



USING A SAFETY FRAMEWORK FOR SUSTAINABLE IMPROVEMENT





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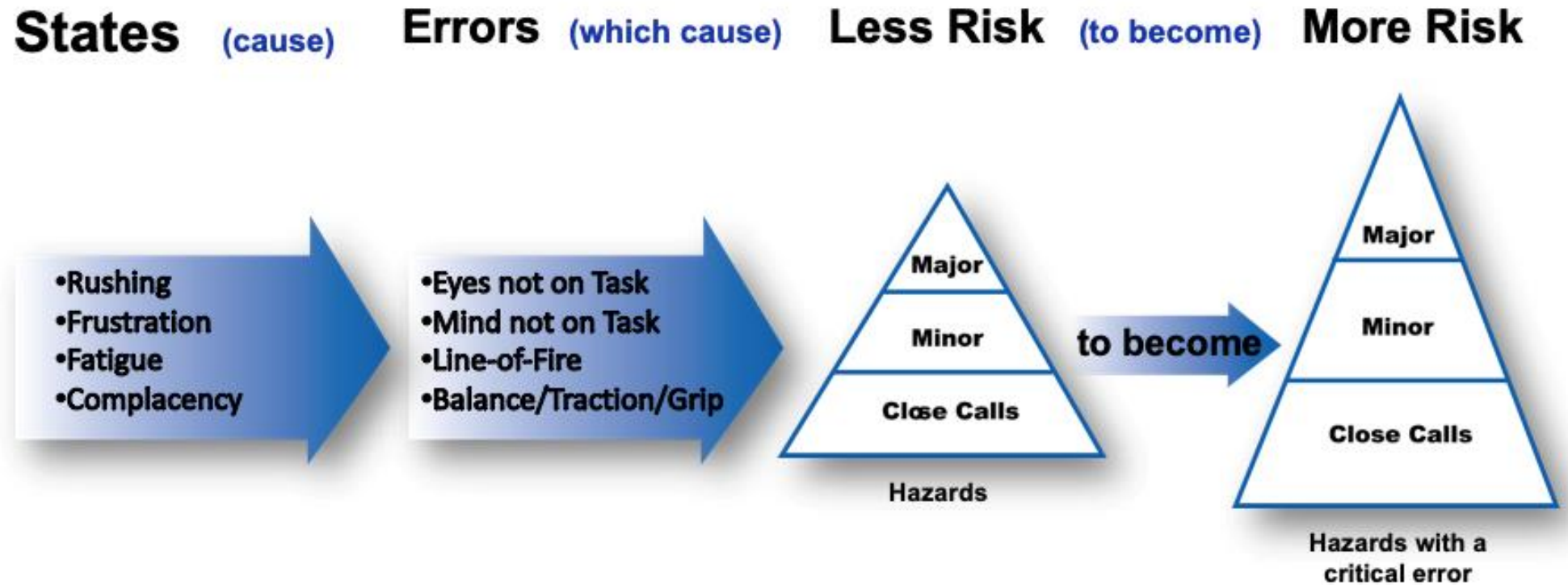
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The background of the entire image is a photograph of a group of construction workers. They are gathered in a circle, with their hands pressed together in the center, performing a team huddle. The workers are wearing various types of clothing, including blue button-down shirts, orange high-visibility safety vests, and white hard hats. The lighting is bright, suggesting an outdoor or well-lit indoor construction site. The overall mood is one of teamwork and collaboration.

 **SAFESTART**[®] **ONETEAM**

THE STATE TO ERROR PATTERN



This state to error risk pattern is involved in over 95% of all (accidental) acute injuries.

THE WORLD HAS CHANGED

- The world has changed
- New environments with lasting impacts
- Now more than ever, organizations need to understand and adjust to their new world



HUMAN FACTORS FRAMEWORK OVERVIEW

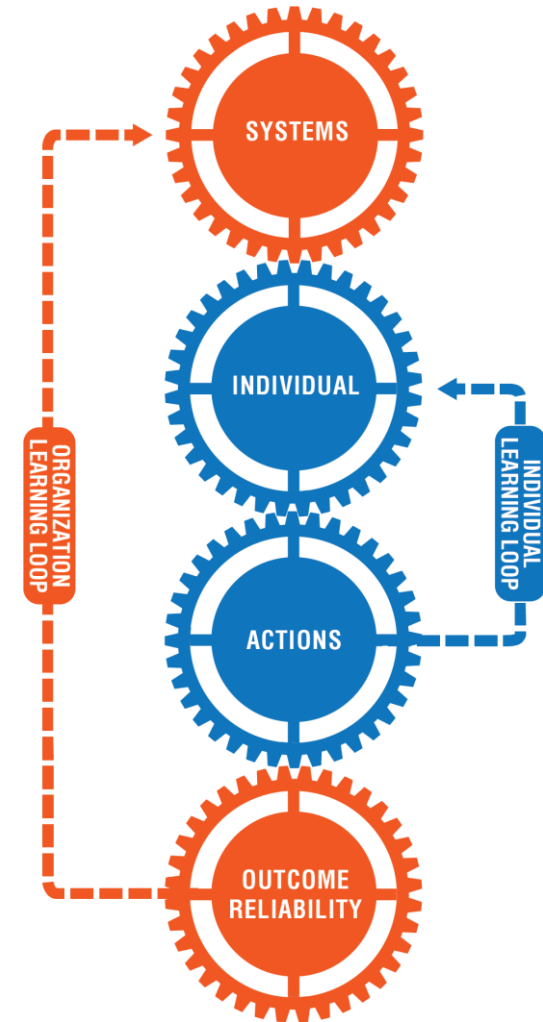
Using the human factors framework to:

- Navigate the challenges of today's new world

Provide a roadmap for sustainable improvement to:

- Safety
- Performance
- Culture

“A problem well stated is a problem half solved.”



A UNIQUE PERSPECTIVE

- Worked with thousands of organizations
- Trained millions of workers
- Talk to 10,000+ safety professionals a year



You're not alone

MAJOR ORGANIZATIONAL CHALLENGES



- Injuries (from acute to SIF)
- Engagement (from employees to leadership)
- Culture (from safety to organizational performance)

WHY DON'T THESE PROBLEMS GO AWAY?

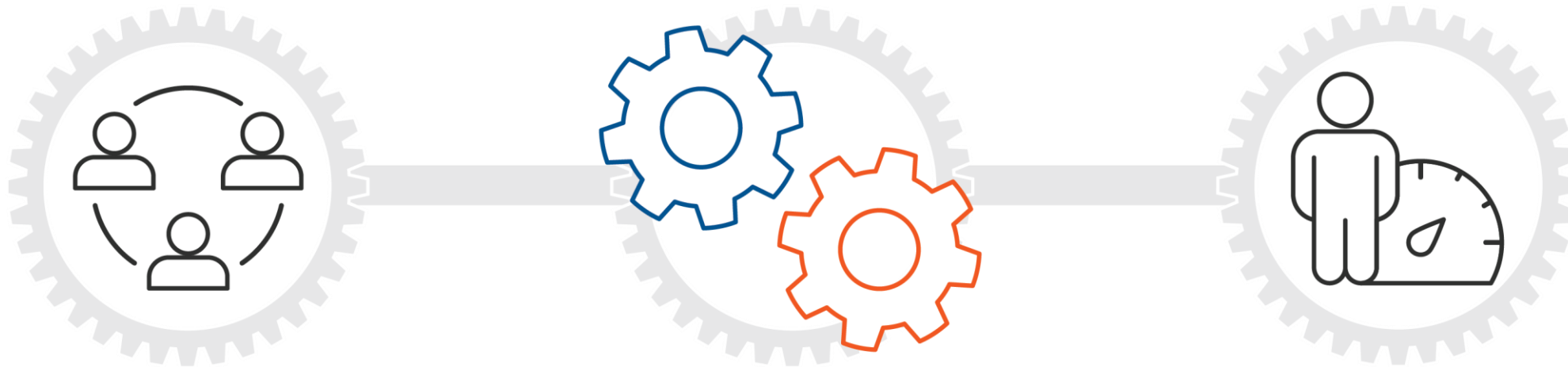


Organizations struggle
to recognize the impact
of **Safety, Performance
and Culture**
'Human Factors' have

HUMAN FACTORS

HUMAN FACTORS ARE THE **‘PEOPLE ELEMENTS’**
OF SYSTEMS AND CONDITIONS THAT INFLUENCE
PERFORMANCE AND RELIABILITY

WHAT ARE HUMAN FACTORS?





HUMAN FACTORS CHALLENGES



Organizations can't engineer out all human factors if people interact with systems.



There's often a gap between how things *should* be done and how things *are* being done.



Human factors affect the way individuals interact with existing systems because of physical and mental factors.



Human factors combine with hazardous situations to increase the potential for incidents.



Outcome reliability is often focused on production and quality, not safety, and doesn't account for human factors.

HUMAN FACTORS



- The physical/mental states that affect how people think and act
- Cause people to deviate from normal behavior
- Embedded in organizational systems
- They don't go away



MAJOR ORGANIZATIONAL CHALLENGES



Injuries (from acute to SIF)



Engagement (from employees to leadership)



Culture (from safety to organizational performance)

HOW ORGANIZATIONS TRY TO SOLVE THESE CHALLENGES



Injuries (from acute to SIF)



Engagement (from employees to supervisors)



Culture (from safety to organizational performance)

HOW ORGANIZATIONS TRY TO REDUCE RECURRING INJURIES



- Safety rules, regulations, policies, procedures
- Training on specific workplace hazards
- Eliminate or guard hazards
- PPE
- Other compliance measures

IS THIS APPROACH ENOUGH?



NO

- Doing more for fewer results
- Escalating time and money
- Compliance goals already met
- Safety systems don't address human factors

CHALLENGE

SAME COMMON INJURIES YEAR OVER YEAR

- Acute injuries usually aren't caused by the most dangerous activities.
- Injuries happen when we no longer perceive something as hazardous.
- How much time, effort and money is wasted trying to solve the wrong problem?



FATIGUE



ILLNESS

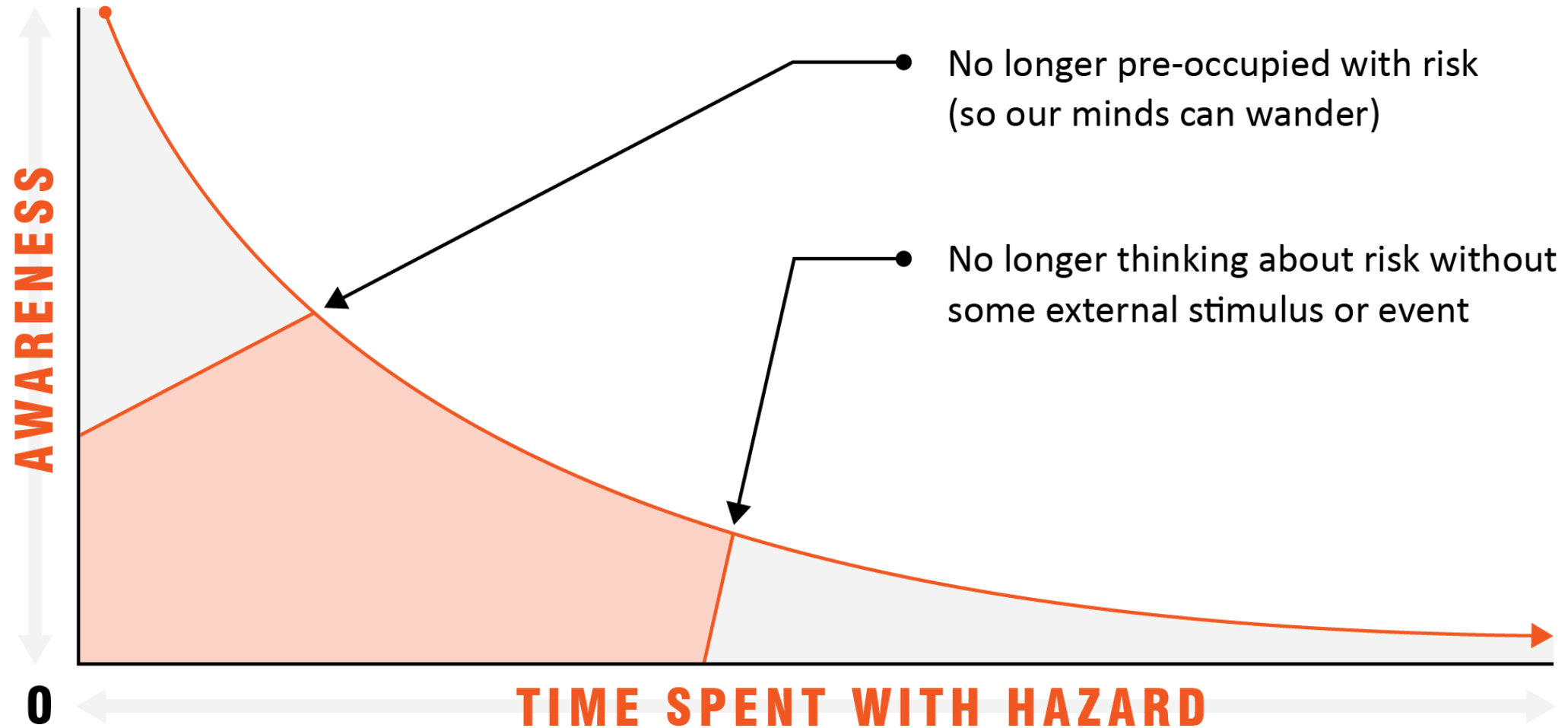


DISTRACTION



OVERCONFIDENCE

THE COMPLACENCY CURVE

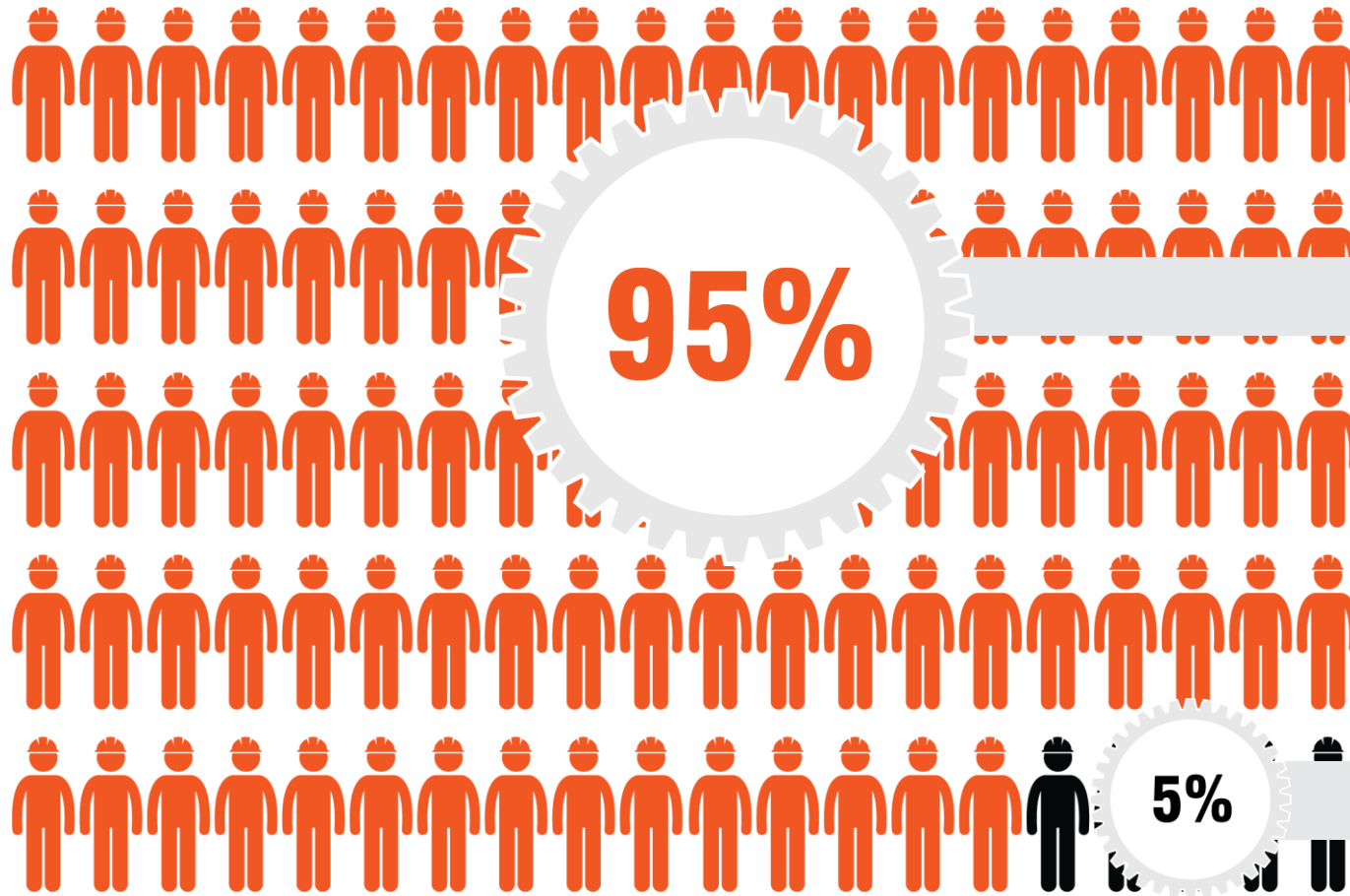


3 SOURCES OF INCIDENTS



- **INDIVIDUAL**
Individual does something unexpected that gets them hurt.
- **OTHER PERSON**
Someone else does something unexpected that hurts someone.
- **EQUIPMENT**
Equipment, tools or machinery does something unexpected and hurts someone.

100 INJURIES



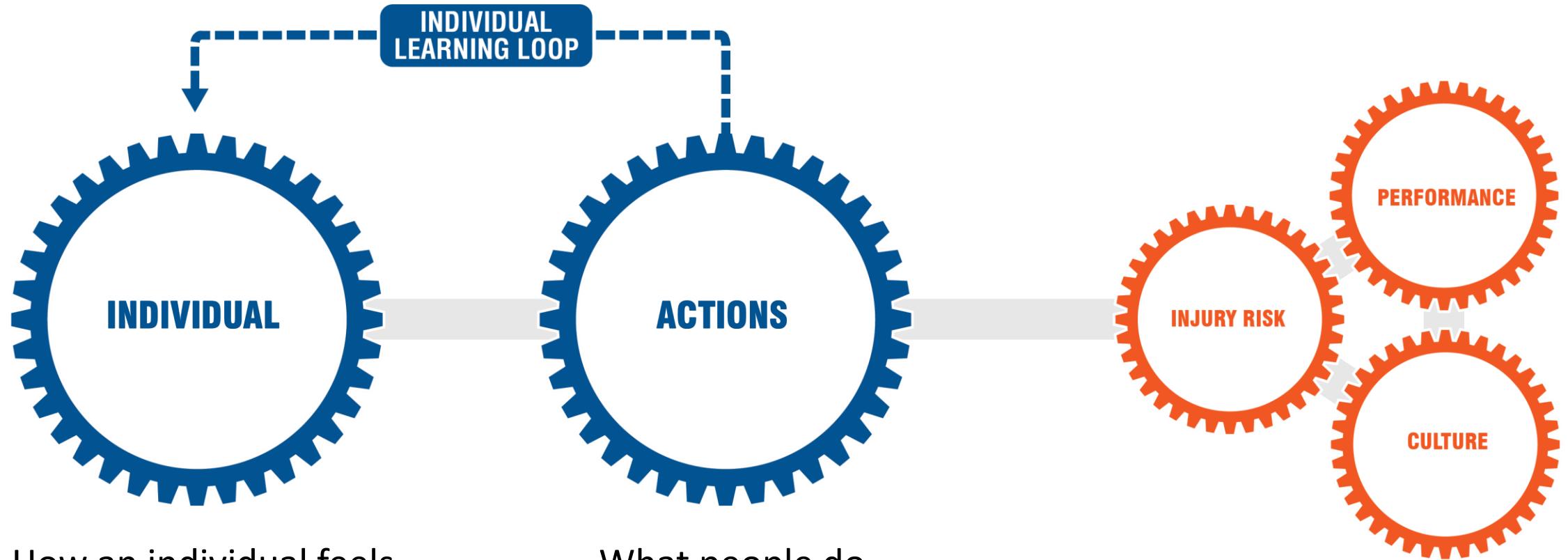
WHERE COMPANIES SHOULD FOCUS

Self + other (human factor)

WHERE COMPANIES FOCUS

Equipment + engineering + controls

HUMAN FACTORS RISK PATTERN



How an individual feels,
thinks and makes decisions

What people do

The human factors risk pattern is involved in 95% of all safety and organizational performance outcomes.

If Human Factors are involved in 95% of all safety and organizational performance outcomes,

WHAT PRACTICAL SKILLS HAVE BEEN GIVEN TO YOUR PEOPLE TO HELP ADDRESS IT?

HOW ORGANIZATIONS TRY TO SOLVE THESE CHALLENGES



Recurring injuries (from acute to SIF)



Engagement (from employees to leadership)

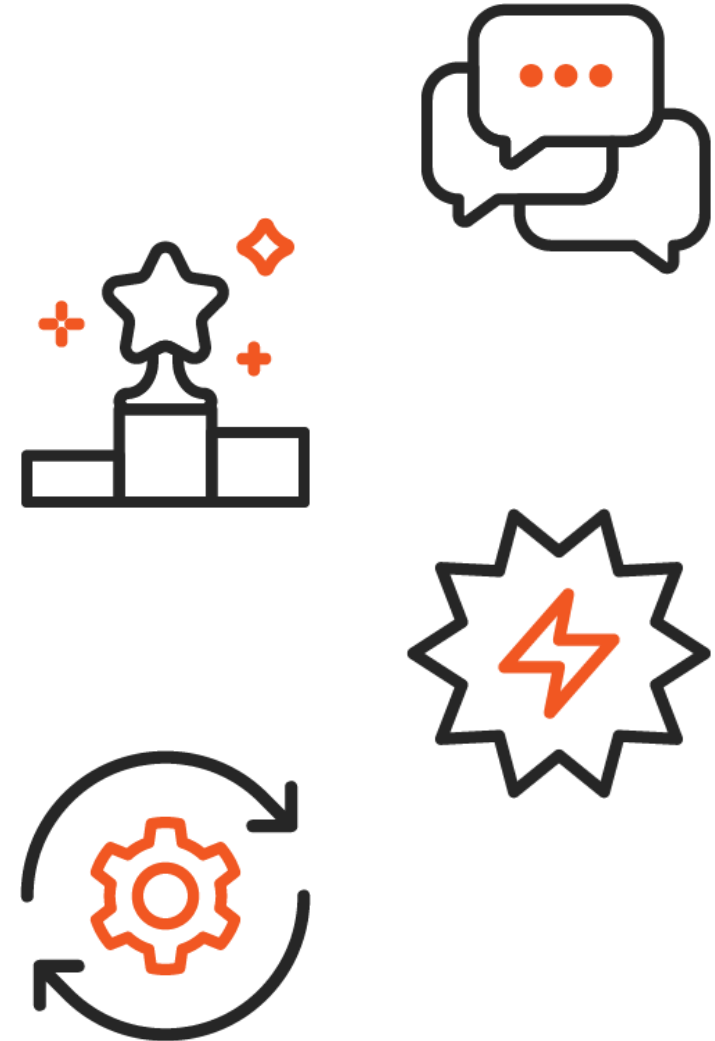


Culture (from safety to organizational performance)

CHALLENGE

LACK OF EMPLOYEE ENGAGEMENT

- No common safety language
- Promotions based on job success, not communication skills
- People avoid uncomfortable situations
- Repetitive compliance training



THE VALUE OF ENGAGEMENT



Actively disengaged employees (24%) outnumber engaged employees (13%) by nearly 2-to-1.



Lack of loyalty can cause turnover, which costs 1.5 times the annual salary of the person who quits.

Engaged Team Performance Benefits

24%-59%

LESS
TURNOVER

17%

HIGHER
PRODUCTIVITY

21%

GREATER
PROFITABILITY

70%

FEWER SAFETY
INCIDENTS

41%

LESS
ABSENTEEISM

GALLUP

LEADERS ARE FORCED TO LEARN THROUGH TRIAL & ERROR



Cost per year from lost productivity due to communication barriers for the average organization.

HOLMES REPORT



Cost per year of miscommunication for smaller companies.

HOLMES REPORT



Leaders with effective communication skills produced a 47% higher return to shareholders.

SHRM

SUPERVISORS AND ENGAGEMENT

How does the new supervisor affect culture?

Quote from a client:

“
When promoting supervisors
from previous job success,
we'd lose our best welder
and gain our worst supervisor.”

HOW ORGANIZATIONS TRY TO SOLVE THESE CHALLENGES



Injuries (from acute to SIF)



Engagement (from employees to supervisors)

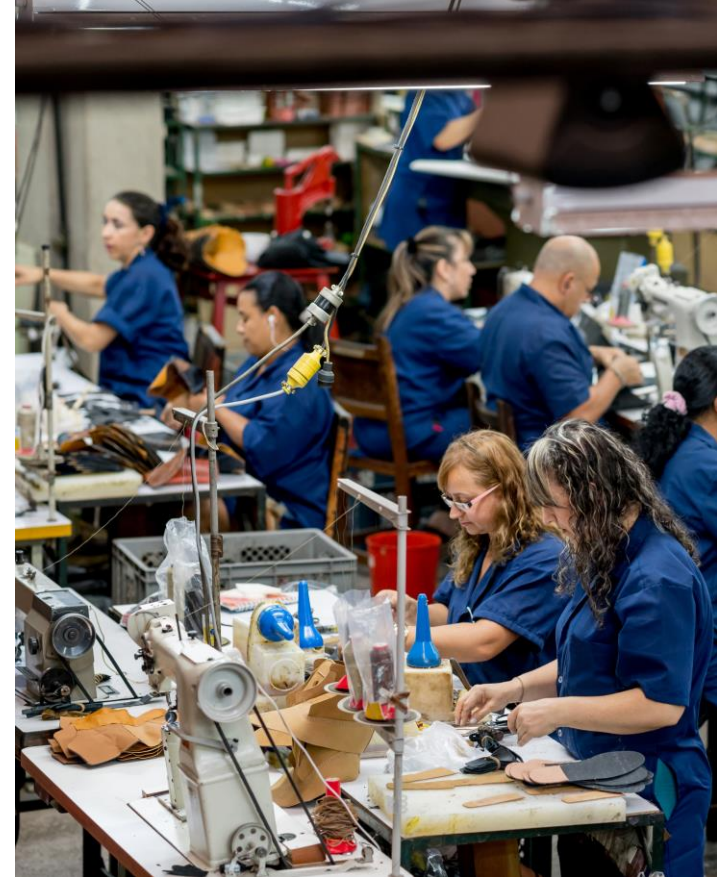


Culture (from safety to organizational performance)

CULTURE VS CLIMATE

Culture: the way things are done around here.

- The value placed on safety and degree of personal accountability for safety
- The safety personality of an organization
- What people believe and value



CULTURE VS CLIMATE

Climate: “how things feel around here these days...” *narrow focus*

- The perceived value of safety *today*
- Influenced by other people’s opinions, attitudes and actions
- Changes based on circumstances (production cycles, major incident, employee promotions)



CULTURE VS CLIMATE

TYPICAL CHANGING CLIMATE EXAMPLES:

- boss being in bad mood
- a new rush order
- a line being shut down unexpectedly



CULTURE VS CLIMATE

NEW-WORLD CHANGING CLIMATE EXAMPLES:

- employees working from home
- feeling stress about job security
- getting sick
- knowing someone that is sick



FROM CLIMATE TO CULTURE

- You can't fix your culture overnight.
- A **positive safety climate** reduces injuries and improves production, quality and engagement.
- Influence your day-to-day climate by improving **supervisor/frontline manager skills**.



SUPERVISORS ARE THE KEY

WHEN SUPERVISORS CAN:

- give/receive input
- understand how human factors connect to safety outcomes

THE ORGANIZATION BENEFITS FROM:

- **accurate** leading indicator data
- **positive** day-to-day climate
- **desirable** long-term culture



If you need to improve your climate
before culture, **WHAT DAY-TO-DAY CLIMATE SUCCESS FACTORS
DO YOU CURRENTLY HAVE IN PLACE?**

CLIMATE SUCCESS FACTORS



- Critical communication
- Hazard awareness
- Effective reporting/accurate data
- Engagement
- Active leadership

SO IF THIS SOUNDS LIKE YOUR WORKPLACE



**An employee
sees a hazard
and just steps
over it.**

OR THIS SOUNDS LIKE YOUR WORKPLACE

**A supervisor walks by
at-risk behavior and
doesn't stop to address it.**



YOU NEED A HUMAN FACTORS FRAMEWORK

DRIVE ENGAGEMENT

Develop a personal commitment to safety.

PROVIDE PORTABLE AND EFFICIENT TOOLS

Teach people transferable techniques to reduce injuries.

ENABLE GROUP COMMUNICATION

Introduce a common language to discuss risk.

HARNESS INDIVIDUAL AND TEAM LEARNING

Use communication and learning methods to improve outcome reliability.



THE CASE FOR A FRAMEWORK



- These aren't isolated incidents.
- Human factors don't go away
- The problems appear throughout an organization—not just individuals.
- Look at micro and macro—at the same time

THE CASE FOR A FRAMEWORK



THE HUMAN FACTORS FRAMEWORK IS:



- A model for how work—and safety—happen day to day
- A diagram of how different parts of an organization interact
- A diagnostics tool for evaluating safety performance

THE CASE FOR A FRAMEWORK

AN IDEAL FRAMEWORK IS:



- Flexible—applies to many types of incidents
- Just right—neither too general nor too specific
- Neutral—not just focused on negative
- Easy to understand

THE CASE FOR A FRAMEWORK



**MOST
IMPORTANTLY**

It needs to apply to your
specific workplace.

THE HUMAN FACTORS FRAMEWORK



THE HUMAN FACTORS FRAMEWORK SYSTEMS

TECHNICAL SYSTEMS

- engineering
- process
- equipment
- safety management system

PEOPLE SYSTEMS

- work team
- supervisory skills
- organizational culture



THE HUMAN FACTORS FRAMEWORK SYSTEMS

OUTCOME RELIABILITY

- safety
- production
- quality
- organizational performance



THE HUMAN FACTORS FRAMEWORK SYSTEMS

TECHNICAL SYSTEMS

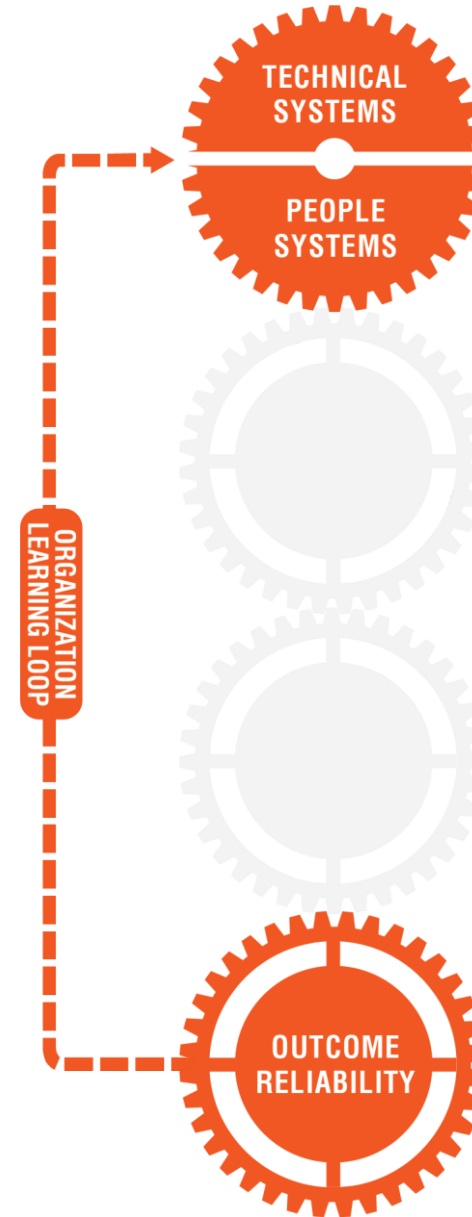
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PEOPLE SYSTEMS

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OUTCOME RELIABILITY

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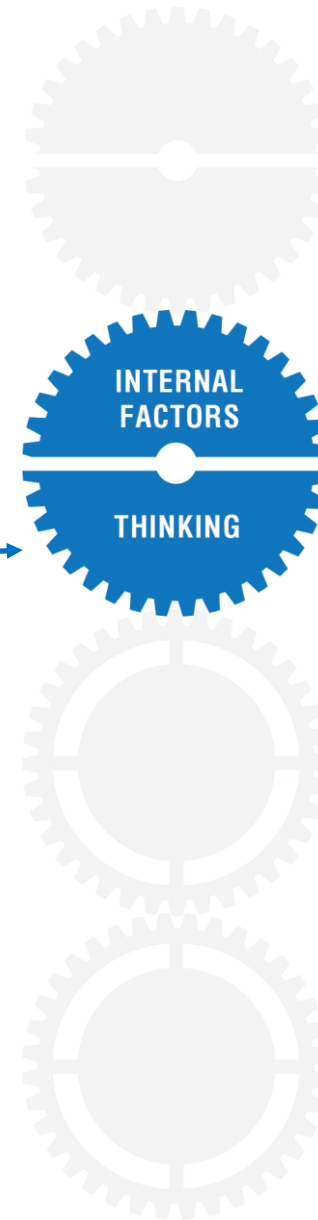
THE HUMAN FACTORS FRAMEWORK SYSTEMS

INTERNAL FACTORS

- fatigue
- illness
- distraction
- overconfidence

THINKING

- decision-making
- autopilot
- attention
- habits



THE HUMAN FACTORS FRAMEWORK SYSTEMS

ACTIONS

- behaviors
- accuracy/errors
- risk perception
- relying on memory



THE HUMAN FACTORS FRAMEWORK

INDIVIDUALS

INTERNAL FACTORS

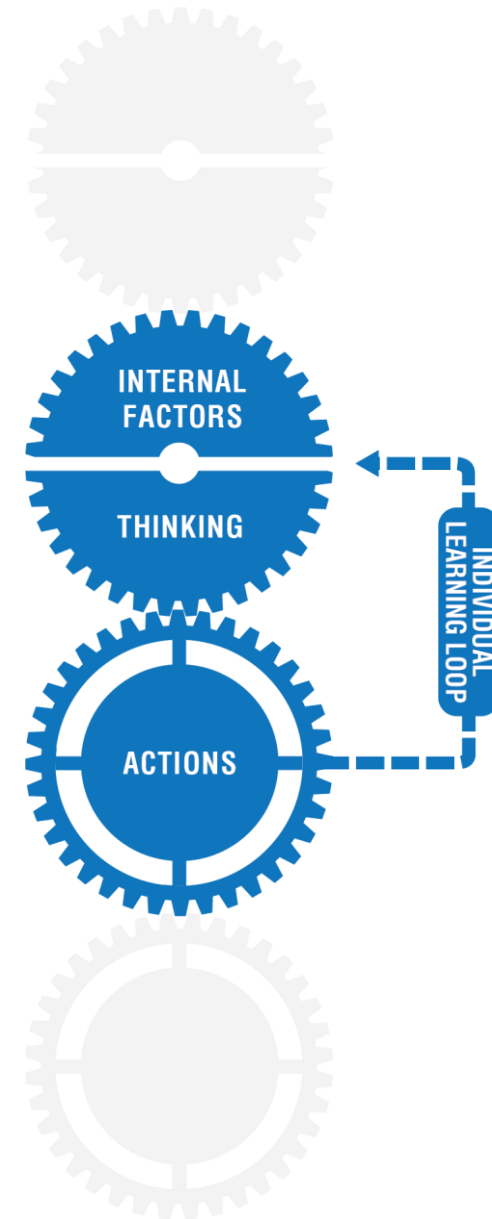
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THINKING

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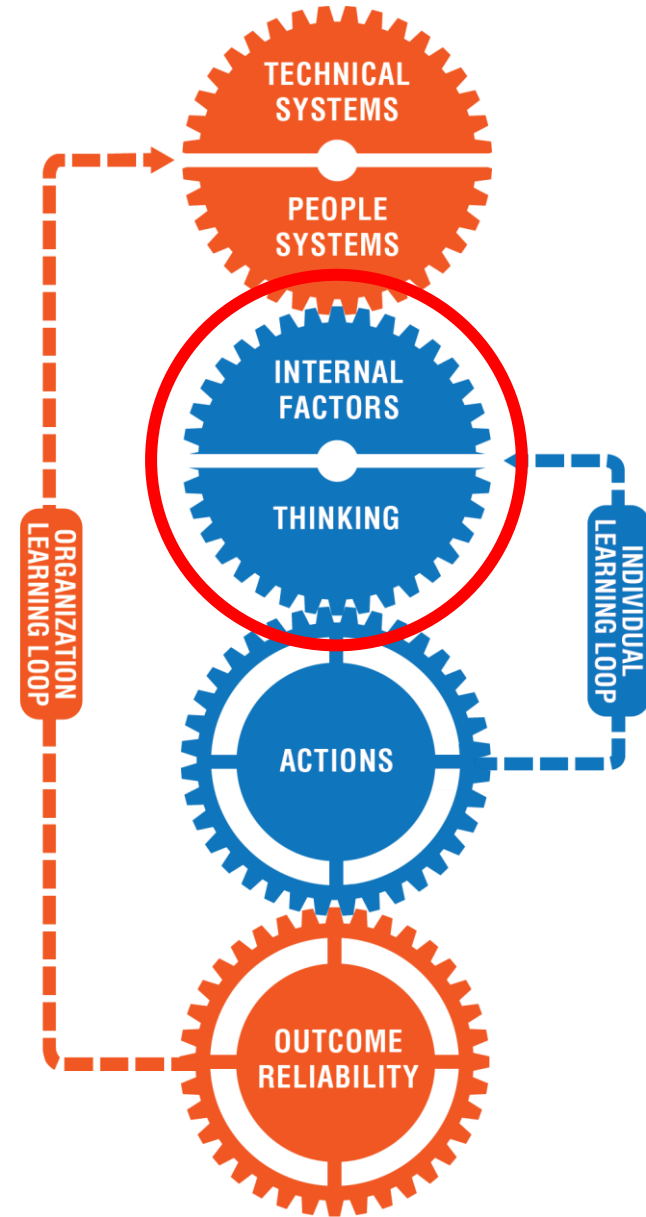
ACTIONS

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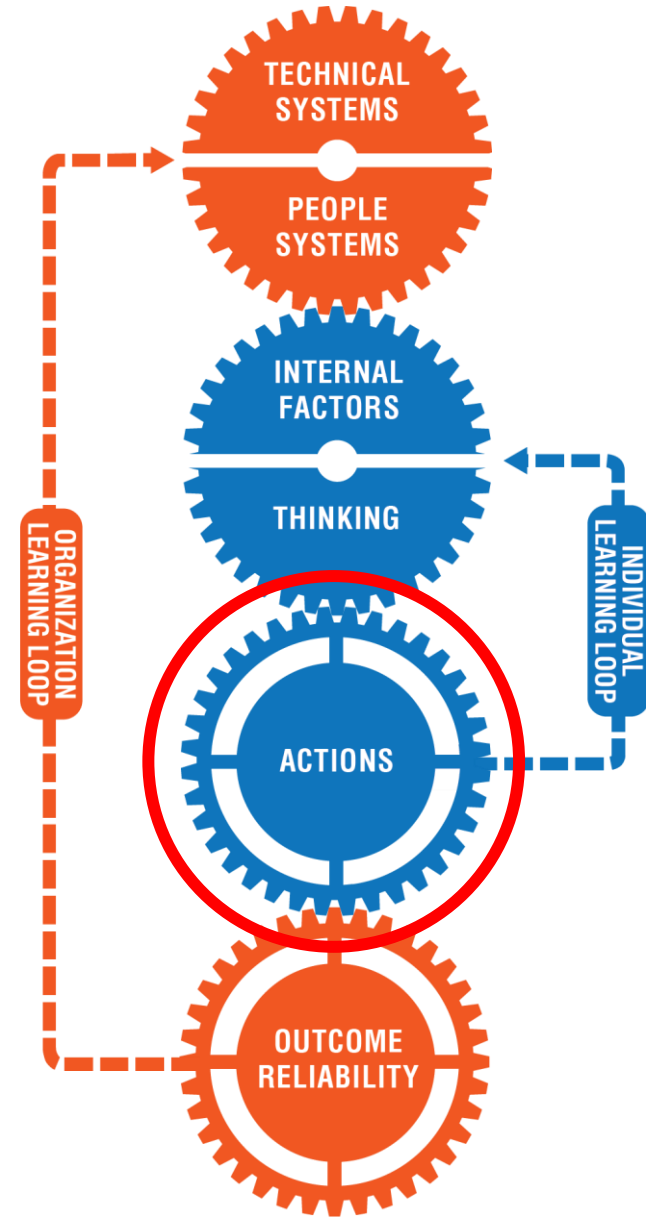
THE HUMAN FACTORS FRAMEWORK

FAILURE to understand this...



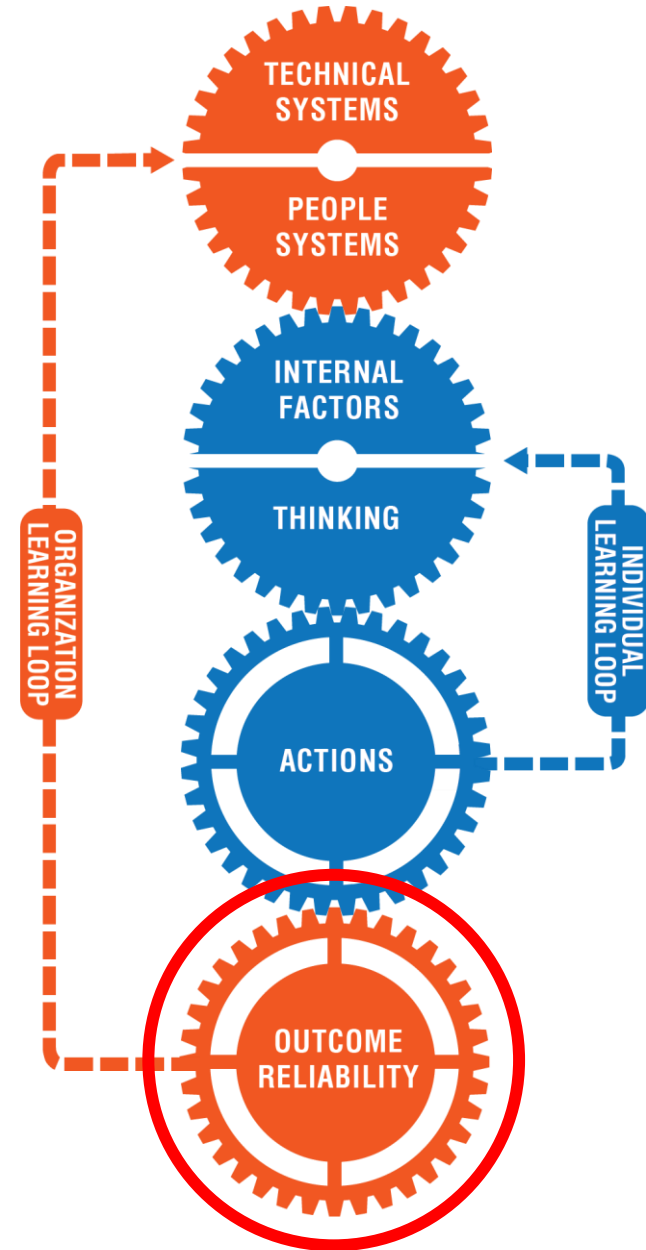
THE HUMAN FACTORS FRAMEWORK

...equals **FAILURE** to make effective changes here.



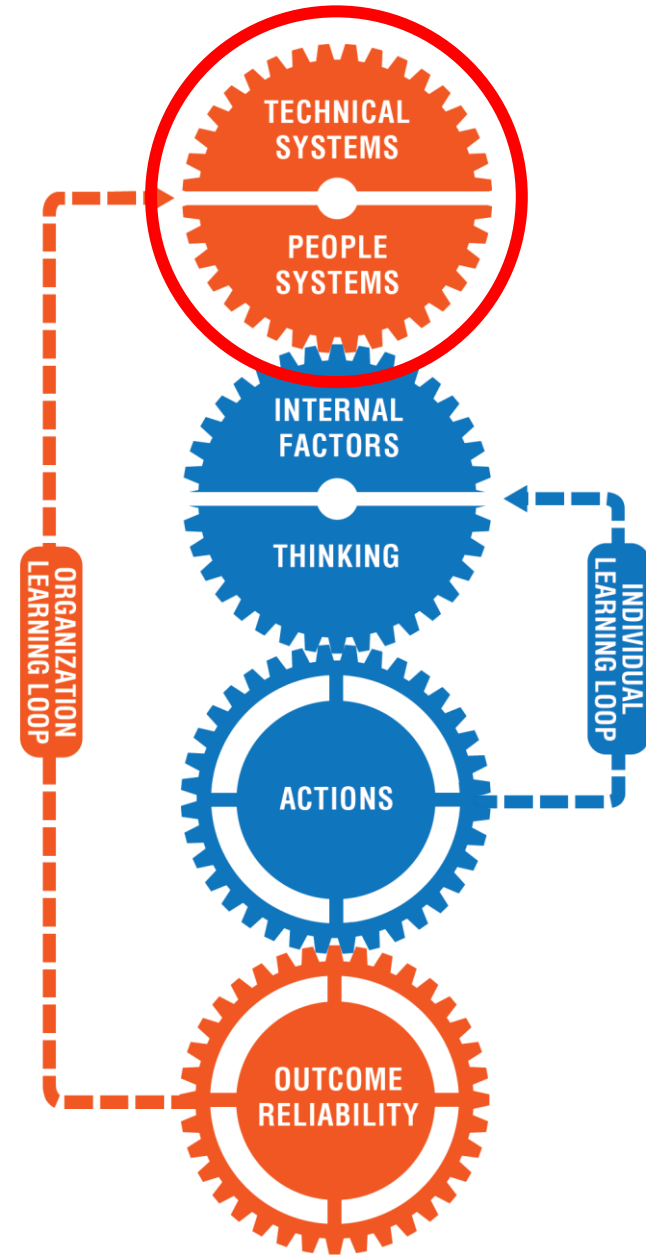
THE HUMAN FACTORS FRAMEWORK

REACTING to lagging indicator data or the (KPI) numbers...

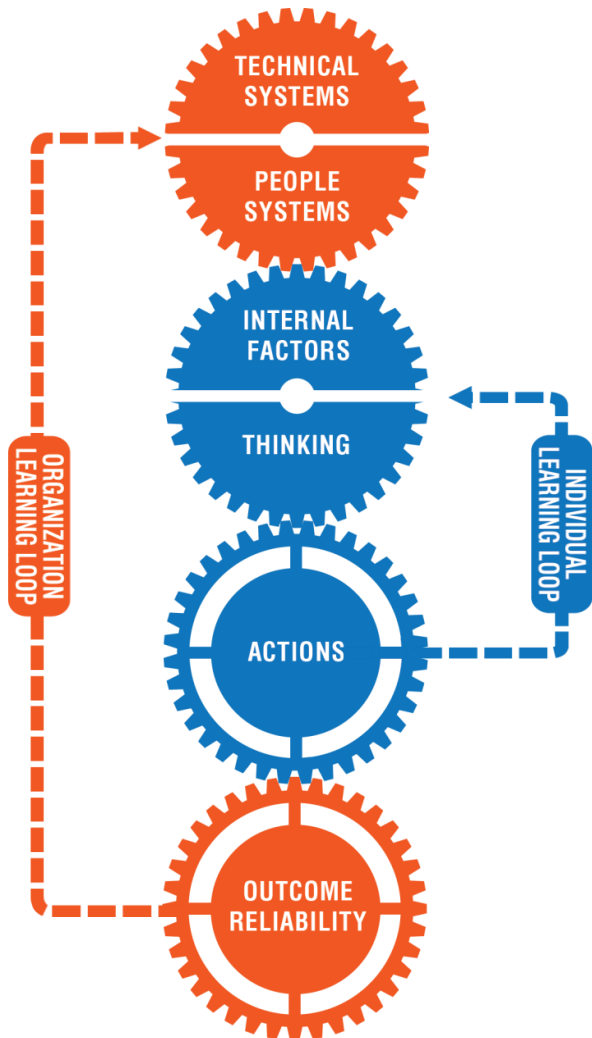


THE HUMAN FACTORS FRAMEWORK

...leads to **FLAVOR-OF-THE-MONTH** initiatives.

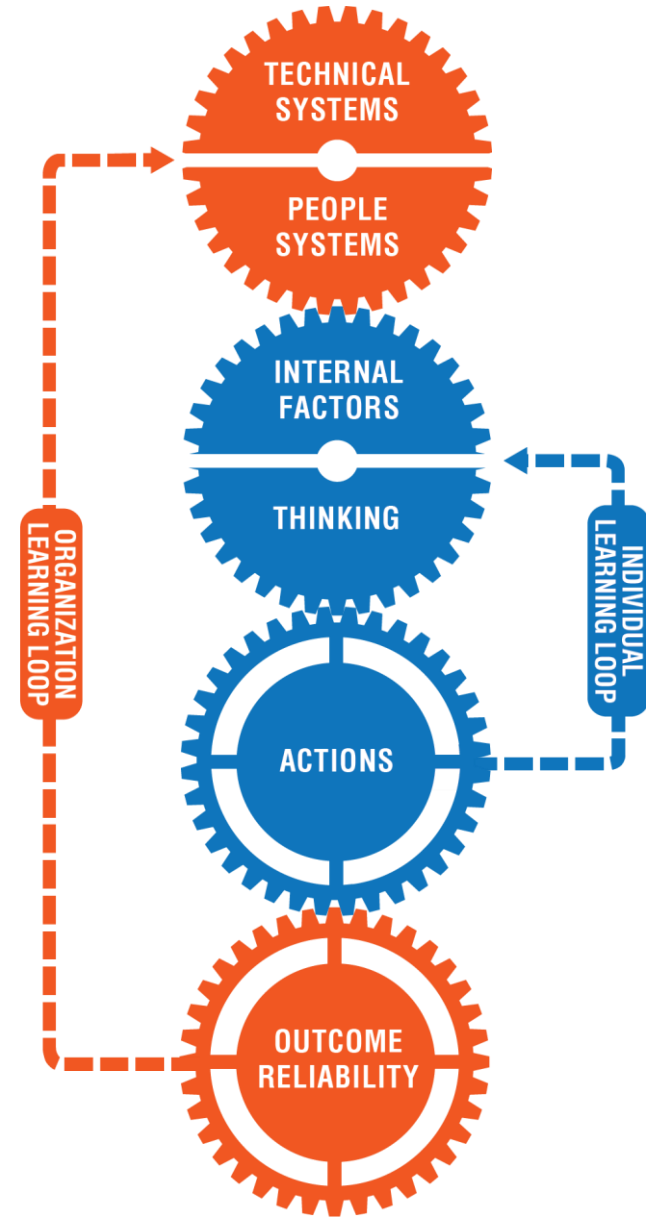


HOW TO USE THE HUMAN FACTORS FRAMEWORK



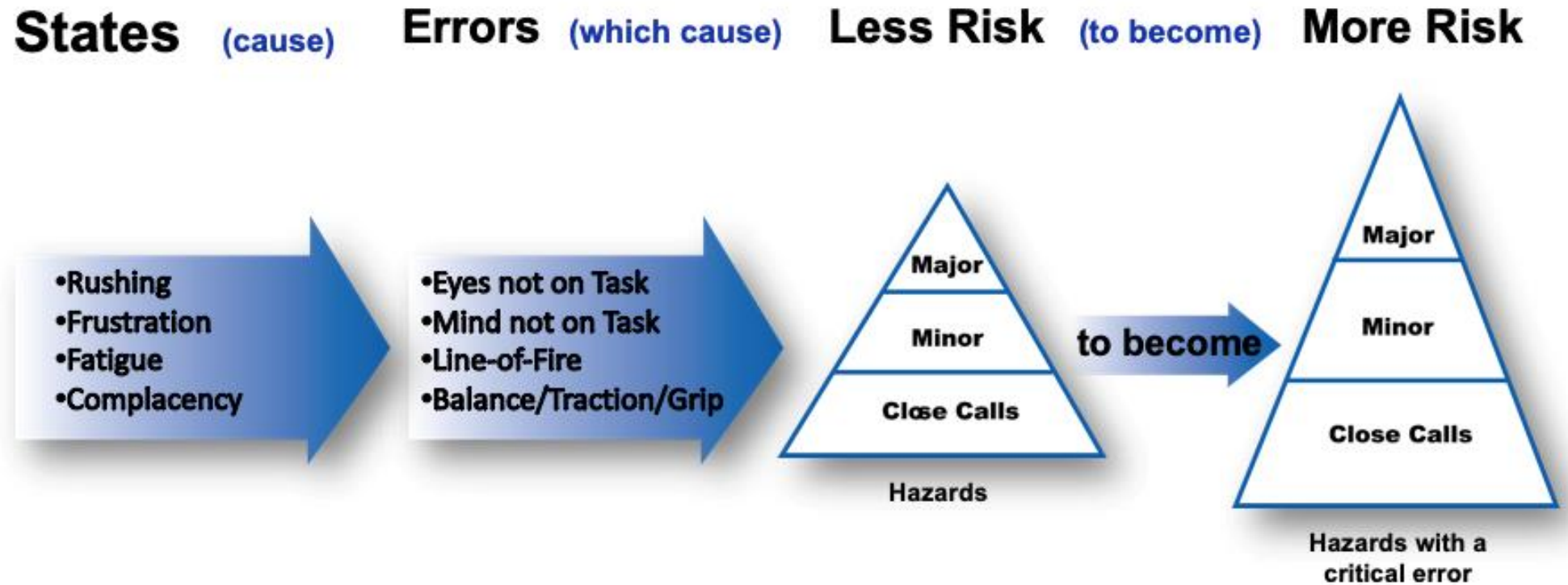
- Identify how human factors currently impact each area of your organization
- Look for commonalities
- Examine outcome reliability in safety, quality, culture and performance to produce stronger leading indicator data
- Ensure you're using both individual and organizational learning loops to teach practical skills that can be used by everyone

A FRAMEWORK TO HELP YOU ACHIEVE OPERATIONAL EXCELLENCE

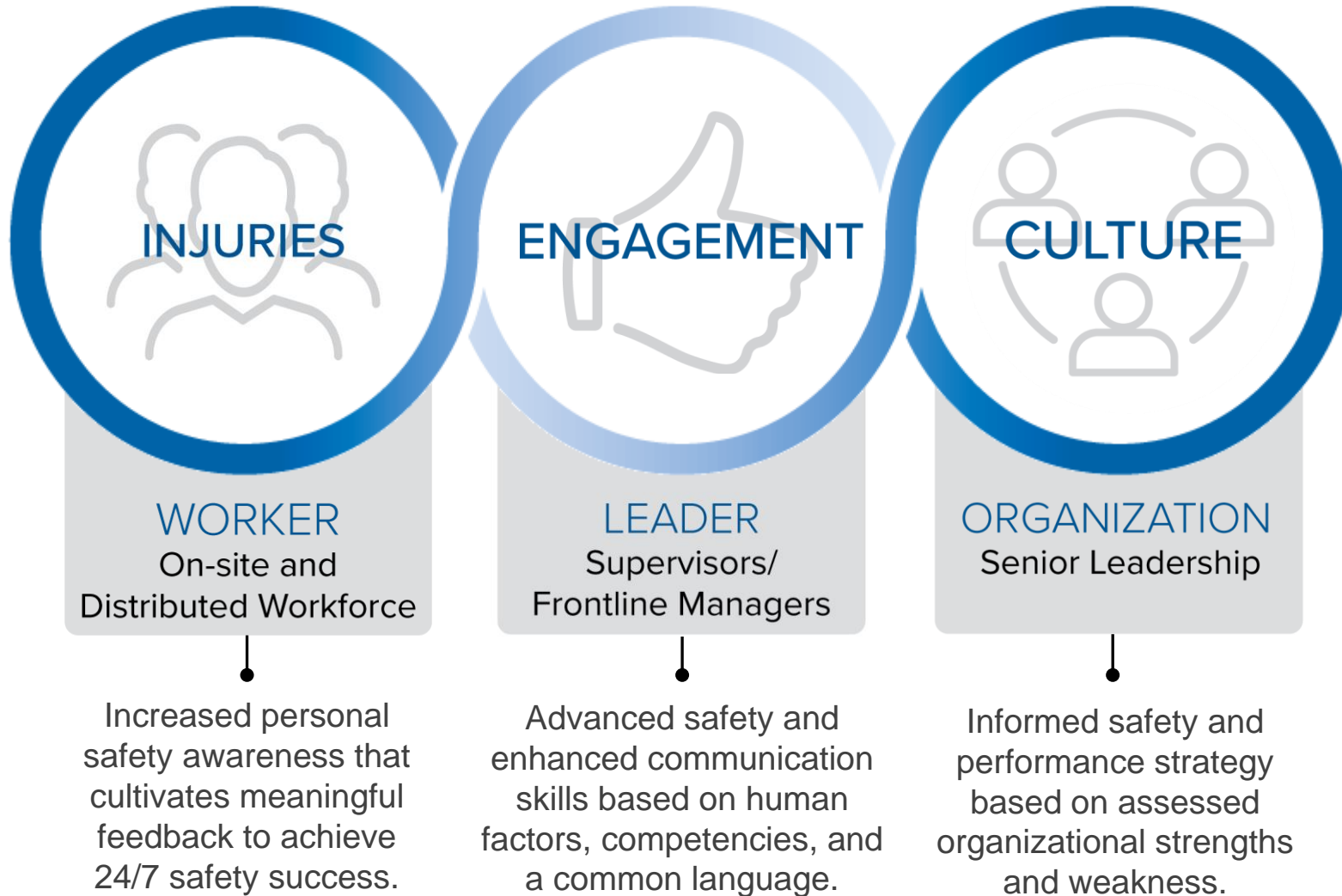


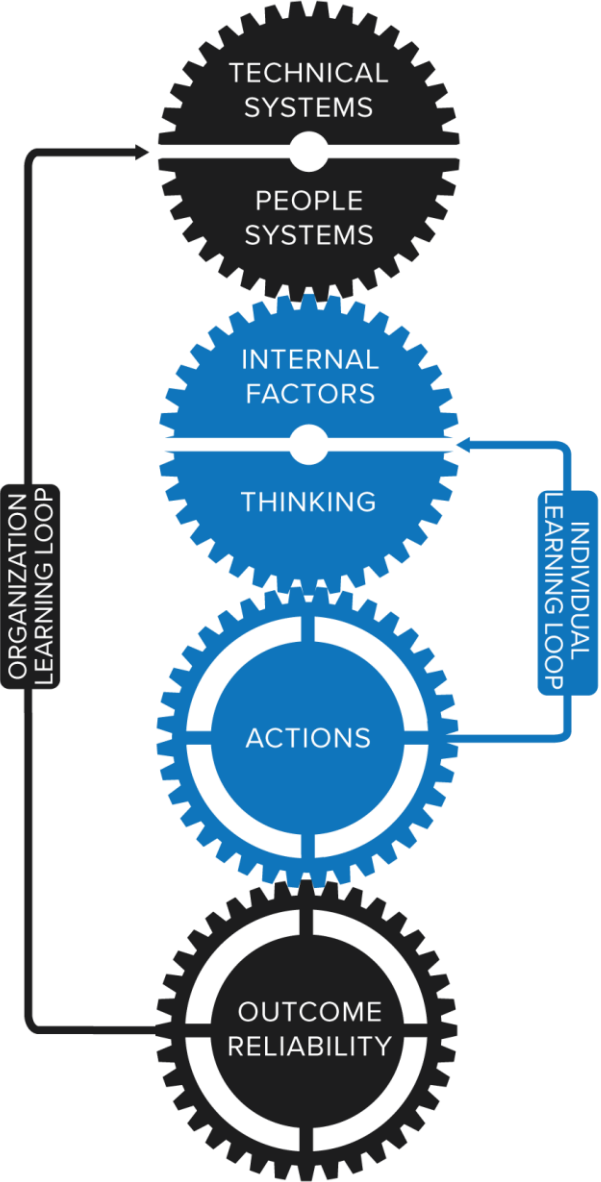


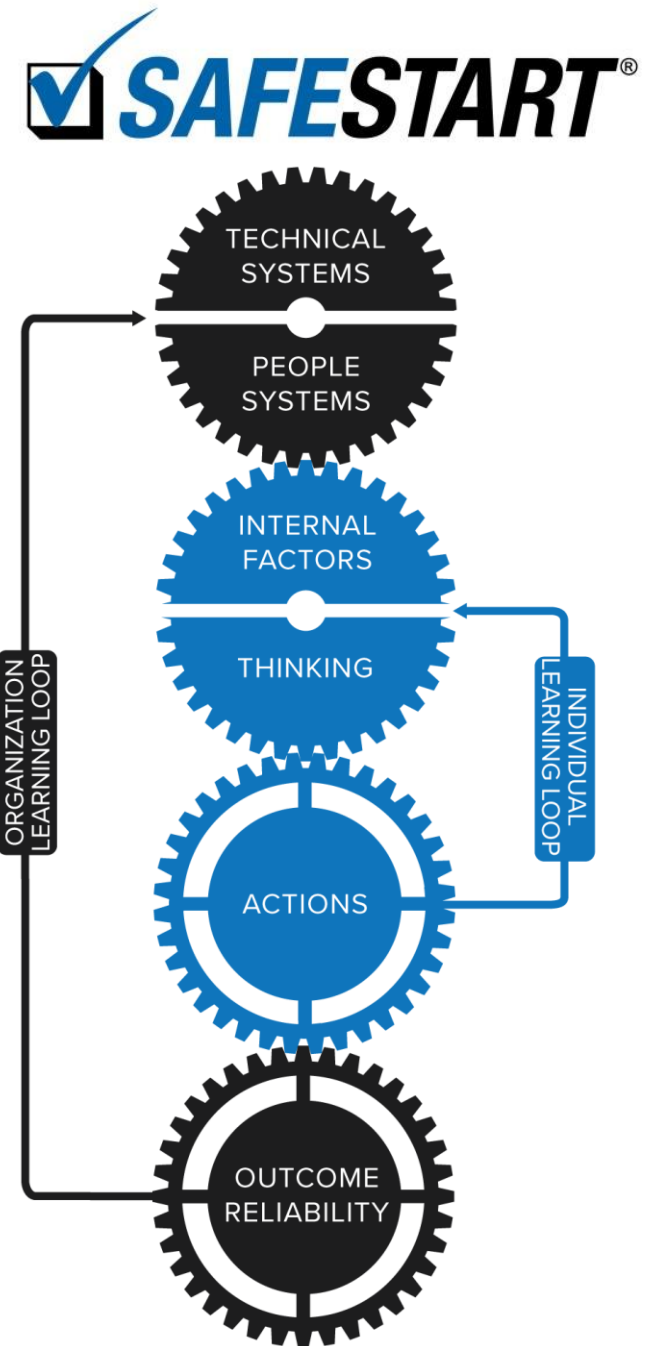
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QUESTIONS? WANT TO LEARN MORE ABOUT USING THE HUMAN FACTORS FRAMEWORK?

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