

Alan Wolff, Remarks at the Congressional Innovation Forum, February 12, 2013

My purpose this morning is to give you a very brief introduction to the Academy's report *RISING TO THE CHALLENGE – U.S. Innovation Policy for the Global Economy* published under the auspices of the Science, Technology and Economic Policy Board of the National Academy of Science.

The STEP BOARD is the body within the National Academies that is charged with looking at the intersection of these three policy disciplines – science, technology and economics, and overseeing projects that result in findings and recommendations as to what policies the U.S. government should adopt.

The committee that I chair, on Comparative Innovation Policies -- made up of singularly talented in experts from a wide variety of relevant fields, who really understand public policy -- was charged by the STEP Board with looking at innovation models outside the United States and drawing conclusions as to what America's public policies should be.

First, a definition:

By innovation, in the Academy's work that we are here to introduce today, we mean not only invention but commercialization, that is, making products.

The report has many findings and recommendations in some detail that I hope Congress and the Administration will adopt, but it boils down to just a few key points:

FIRST: Innovation is not something to be taken for granted, it is something to be nurtured.

SECOND: The composition of the U.S. economy matters. What we invent here and commercialize here is a foundation of our national security and well-being, for the kind and quantity of the jobs this country creates and maintains.

THIRD: We need to monitor what other countries are doing to promote innovation, to cooperate with them where possible, to them emulate where it is in our interest to do so to be competitive, and occasionally, where harm is caused, to counter what they are doing. Not every economy is organized the way that ours is. State-owned enterprises are a growing factor in world trade and investment. They need to be subject to the same disciplines as are private companies. There needs to be a level playing field. TPP's proposed disciplines can be a step in the right direction.

FOURTH: Our public policies and measures underpin the culture of innovation that distinguishes America from many other nations.

To judge how this country may do in the future, as a prime location where innovation takes place, it is necessary

to benchmark what we are doing against what other countries are doing and planning to do;

to benchmark our current policies against those we have previously employed that have contributed to America's success; and

to benchmark the policies and measures that we employ today against what we hope to achieve in the future.

Washington is currently transfixed by the fiscal cliff, but our concern here today is the possibility that our country may be arriving on an innovation plateau -- while other countries are working hard to put themselves on a rising trajectory.

In our research, members of our Committee and NAS staff visited at least a dozen countries [most prominently Japan, Taiwan, India, Flanders (IMEC) Germany, the Czech Republic, Singapore, and Canada].

There is one strand that runs through all the institutions that we visited. They are staffed by people who care passionately about innovation --both invention and commercialization. And there are lessons to be learned.

To some extent we Americans were looking into a mirror:

We had created research parks, China has created larger research parks and more of them.

We had a very practical and hands-on Bell Laboratories, the Taiwanese created ITRI [the Industrial Technology Research Institute] -- an idea factory.

We emphasized engineering and the sciences after the Soviets launched the first earth satellite, now China is turning out hundreds of thousands of engineers annually.

We created integrated circuits and large commercial aircraft with vitally important government support, others have decided to create these and industries as well others with a very a strong government support.

We spent a substantial percentage of GDP on government funded research; others have now set impressive targets and they are exceeding them.

There is also much to be learned from others where they have innovated.

Germany has emphasized worker training, it has created strong government industry partnerships that seek to learn from others through the Fraunhofers. Their foreign outreach is better than ours. Germany has also maintained skilled employment through the financial crisis.

Most other countries have tax systems that encourage production and tax consumption. By comparison, we do not. This is not sustainable.

We do not have to invent a wholly new innovation machine for our country, but we do have to update the one we have and replace some parts.

We have a magnificent chemistry, an alchemy for innovation. But it is not patented.

The danger is that we will remove a series of elements that made us the model for others at a time when others are in part taking our playbook and pouring resources into investing in their futures while we are not.

Getting the policy mix right will take the right proposals from the Administration and the right decisions by Congress.

Dr. Charles Wessner, the primary driver of the Academies' efforts on the study of comparative innovation policies, will now describe key challenges and solutions embodied in our Committee's report.