File w/ Speeches

Thank you for the opportunity to address the Committee on the management of technology resulting from federally-funded research and development.

I have read or heard most of the statements by Federal officials describing what their agencies are doing or have done to foster the transfer of technology to the private sector. For the most part, these are excellent descriptions. Neverthless, I am concerned that these statements, however accurate they may be in describing what is taking place, give the committee a less than full understanding of why or how it is taking place. That will be the focus of my testimony.

In the simplest terms, the success of federal technology transfer initiatives depends on acceptance of the principle that federal laboratories, whether managed by the government itself or its contractors, should have maximum flexibility for managing the technology they produce. In practice, this means that they should be able to own and license the inventions they make with federal funds.

Within the federal scientific establishment the principle is as accepted as is the proposition that the earth is round and revolves about the sun - but winning that acceptance elsewhere was about as difficult for us as it was for Columbus and Copernicus to win acceptance of their arguments.

The opposition came from several sources. First and foremost, there was, and perhaps always will be, what I can only call the "Yahoo" argument: these inventions were paid for by the taxpayer, they belong to all the taxpayers, and allowing a contractor to take title is nothing more than a giveaway of public property.

Now, Mr. Chairman, when I call this the "Yahoo" argument I want to make it perfectly plain that I am not dismissing or ridiculing the notion that we all have an obligation to protect the taxpayer. What I am criticizing is the uncritical acceptance of buzzwords or slogans without understanding what is involved.

In practical terms, the taxpayers gain nothing if the invention remains on the shelf - that is, uncommercialized. It is by commercializing the invention that its potential in terms of new industries, new products and new jobs can be realized. However, they are not likely to be commercialized unless federal policies encourage this result.

For many years, study after depressing study showed that thousands of federally funded patents never achieved anything remotely approaching their commercial potential. At least two factors contributed to this: first, commercialization was largely viewed as a "headquarters" or "central office" responsibility with the result that those who understood the technology best - the lab scientists - were separated from those who managed it -

federal managers who often lacked the background to judge its value.

Secondly, there was for many years a federal policy of antipathy to the concept of patents. They were viewed as monopolies and, as such, as inherently at odds with the antimonopoly philosophy that forms the basis of our antitrust laws. It is gratifying that the Department of Justice, which for many years perpetuated the policy of mistrust of patents, has been in the forefront of efforts to gain acceptance of the idea that promoting technological competition - the aim of the patent law - and protecting price competition - the aim of the antitrust law - both contribute to consumer welfare and that patents do not necessarily take a "back seat."

Nevertheless, the antipathy toward patents was real and manifested itself in an antipathy toward exclusive licensing. Rather, the prevailing philosophy was of the "let a thousand flowers bloom" variety: since it belongs to the public anyway and patents are, as everyone knows, evil things, let's give a license to whoever asks for one - perhaps an overstatement, but not that far from the truth.

In fact, it was a recipe for disaster. Central to the concept of a patent is the concept of the right to exclude mere imitators. Few businesses would be willing to take the enormous risks inherent in developing commercial applications of inventions made

for federal program purposes and marketing the results if others, who did not have these expenses to recoup, could simply ride their coattails.

These problems begat yet a third one: the government was viewed by the private sector as a dubious partner for scientific collaboration and those universities that acted as government contractors found that their own relations with private firms were jeopardized as firms came to fear that the government would assert title to resulting inventions.

Today, a series of laws and Presidential directives have given universities, small businesses, and, to the extent legally possible, all other contractors the first right of ownership to patentable inventions made with federal funds. The Federal Technology Transfer Act of 1986 extended the principle of decentralized management to government operated laboratories and also authorized them to enter into cooperative R&D agreements with the private sector, states and localities and academia and to grant exclusive licenses to resulting inventions.

These policies are already bearing considerable fruit. You have heard numerous specific examples of increased sensitivity to commercializing the results of federally funded R&D. In addition, we are seeing, as the General Accounting Office has observed:

- increased reporting of inventions by universities and small businesses;

- increased licensing of inventions by nonprofit contractors and small businesses;

- increased bidding on government contracts by small business; and

- increased willingness of business to enter into cooperative R&D arrangements with universities that receive federal funds.

In short, we believe that these Acts and directives have contributed enormously to to the commercialization of federally funded technology and to a climate of increased cooperation between federal laboratories, universities, and the private sector.

We at Commerce are proud to have been a part of all this and are proud that the Congress has given us a significant role in monitoring federal activities and issuing relevant implementing regulations. (Expand, if desired). We are preparing a comprehensive report on federal compliance with....., as required by....., which we expect to submit to Congress by ..... We are also pleased that the President, who was instrumental in

directing agencies to extend the Bayh-Dole principles to all contractors and in directing them to work with the Office of Federal Procurement Policy to develop parallel policies regharding ownership of technical data, has been such a strong supporter of these ideas.

In closing, Mr. Chairman, I want to make an observation that we at Commerce have made on a number of occasions. Many people worry about whether we are losing our competitive edge in developing new technology. Only recently have people come to understand that how well we manage what we create may be just as important as our ability to create. And by "we," I do not mean just the federal government.

We have all heard stories about about how firms in the private sector were, in their effort to do business on a global scale, careless in structuring their joint ventures, licensing agreements, and marketing, manufacturing or supply arrangements. As a result foreign firms in such fields as consumer electronics often emerged as the principal beneficiaries in technology financed and developed by American companies.

American firms are starting to be a lot more careful about protecting their interests and the Federal government is becoming a lot more careful in developing policies that ensure that the inventions it finances reach the marketplace. We are all starting to understand the importance of technology management

and the Committee's concern and attention to this important but complex subject is gratifying and appreciated.