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COVE

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INVESTMENT. INNOVATION. IMPACT.
**THE FORCES SHAPING CANADA'S
TECHNOLOGY ECOSYSTEM**



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Canada's National Venture Capital
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COVE'S IMPACT

SCALED INNOVATION PLATFORM

- 92 Resident Companies
- 710+ Active Clients (560+ Canada | 150+ International)
- National Platform with Global Reach

GLOBAL TALENT & INDUSTRY PIPELINE

- 5,000+ Post-Secondary Students & Youth Engaged
- 100+ Start-Ups Integrated into Custom Programs
- 30+ Companies Attracted to Canada via Programs

CAPITAL & MARKET ACCESS

- Investor Network Across Canada, United States & Europe
- Curated Access to Venture & Strategic Capital
- Industrial Partnerships in Canada, Germany, United Kingdom & United States

DEFENCE & DUAL-USE LEADERSHIP

- Canadian Accelerator Site for NATO DIANA
- NORAD Modernization S&T Delivery Partner
- Canada's First Secure Defence Innovation Hub

PROVEN COMMERCIALIZATION

- 80+ Technologies Commercialized or Deployed at Sea
- 80%+ Facility Utilization Rates
- Real-World Testing that Speeds Market Entry



NATIONAL PERSPECTIVE

The Next Chapter in Canada's Defence Innovation Story

By Melanie Nadeau, Chief Executive Officer, COVE

During the Second World War, Canada's National Research Council, working with universities, private industry, and the military, played a critical role in developing and mass-producing radar technology. The result was Night Watchman, the first operational radar system deployed anywhere in North America. It played a major role in Canada's coastal defence, protecting against German warships and U-boats attempting to enter Halifax Harbour under cover of darkness and fog.

That effort demonstrated how Canada's innovation ecosystem can rapidly translate scientific and technological advances into operational defence capabilities when the right partnerships and infrastructure are in place.

Today, Canada faces a similarly complex security environment. Emerging technologies, from artificial intelligence and advanced sensing to robotics and autonomous systems, are transforming how defence capabilities are developed. Often, these technologies originate within civilian innovation ecosystems, meaning the challenge is not only developing them quickly, but also connecting innovators to the defence community in secure and effective ways.

At COVE, that bridge is already being built.

A key part of this effort is Canada's first Defence Innovation Secure Hub (DISH). The Maritime DISH, being piloted at COVE, is intended to provide secure infrastructure, including networks, facilities, systems, and cleared partnerships, that enables classified collaboration among Canada's innovation ecosystem, with a particular focus on maritime and Arctic technologies.

As one of the Carney government's early steps to address Canada's Arctic undersea domain awareness imperative, the Maritime DISH can help move sovereign sensing and surveillance capabilities from development to operational use more quickly and securely. Much like Night Watchman, it is designed to create a protected collaboration environment that helps move real capabilities into the field faster.

The model is part of a broader effort to rebuild Canada's secure industrial infrastructure. A significant portion of Canada's growing investment in national defence will go toward developing dual-use technologies critical to Arctic and maritime security. Delivering on that investment will require close coordination among Canadian scientists, industry and government, along with trusted international partners.

COVE also supports emerging companies through its role as a Canadian accelerator site for NATO's Defence Innovation Accelerator for the North Atlantic (DIANA). The program connects dual-use, deep-tech innovators with testing facilities, mentorship, and defence partners across the NATO alliance. By linking innovators into allied networks early, the program helps accelerate the development of technologies that address critical defence and security challenges.

Reaction Dynamics, a Montreal-based aerospace company that was part of COVE's first DIANA cohort, is developing pioneering hybrid rocket technology designed to enable rapid, responsive satellite launches, capabilities that can help allied nations quickly deploy or replace critical space infrastructure. In March 2026, the company was awarded an initial \$8.3 million under the Government of Canada's \$105 million Launch the North initiative, supporting its roadmap toward a maiden orbital launch targeted for 2028. Their experience shows how connecting innovative companies with defence networks, funding, and testing environments can help Canadian small and medium-sized enterprises (SMEs) scale while positioning Canadian innovation as a critical part of NATO's future defence architecture.

At the same time, COVE works with industry and defence partners to solve operational challenges and strengthen our domestic supply chain by aligning with major procurements. Through the Naval Technology Innovation Challenges Program, delivered in partnership with Thales Canada, SMEs are invited to develop solutions to meet real navy needs. Companies like Hexsor Scientific have already demonstrated how technologies originally designed for commercial use, such as advanced air-quality monitoring systems, can be adapted to support naval operations and become part of the supply chain.

Together, these initiatives reflect a broader shift in how defence capability is developed in Canada. By bringing these elements together, COVE is helping ensure Canada can translate emerging technologies into operational capabilities that strengthen national security and economic growth. 🌐



EMPLOYEE PROFILE

James Kesten: Building the Path from Innovation to Investment at COVE

At COVE, venture growth is about more than capital alone. For James Kesten, it means strengthening the marine and dual-use technology ecosystem in Canada and internationally, supporting company ambitions in connecting founders with customers, funding pathways, collaborators, supply chain partners, and strategic investors.

“Venture growth at COVE is about building the right environment around a company to accelerate its scale,” Kesten explains. “When capital, customers, policy, and partners are aligned, companies can move faster and with greater confidence.”

A central focus of James’ work is working with companies to evaluate the type of capital that best supports their growth strategy. Not every company is suited to venture capital, and some are better supported by debt financing or non-dilutive grants that enable steady, revenue-driven expansion while maintaining strategic control. Encouraging disciplined capital decisions helps strengthen both individual companies and the broader innovation ecosystem.

For companies pursuing investment, alignment is essential. “Aligned capital” — funding that offers more than a cheque — can significantly improve long-term success. Investors who share a company’s mission, provide access to networks and customers, or bring sector expertise create value beyond the initial investment. Companies must clearly demonstrate how their business model fits a fund’s thesis across stage, geography, and sector focus.

Strengthening investment readiness is also central to James’ approach. Pitch+Roll, hosted during COVE Demo Day, brings Canadian and international investors together with high-growth companies in a closed-door session where innovators can demonstrate their technologies in real time. The program supports pitch training and validation to prepare companies for broader fundraising conversations.

James also leads the biannual Canadian Ocean Enterprise White Paper series, which benchmarks Canada’s data-driven part of the maritime sector against leading global markets including the United Kingdom and the United States while tracking commercialization activity, research and development trends, and ecosystem maturity. An updated edition will be released later this year, offering new data and insight into the sector’s continued growth.

Beyond programming, James engages national and international investor networks to position Canada – and COVE’s ecosystem – as a hub for marine and defence innovation. COVE’s participation in the 2026 Invest Canada Conference, hosted by the Canadian Venture Capital & Private Equity Association, supports dialogue with national and global investors around technologies serving commercial and defence markets.

International market access and resilient supply chains are also increasingly important as Canadian technology companies expand into markets across the United Kingdom, Europe, and Asia.

“Canada has the research strength, defence presence, and ambitious founders,” Kesten says. “Our role is to connect those assets in a way that attracts long-term capital and strategic relationships.” 🌐





COMPANY FEATURE: CELLULA ROBOTICS

Unlocking the Next Generation of Autonomous Underwater Vehicles

How Cellula Robotics is redefining endurance in subsea operations with hydrogen fuel cells.

Cellula Robotics is transforming how we explore and manage the underwater world. By integrating hydrogen fuel cell technology into its autonomous underwater vehicles (AUVs), the company is enabling missions that can last weeks instead of days — without constant surface support.

These long-endurance vehicles open new possibilities for subsea inspections, environmental monitoring, offshore energy operations, and maritime security.

"Hydrogen fuel cell systems allow us to rethink what autonomous missions can look like," says Eric Jackson, President and Chief Technology Officer at Cellula Robotics. "Instead of designing around battery limits, operators can deploy vehicles that travel thousands of kilometres and remain submerged for extended periods."

By combining hydrogen power with advanced autonomy and modular payload systems, Cellula's AUVs can perform complex missions with unprecedented range and flexibility.

Cellula Robotics' presence at COVE reflects the growing importance of Atlantic Canada as a hub for advanced technology.

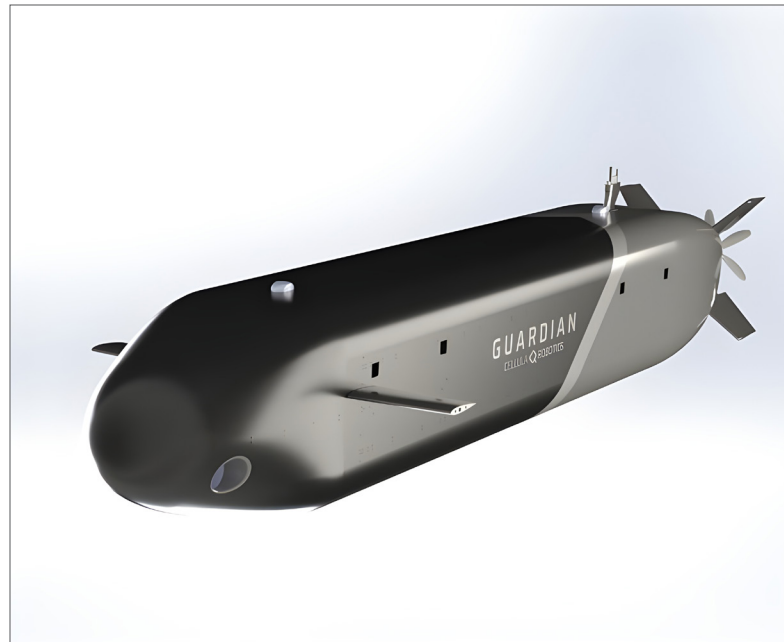
The collaborative ecosystem brings together start-ups, global companies, researchers, and defence organizations working on everything from subsea robotics and marine sensing to offshore energy technologies. For Cellula Robotics, this environment supports both innovation and deployment.

"COVE provides a unique environment where marine and defence technology companies can collaborate with industry, researchers, and government partners," says Matt Dempsey, who leads the company's East Coast business development efforts. "That kind of collaboration helps accelerate how quickly new technologies move from engineering to real-world missions."

Through its Atlantic Canada presence, alongside teams in Vancouver, Houston, and the United Kingdom, the company works with offshore operators, defence partners, and research organizations to explore new applications for long-endurance AUVs.

Cellula Robotics is advancing its technologies through key programs at COVE that help bring its long-endurance AUVs from development to real-world operations. Through commercialization programs, Cellula Robotics is refining its hydrogen-powered AUVs for both national and collaborative international applications, ensuring the vehicles meet the rigorous demands of subsea monitoring, infrastructure protection, and autonomous operations.

Founded in 2001, Cellula Robotics has built expertise in robotics, subsea engineering, and autonomous control systems. Today, the company is applying that experience to develop vehicles capable of operating farther, longer, and more efficiently than traditional AUVs.

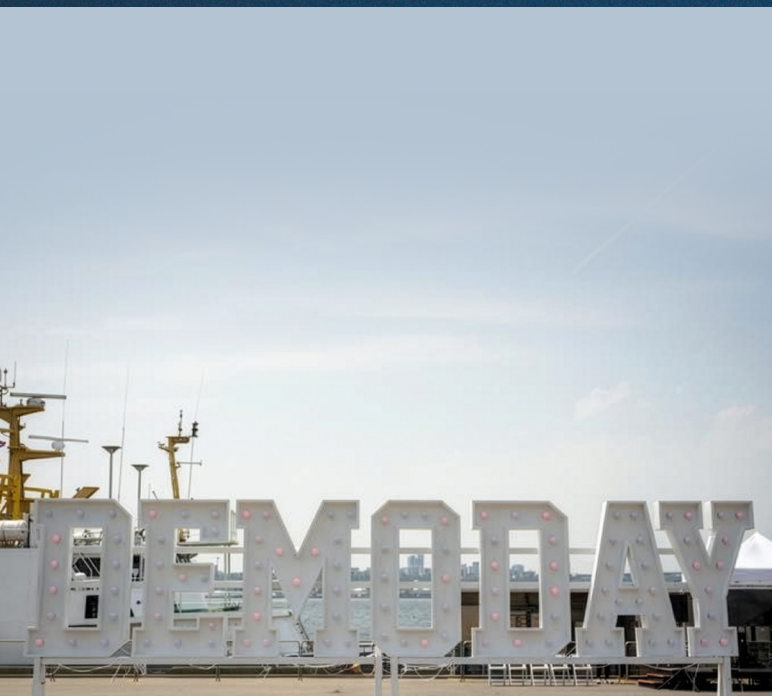


Cellula Robotics Guardian AUV

Hydrogen fuel cell propulsion is central to this vision. Combined with advanced navigation software and modular payload systems, Cellula's platforms can support a wide range of missions — from seabed mapping and offshore infrastructure inspection to environmental monitoring and maritime security.

"Autonomous systems are transforming how we work in the marine environment," says Richard Mills, Chief Commercial Officer. "By extending endurance and range, we're opening the door to entirely new kinds of subsea operations."

As demand grows for persistent underwater monitoring, technologies like hydrogen-powered AUVs will play an increasingly important role in the global marine sector. Through its partnership with COVE, Cellula Robotics is helping lead that transformation. 🌐



600+

ATTENDEES

62

EXHIBITING
COMPANIES

14

COUNTRIES
REPRESENTED

∞

ENDLESS
CONNECTIONS

Where Innovation Meets Action (and Deals Happen)

If you want to see innovation move from concept to real-world impact, COVE Demo Day is where it happens.

Experience Technology in Action

Returning on June 11, 2026, COVE Demo Day is a full-day, outdoor experience that brings together the decision-makers and innovators who make technology work. Attendees see deployable solutions tackling real-world challenges, from autonomous systems and maritime technologies to advanced cybersecurity tools. Founders present their solutions firsthand, investors evaluate opportunities, and government and defence leaders assess operational readiness — all within a highly curated, action-oriented environment.

“COVE Demo Day was nothing short of inspiring,” says Mathieu Johnson, CEO at Marble, a UK-based company and former participant of the Innovate UK Ocean ScaleUp Accelerator, and currently part of the NATO DIANA Accelerator Programme. **“Flying our drones as part of the opening ceremony and receiving personal praise from COVE’s CEO was an unforgettable highlight. The event was a hub of innovation, we met countless potential partners and generated multiple high-value commercial opportunities, putting our work firmly on the map.”**

Focus on Outcomes, Not Presentations

What sets Demo Day apart is its focus on real outcomes. Every interaction connects innovators with the decision-makers who can bring their technologies to market. Attendees see proven, deployable solutions in action, gain direct access to founders, investors, and senior leaders, and engage in high-value networking with global leaders across industry, defence, academia, and government.

The environment is designed to turn conversations into pilots, partnerships, and deals, making every connection meaningful.

A Place Where Deals Happen

Investor forums and strategic industry engagement showcase ideas. Demo Day turns them into action. Here, technologies are proven in real time, connections are built on trust, and conversations become commitments. This is where deals happen, pilots launch, and partnerships take flight.

For many companies, these conversations quickly translate into pilot projects, new customer relationships, or investment discussions that continue long after the demonstrations end. 🎯

BUILDING PROFICIENCY:

Training Crews on CFAV Canso at COVE

“Our primary goal is to give future crew members a deep understanding of the vessel’s systems, from propulsion to auxiliary equipment, so they can operate and maintain the tug safely and efficiently,” says Tristan Serça, Project Manager – Construction at Groupe Océan.

At COVE’s marine terminal, Groupe Océan delivers structured training for personnel assigned to CFAV Canso (YTB 652), the newest auxiliary tug supporting Royal Canadian Navy fleet operations on Canada’s East Coast. The training integrates classroom instruction, onboard systems familiarization, and supervised sea time to ensure crews understand both the vessel’s technical systems and its handling characteristics in harbour conditions.

Unlike commissioned warships, Canadian Force Auxiliary Vessels (CFAVs) are operated by civilian marine professionals rather than Royal Canadian Navy sailors. Although civilian-crewed, the vessels function under Navy operational direction and follow established naval safety and harbour protocols. This structure ensures dedicated harbour support capability while allowing warship crews to remain focused on operational readiness and deployment responsibilities.

“Two days at sea are particularly important because that’s when crews experience how CFAV Canso responds compared to older tugs,” Serça explains. “The classroom sessions reinforce that experience by covering system operation, maintenance requirements, and troubleshooting.”

COVE’s proximity to HMC Dockyard Halifax allows crews to train in the same harbour environment where the tug operates daily. The terminal provides a secure berth for mooring and ample space for practical exercises alongside commercial marine traffic, while the adjacent facility offers meeting rooms for theoretical instruction.

“COVE provided the infrastructure we needed to conduct both theory and practical sessions efficiently,” says Serça. “Their team was responsive and supportive, which allowed us to focus on vessel systems and safe operation.”





Hands-on Systems Training to Prepare the Next Generation of Harbour Crew

The training concentrated on the vessel's main propulsion engines, azimuthing Z-Drive thrusters, deck winches, firefighting systems, and auxiliary electrical and hydraulic systems. While Royal Canadian Navy personnel already have experience operating tugboats, the sessions focused on how CFAV Canso handles differently compared to older tugs. Two days of sea exercises gave crews practical experience with the vessel's unique configuration, response to propulsion and thruster inputs, and manoeuvring characteristics, ensuring confident and precise operation in harbour conditions.

Beyond familiarization, the exercise supports long-term workforce continuity. "Structured, system-specific training ensures crews are prepared to operate and maintain the vessel safely from day one," Serça notes. "That continuity of knowledge is essential for sustained operational readiness."

By leveraging dedicated marine infrastructure and coordinated planning, the training conducted at COVE demonstrates how harbour-based instruction can strengthen operational capability while operating within an active commercial environment. 🔄

Vessel Spotlight:

CFAV Canso (YTB 652)

Designation & Role

CFAV Canso (YTB 652) is a Canadian Navy Auxiliary Vessel designed to assist Royal Canadian Navy ships with maneuvering in and out of port. Its primary function is harbour support — ensuring safe docking, undocking, and vessel positioning.

Crew & Operation

Operated by a civilian crew, CFAV Canso is based at HMC Dockyard Halifax, where it supports daily naval operations.

Propulsion & Maneuverability

The tug features main propulsion engines coupled with Z-Drive thrusters, providing 360-degree thrust control for precise maneuvering in confined harbour spaces. Training emphasizes coordination of thrust vectors, engine monitoring, and safe handling under operational conditions.

Deck & Auxiliary Systems

Deck operations rely on winches, towing gear, and mooring systems, with crews trained in load management and safe operation. Auxiliary systems — including electrical, hydraulic, and navigational equipment — support all onboard operations. Firefighting systems are integrated for emergency response and operational safety.

Fleet Modernization Context

CFAV Canso is part of the Royal Canadian Navy's auxiliary fleet renewal program, alongside vessels such as CFAV Haro and CFAV Barkerville on the West Coast. These new-generation tugs replace aging vessels and enhance harbour support capability.



VENTURE CAPITAL

Canada's Goldilocks Moment for Dual-Use Capital

Article provided by Benjamin Bergen, Chief Executive Officer,
Canadian Venture Capital and Private Equity Association

For decades, Canada left defence and security largely outside the mandate of domestic private capital. Simultaneously, government procurement has been cautious, fragmented and slow to provide early demand certainty. The result has been a familiar pattern: Canadian founders built breakthrough technologies, but without consistent procurement certainty or industrial strategy, their companies often scaled overseas or were acquired by foreign firms once significant capital was required.

What is different today is not a single announcement or program, but a structural alignment that has long been missing. Policy, capital and capability are beginning to move in the same direction, creating a Goldilocks moment for investors in ocean, defence and dual-use technologies.

Halifax illustrates that alignment in real terms. The city and the broader Atlantic region have steadily developed into a strategic base for defence innovation, supported in large part by COVE. Through COVE, companies are testing and commercializing technologies in maritime surveillance, autonomous systems and ocean security. Halifax is also distinguished by its proximity to operational customers, including the Royal Canadian Navy, NATO partners and allied procurement bodies. For investors, that access reduces one of the most persistent risks in emerging sectors: the gap between technical promise and commercial traction.

It is therefore fitting that CVCA's Invest Canada '26 conference will be hosted in Halifax this May 26-28, with COVE as our co-presenting sponsor. In this context, Invest Canada represents more than a gathering of capital allocators. It reflects a broader convergence of public demand, institutional validation and private investment within a region that is increasingly critical to Canada's ocean and defence economy.

Canada's capacity to generate foundational innovation has never been in doubt. Geoffrey Hinton at the University of Toronto helped pioneer modern artificial intelligence. Dalhousie University's Jeff Dahn has been at the forefront of lithium-ion battery research for more than 30 years, work that has directly influenced the rise of companies like Tesla. Time and again, Canadian institutions have incubated technologies that underpin entire industries. The persistent challenge has been capturing more of the downstream value within our own borders.

Across allied markets, defence-tech has already matured into a standalone asset class. In the United States, defence-tech funding surpassed US\$19 billion in 2025, nearly doubling from the previous year. In Europe, defence and security-tech venture funding reached US\$5.2 billion in 2024, while total NATO-aligned defence-tech venture capital funding hit US\$13.7 billion in 2025.

Canada's capital deployment has been far more restrained. PitchBook data shows just over \$7 billion deployed across 547 deals. Relative to allied benchmarks, Canada remains underweight, leaving significant room for growth.

A key reason this moment feels different is the emergence of a more deliberate and coordinated federal strategy. With \$81.1 billion in new military spending announced in last November's federal budget, alongside the creation of BOREALIS earlier that year, defence procurement is being tied more directly to long-term economic resilience. The advantage of predictable procurement is not merely equipment acquisition; it establishes governments as anchor customers, which in turn de-risks early-stage investment and signals to private capital that there is durable demand.

Dual-use innovation offers a clear illustration of how value can compound. During the Second World War, canola oil was used as a lubricant for naval and aviation equipment. Today, it is a ubiquitous consumer staple found in households across the globe. GPS began as a U.S. military navigation tool in the 1970s and is now embedded in logistics networks, digital mapping platforms and everyday consumer applications. Countless other technologies developed for defence spill into civilian markets, generating industries that far exceed their original scope.

Allied governments are building formal infrastructure to accelerate that cycle. NATO's Defence Innovation Accelerator for the North Atlantic (DIANA) operates a network of test centres and accelerator sites designed to validate and scale dual-use capabilities across member states. In parallel, the NATO Innovation Fund has been structured as a €1 billion venture capital vehicle focused on deep technologies relevant to defence, security and resilience. Canada is participating in an ecosystem where demand, validation and capital are increasingly integrated across borders.

Taken together, these elements form a circular growth dynamic. Government demand provides start-ups with their first customers and operational validation. Private capital enables those firms to scale beyond pilot programs and into export-ready enterprises. As scaled companies generate returns and create high-value employment, those benefits are recycled into the next generation of innovation. For years, these components existed in isolation. Today, they are beginning to reinforce one another.

The question before Canadian investors is not whether the opportunity exists, but whether we will participate fully in shaping it. The defence ecosystem is maturing, procurement signals are strengthening and allied demand is expanding. In moments like this, capital allocation decisions will shape the future of Canada's economy. 



CVCA
CANADIAN VENTURE CAPITAL
PRIVATE EQUITY ASSOCIATION

Kongsberg Geospatial and TACTIQL Sign MOU to Drive Dual-Use Innovation in Geospatial and ISR Solutions

Kongsberg Geospatial signed a Memorandum of Understanding (MOU) with Canadian start-up TACTIQL Inc., marking a new collaboration to advance dual-use geospatial and intelligence, surveillance and reconnaissance (ISR) capabilities. The agreement establishes a framework for the two companies to pursue joint opportunities in both defence and commercial markets in Canada and abroad.

Kongsberg Geospatial is a leader in real-time geospatial visualization and situational awareness software, known for its TerraLens® platform that supports mission critical applications across air traffic control, defence and civilian contexts. TACTIQL, a NATO DIANA company founded by a former Canadian Armed Forces officer, specializes in conditioning and enriching airborne sensor data to enable interoperability with command-and-control systems.

By combining Kongsberg's visualization and decision-support technology with TACTIQL's data processing expertise, the partnership aims to explore integrated solutions that enhance informed decision-making across military ISR, fires/targeting and dual-use data analytics. This collaboration reflects growing momentum in Canada's innovation ecosystem to deliver "made-in Canada" technologies that strengthen situational awareness, support operational readiness, and bridge commercial and defence needs.

Source: <https://sensorsandsystems.com/kongsberg-geospatial-and-tactiql-sign-mou-to-drive-dual-use-innovation-in-geospatial-and-isr-solutions/>

GSTS and Open Ocean Robotics Unveil NextGen Autonomous Maritime Security System

In December 2025, Canadian innovators Global Spatial Technology Solutions (GSTS) and COVE resident company, Open Ocean Robotics, showcased a next generation autonomous maritime security system through a live demonstration off southern Vancouver Island. The exercise highlighted how uncrewed technology and artificial intelligence can deliver persistent, real-world coastal surveillance.

During the trial, an Open Ocean Robotics solar powered uncrewed surface vessel (USV) conducted an autonomous intelligence, surveillance and reconnaissance patrol covering 12 square kilometres in busy harbour waters. Alongside it, GSTS's AI-driven OCIANA® platform provided a dynamic intelligence layer that maintained continuous situational awareness by analysing sensor data in real time.

The combined system's predictive analytics enabled the USV to detect multiple surface contacts, identify anomalous vessel behaviour and issue autonomous alerts — enhancing both safety and operational insight. By fusing sensor outputs into a unified maritime picture, the partnership demonstrated how autonomous platforms can extend surveillance reach without increasing risk to personnel.

Both companies remain wholly Canadian-owned, strengthening domestic capability in maritime defence and security technology. The demonstration marks a significant step forward in leveraging autonomous and AI enhanced systems to support persistent maritime domain awareness and bolster coastal safety.

Source: <https://gsts.ca/resources/newsroom/gsts-and-open-ocean-robotics-unveil-nextgen-autonomous-maritime-security-system/2025/>

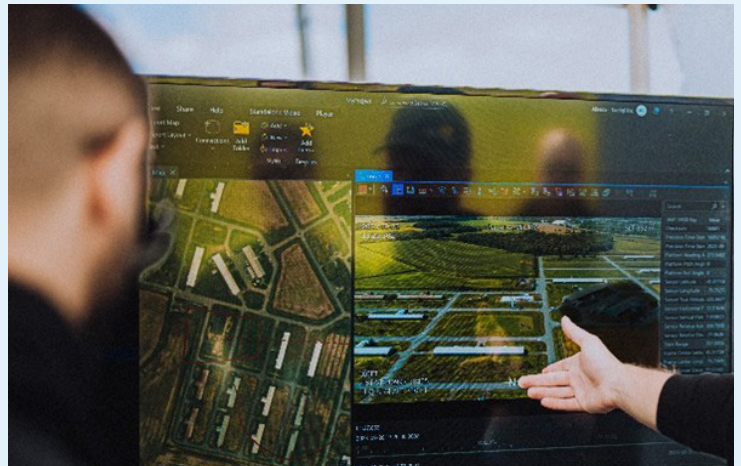
Larus Technologies Awarded \$2.5 Million Royal Canadian Navy Contract to Advance Maritime Domain Awareness using Leading AI/ML Technology

COVE resident company, Larus Technologies, has been awarded a \$2.5 million contract by the Royal Canadian Navy (RCN) to advance maritime domain awareness using cutting-edge artificial intelligence (AI) and machine learning (ML) technology. Under the agreement, Larus will customize and deploy its Total::Foresight® AI/ML platform to help the RCN process large volumes of maritime data more effectively, delivering near real-time insights that improve safety, security, compliance and operational decision-making at sea.

The Total::Foresight® system applies advanced analytics to historical and live positional data, enabling predictive modelling, anomaly detection and enhanced situational awareness. Integrating these capabilities with existing naval systems will support autonomous threat detection, multisource data fusion and simulation driven operational planning — all tailored to the RCN's unique strategic requirements.

This contract reflects growing confidence in Canadian AI innovation and demonstrates the Royal Canadian Navy's commitment to adopting forward-looking technologies that strengthen maritime security. It also highlights Larus' role in bringing homegrown, AI-driven solutions to complex defence challenges and advancing the integration of intelligence led systems into modern naval operations. 🌐

Source: <https://www.newswire.ca/news-releases/larus-technologies-awarded-2-5-million-royal-canadian-navy-contract-to-advance-maritime-domain-awareness-using-leading-ai-ml-technology-857715399.html>



TACTIQL's FULCRUM technology



Open Ocean Robotics' DATAXPLORER™



Larus Technologies' artificial intelligence and machine learning technology



TALENT DEVELOPMENT

Charting the Workforce for Canada's Defence Industrial Strategy

Canada has entered a defining decade shaped by geopolitical uncertainty, rapid technological change, and a renewed focus on sovereignty, economic security, and domestic industrial capacity. Through its Defence Industrial Strategy (DIS), Canada has set an ambitious course: to build sovereign, next-generation capabilities and strengthen the industrial base critical to national security and long-term resilience.

But this ambition will not be realized through procurement alone. It will be determined by whether Canada has the skilled workforce to build, integrate, and sustain these capabilities, making talent a core pillar of defence readiness, industrial capacity, and economic resilience.

Demand is accelerating across the entire defence and industrial ecosystem from advanced engineering, digital systems, and cybersecurity to skilled trades and front-line operators. At the same time, the labour pool is tightening: an aging workforce, rising retirements in critical trades, and a constrained talent pipeline are colliding with a rapid shift toward software-enabled, data-driven, and systems integration capabilities required to support increasingly complex, mission-critical platforms.

This is both a generational opportunity and a national imperative. Meeting it will require a coordinated, national approach to talent development, expanding early exposure, strengthening apprenticeship sys-

tems, building clear pathways for engineers and technical talent, and enabling rapid upskilling, reskilling, and cross-sector mobility. It must also create equitable pathways for Indigenous, Northern, rural, and under-represented communities as essential partners in economic security, sovereignty, and coastal stewardship.

COVE is uniquely positioned to play a leading role in this effort through its national workforce strategy, *Charting the Course*, a coordinated, systems-level approach aligned directly to Canada's DIS. Developed through extensive engagement with industry, governments, Indigenous partners, and training institutions, the strategy identifies nine priority areas, from K-12 STEM engagement to apprenticeship supports and mid-career transitions, alongside targeted focus on Arctic workforce development, Indigenous talent pathways, and critical capabilities in digital and autonomous systems.

At its core, COVE's model is built on experiential learning and real-world application. Whether enabling careers in autonomous systems, marine technology, cyber resilience, or clean energy, the focus is on building the capabilities that matter across sectors, technical literacy, systems thinking, and hands-on experience, while enabling workers to transition across related industries and roles.

By convening industry, government and academia, COVE is working to build talent pipelines directly connected to Canada's procurement needs, industrial priorities, and emerging technologies.

As Canada advances the DIS, fragmented approaches to workforce development will not be enough. Success will depend on integrated, national-scale solutions that connect people to opportunity with greater speed and precision.

Canada's future competitiveness, resilience, and sovereignty will be built not only on innovation, but on the strength of its workforce. And in charting that path forward, COVE is helping to lead the way. 🌐

Nine Workforce Priority Areas

- 1 **Early Engagement in K-12 Education**
- 2 **Strategic Access to High School Students**
- 3 **Post-Secondary Engagement Fuels Talent Pipelines**
- 4 **Support for Early Career Transitions is Needed**
- 5 **Bridging Sector Relevance for Non-Marine Skillsets**
- 6 **Transferable Skills are Underutilized Due to Systemic Barriers**
- 7 **A Unified Sector Message is Missing**
- 8 **The Arctic Region Requires Strategic Workforce Attention**
- 9 **Data and Research Gaps Limit Workforce Planning**

Data Across Depths

Water is the world's most critical resource. From the ocean to lakes, rivers, and harbours, managing aquatic environments effectively requires timely, accurate data and collaborative decision-making. Digital Labs is addressing this challenge with a centralized, technology-driven approach that empowers organizations to understand, predict, and act on challenges at a global scale.

At the centre of this work is Digital Harbour, the initiative that first demonstrated how integrated, collaborative data platforms could transform the way water environments are understood and managed. Originally developed to connect data and stakeholders across Halifax Harbour, the platform has proven the value of bringing diverse datasets together in a single, trusted environment.

As the initiative has grown, so has its scope. Digital Harbour is now evolving into Digital Labs — a broader platform designed to support data-driven insight across multiple bodies of water, from local harbours to lakes, rivers, and ocean environments around the world. By integrating measurements from the seabed to satellite observations, the platform provides a model for organizations seeking to leverage centralized information to improve operations, reduce risk, and accelerate research.

The Global Mission

Digital Labs is redefining how industry, research institutions, and governments interact with aquatic environments. By consolidating diverse data sources — from environmental sensors to operational and satellite observations — Digital Labs creates centralised, trusted platforms for actionable insight across all water systems.

Organizations can use these platforms to explore complex scenarios, evaluate interventions, and make data-driven decisions that improve operational efficiency, mitigate environmental risk, and support sustainable management practices. The framework is scalable and able to support everything from local harbour management to global ocean strategies.

Pillars of Impact

1

Near Real-Time Data

Live data streams can provide visibility into conditions across the ocean, lakes, rivers, and harbours, enabling proactive management and timely response.

2

Integrated Insights

By combining environmental, operational, and satellite data, stakeholders gain a comprehensive understanding of water systems, supporting informed, evidence-based decision-making.

3

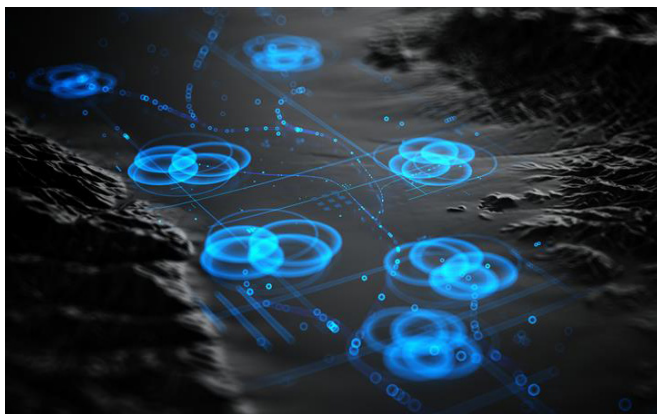
AI-Ready Foundations

Structured datasets provide the foundation for advanced analytics and AI applications, enabling predictive modelling, automation, and discovery of insights that were previously unattainable. This capability will allow organizations to simulate conditions, explore “what-if” scenarios, and test strategies before implementation, reducing risk and optimising outcomes across all types of waterways.



Delivering Measurable Impact

Digital Labs' approach goes beyond data collection. By fostering collaboration across organizations, sectors, and regions, it ensures that insight translates into practical, sustainable action. From improving operational efficiency and resource planning to supporting environmental stewardship and regulatory compliance, Digital Labs helps stakeholders turn knowledge into tangible outcomes.



Emerging digital infrastructures are reshaping connectivity from the seabed to space.

A Model for Industry Leadership

While Digital Harbour began as a regional initiative focused on Halifax Harbour, it demonstrated the powerful potential of centralized, collaborative water data platforms. Digital Labs now builds on that foundation, expanding the model to support organizations working across waterways locally and globally.

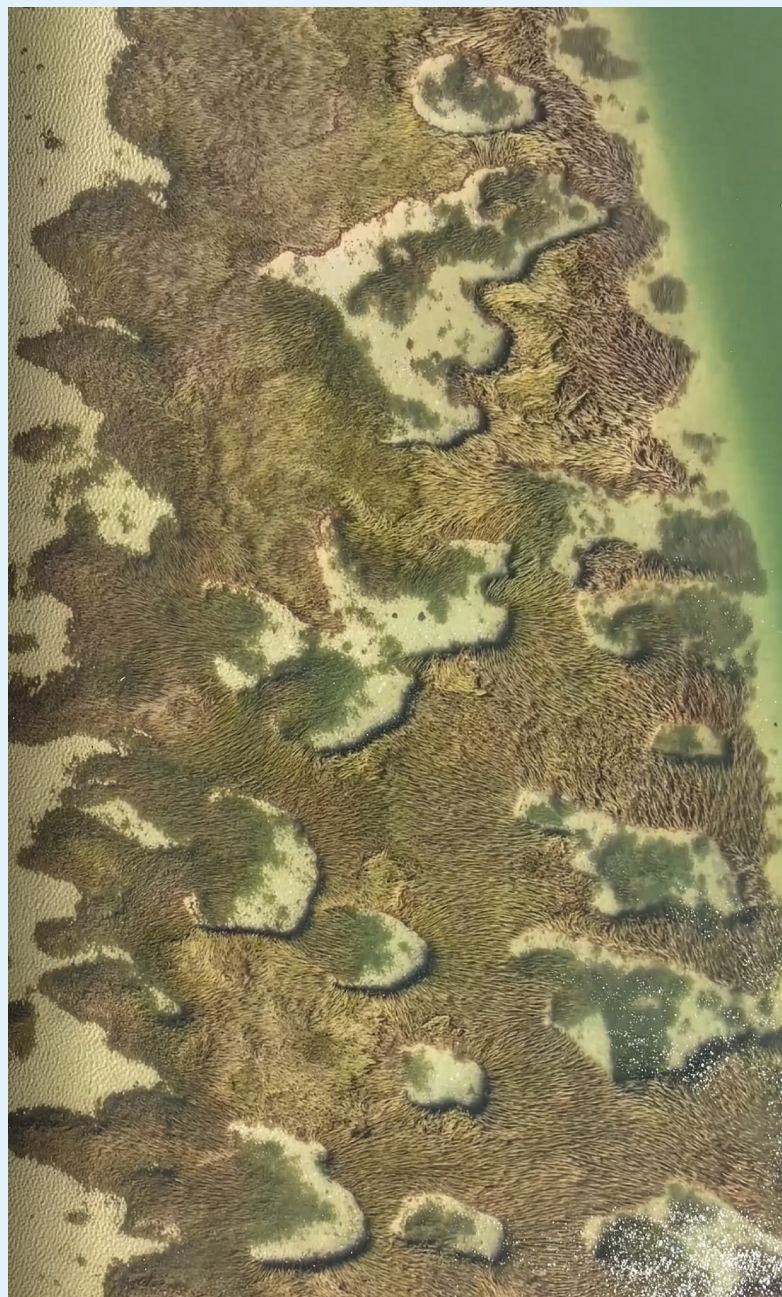
In an era where water management is critical to operational success, environmental responsibility, and long-term planning, Digital Labs provides the tools and insight organizations need to stay ahead — from seabed to space.

Eelgrass Monitoring: A DIGITAL HARBOUR USE CASE

COVE's Eelgrass Monitoring Project demonstrates how integrated data platforms like Digital Harbour can support better understanding and management of coastal ecosystems. Led in collaboration with the Community Eelgrass Restoration Initiative Lab at Dalhousie University, the project combines aerial and underwater imagery to map eelgrass habitats along Nova Scotia's southern and eastern shores.

By collecting and analyzing environmental data over time, the initiative generates valuable insights into eelgrass health and habitat distribution. These data-sets can be organized and visualized through digital platforms like Digital Harbour, transforming complex environmental observations into accessible, actionable information.

As Digital Harbour evolves into the broader Digital Labs platform, projects like this illustrate the potential of integrated data systems to support ecosystem monitoring not only in Halifax Harbour, but across coastal environments and waterways around the world. The project's digital rendering of eelgrass distribution highlights how integrated data and visualization tools can help researchers, rightsholders, policymakers, and stakeholders better understand ecosystem change and support informed decision-making for aquatic resilience and environmental stewardship. 🌊



By consolidating diverse data sources — from environmental sensors to operational and satellite observations — Digital Labs creates centralised, trusted platforms for actionable insight across all water systems.

ACCELERATING ALLIED INNOVATION: Inside NATO DIANA's Path to Deployment

The global defence and security landscape is evolving rapidly, creating new opportunities for innovators developing next-generation technologies. Through its role as a Canadian accelerator site for the NATO DIANA Programme, COVE is helping bridge the gap between breakthrough innovations and the pathways needed to scale — connecting companies to capital, procurement opportunities, and multinational adoption across the NATO alliance.

Earlier this year, COVE welcomed its 2026 NATO DIANA cohort to Halifax — an international group of companies from Canada, France, Iceland, the Netherlands, and the United States advancing technologies across autonomous systems, subsea monitoring, maritime situational awareness, and advanced marine platforms.

As these companies begin their acceleration journey, COVE's role is to connect them with the testing environments, partners, and investment networks needed to validate and scale their solutions, and strengthening their readiness to deliver capabilities across allied defence networks

COVE hosted an event to celebrate the new cohort, bringing together allied leaders from defence, industry, government, and the investment community to explore how advanced technologies can move from concept to deployment more quickly. The event highlighted a key shift underway across allied nations: accelerating the adoption of new capabilities while strengthening the innovation ecosystems that support them.





A fireside chat between Melanie Nadeau, CEO of COVE, and Isabelle Hudon, President and CEO of the Business Development Bank of Canada (BDC,) explored the significance of BDC's multi-billion commitment to Canada's defence and security ecosystem, highlighting the growing momentum behind defence technology development and investment. The conversation underscored how evolving capital strategies are helping strengthen Canada's role within the allied innovation network. During the discussion, Nadeau posed a forward-looking question about what Canada's investment community might look like over the next decade.

Responding to the question, Hudon reflected on the long-term evolution of the ecosystem:

"In 10 to 15 years, I hope the investment community across Canada will reach a level of maturity that mirrors the progress we are seeing in the dual-use technology sector. What is especially encouraging in Atlantic Canada is the way the full ecosystem is beginning to come together. **If we want a healthy, sustainable innovation landscape, we need a 360-degree understanding of the sector — one where capital, technology, and market opportunity evolve in alignment.**"

The event also featured a panel on rapid adoption and commercialization with perspectives from defence operators, investors, and technology leaders on evolving defence priorities reshaping procurement pathways and creating new opportunities for innovators to deliver solutions that meet both commercial and defence needs.

By bringing together innovators, operators, and capital, the DIANA Accelerator program is helping ensure that the most promising technologies move beyond the lab — toward real-world deployment across allied markets. In doing so, DIANA is not only accelerating innovation, but strengthening the ecosystem that enables it. ●

2026 NATO DIANA Cohort at COVE

Meet the 12 innovative companies shaping the future of dual-use technology.

CANADA



Lux Bio delivers bioluminescent, biodegradable illumination that provides safe, sustainable light instantly.

FRANCE



Amphitrite combines satellite and in-situ data to provide accurate mapping of oceanic sound speed and enhance sonar detection.



ClearDrop uses acoustic surface-wave technology to keep optics operational in all weather conditions.

ICELAND



Hefring Marine empowers maritime domain awareness by leveraging existing assets.

NETHERLANDS



Oceano Robotics provides underwater monitoring and surveillance of submarine communication and power cables.

UNITED STATES



Composite Energy Technologies (CET) reduces the cost and production time of unmanned underwater vehicles without compromising performance.



HyperKelp provides autonomous buoy networks that deliver persistent, low-cost maritime situational awareness.



Orpheus Ocean develops ultra-scalable autonomous platforms for deep seabed monitoring and surveillance.



Pliant Energy Systems develops a stealthy amphibious robot for ISR and mine countermeasures in complex nearshore environments.



StrateSea Technology accelerates mission-ready subsea intelligence using multi-sensor AI.



VICTUS Technologies provides all-domain, localisation-assured autonomy for missions where GPS and communications are unavailable.



Vatn Systems offers a low-cost, modular AUV designed for multi-mission undersea operations.



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