



Nation Building through Innovation

TFC 2026 - Innovation Showcase

May 30, 2026

MindFuel at a Glance

Young people are naturally curious. They ask questions, explore ideas, build, test, and imagine new possibilities. What they need are opportunities to apply their thinking in meaningful ways.

The future will be shaped by people who can think critically, solve complex problems, adapt, and create solutions. Over the last 13 years, MindFuel has validated a model that supports progression from curiosity to capability, and from isolated experiences to connected pathways. It takes a village. Truly!

This innovation journey follows three stages:

Zone 1: Early Engagement

Building curiosity through Wonderville, Codingville, AI learning, STEM exploration, and innovation mindset development.

Zone 2: Innovation Readiness

Moving from inspiration to action through hands-on learning, mentorship, prototype development, and Connect2Innovate talent pathways.

Zone 3: Outcomes and Momentum

Transforming ideas into impact through commercialization, workforce readiness, research, startups, patents, and innovation leadership.

At the centre of every stage is tangible skills-building - not just learning about innovation but actively practicing it.

- Moments become capabilities.
- Capabilities become pathways.
- Pathways create momentum.
- These build our economy. And help Canada to thrive.

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Executive Summary

From Ideas to Impact

Innovation begins with curiosity—but it grows through action.

Over the past season, 33 teams representing seven provinces across Canada came together through the Tech Futures Challenge to explore complex problems, develop innovative solutions, and apply their skills in meaningful ways. Supported by educators, mentors, and industry experts, participants moved beyond learning about innovation to actively practicing it—researching challenges, testing assumptions, building prototypes, and refining their ideas through collaboration and iteration.

Their journey culminated at the 2026 Innovation Showcase, hosted on May 30 at the Hunter Hub for Entrepreneurial Thinking at the University of Calgary, where teams shared their work, celebrated their achievements, and demonstrated the creativity, resilience, and ingenuity that define innovation with more than 250 guests.

This report highlights the impact of that journey—capturing not only what participants created, but how they grew as innovators, problem-solvers, and future leaders. It reflects the progress made throughout the program and the pathways that continue beyond it.

Transformer Partners

Visionaries in STEM Innovation



Anonymous Donor

Bunt & Associates Engineering Ltd.

Tech Futures Challenge 2026

Nation Building Through Innovation



7 PROVINCES

33 Projects

27 Teams

65 Judges & Mentors

By the Numbers

Pitch Stage (Mar 2026)

High School Post-Secondary

5 Teams **22** Teams

7 Projects **26** Projects

Prototype Stage (May 2026)

High School Post-Secondary

4 Teams **18** Teams

4 Projects **21** Projects

71 High School Students

178 Post-Secondary Students

46% Female

7.7% Rural

1% Indigenous

52% Racialized

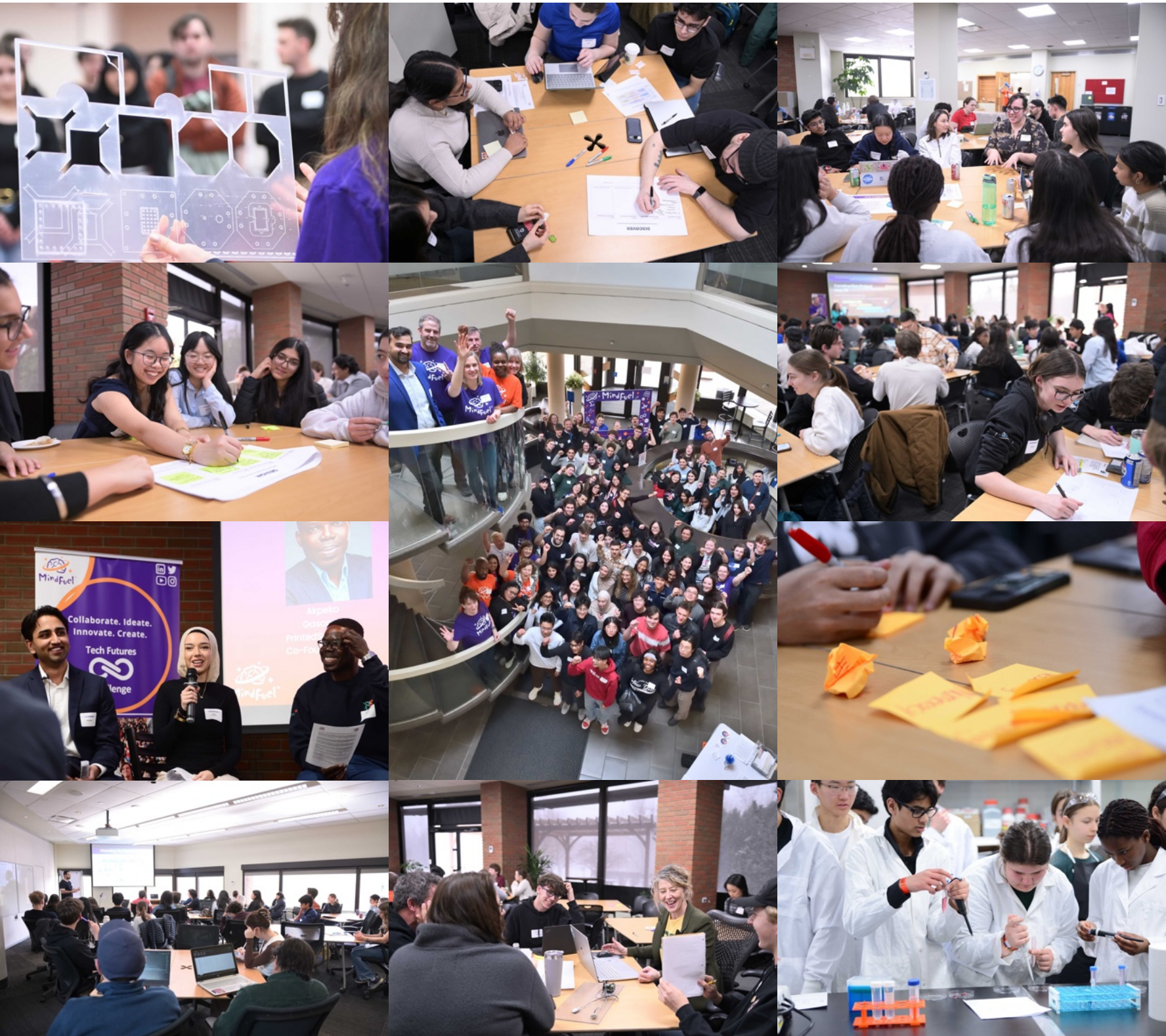
16% Newcomer to Canada (less than 5 years)



249 Aspiring Innovators

TFC Innovation Journey

Prototype Development Workshop (March 2026)



I think the overall experience was amazing. Coming to Calgary and meeting all these incredible people was truly inspiring. The workshops were meaningful; this weekend gave me a lot of encouragement, motivation, and passion to pursue the project with new ideas and skills.

Student, Montreal, Concordia University [first time TFC team]

Team Showcases



anti-HIV Therapeutics ON
McMaster University, Hamilton



Aptnoix AB
University of Calgary - BIOMOD



Aquilux Flow AB
Independent, Calgary



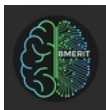
BARK Watch BC
University of British Columbia, Vancouver



Beewise AB
United Robotics Lacombe, Lacombe



Bioengineered Fertilizer ON
University of Guelph - iGEM



BioGait Dynamics AB
University of Calgary - BMERIT



BioRefine ON
University of Ottawa - iGEM



ChassisCraft AB
University of Lethbridge - iGEM



dermadetect AB
Master's College, Calgary



Emerald SK
University of Regina



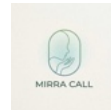
Hip Abductor AB
University of Calgary - Project 90



Innoskate AB
Renert High School, Calgary



LacThera MB
University of Manitoba - Prairie iGEM, Winnipeg



Mirra Call AB
Independent, Edmonton



MOSMAGE AB
University of Lethbridge - iGEM



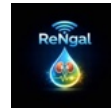
NeuroEthica AB
Independent, Edmonton



Oat Shield AB
Lethbridge High School - iGEM



PETAScale ON
University of Toronto - iGEM



ReNgal AB
University of Calgary - Chimera



Scoliosis Brace AB
University of Calgary - Project 90



SOCKS AB
University of Calgary - Project 90



Swim Bench AB
University of Calgary - Project 90



Synfera AB
University of Calgary - iGEM



Synq QC
Concordia University, Montreal



TerraScan Mini AB
NAIT, Edmonton



WiCSE - CalgaryPulse NB
University of New Brunswick, Fredericton



Yankauer Support System AB
University of Calgary - BMERIT

[View innovation showcase videos](#)



TFC Innovation Journey

Innovation Showcase (May 2026)

249

Aspiring Innovators
in TFC 2026

251 Innovation Showcase Participants:

140 Team Members

37 Judges & Mentors

46 Special Guests

15 MindFuelers

13 Volunteers

Inspirational Leaders



Jim Gray

Founding Chair, Science Alberta
Foundation, now MindFuel



Corey Hogan

Government of Canada
Member of Parliament



Jeromy Farkas

Mayor of Calgary



Dr. Ed McCauley

President & Vice-Chancellor
University of Calgary



Dan Semmens

CTO, Central 1
MindFuel Chair



Guy Levesque

Executive Director
Hunter Hub for Entrepreneurial Thinking



Dr. John Froh

President & CEO
STARS



Grant Sanden

Founder & CEO
GeologicAI



Melissa Power

Project Geologist, Technology & Innovation
Canadian Natural

Innovation Showcases



Innovation Showcases



TFC helped me grow both personally and professionally. It pushed me outside my comfort zone and taught me how to collaborate with people from different backgrounds, think critically about complex challenges, and communicate ideas more effectively. The program strengthened my confidence in my ability to contribute to meaningful projects and showed me that innovation is not limited to one field of study. It also reinforced the importance of perseverance when facing uncertainty and setbacks.

Post-secondary Student, McMaster University, Hamilton

It showed me that teamwork is the foundation of science. Seeing all the other teams and our own team come up with amazing ideas and products was really inspiring.

Post-secondary Student, University of Toronto

“Don’t sleep on this opportunity, it’s a valuable experience to work on a meaningful project that can give you the head start to launching as a startup.”

Post-secondary Student, University of Calgary

“Pushed me to be more of a leader and work on my teamwork skills to finish our prototype in time for TFC.”

High School Student, Calgary

Prototype Display Gallery



Innovation Showcase Awards

Best Prototype

New Project

Returning Project



University of Calgary
BioGait Dynamics



United Robotics of Lacombe
Beewise

Runner-Up Prototype - University of Lethbridge - MOSMAGE

Most Iterative Project - University of Calgary - Project90: Hip Abductor

Most Tangible Next Steps - University of Guelph - iGEM

People's Project Choice - University of British Columbia - BARK Watch



MOSMAGE



**Project 90:
Hip Abductor**



University of Guelph
iGEM



BARK Watch

Lasting Impressions



Lasting Impressions



Words of Wisdom



(Jim) Understands that to move a mountain, you must first envision the mountain and then set out on a path, sometimes not in the right direction. Tells you it doesn't matter your stride nor seeing the route to the top, you only need confidence in taking the next step. And once you commit, all manner of events will unfold to enrich and surprise you along the way.

~Jim Gray's 90th Birthday Booklet (2023)



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TFC 2026 Impact Report | 14

From our Community



Art P. • 2nd

Tech Steward | Digital Transformation Analyst | XR Immer...

[Visit my website](#)

2w •

[Connect](#)

MindFuel TFC review: Yesterday I woke up early and showed up in mind, body, and soul. My mind just took a scenic route and didn't arrive fully awake until about two hours in.

Tech Futures Challenge, powered by MindFuel and hosted at the Hunter Hub Centre for Entrepreneurial Thinking, wasn't a "student pitch day" in the usual sense. The agenda opened with remarks that set the bar: bring a real problem, show it's real, and build something people will actually use. Even while I was physically present but mentally buffering at 3%, the vibe was clear.

This wasn't startup theatre. Students were there to do the work. Before any pitches, the land acknowledgement grounded the day in accountability. Not as a checkbox, not as a "we said the thing, moving on," but as a reminder that innovation is not neutral. What we build lives somewhere, impacts someone, and costs something. It framed the whole day around building in relationship with community, not above it, and that tone carried through everything that followed.

By the time my brain finally rebooted, teams were pitching, demoing, and taking feedback like pros. The best moments weren't polished one-liners, they were the honest ones: what broke, what surprised them, and what they'll test next in the next 30-90 days.

People asked the questions that matter, like who adopts this, what could go wrong, and what success looks like outside the room. The outcome everyone seemed to want was simple and real: students leaving with more than applause, and projects leaving with a path, whether that's pilots, partnerships, or seed funding that actually moves the work forward.

Congrats to team [MindFuel.ca](#) [Cassy Weber](#) [Sabina Bauer](#) [Lewis Micah Louison](#) and all.

Bravo to the host with most [Guy Levesque](#) [Hunter Hub for Entrepreneurial Thinking - UCalgary](#)

And a big hello and wave to [Victoria \(Viki\) Bennett](#) [Christa Hill](#) [Angelsea Saby](#), [MDes Daniel Monzon](#) [Lindsay Phillips](#), [PhD Amber Hark](#) [Patti B. Dolan](#), [CFP, CIM, FCSI, RIAC](#)

[#mindfuel](#) [#TechFuturesChallenge](#) [#STEM](#) [#socialimpact](#)



Fereshteh Vajhadin • 2nd

Postdoctoral Associate at University of Calgary

2w • Edited •

[+ Follow](#)

Over the past five months, I had the opportunity to mentor several talented student teams through the Tech Futures Challenge. One of the teams I mentored developed a diagnostic microfluidic device for kidney disorder detection and monitoring.

It was inspiring to see undergrad and high school students' creativity, dedication, and growth as they transformed their ideas into impactful solutions.

Thank you to [MindFuel.ca](#) for creating opportunities that connect students, mentors, researchers, and industry leaders. I am grateful to have been part of this journey and excited to see what these young innovators accomplish next.

[Hunter Hub for Entrepreneurial Thinking - UCalgary](#)

[University of Calgary](#)

[#MindFuel](#) [#TechFuturesChallenge](#) [#Innovation](#) [#Mentorship](#) [#Bioengineering](#) [#Microfluidics](#) [#KidneyHealth](#) [#STEM](#)



[Hunter Hub for Entrepreneurial Thinking - ...](#)

2w • Edited •

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This Saturday at the Hunter Hub, [MindFuel.ca](#)'s Tech Futures Challenge brought young innovators together to turn bold ideas into real-world solutions.

From building prototypes that tackle challenges in AI, robotics, biotechnology, coding, and 3D design, youth teams representing 28 projects from 24 collegiate teams and 4 high school teams from seven provinces. These youth teams brought creativity, confidence, and fresh thinking to the room.

With MindFuel and the Hunter Hub helping create space for youth innovation, these students are only getting started. Read more about the story here.

“

“It was revolutionary thinkers, the disruptors, that changed the course of the world with the ideas that they brought forward.”

Jeromy Farkas

Mayor of the City of Calgary



Students Shine at MindFuel's Tech Futures Challenge Innovation Showcase at the Hunter Hub

[Hunter Hub for Entrepreneurial Thinking - UCalgary](#)

From our Community



starscriticalcare and mindfuel.ca



starscriticalcare 2w

Innovation at STARS took centre stage this past weekend as our President & CEO, Dr. John Froh, joined the Inspiring Speakers Series during the Innovation Showcase for MindFuel's Tech Futures Challenge 2026.

The event brought together youth innovators and leaders in technology, science, entrepreneurship, leadership, and impact, all with a focus on turning new ideas into real-world solutions.

During the event, Dr. Froh spoke about how machine learning and AI are being explored at STARS to enhance clinical practice.

His presentation highlighted CEWS, or Continuous Early Warning Score, a model being developed by STARS through a partnership with the University of Calgary's Cumming School of Medicine and Schulich School of Engineering (@schulichengineer) to provide real-time deterioration prediction for prehospital trauma patients. He also spoke about a working prototype of an AI tool designed to support charting efficiency and allow more time and attention to remain focused on the patient during a mission.

We are proud to see this work advancing and excited to continue exploring tools that can help STARS provide the very best in critical care.



Lindsay Phillips, PhD • 2nd

Funding Strategist @ Thin Air Labs | PhD in Genetics | Bridg...

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What an inspiring day with [MindFuel.ca](#)!

I had the opportunity to serve as a judge and was blown away by the creativity, innovation, and enthusiasm of the high school and university students presenting their projects. Their ideas showcased not only impressive technical skills, but also a genuine desire to make a positive impact.

It was also a pleasure to meet and learn from such a talented and diverse group of fellow judges.

One of the highlights of the day was hearing Jim Gray share his insights and words of wisdom. His message was a great reminder of the importance of curiosity, perseverance, and investing in the next generation.

Thank you, MindFuel, for inviting me to be part of this experience. I'm excited to see what these students accomplish in the years ahead.

#STEM #Innovation #Education #Leadership #FutureLeaders #MindFuel
#CommunityImpact



Destanee Charrois • 2nd

Product Management | Human-Centered Design | Purpose-...

+ Follow ...

Four months ago, I joined a cross-functional team to take on a challenge through [MindFuel.ca](#) that I hadn't anticipated: serving as the sole Project Manager on an AI-powered rehabilitation mirror for stroke survivors and seniors.

The Mirra Call Smart Mirror combines computer vision tracking, augmented reality overlays, voice-based AI guidance, and embedded hardware to support daily self-care and upper-limb rehabilitation tasks at home — helping patients complete more therapy repetitions independently, without requiring a clinician or caregiver to be present for every session.

My role was to keep the whole thing moving with a skills-mapped backlog, project timeline, product requirements documentation, prototype iteration logbook, weekly status updates, and putting together pitch materials and a live judging presentation.

I'm grateful to [Brenda Luo, MS, Reg. OT](#) for inviting me onto this project, because of getting to learn so much from being part of a product team that worked on hardware and software components. And shoutout to [Ayesha Khalil](#), [Sehajvir G.](#), [Raneem Sheronick, MSc](#), and [Indy Gedara](#) for their work on this team!

#ProjectManagement #ProductManagement #HealthTech #AI
#ComputerVision #Rehabilitation

In the Media

Opinion: What Stampede Teaches Us About Relationship Capital

By: Guy Levesque

Published July 1, 2026

<https://calgaryherald.com/opinion/opinion-what-stampede-teaches-us-about-relationship-capital>

As I sit on my deck on Canada Day, admiring the morning's sky on the eve of The Greatest Outdoor Show on Earth, I am reflecting on what the next 11 days of the Calgary Stampede mean for me and for our Blue Sky City.

Last year was my first Stampede. It was exciting, overwhelming, affirming and above all, community-building. This year, I think I'm going in a bit better prepared. And so here I go with a few thoughts as a Stampede sophomore...

What exactly does being prepared for Stampede mean?

Becoming expert-level good at "Calendar Tetris" to fit all the must-attend events in each day? Skill. Drinking Old Fashioneds... at 10 a.m.? Sure.

Trying to resist the smell of maple syrup, pancakes and bacon EVERY morning? Definitely.

Meeting influential leaders and building connections? Absolutely.

Opportunities are built through conversations, introductions and generosity. The best networks are built before they're needed. Why? Because they rest on a scaffold of trust and mutual benefit.

A first Stampede is about introductions and welcoming with open arms and genuine curiosity: Hi? What do you do? How have the first months in Calgary been like? Let me know if I can help? These are the questions I was happy to answer at every event I attended last year.

What will the questions be this year? I know I will be the one asking those questions to first-timers this year! And please seek me out in the crowd; I know how overwhelming and intimidating it can be.

As a seasoned Stampeder ;), I expect the questions will be more "how can we work together to build? How can we leverage what we have here to make things better? How do we level up?" Questions that build upon a foundation of trust. Trust relationships are Calgary's foundation stone.

I am reminded of the words of wisdom Calgary's great Jim Gray shared with 200 future leaders, changemakers and emerging entrepreneurs who all gathered recently at MindFuel.ca's Tech Futures Challenge Showcase we had the honor to host at the Hunter Hub for Entrepreneurial Thinking – UCalgary: "Surround yourself with quality people – Ask for advice – Build bridges BEFORE you need them."

I came to Calgary to help build – the Hunter Hub, the University of Calgary, the City of Calgary, our next generation of entrepreneurial champions and leaders. I'm humbled to know I am surrounded by builders and those eager to build.

That is our community's superpower. And that's why thousands and thousands of people from around the world flock to Calgary each July for Stampede: To be part of building something – something special. Something great. Surrounded by other builders.

That's why you will see me all over the city, from 7 a.m. to late into the evening for the next 11 days.

For Stampede newbies, come say hi and shake hands (or hug – I'm a hugger).

For builders, let's talk. Let's dream big, let's get stuff done, and let's have fun doing it.

What Calgary has more than any other city in Canada right now is a bank account overflowing with relationship-building capital. And a community working tirelessly every day to see that account continue to grow.

That's Stampede. That's Calgary.

Invest in relationships before you need them. And then go build.

Guy Levesque is the executive director of the Hunter Hub for Entrepreneurial Thinking at the University of Calgary.
#WeAreAllEntrepreneurial



Guy Levesque, executive director of the Hunter Hub for Entrepreneurial Thinking at the University of Calgary, speaks at MindFuel's Tech Futures Challenge Innovation Showcase. PHOTO BY POSTMEDIA CALGARY

In the Media

Students shine at MindFuel's innovation showcase

Students presented projects on a range of topics, such as how to create community ice rinks more efficiently and how to use a robot dog to generate 3D maps of forests

By: Postmedia Calgary
Published May 31, 2026

<https://calgaryherald.com/news/local-news/students-shine-mindfuel-innovation-showcase>

More than two dozen student projects from across Canada took centre stage this weekend as MindFuel hosted its Tech Futures Challenge Innovation Showcase.

The Saturday event celebrated students from B.C. through to the Maritimes, as they presented projects on a range of topics, such as how to create community ice rinks more efficiently and how to use a robot dog to generate 3D maps of forests.

The students also heard presentations from a variety of innovation and business experts, serving up advice and inspiration:

- John Froh, president and CEO of STARS, told students that through failures, they will find resilience. Embracing what they find uncomfortable can lead to important growth, he said.
- Melissa Power, project geologist at Canadian Natural, advised students to try new things, noting this can lead them down paths that align with new passions.
- Grant Sanden, founder and CEO of GeologicAI, said that new ideas and innovations can often arise by looking at what annoys you. If something annoys you, it means you see a problem and you see an issue that you care about; and, that can be an ideal area to apply your talents.
- Guy Levesque, executive director of the Hunter Hub for Entrepreneurial Thinking, noted that being adventurous and curious can lead to innovation. Determine what intrigues you and see where it leads you, he said.
- Jim Gray, community leader and energy sector legend, reminded students that it's up to them to address the challenges and opportunities they see in the world. "What are you going to do about it," Gray said, citing a phrase he has used and shared for decades.



This robot dog called Bark Watch was designed to manoeuvre over forest floor to gather info on tree growth, generate 3D maps and assist in forestry practices. Its creators from the University of British Columbia are (L-R) Caleb Reynard, Will Grellier, Reid Ong and Riley Crymbel, shown at MindFuel's Tech Futures Challenge Innovation Showcase in Calgary on May 30, 2026.

PHOTO BY POSTMEDIA CALGARY



Neomi Renert, Vittoria Di Stefano and Suri Gohill (pictured L-R) are part of a 22-student team from Renert School in Calgary working on a project that would lead to community rinks being able to use more moderate temperatures to make ice, thus saving energy and costs. The project was displayed on May 30, 2026 at MindFuel's Tech Futures Challenge Innovation Showcase in Calgary. PHOTO BY POSTMEDIA CALGARY

In the Media

MindFuel's goal, through a variety of programs, is to amplify the country's capacity for innovation by assisting students in building skills and helping them move their ideas towards reality.

"At MindFuel, we often talk about nation-building through innovation," says MindFuel CEO Cassy Weber. "For us, that means ensuring young people have the opportunity to develop the skills, confidence, networks, and experiences required to tackle the challenges that will define Canada's future.

"The students participating in the Tech Futures Challenge are actively practicing innovation by identifying problems, testing solutions, working across disciplines, and learning how to turn ideas into solutions with impact," says Weber. "If we as a city or province or country want to remain competitive in a rapidly changing world, we need to create more opportunities for young people to engage in this kind of work."

Top winners included BioGait Dynamics, University of Calgary, BMERIT for new team/prototype and Beewise, United Robotics of Lacombe for returning team/iterated prototype.

The 224 young entrepreneurs at the event also heard from Calgary Mayor Jeromy Farkas, MP Corey Hogan and UCalgary president Ed McCauley.



Davis Juell of Lethbridge, a Queens student and co-founder of NeuroEthica, discusses his project involving the intersection of neuroscience and bioethics at the Tech Futures Challenge Innovation Showcase at the University of Calgary's Hunter Hubs for Entrepreneurial Thinking on May 30, 2026. PHOTO BY POSTMEDIA CALGARY.



A panel offered advice to the students attending Mind Fuel's Tech Futures Challenge Innovation Showcase on May 30, 2026 at the University of Calgary. Pictured (L-R) are Guy Levesque, executive director of the Hunter Hub for Entrepreneurial Thinking; Dr. John Froh, president and CEO of STARS; Melissa Power, project geologist, technology and innovation, at Canadian Natural; and Grand Sanden, founder and CEO of GeologicAI. PHOTO BY POSTMEDIA CALGARY.



Calgary's Jim Gray speaks at Mind Fuel's Tech Futures Challenge Innovation Showcase on May 30, 2026 at the University of Calgary's Hunter Hub for Entrepreneurial Thinking. PHOTO BY POSTMEDIA CALGARY

Growth Beyond the Project

The impact of the Tech Futures Challenge extends beyond the solutions developed by participating teams. Throughout the program, students strengthened skills that are essential for innovation—including problem-solving, scientific research, collaboration, critical thinking, communication, and the ability to navigate uncertainty. They also gained experience applying these skills in real-world contexts, working through challenges and refining ideas over time.

To better understand this growth, participants were asked to reflect on their experiences, their confidence in applying STEM innovation skills, and their interest in future opportunities. The following metrics provide insight into how the program is supporting young people along their innovation journey—from building capability today to exploring future pathways in education, careers, entrepreneurship, and innovation.

88%

of students felt more confident about participating in future innovation projects.

Confirmed they would like to continue developing their project or idea beyond TFC.

87%

89% students stated “I am interested in participating in future innovation programs, competitions, or accelerators.”

81% students stated “I am more interested in entrepreneurship or starting a business.”

87% students stated “I am more interested in pursuing STEM studies.”

85% students stated “I better understand the skills needed in future careers.”

89% students stated “This experience increased my interest in internships or work experience opportunities in STEM.”

“I'll be continuing our current project and trying to contact people in the industry to discuss feasibility. This experience may or may not work however it should be a valuable skill gained. In the future, I'll follow the innovation path solving a problem that I'll see as crucial to people and society.
High school student, Master's College, Calgary

“My best next step is understanding more about commercialization, and an organized way to go about such a process.
Post-secondary students, Synq, Montreal

Continue Your Innovation Story:



Connect2Innovate (C2I) is an innovative platform designed to enhance youth innovation across Canada by providing easily accessible resources, mentorship programs, and collaborative opportunities. C2I builds community between aspiring innovators, industry partners, educators, and alumni to **Connect. Ideate. Innovate. Create.**

C2I is the best next step in your innovation story, connecting you to your next big opportunity.



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