
**Federal Science eLibrary
Building the STM Knowledge Infrastructure
A feasibility study**

Prepared for the
Feasibility Study Steering Committee
Strategic Alliance of Federal Science & Technology Libraries

by

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EXECUTIVE SUMMARY

The Building Excellence in Science and Technology (BEST)¹ report confirmed that federal government Science and Technology (S&T) research must “maintain a strong capacity to support the health, safety and economic well-being of Canadians through its ability to address science-based issues and decision making for the future.” In performing both research and development and related scientific activities, federal researchers² rely heavily on access to current, quality, science, technology and medical (STM) information in the form of journal literature provided by the research services of federal STM libraries. The absence of a federal government strategy to acquire and deliver STM information means that the federal research community is disadvantaged, and unable to benefit from one of the essential levers of cooperation and innovation.

During the past ten years, the purchasing power of federal science libraries has diminished in the face of journal price increases, foreign exchange rates and the continued growth in STM publishing. Base funding for federal government library budgets, which represent approximately .03% of all federal expenditures on research, has remained constant despite a 350% increase in journal prices.

Improved electronic delivery of STM literature has increased the demand for information in digital form. In 2003, the sale of STM digital content surpassed sales of print journals for the first time. Electronic formats provide significant benefits in terms of accessibility, timeliness and usability. Even as more digital STM literature is made available, the Canadian federal information service providers lack the necessary funds to convert to an electronic delivery model.

The Strategic Alliance of Federal Science and Technology Libraries (the Strategic Alliance) was formed to seek cooperative solutions to these significant challenges. In its first report, *The Case for a Federal Science eLibrary*³ the Strategic Alliance proposed to ensure continuing access to STM information resources for all federal scientific and policy researchers through a web-based gateway to the resources in all federal libraries; and nation-wide, seamless access to published electronic content (e-content⁴).

This study assesses the feasibility of delivering electronic content government-wide and recommends an implementation strategy. It concludes that the establishment of a Federal

¹ Building Excellence in Science and Technology: The Federal Roles in Performing Science and Technology, A Report of the Council of Science and Technology Advisors, 1999.

² For the purpose of this study, researcher is defined as all federal government employees engaged in research at National Research Council Canada, Natural Resources Canada, Health Canada, Agriculture and Agri-Food Canada, Department of Fisheries and Oceans, and Environment Canada, in the following fields of study: Physical Sciences, Natural Sciences, Life Sciences, Medicine/Health, Engineering, Environmental and Earth Sciences, Information & Communications Technology, Regulatory Research, Policy Research, and Interdisciplinary Studies.

³ The Case for a Federal Science eLibrary, prepared by the Strategic Alliance of Federal Science and Technology Libraries, June 2002.

⁴ e-content is a broad term incorporating abstracting and indexing databases, full-text journals, tables of contents, library catalogues and information resources stored in native-web formats.

Science eLibrary to deliver an e-journal⁵ program will contribute directly to the achievement of the government's goals for S&T research, and will promote collaboration, communication and linkages for federal researchers. Specifically the study concludes that:

- *A continuing lack of access to STM information will have a negative impact on federal research productivity and recruitment efforts, and will hinder the quality and contribution of federal S&T to the achievement of Canada's innovation agenda.*
- *Investment in digital access to electronic journals will yield excellent value and result in better use and management of public funds.*
- *Federal information service providers must develop new strategies to meet the challenges presented by increased costs and growth in content that characterizes the STM publishing environment.*
- *The federal STM library community should adopt new practices and a business model based on the Canadian National Site Licensing Project.*

If the problems of access to STM information are not addressed:

- Federal S&T objectives for excellence in research will be compromised.
- Federal departments and agencies will experience a continuing decline in researcher productivity and the government's ability to recruit researchers from other sectors will be hindered.
- The ability of the federal research community to address issues that require multi-disciplinary input will be compromised and the opportunity to promote linkages through online scientific communication, both within and outside of the federal research community, will be lost.
- Federal libraries will not successfully transition to electronic delivery of digital formats, leading to loss of credibility and decline in service resulting in loss of existing investment and expertise.

The proposed Federal Science eLibrary would build on the framework described in *Building the Canadian S&T Information Infrastructure*⁶, and would be established as an inter-departmental consortium, with a centrally funded and managed electronic delivery model. The program would require an investment of \$41.8M over five years. Eighty-six per cent of the funds would be used to acquire content.

⁵ e-journals are peer-reviewed journals available online, whether or not they are also available in conventional, printed form

⁶ Soublière, Jean-Pierre. Building the Canadian S&T Information Infrastructure; a presentation, 2003

It is recommended that the Committee of Federal Science ADMs:

1. Sponsor a Treasury Board Submission requesting \$41.8M in transition funds over a period of five years; and
2. Approve the creation of the Federal Science eLibrary consortium to govern the acquisition and delivery of STM e-journals.

Further recommendations:

3. As soon as possible, the Strategic Alliance should expand its membership to include all departments and agencies that need access to STM information in order to ensure maximum return to the government on the investment requested and to strengthen the value proposition for new funds.
4. As soon as the consortium has been established, it should seek a formal agreement with the Canadian National Site Licensing Project (CNSLP) to further leverage economies of scale and expertise.
5. A sustainable funding model that will provide continued financial stability should be developed in year five of the program.