

IRMP Overview

Strategic Directions

The ministry has developed a strategic information systems plan for the Ministry and the K-12 sector across the province. The objective of the system plan is to establish a set of systems, and a general approach, that will enable strategic change in the management of public education, in the near term and on an on-going basis.

The approach involves increasing collaboration across the K-12 sector – and beyond – while supporting business autonomy and choice. Collaboration supports shared management of data and information systems, and increasing access to information to support better decision-making. The over-all effect of these changes will contribute to streamlining business processes and reducing costs across the sector and within Government.

The goals of the plan are aligned with the direction of the ministry to support:

- Improvement in student achievement by increasing flexibility in how and where students can learn: Any Time, Any Place, Any How, Any Pace, and
- A wide variety of choice for students and parents, increase the autonomy of Schools and School Authorities, while maintaining a results-based orientation in all parts of the system. This is a very significant change away from a management system in which the scale of expenditures and level of service is used as a proxy for results.

Characteristics of the strategic information systems plan include:

- Sector Approach: New systems are shared across organizational bodies, not only within the Ministry but also across the K-12 sector. Information systems and services are intended to be fully integrated to enable cross-functional work, streamline business and information processes, and coordinate information integrity, sharing, and flow as appropriate, across the Ministry and sector.

- Data Management: A high proportion of the Ministry's business processes are information driven, and the initiative to form a closer integration with the K-12 sector is based on information management and sharing. This means a different orientation to data, including:

Data Driven Decisions Increasing focus on data driven decision-making, and on consistent use and management of data, within the Ministry and across the sector.

Data Model A detailed Data Model for the province, that covers provincial data and information needs, and many of those in the K-12 Education sector.

Data Warehouse A Data Warehouse (DW), which is focused on school records and student achievement, and used for the production of key reports. The scope of the warehouse is continually extended to include other types of data.

Standards/Quality With the DW, the Ministry is focusing on integration across business areas, and the establishment of data quality rules, including the development of data quality metrics. Part of the motivation for implementing a Common Student

Control Information System (BCeSIS) is the expectation of a significant improvement in data accuracy and integrity. Within the information system data will be validated according to specific rules, including assurance that specific sets of standard codes are used consistently. These standards include a glossary of terms that facilitate data exchanges between entities such as schools and also between information systems. This means information can be recognized and used by people in the Ministry and sector.

Application Development The Ministry's approach to application development is based on a data driven requirements methodology that has evolved from the Information Engineering approach currently in use at the enterprise level. The effective capture, structure, integration and use of data and information are core objectives of the approach.

- Citizen centric, e-government: The Government is committed to providing its services directly to citizens and organizations in the private and public sector, as well as within the government. This is supported by government investments in web-oriented infrastructure, including a government portal, common web page look and feel, common authentication services, and a cross-government application integration broker.

The Ministry, working in partnership with School Boards, is extending this service by implementing a common student information system (BCeSIS), which may be used by all schools. In addition, an increasing focus on distance education and e-learning is starting to extend the philosophy directly to students in the learning context.

An essential part of the application architecture that supports this approach, is the understanding of key user roles in the sector: students, teachers, parents, and principals. Understanding of the needs of the users in these roles drives planning.

- Information Sharing: The Ministry also intends to broaden information sharing, and some system sharing, with other Ministries and institutions beyond the K-12 sector. This broadening can be thought of as taking place in three directions:
 - Pre-school facilities and services,
 - Post-secondary institutions, including universities, colleges, apprenticeship programs, and less formally established training institutes, and
 - Data exchange among Ministries for specific program improvement purposes.

The Ministry has set up the Project Delivery Office that will provide overall project coordination (financial management, system integration, strategic planning, resource planning and project reporting) with the ability to better view connections across business lines and across ministries.

Major Projects

1. **Information Systems Plan Refresh** will identify the way the new systems should be set up and interact over a 3-5 year time frame, and specific recommendations as to what projects need to be initiated, and what other interim provisions need to be made. The corporate scope

of work includes applications and information management that directly serve the Ministry, or provide service on behalf of the Ministry, including those related to:

- Data collection
- Accountability Management
- Financial (both operational / capital)
- Information sharing with other ministries and agencies, including Schools and School Authorities.
- Assessments & Learning Management
- Certification
- Data warehousing, information analysis and reporting

The sector scope includes applications of common importance to stakeholders in the K-12 sector, particularly where these:

- Are prospective extensions of BCeSIS or other common systems,
- Require integration with the BCeSIS,
- Require integration with the Data Warehouse, or
- Are prospective extensions of the Ministry's e-services.

- 2. Common Student Information System (BCeSIS)** addresses the functional needs of schools, school boards and the ministry. Implementation has started (March 2005) and will continue in schools over the next 2-3 years.
- 3. The Provincial Learning Network (PLNet)** is the largest geographically dispersed, centrally managed data communications network in North America. PLNet service is provided to all public schools. Currently, it serves over 1,900 schools and related facilities, approximately 119 college campuses, institutes and agencies in about 325 communities. The network provides equitable and secure access to education resources across the province. Government is upgrading service to rural communities as part of government's overall strategy to bridge the digital divide. Upgrades will ensure the network's ability to support new administrative applications such as BCeSIS, and the growing and more sophisticated use of the network for educational purposes.
- 4. The Data Warehouse** allows the Ministry to effectively monitor and report on student performance. The warehouse is being extended to include sector information to provide better information for schools and school boards. The warehouse could also be expanded to serve the needs of other Ministries.
- 5. Inter-Ministry Data Exchange** The Ministry has agreements with eight ministries to share data. The ministries collect information on subsets of the same clients. Sharing of data will be able to provide better information to government to make better program decisions.