has both a pragmatic and a symbolic value. With the decline of many traditional industries (several thousand jobs were recently lost, for example, when beleaguered AEG-Telefunken decided to move some of its production facilities to Spain as part of its efforts to avoid bankruptcy) the Christian Democrats, who came to power in the Berlin Senate last year, have decided to boost the city's efforts to promote itself as a European center for high technology.

Seen as a central component to this strategy, the city Senate hopes that a prestigious research institute will help to attract world-class scientists to Berlin. The Minister for Research and Culture, Wilhelm Kewenig, talks of "bringing back to life" an old tradition—that of a close relationship between science and industry—on which the city's previous prosperity was founded. The new institute, says Kewenig, will show that Berlin is a better place for research than its current reputation suggests.

The creation of the institute has been welcomed by the city's two universities, the Free University and the Technical University. Schering and the Berlin Senate have agreed that the director of the institute will be provided with a chair at one of them (the Free University is the current favorite), which should make it easier to attract a suitably qualified candidate.

Neither university has hidden its concern, however, that the city's funding of the institute could result in a shift in support away from their own research programs. In a statement welcoming the Schering announcement, the president of the Free University, Eberhard Lämmert expressed the hope to Kewenig that the creation of the institute would not be accompanied by a reduction in the university's research budgets and that "the strengthening of the city's research potential in this area will not be illusory."

Describing the many advantages of establishing close links between the new institute and the university, Lämmert suggested in particular that appointing a university scientist as director of the institute might help ease public anxiety over whether the research is being carried out in a responsible manner.

In general, however, there seems to have been less public controversy in Germany than in the United States over the potential hazards of genetic engineering research. Three years ago, aware that excessive public opposition could undermine its efforts to stimulate the rapid growth of the biotechnology industry, the government announced plans to introduce legally based regulations, but it has since backed away. Declaring the operation of current guidelines, modeled on those of the U.S. National Institutes of Health, as both "smooth and unbureaucratic," Research Minister Andreas von Bülow told the federal Parliament in September that "a genetic engineering law is not necessary."

There is more concern within the scientific community about the disruptive potential of excessive secrecy as commercial interest grows in even the most fundamental areas of research. The tradition of "pure research" is deeply engrained in German science, and few scientists have been tempted to venture into the commercial world to set up their own companies; disturbing stories circulate rapidly about potentially corrupting practices, such as telephone requests for samples of cell cultures coming from scientists who do not reveal that they are working for a private company.

Aware of such concerns, a panel of experts convened earlier this year by the Organization for Economic Cooperation and Development concluded that "ways must be found" to avoid the risks of knowledge being lost due to trade secrecy, "even if the reduction of government funds for R & D is making increased industrial financing inevitable."

-DAVID DICKSON

FTC Seeks a Little Less Honesty

Two Reagan Administration appointees at the Federal Trade Commission (FTC) are pressing for reforms that may sharply limit the agency's ability to stop the use of bad science in consumer advertising. The effort apparently stems from an Administration concern that the agency has gone too far in its enforcement of a requirement that advertisements have a reasonable basis in truth.

In recent years, the FTC has acted under this requirement to stop the use of flawed clinical trials, poor surveys, inexpert scientific opinions, and unrealistic product tests in the marketing of such items as over-the-counter drugs, household appliances, automobiles, and groceries. Despite the obvious public appeal of this program, James Miller III, the FTC chairman, and Timothy Muris, the director of its Bureau of Consumer Protection, believe that the agency's actions

SCIENCE, VOL. 218, 24 DECEMBER 1982

against inappropriate or biased scientific testing are often unwarranted.

Miller has proposed that Congress approve a new, narrow definition of consumer deception, designed explicitly to hamper the agency's intervention in what he describes as "marginal cases." Miller says that the following advertisements fall under this description: those that engage in extreme exaggeration, those that describe an independent-and potentially unproved---analysis, and those that distort the attributes of inexpensive products. Under his proposal, advertisements such as these would probably not attract an FTC investigation.

Muris similarly believes that the FTC has demanded too much evidence in support of advertising claims. In a recent memo to Miller, Muris said that "the Commission has flirted with the notion

Reagan appointees complain that too much scientific truth hurts

that many advertising claims cannot be made unless they can be substantiated beyond a reasonable doubt with sophisticated scientific data. This approach, although sometimes warranted, is inappropriate for most ad claims." Muris has proposed that the agency refine its criteria for ad substantiation, so that less evidence is required (see box).

Miller, an economist, says that he is concerned about the increasing cost of substantiating ads, which, he claims, inhibits the wide dissemination of useful consumer information. "The FTC needs to study whether the costs imposed on society of preparing substantiation reports for claims that are true exceed the benefits derived in the form of reduced fraud and deception," he said at his Senate confirmation hearing last year. Before going to the FTC, Miller served (Continued on page 1292)

(Continued from page 1289)

as director of the Administration's Task Force on Regulatory Relief.

Miller and Muris, an attorney, both consider themselves champions of the business community's right to free speech. Miller, in particular, dislikes the existing statutory ban on "deceptive acts or practices"-a rule that the FTC has interpreted roughly as follows: Is an advertising claim central to the advertisement theme? Is it substantiated? If it is not supported, then consumers are likely to be misled. Last summer, in testimony before a Senate subcommittee on consumer affairs, Miller proposed that the statute be changed, so that it bars only those ads that are "likely to mislead consumers, acting reasonably in the circumstances, to their detriment." The proposal was greeted coldly by his colleagues.

According to FTC member Patricia Bailey, the definition "will paralyze enforcement and quickly eliminate the FTC's advertising substantiation program," because it shifts the burden of proof from manufacturers to consumers. She noted, for example, that Miller's formula would require actual proofrather than a standing assumption-that consumers are injured by unsubstantiated claims. Commissioners David Clanton and Michael Pertschuk say that in practice this would force the FTC to conduct extensive consumer surveys in an effort to elicit the exact reason why certain products are purchased, a requirement that would severely strain the agency's resources.

Miller's formula would, in addition, require evidence that consumers acted reasonably at the time they were injured. Pertschuk notes that at present the FTC

Don't Give Us the Facts

James Miller, the chairman of the Federal Trade Commission (FTC), and Timothy Muris, the director of its Bureau of Consumer Protection, apparently believe that the more scientific research you do, the less likely you are to discover the truth. They have suggested that the agency requires too much research in support of the claims made in advertising for consumer products. "By requiring very high amounts of substantiation, we necessarily increase the risk of prohibiting true claims," explains Muris. "Just as the initial evidence indicating a claim is true may be wrong, additional evidence indicating that it is false may also be in error. . . . If additional substantiation will probably just confirm what the initial evidence already suggests, then added evidence will not be useful."

Miller and Muris offer a number of examples to support their thesis. One, offered by Muris, involves a series of advertisements by the Sperry Corporation on behalf of an electric razor that was introduced in the 1970's. The ads claimed that the razor would reduce the incidence of so-called "razor bumps," but the FTC concluded that the company lacked any supporting evidence, and ordered that the ads be withdrawn until the claim was proved in two clinical trials.

Muris says that the agency failed to consider the audience to whom the ad was directed—namely, those who shave and experience considerable pain from the skin condition, as opposed to those who avoid shaving at all. He says that the benefits of the unproved ads exceeded the costs for this group. He also says that only one clinical trial would have been sufficient, reasoning that if a second test is positive, it is a waste of time, and if it is negative, it might well be in error, "causing a true claim to be rejected." Thus, he says, "a requirement that claims be supported by two tests rather than one simply trades one mistake for another. . . . Had the Commission considered the relative costs of mistakenly allowing false claims and mistakenly prohibiting true ones, it would probably have realized that a two-clinical-trial test requirement is more likely to harm consumers than to help them."

In another example, the FTC stopped a company from advertising without proof—that polyester cords added strength to its automobile tires. The agency said that tests must support this conclusion at the 95 percent confidence level, a standard statistical measure. "Given the likely benefits to consumers if the claim is true, compared to the likely costs if it is false, this standard of proof is inappropriately high," Muris says. —**R.J.S.** acts on behalf of the "gullible and the credulous as well as the cautious and the knowledgeable," and decides not to act only when "an insignificant and unrepresentative segment" of the ad's target population is deceived. He worries that Miller's formula would exempt many consumers from FTC protection. John Easton, Jr., the attorney general of Vermont, raises a similar objection. "What is reasonable consumer behavior?" he asked rhetorically at the Senate hearings. He said that a firm in Vermont had recently collected \$180,000 from consumers who believed its ads touting the power of certain herbs to strengthen "brain power." Consumer behavior often seems unreasonable in circumstances that nevertheless demand intervention, he suggested.

Miller concedes that his proposal would complicate FTC enforcement. "In the marginal cases, the Commission would be required to meet evidence against its cases with evidence that is even stronger," he says. It would enable advertisers, for example, to claim that consumers were not harmed by a false statement because they might have purchased the product anyway, if the ad had been truthful. It would also permit accurate statements of opinion by experts who may be misinformed. "Advertisers do not intend subjective claims and puffery to convey objective fact, nor do consumers interpret them as fact,' Muris explains; such claims invite only additional consumer scrutiny. Miller says that advertising exaggerations are often useful, because they "help consumers to remember the product's name . . . [thereby reducing] the costs of providing the signal. As a result, consumers as well as advertisers benefit.'

Although Miller's proposal has been endorsed by the U.S. Chamber of Commerce, it has yet to excite the advertising community. In fact, when Miller described it at a meeting with three major trade groups, he encountered some direct opposition. According to a report in *Advertising Age*, several ad industry spokesmen expressed concern that any attempt to weaken the existing requirement for ad substantiation would create public distrust.

Given the outright hostility of Miller's colleagues, as well as opposition from such groups as the Consumers Union and the Consumers Federation of America, his proposal is unlikely to win swift congressional approval. But it is percolating nonetheless, and both Miller and Muris say that they are working to generate more support for it.