DISCOVERY, INNOVATION, AND SOLUTIONS

Stopping cyber theft of intellectual property by foreign governments. Slowing cyber adversaries. Securing microelectronics and pharmaceutical supply chains. We're focused on strengthening vital U.S. missions and industries of the future through our talent, platforms, partnerships, and community.

MITRE Labs inspires breakthroughs in applied science and advanced technology to transform the future of U.S. scientific and economic leadership.

Our goal: Deliver disruptive innovation to support our mission of solving problems for a safer world.

How? By drawing on what we've learned through our operation of federally funded research and development centers (FFRDCs). By strengthening competitiveness in a world where dual-use technologies like artificial intelligence (AI) and quantum computing can be game-changers for our nation's security and economy. And by applying the expertise of close to 4,000 technical staff across a wide range of disciplines, including MITRE fellows, who are prominent thought leaders and subject matter experts in their fields.

MITRE

> "The U.S. risks falling behind in key areas of innovation while other nations are racing to close the gap. For our safety and prosperity, we must turn this around."
>
> Charles Clancy, Senior Vice President and General Manager, MITRE Labs

Revitalizing American Industrial Innovation

MITRE Labs is the modern national foundry to advance U.S. science and technology leadership. We're stimulating new ways of thinking and action to tackle national and global challenges, in partnership with industry and academia by extending MITRE's whole-of-government platform to whole-of-nation impact.

MITRE Labs is working to ensure the U.S. leads the world in scientific and technological innovation.

Highlights of MITRE Labs' recent work include:

- **5G and Beyond.** Securing 5G is a complex topic. But it's not impossible. And it's absolutely vital that the U.S. do so. At MITRE we seek solutions to slow down global adoption of Chinese equipment, invest in and catalyze U.S. innovation in 5G applications and 6G enabling technologies, and foster the development of technologies that can isolate critical services and enable variable levels of security.
- **Designing a New Class of Antenna with Wide-Ranging Applications.** Our patented MITRE Frequency-scaled Ultra-wide Spectrum Element (FUSE™) is a wideband phased array aperture that costs less and improves performance over comparable technologies. It can transmit and receive data for a range of applications from medical imaging to electronic warfare. Our team received a 2018 R&D 100 award from R&D World magazine for FUSE, which has been licensed for both government and commercial purposes.
- **Driving American Innovation in Microelectronics and Advanced Manufacturing.** Focusing on critical supply chain issues, MITRE is investing in rapid prototyping, 3D titanium printing, and integrated circuit design to push the development and production of key technologies on U.S. shores.
- **Advancing Healthcare Research and Treatment.** From our COVID-19 Healthcare Coalition, to driving solutions at the intersections of bio and cyber security, to working with stakeholders in the oncology community, MITRE is seeking solutions through data analysis that could lead to better treatment, faster responses, and lower costs. We established a common set of data elements for cancer care through the mCODE™ initiative, applying MITRE's deep expertise in data interoperability, and identified a core set of data elements to be captured in a standardized format in the electronic health record of every cancer patient.
- **Taking a Quantum Moonshot.** The speed and processing power of quantum computers could revolutionize research in cybersecurity, defense, finance, manufacturing, and health. At our Quantum Lab, we're focused on developing hardware and protocols for unconditionally secret quantum communications, quantum sensing, post-quantum cryptography, and universal photonic quantum computing, powered by AI.

MITRE LABS OPERATES 15 INNOVATION CENTERS THAT ARE AT THE HEART OF THE TECHNOLOGY WE DELIVER.

- Artificial Intelligence and Autonomy
- Cost, Acquisitions & Management Solutions
- Cross-Cutting Urgent Innovation Cell
- Cyber Operations & Effects
- Cyber Solutions
- Data and Human-Centered Solutions
- Electronic Systems
- Emerging Tech
- Enterprise Strategy and Transformation
- Health Innovation
- Infrastructure and Networking Innovation
- Modeling, Simulation, Experimentation, and Analytics
- Software Engineering
- Systems Engineering
- Transportation

Find out more about MITRE Labs.
Contact labs@mitre.org.

MITRE's mission-driven teams are dedicated to solving problems for a safer world. Through our public-private partnerships and federally funded R&D centers, we work across government and in partnership with industry to tackle challenges to the safety, stability, and well-being of our nation.

MITRE | SOLVING PROBLEMS FOR A SAFER WORLD®

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