CANADA'S SCIENCE BUDGET

KAON Out, Space Station Squeezed

Big science is out in Canada. To observers from south of the border, there's a familiar look to the fate of science in the budget presented to Parliament last week by the ruling Liberal party. The budget, which takes effect on 1 April, includes measures to curtail Canada's biggest accelerator project, the proposed KAON facility, which was intended to be an international venture including the United States. And it greatly reduces Canada's role in the U.S.-led international space station. But the news for science is not all bad: Research that can be turned to economic advantage gets favorable treatment.

So while supporters of KAON and the space station picked up the pieces, spokesmen for the National Research Council—a network of government-run research laboratories that specializes in applied research—and the three university granting councils had cause to call the 1994-95 budget "positive." In presenting the good news/bad news budget (whose passage is a foregone conclusion in Canada's parliamentary system), Finance Minister Paul Martin stressed the "need to do better at getting ideas to market. [We] must focus research and development on areas where Canada has an advantage—areas where jobs can be created."

Martin and his fellow Liberals are attempting to rein in a federal deficit approaching $40 billion (all figures are in Canadian dollars). But where science is concerned, they are adopting a strategy of "investment" rather than budget-cutting. As a result, the NRC receives an extra $9 million—an increase of about 2% over its annual budget of about $470 million—while the granting councils have this year been spared the cuts inflicted on most government departments. In the next 2 years, according to spending estimates in the budget, the councils will receive annual increases of 1.5%.

At the same time, industry minister John Manley, who oversees the science portfolio, told *Science*, "We need to be very strategic." That means bad news for the big-ticket projects, judged to offer a poor return in jobs per dollar invested. Although the Canadian Space Agency has already spent about $750 million of Canada's $1.3 billion commitment to the space station, which includes the design and manufacture of two robot arms and a control center called the Mobile Servicing System, the government is now prepared to walk away from the project—almost. It took two phone calls from President Bill Clinton to Prime Minister Jean Chrétien in the week before the budget to keep Canada in the project.

So instead of the "orderly withdrawal" threatened in the budget documents (which were printed before the last-minute negotiations), Martin announced a gradual reduction in Canada's contribution, one that is projected to save $500 million over the next 10 years. That will open the way to investments in other areas of space science thought likely to create more jobs in Canada, such as earth observation and remote sensing.

For KAON, though, the bad news was unalloyed. The Kaons, Anti-protons, Other particles, and Neutrinos factory, to be built at the Tri-University Meson Facility (TRIUMF) in Vancouver, was conceived as a high-intensity source of particles whose decays might shed light on a slight asymmetry of nature that accounts for the excess of matter over antimatter. In 1991, the federal government offered to contribute one-third of KAON's construction costs, or about $236 million, with the province and international contributions making up the other two-thirds. The Liberals have now withdrawn the offer, citing the expense and saying that foreign contributions never materialized, effectively killing KAON. Says Manley, "KAON is a good project, but it is beyond our means."

Jean-Michel Poutissou, associate director of TRIUMF and head of its science division, calls the decision "very painful" and argues that "the support (from foreign countries) was there. We had to convert that support into dollars, but...we needed some leadership, which we could not get from the science bureaucracy."

The tide is running against Poutissou and other supporters of big science, however. This year's budget is only the start of the Liberals' jobs-from-science campaign. The next step, they announced, will be a full review of how the Canadian government can better spend its $6 billion annual investment in science and technology, due to begin this month.

–Douglas Powell

Douglas Powell is a graduate student at the University of Guelph.

CLINICAL RESEARCH

Panel Backs Pregnant Women in Trials

Pregnant women remain one of the few groups to be routinely excluded from studies of new drugs and therapies. The reason: The potential risk to the fetus and liability concerns have long been thought to outweigh what might be learned from allowing women who could become or who are pregnant to participate in a clinical trial. But last week a panel of the Institute of Medicine (IOM) challenged that assumption in a report* recommending that government policy toward pregnant women "shift from one of *exclusion* to one of *inclusion*."

The panel emphasized that it was not advocating active recruitment of pregnant women into every clinical study. But it unanimously opposed current regulations within the Department of Health and Human Services that classify pregnant women as a "vulnerable population" that should be research subjects only under special conditions. The phrase "vulnerable," the panel wrote, "suggests that pregnant women are less autonomous, or more easily exploited, by virtue of their pregnancy." Instead, the panel concluded, pregnant women should be able to make their own choice about participating in a trial.

The panel recommended that researchers, as part of obtaining informed consent from women of childbearing age, discuss the option of an abortion with participants who may become pregnant during any trial that may "pose unknown or foreseeable risks to potential offspring." The report also suggests that NIH compile a database of drugs and diseases known to act differently on men and women to be used by institutional review boards in overseeing trials and in counseling potential participants.

NIH is already making many of the changes the panel recommends, says Judith LaRosa, deputy director of the NIH Office of Research on Women's Health, and is proposing to set up a registry of clinical trials with information on the participation of women and men and the racial and ethnic makeup of each trial. NIH's Office of Protection from Research Risks plans to assemble a committee this spring to reconsider the current rules on human subjects.

The panel's call for new policies to increase the participation of women in clinical research is consistent with reforms sought by groups such as the Society for the Advancement of Women's Health Research. But although it recommended women have "equal access" to clinical trials, the panel opposes language in a new law governing NIH programs that forces clinical investigators to include statistically significant numbers of women and minorities in all NIH-funded trials (*Science*, 4 February, p. 602). "Requiring scientists to include sufficient numbers of [subgroups] to...detect unsuspected differences would produce little additional information at a greatly increased cost," it said.

–Christopher Anderson

*Women and Health Research: Ethical and Legal Issues of Including Women In Clinical Studies, Vol. I; Institute of Medicine, 1994.