen From Lignitic Biomass



NET ZERO CARBON EMISSIONS.



HIGHLY PROFITABLE LIQUID HYDROGEN



POWERED BY RENEWABLE ENERGY

Lowest Cost, Highest Quality

Our Production Cost-\$1.02/kg

Average Production Cost of Green Hydrogen - \$7.70 /kg



Existing Technology

Using existing tried and true technology

No blue-sky technology

Our technology has been making hydrogen for decades

Carbon Capture and Storage

CCS Infrastructure is already operational.

Commercial offtakes for CO2 already connected

Additional CO2 Revenue Stream \$110+ Million USD / Annual

Supply & Offtake Agreements



LETTERS OF UNDERSTANDING COMPLETED.

LARGE WELL-KNOWN PARTNERS.

Quick Turn Around

Production Starting 2027

Gordon More

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