

## NEWS AND VIEWS

### Bidding Blind

THE council of CERN, meeting on June 15 at Geneva, has devised a neat way of sustaining the interest of member states in the competition there is bound to be for right to play host to the 300 GeV machine. According to the procedure now approved, states are being asked to say whether they will contribute to the new project, and are being allowed to qualify their consent only by placing an upper limit on their share of the total cost. Only when these bids have been received in September will the process of picking one of the nine possible sites begin in earnest. By then, of course, it will be too late for the disappointed nations to withdraw with dignity.

Although the 300 GeV machine dominates most things at CERN these days, the laboratory at Geneva is by no means inactive. The intersecting storage rings are now taking shape, with a deep excavation well advanced on the north-west of the proton synchrotron and, just across the line of the old French border, now happily smudged out. There is particular interest in the experiments under way to measure the anomalous magnetic moment of the  $\mu$ -meson and in the preparations now being made to obtain a better yield of neutrinos from the proton synchrotron.

The Annual Report of CERN for 1966 says that work has also continued on the development of a large hydrogen bubble chamber, by collaboration between groups from Geneva, Heidelberg and Saclay. The year ahead is likely to see more work on the development of large bubble chambers at CERN, together with a start on the programme of work which may eventually make the 28.5 GeV proton synchrotron still more effective, chiefly by providing a power supply which can allow a greater pulse rate than one every five seconds at the highest energy.

CERN remains one of the few organizations able to budget accurately a year ahead, partly because national contributions to the budget are tied to variations of prices and salaries. In 1966, however, the organization made a surplus of 656,000 Sw. francs, which was returned to member states. The budget for the current year includes an increase of 16 per cent (at 1958 prices) in the basic programme, chiefly because of the increased cost of more intensive operation, and a sum of 71 million Sw. francs to cover the cost of the intersecting storage rings and the planning work for the 300 GeV machine.

### Physics in Canada

In May 1966, the Canadian Association of Physicists was asked by the Science Secretariat in Ottawa to produce a report on the state of physics in Canada and an assessment of future needs. In May 1967, its report—400 pages long—was published, despite the fact that work had not begun in earnest until September

1966. The report bears no signs of its hasty production: it is admirably clear, well argued and comprehensive.

The broad conclusion is that Canada is in danger of catching the British disease; "... whereas pure research is in a reasonably healthy state, and is continuing to improve, the same cannot be said for applied physics... special consideration must be given to improving the research effort in applied physics". Financial support is described as reasonable in government laboratories, poorer in universities, and insufficient in industry. The growth rate, though, is better now than in the past, and the committee recommends the maintenance of a steep growth rate of about 23 per cent for the next five years, the majority of the increase to go to industrial research. The committee also gave its blessing to the establishment of joint institutes; five of these should be set up, it says, in astronomy, materials science, elementary particle physics and two in nuclear physics.

In astronomy the problem seems to be that nearly all research is carried on in government establishments; the universities cannot supply even enough graduates to man the government laboratories. A national telescope, possibly the Queen Elizabeth II telescope on a site on Mount Kobau in British Columbia, should be built without delay. This would form the nucleus for the institute of astronomy, to cost \$20 million over five years. One nuclear physics institute should be built around what is called the Tri-University Meson Facility (TRIUMF) proposed, oddly enough, by four universities, British Columbia, Victoria, Alberta, and Simon Fraser University. This meson producing cyclotron will cost \$26 million. The other institute should be built around the Intense Neutron Generator (ING) belonging to Atomic Energy of Canada. This would cost more, about \$140 million. Canada should not, however, invest in a large particle accelerator, but concentrate on collaborative projects with other countries. It is even possible that Canada might offer to participate as a full partner in the building of the American 200 GeV machine at Weston, Illinois.

Research in physics in Canada cost \$70 million in 1966, more than half going to government laboratories and less than 7.5 per cent to industry. By 1971 the figure should be \$161 million, government establishments taking 38.5 per cent, universities 45 per cent, and industry 16.5 per cent, the report concludes.

### Austrian Research

from a Special Correspondent

*Vienna, June 15*

THE scale of research and development in Austria, by common consent among the lowest in Europe, was the central issue in a public debate this week involving the Minister for Education, Mr L. Piffel-Perkevic, and Dr R. Meyer, a member of parliament and of the Austrian Socialist Party. Both politicians were speaking at a session of the Europegesprach 1967 organized here by the Mayor of Vienna and devoted, this year for the first time, to problems of science. Since both the Government and its critics acknowledge that there ought to be a bigger effort on research, the difference between them boils down to an assertion by the Government that it is doing everything it can—and almost everything that needs to be done—to put things