



U.S. DEPARTMENT OF  
**ENERGY**

**Nuclear Energy**

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# **Nuclear Energy Enabling Technologies (NEET) Advanced Sensors and Instrumentation (ASI)**

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U.S. Department of Energy

**NE Instrumentation and Control (I&C) Review Webinar**

September 16, 2014

# Nuclear Energy Enabling Technologies: Advanced Sensors and Instrumentation

## ■ Vision

Develop advanced sensors and instrumentation technologies that address critical technology gaps for monitoring and controlling advanced reactors and fuel cycle facilities

## ■ Goal

To provide crosscutting research that:

- Contributes to the success of the DOE-NE R&D programs
- Supports common I&C technology development needs
- Overcomes current and future I&C barriers to nuclear energy system deployments

**A new model of I&C innovative RD&D to overcome nuclear power's impediments to new I&C technology usage**

# Nuclear Energy Enabling Technologies: Advanced Sensors and Instrumentation

## ■ Goal (cont.)

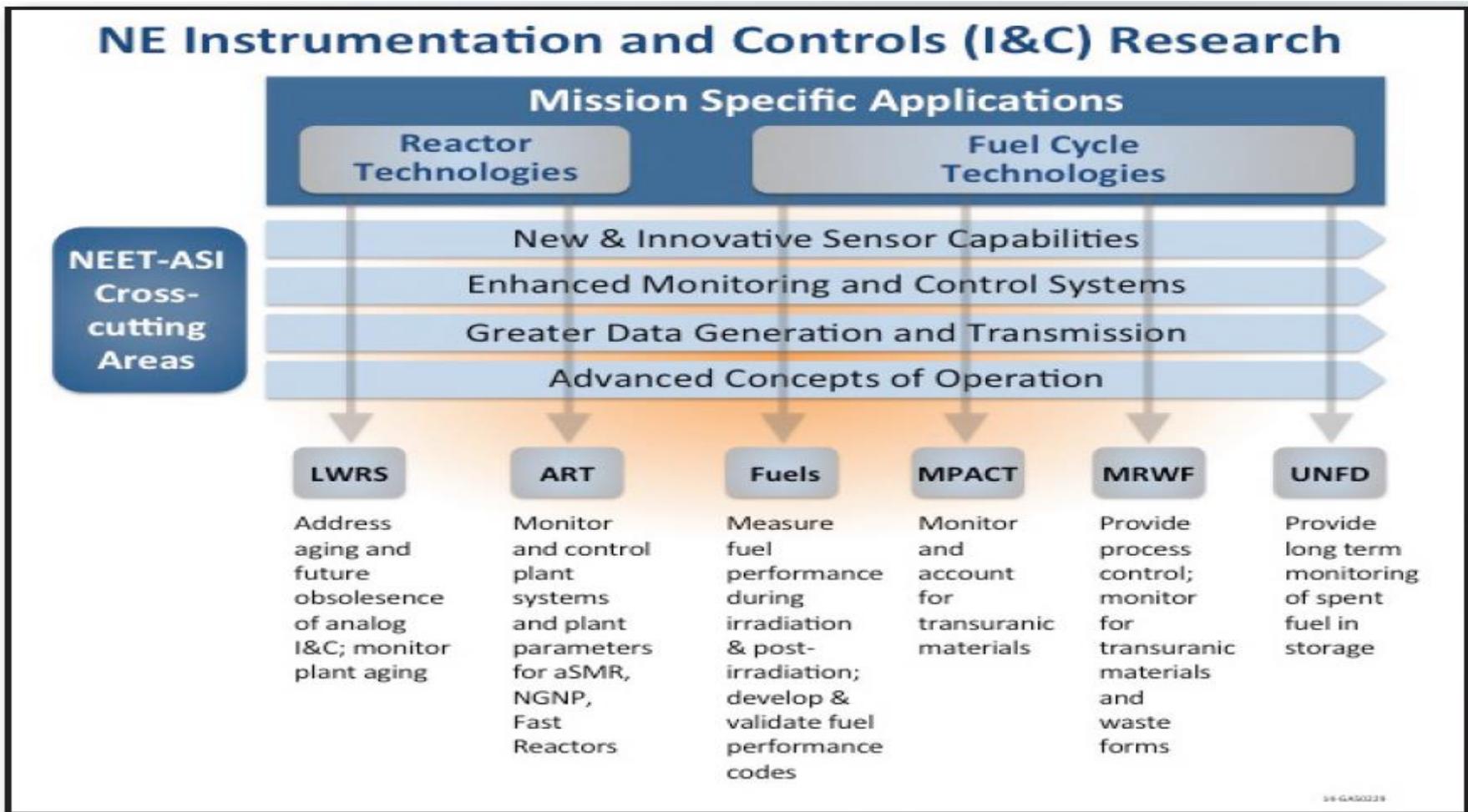
To provide coordination across various DOE-NE R&D programs by:

- Collecting and communicating information about on-going I&C-related RD&D being conducted under each program
- Ensuring that each DOE-NE research program has access to expert knowledge of the state of the art for I&C technologies
- Facilitating more efficient and effective approach to addressing the I&C needs and achieving the full benefits of the technology advancements

**A new model of I&C development – one that is more collaborative, coordinated, and designed to meet the needs of many programs at once –**



# I&C research across NE



[LWRS-Light Water Reactor Sustainability; ART-Advanced Reactor Technologies; Fuels -Advanced Fuels; MPACT-Materials Protection, Accounting and Control Technology; MRWF- Material Recovery and Waste Form Development; UNFD-Used Nuclear Fuel Disposition]



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- **Purpose: Review the on-going I&C research across NE through presentations and discussion**
    - Inform participants on NE I&C research
    - Evaluate progress of on-going projects
    - Get the results from concluding projects
  
  - **Outcome: Better understanding of I&C research across NE**
    - Feedback from R&D Programs on current and planned research
    - Coordination of research activities
  
  - **Materials: Summary of the meeting with presentations**
    - Posted on the NE website [www.nuclear.gov](http://www.nuclear.gov)

# ASI Contact Information

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