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## A Message From Leadership

Welcome to the Department of Energy's Al newsletter.

Last week, we hosted our Innovation XLab Summit on AI in Chicago. It was a fascinating two-day event focused exclusively on AI, and if you weren't there, I hope you'll read about the highlights below.



The applications for AI to improve our daily lives are nearly unlimited, but I'm especially impressed by the potential of AI in three areas: optimizing DOE's core missions; improving the future of transportation; and increasing government efficiency.

Al has the power to improve nearly everything we do here at DOE. In fact, we're already using DOE-fueled Al to improve energy exploration and grid resiliency, increase energy efficiency, and develop smart energy infrastructure networks.

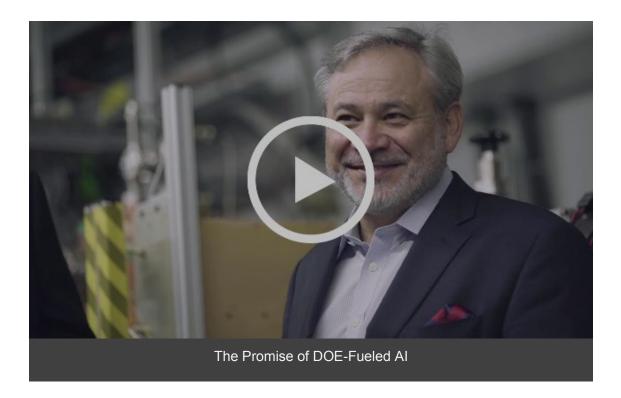
Coming from the automotive industry, I'm also very excited about all that AI will do to streamline ground and air transportation issues. Right now, our National Labs are using AI to help improve fuel efficiency, reduce traffic jams, and better plan for the transportation needs of tomorrow, like automated vehicles and air traffic control of drone vehicles.

But perhaps the biggest game-changer of all would be if we – the federal government – could turn the power of AI on ourselves to once and for all deliver tangible results on reducing redundancies, controlling unneeded spending, and

eliminating waste, fraud, and abuse.

That's why we're so excited about AI at DOE – it will benefit our nation, and fuel and change the world we live in.

Dan Brouillette



## **This Month's Highlights**

### InnovationXLab Artificial Intelligence Summit

Last week, Secretary Perry, Deputy Secretary Brouillette, Under Secretary of Energy Mark Menezes, and Under Secretary for Science Paul Dabbar traveled to Chicago Innovation XLab Artificial Intelligence Summit hosted by Argonne National Laboratory. This event was the fourth in DOE's Innovation XLab series that showcases the remarkable assets and capabilities of the Department's National Laboratories, and facilitates a two-way exchange of information and ideas between industry, universities, investors, and end-use customers with Lab innovators and experts. The Innovation XLab Artificial Intelligence Summit brought together industry leaders from the energy, transportation, manufacturing, and health care sectors, public officials, and researchers from the Department of Energy's National Laboratories, to discuss how advanced artificial intelligence tools and techniques can support business transformation and drive economic growth.







# **Al@DOE News**

#### **DOE AI Announcements**

In concert with the Innovation XLab Summit, Secretary Perry, Deputy Secretary Brouillette and other DOE leaders announced several new developments in the Department's ongoing efforts to advance Al. That includes up to \$35 million from for the development of tools to transform operations and maintenance at advanced nuclear reactors, and \$13 million in funding from the Office of Science to improve Al as a tool for scientific investigation and prediction. In addition, the Office of Technology Transitions announced the creation of the Artificial Intelligence portal for its Lab Partnering Service tool.

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## Al in the News

## **Transforming Drug Discovery**

Argonne National Lab recently announced its commitment to become the newest member of the Accelerating Therapeutics for Opportunities in Medicine (ATOM) consortium, a public-private partnership building a drug discovery

platform that uses artificial intelligence to design and identify drug candidates that could more effectively and safely treat cancer.

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### **Al Meeting America's Energy Needs**

The National Energy Technology Laboratory, in partnership with Siemens Corp., announced a new project that will leverage AI technologies for more efficient, long-lasting and reliable gas turbines to meet America's growing energy needs.

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#### **Al Powerhouses Unite!**

Pacific Northwest National Laboratory joined with Sandia National Laboratories and the Georgia Institute of Technology in a new research center known as the Center for ARtificial Intelligence-focused ARchitectures and Algorithms (ARIAA), where scientists from the three organizations will develop technologies important for the application of AI to cybersecurity and electric grid resilience.

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### Al Transforming Science and Improving Lives

Argonne National Laboratory is implementing a Laboratory-wide AI for Science Initiative that will leverage world-class facilities, explore new AI techniques, build collaboration, transform traditional research methods, and drive discovery.

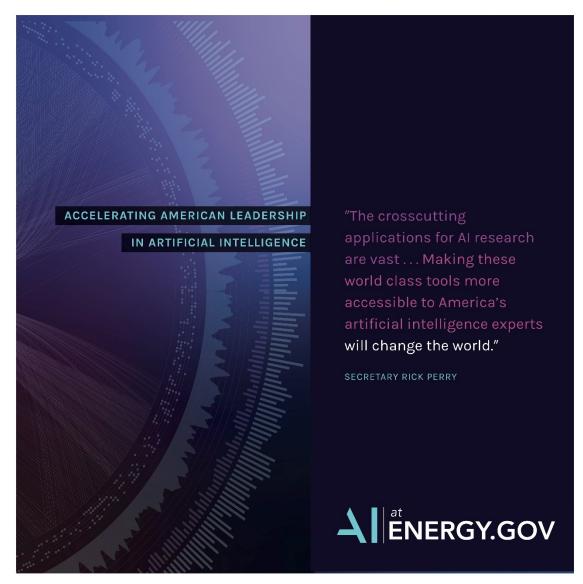
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# What's Coming Up?

### Al for Science Town Hall

DOE's National Laboratories are convening town hall meetings that will engage the DOE science community in a series of broad and open discussions about opportunities that can be realized by advancing and accelerating the development of AI capabilities specifically for science and science use cases. The first three town halls were held at Argonne National Lab, Oak Ridge National Lab, and Berkeley National Lab. There is one upcoming in Washington D.C. on October 22<sup>nd</sup> and 23<sup>rd</sup>.

Join us at AI for Science!



#### **IMAGE OF THE WEEK:**

"The crosscutting applications for AI research are vast...Making these world class tools more accessible to America's artificial intelligence experts will change the world." - Secretary Rick Perry













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