

to avoid a situation similar to that in which discussion over plans for London's third airport have been dragged out over more than 10 years.

The decision to impose strict limits on public participation in debates over the relative merits of the different technological proposals has brought sharp protests from environmentalist and public interest groups on both sides of the channel.

At the beginning of January, for example, a group of British organizations ranging from the Town and Country Planning Association to Friends of the Earth issued a joint statement describing the Transport Ministry efforts to hear their views as a "cosmetic operation." They pointed out that a Parlia-

mentary committee which had given its approval to the project had spent only 31 working days hearing witnesses and preparing its report. This was "pitifully inadequate" in view of the importance of the project, the groups claimed.

In France, a similar statement produced by a coalition including the National Federation of Associations of Transport Users said that it had not been consulted at all, and complained that this was "an unacceptable situation" since, once the choice of design had been made, it would be too late to change.

Discontent at the shortness of public debate has even been expressed within the ranks of Thatcher's own Conservative Party,

some concerned about its impact on investment and employment in Kent, others upset that the less imaginative technology has been chosen. One Conservative Member of Parliament has promised that there will be a "grim uphill battle" when the bill authorizing the tunnel is presented to Parliament.

In defending their decision not to mount any further public inquiry, British officials point out that the technical solution chosen had already been identified as the optimal choice by the House of Commons Transport Committee in December, and was also the one which had provoked the least opposition from environmentalist groups on both sides of the channel. ■

DAVID DICKSON

## Europeans Embrace Technology Assessment

*The U.S. Office of Technology Assessment is seen as a model; so many European versions are being proposed that it may be "difficult to find new topics" says one official*

Paris.

IN the early 1970's, the British government decided to order an early-warning aircraft from its own aerospace industry rather than buy off-the-shelf from the United States. Ten years later, a succession of unforeseen technical problems has meant that the aircraft, Nimrod, is currently 4 years overdue and incurring cost overruns that have put a major strain on the whole of the British defense budget.

"If we had had an Office of Technology Assessment at the time, we might have been able to save British taxpayers several hundred million pounds," says Conservative member of Parliament Ian Lloyd, former chairman of the House of Commons Select Committee on Science and Technology and currently a prominent member of the Parliamentary and Scientific Committee.

Lloyd is one of a growing number of European politicians, coming from all points on the political spectrum, who are pushing for the creation in their different countries of technology assessment institutions with comparable goals—though not necessarily an identical structure—to those of the agency set up by the U.S. Congress in 1973.

The task is not proving straightforward.

Because of the strong constitutional links between legislative and executive branches of European governments, European parliaments find it much more difficult to act autonomously from their governments than the U.S. Congress does from the Administration.

Nevertheless, several different projects and proposals are already under way:

■ The French Parliament has set up an Office for the Evaluation of Scientific and Technological Choices (Office Parlementaire d'Evaluation des Choix Scientifiques et Techniques) which published its first report—on acid rain—at the beginning of December.

■ West Germany's Federal Parliament has set up an all-party committee to suggest what form a similar body should be given in Bonn.

■ In the Netherlands, a bill is expected to be passed shortly setting up a technology assessment committee with half of its members nominated by the Royal Dutch Academy of Science and the other half by the government's Council for Science Policy.

■ The Austrian government has added technology assessment to the responsibilities of a research institute attached to the Academy of Sciences.

■ The leader of Britain's Labor Party, Neil Kinnock, has promised to create a British version of the American OTA if it defeats the current Conservative government in the next general election, due to be held in 3 years (the proposal is already being studied by the Parliamentary and Scientific Committee, where it has generated substantial support); and

■ The European Parliament, whose elected members oversee the work of the Commission of the European Economic Community in Brussels, has also adopted a resolution committing itself to setting up a similar office. No funds have yet been appropriated for it, however.

The U.S. agency is widely quoted in Europe as the basic model, but different countries favor individual variations. A wide spectrum of motivations lies behind the current moves. For some, a strong parliamentary office is seen primarily as a way to provide elected politicians with an independent voice in political issues that have a high technological content.

"Whenever either of the two Houses of Parliament considers a major technical issue, we have nothing like the OTA to prepare our briefs," complains Lloyd. "Take the Strategic Defense Initiative, for example. The OTA has published two fat reports; we have had absolutely nothing."

A member of the Luxembourg-based staff of the European Parliament suggests that the enthusiasm shown by those referred to as "Euro-MP's" is similarly linked to the increasing technical complexity of issues dealt with by the EEC commission, ranging from automobile-emission standards to the impact of computers on jobs. "The idea that science and technology are political is slowly pervading the Parliament," he says, adding that "committees in general are slowly wak-

ing up to the fact that you do not always have to believe what the commission says."

A second source of motivation for most technology assessment supporters is the conviction, shared by many who argued for the U.S. OTA, that the social and environmental consequences of a new technology should be discussed prior to its introduction more fully than can be done with a simple environmental impact statement.

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***"OTA has published two fat reports [on SDI]; we have had absolutely nothing," says Lloyd.***

In Germany, for example, much of the pressure for a new parliamentary office has come from members of the Federal Parliament belonging to the radical environmentalist party, the Greens. "Our position is that all new developments in technology should be shown to be acceptable before they are introduced into society" says Green member of Parliament Joachim Müller.

In the Netherlands, this idea has been incorporated into the new legislation as an emphasis on what Pieter Tindemans, of the government's Department of Science Policy, describes as "constructive technology assessment."

"We want to see if we can start from social needs and criteria and ask what technology might be developed to meet them," says Tindemans. "In our opinion, that is the way technology assessment has to go; we should not focus just on assessing technology after the event."

Not surprisingly, there is considerable overlap between the subjects being proposed for study among the different European countries; indeed, Tindemans admits that it is "difficult to find new topics."

Near the top of the list is the question of energy choices. Although in several countries (such as the Netherlands and West Germany) social conflicts around energy questions have focused on nuclear power, this has not been the only source of controversy.

The Austrian government's new support for technology assessment, for example, is said to have been partly a reaction to violent confrontations that took place last summer between environmentalist groups and the police over plans to flood a major wildlife reserve near Vienna as part of a new hydroelectric scheme.

"Ecological issues are really on the politi-

cal agenda here now, just as they were in the United States at the beginning of the 1970's," says Austrian sociologist Helga Nowotny. "The government seems to feel that the time has come to institutionalize this kind of conflict."

Other topics for study tend to fall into two groups. One contains those issues, such as the environmental impact of genetically engineered microorganisms or the moral issues raised by in vitro fertilization, where almost all European governments are coming under pressure to regulate the use of a new technology. The other—for which there appears to be more support in Europe than in the United States—is made up of subjects where governments feel that they have a responsibility to cushion the social side effects of rapid technological change.

In several cases, the new initiatives have required breaking traditional political molds. "There are few precedents for this type of thing in France," admits Philippe Bassinet, chairman of the new parliamentary office in Paris which is overseen by a joint committee of National Assembly Deputies and Senators.

Inevitably, compromises have had to be made. Unlike the case of the OTA, for example, the contents of the reports of the French office remain the direct responsibility of members of the committee (which may also decide whether the report is published or not).

Compromise has also been necessary in the Netherlands, where initial proposals that the technology assessment committee should be made up entirely of individuals nominated by the government was rejected as insufficiently objective, and a new bill was written giving the Academy of Sciences a leading role.

In contrast, British Prime Minister Margaret Thatcher firmly set herself against compromise last year when she rejected a suggestion from Lloyd that the British Parliament should create an OTA. Although Thatcher used economic arguments—the need to keep down public spending—to justify her decision, Lloyd suggests that political factors were also at work.

"Mrs. Thatcher sees this as an extension of the power of the House of Commons. The government's opposition is the type of reaction you would expect from any institution which feels that its decisions are going to be assessed more closely than they now are," he says.

Indeed, the British government has recently moved provocatively in the opposite direction, rejecting demands from the socialist opposition that a public inquiry be carried out into the social and environmental implications of the different projects that

were submitted as candidates for the Channel Tunnel (see page 540). Announcing this decision to the House of Commons, Transport Minister Nicholas Ridley said that the delays caused by such an inquiry would inevitably lead to the "death" of the whole idea.

Faced with such political realities, many supporters of technology assessment fear that, despite current manifestations of enthusiasm, its impact may remain marginal. "The general tendency is not to allow these institutions to become too effective," says Nowotny. "The really touchy political issues may well not be affected." Similar concerns were, however, initially raised about OTA. But, with recent studies of SDI and the future of nuclear power, OTA has certainly been in the thick of touchy political issues. ■ DAVID DICKSON

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### *Briefing:*

## **EPA Proposes Ban on Asbestos**

In a move that has enormous financial and public health implications, the Environmental Protection Agency has proposed a ban on all future production of asbestos products. Under the plan, the manufacture of construction materials with asbestos would be halted immediately and all remaining asbestos products would be phased out in 10 years.

The agency calculates that the resulting reduction in public exposure to asbestos over the next 15 years would ultimately prevent at least 1900 cancer deaths, primarily among would-be asbestos workers. Asbestos causes lung cancer and mesothelioma.

The proposed regulation carries a hefty price tag, however. Over 15 years, consumers will pay \$1.8 billion more for products made with substitutes for asbestos, which averages out to \$10 for an individual consumer, according to the agency. Manufacturers of asbestos products would lose \$210 million, but EPA says much of the industry's equipment can be converted to produce other products. The ban would also eliminate the import of asbestos. This would mainly affect Canada, whose asbestos exports to the United States amount to \$50 million a year.

By banning asbestos products, the agency will break the "life cycle" of asbestos and prevent additional risk of exposure, says EPA administrator Lee Thomas. Mining, manufacturing, and disposal of asbestos "inevitably leads to air contamination," he said,