



**Pacific  
Northwest**  
NATIONAL LABORATORY

# PNNL Protects Critical Infrastructure

March 9, 2024

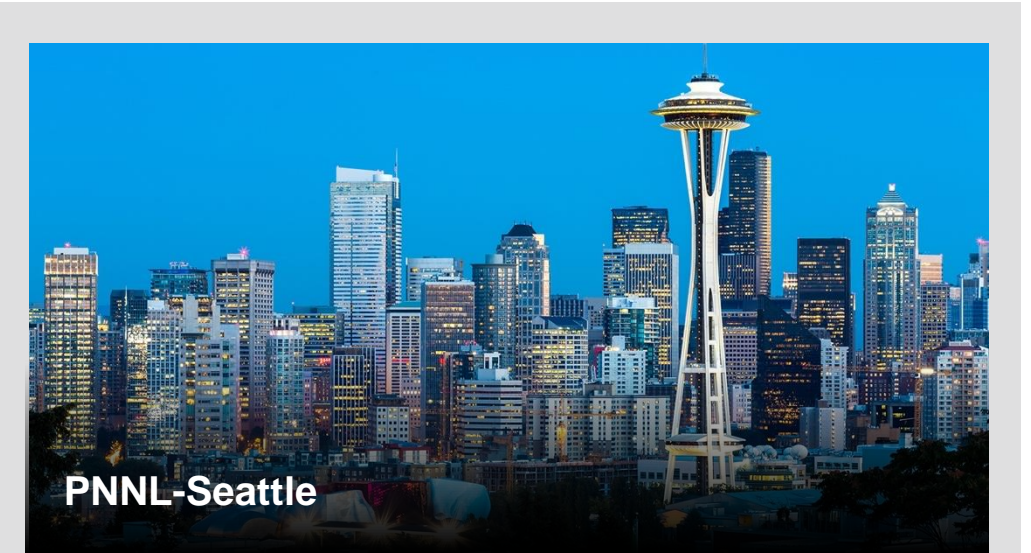
**Deb Gracio**

Associate Laboratory Director, National Security

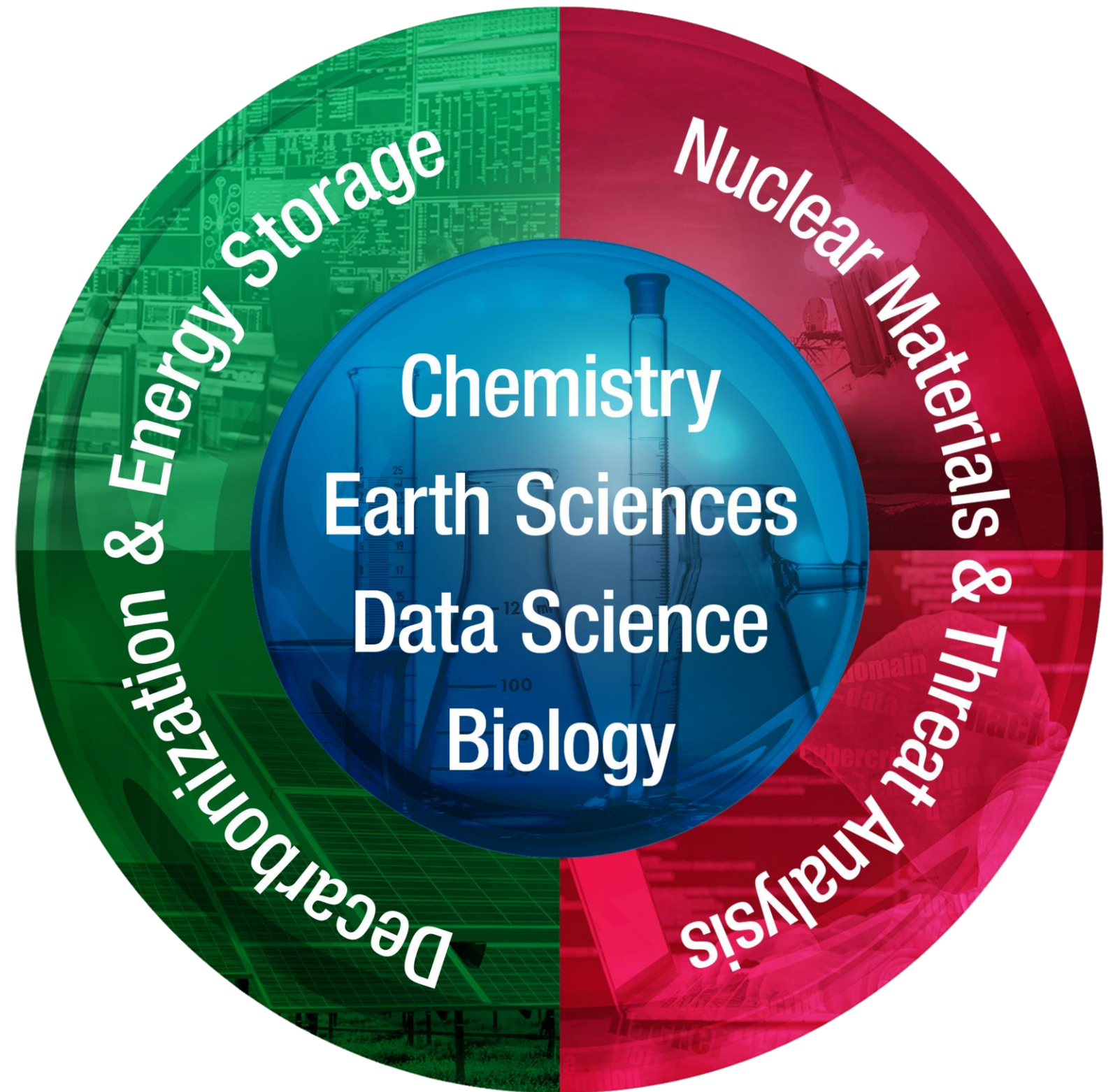
U.S. DEPARTMENT OF  
**ENERGY** **BATTELLE**

PNNL is operated by Battelle for the U.S. Department of Energy

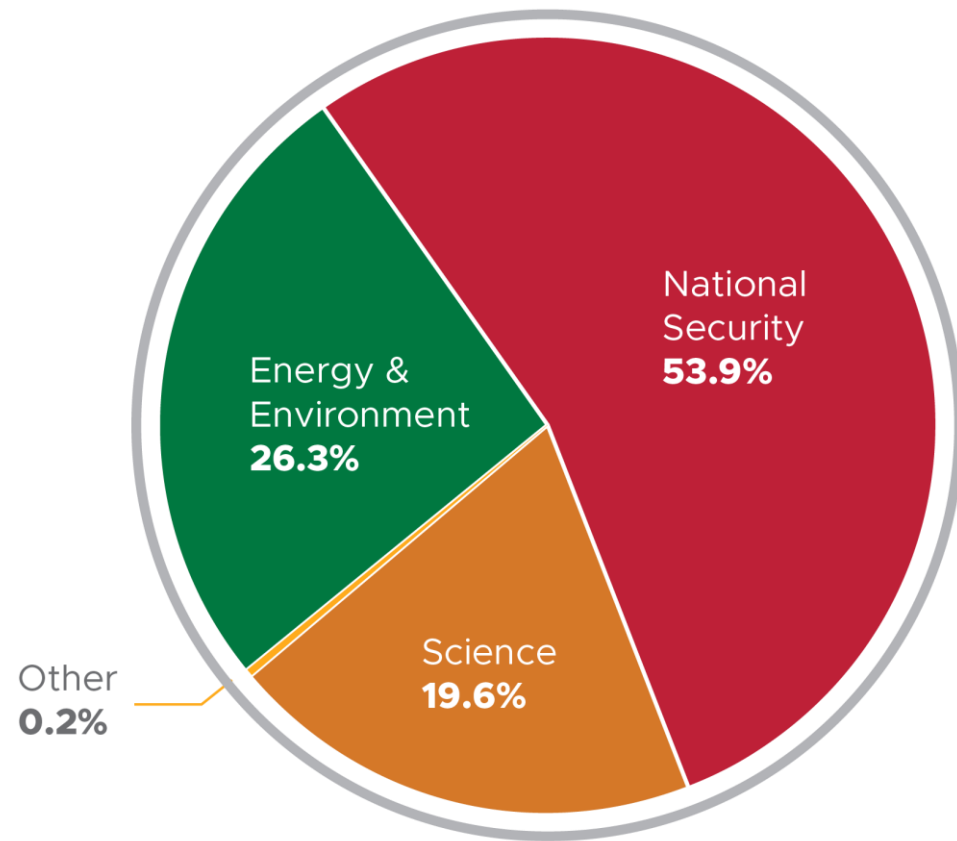




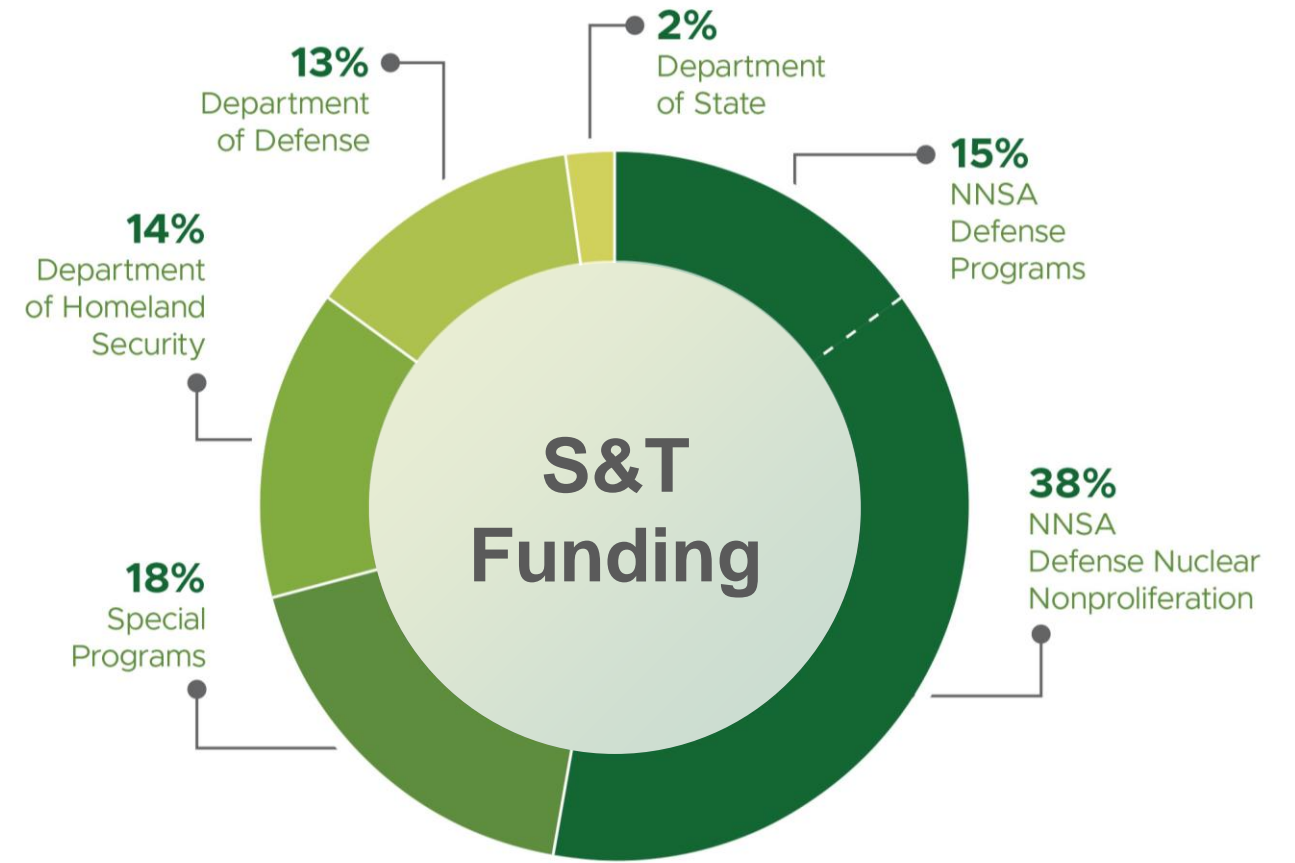
PNNL's distinguishing **strengths** enable mission **impact**



# A **science lab** with diverse sponsor missions



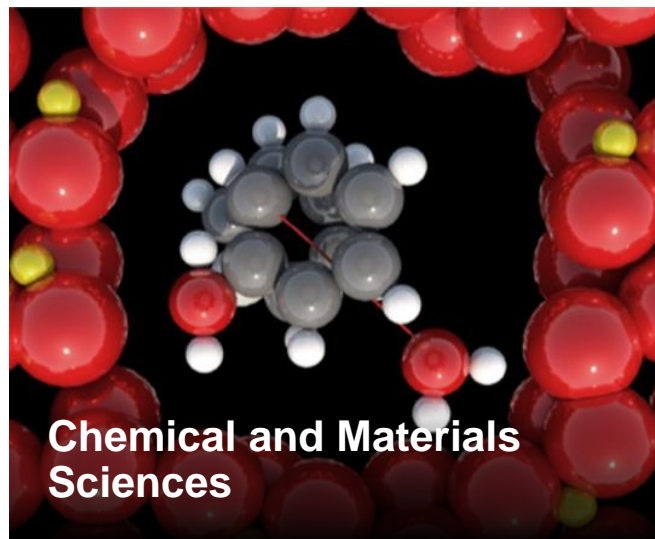
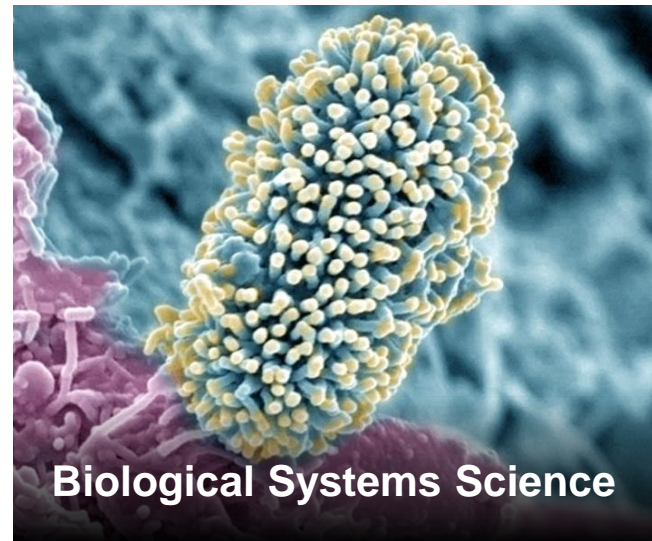
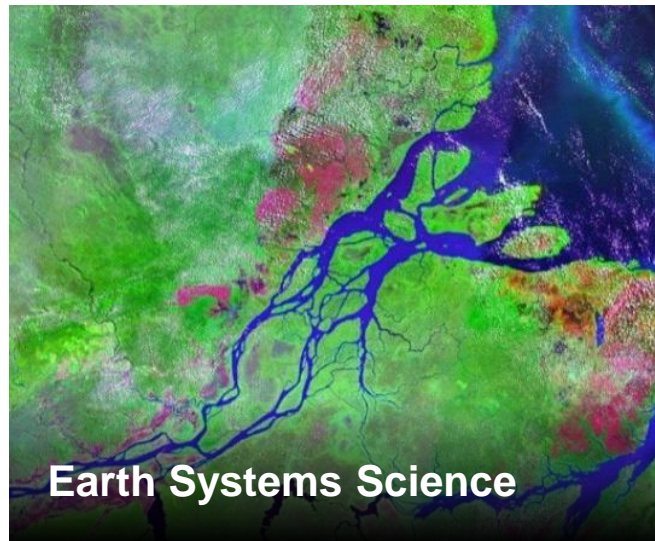
**FY 2023 RESEARCH EXPENDITURES**



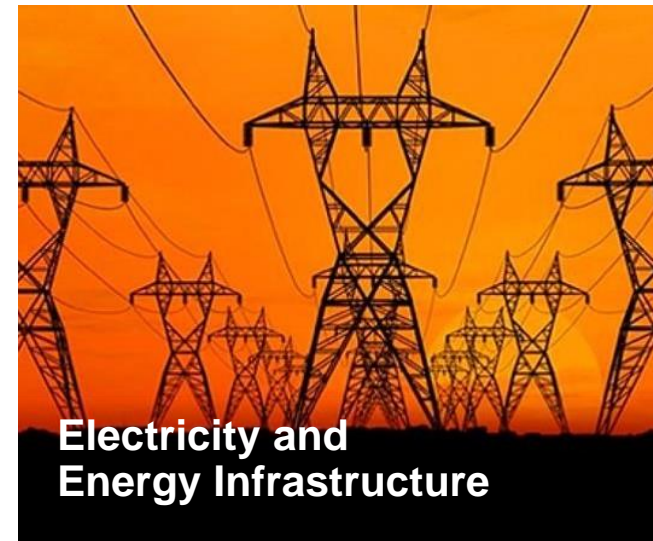
**FY 2023 S&T FUNDING BY SPONSORS**

# PNNL's **missions** advance understanding of the world around us

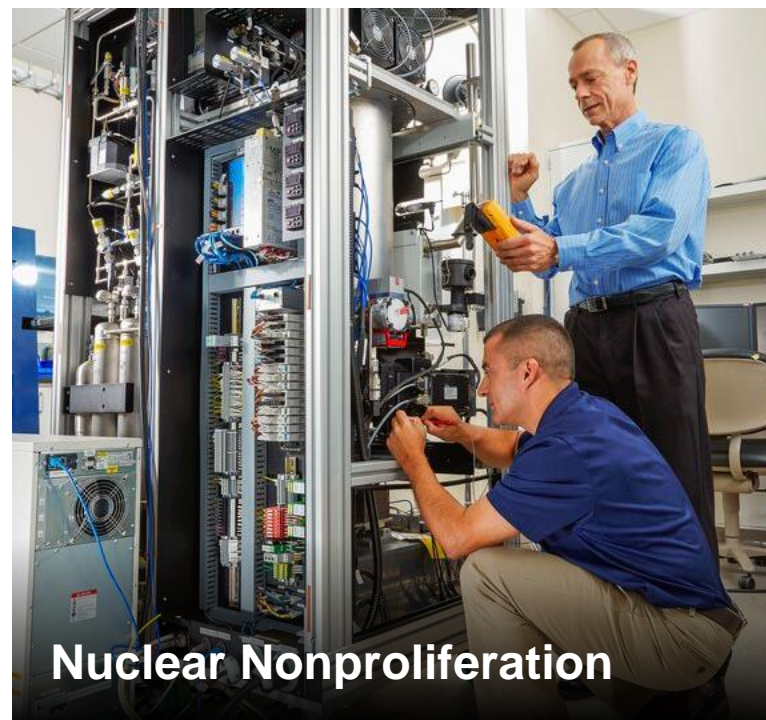
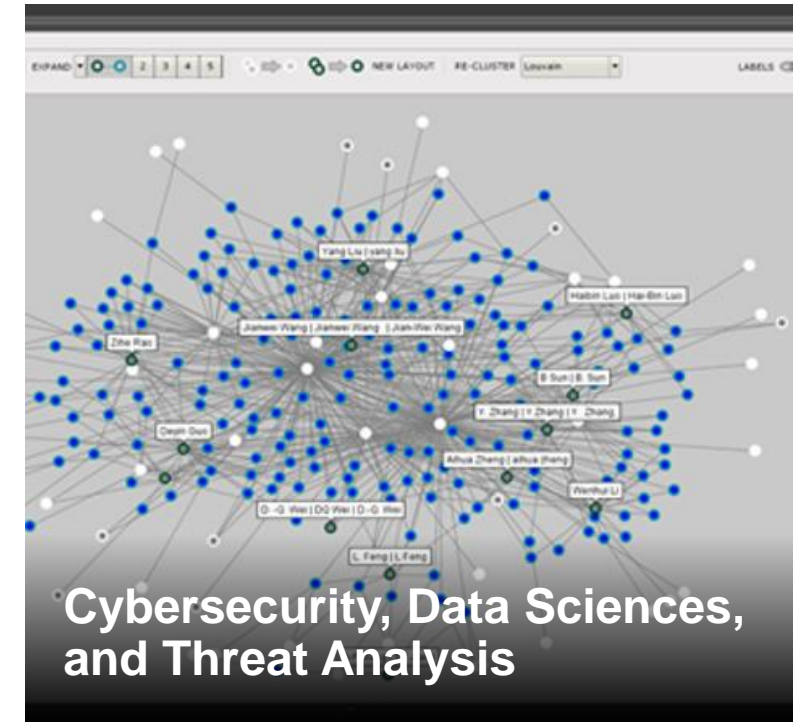
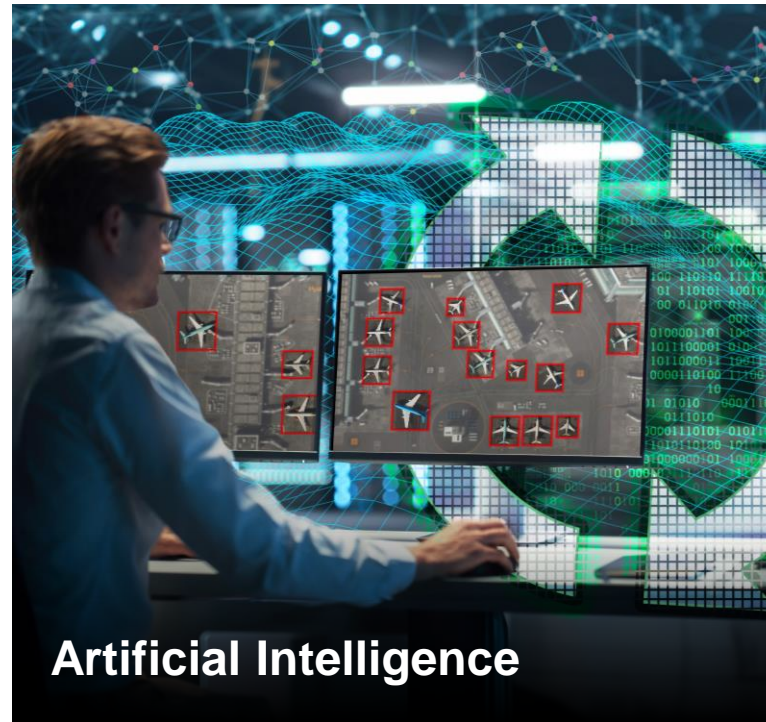
## SCIENCE



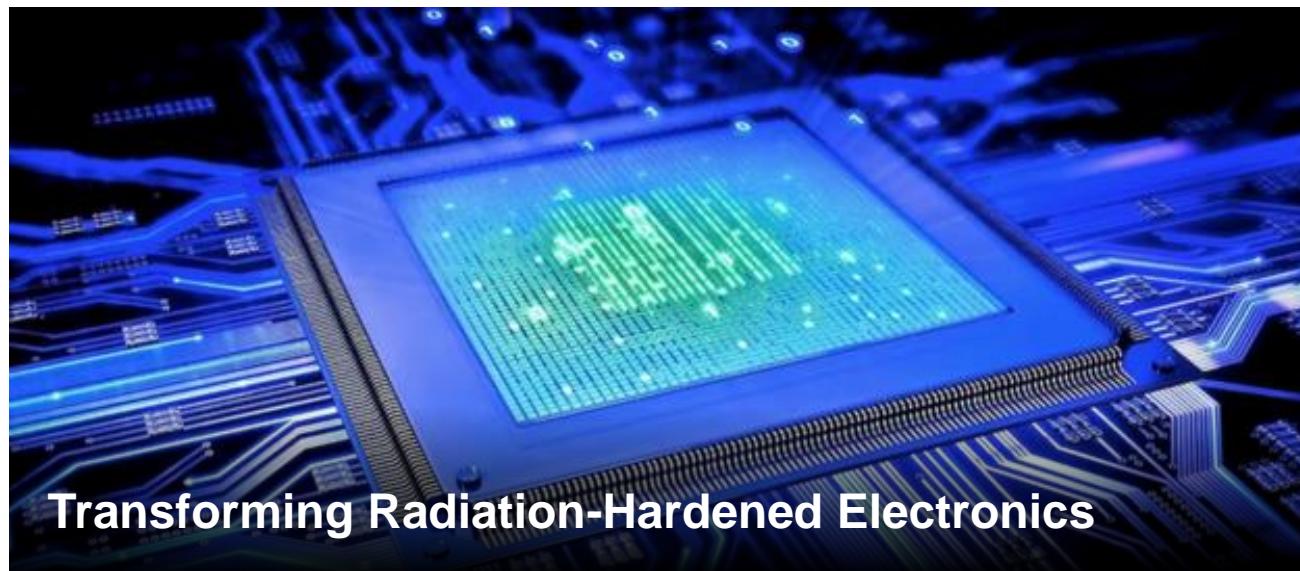
## ENERGY AND ENVIRONMENT



PNNL's **National Security** mission is reducing the threat from weapons of mass effect



# National Security's **strategic priorities**





A **network of partners** enriches our pipeline of ideas and talent

## JOINT INSTITUTES



## INSTITUTIONAL RELATIONSHIPS





DEPARTMENT OF DEFENSE

**MISSION:**

PNNL supports the U.S. Department of Defense in its mission to provide the military forces needed to deter war and ensure our nation's security.



**CYBER**  
Situational Awareness  
Assessment  
Cyber Resilience  
Secure Systems  
Cyber/Physical Systems

**MATERIAL SCIENCE**  
Advanced Manufacturing  
Solid-phase Processing  
Precision Materials by Design  
Materials in Extreme Environments  
Nuclear Materials and Effects



**ENERGY**  
Energy and Water Resilience  
Building Efficiency  
Energy Deployment  
Nuclear Power for Military Operations

PNNL delivers advanced science and technology to America's warfighters, provides cutting-edge solutions, and helps to ensure the security of our nation.



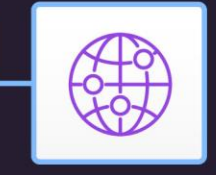
**ENVIRONMENT**  
Climate Security  
Environmental Intelligence  
Geospatial Analysis



**SPACE**  
Nuclear Power  
Radiation Hardening  
Policy and Law  
Natural Science Research



**ANALYTICS**  
Data Science/Computational Math  
Large-scale Data Systems  
Visualization  
Artificial Intelligence/Machine Learning  
Advanced Communications



**COUNTER WEAPONS OF MASS DESTRUCTION**  
Threat Reduction  
Nuclear Forensics  
Arms Control and Nonproliferation  
Foreign Partner Engagement



**HEALTH**  
Chemical and Biological Defense  
Threat-agnostic Detection  
Enhanced Warning and Countermeasures  
Multi-omics and Synthetic Biology





**Thank you**



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National Security Directorate

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