



ARGONNE IMPACTS THE LOCAL ECONOMY

The largest federally funded science and technology center in Illinois and the Midwest, Argonne is known for its ideas and for safely delivering impact on society through exemplary research and operations. Argonne’s impact includes helping to drive the region’s economic growth and attract high-tech workers to the state for more than 70 years.

SCIENTIFIC USER FACILITIES

During fiscal year 2017, Argonne’s unique suite of scientific facilities hosted scientists from around the world — and expanded fundamental understanding of matter, materials, and their properties.

Advanced Photon Source (APS)

Provides ultra-bright, high-energy storage ring-generated X-ray beams for research in almost all scientific disciplines. **Users: 5,743**

Argonne Leadership Computing Facility (ALCF)

Provides supercomputing capabilities to the scientific and engineering community to accelerate the pace of discovery and innovation in a broad range of disciplines. **Users: 976**

Argonne Tandem Linear Accelerator System (ATLAS)

The world’s first superconducting radio frequency linear accelerator for heavy-ion research. **Users: 544**

Center for Nanoscale Materials (CNM)

Premier user facility providing expertise, instrumentation, and infrastructure for interdisciplinary nanoscience and nanotechnology research. **Users: 598**

BY THE NUMBERS

Fiscal year Oct. 1, 2016 through Sept. 30, 2017

\$701 million
Annual financial operations impact on Illinois

\$817 million
Federal research funding attracted to Illinois

3,200
Argonne employees

1,107
Visiting scientists

8,305
Users of scientific facilities Argonne operates

\$324 million
Income for Illinois households

\$97 million
Goods and services purchased from Illinois businesses

\$37 million
Construction, including Argonne architecture and engineering costs



Atmospheric Radiation Measurement Climate Research Facility – Southern Great Plains Site (ARM)

Argonne has managed operations at this Oklahoma facility for the U.S. Department of Energy's Atmospheric Radiation Measurement Program site since the first instruments were deployed in spring 1992. In addition to supporting data users, the ARM SGP site hosted 16 Intensive Field Campaigns in 2017; 12 of these are ongoing. **Users: 444**

ARGONNE IGNITES INNOVATION

Today, as the United States faces major challenges in energy, environment, and national security, research at Argonne fuels the economic competitiveness of Illinois, the Midwest, and beyond. Our goal: to sustain an innovation ecology that strengthens science and technology partnerships among the state's universities, laboratories, and industries. Here are some of the regional organizations that Argonne research has influenced.

Advanced Diamond Technologies

Advanced Diamond Technologies harnesses the superlative properties of nature's perfect material by turning natural gas into diamond in a highly controlled, reproducible process for a variety of industrial, electronic, and medical applications.

Parallel Works

Parallel Works makes high-performance computing accessible and affordable with modeling, simulation, and analytics workflow solutions.

The company's "supercomputing as a service" product enables customers to better understand their domains to drive innovation, win business, and cut costs in increasingly competitive markets. It uses software technology jointly developed by Argonne and the University of Chicago to perform large-scale computations quickly and with greater ease.

Pictured on page 1: A worker inside the "clean room" at Argonne's Center for Nanoscale Materials user facility.

Volta Energy Technologies

Startup company Volta bridges the gap between cutting-edge research and marketable products. Volta's scientists and business professionals are experts in the rapidly evolving battery and energy storage sectors. Their research agreement with Argonne focuses on identifying winning technologies in transportation, the electric grid, and portable electronics for investment companies. Volta provides technical expertise to researchers and investors in Illinois, leading to strategic and financial returns for the state.

INCUBATING IDEAS AND ENTREPRENEURSHIP

Argonne lends its considerable resources to the support of the active incubation of ideas and to entrepreneurship education.

- The lab's own on-site program to help entrepreneurs further the development of novel technologies, **Chain Reaction Innovations**, identifies innovators with ideas for energy- and science-based technologies that can have a significant impact on the lives of billions of people. Argonne provides innovators with the laboratory tools, seed capital, and collaborators needed to grow their early-stage technologies so they can attract the long-term capital and commercial partners needed to scale and launch into the marketplace.
- **The Polsky Center for Entrepreneurship and Innovation** drives venture creation and technology commercialization within the University of Chicago and the surrounding community. Through education, partnerships, and new venture support, the Polsky Center advances the knowledge and practice of entrepreneurship and accelerates the commercialization of research.
- Chicago's first incubator focused on physical product development and manufacturing, **mHUB** exists to ensure that Chicago and the Midwest's

SCIENCE AND TECHNOLOGY COLLABORATIVE RESEARCH

During fiscal year 2017, Argonne collaborators included these groups.

COLLEGES AND UNIVERSITIES

- DePaul University
- Illinois Institute of Technology
- Loyola University
- North Central College
- Northeastern Illinois University
- Northern Illinois University
- Northwestern University
- Rosalind Franklin University of Medicine
- Southern Illinois University at Carbondale
- University of Chicago
- University of Illinois at Chicago
- University of Illinois at Urbana-Champaign

CORPORATIONS

- Atlas Energy Group, LLC
- Caterpillar Inc.
- ClearFlame Engines
- Emery Labs
- Fauske & Associates, LLC
- FGC Plasma Solutions
- Illinois Rocstar LLC

manufacturing industry continues to accelerate, grow, and thrive. Argonne staff provide mentorship and information on technology resources for mHUB's membership.

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