



**DATA SCIENCE AND ARTIFICIAL INTELLIGENCE
REGULATORY APPLICATIONS WORKSHOPS**

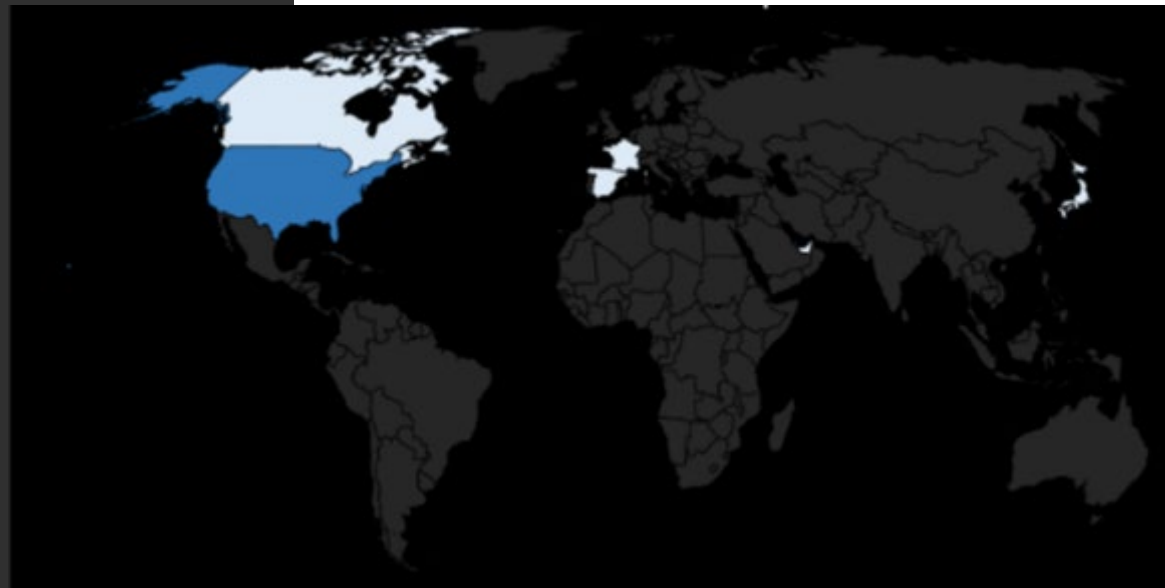
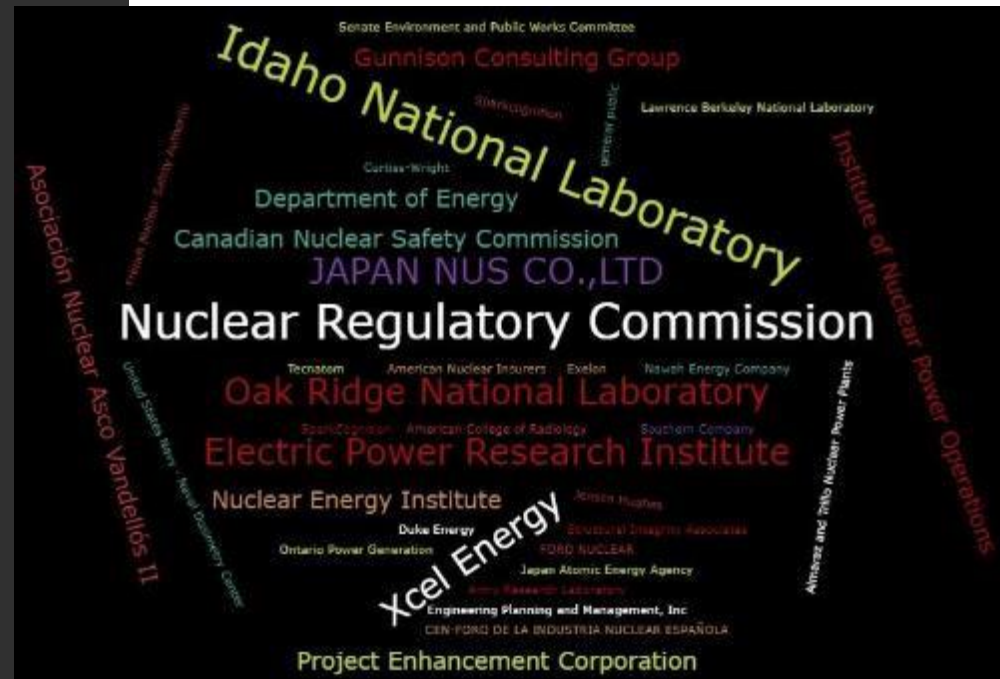
Opening Remarks

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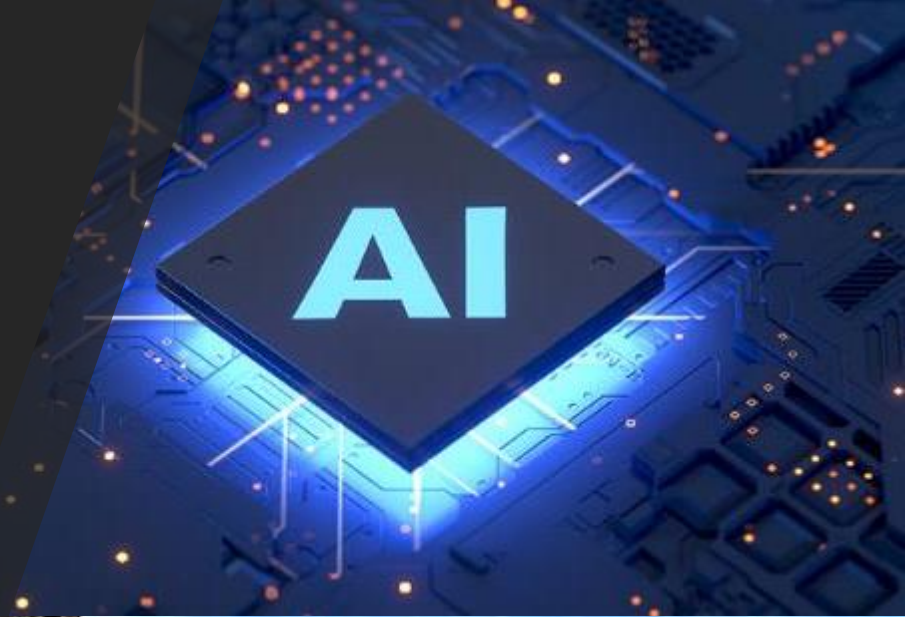
WELCOME

- Over 250 registered attendees
- Participation from U.S., Canada, Spain, France, UAE, and Japan



Regulatory Purpose

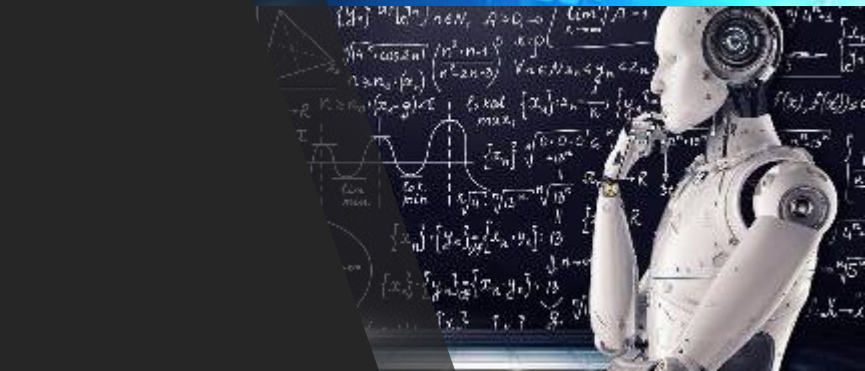
- NRC recognizes a need to use data analytics for regulatory enhancements as part of its effort to become a modern, risk-informed regulator¹
- The nuclear industry is investigating and using AI applications; therefore, the NRC must be prepared to understand and evaluate the technology



¹ "The Dynamic Futures for NRC Mission Areas," (ML19022A178)

Data Science and Artificial Intelligence Overview

- Artificial Intelligence (AI)
 - Build “intelligent” smart machines
- Machine Learning (ML)
 - Learn from data and deliver predictive models
- Natural Language Processing (NLP)
 - Process and analyze large amounts of natural language data
- Deep Learning (DL)
 - ML methods based on artificial neural networks



Engagement and Initiatives



**SHARING KNOWLEDGE
AND SEEKING
STAKEHOLDER INPUT**

**LEVERAGING
RESEARCH
ACTIVITIES**



NRC is engaging and participating with external entities to best prepare for AI impacts on regulatory processes and decisionmaking

DATA SCIENCE AND ARTIFICIAL INTELLIGENCE REGULATORY APPLICATIONS WORKSHOPS

Virtual - Microsoft Teams Meeting

Website: <https://www.nrc.gov/public-involve/conferences.html>

NRCAIWorkshop@nrc.gov

Workshop #1
Introduction to AI
June 29, 2021
10am – 3pm ET

Workshop #2
Current Topics
August 2021

Workshop #3
Future Focused
Initiatives
September 2021

Upcoming Workshops

- Current Topics
 - AUGUST 2021
- Future Focused Initiatives
 - SEPT/OCT 2021