

Remarks of Gail Pesyna, Program Director, Alfred P. Sloan Foundation

NSF/Conference Board workshop on Developing a National Research Infrastructure for the Study of Innovation and Change in Organizations, July 23, 2008

I'd like to thank the Conference Board and the NSF for organizing this workshop and inviting me to speak. I am going to address the same three questions as Bob Strom from the Kauffman Foundation just did: WHY is our Foundation interested in the topic of this workshop? WHAT has the Foundation done to date in this area? And WHAT do I hope to see come out of the workshop?

The "why" is straightforward: it's because Alfred P. Sloan wanted his Foundation to "represent my accomplishments in life," and those accomplishments were in two broad areas of endeavor. First, science and technology, which Mr. Sloan believed held great promise for improving economic performance and the standard of living for Americans; and secondly, business and industrial management, because of his progressive ideas and practices in the business world. All the programs at the Foundation relate to at least one of these two broad areas, and the topic of this workshop – to Develop a National Research Infrastructure for the Study of Innovation and Change in Organizations – is related to both of them.

In terms of "what" the Foundation has done to date in this area, there are several programs and projects, but I'll just mention two. For nearly 20 years we have supported research in Industry Studies, which is empirical research, often involving direct observation, in order to understand deeply specific industries. Why do we think studying industries is important? Well, for one reason, it's because that is the playing field upon which firms compete. And just as the Kauffman Foundation is known as "the entrepreneurship Foundation," the Sloan Foundation is sometimes thought of as "the competitiveness Foundation." To understand competitiveness, it helps to understand the industry within which firms compete.

Our former President, Ralph Gomory, who started Sloan's Industry Studies program, often remarked that there are very small things that one needs a microscope to study; but there are also very large, complex things – like firms and industries – for which one needs some kind of "macroscope" to study. The support of Industry Studies has been one way the Foundation has tried to advance the notion of developing such a macroscope.

One of the topics in which we have been very interested as part of the Industry Studies program has been Globalization. We have supported many projects on this topic over the years, one of which was led by Tim Sturgeon of MIT, who is here today. Working with many others who do research on globalization issues, some of whom are also in this room, Tim prepared a report a couple years ago that analyzed the gaps in currently available datasets, and how these shortcomings limit understanding the effects of globalization.

So that is why I am so excited about WHAT may come out of this workshop: i.e., the possibility of creating the macroscope I have dreamed about for studying topics like globalization and innovation in businesses and industries. As the workshop program says, our

purpose here today is to discuss “building an empirical platform for the scientific study of business organizations.” Those of us here are interested in creating “a national research data infrastructure” to study topics like globalization and innovation. This is a pretty good description of my concept of a macroscope.

Now – there is one point that I would like to make – and make strongly – about what I hope also comes out of this workshop today. I know that this statement is going to sound heretical being uttered in the halls of the National Science Foundation, but here goes: competitiveness and innovation are NOT only about doing more research and development, or developing new technologies. R&D and science and engineering are NOT all that innovation is about.

As those of you who read my bio know, I spent the bulk of my career in the inner workings of the DuPont Company. I know from my own experience that innovation takes many forms. It’s not only “what you sell” – which is the first thing people generally think of in terms of innovation. This is what we all call “product innovation,” and (truth be told) product innovation often does involve a lot of R&D or science and engineering. This is the type of innovation that generally gets most attention in science policy circles.

Some people will go further and acknowledge that innovation is also about “how you make what you sell” – or what is usually referred to as “process innovation.” This again is an area that may involve science and engineering, but not always. Nonetheless, it is also where a lot of people stop in their thinking about innovation.

Innovation is also about, “how you decide what to sell (and how you decide how to make what you sell)” – so it’s also about such things as business models and power relationships within companies and strategy and so forth in an organization. And it is further about, “how you sell it” – in other words, innovations in marketing, distribution, etc. To emphasize this point, I am going to repeat it on my single (one) Power Point slide (attached).

I want to make sure that in this workshop we do not lose sight of this broad view of innovation. To really understand business competitiveness, you have to get deep into the social structure within companies and the relationships among these organizations. It’s not just about accepting the data that a company is willing to give to the statistical agencies, or the data that one person in the Human Resources Department fills out on a survey.

So THIS is the kind of macroscope that I find exciting: one that would combine quantitative and qualitative information on business organizations, from every place it’s available. With that in mind, I look forward to a great workshop, and to being with you all today.

Innovation is:

- What you sell (product innovation)
- How you make what you sell (process innovation)
- How you decide what to sell
- How you sell it