EVALUATION OF THE AUTOMOTIVE AND SURFACE TRANSPORTATION (AST) RESEARCH CENTRE

NRC-EVALUATION

$ AST's Budget (2013-14 to 2018-19)

Total Expenditures: $300 Million
Total Revenues: $149 Million

AST's Resources (as of 31 Mar, 2019)

Staff: 278 full-time equivalents
Locations: Boucherville & Saguenay, QC; London & Ottawa, ON

AST supports the advanced manufacturing and ground transportation sectors to identify, develop and apply relevant science and technology that will ensure Canada's continued prosperity through revolutions in these sectors. Its activities may be divided into two sections:

Material Processing and Manufacturing: smart and digital manufacturing, and advanced materials and manufacturing processes, including electric battery materials and manufacturing.
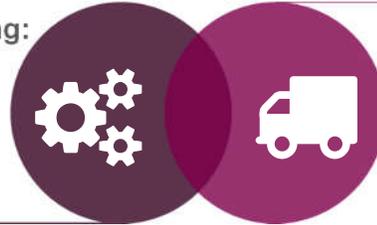
Vehicle and Transportation Systems Engineering: advanced vehicle integration, rail vehicle design, testing and evaluation, dynamic modeling and simulation, wheel / rail interaction, connected and autonomous vehicles/intelligent transportation systems (CAV/ITS), and battery safety / performance.

RESULTS

The evaluation found that AST is contributing to economic, environmental, and social impacts, as well government policy solutions.

69% of businesses adopted new technologies, thanks to working with AST

51% of clients said their project with AST has or will contribute to a cleaner environment

43% of clients said their project supports a safer, more secure and more reliable transportation system

OPPORTUNITIES TO STRENGTHEN AST'S POSITION

➤ **Relevance:** AST's competitive advantage is its breadth of research, as well as its recognized expertise and large-scale facilities. Its research is aligned with the industry and Canadian government priorities of industry, but project selection has tended to be more reactive, and AST has yet to fully exploit its competitive advantage.

➤ **Engagement:** AST has employed a variety of engagement strategies, including a successful R&D group model for sectoral engagement. Visibility among and engagement with stakeholders could improve, particularly with the research community in order to effectively implement its proposed Advanced Transportation Systems Program.

➤ **Resources:** AST has had sufficient resources to meet client needs to date, but lacks the critical mass of expertise and facilities needed to move into new and emerging areas.

➤ **Scientific excellence and impact:** AST's scientific excellence was demonstrated by technology deployment and optimization rather than publications. Business, scientific and government impacts were observed by the evaluation but insufficiently documented.

METHODOLOGY

The evaluation assessed AST's relevance and performance for the period of 2013-14 to 2018-19. It was carried out by the NRC's Evaluation team and drew on the following methods: bibliometric study, data review, document review, client survey, internal and external interviews, and a peer review by experts from industry and academia.

The full evaluation report, including the management response and action plan, is available on the NRC's website: https://nrc.canada.ca/en/corporate/planning-reporting/evaluation

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