

British particle physicists reject proposed cuts for CERN

For the past two months, particle physicists in the United Kingdom, Europe and the United States have been poring over the Kendrew group's report on high-energy particle physics in the UK, a dense 93-page document with another 20 pages of appendices, which was released on 18 June. A rather strong consensus has emerged about the report, and leaders of important institutions already are digging in for what could be a long political struggle. At the same time, it is generally recognized that the report is not without its blessings.

Everybody is relieved that the report recommends, without qualification, that the UK stick by its commitment to stay in CERN and make its agreed-upon contributions until LEP is completed in 1989.

There also is general relief that the

Kendrew report describes particle physics as an extremely important, exciting and basic field (though the report specifically declines to designate it "the most fundamental field imaginable"). Three-quarters of the report are devoted to a detailed account of how particle physics has evolved, Britain's extensive contributions to the field and the special achievements of CERN (see box, page 69).

Particle physicists reject with virtual unanimity, however, the Kendrew group's claim that the UK could cut funding on both CERN and the domestic program in particle physics by 25% between 1989 and 1991 without doing fundamental damage to the field, and that it should do so. There is not much sympathy, either, for John Kendrew's opinion that the energy upgrade of LEP—sometimes called Phase II—

should be delayed into the mid 1990s, until the results of Phase I are in.

Leaders in the field—from Burton Richter at SLAC to Ian Butterworth, science director at CERN—feel that the report's recommendation to cut funding for particle physics by 25%, coming after 74 pages of glowing statements about particle physics and CERN, is a "non sequitur," "out of the blue" or "off the ceiling." Even more grating to them all is the statement in the report that it would be in the interest of particle physics itself, regardless of general conditions, to slow down a bit.

The proposal to cut funding for particle physics by 25% is based on a long list of other science fields that appear to be badly underfunded. At a time when so much of science is suffering, the report reasons, it is hard to justify spending 10% of the total

Kendrew and Llewellyn Smith face off on report

Christopher H. Llewellyn Smith, an Oxford particle physicist who served as consultant for particle physics to the Kendrew committee, took the unusual step of issuing a formal "riposte" to the report the day it was released. Llewellyn Smith said, among other things, that the recommendation to cut Britain's CERN contribution by 25% amounted to a recommendation that CERN's total budget be cut 25% because "there is no prospect of substantial new contributions by 1991 either from new members or from intermediate members..."

Llewellyn Smith said the claim that CERN could absorb a 25% cut by 1991 and still maintain a world-class standard was "false." He characterized as "ludicrous" the report's suggestion that the domestic budget for particle physics also could be cut by 25% in an orderly way.

"The recommendations in the report would severely damage particle physics," Llewellyn Smith said, "while only making a small contribution to the solution of the crisis in science funding, and would also damage the UK's credibility as an international collaborator in science generally."

Llewellyn Smith told PHYSICS TODAY that he considered it "extremely patroniz-



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ing" for the committee to tell particle physicists that they were going "too fast for their own good." He said a colleague had characterized this particular part of the report as a "knee in the groin."

Responding to Smith's complaints, John Kendrew of Oxford University told PHYSICS

TODAY: "We just noticed that particle physics is becoming more and more expensive. Just look at your proposed SSC. It seemed to us that in the long run particle physics is going to price itself out of the market, not only in the UK but everywhere." In advising particle physicists to slow down, Kendrew said the committee was not making a scientific judgment about the field, it was just commenting on the realities of the world. "If every country in the world were to double its spending on science, the situation might be different, but we don't see that happening," he said.

Kendrew said that 25% represents the best judgment of the committee on the cuts that could be made without doing fundamental damage to CERN. "If there were to be cuts, it would be for the high-energy community to decide how they should be distributed.... But at the end of the day, we're talking about 1992, and things might turn out to be different."

"The real take-home lesson is that the UK science budget is too small," he said twice for emphasis. He takes satisfaction in the fact that the Parliament's science committee has been stimulated by the report to make representations to the Prime Minister on science funding.