

Senator Maria Cantwell Opening Statement

Full Committee Hearing on Developing Next Generation Technology for Innovation

Witnesses: Pat Gelsinger, Chief Executive Officer, Intel Corporation; Sanjay Mehrota, Chief Executive Officer, Micron; Tim Archer, President and Chief Executive Officer, Lam Research; Preston Feight, Chief Executive Officer, PACCAR Inc.

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[VIDEO](#)

“The semiconductor industry is definitely a uniquely American story. It has shown the importance of innovation building in the United States. The first transistor was demonstrated in New Jersey in 1947. In 1958, Jack Kilby – a Missourian working at Texas Instruments -- who attended college on the GI bill –demonstrated the first integrated circuit.

“The semiconductor industry – with the benefit of federal purchasing power and federal R&D – helped us to get to the Moon, it’s helped us build our security leadership, and launch our information age economy.

“I’m pleased that the United States has played such a leadership role. But when it comes to manufacturing today, here in the United States, we’re falling behind. Semiconductors underpin nearly every aspect of our national and economic security. And yet we are short on the amount of advanced logic chips building at scale here in the United States of America.

”That has to change.

“In fact, over 90% of the most advanced chips come from one island in the Pacific Ocean, Taiwan.

“I believe in global trade. But I also believe that chip security is as important as food security. That is why we need to continue to demonstrate leadership and make investments in R&D -- as the USICA bill that this committee worked so hard to get out last year showed.

“Our over-reliance on vulnerable global supply chains – without having a U.S. alternative ready to go – is an economic and national security risk. It is a lesson we all have already learned and need to change direction.

“Within the automotive sector, thousands of Americans have worked and endured layoffs and shortages. The global automotive industry suffered over \$200 billion in losses and Ford was forced to halt or cut production [at] at least 8 plants in recent months.

“The cost of used cars has gone up 41% and new cars 12%. A lot of this is due to the semiconductor shortage. Let me repeat that, the cost of a used car has gone up 41%.

“Now, why would that be? Used cars already have the electronics. It’s because if you want to buy a new car right now you’re probably going to have to wait because the car companies don’t have enough semiconductors.

“People who can easily afford a new car and need one can’t get one due to the shortage [and] are instead buying the used cars. And that’s driving up the price. So, anyone knows that the

people who can afford to wait the extra six months for the new car probably aren't the people who are really feeling the pain.

"It's the person whose radiator blew out last week and just needs anything on four wheels to get them to their job. And that's a basic used car that might have gone up \$5,000 in costs, an additional 41%. And an extra \$2,000 -- taking that to \$7,000 -- is just a trip the family doesn't get to take or maybe next month rent that can't get paid. So the impacts of this are really affecting American consumers.

"On the national security front, EUROPOL just reported this month that counterfeiters are trying to exploit the semiconductor shortage by introducing fake chips into the market, raising the chances that critical infrastructure and defense systems could be compromised.

"The shortage is also a setback for our efforts to remove foreign telecommunications electronics that could be compromised by backdoors from other governments. According to the telecommunications industry, wait times for some networking equipment is now at 50 weeks.

"The cost of some networking equipment has risen 12%, and price gougers are selling chips for 100 times their regular price. That's no way to build out the access to broadband.

"In addition, we know that relying heavily on one country -- and largely one company -- creates a lot of targets for hackers. Eighteen months ago, security researchers found hacking campaigns that compromised at least seven Taiwanese chip manufacturers, to steal semiconductor chip designs.

"All of these are reasons why we need to get USICA done and make sure that we get to conference with our colleagues. These bills have \$2 billion investments specifically for our Department of Defense to secure the microelectronics supply chains required for our national security missions.

"The shortages that we have today, if we don't address them, are going to continue well into the future. That is because the world needed 1 trillion chips to be produced -- that was in 2018. In 2021, we needed basically 1.2 trillion chips.... In 2031, that will be 2 trillion chips per year.

"Our current foundries are already working overtime. Building new foundries has to be part of the long-term solution and we have to send that price signal today. If we do nothing, these shortages are just an example of what is to come.

"I know we're going to hear from PACCAR who's going to tell us about how every aspect of freight is being affected, even if it's not a high-tech product. If you don't have trucks to move the products in our supply chain, because you don't have enough trucks, then we are affecting every aspect of the supply chain.

"So clearly we're here to talk about the next generation of chips and how the United States keeps its leadership in advanced manufacturing. That's why, Mr. Archer, obviously [we're] going to hear from you as well, on lithography and how important it is for the U.S. to stay ahead.

"But we're so happy to be joined by the witnesses today.

"It's 288 days since this Senate passed the USICA bill. It's now time for us not to wait another day, but to get this done and keep America's leadership going in the right direction."

