CELEBRATING FIVE YEARS
of the Emera ideaHUB

2024

MESSAGE FROM OUR DIRECTOR

Emera ideaHUB at five years: Where academic expertise and private sector opportunity meet.

As the Emera ideaHUB marks five years in operations, we find ourselves in a place of gratitude. We're grateful for what we have seen grow and change since we opened our doors in 2018: for the ecosystem partners who have become colleagues and friends; for the students whose curiosity has become job opportunity; and for the start-up alumni whose ideas have become commercial products.

We are proudly part of Dalhousie University, which offers our founders access to an incredible range of students and researchers who join ventures at the HUB as employees, experts, and advisors. It also provides students with experiential learning that develops skills the labour market needs from them and can often lead to full-time jobs located here in this province and region. In just the last year, 29 co-op students were employed by HUB Residents or recent alumni, and 24 fourth-year Design Capstone projects were contracted by our current Residents or alumni start-ups.

But it takes an ecosystem to build a start-up, and we're also part of a vibrant, service-oriented tech ecosystem, where founders can open one door and receive access to the support, expertise, and resources they need across the Startup Atlantic network. With a focus on TRL 2 – 6, ventures that start at the HUB go on to programs or workspaces including COVE, Volta, the PIER, and Creative Destruction Lab Atlantic. We can report that 30% of ventures that graduate from CDL Atlantic are HUB Residents or alumni when they begin their CDL program, so we know we're helping form a strong foundation upon which ventures can build. We are true partners with dozens of colleagues working at accelerators or as independent advisors that want to help ventures succeed as much as we do.

It is this combination of being part of a regional tech ecosystem and a leading Canadian academic institution that makes the Emera ideaHUB a true 'hub' for deep tech innovation and entrepreneurship. The Emera ideaHUB helps build ideas into physical products for a healthier world. We welcome diverse founders from the community alongside Dal students and graduates, so that we can collaboratively tackle challenges in climate tech, ocean tech, energy tech and biomed tech. As we close on five years, we have recognized that every one of our ventures align with at least one of the UN's Sustainable Development Goals, and this alignment with globally critical priorities and our purpose is helping us ensure our work at the HUB can have an impact.

Thank you to Emera who has helped to bring this reality to fruition. We are thrilled to celebrate this success with you.

Erin O'Keefe Graham, Director, Emera ideaHUB

Emera ideaHUB

Emera
ideaHUB

Supporting founders and growing in the transformational areas of:

CLEAN TECH

OCEAN TECH

MED TECH

CIRCULAR ECONOMY

EDUCATION & JOB TRAINING TECH

Dal at our fingertips, with customers at the centre

To meet the needs of deep tech ventures, we couple access to research expertise with insights and advice from the private sector to help founders aim for product market fit, faster.

When it comes to academic and research excellence, founders benefit from access to our Academic Director in Engineering, Dr. Clif Johnson. Clif engages a Technical Council that he convenes with cross-disciplinary expertise best suited to the Resident ventures presenting each term. Ventures benefit from connections in specialties outside of their field, suggestions on potential research partnerships, and referrals to potential graduate level talent they are hoping to hire, along with guidance on their product innovation. This is especially helpful to ventures who join the HUB without a prior Dal connection or degree, and who can benefit from non-dilutive funding that can support collaboration with the University.

It's often said that start-ups have a key advantage on incumbent businesses, and that is time: speed to market matters. Achieving that means getting it right when it comes to target customer and opportunity. Ventures that join the HUB receive access to our Engineering firm partner, Enginuity, as well as a dedicated Venture Coach. Enginuity provides rigorous exploration of customer discovery to date and helps ventures focus their validation efforts as they move to building an operational prototype. Venture Coaches are experienced deep tech founders, selected for sector expertise such as medical devices and design for manufacturing, and work to provide founders with accountability and frank feedback to help them achieve the goals they've set for their ventures, and with investors.

Enginuity Inc. engineers with ideaBUILD founder, Aruna Revolution who aims to transform menstrual products to reduce global climate change and ecological harm.

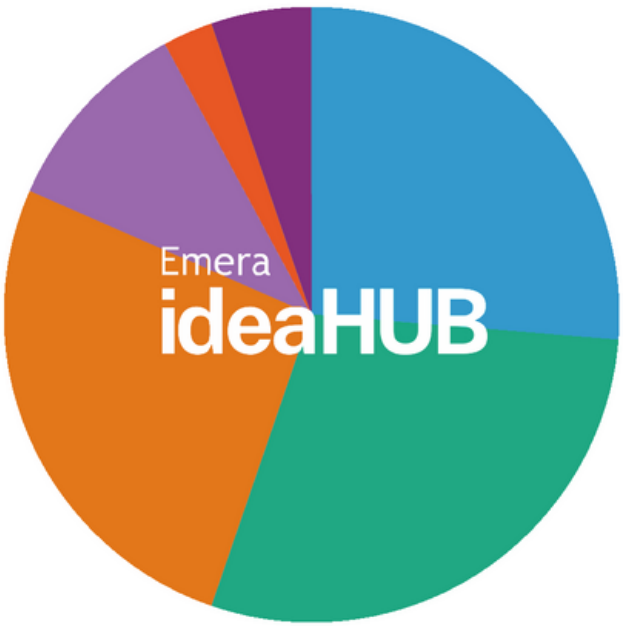
Our Impact

We build ideas into physical products for a healthier world.

We support entrepreneurs, engineers, and designers to creatively address the world's most pressing issues by developing new technologies that enable healthier lives, ecosystems, communities. All while improving our regional economy, creating jobs, and growing innovation sector in Atlantic Canada.

In our first five years, our programs have catalyzed dozens of ventures solving the world's most pressing challenges while driving innovation and contributing to the economic development of Atlantic Canada.

- **32** Ventures supported in 2023/2024
- **148** Ventures supported since 2018
- **250** Jobs reported by HUB Ventures in 2023/2024
- **571** Jobs reported by HUB Ventures since 2018
- **85%** New venture survival rate after one year of graduation
- **$88.5M+** Financing secured by current and recent alumni ventures
- **$13.9M+** Revenue and paid pilots generated by founders
- **4** In R&D Partnerships between Dal and HUB Startups



- Ocean Tech
- Clean Tech
- Ag Tech
- Med Tech
- Energy Tech
- Other

All of our founders are working towards one or more of the UN Sustainable Development Goals.

ideaHUB Supports Dalhousie Talent

Building impact: Job creations through HUB Ventures

Jobs with HUB Ventures increased from 159 in 2022-2023 to 250 in 2023-2024.

Full-Time (Canada)	Part-Time (Canada)	Employees outside Canada
140	78	32

Talent Resources

Capstone: Strengthening Atlantic Canada's innovation culture

The capstone program matches student teams with partners from industry, providing real problems from industry for teams to solve.

The Engineering Capstone projects sponsored by HUB Residents and Alumni increased by 16. Co-op students hired by HUB Residents and Alumni increased by 25.

Co-op students hired by HUB Residents and Alumni

8 → 24

2022-2023 | 2023-2024

Engineering Capstone projects sponsored by HUB Residents and Alumni

4 → 29

2022-2023 | 2023-2024

Growth Trajectory

Creative Destruction Lab (CDL) is a non-profit organization that helps early-stage science and technology startups scale their businesses. Located in Halifax, CDL-Atlantic is part of a global network that connects founders with experienced mentors, investors, and industry experts. The program focuses on maximizing growth potential by providing mentorship, resources, and access to capital. CDL's mission is to help innovative companies transform ideas into market-ready products and services through structured sessions and guidance from business leaders and researchers.

Performance Summary

Over the past three years, an average of 30% of Creative Destruction Lab (CDL) Atlantic graduates had participated in the Emera ideaHUB before joining CDL.

2021 - 2022

Drinkable
Myomar Molecular
Novaresp
Prosaris

2022 - 2023

Axtion Mobility
HOLLO Medical
Zen Energy

2023-2024

Aruna Revolution
RFINE Biomass
Katchi (Oceans)

Inspiring Future-Ready Leaders

Our role of delivering impact to the student experience at Dal is a crucial one. We recognize the importance of helping more students complement their formal degree program with access to work experiences, relationships, and opportunities they can only get through working with start-ups we incubate and the journey they're on to commercialize their products.

Our Academic Director, Clif Johnson, oversees the Faculty of Engineering Capstone program, the largest of its kind in Canada. The learning experience offered to Engineers is second to none. Founders in Residency leveraged a total of 24 Engineering Capstone projects, benefiting from these intensive 8-month collaborative design projects that occur during the final year of an Engineering degree.

Since the HUB began operating, we have been able to employ X co-op students in roles including digital marketing, analytics, and engineering. This year, our electrical engineering co-op student Dante Coulter was awarded Co-op of the Year for Engineering, a testament to what he drew from the experience both technically and as an emerging leader. Coulter was so inspired by the start-up ecosystem that he completed his degree and went to work full-time in Halifax for a scaling biomedical engineering company. We are lucky to have him in this labour market, as an innovator and growth-oriented, future-ready leader.

During Dante's final work term, he acted as an Electrical Engineering Specialist for Dalhousie Emera ideaHUB, where he worked with various start-ups of one-to-six employees, gaining exposure to the mindsets and challenges of different founders.

After three successful co-ops in a variety of work environments, Danté is now working full-time as a junior product development engineer (EIT) at ClearDynamic, a biotechnology research start-up in Halifax.

Danté Coulter, Bachelor of Engineering
One of Dalhousie's 2023 Top Co-op Students of the Year

Spotlight: **Capstone Project**

Scient

Scient helps prospectors and mining companies exponentially improve the ROI of exploration by increasing the speed and accuracy of the core images using proprietary hardware, and AI software to identify what the naked eye cannot see. Throughout the 2023 – 2024 academic calendar, Scient welcome 5 Engineering Capstone teams to work on electrical and mechanical components of their prototype.

"Working on this project has been eye-opening to the vast possibilities of mechanical engineering work in the mining industry. Through the Capstone project, in general, our team has learned how to manage an engineering project from start to finish. This has included a clear analysis of the incumbent design, working through design challenges, and honing in the final design into a useable gantry that is an improvement on the incumbent.

Working directly with Scient has allowed our team to gain an insight into the importance of mineral resource assessments and how Scient's work is important to site development in the mining industry. We learned that there is a huge opportunity for mechanical engineers in this sector, as the reliability of mechanical equipment is essential in the success of a mining project."

Melanie Worobetz
BE Mechanical Engineering
Class of 2024

Spotlight: Forging a pathway to commercialization

While many ventures are still pre-revenue when they become HUB alumni, the track record of what they're achieving after they leave is strong.

Last year, 60% of HUB Residents and recent alumni had hit pre-seed funding or beyond, and 50% of these ventures were commencing manufacturing pilots - a strong indicator for us, given that deep tech ventures are developing funding strategies that aren't restricted to VC backing, but fit for a range of business models they want to build in this province to be sustainable, successful ventures.

Emera ideaHUB start-ups have raised upwards of $88.5M in funding over the 5-year period, exceeding our target of $75M in five years - and this is only tracking what founders reported in the 24 months following their graduation from Residency.

Detect

Detect Atlantic

Detect Atlantic completed a full transmission network inspection of 2,604 towers for Emera NL, their second engagement in Newfoundland and Labrador. Emera's Corporate Strategy leader has been supportive of the Detect Atlantic venture for its potential to improve efficiency of addressing system-wide challenges in utilities through its data and software solutions.

Building ventures that build Nova Scotia

In our first five years, we've been host to 148 ventures, exceeding our target of 100. Of those ventures, 85% have survived more than a year after they left the HUB. Some, like GIT, Novaresp, Aurea, Coloursmith Labs Inc. and Rayleigh Solar Tech have become leaders in the Nova Scotia tech ecosystem, as they grow their customers on a global scale.

In this five-year period, the jobs reported by HUB alumni companies totaled 570 over these years, with 250 of those reported only in this last fiscal year. Many jobs began as co-ops with start-ups and evolved into full-time roles. And many ventures today take their role as HUB alumni as one in which they hope to play a role in strengthening our local economy. Building their ventures in Nova Scotia while setting their sights on global customers, these organizations are demonstrating that strong, growth-oriented businesses can thrive in Atlantic Canada.

Where Ideas Meet Impact: Driving Decarbonization for the Global Shipping Industry

Dalhousie grads Mo AlGermozi and Marciel Gaier aim to upend the global marine coatings industry with Graphite Innovation & Technologies (GIT), a business helping to decarbonize global shipping that finds its origin as one of the first startups through the university's Emera ideaHUB.

GIT developed marine anti-fouling coatings that are ultra-smooth, durable, and capable of improving the fuel efficiency of commercial vessels such as cargo ships and tankers.

"At a high level, we're trying to really make an impact through reducing fuel consumption on vessels," AlGermozi explains. "When the vessel is moving through the water, less drag means the engine isn't working as hard, which means there's a lot less fuel burned. We're also trying to show vessel owners that it's time to move on to high performance coatings that do not leach or harm our oceans."

"Dalhousie has a lot of resources in terms of entrepreneurship. The ideaHUB provided us from the start with a place to operate from. We were two students and they provided us with funding for prototyping, resources, mentorship, and just overall exposure to the industry. Dal definitely got our name out there. Spinning out of a university is a big thing."

Mo AlGermozi, CEO and Co-founder of Graphite Innovation & Technologies (GIT)

Thank you

Thank you to the entire team at Emera. Your continued support is helping to enable this growth and impact across the innovation ecosystem.

We are fortunate to have partners who participate in our work and celebrate the achievements of the programs and founders who are working to create solutions in climate tech, ocean tech, energy tech, and biomed tech.

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