



U.S. HOUSE OF REPRESENTATIVES COMMITTEE ON
SCIENCE, SPACE, & TECHNOLOGY

Opening Statement

Ranking Member Zoe Lofgren (D-CA)

The United States, China, and the Fight for Global Leadership: Building a U.S. National Science and Technology Strategy

February 28, 2023

Thank you, Chairman Lucas, for holding today's hearing. And I want to thank our distinguished panel of witnesses for joining us.

In 1942, facing an existential threat, the United States mobilized its scientific enterprise to split the atom. In a mere three years, the Manhattan Project created the world's first nuclear weapons in a race to end the second World War. The climate crisis facing the world today is no less profound. The threats of climate change - sea level rise and forced human migration, extreme weather, mass extinction - are existential. We must face these threats strategically - the same way we faced the threat of Naziism in World War II. The greatest challenge we face today is maintaining our energy security while confronting the threat of climate change. One of the key technologies in this effort is fusion energy.

So, I am particularly excited to hear from Dr. Kim Budil today. Last fall, Dr. Budil and her colleagues at Lawrence Livermore National Laboratory announced a true breakthrough in fusion - the achievement of ignition at the National Ignition Facility. I think this is one of the most important scientific achievements of our time. However, there are still many technical challenges ahead to achieve commercial scale fusion energy. It is essential we maintain the funding commitment to see this vital technology's promise be fully realized. I think a Manhattan Project level of commitment is needed now to ensure that the incredible promise of fusion energy is achieved.

But it takes more than funding to realize the success of game-changing technologies like fusion energy. We also need a strategic vision. The United States had this vision during World War II when we split the atom. We had this vision when we won the Space Race and put a man on the moon. And we need this strategic vision now as we face the climate crisis and threats to our economic competitiveness and national security.

A critical piece of the *Chips and Science Act* we passed last year is the requirement for the White House to develop and regularly update a national science and technology strategy, and conduct a quadrennial science and technology review. This strategy, informed by the quadrennial review, will help provide us with a unifying vision of how to maintain American leadership in science

and technology. While our science agencies excel at carrying out their individual missions, a unifying vision will help ensure the U.S. science and technology enterprise is greater than the sum of its parts.

I look forward to hearing more from our witnesses today and to discussing how this science and technology strategy can best serve our nation. I also want to consider how this strategy will incorporate and address critical technologies like fusion energy. You know, it's not enough to just have the incredible scientific achievements like we had with ignition. We need to accompany those scientific achievements with technology development so we can fully realize the potential of these scientific breakthroughs.

We also need to be thinking down the road to associated deployment issues like licensing and supply chain. We need whole-of-government and in fact whole-of-nation strategic planning, in partnership with the private sector, for these profoundly important technologies so that we don't repeat the mistakes we've made in the past in areas like semiconductors and that we are at risk of making in emerging technologies. Our commitment must be for the long term, so that we can lead in the responsible development and manufacturing of the world's advanced technologies here in the United States.

As we race forward to develop solutions to the climate crisis and other challenges that face our nation, we need to ensure that the United States can reap the full rewards of our scientific achievements.

Thank you, and I yield back my time.