

The Hidden Science:

*Managing Organizational Risk
through the Sequence of Reliability™*



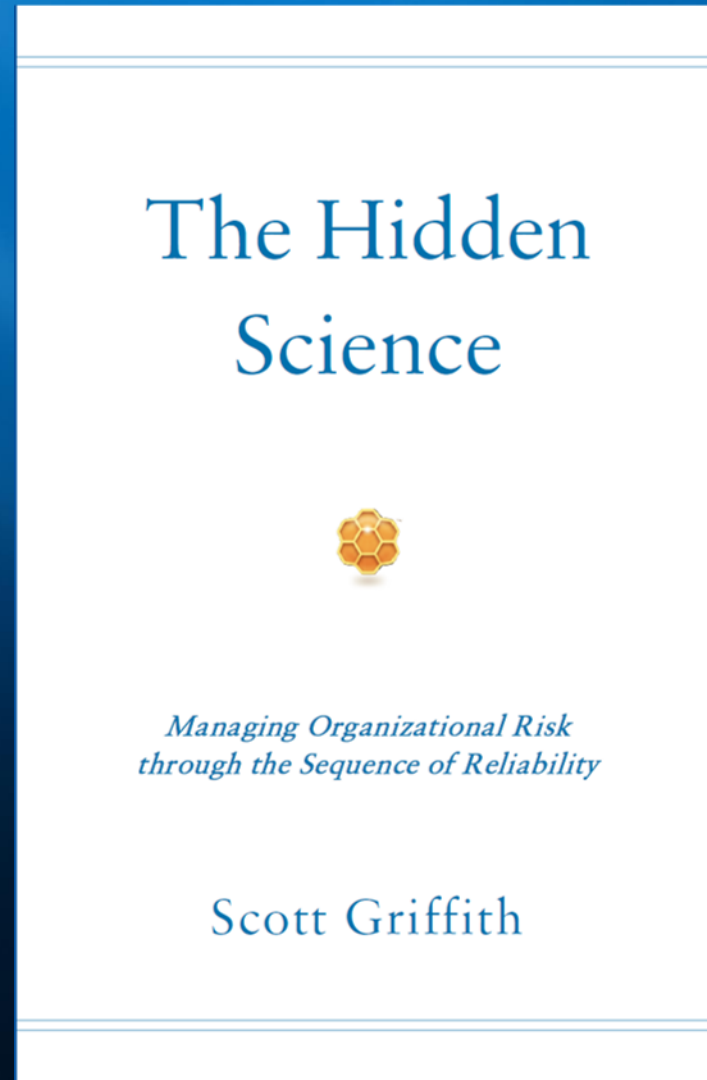
Presented by: Scott Griffith, Founder and Managing Partner



SG Collaborative Solutions, LLC™

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An Introduction

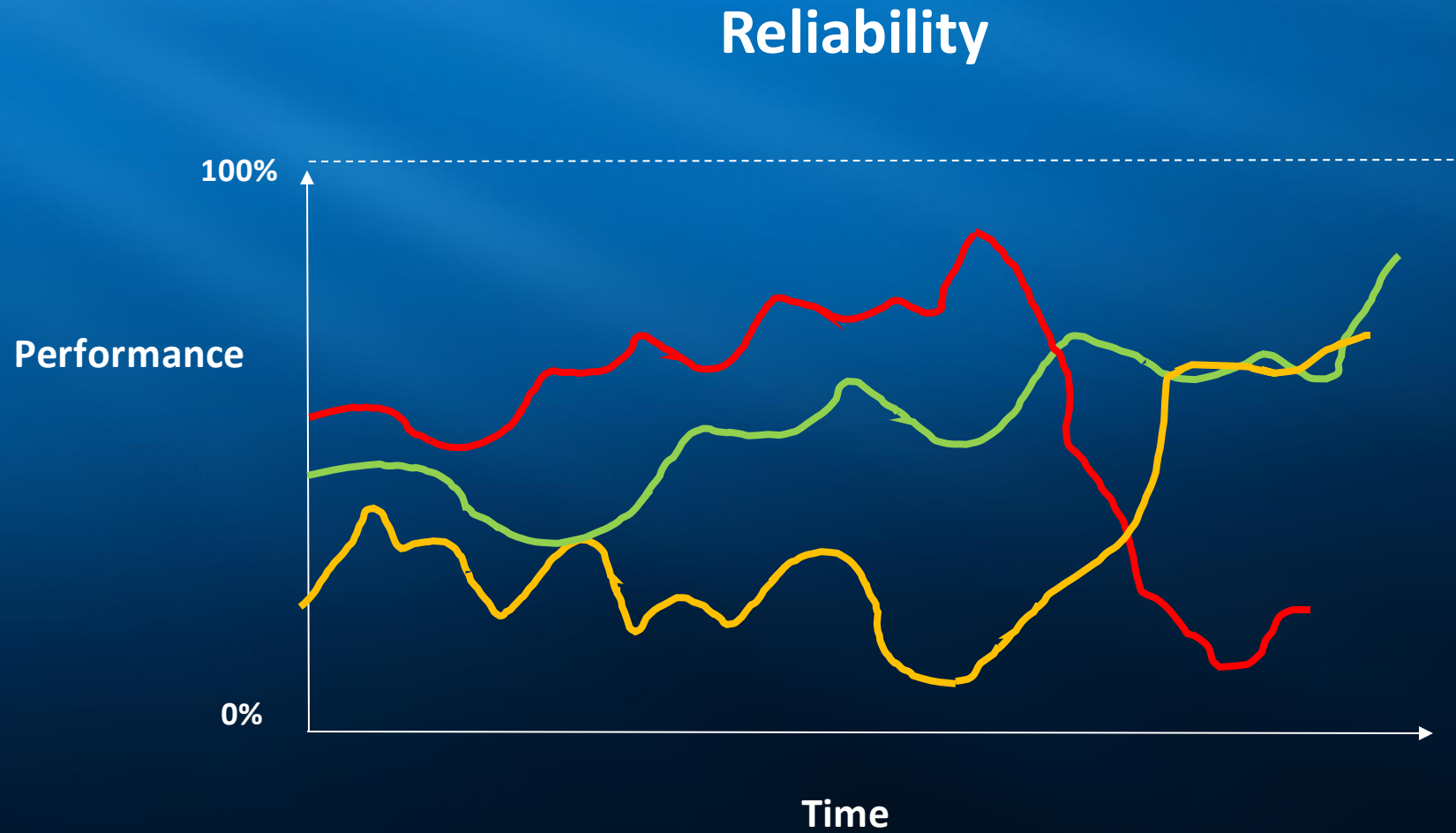


A link to download a free pre-publication pdf version:

https://sgcpartners.com/pubs/TheHiddenScience_prepub_HPRCT.pdf



Reliability = Performance Over Time



A Few Healthcare Priorities



- Safety is vitally important to success
- But it's never our only value



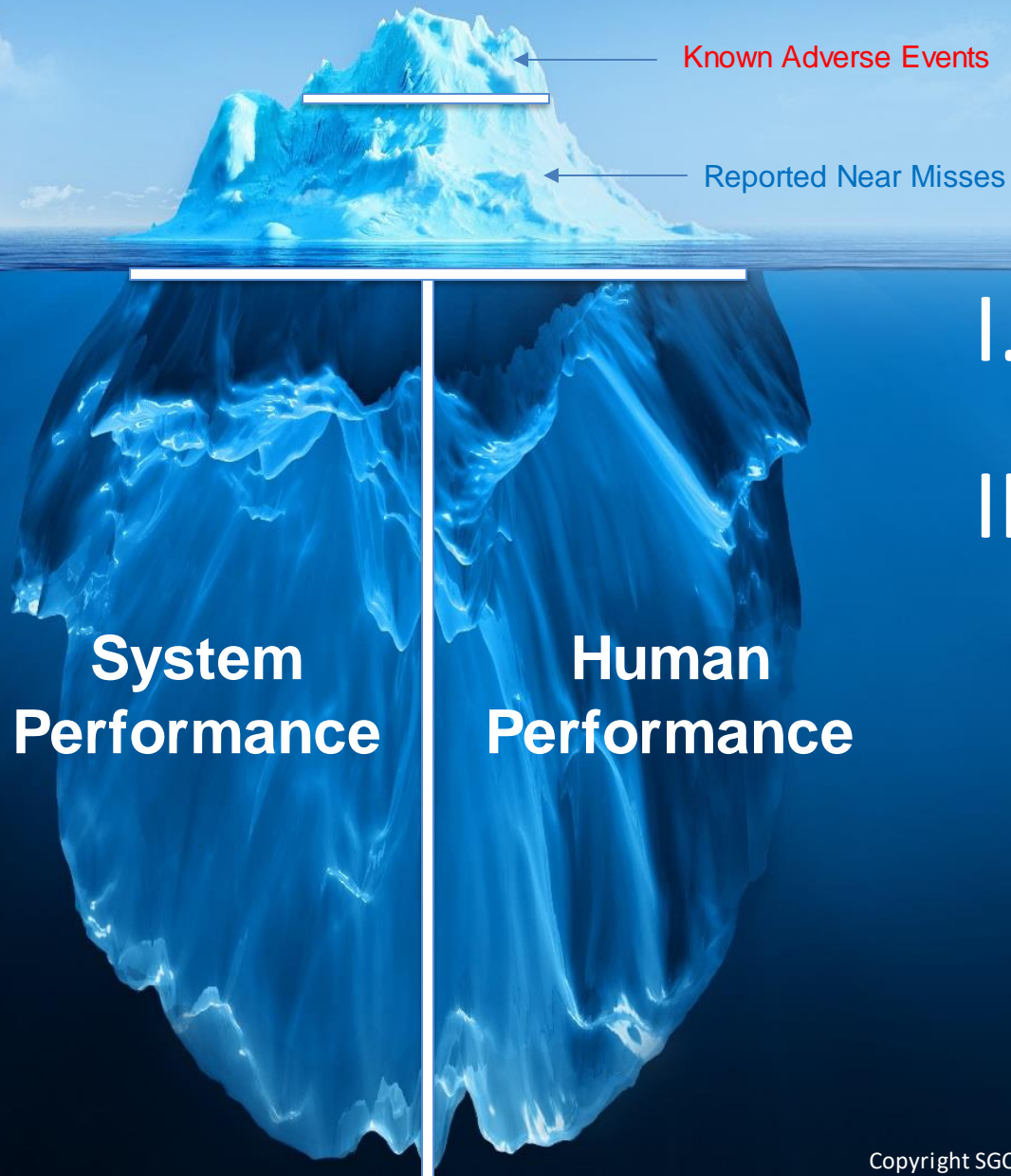
Balancing These Priorities



- Reliability matters in all that we do
- Reliability must be sustainable

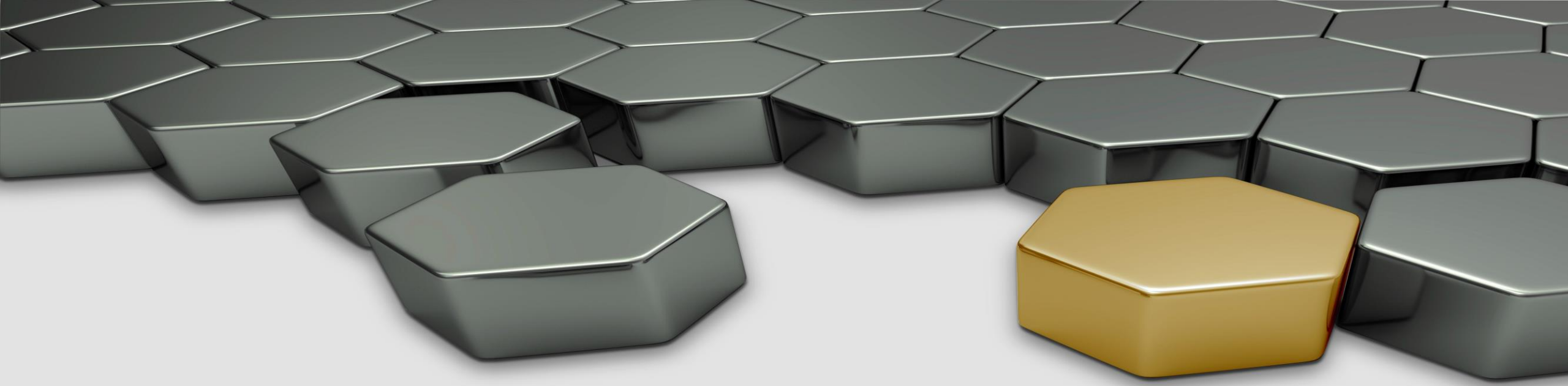


The Sequence of Reliability



- I. See and Understand Risk
- II. Manage Performance in this Order:
 - A. System
 - B. Human
 - C. Organization



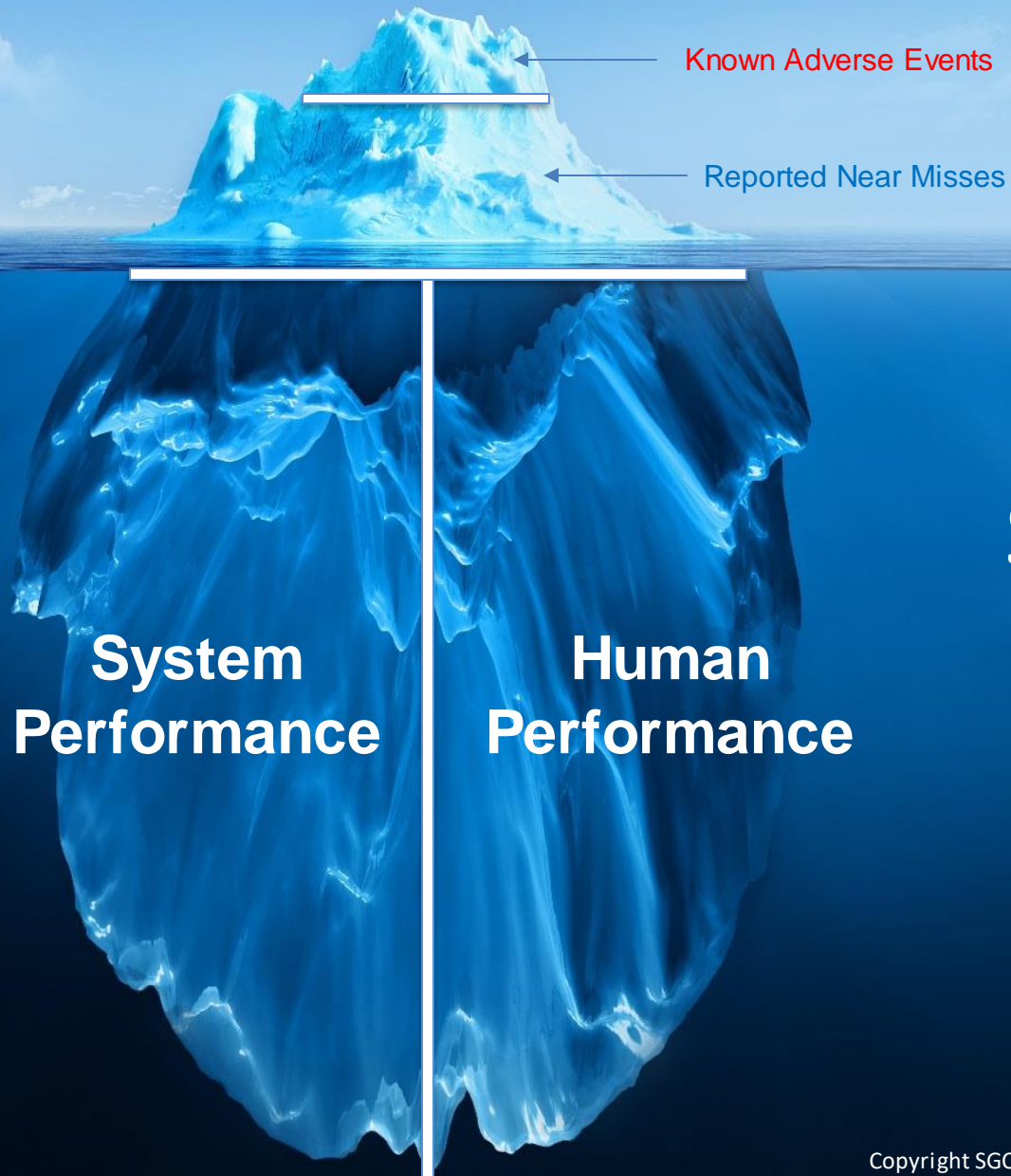


Step 1:

Seeing and Understanding Risk



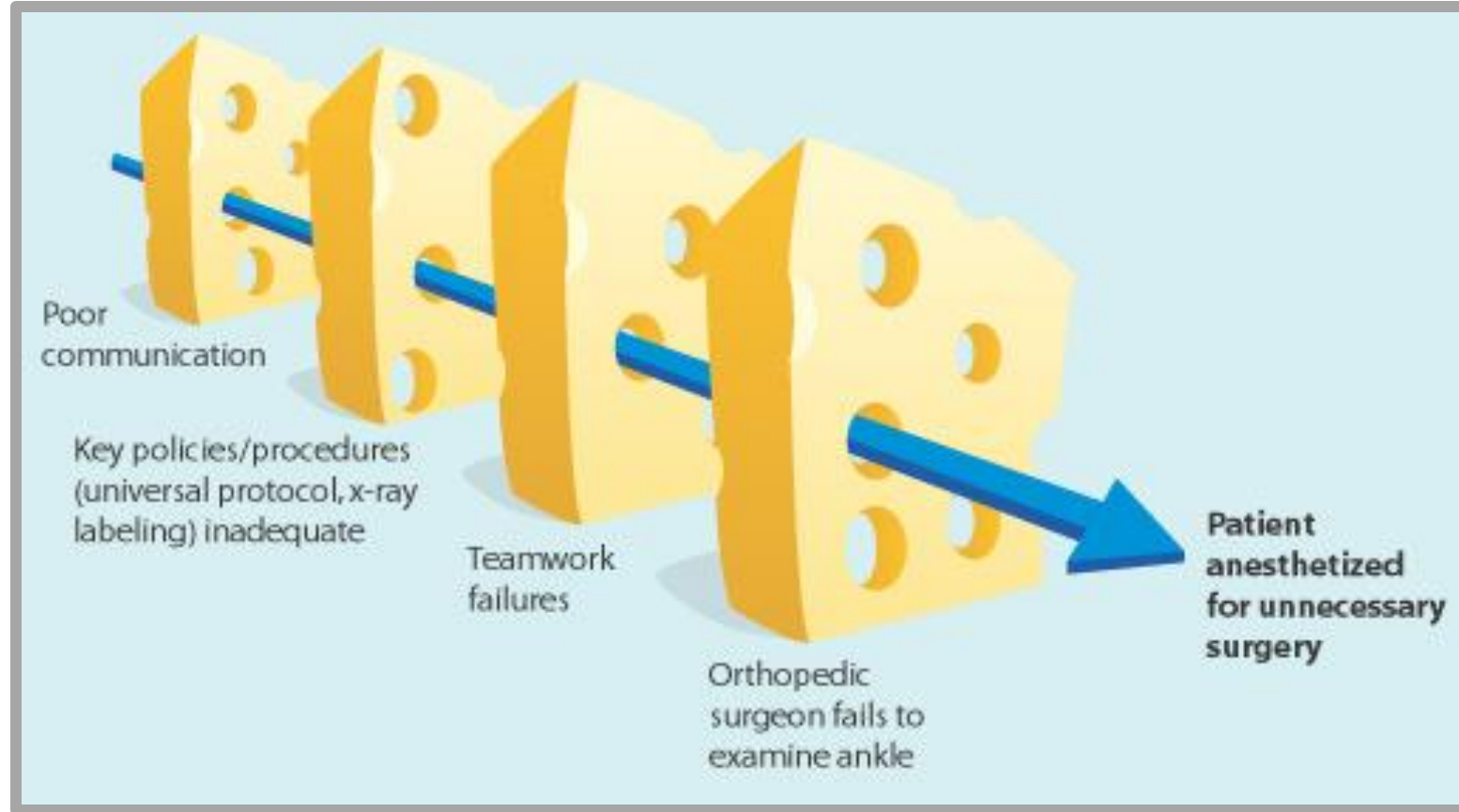
The Iceberg Model



Seeing and Understanding
Socio-Technical Risk
Below the Surface

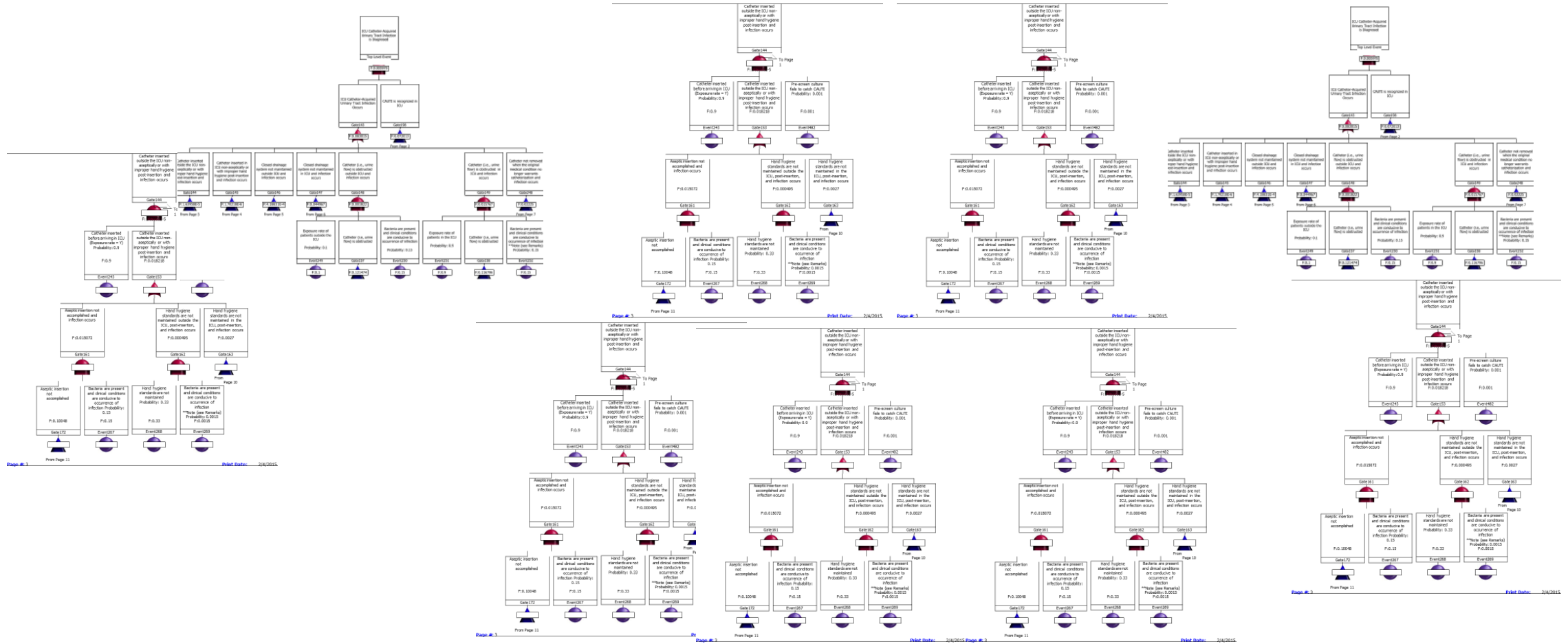


The Early Swiss Cheese Model

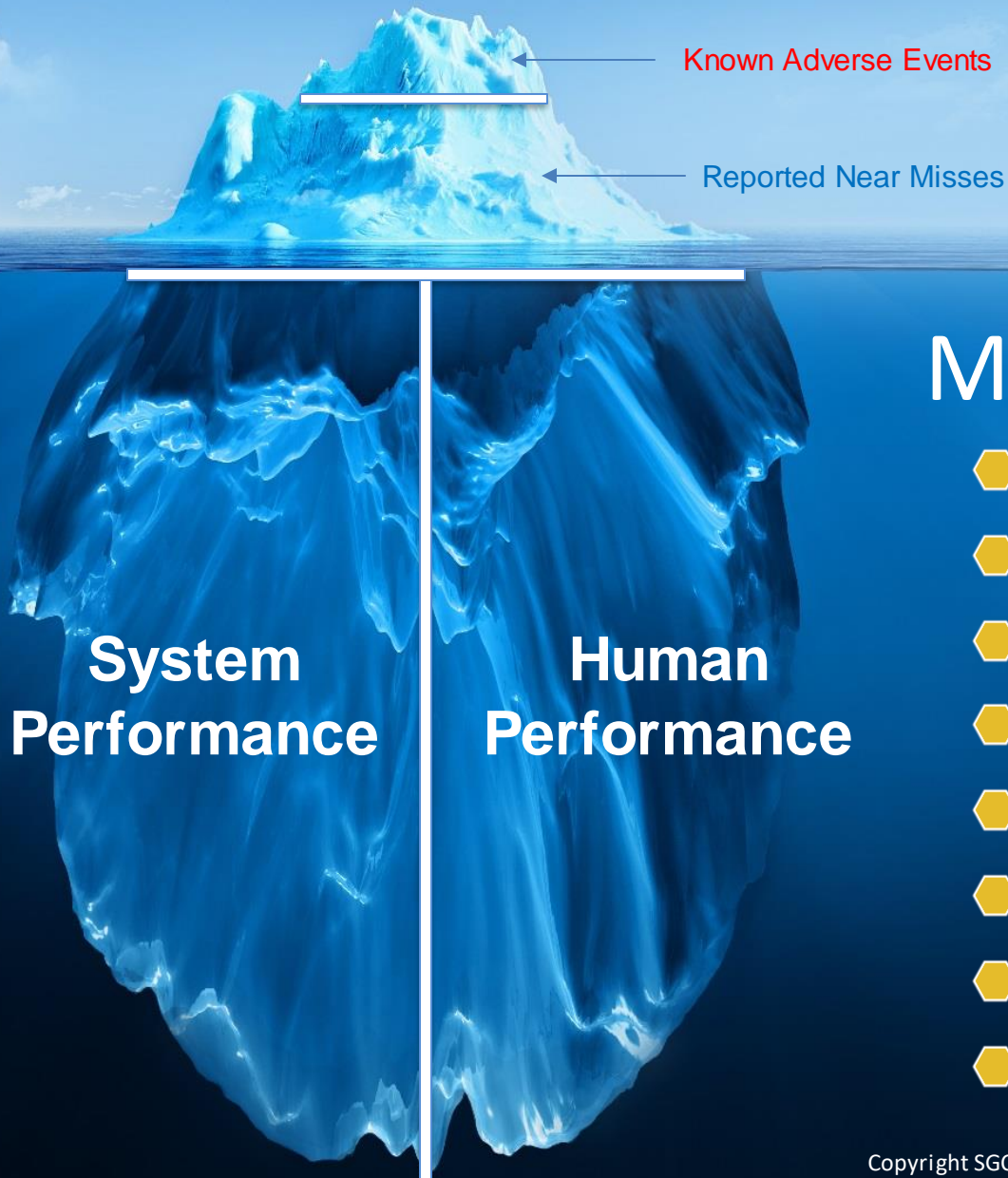


Predictive Risk Modeling

Socio-Technical Probabilistic Risk Assessment



A Few Ways We See General Risk

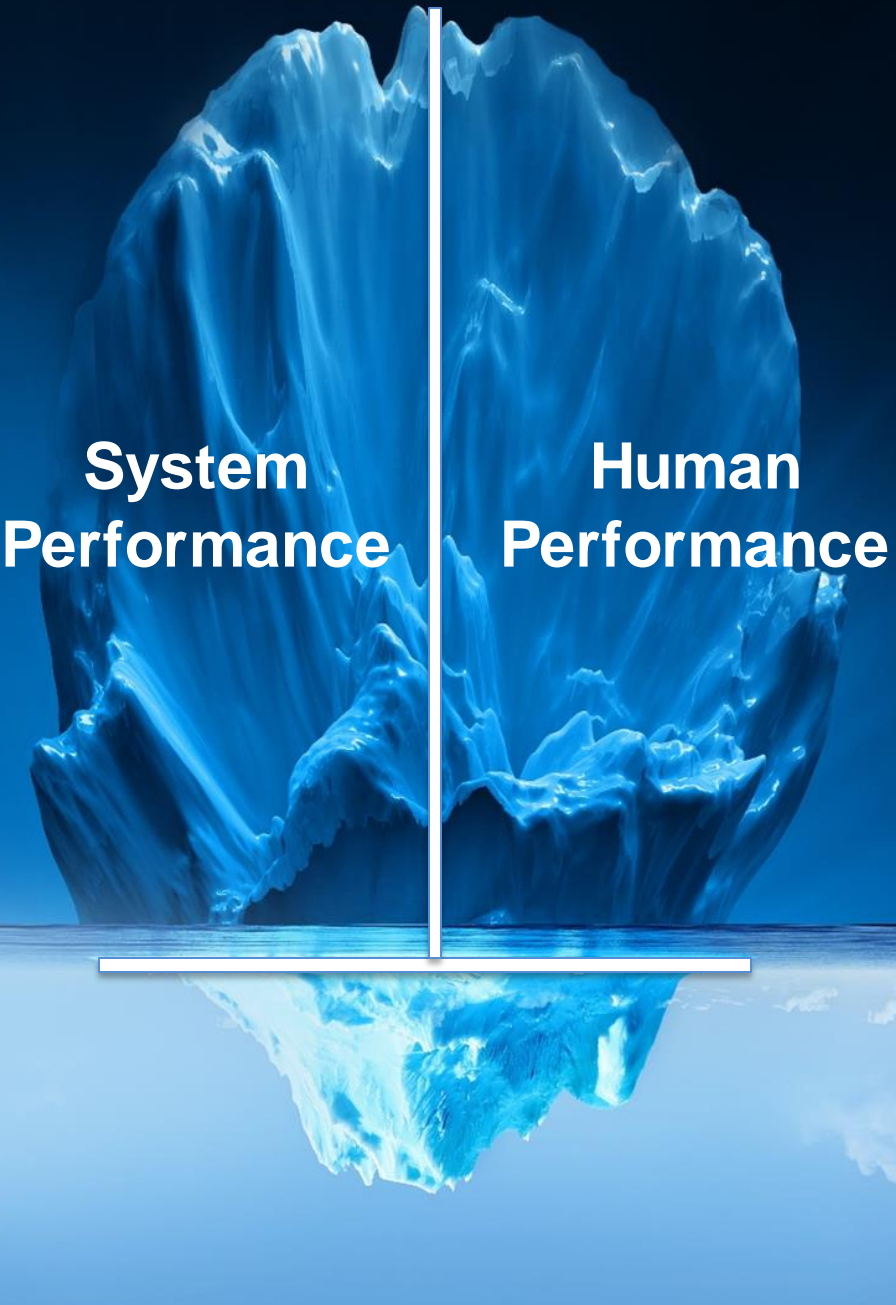


Multiple Opportunities:

- ◆ Accident Investigations
- ◆ Audits, Surveys, Rounding, & Inspections
- ◆ Customer & External Reports
- ◆ Employee Reporting Systems
- ◆ Informal Observations & Experience
- ◆ Digital Surveillance Systems
- ◆ Safety Management Systems
- ◆ Predictive Analysis

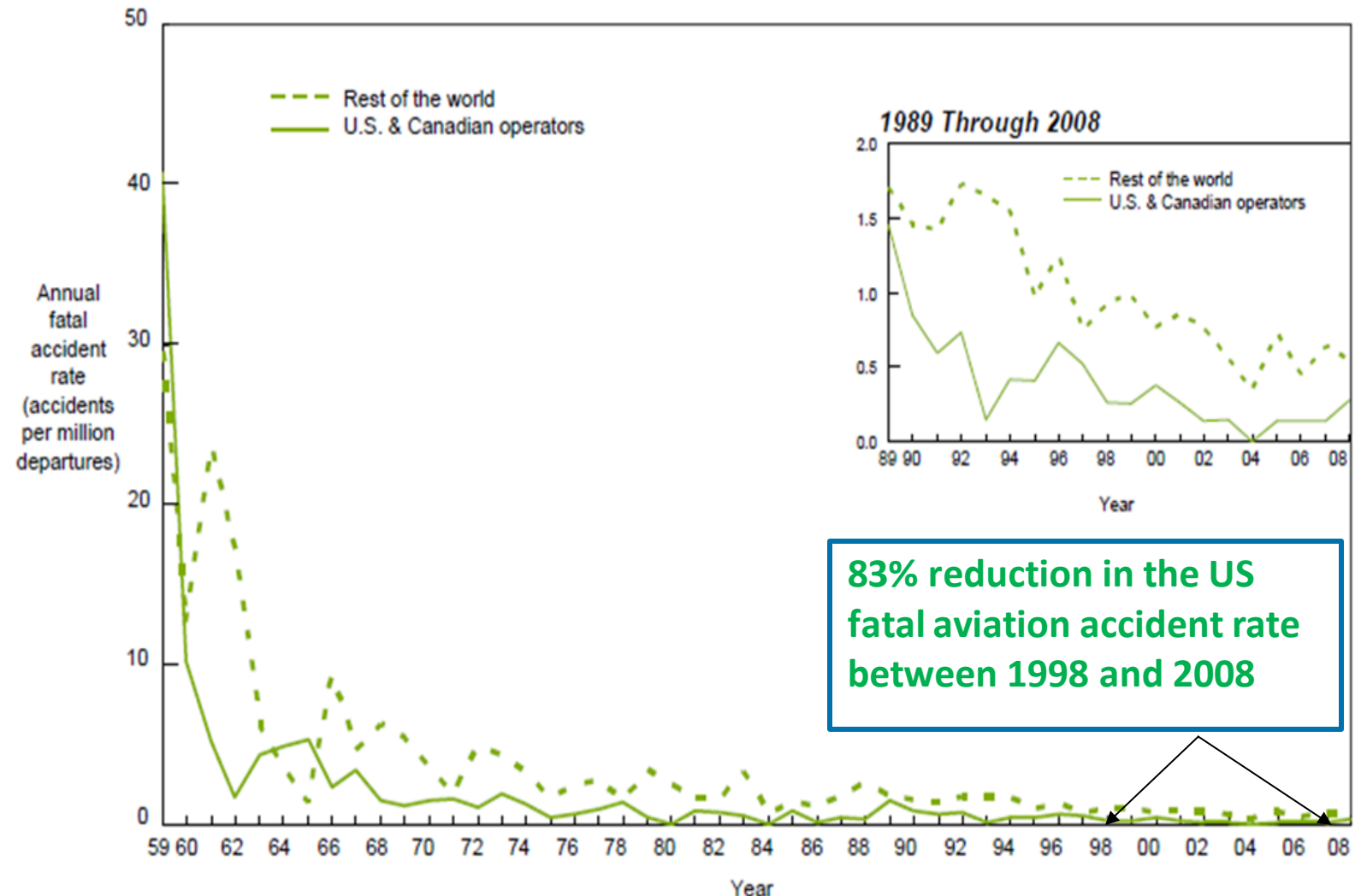


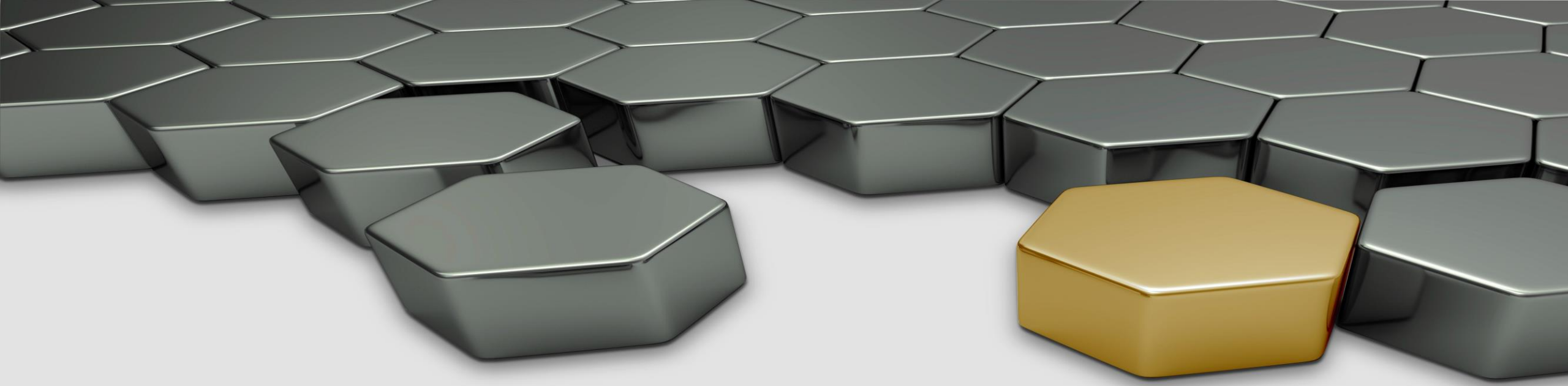
Flipping the Iceberg



U.S. and Canadian Operators Accident Rates by Year

Fatal Accidents – Worldwide Commercial Jet Fleet – 1959 Through 2008





Step 2a: System Performance



What Is a System?



Macro-System:

The organizational **support structures** and **controls** we place around employees and contractors in the performance of their jobs



- Policy
- Processes
- Equipment
- Software
- Training
- Maintenance
- Information
- Monitoring
- Resources

Reliable Systems

Our organizational systems must possess two distinct design attributes in order to be reliable. They must be:

1. Effective

Successful in producing a desired or intended result when things go right,
and

2. Resilient

Able to withstand or recover quickly from difficult conditions when things go wrong

Both attributes are important – and the skills needed to design and deliver each can be very different

Factors Influencing System Performance



Systems can be
predicted to fail...

...and we can
manage them
accordingly

Managing System Design

Barriers

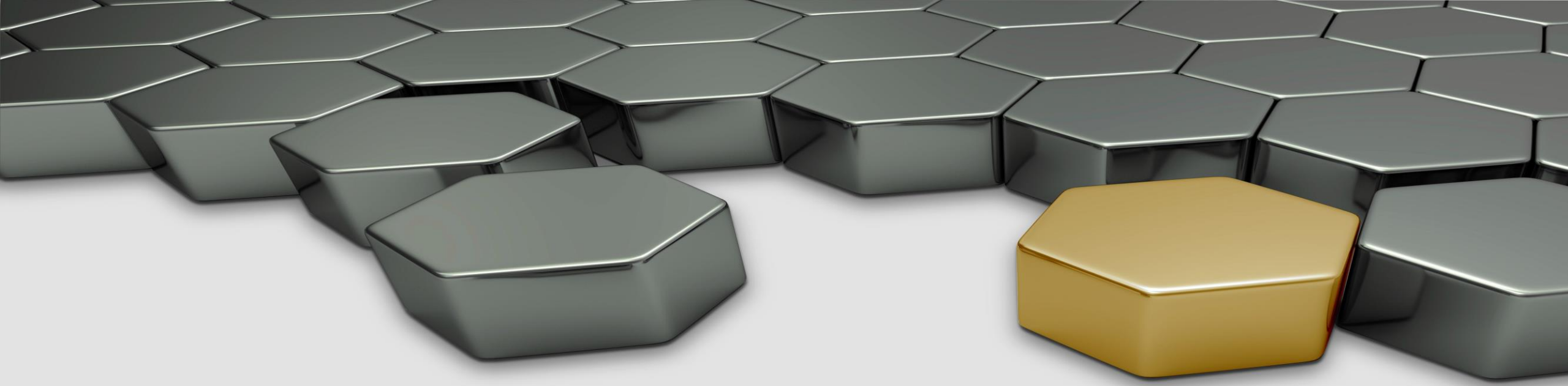
- ✧ Obstacles put in place to prevent failures

Redundancies

- ✧ Parallel components
- ✧ Backups

Recoveries

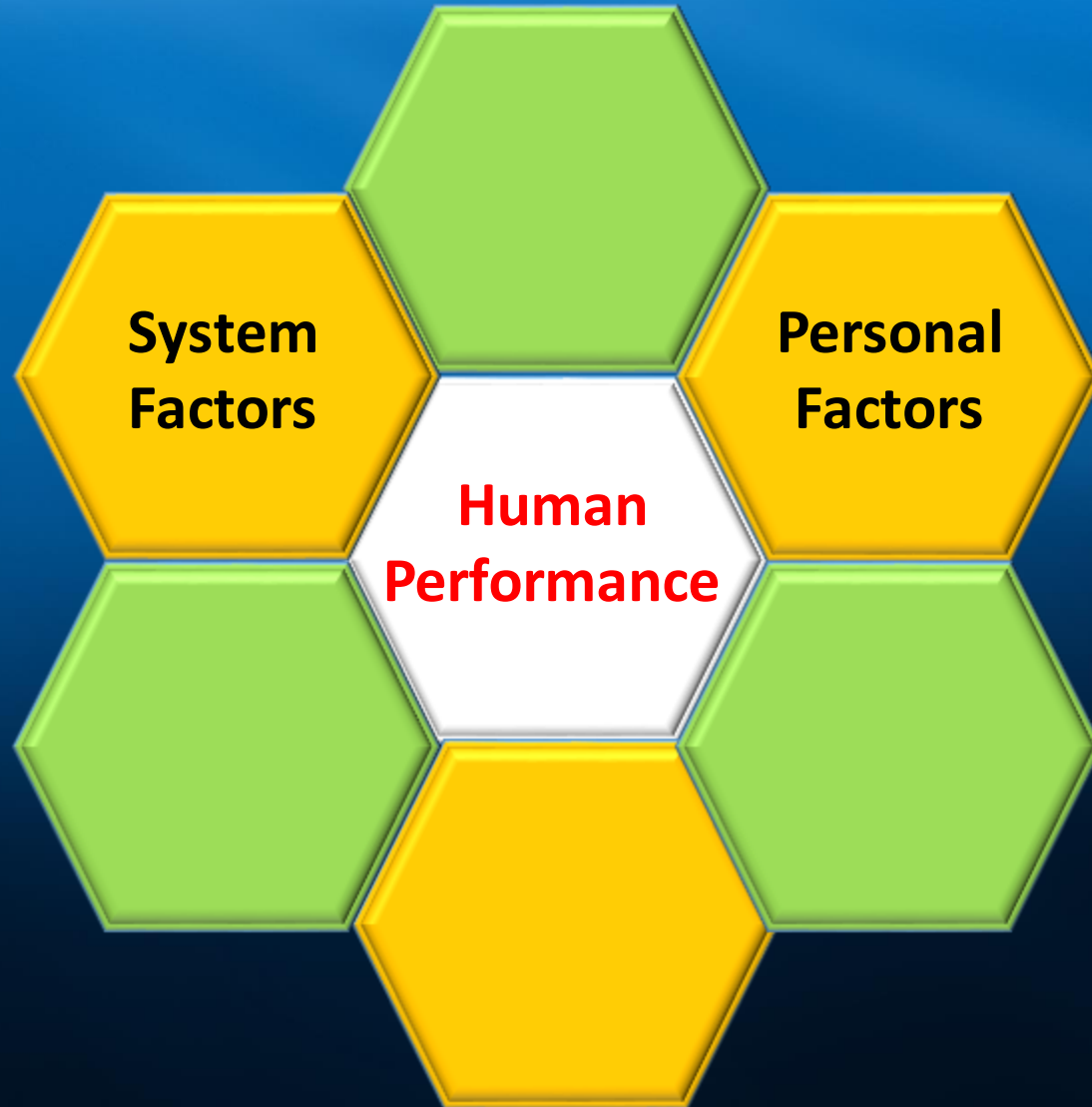
- ✧ Ways to correct when things go wrong



Step 2b: Human Performance



Factors Influencing Human Performance



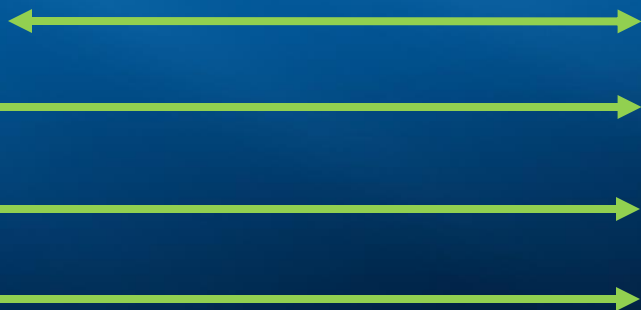
Human Performance Shaping Factors

Examples of System Factors:

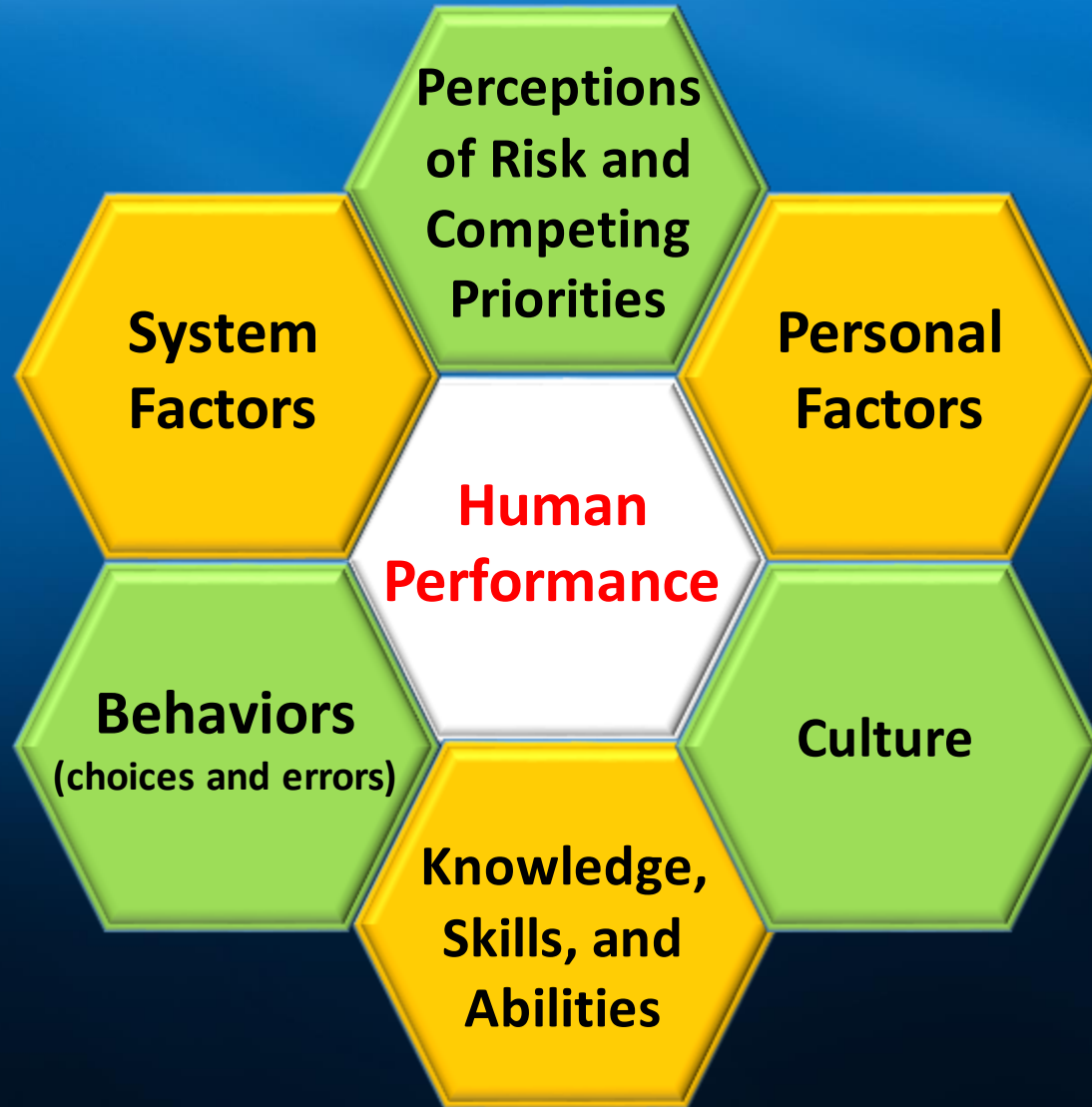
- ✦ Training
- ✦ Environment
- ✦ Distractions
- ✦ Stress
- ✦ Fatigue
- ✦ Burnout
- ✦ Policy, process, or procedure
- ✦ Equipment malfunction
- ✦ Equipment/human interface

Examples of Personal Factors:

- ✦ Health issues
- ✦ Personal conflicts
- ✦ Distractions
- ✦ Stress
- ✦ Fatigue
- ✦ Burnout
- ✦ Past experiences



Factors Influencing Human Performance



Humans can be predicted to fail...

...and we can manage them accordingly

Performance vs Behavioral Management

Performance Management

Required when an individual is not meeting minimum knowledge, skills, abilities (KSA), or cognitive performance targets, or has limited experience

Behavioral Management

Required when an individual's choices or attitudes are increasing risk beyond organizational tolerance

Our Experiential Rule Bias

Why won't humans just follow the rules?



Why Won't Humans Just Follow Rules?



Risk Intelligence

- ◆ Your perception that an adverse event will, or will not, occur
- ◆ Based on experience, situational awareness, expertise, and understanding of system vulnerabilities

Risk Tolerance

- ◆ The amount of risk you will accept. Comparison:
 - State → ■ Organization
 - Police Officer → ■ Supervisor
 - Driver → ■ Employee



Three Categories of Human Behavior

Human Error

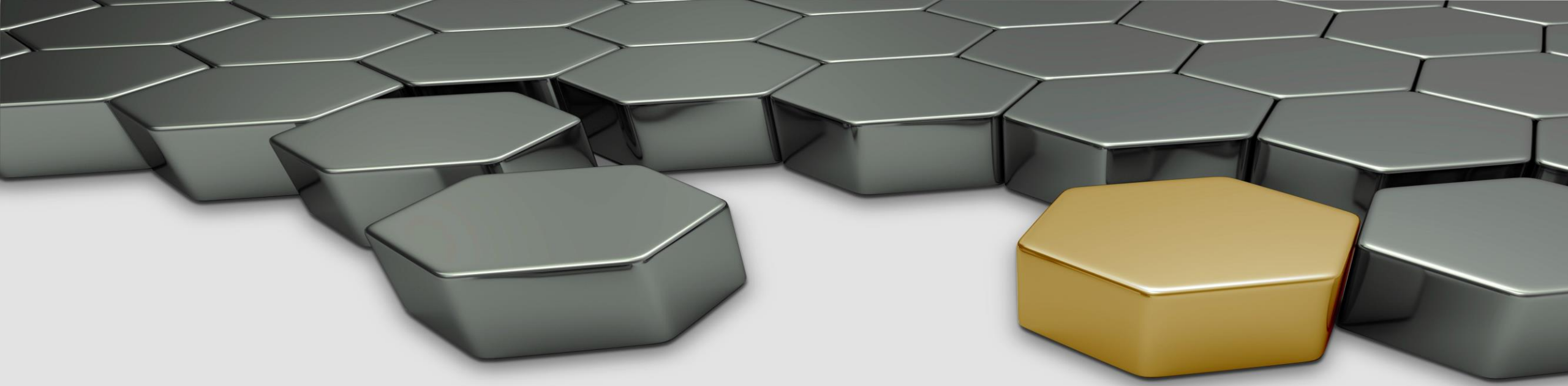
The inadvertent action; inadvertently doing other than what should have been done (i.e., a cognitive or physical slip or lapse)

At-Risk Choice

Behavioral choice that increases risk where risk is not recognized, or is mistakenly believed to be justified (action chosen without intention to cause unjustifiable harm)

Reckless Choice

Behavioral choice to consciously disregard a substantial and unjustifiable risk (action chosen without intention to cause unjustifiable harm)



Step 2c:

Organizational Performance



Factors Influencing Organizational Performance



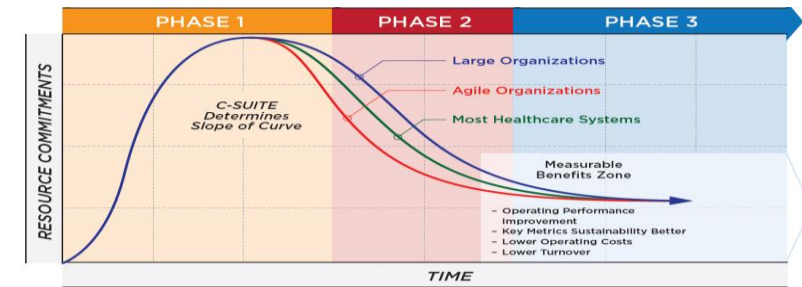
Organizations can be predicted to fail...

...and we can manage them accordingly

The Path to Organizational High Reliability



Resource Commitment



Improve and Sustain Operating Results

SG Collaborative Solutions partners with organizations to achieve sustainable high reliability in:

- Patient safety and quality
- Systems and human performance
- Operational effectiveness and resilience
- Strategic planning and predictive risk management
- Vision and values support
- Patient satisfaction and employee relations
- Financial performance
- Objectives and Key Results (OKRs)

Learning Management System



Reliability

Principles of Reliability

Begin your personal and organizational journey toward risk reliability here. Principles of Reliability is the prerequisite for all other SGCS...



Performance, Reliability

Performance vs. Behaviors

In this 30-minute workshop, Paul LeSage examines the tension between managing KSAs (knowledge, skills and abilities) and cognitive performance,...



Performance, Reliability

Using the Reliability Response Guide

New for 2019 ! In this course, Paul LeSage will show you how to correctly and consistently apply the SGCS Reliability Response Guide. Knowing...



Performance, Reliability

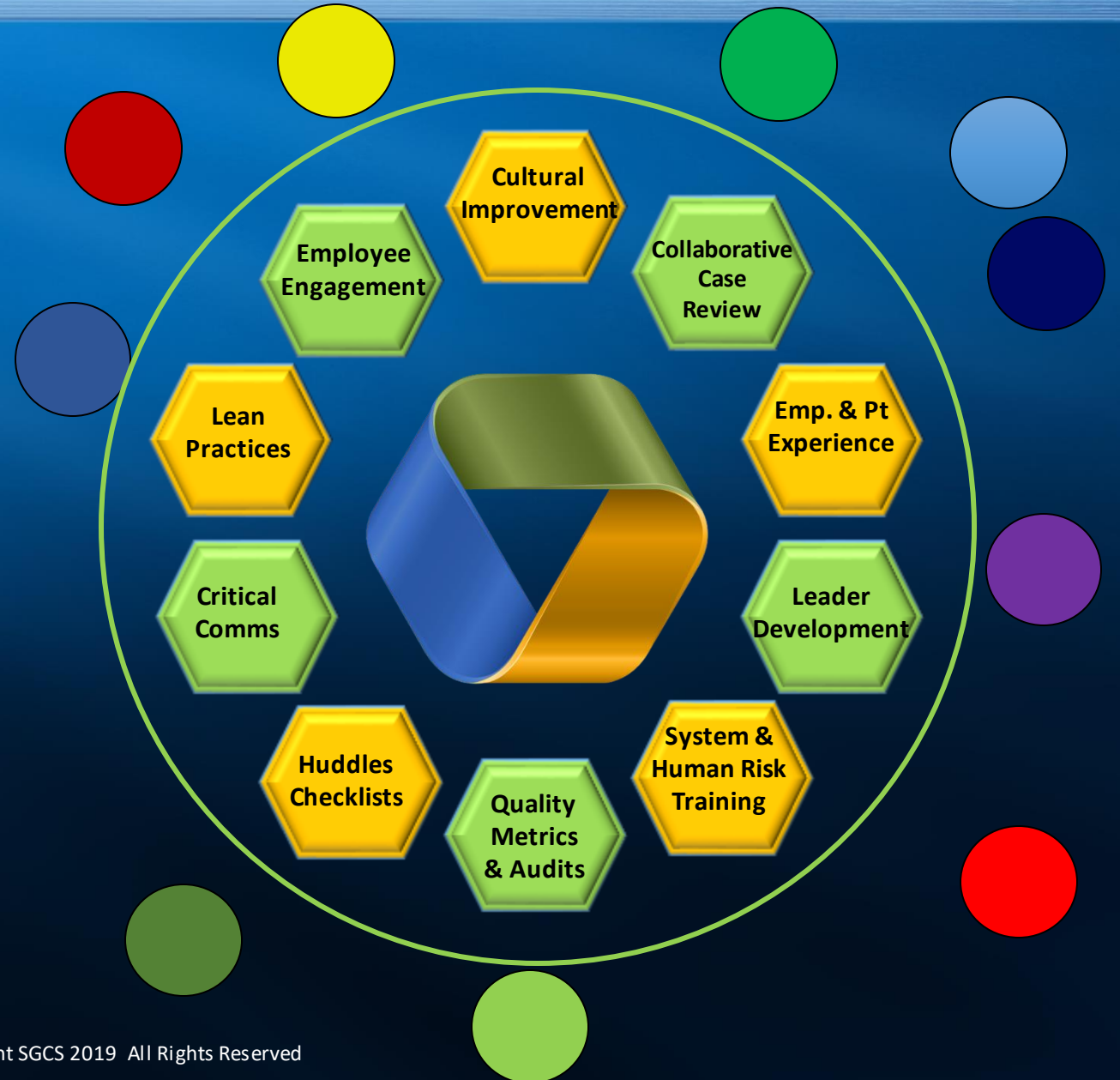
Essential Supervisor Skills

Release Date: May 2019 In this workshop, Paul LeSage provides practical strategies for developing strong supervisory skills in team leaders....



Reliability Management System

- Connect the dots
- Harmonize initiatives
- See and Manage Risk differently

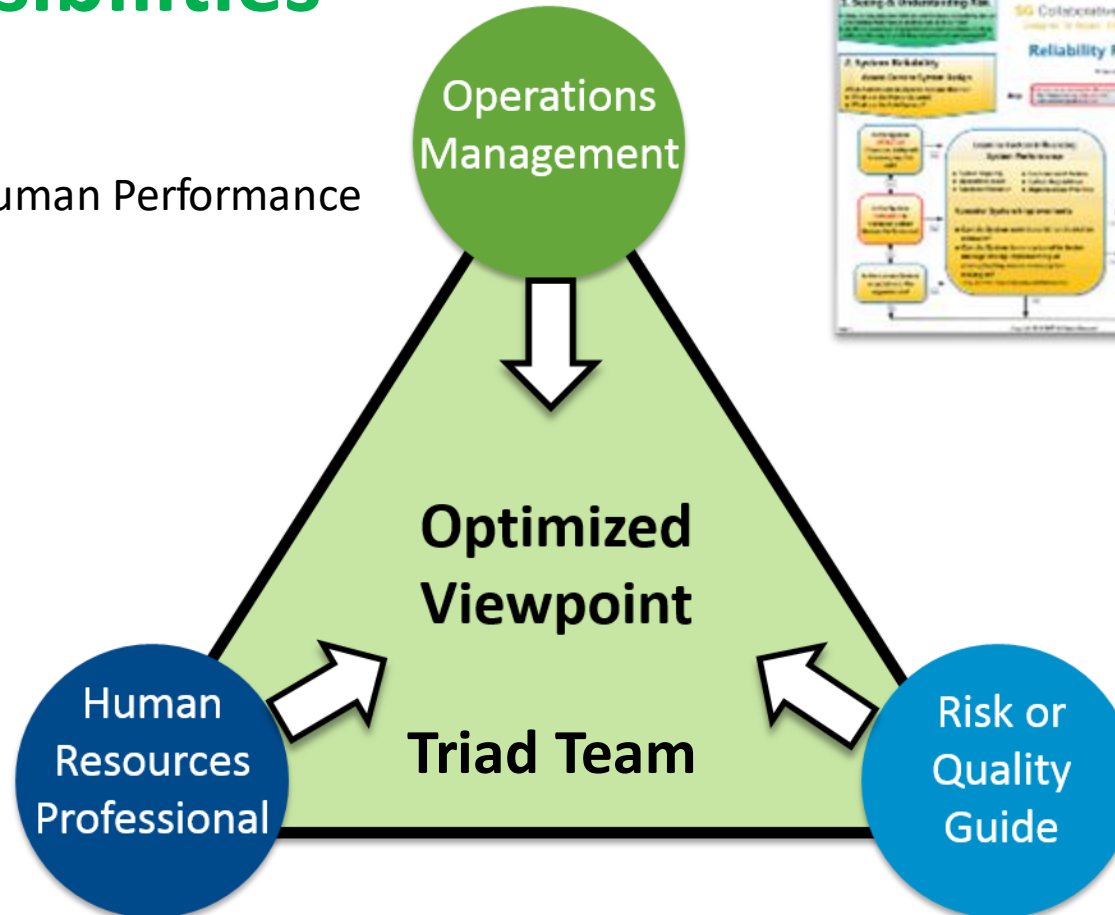


A Better Tool – A Better Process

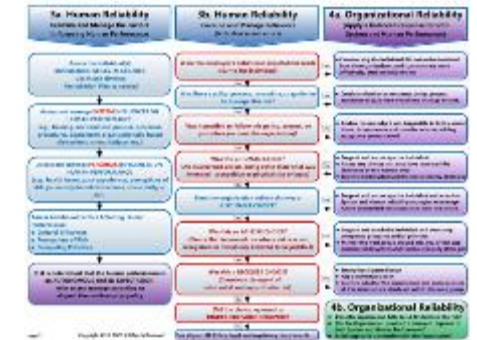
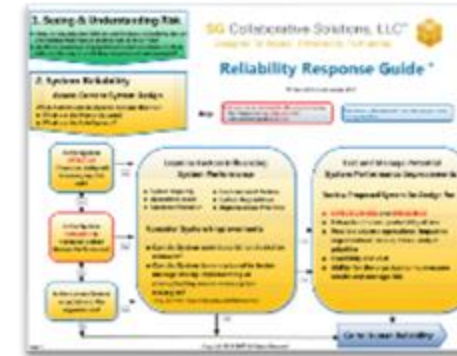
Triad Team Roles & Responsibilities

- Manages System and Human Performance

- Ensures workplace fairness
- Monitors culture and team member relations



SGCS Reliability Response Guide



- Facilitates and guides the review process
- Procures additional expertise for the review
- Documents and reports findings and recommendations

Next Steps?

Questions and Discussion

About Us



SG Collaborative Solutions, LLC™

We are an enterprise risk management firm specializing in reliable performance in high-consequence industries and organizations. We are the pioneers of the Sequence of Reliability™ model of socio-technical improvement and provide world-class expertise in designing optimal organizational solutions. Then we collaborate with you so that your organization achieves self-sustainable results.

Join us at: <https://sgcpartners.com/>

