INNOVATION IS OUR WORK

MITRE's Independent Research and Development Program tackles the government's hardest problems, those that require deep expertise across multiple technologies and an objective perspective, as well as knowledge of how federal agencies operate in the real world.

We apply new technology, or new ways to use existing technology, to improve government operations—from cybersecurity to IT modernization to national security. We strive for the best and most cost-effective solutions to our government sponsors' needs. Projects range from streamlining operations to ensuring that the U.S. military and our allies can communicate in the field.

MITRE is a not-for-profit organization that operates federally funded research and development centers. As such, we cannot compete with industry. Rather, we often act as a bridge between government and industry—helping agencies understand what's available commercially that could solve their problems and helping industry understand the government's specific needs.

MITRE

"Excellence in science and technology underpins everything we do at MITRE and is critical to a robust research program that addresses the nation's complex requirements for innovative and cost effective solutions."

Dr. Charles Clancy, Chief Technology Officer

We also transition our innovative technology to government agencies or we license it to the private sector, which creates affordable, maintainable products that meet the government's needs.

Our Impact

MITRE researchers work on a wide range of technologies, domains, and problems, including:

AI: Accelerating adoption of AI technology that meets the government's needs, pioneering solutions that provide mission-critical analysis, decision-making, and planning capabilities in areas such as transportation, defense, health, systems modernization, and cybersecurity.

Cyber: Leading the field in advanced cyber security technologies and methods, including cyber operations, resilient architecture, cryptography, software security and engineering, and resilient critical infrastructure.

Electromagnetic Spectrum: Pioneering ways to enable multiple stakeholders across government and industry to share the limited spectrum efficiently, meeting the needs of the nation, from defense to 6G availability.

Critical Infrastructure: Exploring technology and partnerships to protect U.S. systems, from the national airspace and financial networks to border security and energy delivery networks.

Supply Chain Resilience: Applying critical emerging technologies that can make global supply chains more secure and effective to protect our national security and economy.

Quantum Science: Pushing the state of the art, from developing quantum sensors to building the world's first fully universal, scalable photonic quantum computer with the government's needs in mind.

Autonomous Vehicles (air, ground, and underwater): Driving technology to accelerate deployment of autonomous vehicles, while mitigating counter attacks against the nation.

Communications and Networking: We've worked with the U.S. military for more than 60 years to ensure they can operate effectively across the globe, applying our technical expertise in antennas, radar, sensors, and satellites.

For more information, please contact research@mitre.org.

> "MITRE acquired an NVIDIA DGX H100 SuperPOD to bring leading-edge computer resources and expertise to government missions, enabling our sponsors to achieve their goals in ways they couldn't do before. For example, we're building models that accommodate other kinds of data besides text, including satellite images, cybersecurity telemetry, and, eventually, radio frequency data that could help better manage the electromagnetic spectrum."
>
> Guido Zarrella, AI and Data Research Leader

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®