

U.S. Senator Maria Cantwell

U.S. Senate Floor USICA Floor Speech

February 10, 2022

[VIDEO](#)

CANTWELL:

[Madam Chair, now I'd like to turn our attention to, also, an issue of dealing with our supply chain.]

That is the issue of Congress moving forward on the differences between the House and Senate bill on America's investment in R&D and innovation.

As the chart shows you, our investment today equals U.S. jobs in our economy tomorrow.

So the United States Competition Act, or as we passed it here, the United States Innovation and Competition Act, is at a crossroads, because we need to get it into conference.

Other countries definitely aren't waiting. I guarantee you that they are making investments in innovation and technology. And where we are in the United States is we are at a 45-year in low at the amount of investment in R&D against our GDP.

So we're not keeping pace. And many times I've been out on the floor here talking about why we're not keeping pace. We tried. Unfortunately, we tried several years ago, and then had an economic downturn.

So everybody signed up, let's put more into R&D investment, then we had an economic downturn, and then we never fulfilled that promise.

So the real consequences of that, is that we are now behind in some very key sectors that we need to make investments in. The good news for us is that people are willing to make those investments like the Intel Company who just decided recently to make a multi-billion dollar investment in the state of Ohio to grow chip fabrication there. And so we have opportunities, if we make these investments.

When the world presents a challenge, the American people, or the people in our state, they rise to a challenge. And the American spirit, it's never ceased to amaze me. I guarantee you innovation is in the DNA of Americans. Why? Because we live in a country where it's free—to do what you want. It's free for you to go and start a company and to try your skill set. We encourage it. And we need to have that same spirit here working collaboratively to get this legislation rectified and onto the President's desk. There isn't a moment to wait: Revolutionizing science, creating jobs, invigorating our new economic centers around the nation.

And my colleague and I, Senator Wicker, worked on a very important aspect of the bill, which is driving more innovation dollars into research institutions, in states that haven't traditionally had large research footprints. This will be an issue of contention, I'm sure, with some of our colleagues.

But my point is innovation can happen anywhere. And innovation infrastructure should be everywhere. And so if we want that to happen, Madam President, in Reno, Nevada, we need to make an investment in Reno, Nevada. I believe in that, because I'm pretty sure Sierra [Nevada Corporation] is a very big leader in the aerospace sector. And I think they're headquartered in Reno, if I'm not mistaken.

And this is what I'm talking about, you can build. And guess what, not everything has to happen in Seattle, or San Francisco or Boston, or out here on the corridor here in Virginia. And that is because the innovation age means that innovation can happen at a very flat level, it can happen anywhere. So why would we constrict it? We don't want to constrict it. We want to empower it.

So American leadership can't wait. What we need is to be collaborative here in the United States Senate because that collaboration between government, academia, and industry is what drives the next level of innovation. Just think about what happened with ARPA, DARPA, as we made the innovations in the internet, as the President knows. Because she's a programmer, she knows that that innovation allowed us to then build out a commercial aspect of the internet. That would not have happened, at least at that moment in time—not in 1993—wouldn't have happened. And look at where we are today with an internet economy, all because we had US innovation.

So technology after technology has been invented. And our US companies have continued to innovate, develop a workforce and skill people for the opportunities of tomorrow. But that leadership is not guaranteed. And time and time again, history has shown us that people, while we innovate here, other people are going to follow.

In aviation, the Wright brothers were the first to demonstrate with Kitty Hawk in North Carolina, but the United States soon fell behind in aviation as European governments invested and built out this new industry.

By 1913, the United States military had six planes and 14 trained pilots. France had 216 airplanes, and 171 trained pilots.

So leadership can't wait. You can't wait. And I think people get this, we do a lot of the innovation and other people take that innovation and go implement it. That is why a major section of the bill is about translational science. It is about taking that innovation in the United States and translating it into faster adoption of applications for industries.

So Congress finally decided to invest in American leadership in 1915 by creating the National Advisory Committee for Aeronautics, which worked with academia and industry to regain America's dominance, and define how we build planes that even last today. That's what we're talking about. That's why we feel that NASA is part of this bill. NASA is our R&D agency for aviation. That is what NASA is. Yes, it deserves a place in this legislation.

A new aviation industry, a new aviation supply chain, sprung up across the country in places like Wichita in Kansas and Seattle. The story would repeat itself after the Soviet Union challenged US leadership in the 1950s. And almost immediately, Congress recognized that leadership could not wait. And that is when we did NASA.

So bringing together government, academia, and industry to create new generations of American expertise, and technical advancements, is what eventually put people, a man on the moon, and what will put someone, a woman this time, on the moon.

But America had to choose to lead. That's what we're going to be asked on USICA and getting it done. We have to choose to lead, to invest in technology. That technology brought us places like Huntsville, Alabama, and Houston, Texas.

In 2020, the aerospace industry supported \$2 million good paying jobs with an average salary of over \$100,000 per year and generated \$900 billion dollars in revenue. That's what the innovation economy did for us.

So that's why we want to now upgrade the innovation, particularly as it relates to semiconductors.

Since the availability of these tiny chips, one of the most pressing issues facing our country now is people can't get access to them. People who—it's so bad Madam President, that people now who have cars that are electric cars, hybrids, if you have a used car, you know that your price goes down, just continues to go down. Now used cars prices are actually going up, because there's so few cars available that the consumers want in this area that actually used cars are getting more money, it's going up and not down.

The shortage cost the transportation sector \$210 billion last year alone. We can't wait. Can't wait on these issues. We can't wait. The essence of acting now, getting together, communicating with our colleagues, working together in a collaborative spirit is what is going to get this legislation over the goal line and help us.

The first transistor, as part of this chip industry, was invented in 1947 in New Jersey, representing a collaboration from scientists across physics, electrical engineering and chemistry. But in the 1980s, the United States semiconductor industry faced a serious challenge from an ally of ours, Japan. Leadership did not wait. We did not wait. The government set up a government-industry partnership, SEMATECH, with specific goals of creating new collaborations and investing in American manufacturing.

The United States maintained that leadership role and in the 1990s, we produced 37% of the global chip supply.

The semiconductor industry now supports more than a million jobs. Because people didn't stand around and wait.

But today, we see overseas competitors who are investing heavily in technologies of the future, from everything from AI to composites to clean energy solutions. And they are trying to do everything from driving their own energy independence to combating climate change. They are investing in the resilience of their supply chain by promoting domestic production.

They are training their workforce. So the aspects of the legislation that we passed that helped skill and keep Americans working and train the workforce, very important policies. In fact, the administration just released yesterday another round of investment as part of what was the [Aviation] aerospace and Manufacturing Jobs Program that helped keep the aviation worker in place, or actually try to recapture some of them who were laid off during the pandemic. Very important piece of legislation that we worked on, that my colleagues over here, for the most part didn't support in the final package. Some of them supported it as a concept and an idea, but did not support the final package.

Right now, it's 30 to 50% cheaper to build a semiconductor foundry in Asia than in the United States, mostly because of foreign government investment.

Moreover, as I said, we're being hard hit by semiconductor supply chain crises. Car manufacturers, including Tesla, GM, and others are removing some of their most advanced and desirable features from their cars, just to reduce the number of chips that are needed. Literally, we're cutting our innovation skill set, just because we don't have the chips.

Ford announced last week that it will either halt or cut production at eight plants. Do we really, are we really going to sit around and wait to get this legislation done? Are we really going to sit around and wait? We have eight plants that are going to shut down because they don't have chips. And we're going to sit around and wait for another three or four weeks before we go to conference to resolve these issues?

It has been projected that chip shortage cost the global auto industry in 2021 \$210 billion in revenue and a loss of production of 7.7 million cars. So leadership can't wait. It can't wait.

Fortunately, the United States is showing that we can respond. And we in the Senate did pass legislation. And now we have an opportunity to go to conference and work with our colleagues.

But some people want to wait another three weeks or four weeks to do that. I don't want to wait, Madam President, I don't want to wait another second.

The competitiveness of US manufacturers who are competing on an international basis to receive the investments that we make in technology just can't wait.

Recent investments from the commercial sector, from Intel, show that over 10,000 new jobs will bring a domestic semiconductor industry to the Midwest, specifically Ohio. And our experience has shown us that if we make the investments that we're talking about in USICA, in the competitiveness act, that we will grow an even larger US semiconductor manufacturing business.

But foreign competitors are not sitting still, when it comes to technology leadership, they are obviously going to try to do their part.

So our solution is simple. All we have to do is work together. All we have to do is be collaborative.

As someone once said, collaboration is the next phase of innovation. You can have all the science, you can have all the creativity. But if you can't get it implemented, because people don't sit around the table and talk and innovate and work together, then you can't get it implemented. That's where we are. We know we need to do this investment in R&D. We know that we need to invest in chips. And we're not doing it because some people don't want to move ahead and get this done.

The Senate Commerce Committee passed the legislation, and we obviously got and understood the urgency of it. We got and understood the urgency of it.

Trust me, Madam President, there are many other things we thought we were going to put on our agenda. And you know, because you sat through the hundreds of amendments that were marked up in the process that we went through, the regular order, the regular order that we went through here on the Senate floor, and the regular order we're willing to go through so no one's asking for anything else, but regular order.

But the people who want to hold up and don't want to move forward, I would ask them to think about our competition, who are working very hard on beating us at semiconductors and the issues that it represents as it relates to the investments we should be making.

So I want us to make the investments in semiconductors. I want us to make the investments in manufacturing extension programs, in STEM education, in tech hubs, and making sure that United States of America maintains its leadership role.

I thank the President and I yield the floor.