# SAFETY CULTURE: THE **FOUNDATION** FOR SAFETY MANAGEMENT SUCCESS

Safety is *the* number one priority in any transportation mode. It's also a MITRE specialty. We have decades of experience helping organizations implement effective safety management practices. We honed our proven approach in aviation, healthcare, and other industries with a strong safety mission. Today, we're applying our expertise even more broadly, including automotive, rail transit, and maritime environments.

At the core of our approach is the implementation of a formal safety management system, which equips organizations to manage safety in their day-to-day operations and enhance safety performance organization-wide. Our leadership in safety management practices predates the term "safety management system," or SMS. In fact, we helped develop the current SMS standards. Since then, we have continued to research leading safety management practices to meet the safety needs of our increasingly complex and interconnected world.

Experience has taught us that a positive safety culture is foundational to all other safety efforts, so our work with organizations seeking to take safety to the next level begins with a safety culture assessment. By gathering data and employee input from across the organization, we can identify safety culture strengths as well as opportunities for improvement.
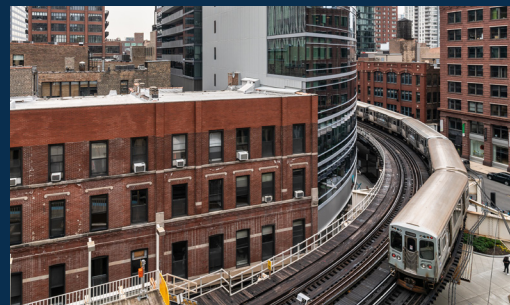
MITRE

A key tool in our assessment process is a MITRE-developed survey that measures 10 dimensions of safety culture, such as leadership commitment to safety, mechanisms for employees to report safety issues or concerns, accountability for safety by all members of the organization, and opportunities for continuous learning. After analyzing the results, we take a deeper dive into issues raised in the survey through interviews and focus groups.

We then provide recommendations based on those findings and informed by our expertise in operational safety, behavioral science, and organizational change. This includes a data-driven and tailored roadmap to guide implementation of safety culture initiatives.

Since employee involvement in hazard identification, risk assessment, and developing safety procedures is one of the tenets of a positive safety culture, our recommendations often include plans for the development of a Voluntary Safety Reporting Program (VSRP). We have many years of experience helping organizations such as airlines and the Federal Aviation Administration establish VSRPs, which have been proven to be an effective tool for promoting safety. These reporting programs are designed to foster a trust-based culture. They also cultivate a sense of ownership and responsibility for safety at all levels of the organization.

Our experts also develop key performance indicators and metrics an organization can use to measure its safety performance against industry standards and to monitor and evaluate the effectiveness of its safety improvement efforts over time. Our SMS Effectiveness Evaluation is another tool we employ to help organizations ensure that their safety defenses are keeping pace with changing environments.

An essential piece of the safety culture puzzle is safety training and education. To meet that need, our experts stand ready to develop SMS training specific to an organization's needs—from outlining SMS principles to supporting policy development and implementation.

As our world becomes more and more interconnected, we are recommending increased focus on the "shared mission" operational chain—to include subcontractors, parts suppliers, and other external partners supporting an organization's operations.

That shared-mission focus is a key element of our Next Level of Safety visions for the aviation and surface transportation domains, which emphasize the benefits of taking a system-of-systems approach to safety. We also recommend broad industry-wide data sharing to enable analysts to gain a holistic 360-degree view of safety that incorporates all stakeholders—and provides much greater insight than any single organization can gain in its own.

As the data steward and analytical arm of the Aviation Safety Information Analysis and Sharing program (ASIAS) and the Partnership for Analytics Research in Traffic Safety (PARTS)—two public-private partnerships—we've seen firsthand the power of data sharing to enhance industry-wide safety. ASIAS is credited with playing a major role in advancing commercial aviation safety. And findings from a recent PARTS study are expected to help automated driving system developers enhance safety management throughout the design, development, and deployment of these automated capabilities. In the years to come, collaboration will increasingly be key to ensuring safety in our rapidly evolving transportation systems.

MITRE | SOLVING PROBLEMS FOR A SAFER WORLD®

mitre.org