# A chemist's valedictory

## The President's science adviser foresees a more highly structured organization for science management

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*Dr. Hornig answers a question at ACS symposium on future of basic research.*

Perhaps the United States needs a Federal Department of Science

"The problem has to be opened," says presidential science adviser Donald F. Hornig. "It may be wrong to concentrate; science, like economics, is part of everything." But the question "is sure to be an issue in the year to come."

Cabinet ministries for science are common in the governmental structure of many European countries, but there never has been one in the United States, and the idea of establishing one has encountered a certain disfavor in Dr. Hornig's own Office of Science and Technology. Dr. Hornig himself has been no fan of the notion. But he inherited his office in a time of growth of support of science. Now, as he prepares to leave the Government in a leaner year, his view has changed.

**Dr. Hornig was led** to raise the question by his observation of what is happening to basic science in the current round of budget cutting that Vietnam and Congress have imposed on the Administration. Cuts in scientific funding have been more than proportional; spending that has been level since 1967 may turn out to be five percent less in 1968.

No one can say whether this year is a special case, says Dr. Hornig, but it shows that Congress thinks research is a deferrable item. (The Administration, meanwhile, in its own budget trimming, has attempted to hold the line on its social welfare programs and spectaculars like the Apollo program's attempt to put a man on the moon, while imposing severe cuts in the space agency's more sedate programs and in such agencies as the Atomic Energy Commission.)

**What may be needed,** as Dr. Hornig hinted to a worried group of chemists at the American Chemical Society's recent meeting in Atlantic City, is a strong united voice within the Government to plan and maintain pressure for a continuing program of support for scientific research. The present situation is chaotic—a large number of government agencies, mostly mission-oriented, are concerned with scientific research, and this multiplicity means that 34 different Congressional subcommittees have to be addressed to obtain parts of the Federal research budget.

In spite of the gloom, Dr. Hornig hastens to point out, basic research—about which most of the crying occurs, because it is likely to be first dropped by mission-oriented agencies—has not been doing too badly. The numbers he gives are rough because budgets are not usually broken down by this category, but he figures the United States has been spending about $3 billion per year on basic research, $2.5 billion from the Federal Government and $500 million from private sources. This is one and a half times the percentage per capita of the gross national product spent on basic research by any other country, he says.

With 80 percent of the funds from the Federal Government, its attitude toward basic research is critical. The necessity, as Dr. Hornig sees it, is not to convince Federal authorities to support basic research. That was accomplished in the 1940's. What is necessary now is to evolve further from the level already reached.

In this endeavor a strong concentrated voice for science inside the Federal machinery could be an important aid, especially to chemists.

Chemists, so several complain, do not have a home of their own in the Federal organization as physicists have at the AEC or biologists at the National Institutes of Health. Chemists have to go where they think they can get something—an especially gloomy prospect in lean years.

**The big sciences**—radio astronomy, high-energy physics, geophysics, oceanography—employ large and expensive equipment, mobilize large teams of workers and often deal in spectacular results. Against this background of bright lights, good work in chemistry sometimes has difficulty being seen.

The National Institutes of Health do support a lot of chemists, a representative of NIH pointed out: 643, or 41 percent of its present predoctoral fellows are chemists or biochemists. No one disputed him, but the feeling in the hall seemed to be that NIH does not love chemistry for itself but for what it can do for medicine. A Federal department with furtherance of basic science as its justification might provide the desired affection.