

research technicians and professionals, will permit the existing research force to achieve a higher level of effectiveness and efficiency and it will ensure that the increasing numbers of graduate students are trained on the state-of-the-art equipment so essential to an increasing component of research activity.

Unfortunately, the infrastructure so necessary for an effective research effort in our universities is deteriorating rather than improving. NSERC's efforts have filled some of the gaps produced by reduced university budgets, but a much more aggressive program is required by someone to stop this erosion, and turn the situation around so that we can truly get "more bang for the buck" from our current and future research leaders.

Council has identified and documented but one part, albeit a critical one, of the overall infrastructure dilemma and has decided to take it into account in this Five-Year Plan. The magnitude of the challenge is such that the expansion of the Infrastructure Grants program constitutes a very significant portion of the request for increased funding; indeed, as was shown in Figure 5, it represents one-third of the total increased expenditure called for over the next five years. The Council also recognizes, however, that part of the need exists because of the withdrawal of university funding due to a significant erosion of provincial grants in relation to enrolment pressures. This leads one to ask why the federal government alone, through NSERC, should be responsible for correcting the erosion of research infrastructure, and for rebuilding infrastructure up to a more efficient level. NSERC can't answer that question; all it can do is identify the debilitating effect this situation is having on research and research training and quantify what is required to take appropriate corrective action. The required funding has been included in this Five-Year Plan but, as with the Research Professorship program, has been separated out as being an initiative that would move NSERC into areas of support which, in the past, have been met in large part by the universities themselves.

The current federal-provincial arrangements for the support of university research and research training are inadequate to deal with the requirements of our technological and economic future. The historic share of the total cost of university-based R&D is shifting quickly to a larger share funded by NSERC and the federal government and a smaller share by the universities and the provinces. Many R&D support services and infrastructure costs that used to be borne by the universities are now billed against NSERC grants, thereby eroding the effectiveness of the federal funds. An early resolution of the Established Program Financing arrangements is urgently needed before irreparable damage is done to the very foundation of our overall R&D effort. NSERC's budget was never intended to fill this ever widening gap in funding.

The Council itself has not been asked for suggested changes to the existing EPF arrangements, nor does it feel it is appropriate to present such proposals. However, a new arrangement that addresses the specific and vital role of the universities in research and research training is urgently needed.