INVESTING TODAY IN ALBERTA’S FUTURE

Over the past year, a number of reports have emphasized the need for Alberta to be more innovative in order to be competitive and to enhance quality of life. A common theme that pervades the Premier’s Advisory Council on Health, the Future Summit and the Financial Management Commission’s reports, and most recently, Alberta’s response to the Kyoto Protocol, is the need to strengthen Alberta’s capability to develop and apply innovative technologies. Investing in science and technology today is critical to ensuring tomorrow’s prosperity and quality of life. This fact is true in Alberta and around the globe.

Alberta’s abundant natural resources have helped place the province’s economy among the world’s strongest. The global, knowledge-intensive economy is evolving, and regions are increasing investments in technology, research and innovation. Alberta must maintain its competitive position by building on its strengths in energy, information and communications technology, and life sciences, and by increasing the rate of technology development and adoption.
OUR VISION

*Alberta prospers through the application of science and research and the innovative use of technology.*

Partnership, strategic investment and facilitation are cornerstones of the Ministry’s approach to achieving its vision. The Alberta Science and Research Authority and its research institutes, comprised of industry, government and university representatives, provide strategic advice to the Minister on science and research. Several committees on information and communications technology, also comprised of private and public sector members, advise the Minister on the strategic direction for information and communications technology. The goals and strategies of the Ministry are based on this valuable input from government, industry, and Alberta’s research community.

To achieve its business goals, the Alberta Government is committed to being a model user of information and communications technology. As a model user, the government will effectively manage technology investments and use technology to reduce the costs of government operations while providing innovative and improved services to the public.

THE MINISTRY OF INNOVATION AND SCIENCE

The Ministry of Innovation and Science provides leadership and makes strategic investments to enhance Alberta’s position in the knowledge-intensive economy to contribute to the sustainable development of the provincial economy and make the province increasingly competitive in global markets.

The Ministry includes:

- Department of Innovation and Science
- Alberta Science and Research Authority
  - Alberta Agricultural Research Institute
  - Alberta Energy Research Institute
  - Alberta Forestry Research Institute
  - Alberta Research Council Inc.
  - iCORE Inc. (Alberta Informatics Circle of Research Excellence)

The Minister of Innovation and Science is responsible for legislation pertaining to:

- Alberta Heritage Foundation for Medical Research
- Alberta Heritage Foundation for Science and Engineering Research (operating under the trade name “Alberta Ingenuity Fund”)

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Mission

To enhance the contribution of science, research, development and commercialization for the sustainable prosperity and quality of life of all Albertans.

Innovation is the process by which economic value is extracted from knowledge through generating, developing and implementing ideas to produce new or improved products, processes and services.

Alberta is well known for innovation. From technological and financial success in the oil sands to breakthrough diabetes treatments, Albertans have been at the forefront of discoveries that are strengthening the economy and changing lives.

In Alberta’s future, innovation will continue to provide a competitive advantage in the global knowledge-intensive economy. Research is the key to developing new ideas and discoveries that can lead to innovation. The ultimate benefit from these ideas and discoveries is obtained when they are translated into new and improved products, processes or services in the marketplace.

Building a critical mass of research excellence also creates an environment which attracts skilled people and investment to our province. This provides a foundation for business growth, job creation, a sustainable economy and a better quality of life for Albertans.

Strategic Priorities

Move forward the
- Energy Research Strategy,
- Life Sciences Strategy,
- Information and Communications Technology Strategy, and
- Technology Commercialization Strategy
in support of the Government of Alberta’s directions regarding climate change, agriculture, economic development, water, health, and environment.

Linkages to Government Business Plan

Ministry efforts under this core business contribute to the achievement of broader Government of Alberta (GOA) business plan goals, particularly goals related to:

- Alberta’s economic prosperity (GOA goal 7)
- Building a skilled workforce (GOA goal 2)
- Government’s financial stability and accountability (GOA goal 9)

Efforts under this core business also support the achievement of government goals related to the:

- Health of Albertans (GOA goal 1)
- Quality of Alberta’s environment (GOA goal 11)
GOAL 1

To enhance the capability and capacity of Alberta’s research system that underlines our goals in areas of strategic priority.

Objectives

- A skilled workforce to support research and innovation
- Internationally recognized research capabilities in areas of strategic priority for long-term growth
- Albertans recognize the importance of research and innovation
- An environment that encourages innovation, collaboration, and networks

Strategies

Investing in People

1: Provide support for the recruitment and retention of key scientific personnel at Alberta universities
2: Work with the Alberta Heritage Foundation for Medical Research and the Alberta Ingenuity Fund to support the recruitment of key scientific personnel to Alberta

Investing in Research Infrastructure

3: Provide strategically targeted support for Alberta public research infrastructure

Investing in Strategically Aligned Initiatives

4: Make investments that strengthen Alberta’s science capability to support energy, ICT and life sciences, including investments in nanotechnology, bio-informatics/bio-medical, genomics/proteomics, and wireless communications technologies

Fostering Innovation

5: Work to leverage research funding from industry and federal sources
6: Develop a mechanism to encourage greater investment in Alberta research and innovation from industry and federal government sources
7: Increase collaboration and coordination among research performers, funders, and users
8: Work with Alberta Learning and public institutions to co-ordinate research-related policies and programs
9: Promote science and technology awareness
10: Encourage youth to enter careers in science and technology

Key Performance Measures

1. Government of Alberta (GoA) Expenditures on Research and Development (ERD) as a percent of Total Government of Alberta Expense

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Total GoA ERD</td>
<td>$173.2</td>
<td>$198.1</td>
<td>$199.9</td>
<td>$215</td>
<td>$230</td>
<td>$245</td>
<td>$260</td>
</tr>
<tr>
<td>Total GoA Expense</td>
<td>$17,292</td>
<td>$19,038</td>
<td>$20,948</td>
<td>$19,156</td>
<td>$19,676</td>
<td>$20,075</td>
<td>$20,075</td>
</tr>
</tbody>
</table>

GoA ERD as a % of Total GoA Expense

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>$ millions</td>
<td>1.00%</td>
<td>1.04%</td>
<td>0.95%</td>
<td>1.12%</td>
<td>1.17%</td>
<td>1.22%</td>
<td>1.30%</td>
</tr>
<tr>
<td>Total GoA Expense</td>
<td>$17,292</td>
<td>$19,038</td>
<td>$20,948</td>
<td>$19,156</td>
<td>$19,676</td>
<td>$20,075</td>
<td>$20,075</td>
</tr>
</tbody>
</table>

2. Alberta’s research capability: the success of Alberta’s research universities in attracting sponsored research funding (by source)

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<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal</td>
<td>86</td>
<td>119</td>
<td>132</td>
<td>142</td>
<td>190</td>
<td>157</td>
<td>171</td>
<td>186</td>
<td>200</td>
</tr>
<tr>
<td>Industry</td>
<td>45</td>
<td>43</td>
<td>60</td>
<td>63</td>
<td>51</td>
<td>70</td>
<td>76</td>
<td>83</td>
<td>90</td>
</tr>
<tr>
<td>Non-Profit and Other</td>
<td>31</td>
<td>38</td>
<td>47</td>
<td>47</td>
<td>54</td>
<td>50</td>
<td>53</td>
<td>56</td>
<td>61</td>
</tr>
<tr>
<td>Other Government</td>
<td>4</td>
<td>8</td>
<td>12</td>
<td>13</td>
<td>16</td>
<td>16</td>
<td>16</td>
<td>20</td>
<td>22</td>
</tr>
<tr>
<td>Sub-Total</td>
<td>166</td>
<td>208</td>
<td>251</td>
<td>265</td>
<td>311</td>
<td>293</td>
<td>320</td>
<td>347</td>
<td>375</td>
</tr>
<tr>
<td>Provincial</td>
<td>65</td>
<td>92</td>
<td>119</td>
<td>130</td>
<td>126</td>
<td>135</td>
<td>140</td>
<td>145</td>
<td>150</td>
</tr>
<tr>
<td>Total</td>
<td>231</td>
<td>300</td>
<td>370</td>
<td>395</td>
<td>437</td>
<td>428</td>
<td>460</td>
<td>492</td>
<td>525</td>
</tr>
</tbody>
</table>


GOAL 2

To support energy research that will contribute to Alberta’s sustainable prosperity and quality of life. This goal and the accompanying strategies reflect the initial stages of implementation of a long-term Energy Research Strategy.

Objectives

- Internationally recognized research capabilities in energy areas of strategic importance
- Implement the technology component of the Climate Change Action Plan
- An environment that encourages innovation and collaboration in energy research
- Increased collaboration and coordination among energy research performers and energy producers
- Increased joint investments in energy research by industry, the federal government and Alberta

Strategies

Investing in People

1: Develop a plan to attract world-class energy researchers to Alberta through a strong university and provincial research organization-based program that will attract industry and federal government investment in new technologies in Alberta

Investing in Research Infrastructure

2: Support industry field pilot projects and the development of Centres of Innovation to demonstrate novel clean energy technologies
3: Support the development of a fuel cell demonstration facility and other infrastructure for the emerging fuel cell and hydrogen technologies

Investing in Strategically Aligned Initiatives

4: Work with partners to support programs in CO₂ sequestration and water management
5: Develop new technologies for oil sands upgrading and value-added petrochemicals
6: Support feasibility studies and pilot projects related to clean coal
7: Work with partners to develop the technology and field pilots to improve recovery methods of oil, using CO₂
8: Support research into alternative sources for energy such as bioenergy, hydrogen and fuel cells

Fostering Innovation

9: Develop a network linking provincial, national and global research activities in clean energy
10: Coordinate and align the clean energy research activities of the universities, and federal and provincial labs
11: Maintain close working relationships with and promote industry collaborative work through such associations as the Petroleum Technology Alliance of Canada, the Canadian Clean Power Coalition, the Canadian Oil Sands Network for Research and Development, the Canadian Energy Research Institute, and Climate Change Central

12: Work with industry and other government ministries to promote technology advances in energy and help rationalize the energy programs with other providers within Canada and the U.S.

13: Develop a collaborative approach to energy research and development funding in Canada

Performance Measure

1. Leveraged research projects aligned with the goals of the Alberta Energy Research Strategy

<table>
<thead>
<tr>
<th>(thousands of dollars)</th>
<th>CO2 and Water Management</th>
<th>Oil Sands Upgrading and Value-Added</th>
<th>Clean Coal</th>
<th>Recovery</th>
<th>Alternative Energy</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2001-2002 Actual</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total AERI Investment$^1$</td>
<td>$1,067</td>
<td>$2,465</td>
<td>$740</td>
<td>$2,040</td>
<td>$540</td>
<td>$6,852</td>
</tr>
<tr>
<td>Number of Projects$^2$</td>
<td>20</td>
<td>16</td>
<td>6</td>
<td>24</td>
<td>8</td>
<td>74</td>
</tr>
<tr>
<td><strong>2002-2003 Estimate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total AERI Investment$^1$</td>
<td>$357</td>
<td>$1,630</td>
<td>$220</td>
<td>$3,923</td>
<td>$419</td>
<td>$6,549</td>
</tr>
<tr>
<td>Number of Projects$^2$</td>
<td>14</td>
<td>10</td>
<td>5</td>
<td>23</td>
<td>5</td>
<td>57</td>
</tr>
<tr>
<td><strong>2003-2004 Target</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total AERI Investment$^1$</td>
<td>$1,831</td>
<td>$2,064</td>
<td>$2,759</td>
<td>$3,873</td>
<td>$1,413</td>
<td>$11,940</td>
</tr>
<tr>
<td>Number of Projects$^2$</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>20</td>
<td>5</td>
<td>49</td>
</tr>
<tr>
<td><strong>2004-2005 Target</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total AERI Investment$^1$</td>
<td>$2,331</td>
<td>$2,814</td>
<td>$2,759</td>
<td>$4,623</td>
<td>$2,413</td>
<td>$14,940</td>
</tr>
<tr>
<td>Number of Projects$^2$</td>
<td>7</td>
<td>6</td>
<td>8</td>
<td>10</td>
<td>8</td>
<td>39</td>
</tr>
<tr>
<td><strong>2005-2006 Target</strong></td>
<td></td>
<td></td>
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<tr>
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<td>$4,064</td>
<td>$3,259</td>
<td>$5,873</td>
<td>$3,913</td>
<td>$19,940</td>
</tr>
<tr>
<td>Number of Projects$^2$</td>
<td>7</td>
<td>6</td>
<td>10</td>
<td>10</td>
<td>12</td>
<td>45</td>
</tr>
</tbody>
</table>

Source: Strategic Research Investments, database, Alberta Innovation and Science

1. For every dollar invested by AERI, $2 or more will be leveraged from a combination of federal and industry sources. Federal and industry funding is projected to increase from $20.4 million in 2001-02 to $45 million in 2005-06.

2. The number of consortia programs is expected to increase from 4 in 2001-02 to 10 in 2005-06. The total number of projects is projected to decline because of a greater emphasis on collaborative programs and larger scale pilot and demonstration projects.

GOAL 3 To foster excellence in information and communications technology (ICT) research that contributes to Alberta’s continued prosperity.

Objectives

- A skilled workforce to support ICT research and innovation
- Internationally recognized research capabilities in areas of strategic importance
- An environment that encourages innovation, collaboration and networks in ICT research

Strategies

Investing in People

1: Recruit and fund the best researchers in ICT segments where Alberta can be a global leader. These segments include broadband networks including wireless, high performance computing, and new computational models to support emerging technologies (genomics, nanotechnology, bioinformatics, etc.)

2: Encourage industry to fund Research Chairs at Alberta universities
3: Collaborate with government partners to increase the number of Alberta graduates from ICT-related fields of study

**Investing in Research Infrastructure**

4: Invest strategically in infrastructure such as wireless test beds that makes Alberta globally competitive

**Fostering Innovation**

5: Increase collaboration between public research institutions, industry, academia and the public and private sector in Alberta and those in other jurisdictions in targeted strategic technologies

6: Encourage industry to invest in research projects at public research institutions

7: Provide support to the ASRA ICT Task Force focused on strategic advice on government investments and infrastructure related to ICT in Alberta

**Key Performance Measure**

1. Number of world-class ICT researchers and graduate students attracted to (or retained at) Alberta universities by iCORE Inc.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Research Chairs (Major Awards)</th>
<th>Total Graduate Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000-2001 Actual</td>
<td>6</td>
<td>60</td>
</tr>
<tr>
<td>2001-2002 Actual</td>
<td>10</td>
<td>95</td>
</tr>
<tr>
<td>2002-2003 Target</td>
<td>12</td>
<td>110</td>
</tr>
<tr>
<td>2003-2004 Target</td>
<td>15</td>
<td>135</td>
</tr>
<tr>
<td>2004-2005 Target</td>
<td>17</td>
<td>135</td>
</tr>
<tr>
<td>2005-2006 Target</td>
<td>17</td>
<td>135</td>
</tr>
</tbody>
</table>

Source: iCORE Inc. 2002-2010 Strategic Plan, Table 3 (Flat Funding and Table 4 - Performance Measures).

**GOAL 4**

To foster excellence in life sciences research that contributes to Alberta’s continued prosperity.

This goal and the accompanying strategies reflect the initial stages of implementation of a long-term Life Sciences Strategy.

**Objectives**

- A skilled workforce to support life sciences research
- Internationally recognized research capabilities in areas of strategic importance
- Research that contributes to a more technologically advanced and sustainable agriculture and food sector
- Research that increases the global competitiveness and sustainability of Alberta’s forestry sector
- Life sciences development that harmonizes with Albertan values and goals
- An environment that encourages innovation and collaboration networks in life sciences research

**Strategies**

**Investing in People**

1: Develop a human resource plan and resulting programs in partnership with relevant government ministries, AHFMR, the Alberta Ingenuity Fund, research organizations and the life sciences industry to attract and retain highly-skilled researchers and meet the human resource needs of the agriculture and forestry research and technology development systems

**Investing in Research Infrastructure**

2: Participate with government ministries to develop a long-term infrastructure plan to support life sciences research and innovation
3: In cooperation with partners, make strategic investments to enhance Alberta’s agricultural and forestry life sciences research capability

**Investing in Strategically Aligned Initiatives**

4: Align and co-ordinate research and innovation activity and funding within each of the four areas: agriculture, forestry, environment, and health

5: Develop and implement a communications plan to increase international awareness of Alberta’s strengths in the life sciences

6: Work with partners to increase investments in high-quality agricultural research and technology development through strategic research networks in the priority areas of agri-health and value-added food, bio-products, and sustainable production (which identifies new areas of research and investment leading to key outcomes essential to achieve industry goals)

7: Commence investments in high-quality forestry research and technology development through programs aligned with AFRI’s strategic directions including sustainable forest management, new products and processes, and enhancing the value-chain

**Fostering Innovation**

8: Continue to work with other government ministries, industry and the universities to refine and implement the Life Sciences Strategy

9: Increase the magnitude and scope of life sciences education and engagement initiatives involving the public, government and industry

10: Work with other organizations funding research in agricultural related life sciences areas to increase the contribution of agriculture to Alberta and the life science’s economy

11: The AFRI will continue to work with industry and other research partners to build a long-term strategic plan that aligns with ASRA’s Life Sciences Strategy

**Performance Measure**

Performance measures will be developed as the Life Sciences Strategy is finalized and implemented.

**GOAL 5**

To foster the growth of knowledge-based industries and establish Alberta as a preferred location for the commercialization of technologies.

**Objectives**

- Increased commercialization of energy, ICT, and life sciences research in Alberta
- Growth of energy, ICT and life sciences sectors in Alberta
- Commercialize opportunities resulting from ASRA’s investment in energy research at the universities

**Strategies**

**Investing in People**

1: Facilitate appropriate management assistance and mentoring for startup and small ICT and life sciences businesses, in collaboration with Alberta Economic Development, Alberta municipalities and other Alberta technology commercialization partners

2: Work with partners to encourage expatriates and skilled workers to relocate to Alberta

3: Work collaboratively with partners to develop a plan to enhance entrepreneurial skills in Alberta

**Investing in Infrastructure**

4: In collaboration with government departments, industry and publicly funded research institutions, identify and market business opportunities and promote the *Alberta Advantage* in priority areas
5: Provide facilities, equipment, test beds and expertise to help Alberta industry develop and commercialize new products, processes and services

6: Assist ASRA and its wholly-owned subsidiary, ARC, to facilitate adoption of energy-related intellectual property generated by projects funded by ASRA

7: Attract and leverage industry research and development investment through TRLabs, industry, post-secondary institutions and ASRA initiatives

**Investing in Strategically Aligned Projects**

8: Attract industrial partners and investment to Alberta and establish initiatives which encourage the creation of early stage seed/venture capital pools and knowledge transfer

9: Bring forward projects jointly sponsored by Alberta research institutes and the private sector for provincial and federal consideration and support

**Fostering Innovation**

10: Facilitate business partnerships and networks between Alberta industry, researchers and government to develop emerging technologies, bring them to market and link to others across Canada and the world

11: Work with ASRA to implement priority initiatives within Alberta’s Technology Commercialization Strategy

12: Gather and provide competitive intelligence and information that helps industry make technology development decisions, conduct environmental scans of Alberta’s competitiveness in order to assist in defining appropriate policy recommendations and marketing actions to stimulate ICT industry growth

**Key Performance Measures**

1. Employment in ICT sector in Alberta

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<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees</td>
<td>50,300</td>
<td>53,700</td>
<td>56,000</td>
<td>59,360</td>
<td>58,000</td>
<td>62,921</td>
<td>66,696</td>
<td>70,000</td>
<td>74,000</td>
</tr>
</tbody>
</table>

*Source: Alberta Business Outlook 2002-2003. Due to a global recession in the telecommunications industry, targets have been revised.

2. Employment in the life sciences sector in Alberta

<table>
<thead>
<tr>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees</td>
<td>54,200</td>
<td>56,600</td>
<td>To be determined</td>
<td>To be determined</td>
<td>To be determined</td>
<td>To be determined</td>
</tr>
</tbody>
</table>


* Estimate has been revised using data from Statistics Canada.*
Corporate Information and Communications Technology

Mission

To provide strategic leadership and direction in the innovative and cost-effective use of information and communications technology (ICT) to improve the efficiency of government program delivery.

ICT is an essential tool for delivering government programs and services to Albertans and in the daily administration of government operations. The Alberta government makes significant investments in ICT systems to maintain and improve the delivery of its services and the cost-effectiveness of its day-to-day operations.

Albertans are increasingly expecting that programs and services will be available on-line, any time, anywhere in Alberta. Meeting these expectations cost-effectively requires a high degree of collaboration between government ministries as well as the seamless sharing of information between ministries, while ensuring that Albertans’ concerns for privacy and security are respected.

The Ministry of Innovation and Science is responding to these needs in two ways.

First, through Alberta SuperNet, affordable, high-speed broadband access to all universities, schools, libraries, hospitals, and provincial government buildings in Alberta will be provided within the next three years. This network will be the foundation for electronic delivery of government programs and services to Albertans in 422 communities throughout the province. Alberta SuperNet will also facilitate the provision of high-speed Internet access to businesses and Albertans in these 422 communities through independent Internet service providers accessing services from the Alberta SuperNet infrastructure.

Second, Innovation and Science also continues to provide corporate leadership and to work closely with all government ministries to ensure that investments in technology are aligned to cost-effectively enhance the delivery of services to Albertans.

Strategic Priorities

- The completion of the Alberta SuperNet build
- Establish and implement an ICT Services model through private sector partnerships to provide upfront capital investment and to achieve efficiencies and cost reductions, through the implementation of a consolidated infrastructure and coordinated application support

Linkages to Government Business Plan

Ministry efforts under this core business contribute to the achievement of broader Government of Alberta (GOA) business plan goals, particularly goals related to:

- Alberta’s economic prosperity (GOA goal 7)
- Government’s financial stability and accountability (GOA goal 9)
GOAL 6

To strengthen the Alberta Advantage by maximizing the opportunities presented by a province-wide high-speed ICT capability through Alberta SuperNet.

Objectives

- High-speed Internet services available to 422 communities
- Enhanced and more efficient delivery of services through Alberta SuperNet
- New business opportunities in Alberta

Strategies

**Investing in Infrastructure**

1: Complete the construction of Alberta SuperNet in 2004

**Fostering Innovation**

2: Identify opportunities for enhanced programs/service delivery utilizing Alberta SuperNet, through collaboration with other ministries, and particularly:

- E-learning with Alberta Learning
- E-health services with Alberta Health and Wellness
- E-government services through Service Alberta delivery with Alberta Government Services
- E-justice with Alberta Justice
- Providing connections for libraries with Alberta Community Development

**Investing in Strategically Aligned Initiatives**

3: Foster a competitive environment for commercial vendors accessing Alberta SuperNet at competitive prices across the province

4: Work closely with Alberta Economic Development to maximize opportunities arising for existing and new Alberta businesses, enabling them to participate and compete on the national and international stage

Key Performance Measures

1. Availability of Alberta SuperNet to 422 communities and approximately 4700 stakeholders during the three-year construction period

1 a). Number of Communities Connected (% of total communities to be connected):

<table>
<thead>
<tr>
<th></th>
<th>2001-02 Baseline</th>
<th>2002-03 Target</th>
<th>2002-03 Estimate*</th>
<th>2003-04 Target</th>
<th>2004-05 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of communities</td>
<td>0 (0%)</td>
<td>133 (31%)</td>
<td>6 (1.4%)</td>
<td>356 (84%)</td>
<td>422 (100%)</td>
</tr>
</tbody>
</table>

1 b). Stakeholders Connected* (including schools, hospitals, libraries and provincial government buildings):

<table>
<thead>
<tr>
<th>(sites connected)</th>
<th>2001-02 Baseline</th>
<th>2002-03 Target</th>
<th>2002-03 Estimate*</th>
<th>2003-04 Target</th>
<th>2004-05 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools</td>
<td>0</td>
<td>172</td>
<td>25</td>
<td>1270</td>
<td>2347 (100%)</td>
</tr>
<tr>
<td>Hospitals</td>
<td>0</td>
<td>76</td>
<td>6</td>
<td>287</td>
<td>504 (100%)</td>
</tr>
<tr>
<td>Libraries</td>
<td>0</td>
<td>22</td>
<td>3</td>
<td>235</td>
<td>305 (100%)</td>
</tr>
<tr>
<td>GOA buildings</td>
<td>0</td>
<td>259</td>
<td>11</td>
<td>730</td>
<td>1235 (100%)</td>
</tr>
</tbody>
</table>

Source: Alberta Innovation and Science. All targets are cumulative.
* Number of stakeholders is preliminary and may be adjusted during the construction of the SuperNet Network. A school, hospital, library, or Government of Alberta building is considered to be connected within the fiscal year when it is hooked up to, and functioning on, the SuperNet infrastructure.
** The number of communities and stakeholders connected for 2002-2003 is substantially lower than targeted. While progress on the originally announced rollout schedule is behind, the project is still estimated to be completed in mid-2004, as planned. Purchases of existing fibre optic cable from provincial suppliers are being finalized and will be incorporated into the design and build of the network, allowing significant progress in a short period of time.
2. The number of government programs/services available electronically for Albertans that will be delivered over the Alberta SuperNet infrastructure

<table>
<thead>
<tr>
<th></th>
<th>2001-02 Baseline</th>
<th>2002-03 Target</th>
<th>2002-03 Estimate</th>
<th>2003-04 Target</th>
<th>2004-05 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of programs/services</td>
<td>8</td>
<td>23</td>
<td>24</td>
<td>38</td>
<td>53</td>
</tr>
</tbody>
</table>

Sources: www.servicealberta.ca and Alberta Innovation and Science

GOAL 7

The Government of Alberta will be recognized internationally for transforming the delivery of government programs and services through the innovative use of ICT.

Objectives

- A clear strategic direction for the use of ICT
- Common, corporate ICT infrastructure
- Increased government services available direct to citizens online
- Cost efficiencies will allow government to reinvest savings into higher priority ICT initiatives
- Shared, common information

Strategies

1: Develop a comprehensive strategic direction for the use of ICT to deliver public sector information and services
2: Provide strategic advice on ICT investment priorities
3: Provide strategic direction on technology
4: Enter into a strategic partnership with a service manager to coordinate ICT delivery across government
5: Simplify the current ICT environment through a systematic reduction of server, network and application environments
6: Develop a consolidated web environment to deliver web services and applications
7: Leverage SuperNet connectivity to deliver government resources
8: Provide managers access to relevant information through the increased use of IMAGIS
9: Work with Ministries and Service Alberta to apply technology in order to change business processes within the Government of Alberta
10: Adopt and implement industry based business and technical standards across government
11: Maximize efficiencies by consolidating support and licensing agreements
12: Work with Government Services to implement a corporate information management framework
13: Develop and implement an information-sharing model that allows common data to be stored centrally and accessed by Ministries as needed
Key Performance Measures

1. Implementation of corporate standards

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Office 2000/Windows 2000</td>
<td>36%</td>
<td>80%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Government Web Development</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Webpage format for data sharing (XML)</td>
<td>To be established</td>
<td>20%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Enterprise Architecture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Adoption of Domain Architectures</td>
<td>To be established</td>
<td>25%</td>
<td>50%</td>
<td>80%</td>
<td>80%</td>
</tr>
<tr>
<td>• Compliance process and assessment</td>
<td>To be established</td>
<td>30%</td>
<td>50%</td>
<td>80%</td>
<td>80%</td>
</tr>
<tr>
<td>Authentication</td>
<td>To be established</td>
<td>&lt;1%</td>
<td>50%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Office of the Chief Information Officer

2. ICT Infrastructure Consolidation - Implementation of corporate infrastructure services

<table>
<thead>
<tr>
<th>Infrastructure Services</th>
<th>2002-03 (Estimates)*</th>
<th>2003-04 Target Amount Remaining</th>
<th>2004-05 Target Amount Remaining</th>
<th>2005-06 Target Amount Remaining</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directories</td>
<td>50</td>
<td>35</td>
<td>25</td>
<td>1</td>
</tr>
<tr>
<td>E-Mail Systems</td>
<td>15</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Number of Servers</td>
<td>1300</td>
<td>1235</td>
<td>1105</td>
<td>650</td>
</tr>
<tr>
<td>Desktop Configurations</td>
<td>400</td>
<td>300</td>
<td>150</td>
<td>50</td>
</tr>
<tr>
<td>Server Configurations</td>
<td>350</td>
<td>300</td>
<td>150</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: Office of the Chief Information Officer

* These estimates are based on information collected in 2000/01. Baseline estimates for infrastructure services are under development. Targets will be adjusted when baselines have been established.
CORPORATE ACTIVITIES

The following corporate divisions within the Ministry of Innovation and Science ensure resources are used effectively and efficiently to support ministry goals and strategies:

- Ministry Chief Information Officer
- Communications
- Finance Division
- Human Resource Services
- Policy Development and Coordination

Key Corporate Activities for 2003-2004

- **Tracking Employee Satisfaction / Understanding of Contribution:** Innovation and Science will continue to track employee satisfaction and understanding of their contribution to the Ministry Business Plan. Targets have been established for several measures as indicated in the following table:

<table>
<thead>
<tr>
<th>Measure</th>
<th>2000-01 Actual</th>
<th>2001-02 Actual</th>
<th>2002-03 Actual</th>
<th>2003-06 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees who know and understand how their work contributes to the</td>
<td>77%</td>
<td>87%</td>
<td>78%</td>
<td>100%</td>
</tr>
<tr>
<td>achievement of their department business plan</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of employees who are very/somewhat satisfied with their</td>
<td>88%</td>
<td>88%</td>
<td>83%</td>
<td>95%</td>
</tr>
<tr>
<td>employment at Innovation and Science/Government of Alberta</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of employees who agree that Innovation and Science</td>
<td>86%</td>
<td>79%</td>
<td>73%</td>
<td>85%</td>
</tr>
<tr>
<td>provides the support they need to acquire or develop knowledge and</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>skills in their current job</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of employees indicating that their organization provides</td>
<td>68%</td>
<td>62%</td>
<td>61%</td>
<td>85%</td>
</tr>
<tr>
<td>expected outcomes for their work</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of employees indicating that their organization helps them</td>
<td>69%</td>
<td>54%</td>
<td>58%</td>
<td>85%</td>
</tr>
<tr>
<td>know and understand how well they are performing</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** Government of Alberta Core Human Resource Measures 2001, Survey of Innovation and Science Employees

- **Business Resumption Planning:** Innovation and Science is working with Emergency Management Alberta of Alberta Municipal Affairs to develop a comprehensive business resumption plan for the Ministry. Specific actions to ensure early completion of a formal business resumption plan for 2003-04 include: designing and writing the business resumption plan and maintenance protocols as well as implementing a validation process.

CROSS-MINISTRY INITIATIVES

**Priority Policy Initiatives:**

Ministry activities support the achievement of the goals of the cross-ministry Economic Development Strategy.

**Key Administrative Initiatives:**

The Ministry is co-champion for the following Key Administrative Initiatives:

- Corporate Information Management / Information Technology Strategy
- Service Alberta
### EXPENSE BY CORE BUSINESS
(thousands of dollars)

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>EXPENSE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Core Business</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research and Development</td>
<td>136,792</td>
<td>150,409</td>
<td>142,209</td>
<td>161,991</td>
<td>171,554</td>
<td>184,772</td>
</tr>
<tr>
<td>Corporate Information and Communications Technology</td>
<td>44,387</td>
<td>48,927</td>
<td>50,600</td>
<td>49,080</td>
<td>64,551</td>
<td>72,306</td>
</tr>
<tr>
<td>Ministry Support Services</td>
<td>6,881</td>
<td>7,170</td>
<td>7,170</td>
<td>7,614</td>
<td>7,614</td>
<td>7,614</td>
</tr>
<tr>
<td><strong>MINISTRY EXPENSE</strong></td>
<td>188,060</td>
<td>206,506</td>
<td>199,979</td>
<td>218,685</td>
<td>243,719</td>
<td>264,692</td>
</tr>
</tbody>
</table>

### CAPITAL INVESTMENT BY CORE BUSINESS
(thousands of dollars)

<table>
<thead>
<tr>
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<tbody>
<tr>
<td><strong>CAPITAL INVESTMENT</strong></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Core Business</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research and Development</td>
<td>2,188</td>
<td>4,296</td>
<td>4,296</td>
<td>3,414</td>
<td>3,346</td>
<td>3,387</td>
</tr>
<tr>
<td>Corporate Information and Communications Technology</td>
<td>43,807</td>
<td>123,699</td>
<td>91,199</td>
<td>62,200</td>
<td>14,000</td>
<td>4,000</td>
</tr>
<tr>
<td>Ministry Support Services</td>
<td>102</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>MINISTRY CAPITAL INVESTMENT</strong></td>
<td>46,097</td>
<td>127,995</td>
<td>95,495</td>
<td>65,614</td>
<td>17,346</td>
<td>7,387</td>
</tr>
</tbody>
</table>
## MINISTRY STATEMENT OF OPERATIONS

(Thousands of dollars)

### REVENUE

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Government Transfers</td>
<td>90,838</td>
<td>185,144</td>
<td>152,644</td>
<td>127,497</td>
<td>76,797</td>
<td>66,797</td>
</tr>
<tr>
<td>Transfers from Government of Canada</td>
<td>2,386</td>
<td>2,000</td>
<td>2,000</td>
<td>2,000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Investment Income</td>
<td>752</td>
<td>840</td>
<td>840</td>
<td>840</td>
<td>840</td>
<td>840</td>
</tr>
<tr>
<td>Other Revenue</td>
<td>50,144</td>
<td>57,515</td>
<td>51,494</td>
<td>65,790</td>
<td>72,889</td>
<td>84,127</td>
</tr>
</tbody>
</table>

**MINISTRY REVENUE**

144,120 245,499 206,978 194,127 150,526 151,764

### EXPENSE

**Program**

Alberta Science and Research Authority:

- Energy (includes Climate Change Action Plan)
  - Alberta Energy Research Institute: 8,963 6,940 8,875 8,875 8,875 8,875
  - Alberta Research Council Inc.: 10,116 10,895 10,895 11,126 11,126 11,126

Life Sciences

- Alberta Agricultural Research Institute: 9,732 8,875 8,875 8,875 8,875 8,875
- Alberta Forestry Research Institute: 2,012 2,260 2,260 2,060 2,060 2,060
- Alberta Research Council Inc.: 7,896 8,504 8,504 8,683 8,683 8,683

Information and Communications Technology

- iCORE Inc. (Informatics Circle of Research Excellence): 5,845 10,000 10,000 10,000 10,000 10,000
- Technology Commercialization Initiatives: 910 1,500 1,500 1,500 1,500 1,500
- Alberta Research Council Inc.: 1,481 1,595 1,595 1,628 1,628 1,628

Investing in Research Capacity

- Alberta Science and Research Investment Program: 38,818 39,222 39,222 39,222 37,222 33,222
- Technology Business Development and Commercialization
  - Technology Commercialization Initiatives: 1,367 2,175 2,175 2,175 2,175 2,175
  - Alberta Research Council Inc.: 5,182 5,581 5,581 5,698 5,698 5,698

Operations and Policy Implementation

- 4,975 4,546 5,617 5,617 5,617
- Corporate Information and Communications Technology: 41,953 44,927 46,600 47,080 45,551 45,306
- Alberta SuperNet: 2,054 4,000 2,000 19,000 19,000 27,000
- Ministry Support Services: 6,881 7,170 7,170 7,614 7,614 7,614
- Valuation Adjustments and Other Provisions: 382

**MINISTRY EXPENSE**

188,060 206,506 199,979 218,685 243,719 264,692

Gain (Loss) on Disposal of Capital Assets

(414)

**NET OPERATING RESULT**

(44,354) 38,993 6,999 (24,558) (93,193) (112,928)

## CONSOLIDATED NET OPERATING RESULT

(Thousands of dollars)

<table>
<thead>
<tr>
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<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry Revenue</td>
<td>144,120</td>
<td>245,499</td>
<td>206,978</td>
<td>194,127</td>
<td>150,526</td>
<td>151,764</td>
</tr>
<tr>
<td><em>Inter-ministry consolidation adjustments</em></td>
<td>(102,172)</td>
<td>(202,336)</td>
<td>(168,336)</td>
<td>(145,931)</td>
<td>(96,056)</td>
<td>(87,976)</td>
</tr>
<tr>
<td>Consolidated Revenue</td>
<td>41,948</td>
<td>43,163</td>
<td>38,642</td>
<td>48,196</td>
<td>54,470</td>
<td>63,788</td>
</tr>
</tbody>
</table>

Ministry Program Expense

188,060 206,506 199,979 218,685 243,719 264,692

*Inter-ministry consolidation adjustments* | (11,334) | (17,192) | (15,692) | (18,434) | (19,259) | (21,179) |

Consolidated Program Expense

176,726 189,314 184,287 200,251 224,460 243,513

Gain (Loss) on Disposal of Capital Assets

(414)

**CONSOLIDATED NET OPERATING RESULT**

(135,192) (146,151) (145,645) (152,055) (169,990) (179,725)
## CAPITAL INVESTMENT BY PROGRAM

(Thousands of dollars)

<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Alberta Research Council Inc.</td>
<td>2,188</td>
<td>4,296</td>
<td>4,296</td>
<td>3,414</td>
<td>3,346</td>
<td>3,387</td>
</tr>
<tr>
<td>2 Alberta SuperNet</td>
<td>38,994</td>
<td>117,800</td>
<td>85,300</td>
<td>58,700</td>
<td>10,000</td>
<td>-</td>
</tr>
<tr>
<td>3 Corporate Information and Communications Technology</td>
<td>4,813</td>
<td>5,899</td>
<td>5,899</td>
<td>3,500</td>
<td>4,000</td>
<td>4,000</td>
</tr>
<tr>
<td>4 Ministry Support Services</td>
<td>102</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>MINISTRY CAPITAL INVESTMENT</td>
<td>46,097</td>
<td>127,995</td>
<td>95,495</td>
<td>65,614</td>
<td>17,346</td>
<td>7,387</td>
</tr>
</tbody>
</table>