INTERNATIONAL COLLABORATION

Cold War Thaw Leads to Turmoil in NATO Science

The North Atlantic Treaty Organization (NATO) may be best known for Cold War military maneuvers, but it has also been a force in science. For more than 40 years, it has been quietly funding collaborations across a range of leading-edge areas of basic and applied research between some of the best scientists in its 16 member countries, plowing an estimated $30 million this year into the program. Since the end of the Cold War, however, the program has been increasingly refocused to support collaborations between NATO country scientists and Eastern European researchers. Now a high-level report on the science program has recommended that, if no extra funds can be found, the scope of the program be drastically narrowed as NATO itself continues to retrench. But some member countries are unhappy with the plan, and the resulting turmoil is threatening the future of the program as a whole.

The independent review, headed by physicist Roland Schmitt, former head of General Electric's research center in Schenectady, New York, and a team of six other prominent researchers, concluded that the program should be oriented further toward collaborations with researchers from 24 "cooperation partner" nations in Eastern Europe. The report also said the program should focus on research related to NATO's defense interests if funds are limited. It was presented earlier this month at a meeting of the NATO science committee, when—to add to the program's troubles—Canada took the unprecedented step of withdrawing entirely from the science program because of its own domestic budget problems and the current uncertainty about the future of the program.

Other member countries were also unhappy with the proposed new direction. "The program has worked very well for us in the past as many of our researchers not working on direct defense-related projects have won funds," says Povl Olgaard, Denmark's delegate to the science committee. The size and shape of any future program now hangs on the decision of the full NATO Council, which meets next week. Although the committee finally backed the review, many are now worried about whether the science program will even survive given the pressure on NATO's budget. "I honestly don't know which way the council will respond to the report. There are real worries on the funding side," says British peer Lord Lewis, a chemist at Cambridge University who is the United Kingdom's delegate to the committee.

Established in the 1950s, the NATO science program was designed to strengthen the security of its member nations as well as foster intra-alliance links through shared science activities. It is overseen by the science committee, made up of one delegate from each member country. The program has over the years covered numerous disciplines, no matter how basic. For example, it funded studies of interstellar dust by the British chemist Harold Kroto in collaboration with Takeshi Oka at the National Research Council in Canada in the 1970s that ultimately led to the discovery of the new form of carbon known as fullerene.

But the end of the Cold War prompted a rethinking of the program's goals. Five years ago, the science committee reoriented some of the program to concentrate on problem areas of particular interest to the alliance's new cooperation partners in Eastern Europe. In Armenia, for example, NATO grants have enabled Armen Gulkhasian of the Yerevan Physics Institute to build a research and education network. "The network has brought full access to the Internet for a large part of Yerevan," he says. Similar work has already been carried out in Georgia, and NATO is finalizing the funding for extending links in Crimea.

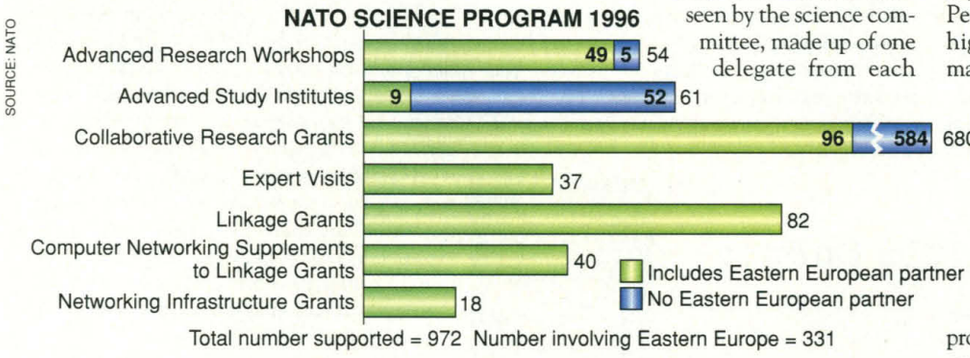
But the feeling inside the alliance is that these changes have not been enough to make the program sufficiently relevant to NATO's new role. "There's a view by some that the program is a gravy train about to hit the sidings," says one NATO insider. The science program takes a significant slice of NATO's small civilian budget, which is under pressure as NATO expands its nonmilitary activities. In response, the committee commissioned the review headed by Schmitt. This High Level Review Group "talked to politicians as well as scientists and got a huge amount of input," says Schmitt.

The reviewers gave the program high marks for the quality and effectiveness of the research it has supported within the alliance. But the enthusiasm of researchers in Eastern European partner countries and the impact that relatively small NATO grants have had there impressed the High Level Review Group. "Our main conclusion, in spite of the success of the intra-alliance program, given the current budget situation is to build up the outreach program," says Schmitt. Liverpool University physicist Peter Weightman, a member of the program's high-technology panel, agrees: "There are many skills in Eastern Europe complementary to Western strengths. Good collaborations can be a win-win situation."

When the group's report was presented to the science committee on 17 and 18 October, it led to a heated debate. Olgaard said: "I'm concerned about further emphasis on the outreach aspects, and if it becomes more narrowly focused on defense and security needs, then there's a problem. Many smaller countries would be left out if they do not have strong military oriented research." Adding to the worries was Canada's decision. The withdrawal has long been contemplated, says Arthur May, the Canadian delegate. "I find myself on the receiving end of a decision made at home. It was decided 2 years ago because of domestic budget cuts and a perception that the program is not responsive enough to the new needs of NATO."

May hopes Canada will think again in light of the new report: "There's a substantial shift in the program now. I hope they will look again." But others are more gloomy about what may be in prospect when the NATO Council considers the program's fate next week. Like Canada, the council may see this small program as a soft target given the budget problems NATO faces. "It's very difficult to say anything about the future," says Olgaard. But, says Weightman, "it would be a disaster if it were to be halted."

–Nigel Williams



Moving east. An increasing share of NATO science activities involve Eastern European partners.