their budget is in real terms not very different from what was agreed three years ago. Others say that little purpose is served in reminding one Administration of promises made by its predecessor.

One of the ironies of ISABELLE is that the problems of magnet design which have delayed the project by about four years appear in the past few weeks to have been resolved. If the Administration practises what it has been preaching the only remaining hope for the accelerators is that Congress may choose to appropriate funds for the project against the Administration's wishes.

High-energy physics

LEP approved

While American physicists agonize over the future of a new accelerator (see above), twelve European nations last week agreed in principle to the construction of LEP, a 27-km circumference machine to collide electrons with positrons at energies up to 50 GeV per beam — enough to create the long-sought neutral intermediate vector boson.

The twelve nations are the members of CERN, the European centre for research on nuclear physics at Geneva where LEP will be constructed. Three members (the Netherlands, Sweden and Norway) have given approval subject to parliamentary approval at home.

The principal questions still hanging over LEP concern the precise annual budget at which it will be built — which affects how rapidly it might be brought into service — and environmental opposition in the French and Swiss territory under which the LEP tunnel must be bored.

If all goes well the budget will be decided at the December meeting of CERN Council. (On CERN's own plans, it would be about 630 million Swiss francs a year — £182 million — enough to have LEP in action by early 1987.)

But environmental approval is more unpredictable. At present, CERN is restricted from building even a reconnaissance gallery. The gallery is needed to permit inspection of the geologically critical boundary between the sandstone floor of the Geneva valley and the limestone Jura Mountains to the north (under which the LEP tunnel must pass), but a Lyons court ruled that CERN had no valid licence for the work. CERN has now guaranteed that the accelerator will not be built until and unless the appropriate local French and Swiss procedures for approving large constructions are completed successfully.

Such approval is yet to come — for the French and Swiss accession to LEP at the level of CERN Council was made at ministry level, and is subject to local approval. However, CERN staff are confident that the environmental "dangers" of LEP — for example that it might affect the water table — have been wildly exaggerated, and that local approval will be granted.

Robert Walgate

US research support

Academy exhales

Washington

Dr Frank Press's first essay as a constituency lobbyist since his election as president of the National Academy of Sciences, his colloquium on the latest budget proposals on Monday and Tuesday last week, was a tactical success. Its most tangible product, a document labelled "consensus statement", drafted in a closed session on the second day, is a nice amalgam of moderate belligerence and sympathy for the Administration's economic problems.

The colloquium itself was the first response of what the labour unions might call organized science to the decision in September that all federal agencies except the Department of Defense must reduce their discretionary expenditure by 12 per cent. (NASA, for the current financial year, is let off lightly at 6 per cent but has been told that 1983 will be worse). Discretionary expenditure is that not mandated by explicit provisions in legislation.

The consensus statement acknowledges that economic problems "have eroded research and development", but says that the new budget proposals will do "irreparable damage" unless long-term research is protected, if necessary at the expense of "development and demonstration". The document urges the Administration to assume responsibility for supporting scientific research, but asks for a formal review of the machinery by which this is done.

Before the definition of consensus pre-occupied the colloquium, diversity was rampant. One speaker was so alarmed by the threatened 12 per cent reduction as to fear a return to pre-Sputnik days. Another warned his academic colleagues not to expect too much from industry, whose support now accounts for 3 per cent of university budgets. Industrial grants would have to increase threefold to make good the damage done by the 12 per cent cut.

The colloquium also broke new ground by giving currency to the word "prioritization" — deciding what research should be given first claim on limited funds. This notion is in sharp contrast with earlier declarations of faith in a plurality of sources of funds.

The statement argues that the abruptness of the new cuts will be especially damaging. This is well illustrated by the plight of the National Science Foundation, none of whose expenditure is mandated by Congress, but which finds itself committed to the US Navy for support of the Antarctic research programme as well as to several national laboratories. It has become known in the past few days that these commitments may mean that the softer, grant-making parts of the foundation may find their budgets cut by up to 18 per cent, especially if spending on social science,

education and international relations (cut severely in March) is now protected.

Among the hundred participants the two principal government representatives appear to have left contrasting impressions on their audience. Dr J. Khaduri, one of the hard men from the Office of Management and Budget, preached economic realism and told his listeners that they would lose more from continued inflation

Press, moderately belligerent; Keyworth, inscrutable than from the government's emergency budget. In the meantime, he declared, there is bound to be hardship. But at least there is also a chance that scientific enterprise could be growing again on the basis of a "new equilibrium" and with the help of dollars whose value remained constant from one year to the next. It is unfortunate that the Secretary of the Treasury, Mr Donald Regan, should have had to admit a few days later that the federal budget would probably not be balanced by 1984.

Dr George Keyworth's declaration seems to have been harder to interpret. The science community is not yet sure whether to regard him as a friend at court or as the Administration's lightning rod. Dr Keyworth himself is probably not yet sure. Last week, however, he left at least some of his audience with the impression that he believes the consequences of the emergency budget will be less serious than now seems likely. Does he know something, or is he simply being well mannered?

European space policy

New satellites due

Europe's activities in space received new impetus with the announcement last week that the United Kingdom is willing to make its contribution to the Large Telecommunications Satellite (LSAT-1), and with the decisions made at a European Space Agency (ESA) council meeting to recommend three projects to member nations for further development. Provided the member states do not refuse to fund them, the three projects — the Earth Resources Satellite (ERS-1), the Ariane 4 launcher and the Spacelab "follow-on" spacecraft — will begin their next development stages in about three months' time. Other issues of great concern to the members of ESA — particularly collaboration with the United States and the ten-year plan of ESA's director, Erik Quistgaard (*Nature* 290, p.536) — have