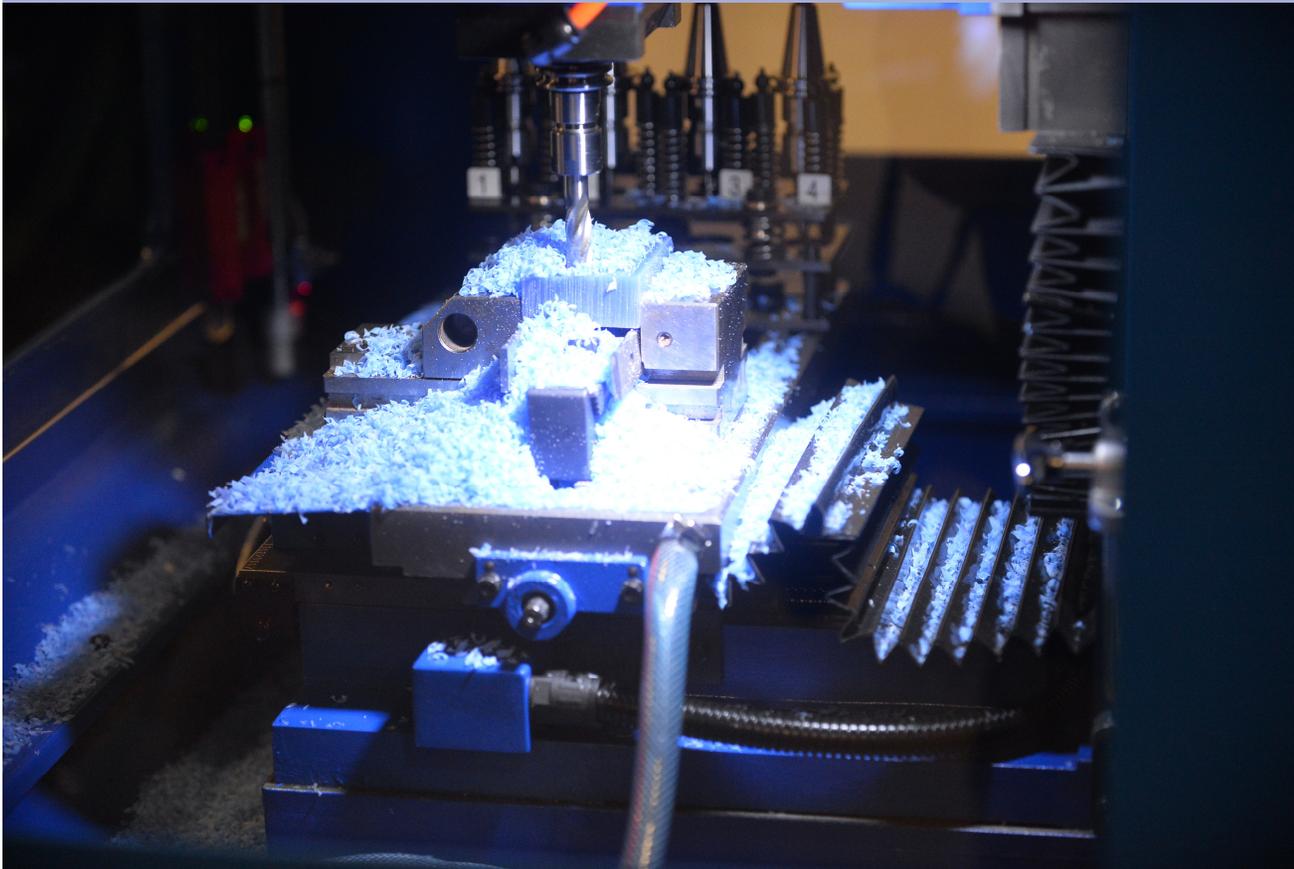




Economic Growth Agenda for Manufacturing & Aerospace

February 2019



Focus on Economic
and Workforce
Development

By Chris Carrigan

Vermont Chamber of
Commerce



Economic Growth Agenda for Manufacturing & Aerospace

January 2019

Agenda

- Supply Chain Hub and Aerospace Trade Corridor
- Strengthen ties with Quebec
- Develop workforce for manufacturing
- Tap new market opportunities



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Economic Growth Agenda for Manufacturing & Aerospace

January 2019

Vermont Aerospace

- \$2 B aerospace manufacturing & aviation industry
- Civil aviation
 - \$1.17 B in economic output
 - \$298 million in earnings
 - 9,505 direct jobs
 - 2.2% of GDP (\$704 M)



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January 2019

Vermont Aerospace

- Aerospace Manufacturing
 - \$1 B of Vermont's 3 billion manufacturing economy
 - 32,000 jobs (10.4%)
 - \$2.8 B (9%) of GDP
 - \$2.57 B in exports (2/3 of all exports)



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Economic Growth Agenda for Manufacturing & Aerospace

January 2019

Manufacturing Matters

- **Economic Multiplier Impact:**
 - Every **\$1** in manufactured goods generates an estimated **\$1.37** worth of additional economic activity.



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Economic Growth Agenda for Manufacturing & Aerospace

January 2019

Manufacturing Matters

- **Employment Multiplier:**
 - Each manufacturing job supports an additional **1.6 jobs** and each Advanced Manufacturing job supports as many as **4.9** other jobs.



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Economic Growth Agenda for Manufacturing & Aerospace

January 2019

Vermont Aerospace

- Home to industry leaders
 - GE Aviation – Rutland
 - Collins Aerospace – Vergennes
 - KAMAN – Bennington



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Economic Growth Agenda for Manufacturing & Aerospace

January 2019

Vermont Aerospace

- Home to supplier base
 - Aircraft maintenance, repair & overhaul (MRO)
 - Avionics & Sensors
 - Fuel management
 - Precision machining
 - Turbomachinery

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January 2019

Vermont Aerospace

- OEMs
- Boeing Supply Chain in VT
 - 23 suppliers
 - \$88.1 M spend
 - 2,800 Vermont jobs



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Economic Growth Agenda for Manufacturing & Aerospace

January 2019

Vermont Chamber Manufacturing Program

- Manufacturing as a economic development opportunity
- Need to deliver contacts, buyers, suppliers and contracts
- A supply chain program for aerospace, aviation, defense, naval and medical industries



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Economic Growth Agenda for Manufacturing & Aerospace

January 2019

Vermont Chamber Manufacturing Program

- 18 matchmaking events over 10 years
- Transforming Vermont into a Supply Chain Hub
- Annual Manufacturing Summit and Supply Chain Trade Show

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Manufacturing Summit





Economic Growth Agenda for Manufacturing & Aerospace

January 2019

Vermont Chamber Manufacturing Program

- 2018 Highlights & Results:
 - 120 exhibitors NE and CA
 - 450 B2B Mtgs (112 hrs)
 - 20 OEMs: Boeing, Bell Flight, BAE, Raytheon & Sikorsky
 - 30 Canadian companies for VT-QC Aerospace Trade Corridor extended to CT
 - Over 700 participants



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January 2019

Tapping Québec Aerospace

- Our work extends to a \$28 B Canadian aerospace industry
- \$13.8 B Québec aerospace cluster in and around Montreal
 - 3rd world capital of aerospace manufacturing after Seattle, WA and Toulouse, FR



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Tapping Québec Aerospace

- Québec aerospace cluster home to:
 - 204 aerospace companies
 - 190 SME suppliers
 - 41,750 workforce
 - Aerospace OEMs
 - Bombardier/Airbus
 - Bell Flight
 - Magellan Aerospace





Economic Growth Agenda for Manufacturing & Aerospace

January 2019

Aerospace Trade Corridor

- Link \$2 B VT aerospace with \$13.8 B Québec aerospace
- 2013 MOU with Aéro Montréal
- Record of Vermont Chamber work and investment in Québec
 - \$1.1 million
 - 2,412 B2B meetings
 - (603 hrs)



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Economic Growth Agenda for Manufacturing & Aerospace

January 2019

Aerospace Trade Corridor Extended

- Extend to Connecticut aerospace
 - 91,500 workforce
 - Home to Aerospace OEMs
 - UTC
 - Pratt & Whitney
 - Sikorsky
 - KAMAN



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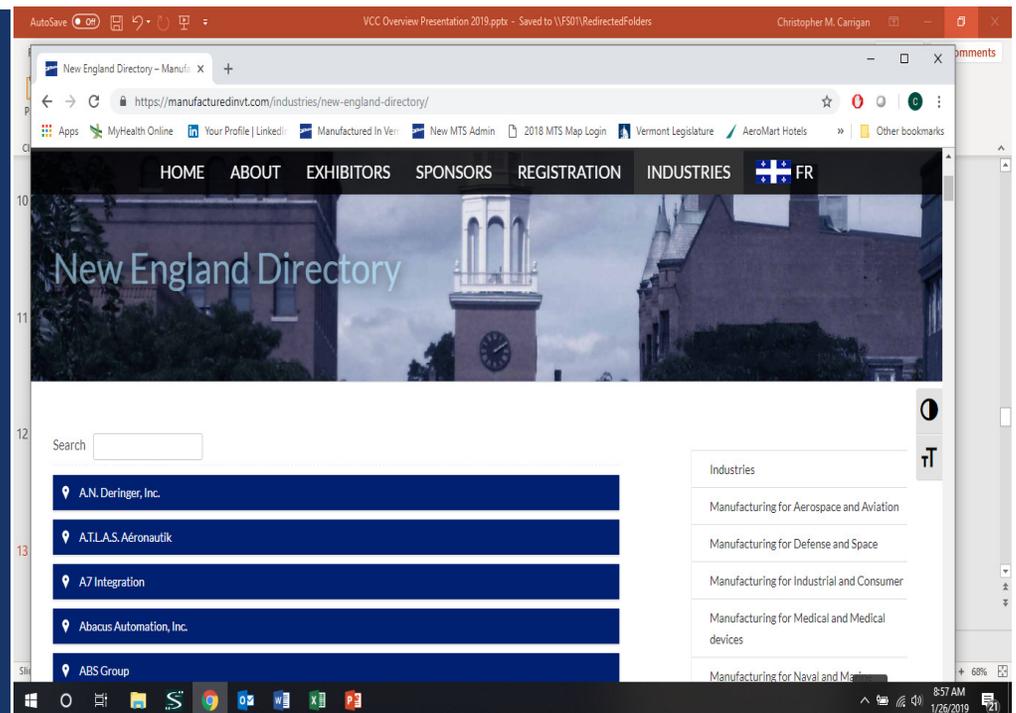
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January 2019

Vermont Chamber Manufacturing Program

- Trusted referrals and introductions
- B2B meetings for supply chain matchmaking
- Online manufacturing website & directory
 - Québec French website

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Economic Growth Agenda for Manufacturing & Aerospace

January 2019

Aircraft Maintenance as Global Market Opportunity

- \$100 billion by 2023
- Aircraft maintenance, repair and overhaul for a global fleet, includes equipment, machinery and parts for:
 - Aerostructures & Avionics
 - Cabin interiors
 - Engines, landing gears etc.



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Aircraft MRO

- Vermont's emerging MRO cluster
- Aviation sales tax exemption (6%) for economic development and competitive advantage with surrounding states
- Tap the Québec and Connecticut aerospace markets for MRO business



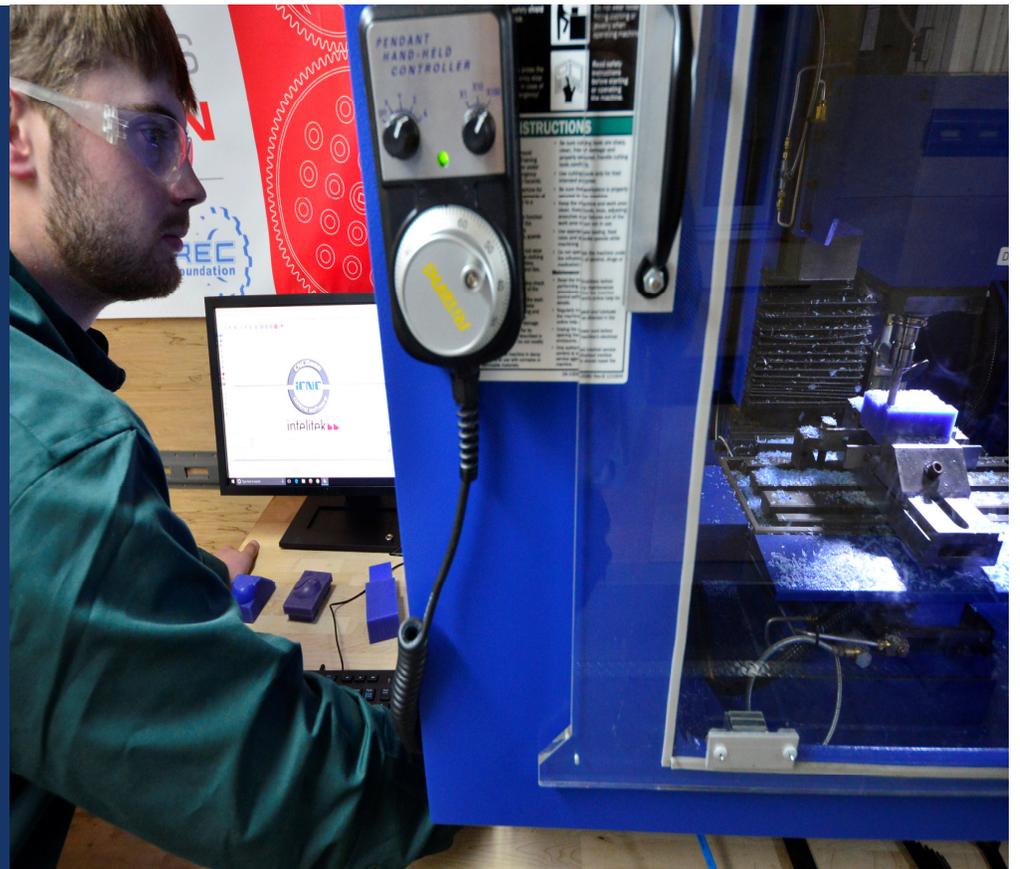


Economic Growth Agenda for Manufacturing & Aerospace

January 2019

Workforce Development

- Address Vermont's workforce labor shortage and skills gap
- **Find Your Future Workforce Initiative** with Vermont Technical College



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January 2019

Workforce Development

- For 2018 facilitated **26** interviews for **10** students at Annual Manufacturing Trade Show



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Economic Growth Agenda for Manufacturing & Aerospace

January 2019

Workforce Development

- For 2019:
 - Grow and expand Find Your Future Workforce effort
 - Connect employers with VTANG on Free Tuition Program for recruitment and retention



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Economic Growth Agenda for Manufacturing & Aerospace

January 2019

Conclusion

- Tap global aerospace MRO market and recruiting out-of-state, out-of-country (FDI) companies to Vermont and as tenants for the 10-State owned airports
 - **Hildt Aviation** – Bennington
 - **PCM Innovations** acquires Lucas Industries – Springfield
 - **BHS Composites** – St. J.



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Conclusion

- Vermont Chamber working with ACCD and VTrans on **H.620/Act 108** to market and promote economic development of Vermont airports
- Vermont Chamber working with Boeing on a potential training program for Vermont
 - Pilots, cabin crew and MRO technicians

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Economic Growth Agenda for Manufacturing & Aerospace

January 2019

Save the date!

2019 Annual

Manufacturing Summit:

A Supply Chain Event for
Advanced Manufacturing

Thursday, Sept. 26

Champlain Valley Expo

9am – 5pm

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Economic Growth Agenda for Manufacturing & Aerospace

February 2019

QUESTIONS?