Technology Roadmaps

Low Cost Aerospace Composites Manufacturing, Processing and Repair

The Context

Canada has a well-deserved reputation for its sophisticated research capacity and well-educated work force required for aerospace innovation. As an aerospace nation, we are fully committed to Canada's continuing growth and success in this global industry. Our aerospace firms are innovative and among the fastest growing in the world.

The Canadian aerospace industry is globally recognized as a leading world class supplier of low cost aerospace composites manufacturing, processing and repair services.

The Challenge

To work on a collaborative basis with the National Research Council's Institute for Aerospace Research (NRC/IAR) to develop and demonstrate a methodology of gathering competitive intelligence to maximize the effectiveness of program delivery.

The Objective

To provide technology intelligence to Canadian SMEs as well as to public and private sector stakeholders who research, develop, design, manufacture and repair composite materials, structures and processes for aerospace and defence customers. This information will support their strategic technology planning needs and initiate focussed innovation projects. The project emphasizes low-cost composite manufacturing, processing and repair technologies.

Key Participants

Industry: Canadian Aerospace Association of Canada and more than 50 Canadian composites suppliers and several universities. *Government:* Industry Canada, National Research Council.

Benefits and Key Results

- Canadian SME aerospace composite materials suppliers: enhanced understanding of composite materials process/product technologies and competitive positioning in the industry worldwide;
- Investment: more focussed investment in innovation; more thorough case analysis and fuller policy guidance;
- **Stronger advice to clients:** more aerospace R&D projects; potential linkages to international opportunities. An example: Boeing US recently announced they have selected Boeing Winnipeg as one of their partners to assist in developing the new 7E7. A large percentage of this aircraft will be composites. The results of the composites TRM will be used to work with Boeing Winnipeg on an R&D project;
- IAR: establish strategic directions for NRC laboratory projects and for IAR's strategic planning exercise;
- Canadian universities and research organizations (such as Industrial Materials Institute): structured R&D programs and academic courses and training in composites.

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