World in collision. The site of the Next Linear Collider is up for grabs; Batavia, Illinois, and Hamburg, Germany, are seen as the front-runners.

(NLC) at its center. Whether or not it is the host, the panel argues, the United States must have a central role in building the machine. HEPAP adopted the report this week at a meeting in Washington, D.C.

Current cost estimates put the linear collider, which will smash electrons and antielectrons together at about half a trillion electron volts of energy, at about $5 billion to $7 billion. The HEPAP plan, which ratifies the consensus hammered out at Snowmass, Colorado, last summer (*Science*, 27 July 2001, p. 582), calls for the host country to pay two-thirds of the bill. The panel recommends that the United States bid to host the facility at a site using existing expertise at a national laboratory such as Fermi National Accelerator Laboratory in Batavia, Illinois, or the Stanford Linear Accelerator Center in California.

Hosting NLC would require an annual high-energy physics budget some 30% higher than the $716 million now being spent by the Department of Energy (DOE). Building it overseas—most likely in Germany or Japan—would mean only a 10% boost. If the budget doesn't increase by at least 10%, says Barish, "we can't have a significant role in the linear collider." James Decker, acting director of DOE's Office of Science, declined to comment on the budgetary implications of the proposal. "But let me assure you that we will take the plan very, very seriously," he says.

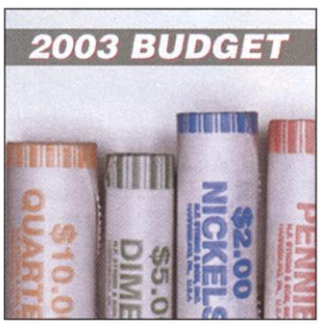
The road map also calls for a panel to rank upcoming experiments and discusses opportunities in particle physics other than those presented by colliders, such as neutrino physics, symmetry-breaking experiments at B factories, and cosmological tests of the mysterious "dark energy" that seems to be causing the universe to expand faster and faster. This agenda reflects a shift in the definition of particle physics from a field concerned with the fundamental building blocks of matter and the forces that act upon them. "That's narrower than what the field is today," says Barish. The road map dubs particle physics the study of "matter, energy, space, and time," which encompasses studying dark energy and extra dimensions, as well as traditional topics such as quarks and leptons.

The breadth of the report should mollify high-energy physicists who are not associated with collider work and are afraid of being left behind, but the panel made clear that it would not sacrifice the next collider in favor of new ventures. "[NLC] promises to be one of the great scientific adventures of our time," says Jonathan Bagger, a physicist at Johns Hopkins University in Baltimore, Maryland, and co-chair of the subpanel. "It's a rare opportunity and one that should be seized by the U.S." —CHARLES SEIFE

2003 BUDGET

Bioterrorism Drives Record NIH Request

President George W. Bush will propose another record increase for the National Institutes of Health (NIH) next week in his 2003 budget request to Congress. The additional $3.7 billion represents a 16% rise and would complete a long-cherished 5-year doubling of NIH's budget, to $27.3 billion. But the victory isn't entirely sweet: More than half of the new money would go to combat bioterrorism and to cancer research, meaning that most of NIH's 27 institutes will likely get much smaller increases than their supporters had hoped.



Administration officials released the good news about NIH, which fulfills a campaign promise, some 10 days before the president's overall budget is unveiled on 4 February. The 2003 request follows on a $3 billion rise for the current fiscal year, to $23.6 billion.

The $1.5 billion jump for bioterrorism is a sixfold increase over the current $300 million being spent by NIH. And the big winner on the Bethesda, Maryland, campus is the National Institute of Allergy and Infectious Diseases (NIAID), which would receive 95% of the bioterrorism dollars, according to its director, Anthony Fauci. The projects would include basic research, such as genome sequencing of bioterrorism agents, as well as work on anthrax vaccines and construction of new high-containment facilities that would let researchers at NIH and elsewhere work on dangerous pathogens (see table). The agency's budget is now $2.4 billion, and the 2003 request may bump up other research areas as well.

The other area the Bush budget favors, as pledged during the campaign, is cancer-related research, most of which is done by the National Cancer Institute (NCI). Cancer research across NIH would receive $5.5 billion, a nearly 13% increase.

The doubling "is really good news" in an era of rising defense spending and a return of deficit spending, says budget analyst Dave Moore of the Association of American Medical Colleges. However, institutes other than NCI and NIAID may get as little as an 8% increase, biomedical groups expect. "I think it will be of concern to some people in the community," says Moore, noting recent annual rises of roughly 13%.

NIH acting director Ruth Kirschstein sees the budget as affirmation of the doubling campaign. "The president considers this a doubling, and as far as I'm concerned, it's a doubling. ... We are very pleased." The next step, as always, is up to Congress, where legislators are expected to be similarly generous. —JOCELYN KAISER

PROPOSED NEW BIOTERRORISM FUNDING FOR NIH

Category	Amount (in $ millions)	Includes
Basic R&D	$376	Four to seven extramural centers ($10M each), pathogen genomics, proteomics
Drug/vaccine discovery	$533	Drug screening, diagnostics, animal models
Clinical studies	$134	Smallpox vaccine trials
Research facilities construction	$430	Biosafety level 3 and 4 facilities at three NIH campuses and new extramural centers; security
Total	$1473	

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