

Aerospace Industries Association of Canada

Responses

1. Economic Recovery and Growth

Given the current climate of federal and global fiscal restraint, what specific federal measures do you feel are needed for a sustained economic recovery and enhanced economic growth in Canada?

Canada's aerospace industry is the fifth largest worldwide. It is a knowledge-based, highly export oriented industry which employs 88,000 Canadians from coast-to-coast (150,000 including direct and induced jobs). It generates annual revenues of more than \$22 billion and invests nearly \$2 billion in R&D annually. R&D and innovation are essential ingredients for Canada to increase its competitive edge in aerospace. Opportunities in the global aerospace market demonstrate will reach more than \$4.5 trillion (\$4,500,000,000,000) over the next 20 years. Increasing aerospace R&D intensity will allow Canada to take advantage of this growth. Doing so, Canada could look to annual aerospace generated revenues exceeding \$35 billion by 2030. Canada's comparative advantage in aerospace is highly dependent on technology and innovation. Strategic investments in the full R&D spectrum will be essential for our industry to compete effectively with emerging nations that are vying for a larger share of this lucrative market, and sparing no expense. -The Technology Demonstration phase is a crucial element of the R&D spectrum is the. This is the most critical phase in the development of new aerospace technology as this is when industry showcases new systems and technologies to be integrated into future platforms. This is also where the risk of losing a mid-spectrum technology is the greatest. Yet, when proven, these technologies result in long-term implementation of lucrative technologies and jobs in Canada. It is therefore imperative for Canada to ensure that leading-edge and highly advanced technologies be supported by a Technology Demonstration Program. -The SR&ED tax credit has been a major incentive to attract and sustain R&D investments in Canada. According to an AIAC survey, changes proposed in Budget 2011 will lead to a considerable decrease in R&D investments and erode Canada's comparative advantage with other countries. AIAC recommends that the SR&ED investments be refundable and non-taxable for both labour and capital expenditures at the proposed rate of 15 percent. Supporting R&D and innovation through a Technology Demonstration and ensuring the effectiveness of the SR&ED tax credit are among the necessary measures to ensure Canada remains as a global aerospace technology leader.

2. Job Creation

As Canadian companies face pressures resulting from such factors as uncertainty about the U.S. economic recovery, a sovereign debt crisis in Europe, and competition from a number of developed and developing countries, what specific federal actions do you believe should be taken to promote job creation in Canada, including that which occurs as a result of enhanced internal and international trade?

Job creation occurs through the growth and promotion of healthy, innovative, export oriented industries such as aerospace. Forecasted growth in demand for aircraft, largely fueled by the growth of middle classes in Asia-Pacific, is expected to reach \$4.5 trillion (\$4,500,000,000,000) over the next 20 years. Canada, the fifth largest aerospace nation in the world, benefits from a competitive edge and is in a very good position to take advantage of this growth and thus create high-quality jobs for Canadians. R&D investments are a crucial factor in the development of future innovation capabilities of aerospace firms. Government has several tools in hand which can be optimized to promote their growth and innovation

including but not limited to: R&D support programs such as the Strategic Aerospace and Defence Initiative (SADI); the return on procurement spending - including making a better use of Industrial Regional Benefits (IRB) as well as the SR&ED tax credit. -SADI and its preceding programs have been the backbone of the Canadian aerospace industry's success. However an enhanced R&D program will be essential to industry's future competitiveness. As such, SADI's long term funding must be secured and the program must be optimized to better reflect the industry current reality. -The IRB policy should be used strategically to support a fund for a Technology Demonstrator Program (Q1) and the development of key technologies identified in the industry's technology roadmap. Participation of SMEs will increase the chances that Canada will be the 'go-to' suppliers for new domestic and international projects, while building a community of innovative thinkers and other highly trained personnel along the supply chain. This will generate a highly productive environment in design, development, manufacturing and support of state-of-the-art aerospace/space technologies. -Ensuring that the SR&ED tax credit remains an efficient means to maintain current and attract additional R&D investment in Canada will contribute to ensuring that we continue to create high quality jobs for Canadians. These measures will foster competitiveness and productivity, ensuring our industry is positioned to take advantage of the outstanding growth in demand for aircraft and thus create long-term, high-quality jobs for Canadians.

3. Demographic Change

What specific federal measures do you think should be implemented to help the country address the consequences of, and challenges associated with, the aging of the Canadian population and of skills shortages?

Industry growth will come from our continued excellence in technology and intellectual property generation. To achieve this, Canada must adopt strategic measures to attract, train and retain the right mix of human resources and skills. Competitors from emerging countries have the dual advantage of cost and the impact of greenfield operations with newer technologies and newer supply chain infrastructure. Canadian firms must become leading-edge suppliers and invest in state of the art technologies and infrastructure, as well as innovation to balance the challenge of the demographic challenge. The changing demographics and the new processes and technologies will define the future requirements of the aerospace industry. Not only will there be fewer workers, but the new generation will bring new skills, new thought processes and different approaches to the organization of the work and workplace. Jobs and competencies will be different in the future and the flexibility to move from position to position or from an industry sector to another will be critical. Attracting and retaining labour will continue to be one of the key challenges for the aerospace industry. Up-skilling of current employees and attracting youth for the jobs of the future (more robotics, e-based positions, less production and labour, higher technological skills) will be extremely important to fill the potential HR gaps. Again, the right tools such as a Technology Demonstration Program will drive the creation of highly paid jobs and ensure the use of the current pool of resources. Training and education being a transjurisdiction responsibility, it is imperative to create a mechanism whereby the aerospace industry develops a common framework for action, harmonizes its activities, shares knowledge and best practices and implement a new model for attracting and training the right people with the right skills for the future jobs and ensuring they are constantly upskilled as technologies emerge. This will require a mechanism whereby provincial and federal governments, academia, trade unions, research institutions and industry will guide the development of the appropriate model, strategy and action plan to achieve it.

4. Productivity

With labour market challenges arising in part as a result of the aging of Canada's population and an ongoing focus on the actions needed for competitiveness, what specific federal initiatives are needed in order to increase productivity in Canada?

The challenges inherent to the aerospace industry such as the high-risk and long pay back periods can limit companies' ability to capitalize when commercial opportunities come their way (often SMEs) and thus cause a shift in global value chains away from SMEs. The Canadian supply chain must quickly and forcefully move away from 'build to print' model to become more sophisticated and integrated suppliers using the production technologies and processes required for future aircraft production. As Original Equipment Manufacturers (OEM) continue to aggressively pursue an integrated supply chain, Canadian suppliers must adapt to offer the best products, best technology, better program management and the ability to provide the most competitive solution for future platforms. They will thus have the opportunity to vastly increase their size through an engineering intensive approach complemented by advanced manufacturing technologies and processes such as additive manufacturing, smart cell manufacturing, digitization, and smart robotics. In the wake of what can be seen as a reshoring trend, a number of initiatives should be considered to support the transformation of the Canadian aerospace supply chain to the next generation of processes and technologies, such as: -An Accelerated Capital Cost Allowance (ACCA) for the acquisition of technology machinery and equipment used for advanced manufacturing and processing as permanent feature of our tax system; -Making SR&ED investments refundable and non-taxable for both labour and capital expenditures at the proposed rate of 15 percent. This measure would help mitigate the anticipated negative impact of the proposed changes and ensure investments in productivity are maintained. -Making Industrial and Regional Benefits available to support the adoption of new process and manufacturing technologies such as additive manufacturing, digitization and e-connectedness -A Technology Demonstration Program to demonstrate the feasibility of new targeted technologies, thus increasing the ease of production and the ensuing productivity; -A renewed R&D Program such as the Strategic Aerospace and Defence Initiative (SADI) adapted to the current model of risk-sharing and collaborative research, more easily accessible to SMES and supportive of new production and process technologies.

5. Other Challenges

With some Canadian individuals, businesses and communities facing particular challenges at this time, in your view, who is facing the most challenges, what are the challenges that are being faced and what specific federal actions are needed to address these challenges?

The Canadian manufacturing industry as a whole is under assault from emerging economies that are seeking to capture an increasing share of value-added manufacturing. Many of them invest massively in infrastructure and training and foreign investments are increasingly going to these countries. The US is an exception, still attracting substantial investment through a policy of reshoring. This requires a strategic approach to manufacturing with the objective of producing differently and improving productivity. The aerospace industry is particularly impacted by the offshoring of jobs. It is at a crossroads and a dramatic shift in its strategic positioning must be made. This will be achieved through a coordinated national framework which includes a dynamic transformation of the industry by: increased innovation in products and processes and the adoption of leading-edge production processes, the development of breakthrough technologies supported by a strong technology demonstration program, attracting, nurturing and retaining a highly skilled workforce of the future, and a supportive productivity enhancement environment. Canada currently has a number of tactical measures in place; however the global competition has modified global markets and business models and a visionary, strategic framework must be adopted quickly and decisively to promote innovation as the number one Canadian

priority – thus promoting growth in high value-added manufacturing, thus reshoring work programs to Canada, creating high-value employment, improving productivity and expanding exports. To achieve this and provide the necessary impetus to achieve a game-changing position for Canada, the Government, in partnership with industry, should adopt the following measures: -Boost R&D and innovation through an enhanced SR&ED program -Implement an aerospace/space Technology Demonstration Program to provide the necessary impetus to position the industry as a leading technological position. -Ensure the long-term funding of and enhance the Strategic Aerospace and Defence Initiative in order to ensure it is adapted the context in which aerospace firms operate (i.e. support measures such as collaborative research and technology demonstration, etc.) -Maximize the tools available to government such as DND procurements to support the existing domestic key capabilities, and promote the use of the Industrial Regional Benefits to support innovation and technology development.