



How Making **Safe Decisions**[®] is the Solution to Overcoming Brain-Centered Hazards[™]

White Paper

Executive Summary

Culture, leadership, systems, and processes all play significant roles in whether or not exposure is controlled in the workplace. We know that when leadership is focused on production over safety, incidents are more likely because more exposures go uncontrolled. We also know that when work schedules and overtime demands require people to work in a fatigued state, errors will be more frequent. And we know that when safe processes are not given the level of management oversight required, more errors occur.

Yet, even when organizational culture, leadership, and systems are strong and supportive, good people still make mistakes. That's because they didn't:

See or discern the exposure, given how the human vision system operates.

Recognize exposure as a problem.

Complete all steps in a procedure because of fatigue, distraction, or running on autopilot.

Involve others in the process of error identification and prevention.

We're particularly susceptible to these errors when we are working by ourselves but working in teams is not necessarily a fix and may even foster additional opportunities for error. In fact, some incidents occur because other people were present.

As leaders, the challenge is embracing how the brain functions and not falling into the trap of thinking that people who make mistakes are bad people. We also have to recognize that telling people to be more aware will not solve the problem.

Instead, increasing human performance requires a science-based approach. The Making Safe Decisions® (MSD) solution helps people understand these brain-oriented vulnerabilities and teaches specific techniques for overcoming them. MSD participants learn how their brains can help or hinder their actions, and also what they can do to optimize real-time high-performance reliability to avoid unplanned events.

How MSD Works With the Brain

For decades, safety leaders have been trying to unlock the mystery of why good employees occasionally make incorrect decisions. For example:

- Why does a worker, with years of experience conducting the same task, suddenly make an error that results in a serious injury or disruption to the operation?
- Why do people miss important information when they are monitoring gauges that are right in front of them?
- Why does a driver swear the light was green when the drive cam video shows differently?

Recent neuroscience research indicates that many of the causes of these types of errors are a result of how the brain is designed to operate. In many cases, these



characteristics – which we call Brain-Centered Hazards – help our brains be more efficient but, in some cases, can increase exposure to injury and error.

DEKRA has leveraged findings from neuroscience research to create a new human and organizational performance service called the Brain-Centric Reliability™ System.

Controlling Brain-Centered Hazards requires that critical organizational elements align with how the human brain actually works. The BCR system addresses reliability gaps within work environments, technological interfaces, operating procedures, training, work schedules, decisions, risk perceptions, and the leadership driven messages that shape organizational culture. All components of operational reliability must be aligned and draw on the latest neuroscience to achieve sustainable success.

Enhancing the skills and capabilities of the worker represents the last line of defense in this system. The Making Safe Decisions solution represents this element of the BCR system and is targeted at frontline workers and the supervisors who support them.

How MSD Works

The Making Safe Decisions solution involves five critical steps:

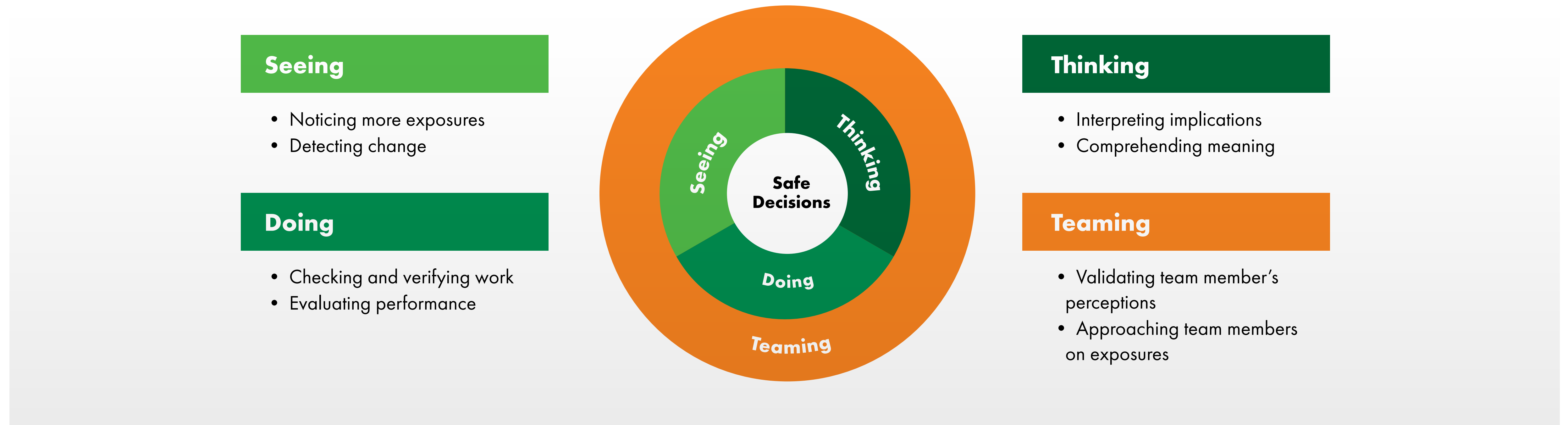
- Planning the Implementation
- Managing/Supporting the Implementation
- Building Capability
- Tracking Progress
- Sustaining Success

Planning the Implementation

Implementing the Making Safe Decisions solution begins with evaluating the exposure profile of the organization, understanding the safety activities performed by leaders and workers, and planning the key steps and milestones of the implementation. Its purpose is to understand the work environment, typical work activities, safety/performance tools, work/process flow, and exposures.

This evaluation is also used to understand the site culture, supervisor/manager activities, and safety processes and systems. Information gleaned from the evaluation enables the implementation to be customized to the organization's situation and to tailor the learning modules to best resonate with supervisors and frontline workers. After the evaluation, a planning meeting is conducted to review the organization's goals and objectives, define roles and responsibilities, determine the roll-out, and develop a communication and governance strategy.

The Making Safe Decisions® Approach



Managing and Supporting the Implementation

Managing the implementation is focused on planning, communicating, and removing obstacles to ensure success. Management of these responsibilities can be coordinated through an existing EHS cross-functional team or through a project governance team.

Building Capability

The foundation of the Making Safe Decisions solution centers on four, half-day sessions for frontline workers that are designed to cover the three steps that are essential to every human action when they work alone or with others: Seeing, Thinking, and Doing.

- **Seeing**
Participants learn the flaws in human perception and how they make us vulnerable to error and injury. We then introduce strategies and skills to enhancing the ability to see visual exposures. Participants will practice these strategies several times within the module and on the actual job site.
- **Thinking**
Participants learn skills that prompt more work pauses, questioning, and deeper analysis during planning, problem solving, and abnormal conditions. The human brain tries to conserve energy and jumps into action too quickly at times, so learning to “switch on” thinking and adjusting how we think helps ensure safety.
- **Doing**
Participants learn skills to hone their ability to work consciously during critical

tasks or high exposure points. Fostering safety focus during these tasks results in better execution and enhanced precision, verification of correct actions and results, and course, corrections before errors occur that can impact safety or operational continuity.

Working with others adds a unique set of challenges and requires additional communication and collaboration skills represented in the fourth session: Teaming. Additionally, to enable informed leadership and support of this change initiative, leaders will participate in a session on Controlling Brain-Centered Hazards

- **Teaming**

Skills built in this session include improved critical communications — how to best approach others with either safety suggestions or life-protecting interventions, how to increase safety-related collaboration, and how to inoculate the team against groupthink.

- **Controlling Brain-Centered Hazards for Leaders**

Participants will learn how to engage with frontline workers to control Brain-Centered Hazards through observation, by asking key questions, by engaging with workers on the use of controls, by reinforcing and recognizing control efforts, and by monitoring their own behavior and tone for urgency and stress.

Tracking Progress

When the Making Safe Decisions solution is implemented effectively with leadership support and sustainability actions, the organization sees changes in several leading measures such as an increased number of identified physical hazards and work pauses, as well as increased and improved communication between workers on the same task.

Sustaining Success

Implementation of the MSD solution requires putting in place a comprehensive and consistent set of sustainment activities. Training skills and habits are more likely to stick if reminders and reinforcers of key techniques are rotated regularly in the daily work environment.

It is important that what the worker Sees (posters, pictures, and visual reminders), Hears (pre-shift briefings and success stories), and Experiences (integration with technical training events and personal success) all reinforce the same key MSD strategies and concepts.

Conclusion

Exposure in the workplace depends on culture, leadership, systems, and processes. Yet even when all of these are working, workers can still make mistakes. They may not see an exposure, recognize it as a threat, or execute job procedures as precisely as needed and working with others may exacerbate the situation. The Making Safe Decisions solution helps leadership understand how the brain plays an important role in exposing workers to vulnerabilities and teaches them specific techniques for overcoming them. This is a way for employees at all levels to learn how the brain can help or hinder and what they can do in real time to avoid unplanned events.

There is no silver bullet method for eliminating all error from the workplace. What we can do, however, is put strong defenses and countermeasures in place. Effective leadership, a mature culture, brain-aligned systems, and countermeasures such as the Making Safe Decisions solution enables “Right-First-Time” performance to occur more often and more consistently across the organization especially within safety and operation critical tasks.

Want to learn how you can put stronger countermeasures in place to reduce errors in the workplace?



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