



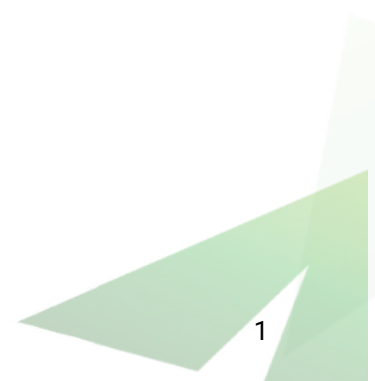
DAIR | OCTOBER 23
TO INNOVATE | **2025**
NAVIGATING **CANADIAN** AEROSPACE

**INSIGHTS AND OUTCOMES FROM
DAIR TO INNOVATE 2025**



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Executive Summary

The DAIR To Innovate 2025 Conference and Tech Showcase brought together leaders from industry, academia, and government to confront the most pressing realities facing Canada's aerospace sector: acute workforce shortages, mounting productivity pressures, accelerating defence and cyber requirements, and the urgent need to decarbonize. Organized by Downsview Aerospace Innovation & Research (DAIR), the event served as a national platform to align strategies, share concrete solutions, and translate discussion into action.

Innovation once again emerged as a central theme, with a strong focus on sustainable aviation and digital transformation. Speakers highlighted pathways to reduce aviation's environmental impact through sustainable aviation fuel (SAF), advanced propulsion concepts, operational efficiency, and new demonstrator platforms supported by programs such as Initiative for Sustainable Aviation Technology (INSAT). Concrete examples from OEMs and SMEs showed how targeted R&D and stacked funding can move decarbonization from aspirational targets to measurable outcomes.



Collaboration remained a cornerstone, with particular attention on how to support SMEs as they navigate complex markets and growing defence opportunities. Discussions emphasized pan-Canadian models that unite SMEs, OEMs, Tier-1s, academia, and non-profits, including DAIR's supplier initiatives and INSAT's national network. Speakers underlined the need for a "Team Canada" approach to align regional strengths, avoid duplication, and position Canadian aerospace as a coherent, globally competitive ecosystem.

Emerging technologies and workforce development were identified as inseparable priorities. Sessions explored the adoption of digital twins, AI-enabled design and manufacturing, and automation, alongside strategies to attract, train, and retain skilled workers in the face of accelerating retirements and intensifying global competition. New models of short-burst, stackable training, deeper industry-college partnerships, and enhanced outreach to youth, women, international students, and underrepresented groups were presented as critical to building the next generation of aerospace talent.

The conference also spotlighted enabling capabilities such as cybersecurity compliance (CMMC/CPCSC) and M&A as levers for growth. Case studies illustrated how better business practices, cyber readiness, and disciplined integration can help SMEs scale, access defence markets, and participate in more demanding global supply chains. These stories reinforced the value of partnerships and structured frameworks in tackling complex structural challenges.

DAIR To Innovate 2025 concluded with a clear call to move from pilots to scaled impact. By leveraging proven collaboration models, accelerating digital and sustainable innovation, and preparing the workforce for the demands of tomorrow, participants were encouraged to shape a more resilient, productive, and climate-conscious aerospace industry. DAIR reaffirmed its role as a convenor and catalyst, committed to enabling impactful collaboration across Canada's aerospace innovation ecosystem.



Context

The DAIR To Innovate 2025 event brought together a broad cross-section of Canada's aerospace community, including industry leaders, SMEs, researchers, academic institutions, government agencies, and technology partners. Building on the momentum of previous years, the 2025 edition addressed the sector's most urgent and evolving challenges: a tightening labour market, accelerating defence and cybersecurity requirements, global supply chain pressures, and the imperative to improve productivity and decarbonize operations. This year's discussions were also shaped by new national and international pressures, including recently imposed U.S. tariffs affecting Canadian aerospace exports and heightened regional engagement with the participation of the Cities of Toronto, York, and Mississauga, marking their first formal presence at the event.

Hosted by Downsview Aerospace Innovation & Research (DAIR), the event provided a national platform for meaningful dialogue and practical insights. Participants explored strategies to scale digital transformation, strengthen the talent pipeline, modernize supply chains, and accelerate sustainable aviation through programs such as INSAT. These discussions took place against a backdrop of increased defence spending, heightened global competition, and a rapidly shifting technological landscape in which AI, automation, and advanced materials are redefining industry expectations.

A recurring theme throughout the day was the power of coordinated cross-sector collaboration. Speakers highlighted the need for deeper partnerships between OEMs, Tier-1 suppliers, SMEs, academia, and government to ensure Canada remains competitive, productive, and capable of delivering on growing domestic and global demand.

With a strong focus on workforce development, digital adoption, defence readiness, and sustainable innovation, DAIR To Innovate 2025 reinforced that the future of Canadian aerospace depends on shared effort and collective ambition. The event underscored the essential role that ecosystems like DAIR play in enabling collaboration, removing barriers, and supporting the growth of a resilient, future-ready aerospace sector.



Why DAIR To Innovate matters to Canada?

DAIR To Innovate is a working forum rather than a traditional conference, it brings together the intersecting challenges that define the country's aerospace competitiveness: workforce shortages, productivity pressures, defence and cybersecurity requirements, and the urgent need to decarbonize. These issues cut across supply chains, talent pipelines, regulatory frameworks, and innovation systems, and cannot be addressed in isolation. The event provides a national space where industry, academia, and government can align on shared priorities and coordinated solutions.

The conference plays a critical role in reducing fragmentation at a time of heightened global competition, rising defence spending, and evolving trade pressures. Speakers consistently emphasized that aerospace excellence in Canada is national, not regional. Initiatives such as DAIR's supplier programs and the pan-Canadian INSAT network demonstrate how coordinated action can accelerate innovation, reduce duplication, and help ensure that intellectual property, advanced manufacturing, and high-value jobs remain in Canada.

Across sessions, participants shared concrete examples of progress already underway: new workforce training models, AI-enabled tools to improve productivity, cybersecurity frameworks enabling access to defence markets, and sustainable aviation initiatives translating emissions targets into measurable outcomes. By convening OEMs, SMEs, academia, and government in a single forum, the event creates direct pathways from discussion to partnerships, pilot projects, and funded initiatives.



Key Takeaways

1. Government

For government stakeholders, the conference reinforced the need for sustained and coordinated action across policy, procurement, and skills development. Key takeaways include maintaining long-term investment in aerospace R&D and R&T to anchor intellectual property and advanced manufacturing in Canada; accelerating defence procurement pathways that prioritize Canadian capability where it exists; and aligning immigration, training, and certification systems with industry workforce needs. Speakers also highlighted the importance of enabling innovation through “try and buy” mechanisms, access to secure co-development facilities, and clearer, earlier guidance on cybersecurity certification to support SME participation in defence supply chains.

2. Industry (OEMs and Tier-1s)

For OEMs and Tier-1s, DAIR To Innovate underscored the importance of active ecosystem leadership. Actionable outcomes include engaging SMEs earlier in program lifecycles, clarifying technical and compliance requirements in advance, and supporting supplier readiness for digitalization and cybersecurity. Workforce development emerged as a shared responsibility, with emphasis on expanding apprenticeship pipelines and strengthening partnerships with colleges and universities. On sustainability, industry leaders were encouraged to continue integrating SAF, electrification, and advanced aerodynamics into near- and mid-term roadmaps rather than treating decarbonization solely as a long-horizon objective.

3. Academia

Academic institutions were positioned as key enablers of both talent and technology adoption. Priority actions include accelerating short-burst, stackable training aligned with real industrial needs; embedding students more deeply in applied R&D with SMEs and OEMs; and strengthening mechanisms for rapid curriculum adaptation as technologies evolve. Closer collaboration with industry on digital tools, AI, and automation was identified as essential to ensuring graduates are prepared for increasingly data-driven aerospace environments.

4. SMEs

For SMEs, the conference delivered highly practical guidance. Preparing early for cybersecurity compliance (CMMC and CPCSC), investing incrementally in digital tools, and seeking support before entering defence markets were repeatedly emphasized. DAIR and INSAT initiatives offer clear pathways to stack funding, access demonstrator platforms, and identify Canadian partners. SMEs were encouraged to start small, differentiate clearly, and view collaboration as a means to scale innovation while managing risk. The central message was clear: in aerospace, innovation is no longer optional, but foundational to competitiveness and growth.

Key Numbers

The following elements were cited throughout the conference and form an important evidence base for discussions:

Workforce

- Bombardier Defence brings approximately **1,000 apprentices per year** into its operations.
- Air Canada highlighted a **5–10 year horizon** for a severe shortage of Aircraft Maintenance Engineers (AMEs).
- The Canadian Armed Forces are seeking to recruit **over 18,000 people** in the coming years.
- Accelerating retirements over the next **10 years** were described as a major risk across the sector.

Sustainability and Decarbonization

- Aviation currently accounts for approximately **3% of global emissions**, with projections rising to **24% by 2050** without intervention.
- Safran indicated that **75% of its €2 billion R&D/R&T budget** is now dedicated to decarbonization.
- INSAT initiatives highlighted SAF as having the potential to contribute up to **60% of aviation emissions reductions**.

Manufacturing and Digital Adoption

- National manufacturing data shared by NGen showed that **80% of manufacturers** have adopted at least one advanced technology in the past **three years**.
- Fewer than **50%** of those manufacturers reported achieving their desired business outcomes from those technologies.
- Aerospace was described as being **15–20 years behind** the automotive sector in digital adoption.

Collectively, these figures reinforce the scale of both the challenge and the opportunity facing Canada's aerospace sector. They underline why coordinated action, sustained investment, and national collaboration, central themes of DAIR To Innovate 2025, are no longer optional but essential.

Event Agenda

8:00 AM TO 9:00 AM

Participants arrival and registration

9:00 AM TO 9:25 AM

Welcoming Remarks

Phil Arthurs (DAIR)

9:25 AM TO 10:35 AM

Panel: The State of the A&D Industry

- *Sylvain Boisvert (Safran Canada),*
- *Marilyn Gadoury Wo (Bombardier),*
- *Rina Taddei (Air Canada),*
- *Janet Wardle (De Havilland Aircraft of Canada Limited)*
- **Moderator** – *Natasha Gagnon (OAC)*

10:35 AM TO 10:55 AM

Manufacturing and Supply Chain Trends and Innovations

Christy Michalak (NGen)

10:55 AM TO 11:30 AM

Tech Showcase & Networking

11:30 AM TO 11:50 AM

Workforce, Upskilling & Industrial Training

Florent Lefevre-Schlick (McMaster University)

11:50 AM TO 12:15 PM

Demystifying CMMC and CPCSC

Jonathan Clow (123 Cyber)

12:15 PM TO 1:20 PM

Lunch, Tech Showcase & Networking

1:20 PM TO 1:35 PM

Innovation for Growth: Turning Setbacks into Strengths

Melissa Swain (Nav Canada)

1:35 PM TO 2:00 PM

Fireside Chat: M&A Trends and Activity in Aerospace

- *Daniel Dobrjanski (Groupe DCM),*
- *Peter Graham (KPMG),*
- *Frédéric Loiselle (Thrust Capital Partners)*

2:00 PM TO 2:20 PM

Digital Technology Adoption

Guy Dulude (Siemens)

2:20 PM TO 2:30 PM

Transition

Phil Arthurs (DAIR) and Michel Dion (Strix)

2:30 PM TO 3:00 PM

Tech Showcase & Networking

3:00 PM TO 4:35 PM

INSAT FORUM

4:35 PM TO 4:45 PM

Closing Remarks

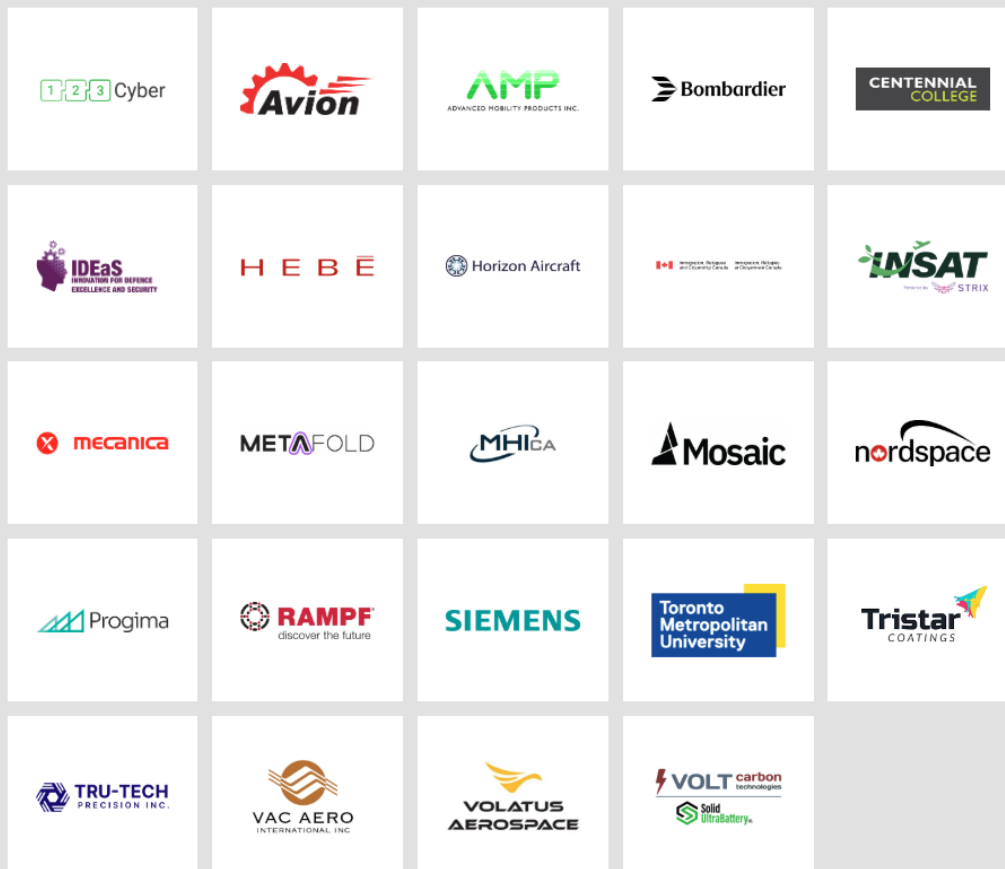
Professor Chris Damaren (UTIAS and Board member for DAIR)

Tech Showcase

The Tech Showcase remained a central attraction of DAIR To Innovate 2025, celebrating the collaboration, technological advancement, and research excellence that position Canada as a global contender in aerospace innovation. Throughout the day, attendees engaged with interactive demonstrations, explored emerging technologies, and connected directly with innovators shaping the future of the sector.

This year's showcase brought together a diverse mix of SMEs, OEMs, research groups, digital technology providers, and automation specialists, each presenting solutions aligned with the industry's most pressing needs: productivity, sustainability, defence readiness, and advanced manufacturing. Exhibitors reported steady activity during networking breaks and dedicated showcase sessions, using the opportunity to discuss partnership opportunities, potential pilot projects, and pathways to participate in national programs such as INSAT and DAIR-led initiatives.

A notable surge in interest centered on technologies supporting AI-enabled design and manufacturing, automation and robotics, cybersecurity readiness, and sustainable aviation solutions, reflecting the themes highlighted throughout the conference. Several SMEs showcased innovations developed through collaborative R&D or supported by provincial and federal funding stacks.



Speakers



Phil Arthurs
EXECUTIVE DIRECTOR
DAIR



Sylvain Boisvert
GENERAL MANAGER
Safran Canada



Julien Caudroit
CHIEF BUSINESS
DEVELOPMENT &
COMMUNICATION OFFICER
Strix (INSAT/INTAD)



Jonathan Clow
SENIOR EXECUTIVE
ACCOUNT MANAGER
123 Cyber Inc.



Phil Cole
VP BUSINESS
DEVELOPMENT
Cert Centre Canada



Christopher Damaren
PROFESSOR & DIRECTOR
University of Toronto
Institute for Aerospace
Studies (UTIAS)



Michel Dion
DIRECTOR GENERAL
Strix (INSAT/INTAD)



Daniel Dobrjanski
CHIEF COMMERCIAL
OFFICER
Groupe DCM



Guy Dulude
VP PORTFOLIO
DEVELOPMENT & SALES
ACCELERATION
Siemens Digital Industries
Software



Hon. Victor Fedeli
MINISTER OF ECONOMIC
DEVELOPMENT,
JOB CREATION AND TRADE
Province of Ontario



Marilyn Gadoury Wo
MANAGER, CAPTURE &
PROPOSAL
Bombardier



Natasha Gagnon
CHIEF EXECUTIVE OFFICER
Ontario Aerospace Council
(OAC)



Denis Godin
CHIEF TECHNOLOGY
OFFICER & DEPUTY CEO
Strix (INSAT/INTAD)



Peter Graham
PARTNER, DEAL ADVISORY
KPMG



Florent Lefevre-Schlick
SENIOR ADVISER
AEROSPACE, DEFENSE &
SECURITY INDUSTRIES
McMaster University



Frédéric Loiselle
CO-FOUNDER & PARTNER
Thrust Capital Partners



Michael Melville
CO-FOUNDER & CHIEF
OPERATIONS OFFICER
Superwake



Christy Michalak
DIRECTOR,
MANUFACTURING
DEVELOPMENT
PROGRAMS
Next Generation



Keith Strachan
CEO & CO-FOUNDER
BioFlight Fuels



Melissa Swain
ATC STANDARDS &
PROCEDURES SPECIALIST
Nav Canada



Rina Taddei
DIRECTOR, GLOBAL SALES
CORPORATE PRODUCT
Air Canada



Janet Wardle
SENIOR VP
De Havilland Aircraft of
Canada Limited



Summary of Discussions

Event Introduction

The DAIR To Innovate 2025 conference opened with remarks from Phil Arthurs, Executive Director of DAIR, who set the tone for a day focused on action, collaboration, and national alignment. Phil emphasized that innovation in aerospace occurs “at the intersection”, where R&D, industry, academia, and government converge to solve shared challenges and accelerate technological progress.

He highlighted the growing global momentum in aerospace, driven by rising defence spending, expanding space-sector activity, rapid advances in AI and automation, and renewed urgency around sustainability. Against this backdrop, Phil underscored Canada’s opportunity, and responsibility, to build a more resilient, productive, and collaborative aerospace ecosystem, one capable of competing on the world stage while addressing domestic needs.



A key message in his introduction was the importance of breaking down silos and ‘looking beyond our four walls’. Phil noted that excellence in Canadian aerospace is national, not regional, and programs like DAIR’s supplier initiatives and the pan-Canadian INSAT network demonstrate what is possible when organizations align resources and work toward shared objectives.

He reiterated DAIR’s role as a neutral convener, enabling collaboration across large OEMs, SMEs, academic partners, and government stakeholders. With themes such as workforce shortages, supply chain modernization, digital transformation, and defence readiness at the forefront, Phil encouraged attendees to approach the day with openness, urgency, and a commitment to collective action.

His remarks concluded with a call to leverage the conversations, tools, and relationships fostered throughout the event to drive measurable progress. DAIR, he affirmed, will continue to champion the partnerships and innovation pathways required to strengthen Canada’s aerospace sector for the long term.

Panel: The State of the Aerospace and Defence (A&D) Industry

MODERATOR:

Natasha Gagnon

CEO, *Ontario Aerospace Council (OAC)*

PANELISTS:

Sylvain Boisvert

General Manager,
Safran Canada

Marilyn Gadoury Wo

Manager, Capture &
Proposal Management,
Bombardier Defence

Rina Taddei

Director, Global Sales
Corporate Product,
Air Canada

Janet Wardle

Senior Vice President,
*De Havilland Aircraft of
Canada Limited*



The first panel brought together senior leaders from Safran Canada, Bombardier Defence, Air Canada, and De Havilland Aircraft of Canada, moderated by Natasha Gagnon from the Ontario Aerospace Council, to provide a clear picture of the current state of the aerospace and defence (A&D) industry. Discussions focused on workforce development, sustainability, supply-chain resilience, productivity, and Canada’s evolving role in global aerospace.

Panelists agreed that workforce shortages remain the industry’s most urgent challenge. Retirements are accelerating, far outpacing entrants and creating significant gaps in skilled trades, AMEs, and engineering roles. De Havilland highlighted the creation of a dedicated training school and coast-to-coast recruitment efforts, while Air Canada emphasized the severity of the upcoming 5 to 10-year shortage of AMEs and the need to introduce youth to aerospace much earlier. Bombardier Defence shared its model of bringing approximately 1,000 apprentices into its operations every year, supported by partnerships with universities, colleges, and job fairs across the country. Safran noted that the global scale of retirements will be “scary” over the next decade and stressed that without coordinated action, the industry risks “cannibalizing” its own ecosystem, particularly SMEs, who struggle most to compete for talent. Across organizations, panelists emphasized

the need for a shared national strategy and closer alignment between academia, government, and industry.

The discussion then turned to the role of government in strengthening Canada's aerospace sector. Safran called for continued investment in R&D and R&T to ensure intellectual property and high-value manufacturing remain in Canada. Panelists urged the government to be bolder (particularly in defence procurement) by prioritizing Canadian-made solutions where domestic capability exists. Air Canada emphasized the need to shorten innovation and certification cycles, warning that technologies taking 25 years to reach market will undermine competitiveness. Bombardier Defence added that if Canada wants a meaningful role in the aerospace future, it must "be at the table now".

Sustainability and decarbonization were also central themes. Panelists discussed pathways that include sustainable aviation fuel (SAF), electrification of ground operations and new propulsion concepts. Safran shared that 75% of its €2 billion R&D/R&T investment now goes toward decarbonization, including advancements in electric engines and propulsion efficiency. Bombardier highlighted its progress toward aircraft capable of fully sustainable operational profiles and its blended-wing research program targeting up to 50% emissions reductions. Air Canada reinforced its commitment with significant SAF purchasing, electrification efforts in Quebec City (the first fully electric ground service operation in the country) and fleet-wide initiatives to reduce weight and waste. While progress is being made, panelists agreed that the industry must move faster and more cohesively to meet 2035 and 2050 climate targets.

Discussion also addressed supply-chain pressures and the complexity of entering defence markets. Safran stressed that SMEs are essential to the ecosystem but face steep barriers in defence work, including cyber compliance, ITAR requirements, clearances, and costly facility upgrades. Bombardier Defence and Air Canada encouraged SMEs to build early relationships with OEMs, gain clear understanding of requirements in advance, and prepare for lengthy processes. Panelists expressed hope that the newly announced national defence agency, may help streamline some of these pathways.

Finally, panelists explored the technologies that will reshape the industry. AI and digitalization were seen as critical to addressing labour shortages and boosting productivity across engineering, manufacturing, and operations. They highlighted growing investments in AI at Air Canada and the need for aerospace to close the 15–20-year digital adoption gap with the automotive sector. Electrification, improved aerodynamics, autonomy, and advances in battery density were identified as key vectors for future aircraft efficiency and performance.

Manufacturing and Supply Chain Trends and Innovations

Christy Michalak (NGen)

Christy Michalak provided an insightful overview of the forces reshaping manufacturing and supply chains across the aerospace sector. She highlighted the impact of global volatility (driven by geopolitical tensions, rapid technological change, and market uncertainty) and emphasized that these pressures are creating both challenges and opportunities for Canadian manufacturers.

Drawing on recent insights from Hannover Messe, Christy noted several key shifts influencing the future of advanced manufacturing: modular, subscription-based automation, the integration of AI into everyday tools, and the normalization of data sharing across value chains. Importantly, she stressed that the primary barrier to technology adoption is now confidence, not cost, as SMEs increasingly have access to solutions once only feasible for large companies.

Christy shared national data showing that while 80% of manufacturers have adopted at least one advanced technology in the past three years, less than half have achieved their desired business outcomes, pointing to gaps in strategy, change management, and measurement. She also underscored the importance of collaboration, noting that only a small fraction of Canadian manufacturers benchmark against peers or build lean, interconnected processes.

To help organizations move forward, she outlined five practical steps: improving supply network visibility two to three tiers down, leveraging existing data for decision-making, building strong partnerships with technology providers, starting small with AI and robotics, and fostering trust and transparency across supply-chain relationships.

Overall, her presentation reinforced that advanced manufacturing is at a turning point, and that with the right mindset and collaborative approach, Canadian aerospace suppliers can compete and scale with the best in the world.



Workforce, Upskilling and Industrial Training

Florent Lefevre-Schlick (McMaster University)

Florent Lefevre-Schlick offered an honest assessment of the labour challenges facing Canada's aerospace and advanced manufacturing sectors. He emphasized that the industry is confronting two interconnected crises: a severe shortage of skilled workers and a persistent lag in adopting advanced and disruptive technologies.

Florent highlighted that demand for talent continues to rise across the country, from aerospace to battery manufacturing to the Canadian Armed Forces (CAF alone is looking to recruit over 18 000 people in the next few years), yet employers struggle to recruit for critical roles in skilled trades, technicians, and front-line leadership. He underscored that retirements, a limited pipeline of new entrants, and slow hiring pathways for international students are intensifying the pressure on companies of all sizes.

On technology adoption, many firms remain hesitant due to perceived low ROI, long payback periods, and legacy systems. Universities and training institutions are willing to support industry needs, but traditional academic models can be slow to adapt and require deeper collaboration with employers to make training programs relevant, flexible, and aligned with real project needs.

Florent outlined a promising model for workforce development built around short-burst, stackable learning, strong employer partnerships, and hands-on project experience, emphasizing that upskilling must be ongoing and paired with mentorship, especially for international students and early-career professionals seeking to enter aerospace.

Overall, his message was clear: addressing Canada's workforce and technology adoption challenges will require closer industry-academia collaboration, more agile training approaches, and a shared commitment to building the next generation of aerospace talent.

Demystifying CMMC and CPCSC

Jonathan Clow (123 Cyber Inc.)

Jonathan Clow delivered a practical overview of the cybersecurity requirements rapidly reshaping access to defence and aerospace supply chains. He emphasized that compliance with the U.S. Cybersecurity Maturity Model Certification (CMMC) and the forthcoming Canadian Program for Cyber Security Certification (CPCSC) is not optional: it is a requirement to do business with defence customers.

Jonathan underscored a key misconception: cybersecurity is not a technical project handled solely by IT teams; it is a strategic business decision that determines whether a company can bid on and retain defence-related work. He highlighted that there is no umbrella compliance, meaning every organization handling Controlled Unclassified Information (CUI/CI), including MSPs and subcontractors, must be independently certified. Primes and Tier-1 suppliers will increasingly enforce compliance through strict flow-downs across their entire supply chains.

The session outlined the phased rollout of CMMC, beginning in November 2025 and extending through 2028, with CPCSC expected to follow closely behind. Jonathan walked attendees through what to expect at each certification level and stressed the importance of starting early, as the process involves detailed gap assessments, documented controls, audits, and ongoing evidence of conformity.

He concluded by noting that while compliance requires investment, it also leads to better business practices, stronger resilience, and long-term competitiveness. For SMEs, preparing now is essential to avoid being locked out of future defence opportunities as cybersecurity becomes a formal requirement rather than a suggestion.



Innovation for Growth: Turning Setbacks into Strengths

Melissa Swain (Nav Canada)

Melissa Swain delivered an inspiring and personal presentation centered on the idea that innovation is not only technological, but also deeply human. Drawing from her own experiences within the aviation industry, she highlighted how resilience, perseverance, and fairness can drive meaningful change, even in environments shaped by rigid structures and long-standing norms.

She shared her journey of facing professional setbacks, including barriers rooted in outdated medical and industry policies, and illustrated how these challenges ultimately strengthened her resolve to advocate for more equitable and inclusive practices within aerospace. Her message underscored that innovation often emerges from questioning assumptions, pushing through adversity, and refusing to accept limitations that no longer serve the workforce or the industry. One of the unique strengths of the aerospace sector is the ability to become highly versatile because the complexity of the field demands adaptability, cross-functional skills, and continuous learning. This versatility is a powerful asset for anyone navigating a career in aerospace.

Melissa emphasized that fostering a culture of innovation requires creating space for diverse perspectives, supporting individuals who confront systemic challenges, and empowering teams to take initiative. In an industry undergoing rapid change, from digital transformation to evolving workforce expectations, her presentation served as a reminder that human resilience and organizational fairness are catalysts for progress.

Overall, her talk encouraged attendees to see setbacks as opportunities for reinvention, and to champion environments where people, and consequently, new ideas, can thrive. The talk also highlighted the evolving role of women in aerospace: more women are entering and advancing within the sector, shaping its culture, strengthening its talent pipeline, and challenging long-standing assumptions.

Fireside Chat: M&A Trends and Activity in Aerospace

PANELISTS:

Daniel Dobrjanski

Chief Commercial Officer, *Groupe DCM*

Peter Graham

Partner, Deal Advisory, *KPMG*

Frédéric Loïselle

Cofounder & Associate, *Thrust Capital Partners*

The fireside chat offered a glimpse into the current M&A landscape in aerospace, highlighting renewed market activity, heightened expectations for performance, and the growing role of private equity in shaping the sector's future. These strategic partnerships are "fueling the next phase of aerospace growth."

Organizations are once again pursuing acquisitions to accelerate growth, diversify capabilities, and strengthen supply-chain resilience. However, timelines have compressed significantly, M&A processes now move at "hyper speed", requiring rapid due diligence and clarity on integration plans from day one.

A recurring theme was the challenge of post-merger integration. Daniel emphasized that acquiring companies is often easier than successfully knitting them together. Many aerospace firms are composed of multiple small entities, and integrating their systems, cultures, and workforces are essential to achieving meaningful scale. Talent, particularly strong management and technical depth, is now a core factor in evaluating acquisition targets.

The increasing presence of private equity (PE) in aerospace was also addressed. While some OEMs express concern that PE ownership may limit reinvestment, Frédéric highlighted successful examples where PE support has accelerated modernization and growth, including within the Groupe DCM's portfolio.

On market constraints, people, not capital or equipment, remain the primary bottleneck. Companies can expand buildings and acquire machinery, but without skilled workers, growth stalls. This reality is influencing acquisition strategies as buyers place greater emphasis on workforce stability and leadership strength.

The speakers also discussed opportunities for Canadian companies entering the defence market. With the U.S. representing a trillion-dollar defence ecosystem, access to that market remains vital, though often more complex than winning business in Europe. Discipline remains essential: as Peter shared, firms may review nearly 200 opportunities before closing just a handful, underscoring the importance of strategic fit and long-term alignment.

Digital Technology Adoption

Guy Dulude (Siemens)

Guy Dulude delivered a forward-looking presentation on the role of digital technologies and AI in accelerating innovation, productivity, and competitiveness within the aerospace industry. He emphasized that while aerospace products and processes are becoming more complex, this should be seen not as a barrier but as a strategic advantage for organizations willing to embrace digital transformation, as these tools are reshaping every stage of aerospace production and innovation.

Digital technologies are at the foundation of industry 4.0, central to his message was the example of digital twins, which link design, engineering, manufacturing, and real-world operations into a cohesive, data-driven environment. Guy highlighted Siemens's leadership in industrial software and showcased how integrated digital ecosystems can reduce development time, improve product performance, and enhance supply-chain coordination.

He noted that AI adoption is rising rapidly, yet challenges remain, only a minority of companies feel confident in their AI strategy, and many lack the internal expertise needed to scale projects. To address this, Siemens is developing tools and domain-specific AI "co-pilots", trained on real engineering and manufacturing best practices, to support workers and augment, not replace, their expertise.

Several practical examples illustrated AI's potential, including optimization of aircraft antenna placement through intelligent simulation loops and the use of analytics to predict injuries and improve workplace safety. One notable metric shared was a 60% improvement in first-time code generation, demonstrating AI's impact on engineering efficiency.

Guy encouraged organizations to start small, experiment, and iterate quickly, waiting for the "perfect moment" only widens the productivity gap. His closing message was clear: Canada must accelerate its investment in R&D, digital tools, and AI-enabled processes to strengthen competitiveness, and finding the right partners is essential to beginning that journey.

INSAT FORUM

The INSAT Forum provided a comprehensive look at the national effort to accelerate sustainable aviation in Canada, showcasing new program updates, project funding reveals, SME-led innovations, and insights into the challenges and opportunities that lie ahead for the sector.

Announcement

Michel Dion (Strix)

Michel Dion opened the session by reaffirming INSAT's central mission: positioning Canada as a global leader in sustainable aviation through coordinated national action. He highlighted the significant economic potential of the initiative, noting that INSAT projects now represent a multibillion-dollar pipeline, reflecting strong industry confidence in Canada's capacity to lead on decarbonization. Michel emphasized that aviation currently accounts for 3% of global emissions but could rise to 24% by 2050 without intervention, highlighting the urgency of sustained investment and collaboration.



INSAT Program Updates

Denis Godin (Strix)

Denis provided an update on the INSAT program's progress, outlining its four core pillars:

- a) Building a national collaboration network
- b) Developing the skills and technologies of the future
- c) Providing access to demonstrator platforms
- d) Catalyzing industry-academia-government partnerships

He detailed INSAT's funding structure, including significant contributions from ISED and the growing value of approved and active projects. Examples included the SAF Flight School, illustrating how sustainable aviation fuel could contribute to up to 60% of aviation emissions reductions. Denis highlighted INSAT's role in connecting partners across provinces, enabling companies to scale innovation more quickly and more effectively.

PANEL: Innovative & Sustainable SME INSAT Projects

MODERATOR:

Julien Caudroit

Chief Business Development and Communication Officer, *Strix*

PANELISTS:

Phil Cole

VP Business Development, *Cert Centre Canada*

Michael Melville

COO & Cofounder, *Superwake*

Keith Strachan

CEO & Cofounder, *BioFlight Fuels*



The SME panel illustrated INSAT's ground-level impact, with each company sharing how sustainability-driven innovation is shaping their growth:

- Innovation as a survival strategy: all three companies stressed that for SMEs in aerospace, innovation is not optional but essential.
- Flexibility as a competitive edge: SMEs noted their ability to pivot quickly and solve problems that larger organizations often cannot address due to structural constraints.
- Funding and Canadian partnerships: INSAT's ability to "stack" federal funding with provincial programs was identified as transformative, enabling SMEs to undertake projects that would otherwise be out of reach.
- Challenges in measuring emissions impact: each company acknowledged the difficulty of quantifying direct CO₂ reductions but emphasized that INSAT's requirements encourage rigorous evaluation and continuous improvement.
- National collaboration: the program has compelled SMEs to find Canadian partners, often revealing domestic capabilities they did not know existed.
- Key advice from the panelists: start now, differentiate clearly, and seek guidance early, "nothing good comes without risk."

Special Guest Discussion

Major-General (ret.) Scott Clancy (*Royal Canadian Air Force*)

The Forum ended with a conversation featuring MGen (ret.) Scott Clancy, highlighting the urgent need for stronger defence industry collaboration, noting several systemic gaps:

- limited capacity within the CAF to absorb innovation,
- a lack of “try and buy” funding mechanisms,
- insufficient secure facilities for classified co-development,
- too few individuals with Top Secret clearance to enable meaningful dialogue,
- and a general lack of industry awareness of evolving threat environments.

Scott emphasized that innovation in defence must occur at the nexus of ideas, not restricted by outdated policy, and that industry and government must find a shared middle ground to accelerate progress.

Overall, the INSAT Forum showcased the growing momentum behind Canada’s sustainable aviation efforts. It reinforced that national coordination, cross-provincial collaboration, and strong SME engagement are essential to driving the next wave of innovation, and to ensuring Canada remains a credible player in the global sustainable aviation landscape.

By combining research excellence with industry expertise, Strix (INSAT) and its partners are shaping a future where Canadian aerospace leads globally in advanced, data-driven manufacturing.



Conclusions

The DAIR To Innovate 2025 event concluded with a renewed sense of urgency and shared purpose, emphasizing that Canada's aerospace sector stands at a pivotal moment. Over the course of the day, participants confronted the industry's most pressing challenges: workforce scarcity, productivity pressures, cybersecurity and defence readiness, and the accelerating demand for sustainable aviation. Yet the conversations also revealed a sector rich in capability, creativity, and determination.

A clear through line emerged across all sessions: Canada's aerospace future will be defined by its ability to collaborate at scale. From the national workforce strategy called for in the opening panel, to the cross-provincial partnerships showcased through INSAT, to the integration frameworks highlighted by OEMs, SMEs, and academics, the event demonstrated that progress depends on breaking down silos and working in alignment.



Speakers repeatedly underscored the need for faster digital adoption, stronger support for SMEs entering demanding supply chains, and sustained investment in R&D and sustainable technologies. The rise of AI and automation, the tightening of cyber and compliance requirements, and the global competition for talent makes coordinated action more essential than ever. Discussions throughout the day reinforced that excellence in Canadian aerospace is not regional, it is national, built on a shared vital commitment to innovation and long-term competitiveness.

As the event ended, DAIR reaffirmed its role as a convenor and catalyst, an organization dedicated to enabling the partnerships, capabilities, and technology adoption required to strengthen Canada's aerospace ecosystem.

DAIR To Innovate 2025 delivered a clear and unifying message: **Canada has the talent, ingenuity, and collaborative spirit to lead but only by working together can we fully seize the opportunities ahead.** Through continued partnership, investment, and innovation, the industry can build a more resilient, productive, and sustainable aerospace future for Canada and the world.

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