

# NRC SUPPORT FOR PLANT MODERNIZATION

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# LIGHT WATER REACTOR SUSTAINABILITY PLANT MODERNIZATION

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SENIOR RESEARCH AND DEVELOPMENT SCIENTIST INSTRUMENTATION, CONTROLS, AND  
DATA SCIENCE

NUCLEAR SCIENCE AND TECHNOLOGY

IDAHO NATIONAL LABS

# PLANT MODERNIZATION WORKING GROUP

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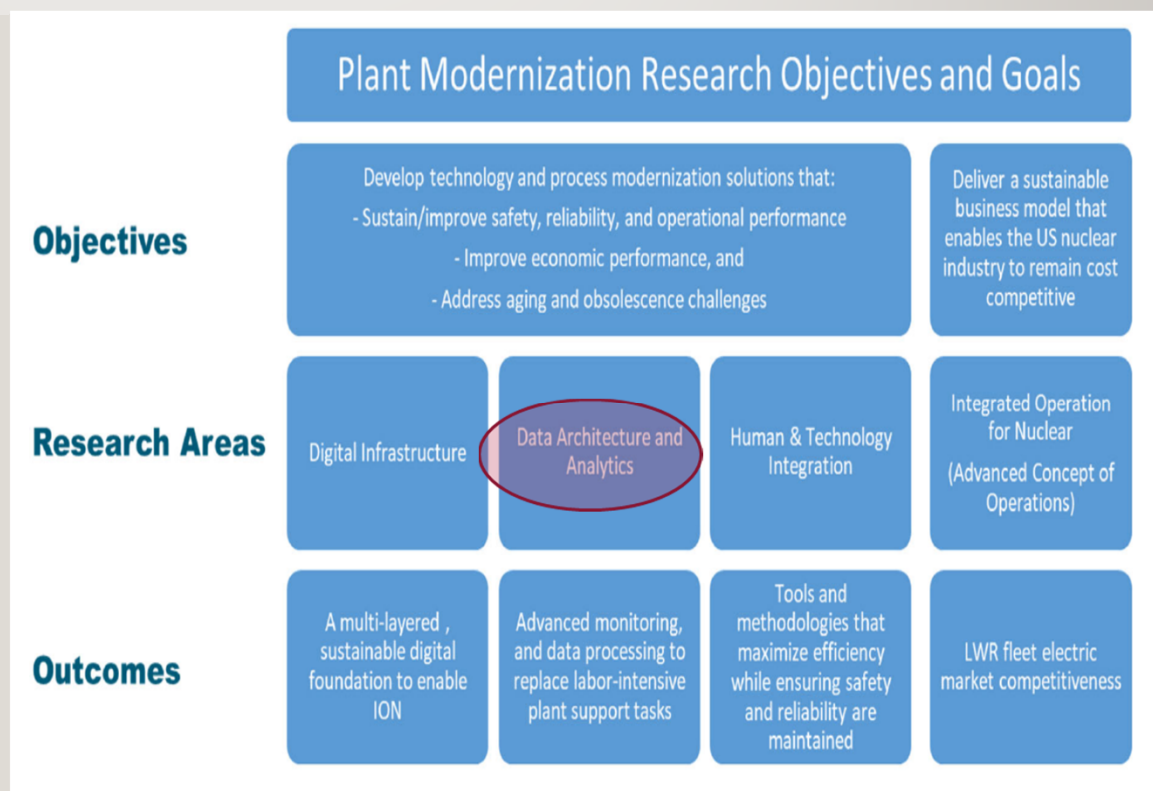
- Multidisciplinary team from across staff

- Licensing
- Information Assurance
- Engineering
- Risk
- Inspection and Oversight
- Cybersecurity
- Financial



# AUTOMATING DATA COLLECTION AND ANALYSIS

- One research effort under Plant Modernization
- PI&R Inspection Support
- NRC role:
  - Provide inspection perspective
  - Seeing how we can integrate into our oversight processes



## Slide 4

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**A10** as part of your talking points, can you refer audience back to slide 7 to remind them that this spans I&C Architecture, Digital Architecture, and Human & Tech Integration, which all supports the Integrated Ops for Nuclear objective.

Author, 11/19/2021

**A12** I'll replace the graphic and refocus the discussion, since it's the same one on the next slide, it's easy to

Author, 11/22/2021

# SPECIFIC NRC SUPPORT

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- INL (virtual) shadow on Limerick PI&R team inspection
  - Bagman trip in December 2021
  - Onsite week February 2022
  - Observing NRC inspection process and requests for information
  - Licensee inspection support staff roles processes
- Conduit for information sharing between regulator, INL and industry projects
  - NRC AI Workshop this past summer
  - NEI CAP Workshop in December
  - INL Workshops





# HUMAN AND TECHNOLOGY INTEGRATION

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## AND FUTURE OPPORTUNITIES

- AI/ML Integration
  - Operations
  - Security
  - Maintenance
  - Design
- New Technologies
  - Remote Assist
  - Drones
  - Remote Monitoring

