



Canada's Review of Aerospace and Space Programs and Policies

Innovation and Collaboration

Brian Gear

Aerospace, Defence and Marine Branch
Industry Canada



 Government of Canada / Gouvernement du Canada





Presentation Outline

- Canadian Aerospace Industry
- Review of Aerospace and Space Programs and Policies
- Budget 2013



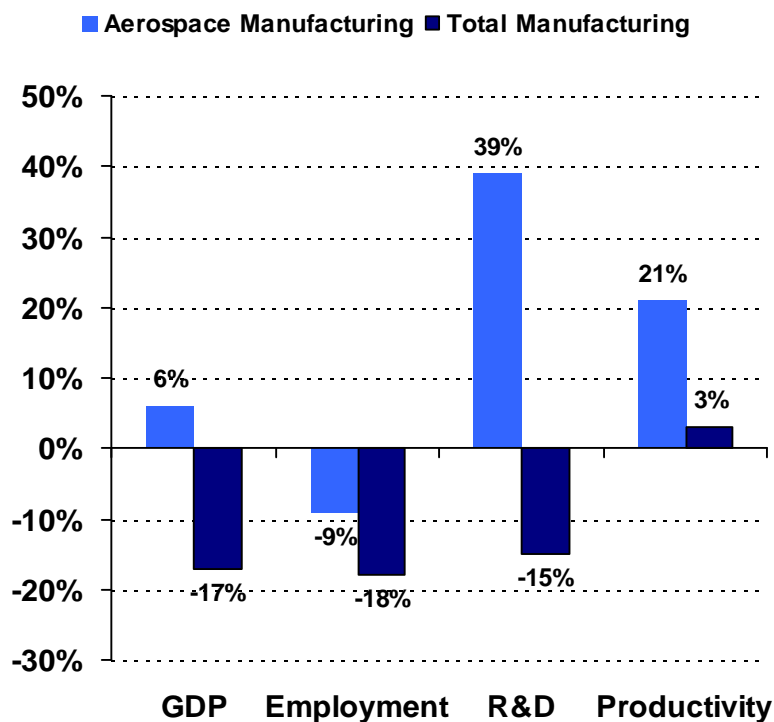
Snapshot of Canada's aerospace industry

- A significant contributor to the economy, directly adding CAD\$11.3B to GDP and employing 69k (42k in manufacturing) in 2011
 - Including indirect and induced economic activity, totals are \$25.6B and 162k workers
- Canada's most export intensive and trade diverse manufacturing sector
 - Nearly 80% of Canadian aerospace manufacturing output is exported
 - Close to 50% of aerospace products are exported outside of the United States, in contrast to 26% for total manufacturing

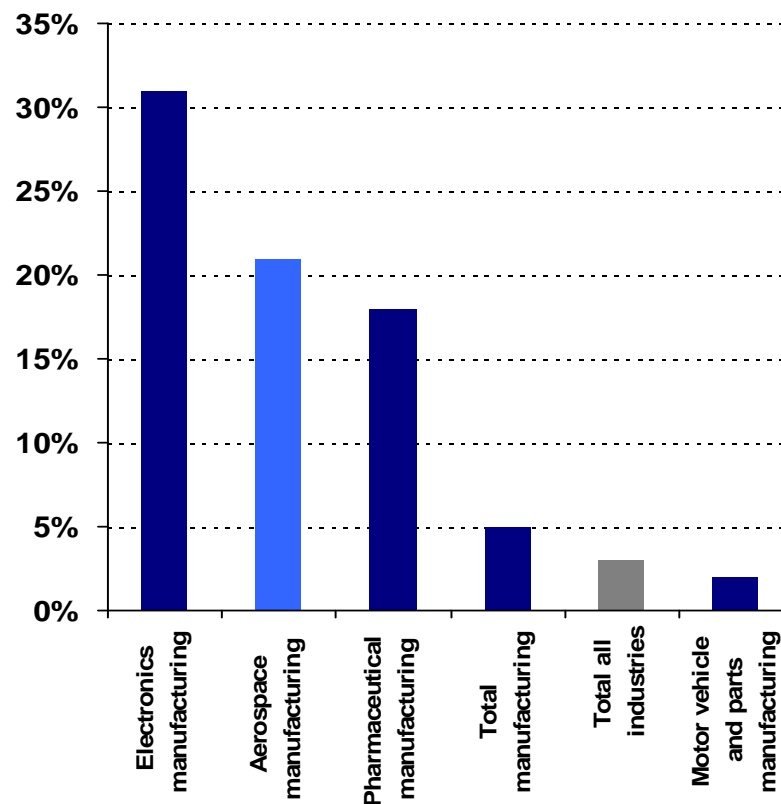


Innovation in the Canada's aerospace industry: Domestic context

Comparative 5-Year Trend (2006-2011)



R&D Share of Industry GDP in Canada (2011)



Source: Industry Canada. Economic modelling based on data from Statistics Canada



Review of Aerospace and Space Programs and Policies

- A Budget 2011 commitment; launched in February 2012
- Mandated to produce fiscally neutral recommendations on how federal programs and policies can support the long-term competitiveness of the industry
- Received input from many sources including industry-led working groups, regional roundtables, international site visits.
- The final report was publically released on November 29, 2012
- The report has two volumes (Aerospace and Space) and contains 25 recommendations

Report can be found at: <http://aerospacereview.ca>



Innovation and collaboration were two key themes

On innovation ...

- “The core truth of the aerospace industry is this: it turns on innovation at all levels. Technological superiority, from product design to manufacturing processes, is essential to the fortunes of individual firms and the sector as a whole.”
- “To secure and enhance its competitive standing, the Canadian aerospace industry must be a leader in inventing, developing, manufacturing and marketing the technologies of the future.”

On collaboration ...

- “Collaboration is worthy of support because it tends to produce more dramatic innovations in a shorter time , as a result of synergies between different players’ expertise and infrastructure.”
- “Collaboration yields better results for both participants and the economy, particularly in a sector like aerospace in which R&D is a costly, long-term undertaking.”



Key Recommendations

- **Recommendation #1:** The list of strategic sectors under the government's Science and Technology Strategy be expanded to include aerospace and space
- **Recommendation #2:** The government establish a list of priority technologies to guide aerospace-related policies and programs
- **Recommendation #3:** The government create a program to support large-scale aerospace technology demonstration
 - “The focus of this new program should be on large-scale technology demonstration that involves at least one OEM and/or tier 1 integrator, at least one university or research organization, and at least one smaller supplier.” (i.e., mandatory collaboration)



Key Recommendations

- **Recommendation #4:** The government maintain Strategic Aerospace and Defence Initiative funding at current levels –and modify its terms and conditions to make it a more effective program
 - “existing terms and conditions ... do too little to encourage collaboration among different companies and researchers.”
 - “... the criteria for receiving SADI support should provide more incentives for collaborative efforts among companies and between industry and academia, with each participant in a funded project being entitled to use resulting intellectual property to advance commercial and research efforts”
- **Recommendation #5:** The government co-fund a Canada-wide initiative to facilitate communication and collaboration among aerospace companies, researchers, and academics
- **Recommendation #17:** The government co-fund – with industry, provinces, and academic and research institutions – the purchase and maintenance of up-to-date infrastructure required for aerospace training and research purposes.



Economic Action Plan 2013 - Highlights

- Creating an Aerospace Technology Demonstration Program
- Launching consultations on the creation of a National Aerospace Research and Technology Network
- Improving the Strategic Aerospace and Defence Initiative
- Launching consultations in order to enhance access to aircraft certification



Conclusions

- Collaboration was a key theme of the Aerospace Review report.
- Working with industry and provinces on how to address the Aerospace Review's recommendations.
- Currently working on developing a response to the Aerospace Review which will include commitments made in the recently announced Economic Action Plan 2013 (Government of Canada Budget).
- Canada is very focused on collaboration, especially within our country; but consideration is being given to facilitating international collaboration.
- The Government of Canada sees value in supporting future collaboration with Europe in the Aerospace sector and will continue to discuss the possibility of a coordinated call with key stakeholders.