



Alberta Innovates
Processes to Report
on Value Generation

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Related Reports

- [Alberta Enterprise Corporation Processes to Report on Value Generation—November 2021, page 147](#)
- [Processes to Manage the Student Class Size Initiative Followup—February 2020 Report](#)
- [Processes to Manage the Student Class Size Initiative—February 2018 Report](#)
- [Reporting Performance Results to Albertans Followup—August 2019 Report](#)
- [Results Analysis Reporting—July 2014 Report](#)

Appointed under *Alberta's Auditor General Act*, the Auditor General is the legislated auditor of every provincial ministry, department, and most provincial agencies, boards, commissions, and regulated funds. The audits conducted by the Office of the Auditor General report on how government is managing its responsibilities and the province's resources. Through our audit reports, we provide independent assurance to the 87 Members of the Legislative Assembly of Alberta, and the people of Alberta, that public money is spent properly and provides value.

Report Highlights



The Government of Alberta considers research and innovation **key to giving the province a competitive edge and positioning Alberta for success in the global economy** p. 169

Since 2016, Alberta Innovates' total expenditures has been

\$1.3B

Given the significance of this investment, it should have effective processes to demonstrate the value its activities generate for Albertans p. 168



We found:

Alberta Innovates did have processes to measure, monitor and report whether its research and innovation activities generate value in accordance with government priorities, but not all of these processes were effective and improvements can be made p. 168



Alberta Innovates is an Alberta government agency with the **mandate to support the achievement of the government's long-term research and innovation goals and generate value for Albertans** p. 168

By clearly linking and quantifying desired outcomes, measures and targeted planned results, Alberta Innovates can better demonstrate annually to Albertans what its programs and activities achieved in a cost-effective manner relative to desired outcomes p. 168



We recommend:

Alberta Innovates improve its reporting processes by:

- establishing targets for its corporate, program and project performance measures
- analyzing its corporate program and project results to targets and to the costs to achieve the results
- reporting, internally and externally, the results of value generated from all its research and innovation activities including the contribution to government desired outcomes

p. 180



Management started to make adjustments to its processes prior to us completing our audit p. 168

Summary

Governments across the globe are looking for ways to diversify their economy, create jobs and increase investment in their jurisdiction. To assist in accomplishing these goals, many governments are developing or expanding their research and innovation activities.

Research and innovation is a focus area of the Government of Alberta to achieving success in the global economy. Alberta Innovates is an Alberta government agency with the mandate to support the government's long-term research and innovation goals and generate value to Albertans.

Because Alberta Innovates plays an important role in provincial research and innovation, we examined the organization's processes to define and measure value, how that affects the selection and monitoring of its research and innovation projects, and its reporting of the value generated from the projects chosen.

We found Alberta Innovates did have processes to measure, monitor and report whether its research and innovation activities generate value in accordance with government priorities, but not all these processes were effective and improvements can be made.

Alberta Innovates reports to Albertans which of its activities positively impact government priorities. However, it is not demonstrating to Albertans to what extent these activities are cost-effectively generating value, nor the lessons learned for future research and innovation.

Measuring research and innovation value generation can be challenging as value generation goes beyond direct economic return compared to the amounts spent. Nevertheless, it is important to have effective performance reporting processes to assist management and demonstrate accountability to Albertans.

Alberta Innovates can improve its reporting of value generation by setting targets of what it is to achieve and analyzing the results achieved to those planned results and to their cost. Management started to make adjustments to its processes prior to us completing our audit.

Since 2016, Alberta Innovates' total expenditures are \$1.3 billion. Given the significance of this investment, Alberta Innovates should have effective processes to demonstrate the value its activities generate for Albertans.

By clearly linking and quantifying desired outcomes, measures and targeted planned results, Alberta Innovates can better demonstrate annually to Albertans what its programs and activities achieved in a cost-effective manner relative to desired outcomes.

Background

Research and Innovation in Alberta

The Government of Alberta considers research and innovation key to giving the province a competitive edge and positioning Alberta for success in the global economy.³⁸ The government wants a strong research and innovation system where post-secondary institutions, government agencies, and private industry collaborate. The desired outcomes of this system are progress in economic diversification, growth of existing industries, job creation, environmental stewardship, enabling cost-effective discovery, development and production of natural resources and enhancing the health and well-being of Albertans.³⁹

To assist in achieving these outcomes, in 2016, *The Alberta Research and Innovation Act SA 2009, Ch. A-31.7* merged four existing government research and innovation entities into one Alberta Innovates corporation. The government consolidated the agencies to ensure alignment with government priorities and to improve outcomes from its spending.⁴⁰ The Act directs Alberta Innovates to provide for the strategic and effective use of funding, grow new and existing industries, and support the application of research to improve Albertans' quality of life.

The government, through the Department of Jobs, Economy and Innovation, sets priorities, provides direction and funds Alberta Innovates.

The Alberta Research and Innovation Framework [2017] (ARIF), developed by the government in collaboration with Alberta Innovates, describes Alberta's current research and innovation priorities, focus areas and long-term targets. ARIF desired outcomes focus on six sectors.⁴¹ Each sector has three to four innovation targets to be achieved by 2030. The achievement of the ARIF outcomes requires contributions from a number of government departments and agencies, including Alberta Innovates.

³⁸ *Alberta Research and Innovation Framework [2017]*, page 1.

³⁹ *Alberta Research and Innovation Framework [2017]*, page 5.

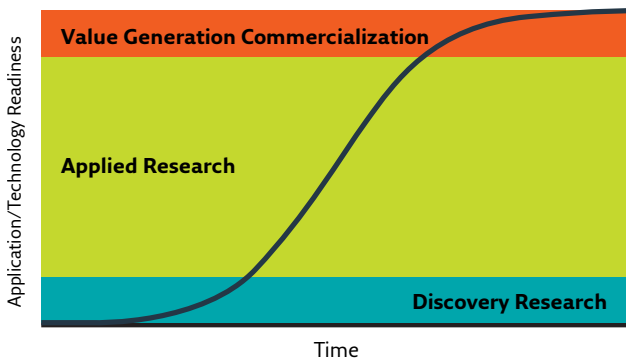
⁴⁰ *Alberta Innovates Annual Report 2016-17*, pages 3-4. As part of the consolidation initiative, C-FER Technologies (1999) Inc. was continued and InnoTech Alberta Inc. was incorporated with the transfer of assets and operations from previously existing entities. Both operate as wholly owned subsidiaries of Alberta Innovates.

⁴¹ Emerging technologies, environment and climate adaptation, energy and greenhouse gas mitigation, fibre and bio-industrial, food and agriculture and health.

Alberta Innovates supports the complete research and innovation journey from discovery research through to commercialization (figure 1).⁴²

Research and Innovation Journey

Figure 1



The timeframe will vary depending on the nature of the research and innovation project or program. Short, medium and long-term perspectives should be assessed in tracking and evaluating progress, results and impact relative to the full costs invested in projects and pms.

Alberta Innovates

Alberta Innovates has two distinct lines of business activity. Primarily, Alberta Innovates grants funding to third party research and innovation projects for discovery and applied research, commercialization support, and system capacity building. Examples of funding provided are graduate research scholarships at universities to build research capacity and funding to develop new treatments for disease to improve the health of Albertans.

Alberta Innovates also assists third parties by performing applied research and commercialization activities on a fee-for-service basis. The corporation's two wholly owned subsidiaries, C-FER Technologies (1999) Inc. (C-FER), and InnoTech Alberta Inc. (InnoTech), perform these activities.

Funding

Alberta Innovates receives the majority of its funding from the department, with small amounts from other government entities. Alberta Innovates received between \$163 million to \$230 million annually from the Government of Alberta since fiscal 2017. In fiscal 2020, Alberta Innovates wholly owned subsidiaries earned \$48.2 million in revenue from fee-for-service research projects.

In fiscal 2020, Alberta Innovates carried out its activities through approximately 75 programs, supporting over 3,500 active projects. It distributed \$107 million as grants including \$61 million to other Alberta government entities, mainly to post-secondary institutions. \$114 million was spent on staffing, supplies and services for grant-funding and fee-for-service activities and administration.

Alberta Innovates' total expenditures since the 2016 consolidation are \$1.3 billion.

⁴² Alberta Research and Innovation Framework (2017).

Performance measurement and assessment

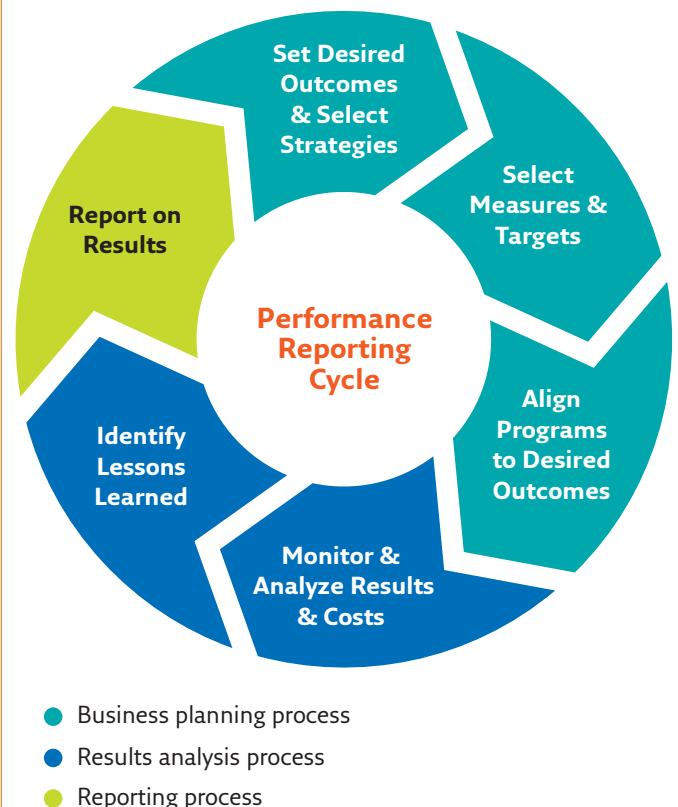
Assessing performance and related desired outcomes is done through performance measures and associated targets, supported by a limited number of performance indicators.

Performance measures quantify the results over which an organization has significant influence or control. Each measure should have quantified, time-bound targets to align with determining its progress towards reaching or achieving its goals. Without a target, a measure may have little meaning. Performance indicators are often used in areas an organization can only indirectly influence. They are useful to track trends in the organization's environment and identify future potential problem areas, risks and challenges. For instance, an organization could directly measure jobs created by its programs, but its programs may only indirectly influence the rate of provincial gross domestic product.

Performance Reporting Cycle

Performance reporting is reporting on financial and non-financial performance compared with plans and targets. Organizations demonstrate their accountability for results achieved through their use of public resources in the context of fair and agreed on expectations. To demonstrate value for money for Albertans, all those who use public resources must:

- set desired outcomes and select strategies to achieve the outcomes
- select relevant performance measures and targets to achieve the desired outcomes
- align program objectives, measures and targets to achieving desired outcomes
- monitor and analyze the current results against the targets and the cost of achieving the results
- identify lessons learned of why the results were achieved
- report, internally and externally, analyzed results including lessons learned



About This Audit

We conducted this audit because of the important role Alberta Innovates plays in provincial research and innovation.

We focused our audit on Alberta Innovates' processes to define and measure value, how that affects the selection and monitoring of its research and innovation projects, and its reporting of the value generated from the projects chosen.

Objective and Scope

Our audit objective was to assess the effectiveness of Alberta Innovates processes to measure, monitor and report whether its research and innovation activities generate value in accordance with government priorities.

Our audit covered the period of April 1, 2018 to March 31, 2020, the last two complete fiscal years of Alberta Innovates prior to the start of our audit.

Criteria

We used the following criteria to determine whether the audit objective was met.

Alberta Innovates should have performance reporting processes to:

- define its desired results, measures and specific programs to achieve them
- ensure its activities, programs and projects are aligned with government priorities
- monitor compliance of its projects with the gating and staging requirements of its programs, including coordination with other Alberta government funded research and innovation entities
- evaluate its results, incorporating lessons learned to improve its activities and value for money achievements
- measure and report (internally and externally) the value for money generated directly by its projects individually and overall

We developed our criteria for this audit based on:

- the entity's responsibilities and applicable legislation
- our office's Results Management and Analysis Reference Guide, July 2014
- the Chartered Professional Accountants of Canada's Accounting Standards Board Framework for Reporting Performance Measures, December 2018
- Alberta Treasury Board and Finance's Measuring Performance: A Reference Guide, December 2015

Management of Alberta Innovates acknowledged the suitability of the audit criteria on June 16, 2020.

What We Examined

To conduct our audit, we:

- examined documents to understand the organization's standards, guidelines, systems and processes for measuring, monitoring and overseeing programs and projects
- interviewed staff and management to understand their roles, responsibilities and accountabilities, and to understand relevant business processes
- examined documentation and data related to gating, monitoring, risks, costs, and reporting from a sample of projects
- examined processes and related documents related to the internal and external reporting of the value generated by Alberta Innovates activities
- examined feedback mechanisms and documents used to evaluate ongoing activities and results of projects and programs, and performance reporting

We conducted our fieldwork from June to December 2020. We completed our audit on June 9, 2021.

Conclusion

Based on our audit criteria, we conclude that Alberta Innovates did have processes to measure, monitor and report whether its research and innovation activities generate value in accordance with government priorities, but not all these processes were effective and improvements can be made.



Why This Conclusion Matters to Albertans

By clearly linking and quantifying desired outcomes, measures and targeted planned results, Alberta Innovates can better demonstrate annually to Albertans what its programs and activities achieved in a cost effective manner relative to desired outcomes.

Summary of Recommendations

RECOMMENDATION:

Improve processes to measure, monitor and report value generated by research and innovation activities

We recommend that Alberta Innovates improve its performance reporting processes by:

- establishing targets for its corporate, program and project performance measures
- analyzing its corporate, program, and project results to targets and to the costs to achieve the results
- reporting, internally and externally, the value generation results from all research and innovation activities including the contribution to government desired outcomes

Detailed Findings and Recommendations

Measuring Value

Context

Legislation⁴³ requires Alberta Innovates to prepare a minister-approved annual business plan containing the goals, desired outcomes and targets for the fiscal year. Alberta Innovates is required to demonstrate and communicate the tangible value of public investment in innovation to Albertans via success stories and performance measures⁴⁴. The desired outcomes, measures and targets established for the organization directly influence the programs offered and the research and innovation projects funded or undertaken.

Alberta Innovates' annual strategic and business planning process is designed to develop:

- Alberta Innovates' desired outcomes which are aligned with the government's 2030 research and innovation goals under the Alberta Research and Innovation Framework (ARIF)
- programs to achieve those outcomes
- measures to assess how well programs and related projects are performing
- targets for what is to be achieved in the year for those measures

The Alberta Innovates board and the minister, through the department, approve the business plan annually.

Measuring value generation of research and innovation can be challenging as:

- government priorities change over time, resulting in changes to measures and targets
- many partners can be involved in a project making it difficult to attribute credit for value generated to one organization
- some projects fail to produce any results. However, the lessons learned provide value to the selection of future projects and inform future research

Nevertheless, it is important to have performance reporting processes to assist management and demonstrate accountability to Albertans.

Criteria

Alberta Innovates should have processes to:

- define its desired results, measures and specific programs to achieve them
- ensure its activities, programs and projects are aligned with government priorities

Our findings

Key findings

- Alberta Innovates identified desired results, measures and the programs to achieve them during its business planning process.
- Targets were not consistently set for what Alberta Innovates planned to achieve.
- Starting in fiscal 2021, management set targets for some corporate measures but not for programs or projects.

⁴³ Alberta Research and Innovation Regulation 203/209.

⁴⁴ Alberta Innovates Mandate and Roles Document, March 21, 2017.

Alberta Innovates identified desired results, measures and the programs to achieve them during its business planning process

We found Alberta Innovates' management developed corporate goals and outcomes and aligned them to the government 2030 goals. Corporate goals included providing value to Albertans by contributing to a diversified economy, cultivating a world-class research and innovation system, and being recognized globally as a leading innovation engine. These goals were included in the 2019—2022 business plan with one of those goals being an overarching goal with four intended outcomes that directly tie to the ARIF. The Alberta Innovates' board and the minister reviewed and approved the business plan.

For each goal identified in the Alberta Innovates business plan, management identified performance measures relative to the desired outcomes. Measures chosen include: number of people (researchers, entrepreneurs, etc.) supported; number of patents produced; and dollars attracted to Alberta Innovates.⁴⁵ Management developed these measures applying the Alberta Innovates' Research and Innovation Program Framework⁴⁶ to demonstrate value-add from its programs and projects linked to its desired outcomes.

Management also considered measures used by similar organizations in other jurisdictions.

Management also uses measures for its programs and individual research and innovation projects. We selected a representative sample of active Alberta Innovates projects and found management had a measure or indicator for all approved projects that aligned with Alberta Innovates corporate desired outcomes.

Management did not apply its business planning process consistently to its subsidiaries. C-FER prepares a separate business plan whereas InnoTech was directly included in the preparation of Alberta Innovates' business plan. Management did include a summary of C-FER's business plan in the Alberta Innovates' business plan. Management did not link how either subsidiaries' measures would contribute to the government's ARIF outcomes.

⁴⁵ *Alberta Innovates 2019-22 Business Plan*, pages 22-27.

⁴⁶ Alberta Innovates, with the department, co-developed the Research and Innovation Impact Framework, which is complementary and aligned to the ARIF. The framework shows the research and innovation continuum of discover (discovery research), develop (applied research) and use (commercialization). Alberta Innovates supports the system through three enabling activities: Building Capacity and Platforms, Advancing Knowledge and Adopting Better Ways. The expectation is that these activities result in economic, environmental, health or social benefits for Albertans.

Targets were not consistently set for what Alberta Innovates planned to achieve

Management did not identify targets for each measure set in the business planning process and included in the business plan. Targets demonstrate what value the corporation intends to achieve and contribute to the government's long-term ARIF goals. Measures such as net jobs created and revenue generation did not target the amount of new jobs or revenue during the year, or in what sectors, to contribute to the government's 2030 ARIF goals.

Management also did not consistently set targets for programs and projects. Our sampling found only one project with a target. Targets at a corporate level provide benchmarks of performance of individual programs and projects. For example, if Alberta Innovates set a corporate target to generate 5,000 new jobs in the year, this provides management criteria in selecting certain projects and programs and assessing performance.

If actual projects selected by Alberta Innovates realized 1,000 new jobs in a year, while positive, this would provide a clear lesson to the corporation that either:

- projects underperformed based on initial expectations
- management did not select the right projects to achieve the corporate target
- the job creation target needs to be adjusted

Management can analyze this information to adjust its business plan going forward.

While Alberta Innovates management did not set targets as part of developing its 2018-2019 and 2019-2020 business plans, we did observe that the department set targets for two Alberta Innovates measures it adopted into the Ministry's 2019-2020 business plan. Targets were set for: net small and medium-sized enterprise (SME) revenue growth for every one dollar of Alberta Innovates funding; and, the percentage of Alberta Innovates-funded post-revenue SMEs that export.

Alberta Innovates management told us that department management developed these targets, based on information and input provided by Alberta Innovates. However, Alberta Innovates board did not approve these targets nor were they included in Alberta Innovates 2019-2022 business plan, or fiscal 2018-2019 and 2019-2020 annual reports.

Starting in fiscal 2021, management set targets for some corporate measures but not for programs or projects

We noted in the Alberta Innovates 2019-2022 business plan that management has acknowledged that targets do not exist for its corporate outcomes, but that these will be established in the future.⁴⁷ Subsequent to the fiscal periods our audit examined, management established targets for some of its corporate measures and included these in its 2020-2023 Business Plan released in December 2020. Targets for other corporate measures were still under development. Establishing targets at a program and project level were not completed. Management told us it was considering the development of program and project targets but did not specify a timeline for completion.

Monitoring and analysis of added value

Context

A process to monitor actual results to planned results and amounts spent helps management determine how programs and projects are contributing effectively to desired value generation outcomes.

Alberta Innovates' projects have different stages as they progress through execution. An effective monitoring process starts with an organization determining the stages of a project, and what each stage is expected to deliver. Periodic end of stage checkpoints or "gates" are used to determine if the project should proceed to the next stage or stop the project. Alberta Innovates uses such a process during project completion.

For grant funding projects, management reviews projects on milestone dates for compliance. If they identify instances of non-compliance with agreement requirements, the grant applicant would be required to submit justification for any changes or be subject to a go/no go decision. For fee-for-service projects, management reviews work in progress with clients at set intervals for any issues in project execution or budget issues.

Subsequent to project completion, organizations should have a process to analyze how it performed relative to its desired outcomes and identify lessons learned of what it consistently does well or where adjustments are required to maximize value generated. The learnings should be actionable and incorporated into future business planning. The analysis should be done at the corporate and program/project levels.

Criteria

Alberta innovates should have processes to:

- monitor compliance of its projects with the gating and staging requirements of its programs, including coordination with other Alberta government funded research and innovation entities
- evaluate its results, incorporating lessons learned to improve its activities and value for money achievements

Our findings

Key findings

- Management applies a subjective project staging and gating monitoring process focused on outputs rather than expected outcomes.
- Management does not analyze the costs of project results.
- Management assesses annual performance by compiling grant-funded project output results; fee-for-service projects are not assessed.
- Management assesses grant funding programs every three years; fee-for-service is not examined.

⁴⁷ Alberta Innovates 2019-22 Business Plan, page 21.

Management applies a subjective project staging and gating monitoring process focused on outputs rather than expected outcomes

We selected a representative sample of active and completed projects during the audit period (both grant funded and fee-for-service) and examined documentation relating to gating and staging assessments.

We found Alberta Innovates:

- consistently applied a process to assess gating and staging focused on project outputs relative to performance measures
- properly approved changes in the project or changes to the program due to results as at milestone dates
- considered at the initial application stage if projects were receiving funding from other Alberta government research and innovation entities

However, management's gating and staging assessments are subjective if not compared to project targets. Quantification of the expected benefit when selecting a project would ensure a clear understanding of project expectations and the required contribution to achieving the corporation's desired results. Use of project outputs can provide a positive indicator of value generation, but not a firm benchmark to decide if a project should continue or not. Subjective gating and staging assessments risks continuing some projects which possibly should be discontinued.

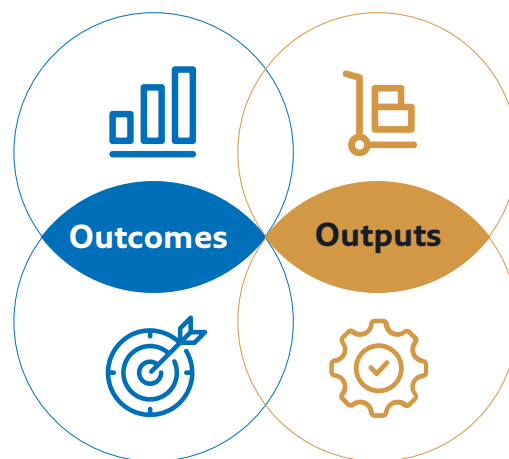
We examined what percentage of the project population within the scope of our audit stopped prior to completion. We found three per cent of projects were ended early either by Alberta Innovates or their client. Reasons for stopping grant funding projects include clients not meeting contractual or technical requirements, such as failure to submit a required report. Fee-for-service project reasons include projects not achieving periodic milestones and clients terminating contracts due to budgetary constraints. We found no detailed analysis by management of why projects were stopped. This information would assist management in future program offerings, target setting and project selection to maximize the potential value from all projects.

Management does not analyze the costs of project results

We found no examination by management of the cost of results generated from projects during project gating or at the end of the project. Strong monitoring and results analysis processes would include an assessment of the value generated to the cost invested. This information could provide management information to stop a project if costs are anticipated to exceed benefits, improve processes related to project selection, evaluate the effectiveness of key programs, and the cost efficiency of reaching corporate and ARIF desired outcomes.

Management assesses annual performance by compiling grant-funded project output results; fee-for-service projects are not assessed

To assess Alberta Innovates' annual performance, management combines the data of project output results of completed grant funded projects and compares to Alberta Innovates corporate and program goals and outcomes. Management gathers output project data from a Project Completion Report prepared at the end of each grant-funded project. The report summarizes outputs achieved versus objectives and measures, and provides technical background on learnings and project final financials. We found management completed this process in both fiscal 2019 and 2020.



Outcomes
are the results an organization tries to achieve based on its goals

Outputs
are the goods and services an organization actually delivers to achieve outcomes and show "how much" or "how many"

Management uses this combined project data to identify lessons learned to inform future business planning processes to review overall direction, future grant funding program modifications or new programs, goals and outcomes. For example, outputs can provide an indicator what types of programs and projects contribute more favourably to Alberta Innovates measures and should be maintained or expanded. Management does not perform an analysis of the value generated from these outputs.

Results for fee-for-service projects are not included in the annual corporate performance measure assessment. Management did not collect performance measurement data on fee-for-service projects, except for external revenue collected. Management told us it does not analyze fee-for-service projects since they are not part of the corporate performance measures. Lessons learned on fee-for-service projects are of a technical nature of the methodology, techniques, apparatus and equipment used. These learnings can inform the selection and scoping of future fee-for-service projects.

Management assesses grant funding programs every three years; fee-for-service is not examined

Since 2017, Alberta Innovates conducts a review of its grant-funding programs to ensure the programs served the needs of the government. Unlike the annual assessment of project results, program assessments are on a three-year rolling basis. Program reviews compile the results of projects completed within a program to identify key findings or recommendations for management to consider. The review also examines if the program objectives align with Alberta Innovates and department goals. Using the recommendations, management and the board can make decisions to establish new grant funding programs, as well as adjust, wind-down or cancel programs. Fee-for-service projects are not included in this assessment.

We examined a sample of reviews including one review completed in 2019 of the Innovative Hydrocarbon Products Program. The review made recommendations including attracting more researchers, entrepreneurs and developers to the program based on prior projects, clarifying roles on projects, and improving consistency and quality of project data. The review did not look at the cost/benefit of the program or quantify how the program adds incrementally to Alberta Innovates or ARIF goals.

Reporting value generated

Context

Reporting results analysis creates a meaningful and complete picture to Albertans on whether desired outcomes were achieved, what value was gained for the money spent, and what changes should be made in the future to generate even greater value.

Criteria

Alberta Innovates should have processes to:

- measure and report (internally and externally) the value for money generated directly by its projects individually and overall

Our findings

Key findings

- Internal and external reporting lack detail of the value generated.
- Methodologies and tools used to evaluate and report performance not publicly reported.

Internal and external reporting lack detail of the value generated

Alberta Innovates internal and external reporting of value generation mirror the program and project results analysis process.

Internal reporting

We examined quarterly information to the board with respect to information on performance measurement from project and program activities. Information included success stories of grant-funded and fee-for-service project outputs and their relation to performance measures identified in the Alberta Innovates business plan. As management gathers information through funding recipient surveys or grant applicant self-reported information of jobs created or incremental revenue generated, some measures are reported only annually to the board.

Quarterly board information includes overall corporate financial reporting results and variance explanations, but does not include analysis quantifying the value generated from program and project outputs. This information would provide the board information whether resources used were well placed and spent in a cost effective manner. This would also provide insights to how management incorporates any lessons learned into the development of future business plans.

External reporting

Alberta Innovates public annual report also focuses on project success stories and where grant-funded projects output contributed to the achievement of government ARIF desired outcomes.

The annual report does not include an evaluation of comparative information, either versus the past performance of Alberta Innovates or similar organizations in other jurisdictions. It is unclear whether outputs achieved numbers reflect gains or net gains specific to the current year or were cumulative in some manner. For key measures, this would include continuity type schedules showing components of the net change, accompanied by comparative information from prior years. Such information would demonstrate performance accountability to Albertans.

Additional quantifiable results information would also help government assess its ARIF outcomes, priorities, measures, and targets and make adjustments if required. This would then inform departments and agencies like Alberta Innovates on how to adjust their related future desired outcomes and programs.

For example, the 2019-2020 annual report stated that \$59.7 million was provided to 962 technology-based SME projects, which created 2,389 net new jobs, and SME revenue growth was \$7.37 for every one dollar of Alberta Innovates funding. In each case, there was no qualitative explanation of how Alberta Innovates' involvement had a direct impact on these results and how the benefits compared to the cost invested.

Reporting of fee-for-service activities were on project success stories, external revenue generated, and number of clients served. We noted no reported measure of the value generated from fee-for-service operations, making it unclear to Albertans and other Alberta Innovates' stakeholders how fee-for-service operations contribute to the ARIF and Alberta Innovates mandated desired outcomes and targets. As subsidiary activities employ 90 per cent of Alberta Innovates' capital and 55 per cent of its salary expenditures in 2019-2020, these operations are significant to Alberta Innovates.

Methodologies and tools used to evaluate and report performance not publicly reported

Alberta Innovates did not describe in its public report that its methodology for determining the impact and value generation of project results is from self-reporting by funding recipients. Alberta Innovates also did not report detailed results of these surveys. The results would demonstrate to Albertans what was learned and how that will influence future programs and projects, a key piece of information to assist future applicants to Alberta Innovates programs.

Alberta Innovates' public reports should explain the methodologies and tools used to evaluate and report on performance results, including impact and value creation. The methodologies section should also refer to the methods of collecting the performance data (such as post-completion reports and surveys), and follow-up analysis and evaluation processes.

We found that Alberta Innovates had methodology documents internally, but did not include summaries in its public documents.

RECOMMENDATION:

Improve processes to measure, monitor and report value generated by research and innovation activities

We recommend that Alberta Innovates improve its performance reporting processes to:

- establishing targets for its corporate, program and project performance measures
- analyzing its corporate, program, and project results to targets and to the costs to achieve the results
- reporting, internally and externally, the results of value generated from all research and innovation activities including the contribution to government desired outcomes

Consequences of not taking action

Alberta Innovates may not be able to demonstrate whether its activities are maximizing its contribution to achieving the government's research and innovation goals and achieving the corporation's legislative mandate.

Audit Responsibilities and Quality Assurance Statement

Management of Alberta Innovates is responsible for the stewardship of its corporate assets and ensuring the entities within its group create value for Albertans.

Our responsibility is to express an independent conclusion on whether Alberta Innovates has processes to effectively measure, monitor and report on whether their research and innovation activities generate value in accordance with government priorities.

We conducted our audit in accordance with Canadian Standard on Assurance Engagements 3001 issued by the Auditing and Assurance Standards Board (Canada). The Office of the Auditor General applies Canadian Standard on Quality Control 1 and, accordingly, maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. The office complies with the independence and other ethical requirements of the Chartered Professional Accountants of Alberta Rules of Professional Conduct, which are founded on fundamental principles of integrity and due care, objectivity, professional competence, confidentiality and professional behaviour.



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