

been hoped. To be sure, the immediate future seems to lie firmly in the hands of the two consortia of nuclear engineering companies. It is, however, doubtful whether the government would be wise to rely entirely on private industry for what may yet be a much longer and more expensive development programme than the optimists expect. The successful development of a fast reactor is, after all, essential to the success of the British nuclear power programme. Retaining the capacity to do the basic research and development that may be necessary is at the least a prudent insurance policy. Will Mr Davies be able to stomach this prospect?

That said, it is important that he should move quickly to suggest what the Atomic Energy Authority's future will be. For the best part of a decade, the authority has been living under a cloud. The late government made some progress with a re-definition of what the authority is for, but the proposal that it should become the core of the putative British Research and Development Corporation is now a dead duck, for the time being at least. Mr Davies is more likely than his predecessor, Mr Wedgwood Benn, to aim at a further reduction of the scale on which the establishments operate.

100 Years Ago



NOTES

AT last a sum of money has been voted for a new Natural History Museum. In introducing the vote the Chancellor of the Exchequer said the British Museum had long been suffering from depletion, and there were no means of exhibiting the valuable articles which, from time to time, were bought for the national collection. Five years ago the trustees resolved in favour of separating the collections, and it had been determined to separate the natural history department from the books and antiquities. For the natural history collection the typical mode of exhibition had been decided on, and the building required must cover at least four acres. Even the present collection would pretty well fill a building of these dimensions, and provision must be made for further extension. The question was, where should this building be situated? and after referring to possible sites he referred to the locality which we were enabled to state some time ago had been chosen—a plot of ground 16½ acres in extent, which the trustees of the Exhibition of 1851 sold to the Government at 7,000*l.* an acre. It therefore cost 120,000*l.*, but is now worth 100,000*l.* more. The sale was coupled with the condition that any building erected upon the land must be for purposes of science and art. For seven years the land had remained waste, a sort of Potter's field, and a scandal to that part of the metropolis.

From Nature, 2, 281, August 4, 1870.

OLD WORLD

EUROPEAN CONFERENCE

Way Out of the Space Dilemma

from a Correspondent

THE most interesting result of last week's European Space Conference (ESC), which will resume in Brussels on November 3, 4 and 5, is the forthcoming Washington mission of the Conference chairman, M. Theo Lefevre, Belgium's research minister. This is expected to take place "within a few weeks", which probably means in September. He is, first of all, to seek clarification on whether the US is prepared to launch operational applications satellites for the European Space Council (as the present space organizations will soon become). If so, on what financial and political terms?

It was accepted almost without question that the chief aim of the ESC countries is jointly to pursue the development of applications satellites. Three such satellites have reached the project definition stage. An air traffic control satellite for the North Atlantic is envisaged as a 50:50 project between the European space organization and NASA, with an experimental payload ready by 1974, leading to an operational satellite two years later. The much delayed and discussed European telecommunications satellite still awaits the establishment of common ground between the European postal authorities and the European Broadcasting Union, but it is shaping up for an initial systems-proving launch in the mid-1970s. This will be followed by an operational 500 kg vehicle of considerable capacity and sophistication for 1977-78. A European weather satellite, perhaps to provide an in-space European contribution to GARP (Global Atmospheric Research Programme) has also been defined. For these projects, sums of \$5 million equivalent for both air traffic control and telecommunications, and \$2.5 million for the meteorological satellite, to cover design work to the end of 1971, were adopted by the Conference. These sums are in addition to the regular contributions by member states to the continuing work of ESRO and ELDO, as provided for at the last ESC held in Bonn in 1968.

The chief question is, then, what is to launch these satellites? It is here that the Lefevre mission is crucial—and indeed forces the question why it has not taken place before. The United States has consistently said that it is prepared to launch scientific and experimental satellites on favourable terms for European interests and as far as the former are concerned it has many times done so. Confusion and ambiguity surround the question of whether the US would launch operational vehicles, for example, a European regional communications satellite, which might be considered to conflict with the commercial aspirations of Intelsat. If a definite undertaking can be obtained, there is barely any justification left for continuing with the Europa launcher, which has yet to orbit a satellite and which must move to a more powerful, and expensive, version if it is to handle the 500 kg communications satellite which is wanted for the end of the decade.

Another element that has now entered into the calculations is the American invitation to Europe to take on a sizable portion of the post-Apollo programme. This is expected to come in at the end of the decade