7 Insights into Safety Leadership

CWEA – November 5, 2020

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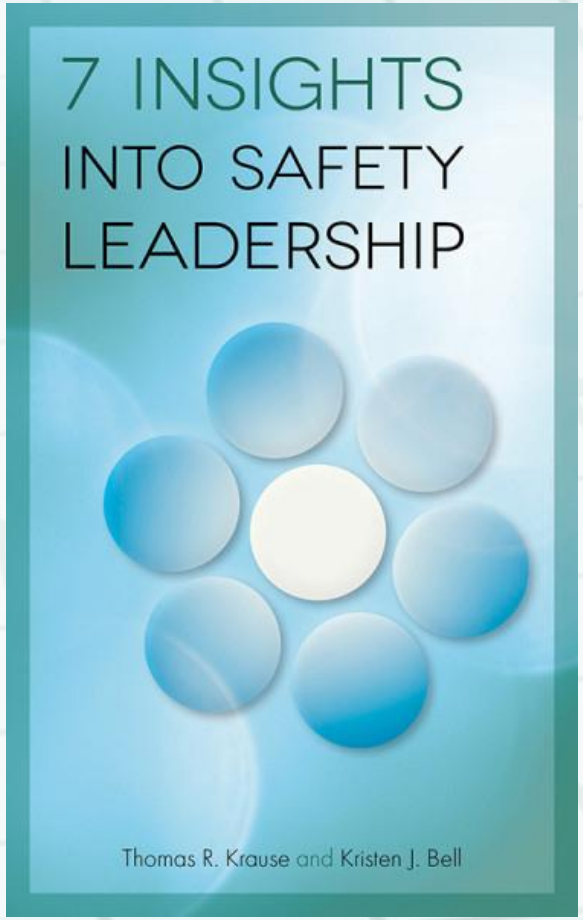
7 Insights into Safety Leadership

1. Safety as a core value and strategy.
2. Start with attention to serious injuries and fatalities.
3. Leadership sets safety improvement in motion.
4. Culture sustains performance - for better or for worse.
5. Understanding core safety concepts.
6. Understanding the role of behavior in safety.
7. Cognitive bias affects safety decisions.



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Insight 1

Safety Leads Business Performance

“If you want to understand how Alcoa is doing, you need to look at our workplace safety figures.”

— Paul O’Neill

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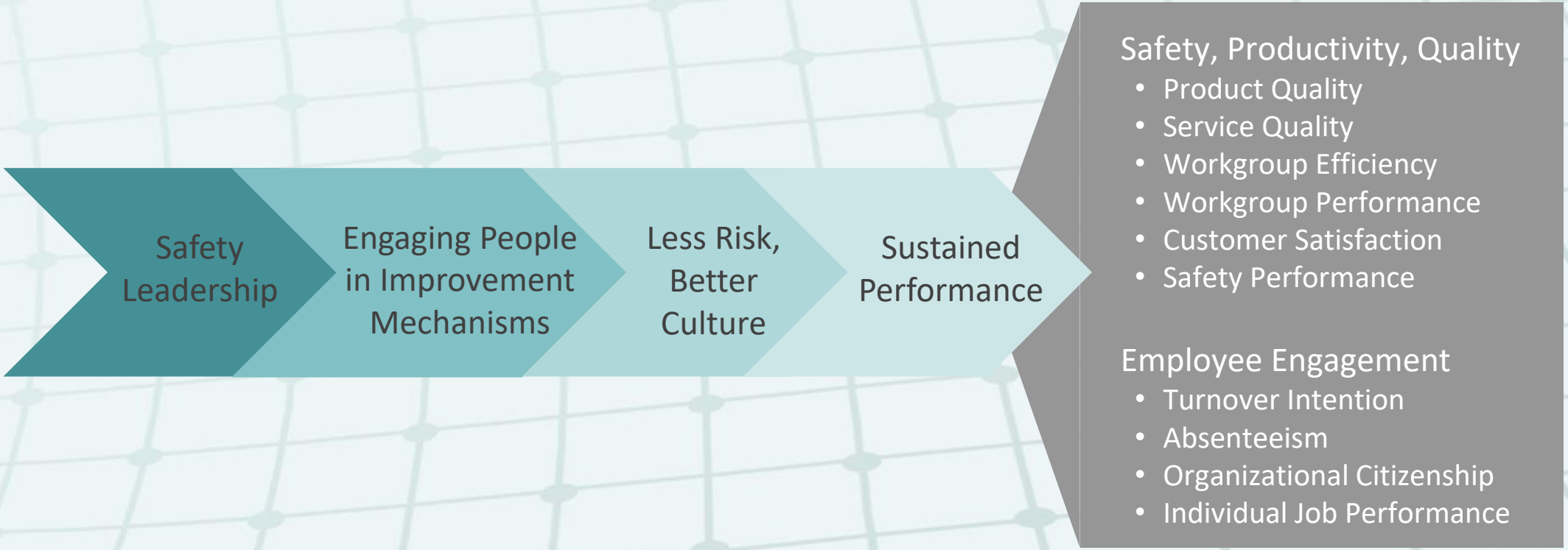
Insight 1

Research Basis



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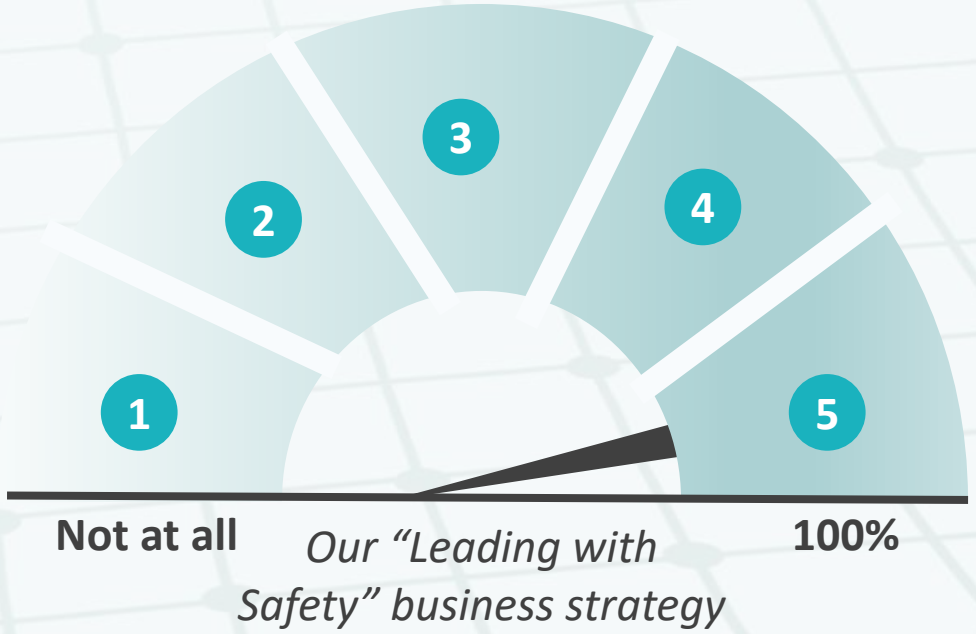
Polling Question

On a scale from 1 - 5 …

To what extent would you say your organization currently has a “Leading with Safety” business strategy?



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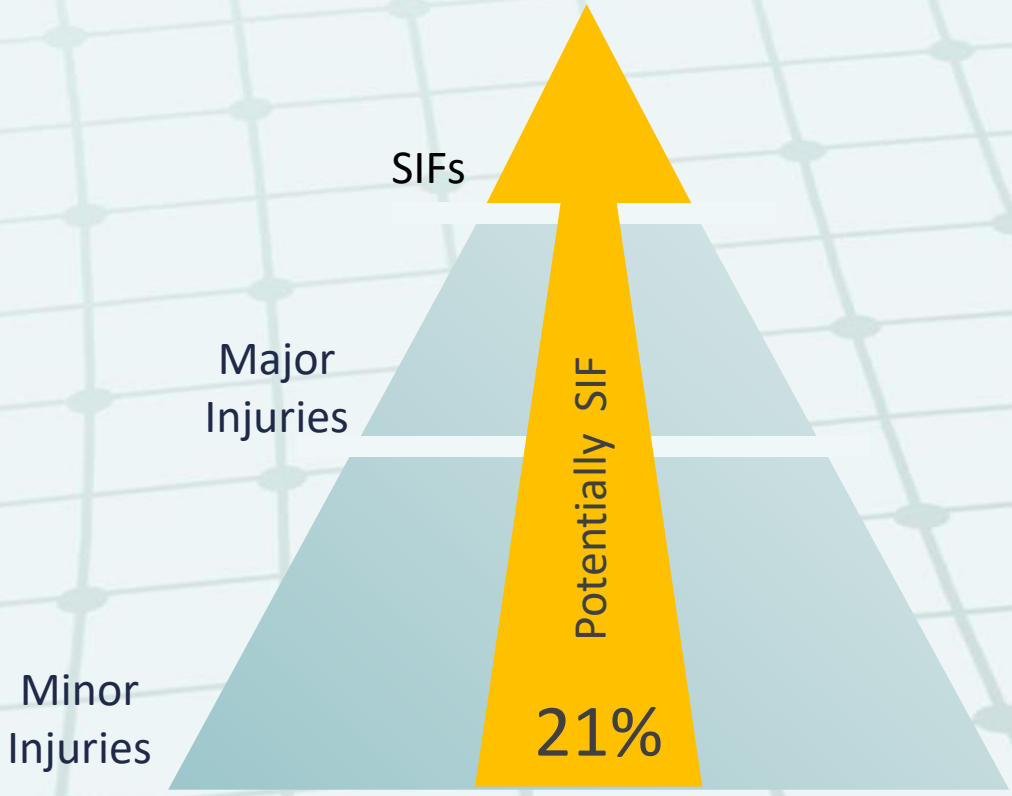
Insight 2

Focus on Serious Injuries and Fatalities (SIF)



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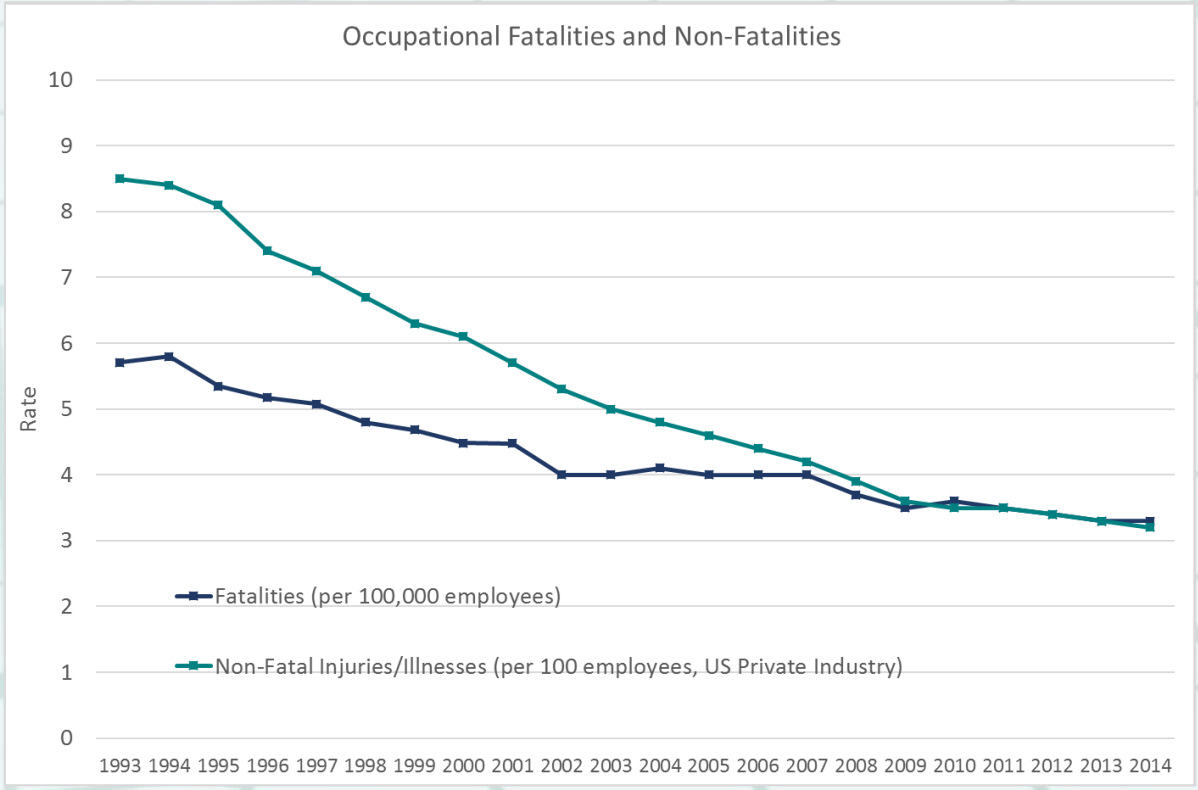
Serious Injuries and Fatalities

Occupational Fatalities and Non-Fatalities from 1993 to 2014



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Serious Injuries and Fatalities

Question

1

Is the Heinrich triangle accurate descriptively?

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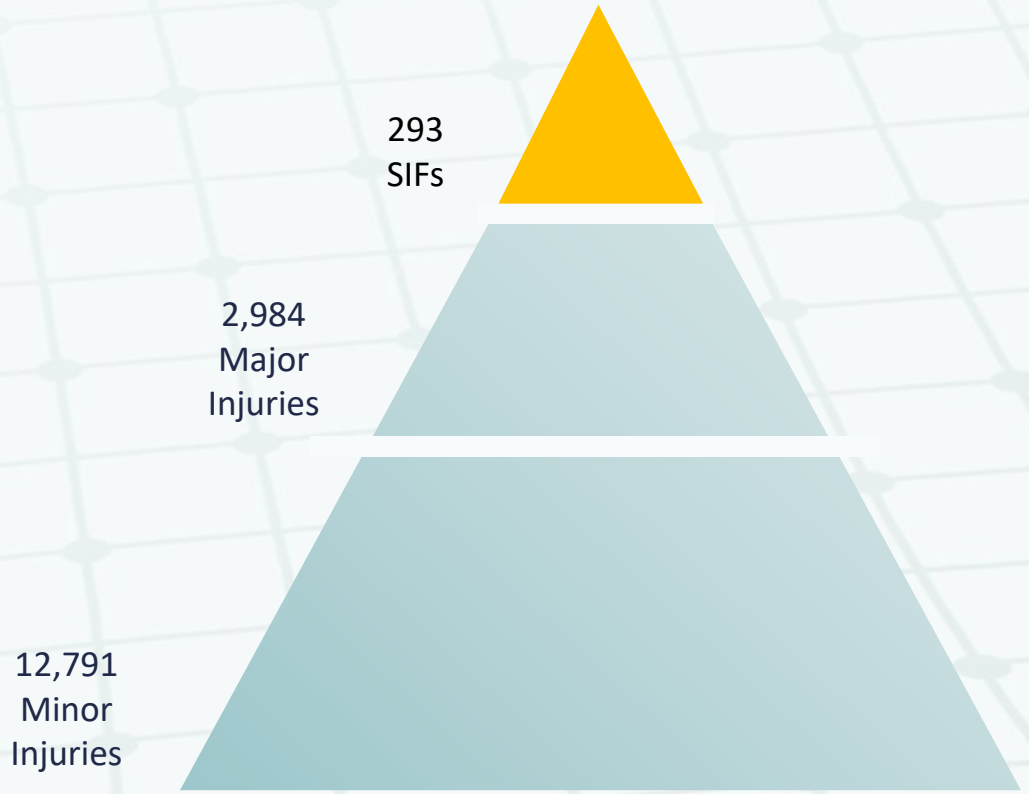
Serious Injuries and Fatalities

The traditional Heinrich triangle is accurate descriptively.



- This triangle represents the data from six organizations between 2008-2009

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Serious Injuries and Fatalities

Question 2

Is the Heinrich triangle accurate predictively?

- Do less serious injuries have similar or different potential to be SIF's?
- Do SIF's have different kinds of characteristics and causes than less serious injuries?

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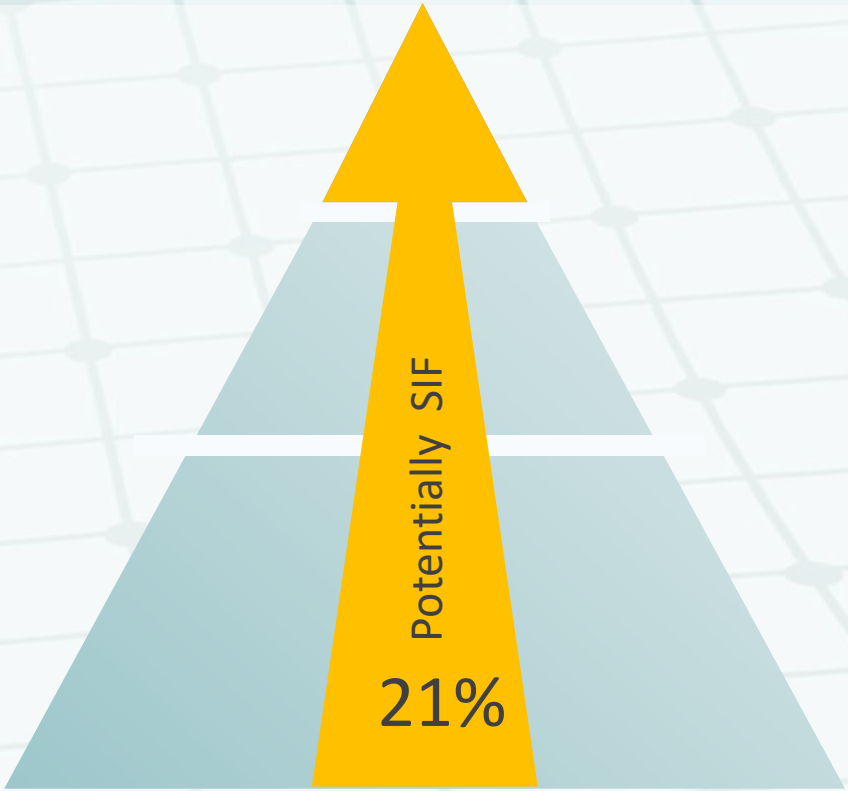
Serious Injuries and Fatalities

The traditional Heinrich triangle is not accurate predictively:

- Not all injuries have SIF potential
- A reduction of injuries at the bottom of the triangle does not correspond to an equivalent reduction of SIFs



- *Of 300 sampled injuries, 64 had the potential to be SIFs*

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Illustration

A. Carpenter smashes his thumb with a hammer and sustains a deep cut requiring 8 stitches.

B. Carpenter's thumb contacts a hand grinder and sustains a deep cut requiring 8 stitches.

Key Ideas

- "Potential" - Which of these situations had greater potential to affect the carpenter for the rest of his life?
- "Different Causes" - What is the difference in the situations?

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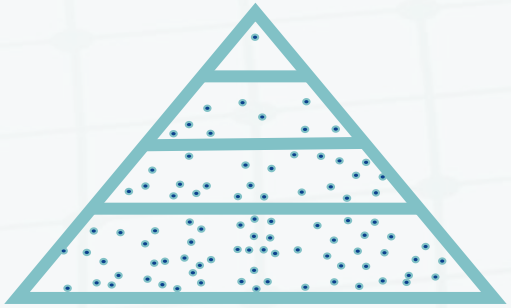
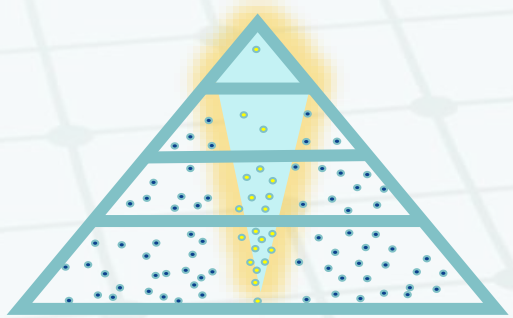
The New View

Traditional



- Works from the bottom-up
- Prioritizes based on recordability
- Misses valuable information about SIF exposure
- Allows SIF exposure to accumulate

New



- Works from the inside-out
- Utilizes SIF potential events to uncover valuable information
- Prioritizes based on risk
- Boosts leader credibility

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Serious Injuries and Fatalities

Top 5 Takeaways from our 2010 SIF Study

- Frequency and severity are inversely correlated
- Single events are meaningful and contain crucial information.
- Reducing recordable injuries does not assure reducing SIFs; and reducing SIFs does not assure reducing other injuries.
- SIFs have identifiable precursors.
- SIF reduction is likely to follow a systematic concerted effort by leadership to re-focus the organization's attention and systems and build capability to reduce SIF exposure.

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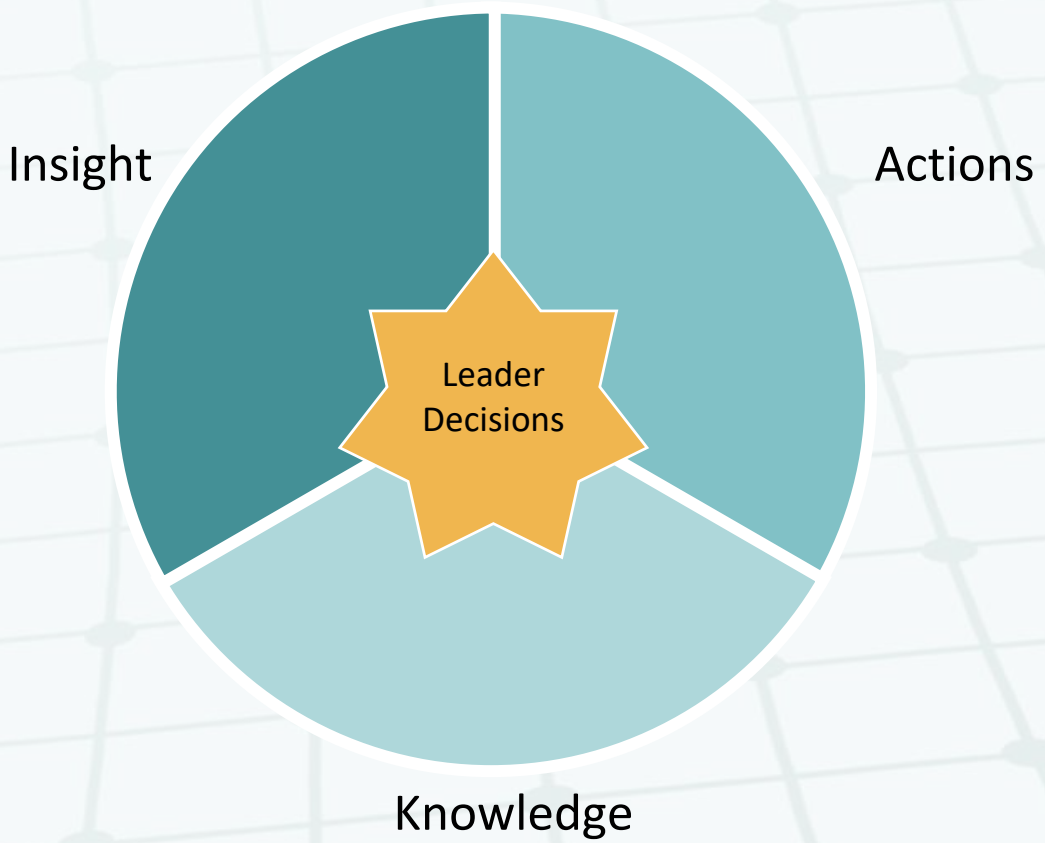
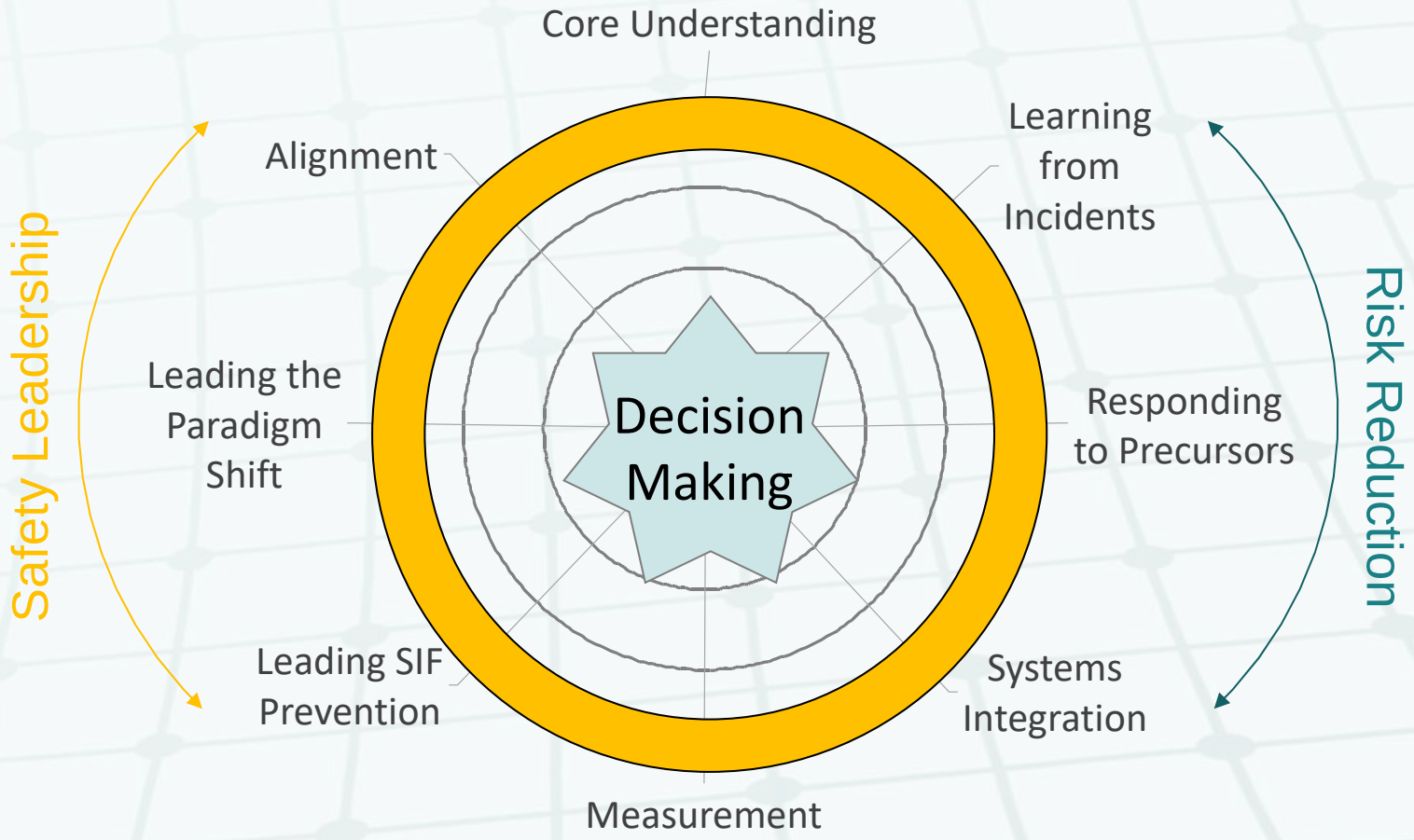
Insight 3

Leadership Sets Improvement in Motion



Insights 1+2+3

Leading for SIF Prevention



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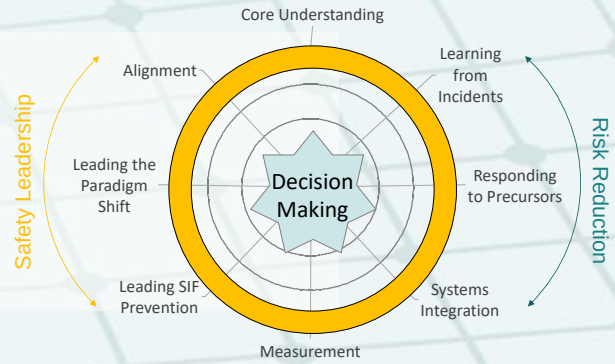
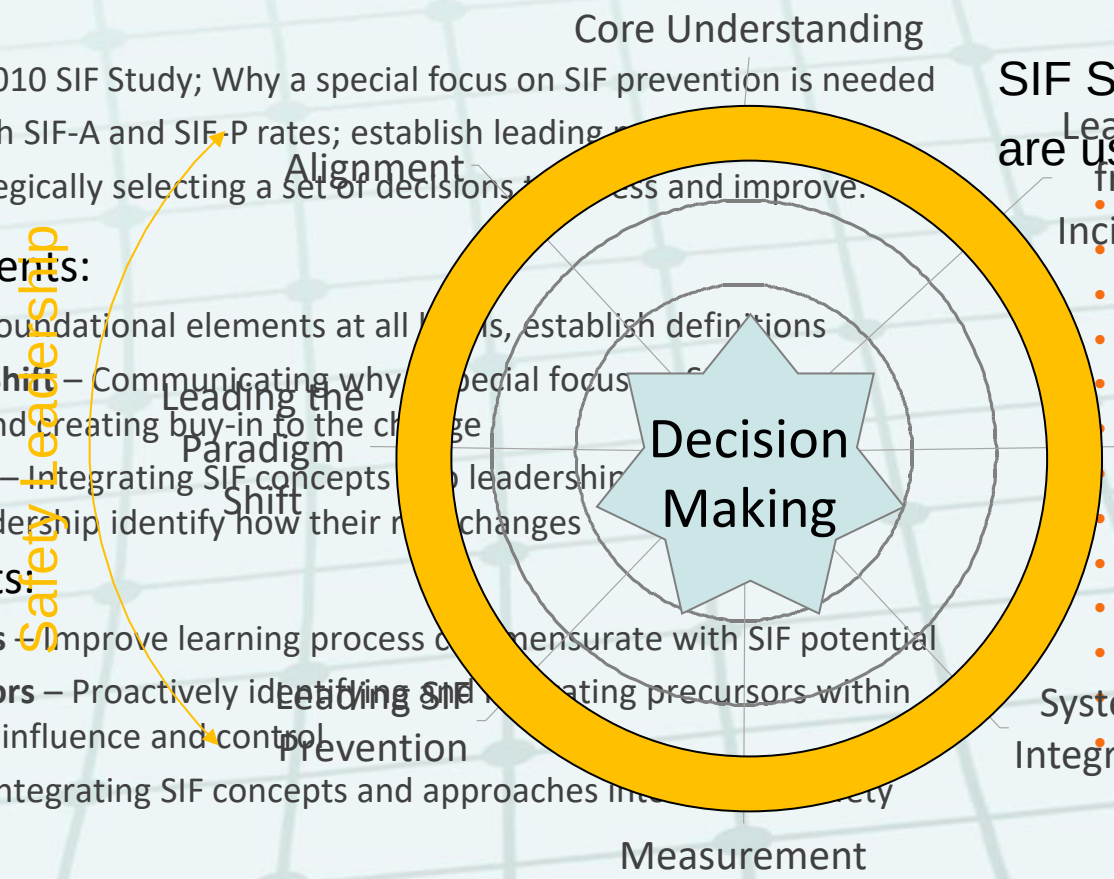
SIF Maturity Model



- Foundational Elements:
  - **Core Understanding** – 2010 SIF Study; Why a special focus on SIF prevention is needed
  - **Measurement** – Establish SIF-A and SIF-P rates; establish leading
  - **Decision Making** – Strategically selecting a set of decisions
- Safety Leadership Elements:
  - **Alignment** – Calibrate foundational elements at all
  - **Leading the Paradigm Shift** – Communicating why
  - **Leading SIF Prevention** – Integrating SIF concepts
- Risk Reduction Elements:
  - **Learning from Incidents** – Improve learning process
  - **Responding to Precursors** – Proactively identifying and
  - **Systems Integration** – Integrating SIF concepts and approaches



SIF System Integration - SIF concepts are used in / applied to / reflected in:

- Business planning
- Safety improvement strategies
- Incident investigations
- Field visits
- Safety observations
- Risk assessments
- Facilities & equipment design
- Safety leadership training
- Metrics
- Leadership communications
- Culture – it's part of the common language
- Purchasing
- Risk management

Polling Question

On a scale from 1 - 5 …

To what extent would you say your organization currently has the appropriate focus and resources on preventing serious & fatal injuries (SIF's)?

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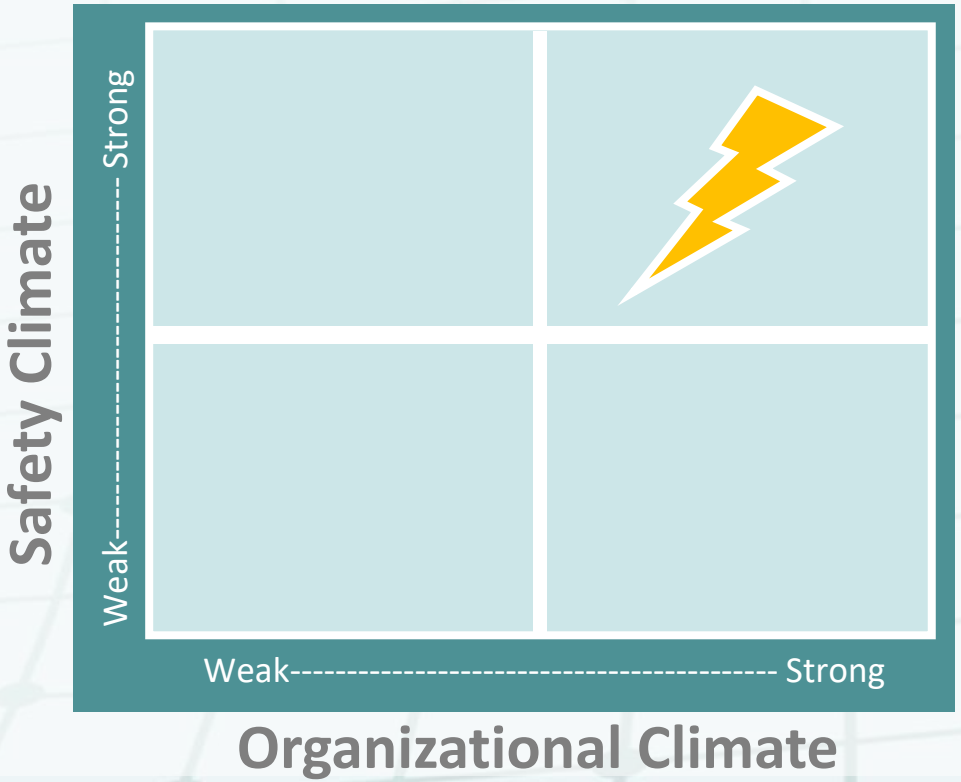
Insight 4

Culture Sustains Improvement

The culture you want is the one that unlocks **discretionary energy**



"Human beings have discretionary energy which they can give or not give. They give it to you if you treat them with dignity and respect."

— Paul O'Neill

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What type of culture do we need?

Strong Safety Climate	Strong Organizational Climate
• Healthy communication channels: up, down & across • Senior leaders' value for safety "gets through" to people on the front lines • Exposure to risk at the front lines is "visible" to senior leaders	• Co-workers trust and respect each other • Workers and supervisors have mutual trust & respect • There is trust in management

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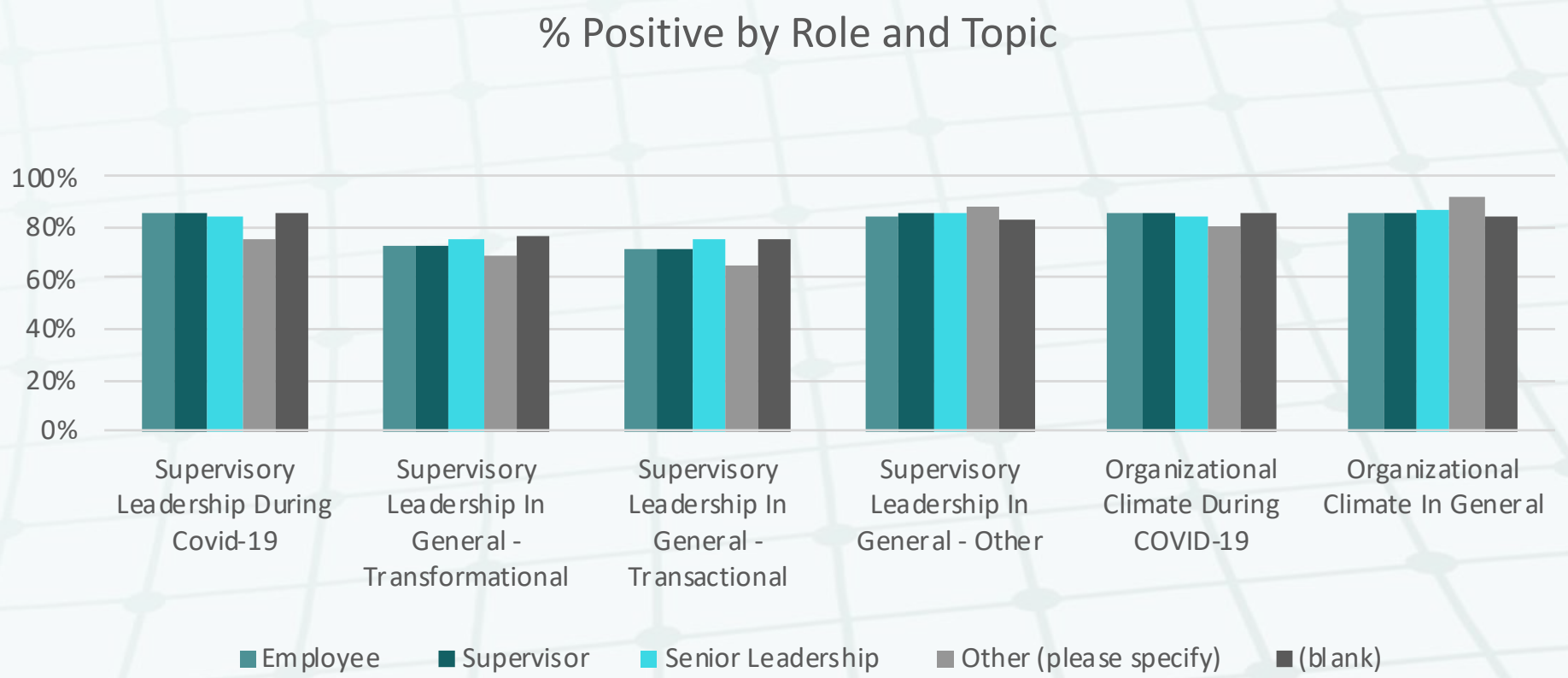
Assessing your Culture & Leadership



**This visual displays the percent of people within each role who responded in agreement with a topic, overall.*

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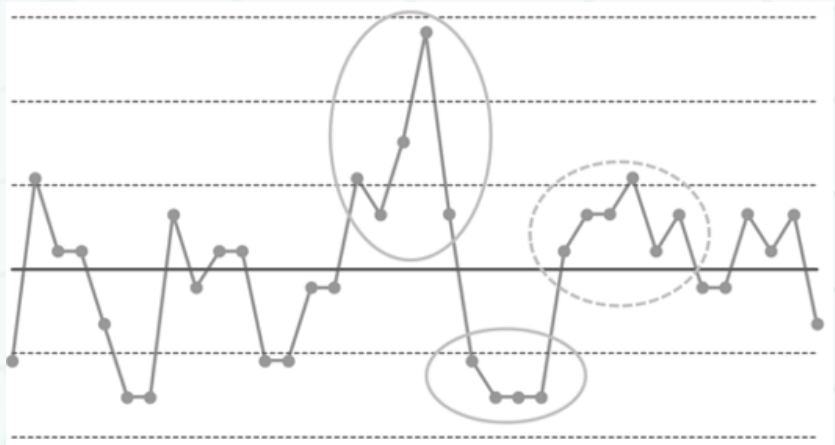
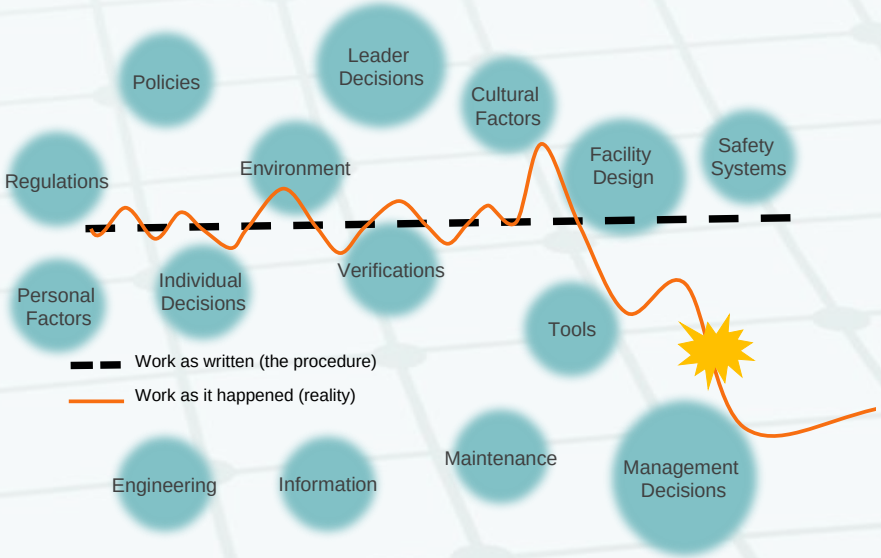
Insight 5

Leaders Need To Understand Safety Fundamentals

Understanding Variation



Understanding Injury Causation



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Insight 5

Leaders Need To Understand Safety Fundamentals

- Leaders who understand this insight show evidence of understanding general concepts
  - ⑩Systems views vs. Singular views
  - ⑩Standards & Management Systems,
  - ⑩Role clarity & Accountability
  - ⑩Best practice sharing & innovation
- In addition to general concepts, leaders need to understand the specific, evidence-based mechanisms of safety improvement.

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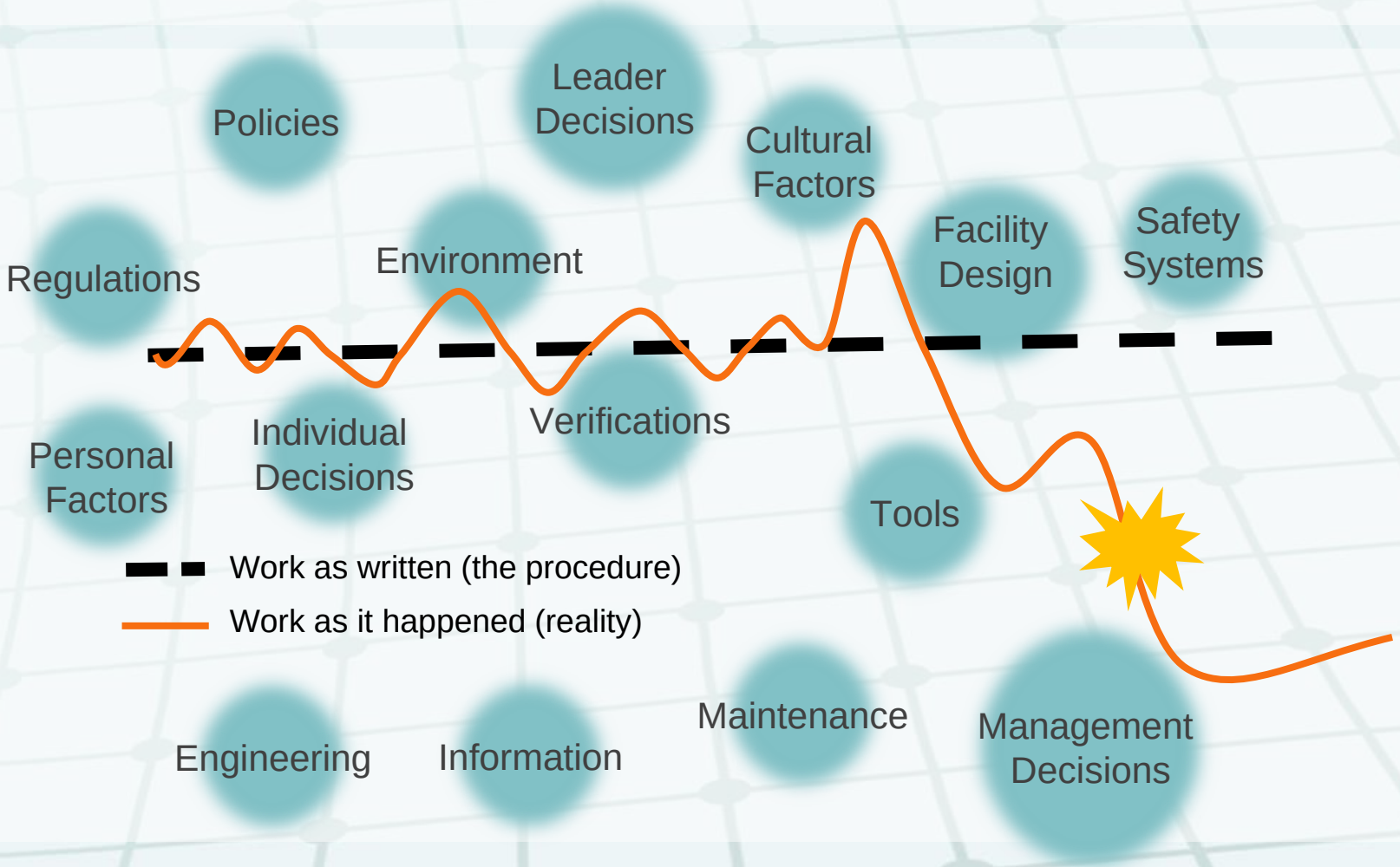
A Systems View of Causation



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Insight 6

Behavior …

A different role than most expect.

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Insight 6

Understanding the Role of Behavior in Safety

BEHAVIOR…

A different role than most expect

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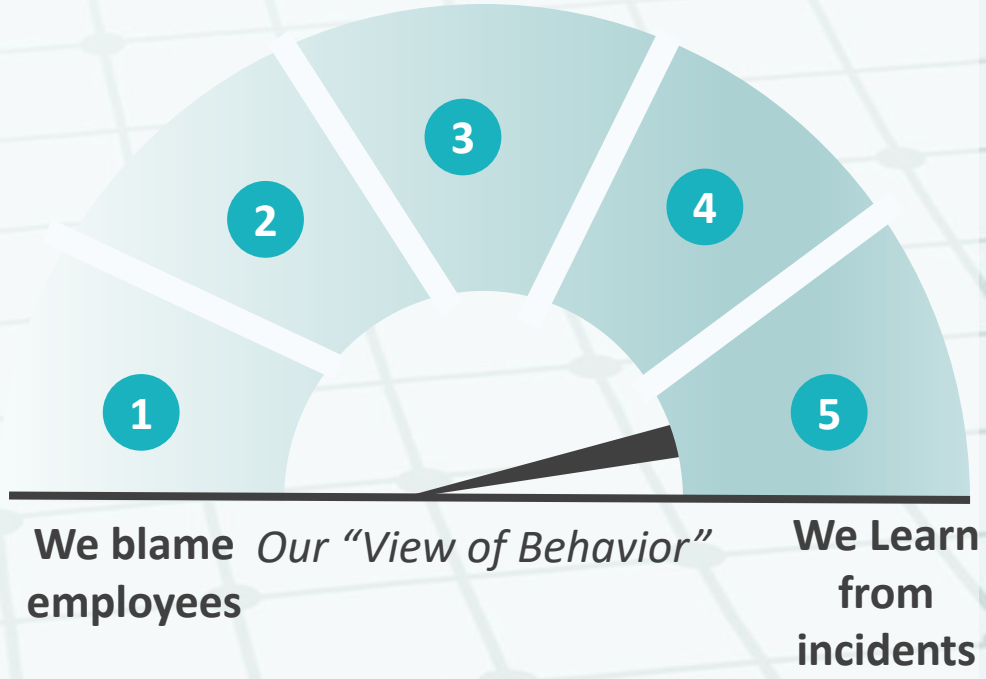
Polling Question

On a scale from 1 - 5 …

To what extent would you say your organization currently views behavioral contributions to injuries?



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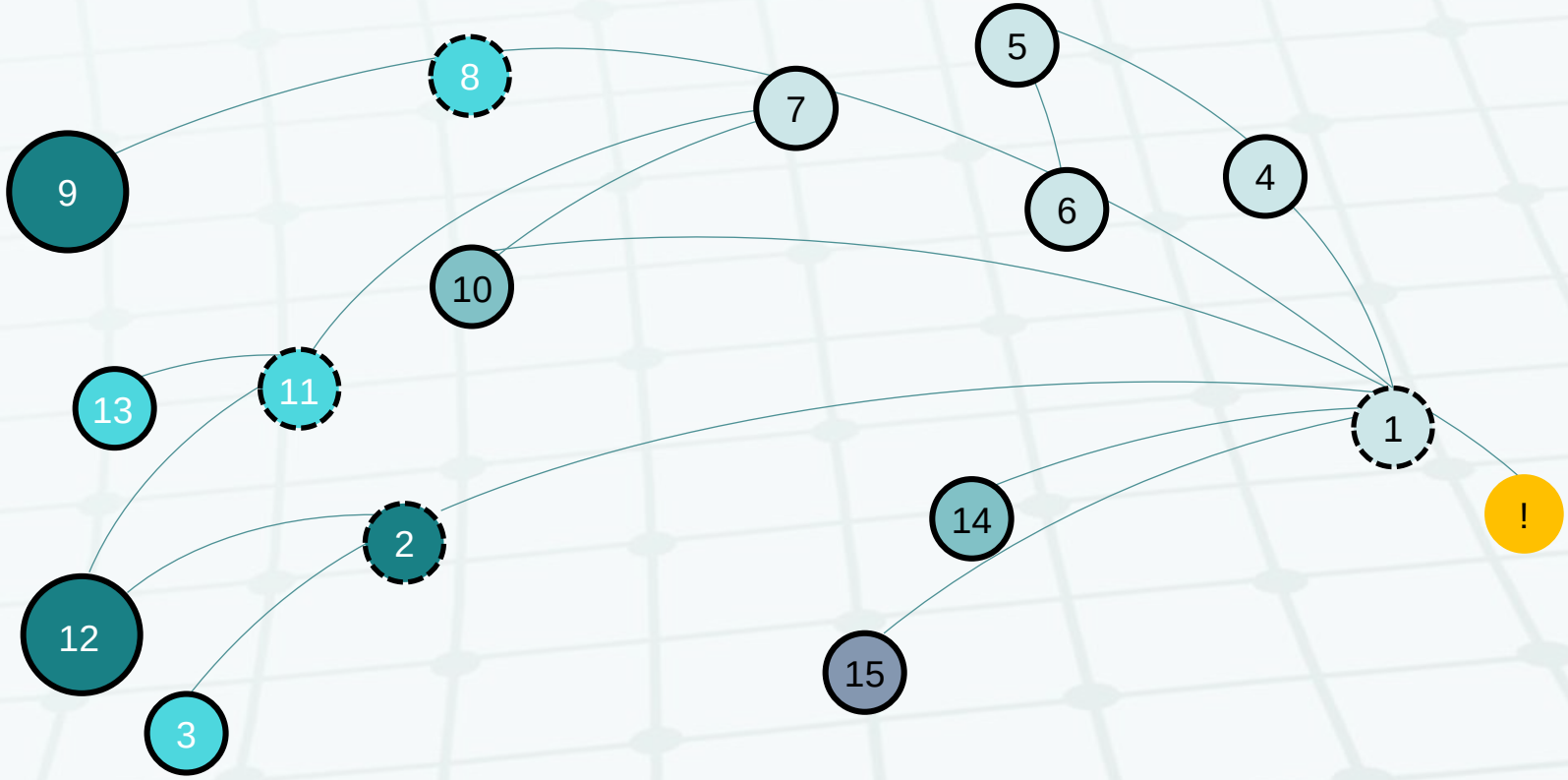
Insight 7

Cognitive Bias Affects Safe Decision Making™



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The 2015 Safe Decision Making™ Study

In 2015, six companies set out to explore decision making as a strategy for accelerating safety performance improvement.

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Each company contributed data from fatal and life altering events

- Investigation reports
- Interview transcripts
- Live interviews

Ten additional, deeply investigated SIFs from CMA, NASA, MSHA, and DOE

Incidents from 16 organizations, 60 total incidents, 600+ decisions

Phase 1 of the study took 11 months and averaged 30 hours per case

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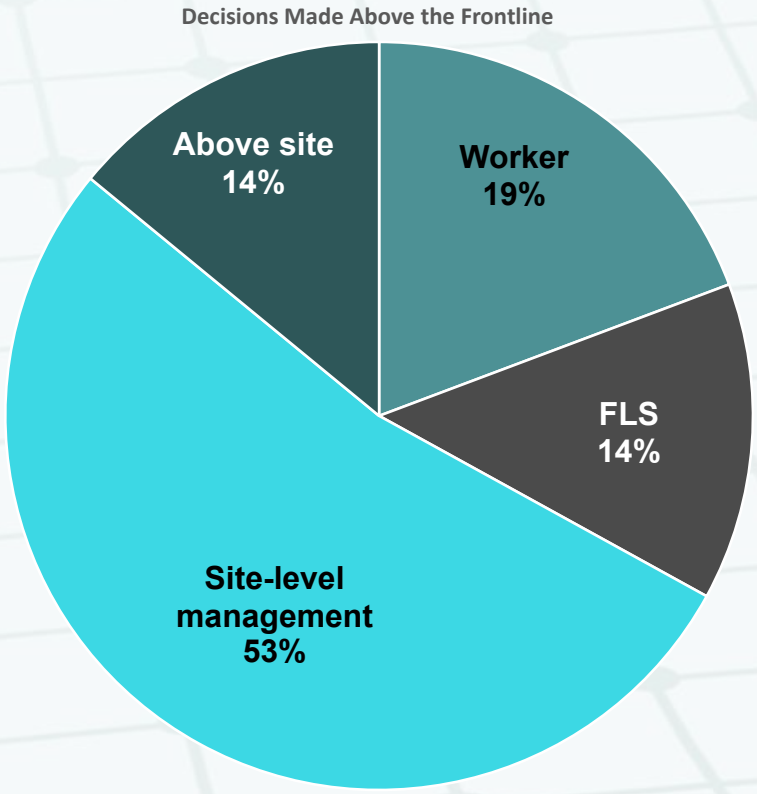
Managerial Decisions Have Leverage

A decision is defined as a choice between alternatives.

- We believe decisions are connected and everyone makes decisions that impact safety
- The key to improving safety is to figure out which ones have the greatest leverage

- 64% of decisions were made above the front line



Updated 11/4/19 - 612 Decisions

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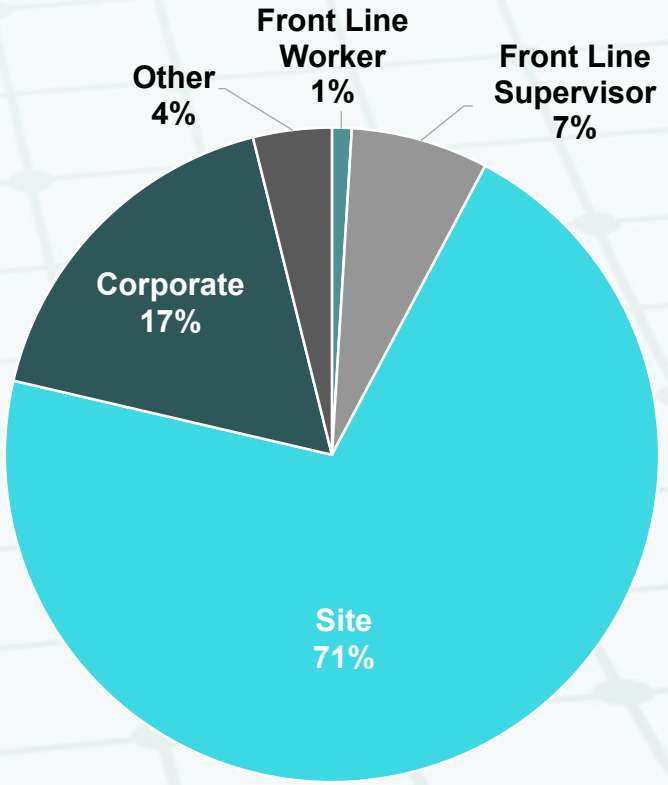
Pivotal Decisions Have *More* Leverage

A pivotal decision is defined as a significant opportunity to change the course of events. It can:

- Set the stage for a series of other decisions
- Create the circumstances surrounding the incident
- Pre-determine, anchor, or set defaults for subsequent decision(s)

- 92% of pivotal decisions were made above the front line



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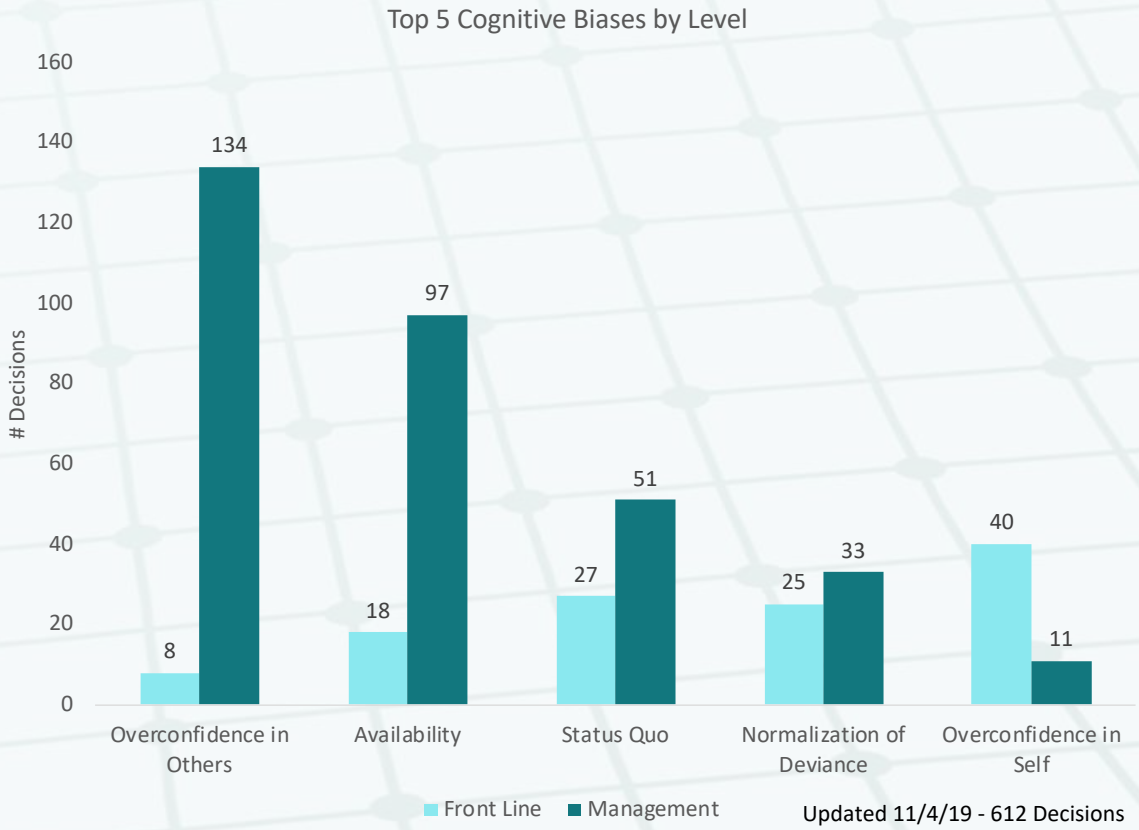
85% of the Decisions had Opportunity for Bias

Cognitive bias is defined as a systematic deviation from rational judgement



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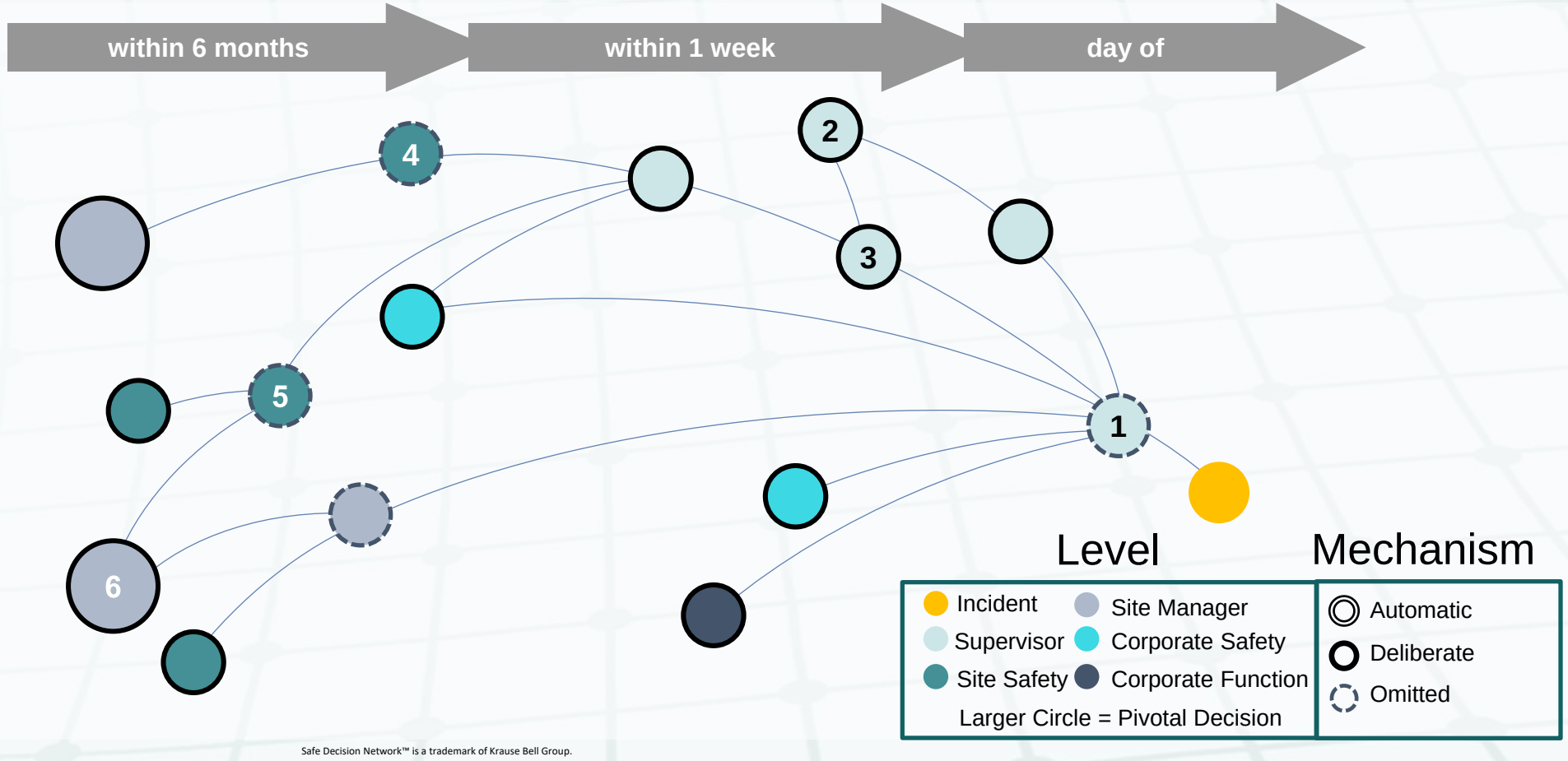
Decision Network Diagram

A set of interrelated decisions across time



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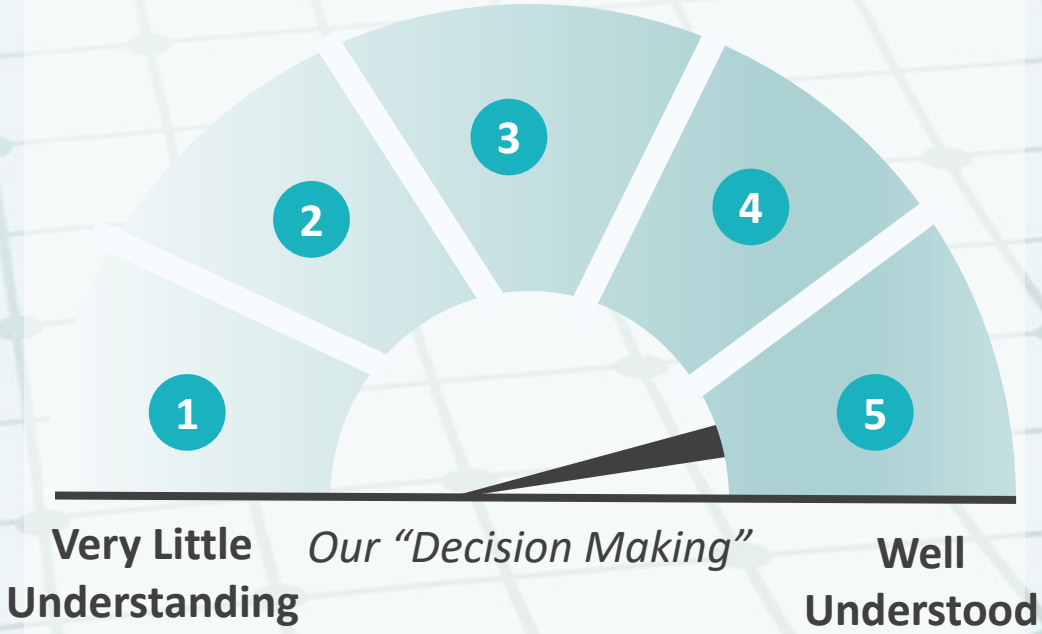
Polling Question

On a scale from 1 - 5 …

To what extent would you say your organization currently understands how decision making at every level and timeframe influences safety events?



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CWEA – November 5, 2020

Thank You for Participating!

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