



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

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## Opening Statement

**Ranking Member Zoe Lofgren (D-CA)**

***Innovation Through Collaboration: The Department of Energy's Role in the U.S. Research Ecosystem***

March 8, 2023

Thank you, Chairman Lucas, for holding today's hearing. And I want to thank our distinguished panel of witnesses for joining us. It is not every day that we are able to speak to senior officials from four of our nation's major science agencies, and in the same panel no less. I look forward to working with each of you this Congress.

As Members of the Science Committee, we have the responsibility of overseeing America's scientific research enterprise. This is a duty we do not take lightly, especially in a time when numerous existential threats face our nation. We must remain focused on making sure that we are enabling all of the tools and technologies we will need to aggressively confront the climate crisis. And the economic and national security implications of losing our global leadership in science and technology are stark. I hope that everyone in the room can agree that robust federal science and technology programs are essential to ensuring the prosperity and well-being of all Americans.

We had a hearing just last week on the importance of federal coordination on a national science and technology strategy. Today, we will take a closer look at the role of the Department of Energy, and the interagency partnerships that enable us to best reap the benefits of the research that the Department stewards. So many questions of science are interdisciplinary, and as such, often require close collaborations among relevant agencies to properly address them. Fields such as quantum, artificial intelligence, and climate science really demand a whole-of-government approach to advance the science.

The agriculture sector is a great example where these federal science partnerships shine. Our nation can only fully address the climate crisis by deploying methods and tools to decarbonize the agriculture sector, which represents 11 percent of U.S. greenhouse gas emissions. My district is one of the most productive agricultural regions in California, and I am encouraged to see that DOE national laboratories are leading impressive research in precision agriculture, which offers the opportunity to balance farming productivity with conservation. For example, DOE's Lawrence Berkeley and Idaho National Laboratories are leveraging their scientific resources and facilities to support technological innovation that will help develop this emerging field of agriculture, with notable contributions like the Crop Artificial Intelligence Quotient. This computational tool will provide farmers with accurate, up-to-date yield maps capable of

analyzing variables like crop yield and moisture to help growers apply precision treatments only where needed, saving time and money while simultaneously benefitting the environment. This DOE project uses data from USDA satellites, which demonstrates the interconnection that we need between our research agencies. And this is just one example of these important interagency partnerships that we must preserve and build upon.

I also think that we would benefit greatly if we start thinking about crosscutting research opportunities for newly emerging technologies. As we develop next generation technologies like fusion energy, we need to be thinking now about the crosscutting research that will be needed to enable the full benefits of that technology for our society. That might involve NASA collaborations for off-earth applications. That might involve DOD collaborations for applications in remote locations or to power our future nuclear navy. But if we aren't beginning to think of those crosscutting opportunities now, then we will ultimately be depriving ourselves of the tremendous promise of this game-changing technology. It won't be enough to simply develop fusion energy technologies if we want America to be the world leader in this space. We need to utilize the full breadth of opportunity in the federal research enterprise to help create a fusion research ecosystem to advance this technology.

We have an interesting discussion ahead of us this morning. We have an incredible opportunity in front of us and we must make the most of it by ensuring our federal research enterprise is working as collaboratively as possible.

Thank you, and I yield back my time.