



# Overview & Welcome: Argonne National Laboratory

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Argonne National Laboratory is managed by
The University of Chicago for the U.S. Department of Energy



#### **About Argonne**

- Founded in 1943, designated a national laboratory in 1946
- Managed by The University of Chicago for the Department of Energy
  - ~3000 employees and 4000 facility users
  - ~\$500M budget
  - 1500-acre site in Illinois
- Broad R&D portfolio
- Numerous industry/govt. sponsors
- Research clusters (University of Chicago, Northwestern University, University of Illinois, and Fermi National Accelerator Laboratory)
- Some start-up companies





## **Argonne's Mission**

- Serves DOE & national security
  - Advancing the frontiers of science
  - Creating and operating forefront scientific user facilities (e.g., Advanced Photon Source, Intense Pulsed Neutron Source, Center for Nanoscale Materials)



- Providing innovative and effective tools and solutions for energy and environmental challenges to national and global well-being, in the near and long term
- In accomplishing its mission, Argonne partners with DOE, other federal labs, academia, and the private sector
- A major objective is to increase US industry competitiveness in science and technology fields regionally and nationally



#### Argonne's Major Scientific User Facilities

- Advanced Photon Source (APS) over 2,000 users
- Electron Microscopy Center (MSD) ~100 Users
- Center for Nanoscale Materials (CNM) ~50 Users
- Computer Center (MCS)- ~300 Users
- Intense Pulsed Neutron Source (IPNS) ~50 Users
- Tandem –Linac Accelerator (Atlas) ~50 Users

 Plus -- 45+ specialized Divisional Labs accessible to industry through contract arrangements



## Argonne's Mission and Vision

- Argonne's vision ......
- the coupling of basic and applied science and technology......

to meet the fundamental physical science, energy, environmental and national security needs of DOE and the Nation........

through collaborative R&D with industry and academia.



#### Argonne's Mission and Vision (contd.)

- This vision is implemented by
  - Providing a core foundation of nationally unique
     User Facilities
  - Leading capabilities in basic sciences and breakthrough enabling technologies,
  - Addressing our Nation's energy & national security requirements
  - Leveraging federal resources via strategic alliances with key stakeholders
  - Striving for the delivery of best-in-class quality research



#### Argonne Research

- Significant Involvement at Argonne in H2 Research
- Conference provides a forum for discussion of the challenges to change energy infrastructure
- Results of Analysis from Argonne's GREET
  Well to Wheels model to stimulate discussion



### **Our Core Competencies**

- The core competencies supporting the vision are:
  - Inorganic and biological materials characterization, synthesis, and processing
  - Accelerator and detector research, technology and operations
  - Nuclear fuel cycle and reactor design
  - Transportation science and engineering
  - Computational sciences
  - Integration of computing, science, engineering, and economics expertise
  - Fundamental nuclear physics, tied to cosmology and the origins of the elements



## **Explore Argonne's Opportunities**

- Argonne welcomes new collaborations with large and small industrial partners
- Argonne home page: <a href="http://www.anl.gov">http://www.anl.gov</a>
- Technology transfer and industrial partnerships: <a href="http://www.techtransfer.anl.gov">http://www.techtransfer.anl.gov</a>
- ■Email or phone:

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