# INDUSTRIAL INNOVATION

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Ten years ago there was little interest in the media or in government about innovation. However, at present many magazines, television programs and a number of government agencies are quite concerned about the current decline in innovation in the United States, particularly when compared with foreign countries, such as Japan and Germany. The U.S. markets are full of products from other countries and all of us have many items which are made in Germany, Japan or other countries in our homes or garages.

Articles have pointed out that the number of patents obtained by foreign organizations in the U.S. is growing while the number of patents obtained by U.S. organizations is gradually shrinking.

These concerns are the reason for President Carter instituting what is called a Domestic Policy Review (DPR) of Industrial Innovation in 1978. Under this DPR, the Department of Commerce set up a number of committees of non-governmental advisors, totaling about 150 people from industry, labor, academia and public interest organizations, to make proposals on what the government could do to encourage innovation in the United States. These proposals then were reviewed by a large

number of people within the government and finally resulted in President Carter sending a message to Congress on October 31, 1979 with recommendations regarding innovation.

I was a member of the Patent and Technical Information Subcommittee of this Domestic Policy Review and met a number of times in Washington with about 15 other members of this Committee. We made a number of proposals relating to strengthening the patent system in an effort to encourage innovation. These proposals were combined with recommendations made by the other committees and reviewed by a number of governmental task forces.

I was surprised to see that the President's message to Congress included all the major recommendations of the patent subcommittee. While I agree with the major recommendations of the patent committee there were a number of other suggestions, some of which I made, which our group considered which could have done even more to increase innovation by making other changes in the patent system. Also, I was disappointed that the President's message did not include a number of major tax incentives which apparently will be considered in an overall review of the tax system at some time in the future.

For example, all of us know that to replace any piece of our personal equipment, such as a car, a refrigerator or even a house, is going to cost a lot more than it cost originally. This is true for equipment used by companies, such as Itek, to

make their products. However, present tax law only permits a company to charge part of the original equipment cost as an expense each year, (depreciate) rather than use the replacement cost as the basis for the depreciation. If this logical, and seemingly minor, change were permitted, namely using the replacement cost rather than the original cost to calculate depreciation, companies would have a significantly increased incentive to buy new, and innovative, equipment to replace their old equipment, and not be penalized by the tax laws for doing so.

Other tax incentives for innovation include permitting at least a partial tax credit for new product development and research and development facilities and equipment. As all U.S. companies, as well as all of us as individuals, are feeling the continuing results of inflation, innovation is one expense that many companies are reducing or postponing. If innovation cost less to do (a result of at least partial tax credits), companies would do more of it, and everyone would benefit because of new and improved products, more jobs and therefore increased tax payments on the increased company profits.

The President's recommendations on strengthening the patent system include recommendations for legislation which will provide for a uniform policy relating to patents in which the government has some right because of government contracts.

For example, if a government contractor, such as Itek, were to get title to all inventions made under government

contracts, there would be more incentive to develop these inventions into real products. If the government gets title, as is the case with most energy, space and health research and development, the patents join the thousands of other government patents that are not developed and which are worthless to you and me, the public.

Also, the President recommends improving the reliability of an issued patent by significantly upgrading the U.S. Patent and Trademark Office and establishing a single court to deal with appeals from all federal courts involving cases of patent infringement so that there will be one uniform decision on national patent law as opposed to the present variety of decisions from the various courts of appeals throughout the country.

This last court recommendation, while apparently just an esoteric procedural change, has been called "the single most important proposed change to improve the patent system". I agree. If this happened, owners of patents, particularly small businesses and individuals, would have a chance to enforce their patents against copiers with only one appeal to an expert court, rather than a variety of appeals to courts which have no background or expertise in technology. Also, the patent law would be the same in California as it is in Massachusetts, as it should be. This would, among other things, stop some of the "games" lawyers play to get a suit tried in one state, rather than another, because a patent is not valid in the first state, but is valid in the second state.

This would help us at Itek in enforcing our patents and in predicting whether patents owned by others are valid. With more reliability of patents, companies would be encouraged to innovate if their technology could be better protected, rather than copied freely by competitors.

The U.S. Patent and Trademark Office is regarded as one of the world's greatest technical libraries but this information is not easily available to the public. This should be improved.

While these objectives and some of the programs recommended to reach these objectives are worthwhile, I would be more impressed if there were more positive specific incentives to encourage the formation of small innovative firms and to increase the incentives for larger firms to put more effort into new product research and development.

The inflation in the United States, coupled with the high interest rates, makes it very difficult for corporations to devote the effort necessary to solving many of the technical problems of the day. Unless there are more incentives made available it will be very difficult to counteract the thrust of the Japanese, Germans and other countries.

It may be that the most constructive thing to come out of the President's Domestic Policy Review will be the fact that both the administration and the Congress are now quite sensitive to the problems in this area and will be much more receptive to ways to encourage innovation for the good of the country.