

HOP

What it is...

What it is not...

But how do you do it?!?



**THANK
YOU**

Please interrupt

Physicist

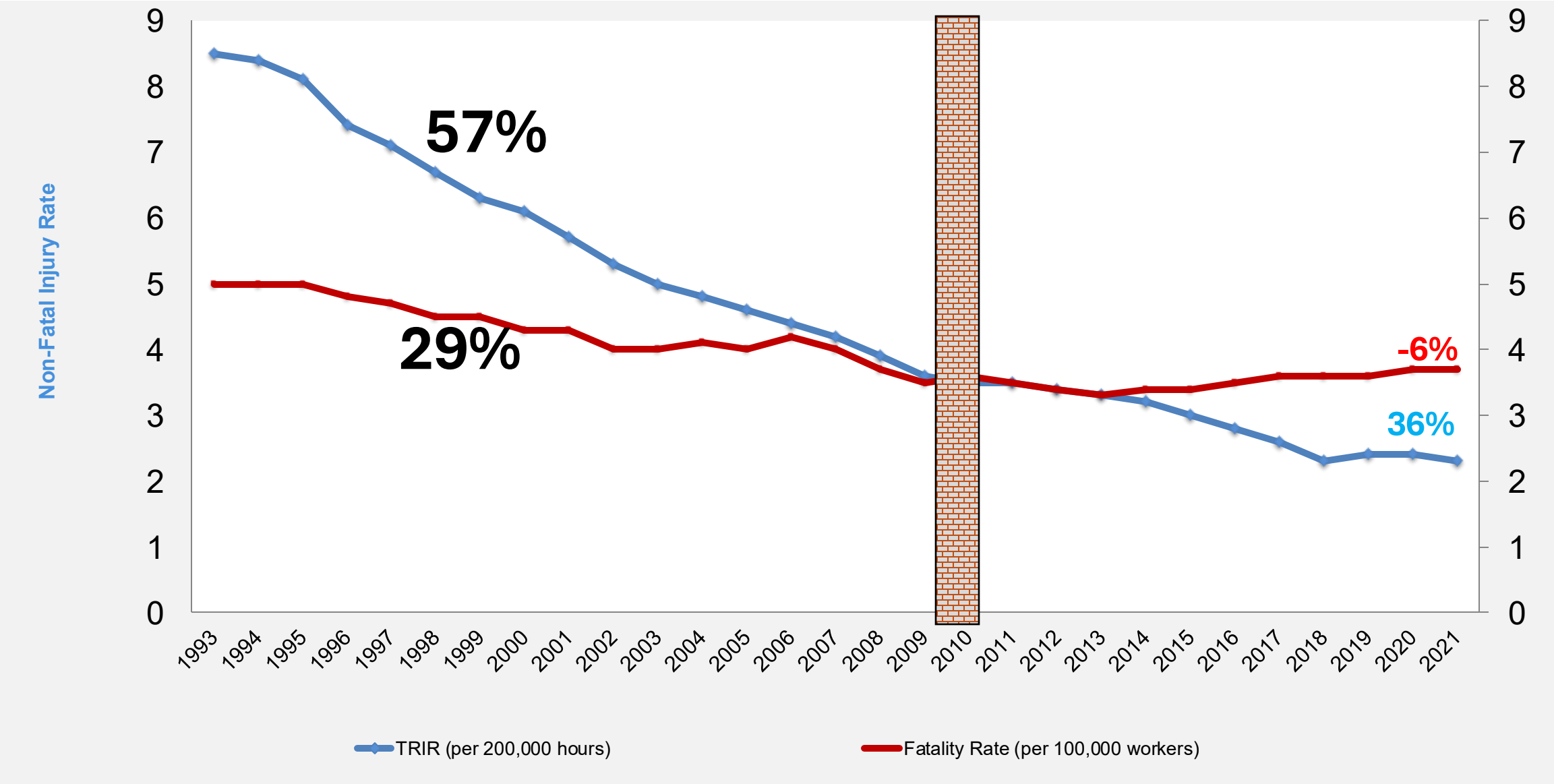
SIF

**Critical Risk Control
Humans and Risk**

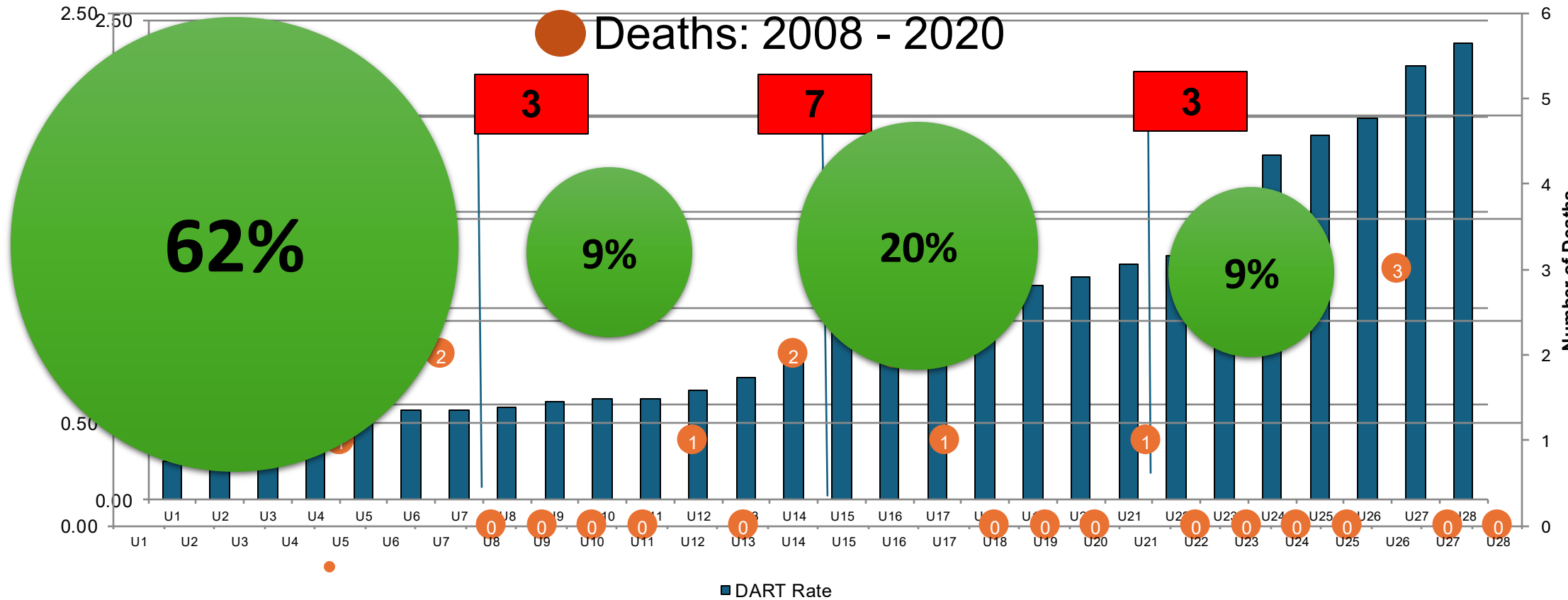
My Agenda

- **Data that suggests we're going the wrong way!**
- **Is there anything that works?**
- **Only you can decide...**

USA Incident Rate Trends: Non-Fatal vs. Fatal



Fatalities = 34



← NEWS

Newly Released Estimates Show Traffic Fatalities Reached a 16-Year High in 2021

The National Highway Traffic Safety Administration [has released its early estimate of traffic fatalities for 2021](#). NHTSA projects that an estimated 42,915 people died in motor vehicle traffic crashes last year, a 10.5% increase from the 38,824 fatalities in 2020. The projection is the highest number of fatalities since 2005 and the largest annual percentage increase in the Fatality Analysis Reporting System's history. Behind each of these numbers is a life tragically lost, and a family left behind.



Ratings

Recalls

Risky Driving

Road Safety

Equipment

Technology & Innovation

MORE INFO ▼

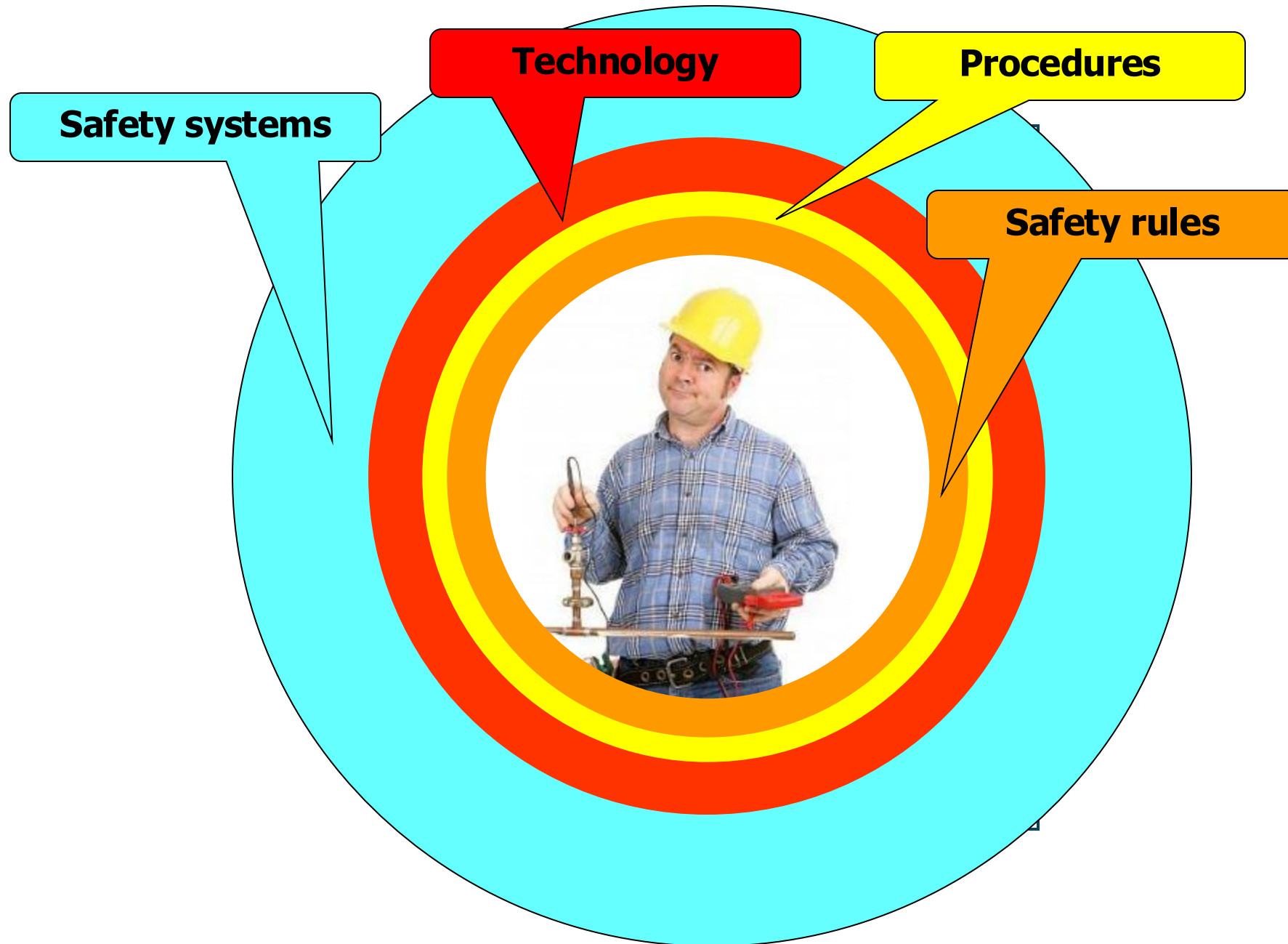
← NEWS

NHTSA Estimates for 2022 Show Roadway Fatalities Remain Flat After Two Years of Dramatic Increases

More miles driven and lower fatality rates compared to 2021

April 20, 2023 | Washington, DC

The National Highway Traffic Safety Administration has released its [latest projections for traffic fatalities in 2022](#), estimating that 42,795 people died in motor vehicle traffic crashes. This represents a small decrease of about 0.3% as compared to 42,939 fatalities reported for 2021. The estimated fatality rate decreased to 1.35 fatalities per 100 million vehicle miles traveled in 2022, down from 1.37 fatalities per 100 million VMT in 2021. Americans are driving more than they did during the height of the pandemic, almost a 1% increase over 2021.



Human Behavior...



...the right
place to start



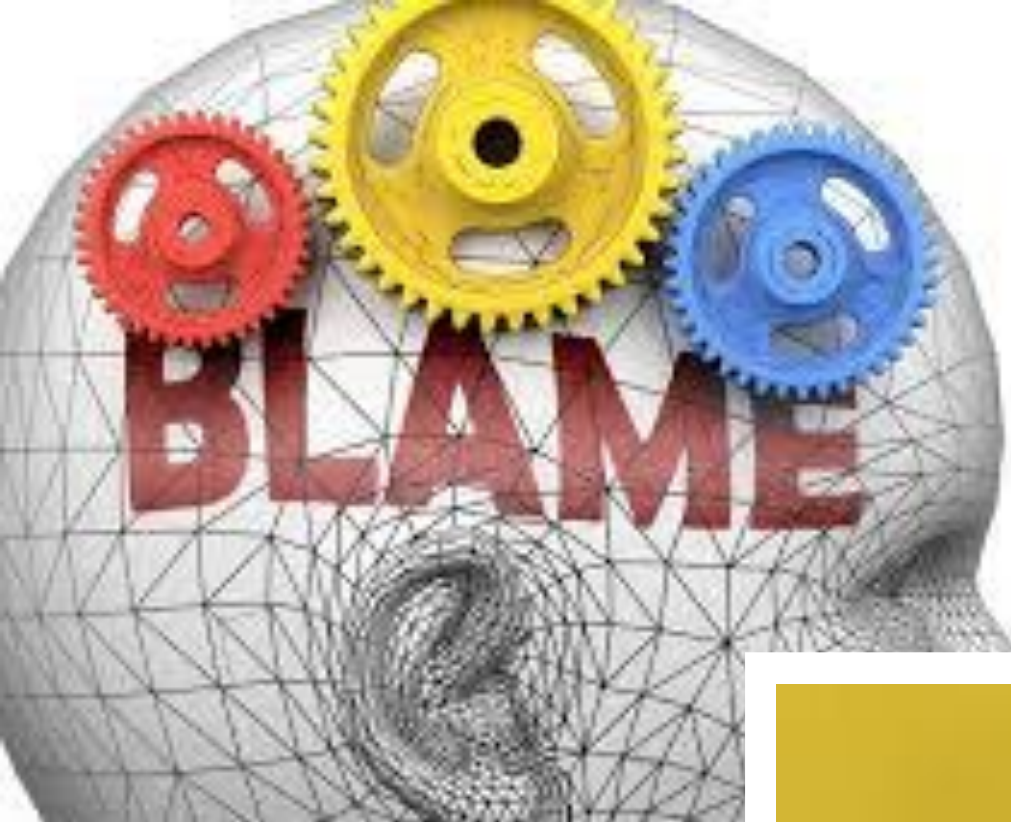
Human error is...

...absolutely human.



If something can
happen...

...it will happen.
(eventually)



**TO ERR IS HUMAN.
SHIFTING THE
BLAME SHOWS
LEADERSHIP
POTENTIAL.**



**TO MAKE A MISTAKE IS
HUMAN, BUT TO BLAME IT
ON SOMEONE ELSE, THAT'S
EVEN MORE HUMAN.**

[www.marketinggoya.com.au]

**THE
DEVIL IS IN
THE DETAILS**



WHAT IS HOP?

HUMAN AND ORGANIZATIONAL PERFORMANCE

WHAT IS HOP?

HUMAN AND ORGANIZATIONAL PERFORMANCE

CRM



Crew Resource Management

A stack of three light-colored wooden blocks. The top block has the word "HIGH" in black capital letters. The middle block has the word "PERFORMANCE" in black capital letters. The bottom block has the word "CULTURE" in black capital letters. The blocks are stacked on a light-colored, textured surface. There are several other smaller wooden blocks scattered around the base of the main stack.

A diagram of a human head profile in light blue. Inside the head is a dark grey brain shape filled with various icons: a speech bubble, a plus sign, a gear, a person, a target, and a lightbulb. The words "Attitude", "Behavior", and "Consequences" are written inside the brain. The numbers 1, 2, and 3 are also present, corresponding to the three concepts.

The logo is circular with a blue border. Inside the circle, the words "Behaviour Based" are written in a blue, sans-serif font along the top arc. The letters "BBS" are prominently displayed in the center in a large, bold, blue, sans-serif font. Along the bottom arc, the word "SAFETY" is written in a blue, sans-serif font. Two small yellow dots are positioned on the left and right sides of the circle, separating the top and bottom text.The logo for HOP (Hague Office of the Prosecutor) features the letters 'HOP' in a bold, sans-serif font. The letter 'O' is replaced by a circular emblem. This emblem has a black outer ring and is divided into four colored quadrants: red (top-left), yellow (top-right), blue (bottom-right), and green (bottom-left). In the center of the emblem is a stylized figure with arms raised, composed of red, yellow, and blue segments. Below the figure are two small black circles, one on each side, resembling eyes or wheels.

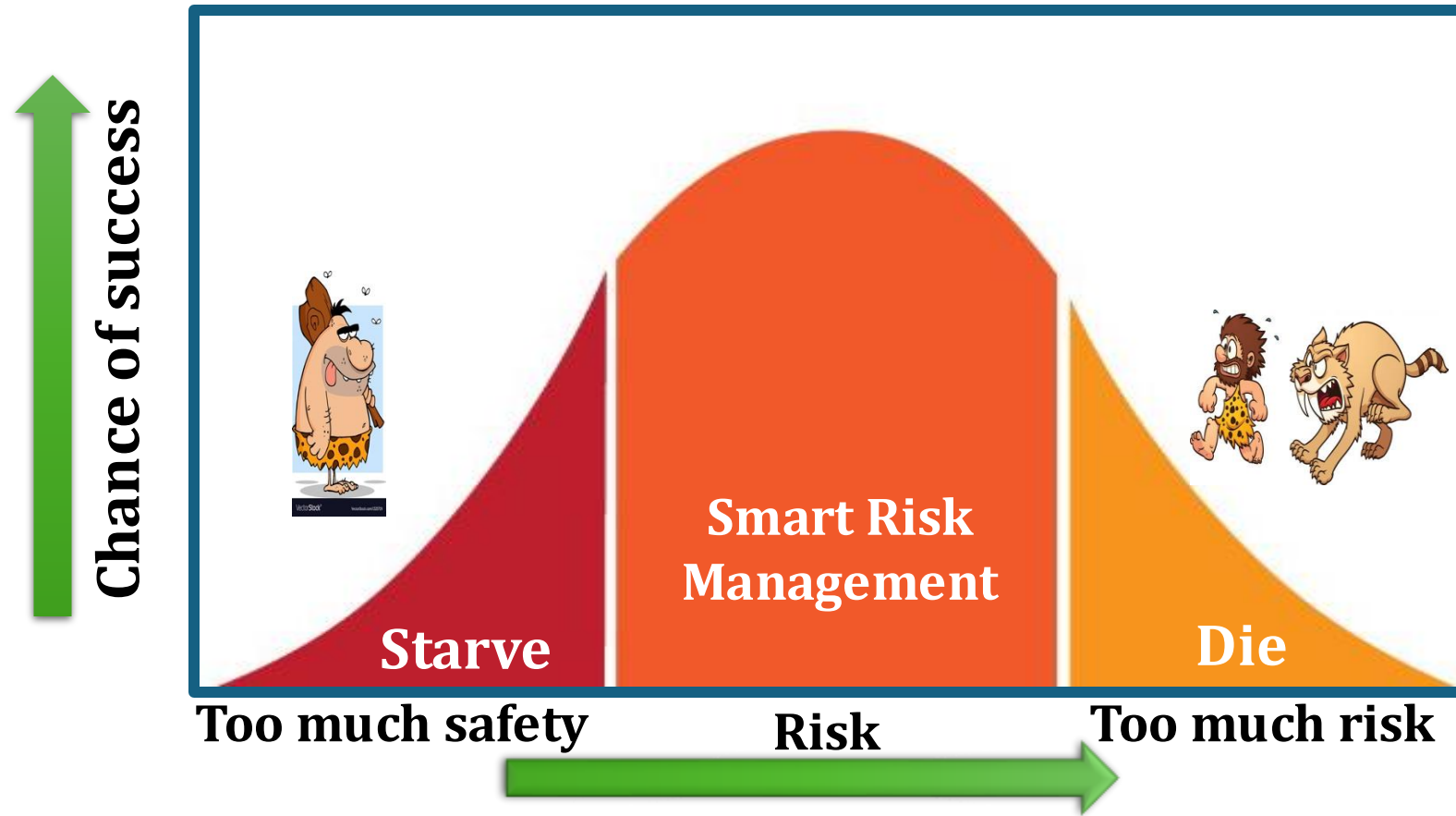


Amazing, Incredible.....
.....but
Quirky!

We must begin to
think differently
about how
humans interact
with risk.



Human Behavior in Hazardous Situations



The background features a blurred image of an industrial plant or refinery at night, with numerous lights and tall distillation columns. Overlaid on this is a semi-transparent network diagram. The diagram consists of a central hub with a factory icon, connected by lines to various peripheral nodes. Each node contains a white icon on a circular background: a globe, an '@' symbol, an airplane, a cloud, a location pin, a shopping cart, solar panels, a truck, a bar chart, a pie chart, a laptop, a robotic arm, and a Wi-Fi signal. The overall color scheme is a cool blue-grey.

Are safe organizations safe?

How can we know?

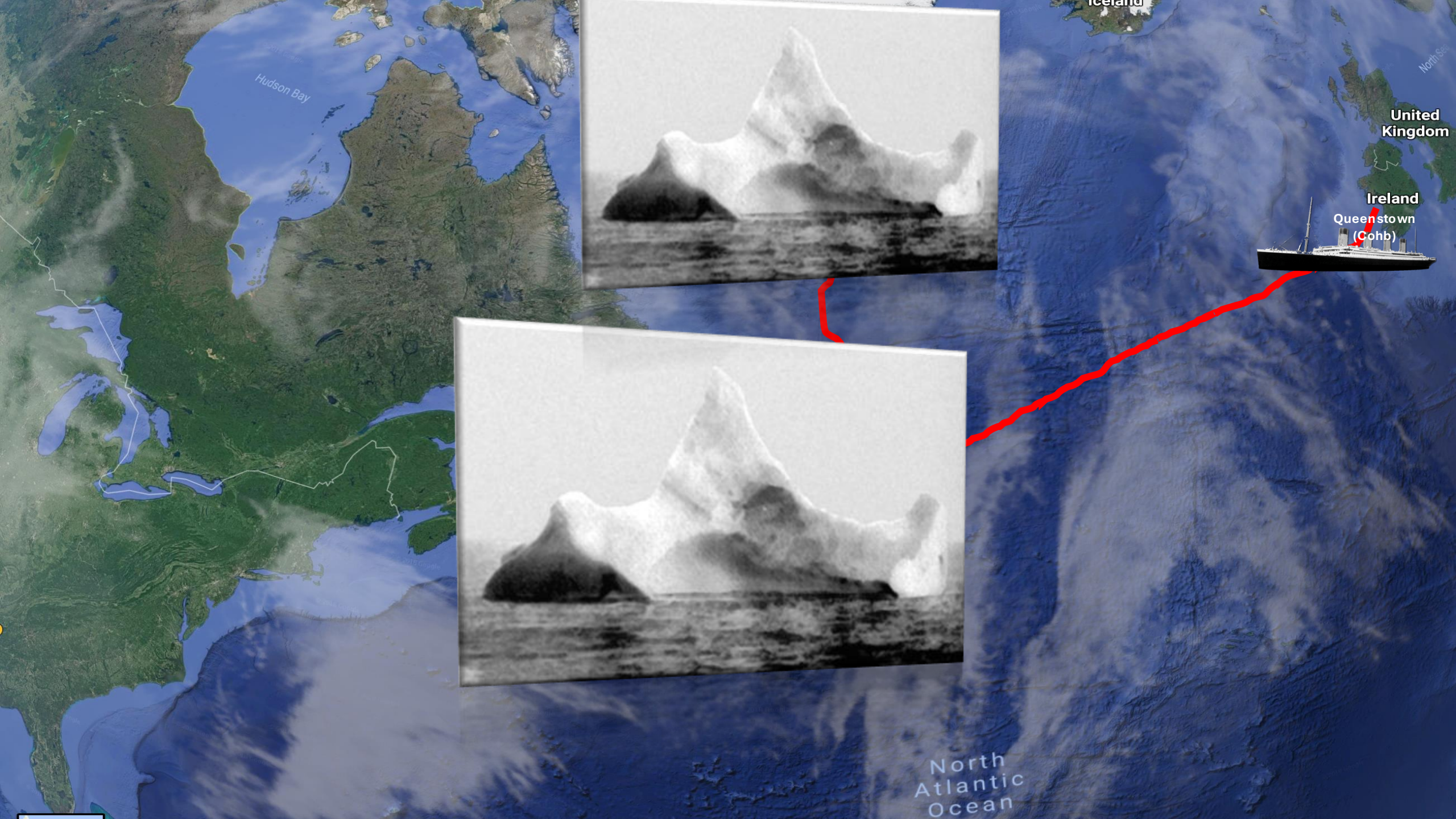
Catastrophic failures of Near Zero Organizations

Near Zero Organizations

Catastrophic



Titanic



“We believe our ship is safe...it is unsinkable”



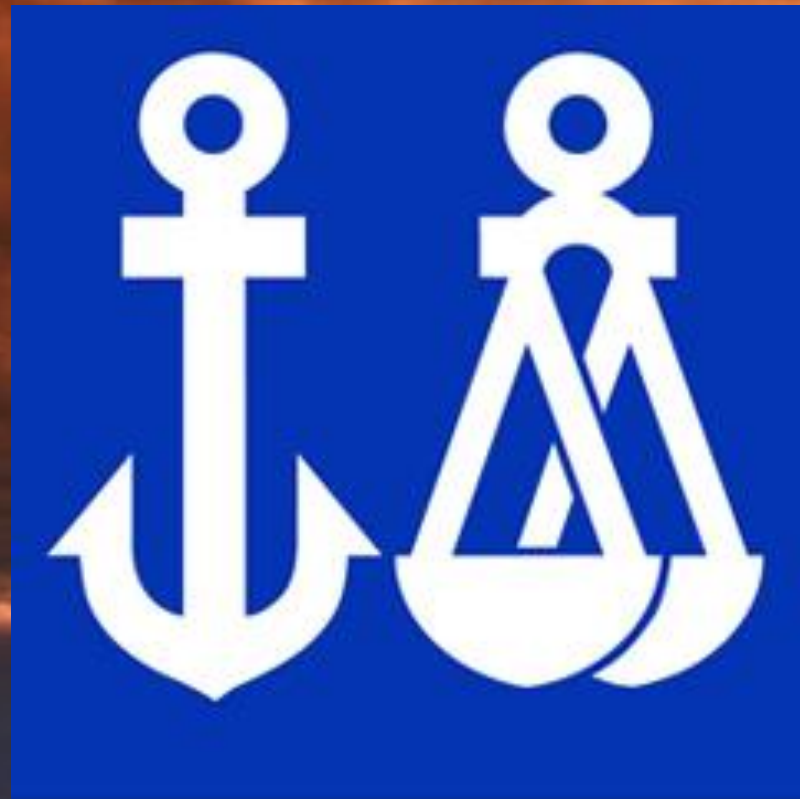
What if...





Texas City Refinery
March 23, 2005
15 killed, 170 injured

This aerial photograph captures the aftermath of a catastrophic event at the Texas City Refinery. The scene is a vast expanse of industrial wreckage. In the foreground and middle ground, there is a chaotic jumble of twisted metal, shattered pipes, and debris scattered across the ground. Several large, cylindrical storage tanks are visible on the right side, some appearing damaged or partially collapsed. A network of pipes and structural steel runs across the site, many of which are bent or broken. In the background, more industrial structures and a few vehicles are visible, though the overall impression is one of significant destruction and environmental impact.



FIVE-STAR RATING!



Gencor Gold Mine

16 Sep 1986

177 killed





BP Texas
Refinery
15 killed



Piper Alpha
167 killed



Deep Water Horizon
11 killed



Bhopal
3787 killed



Near Zero Organizations...

UNTIL THE LAST SECOND

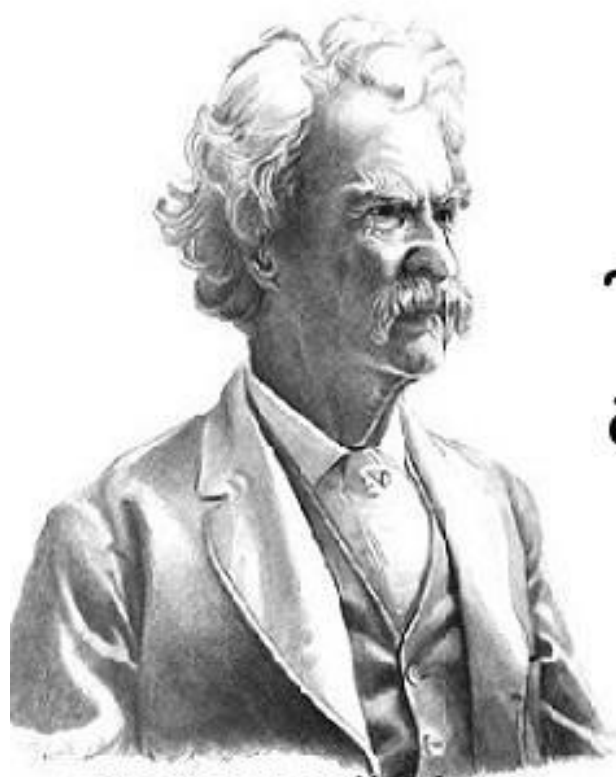


6516 deaths
27 cases

Risk is

random and

dynamic.



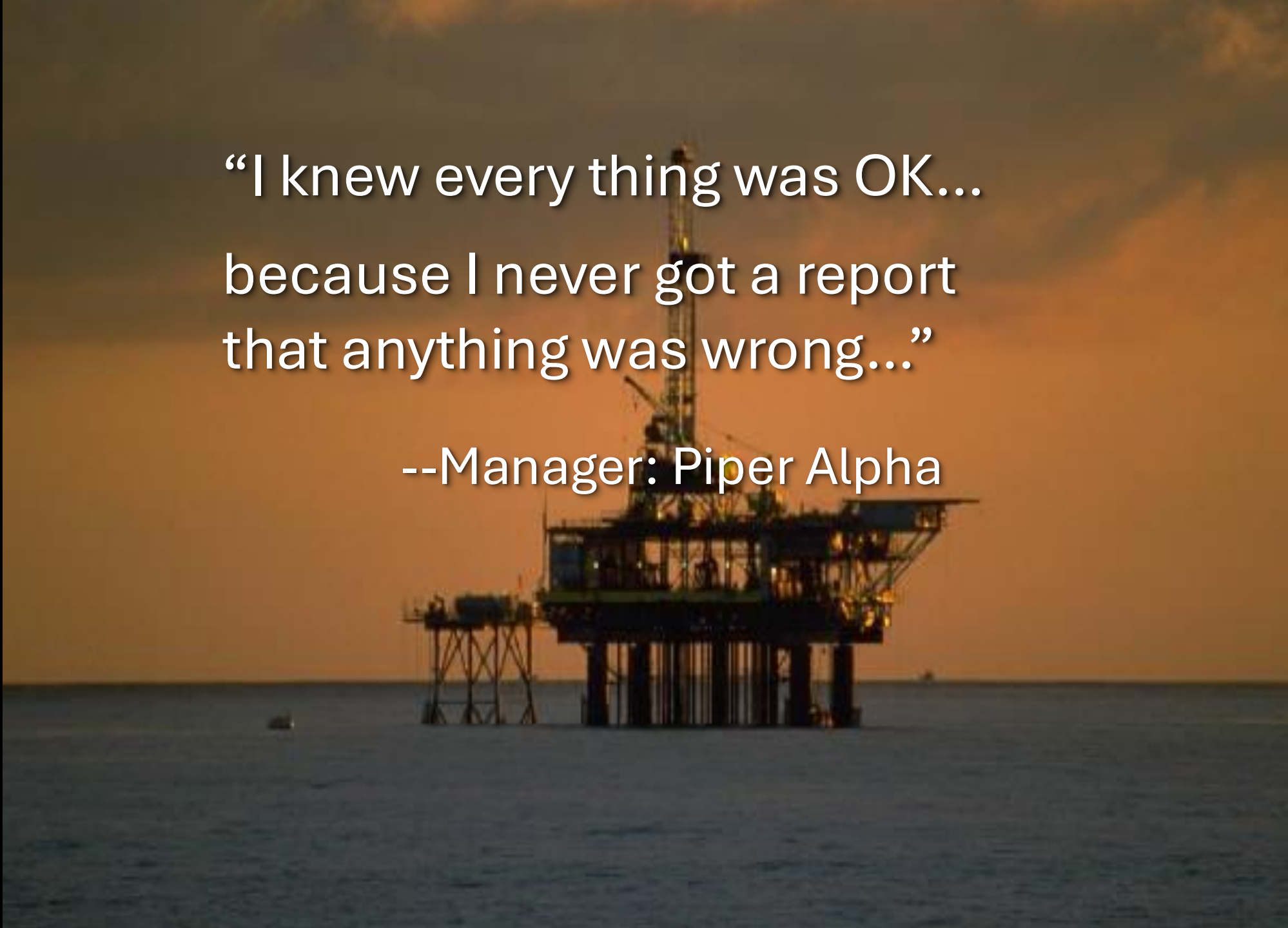
quotespedia.info

There are lies, damned lies
and statistics.

Mark Twain

“I knew every thing was OK...
because I never got a report
that anything was wrong...”

--Manager: Piper Alpha



Transocean Execs Get Bonuses after 'Best Year in Safety,' Despite Gulf Oil Disaster

[+ Comment Now](#) [+ Follow Comments](#)

UPDATED April 5 with apology from Transocean.

Transocean Ltd., owner of the Deepwater Horizon oil rig, awarded millions of dollars in bonuses to its executives after “the best year in safety performance in our company’s history,” according to an annual report and proxy statement released yesterday.



Image via Wikipedia



**Management is lying to us...
and we are lying to management...**



**Numbers alone don't tell the
whole story...**

**...so is it possible to drill
down into the numbers?**



“Hideable”



04 07 2017 10:06:54

04 07 2017 10:06:09

1:5

1 Non-Hideable

5 (or more) Hideable



There are things we know we don't know...

And things we don't know we don't know...



BRITISH
PATHÉ



How can we discover
critical
vulnerabilities?

How can we handle
random and dynamic
risks?



Fight randomness with randomness!

Goals of the safeSENTRY process?

It creates:

- Additional eyes in the workplace
- An opportunity for workers to make valuable contributions
- Authority to take action
- Continuous feedback about risks, as work is happening
- A constant safety focus in all workplaces
- Recognition that risk is dynamic (work doesn't always go as planned)

SafeSENTRY

WHAT

- To establish a process through which employees can participate in the identification and control of critical (SIFC) risks in their work environments
 - *These may be safe or unsafe conditions, tasks, systems, and routines*

WHO

- All allocated employees in a work team participate in the program, rotationally

WHEN

- Each team will have a safeSENTRY in each shift – a rotational role for all in team to participate
- safeSENTRY observations should be conducted randomly in line with a plan to be compiled by the Supervisor

HOW

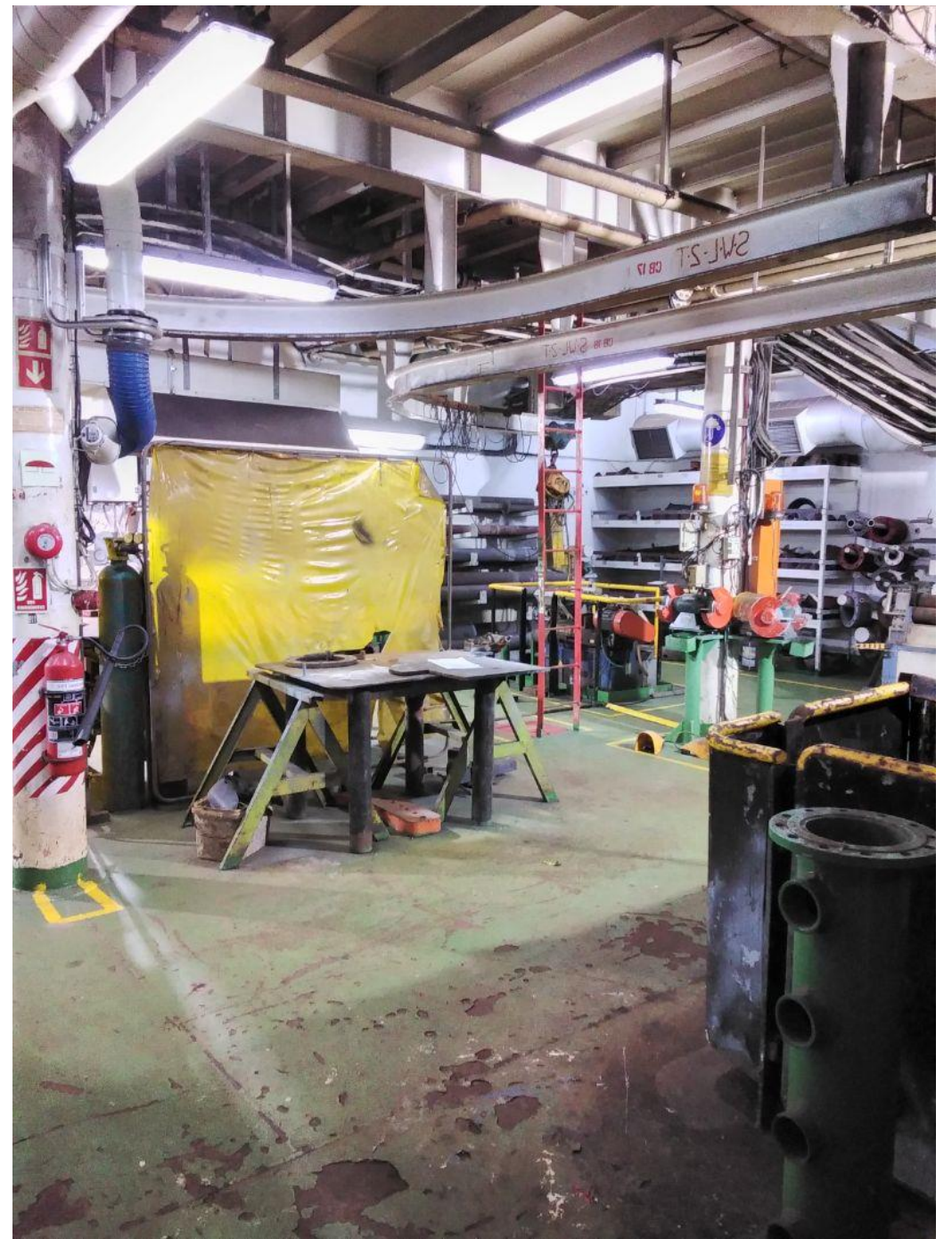
- A safeSENTRY form will be completed for each safeSENTRY 'round'

safeSENTRY process

- A trained safeSENTRY typically tours every shift at least twice
- They observe work which involves high risk and talk with the workers about the work
- They do the following tasks for each observation.
 - Talk to the operators about risk
 - Assess the risk against the 6Y framework
 - Take a photograph
 - Calculate the risk level using the tool
 - Check controls
 - Look for safe practice
 - Look for improvement opportunities
 - Fill in the safeSENTRY card or app
 - Report results at the end of the shift



safeSENTRY





2024/05/18 10:13

Ventilation failures during fire





A man with a shaved head and a goatee, wearing a dark blue pilot's uniform with yellow stripes on the shoulder, is sitting at a desk in an office. He is looking slightly to the left of the camera. The background shows office shelves with books and papers.

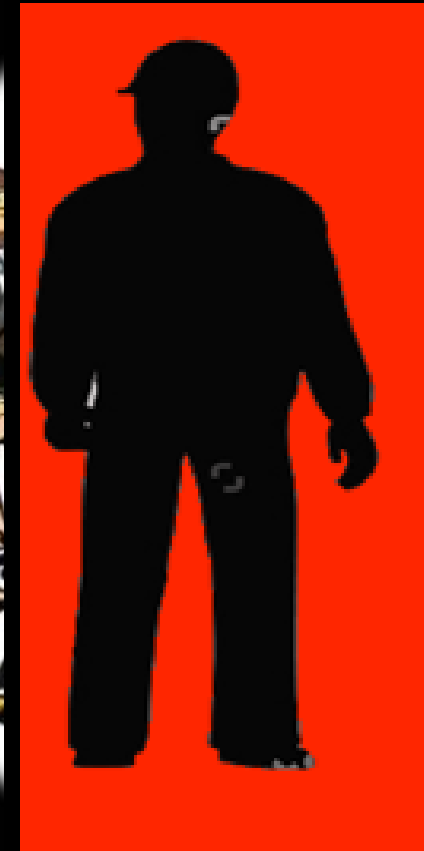
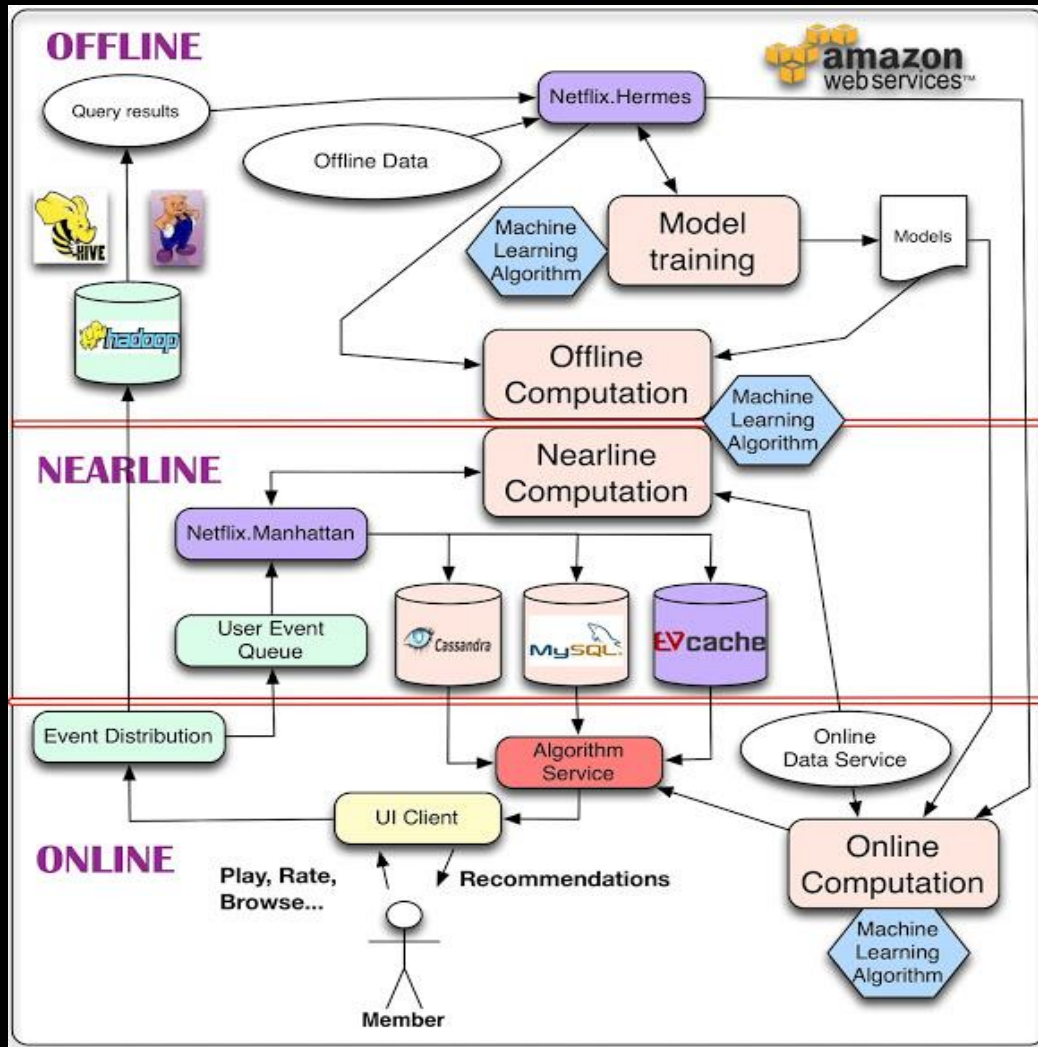
**PREOCCUPATION
WITH FAILURE**

**SENSITIVITY TO
OPERATIONS**

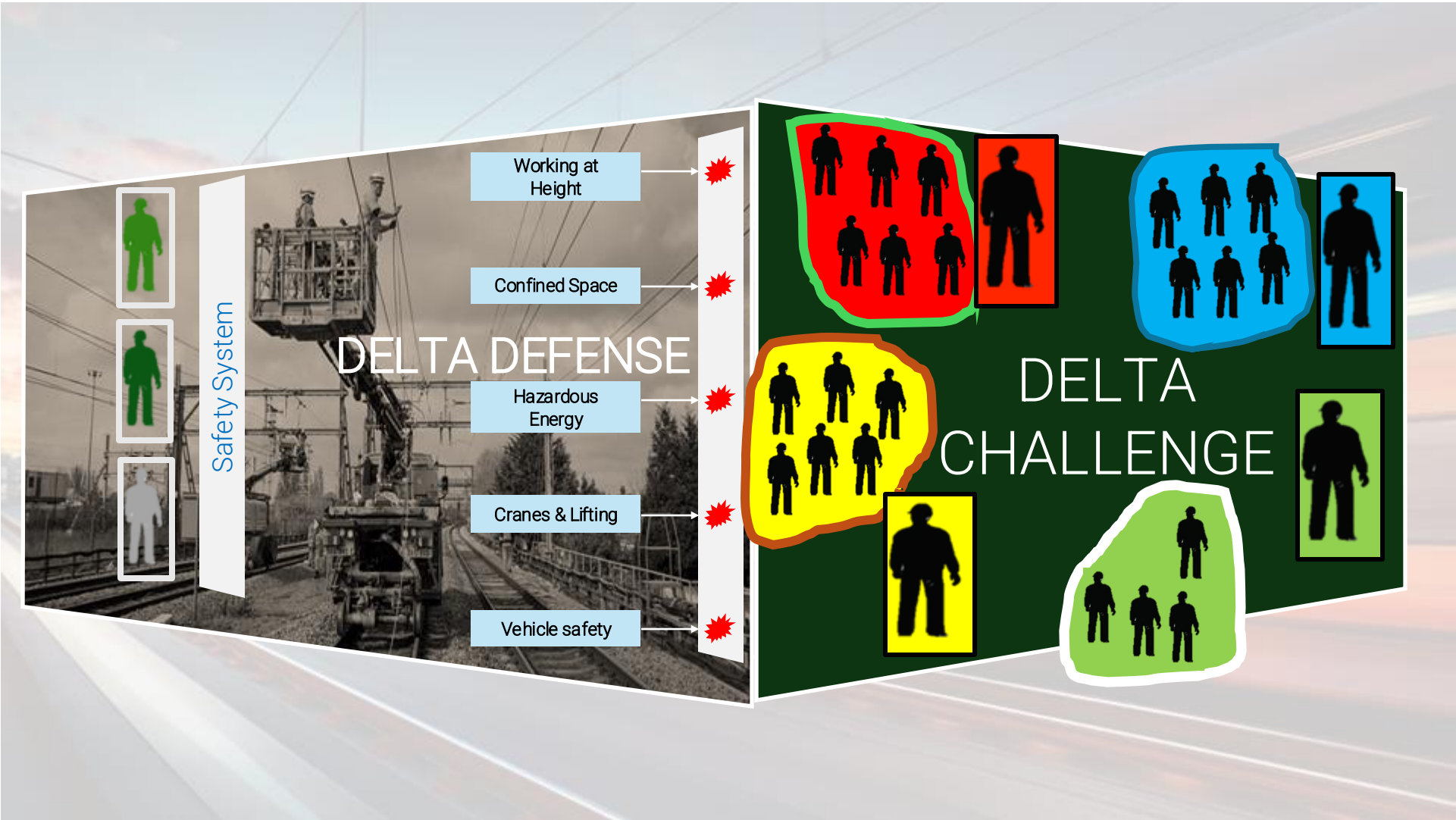
**RELUCTANCE TO
SIMPLIFY**

**COMMITMENT TO
RESILIENCE**

**DEFERENCE TO
EXPERTISE**



DELTA 'challenge'
Teams



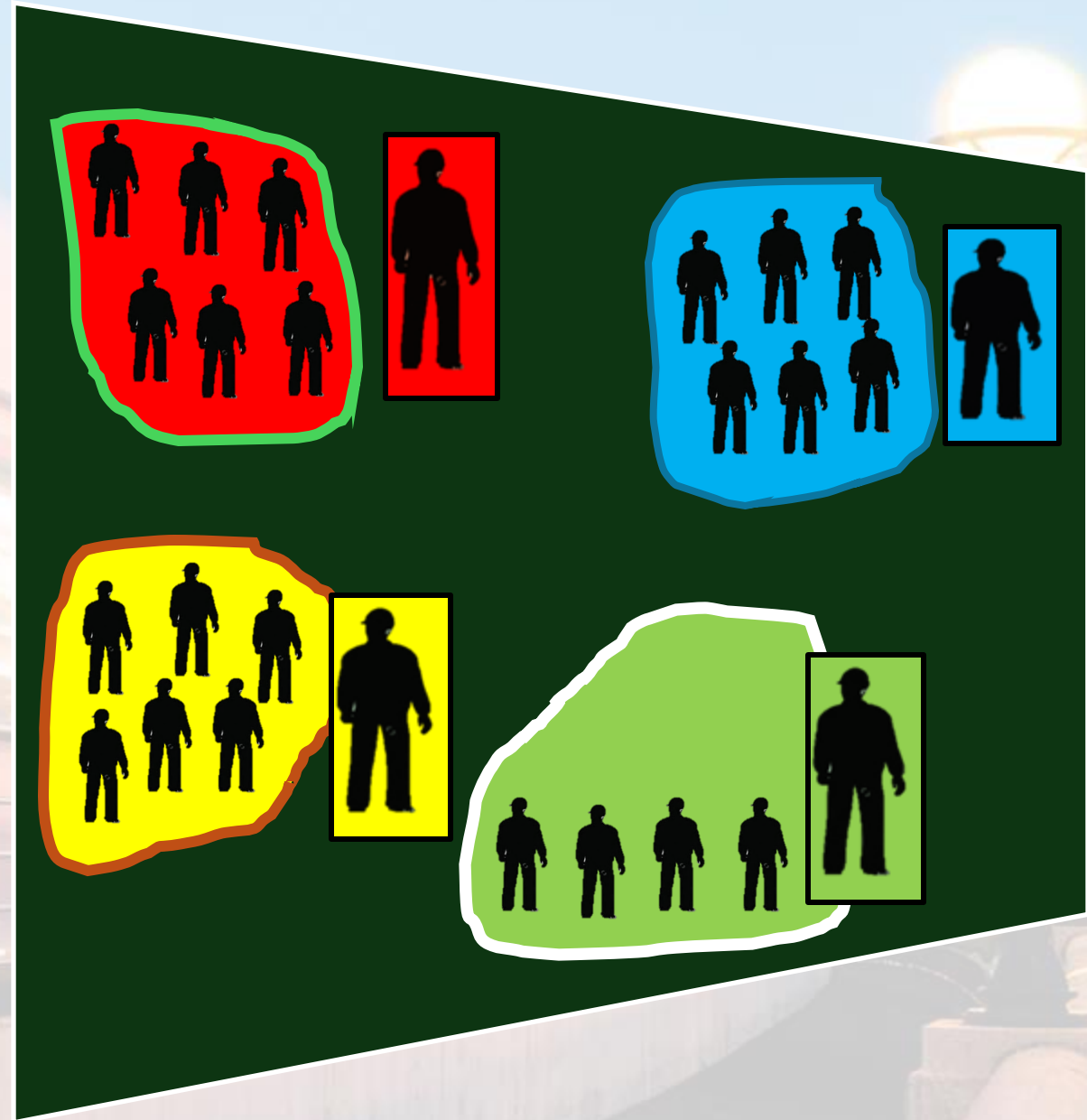


teamYELLOW

teamGREEN

Team engages on what's
going well

Owner



Trust but verify!

regularly
randomly
repeatedly

The Devil
is in the
Details

A magnifying glass with a black handle and a silver rim is positioned over the word "Devil" in the phrase "The Devil is in the Details". The magnifying glass enlarges the word "Devil" and the words "is in the" below it. The entire phrase is written in a bold, red, sans-serif font on a white background.

THANK YOU!

Mark Pergrem

mark.pergrem@safemap.com