



# Introduction to Human & Organizational Performance (HOP) Principles



**FISHER  
IMPROVEMENT  
TECHNOLOGIES**

**Rob Fisher  
President and Director of Operations**

# Rob Fisher & FIT



**Military Experience**  
Chemist / Operator  
Periscope Photographer  
Special Operations Liaison



- **Native-American and Veteran Owned**
- **Over 30 yrs. of consulting experience in performance improvement, human error reduction, safety, and leader education**
- **FIT consultants cumulative over 150 yrs. of industrial experience**
- **Specialties in:**
  - Human & Organizational Performance Deployment & Integration
  - Learning from success & failure / Root Cause / Catastrophic Failure Analysis / Incidents and Near Misses
  - Procedure / Programs / Process Excellence
- **Conducted over 100 successful integration strategies in:**
  - Manufacturing / Heavy Industry / Chemical / Metals / Oil & Gas
  - Utilities / Generation / Transmission / Distribution
  - Construction / Mining / Refining / Engineering
  - Department of Energy / Research
- **Recognized contributor to reduction of fatalities and serious injuries in high-risk industries**
- **Operated in 40 countries and 10 languages**



1975: My Mother



Jeanne  
Marie  
Worthington  
Fisher  
1935-1975



30

Years

40

Countries

>100

Super-Advocates

>300

Companies

>1,000

Certified Trainers

>11,000

Advocates (Practitioners)

I just hope  
you will listen  
for some  
nuggets

>350,000

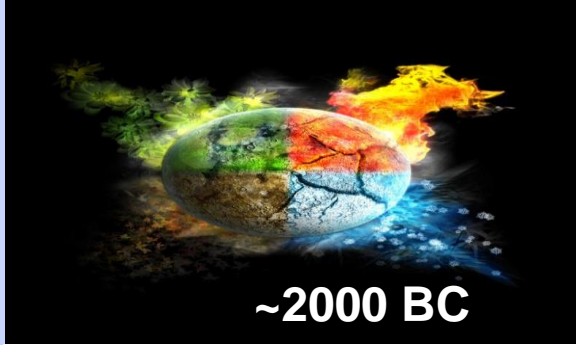
Trained Workforce Members)

>1,000,000

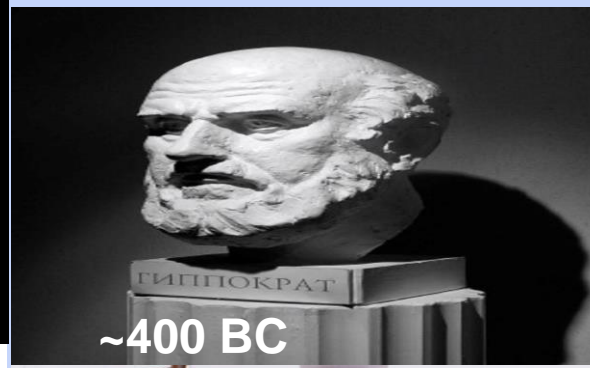
Personality Tendency Data Points

Why am  
I talking  
to you  
today?

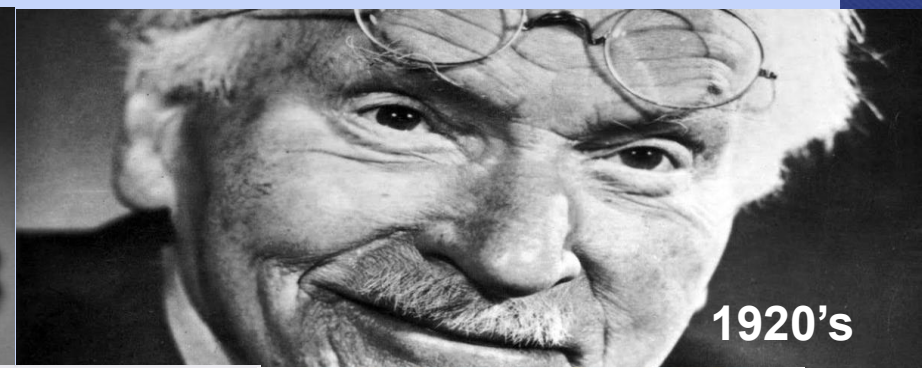




~2000 BC



~400 BC

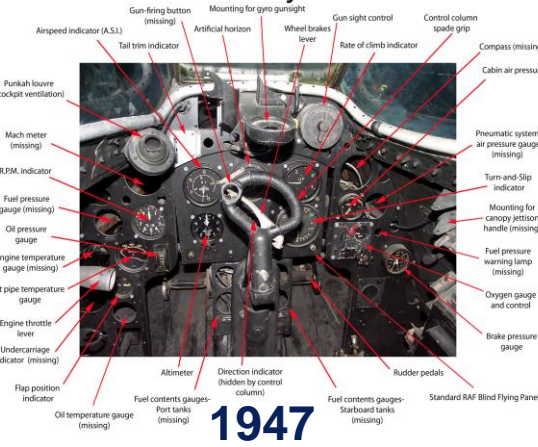


1920's



1940's

### Fitts and Jones' Analysis of Pilot Error



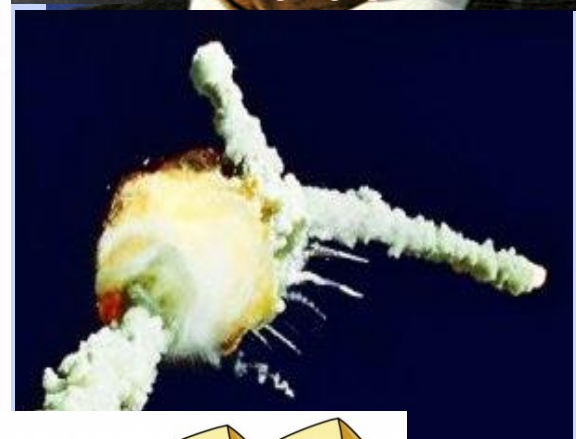
1947



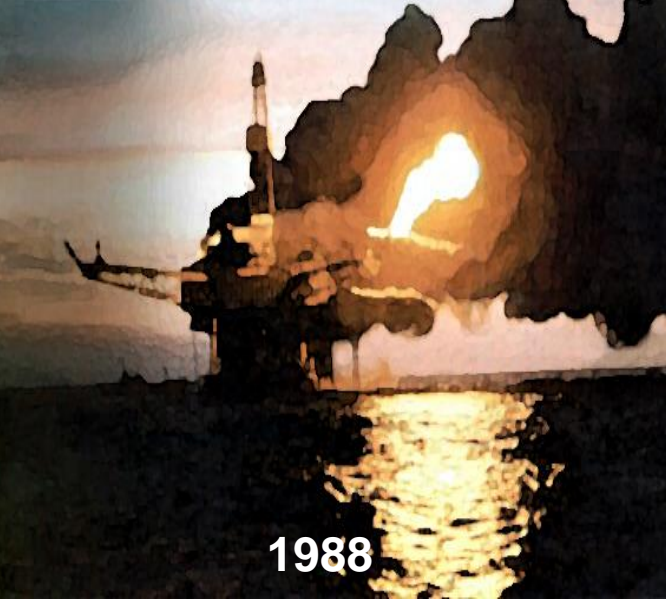
1979



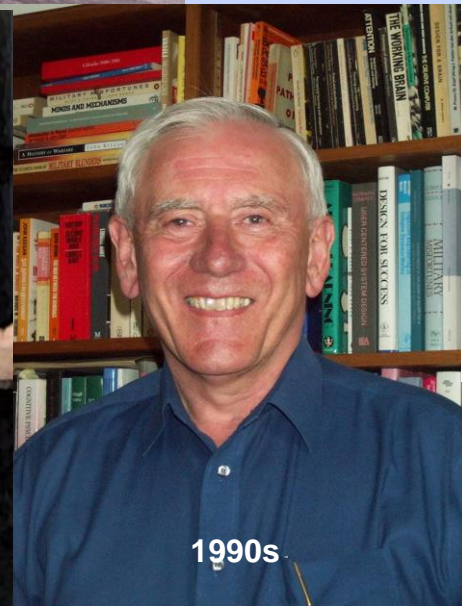
1979



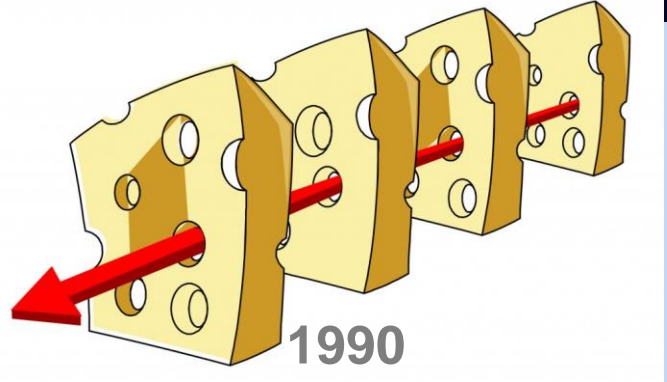
1986



1988



1990's



1990

~1991

# The "HOP" Journey Begins...

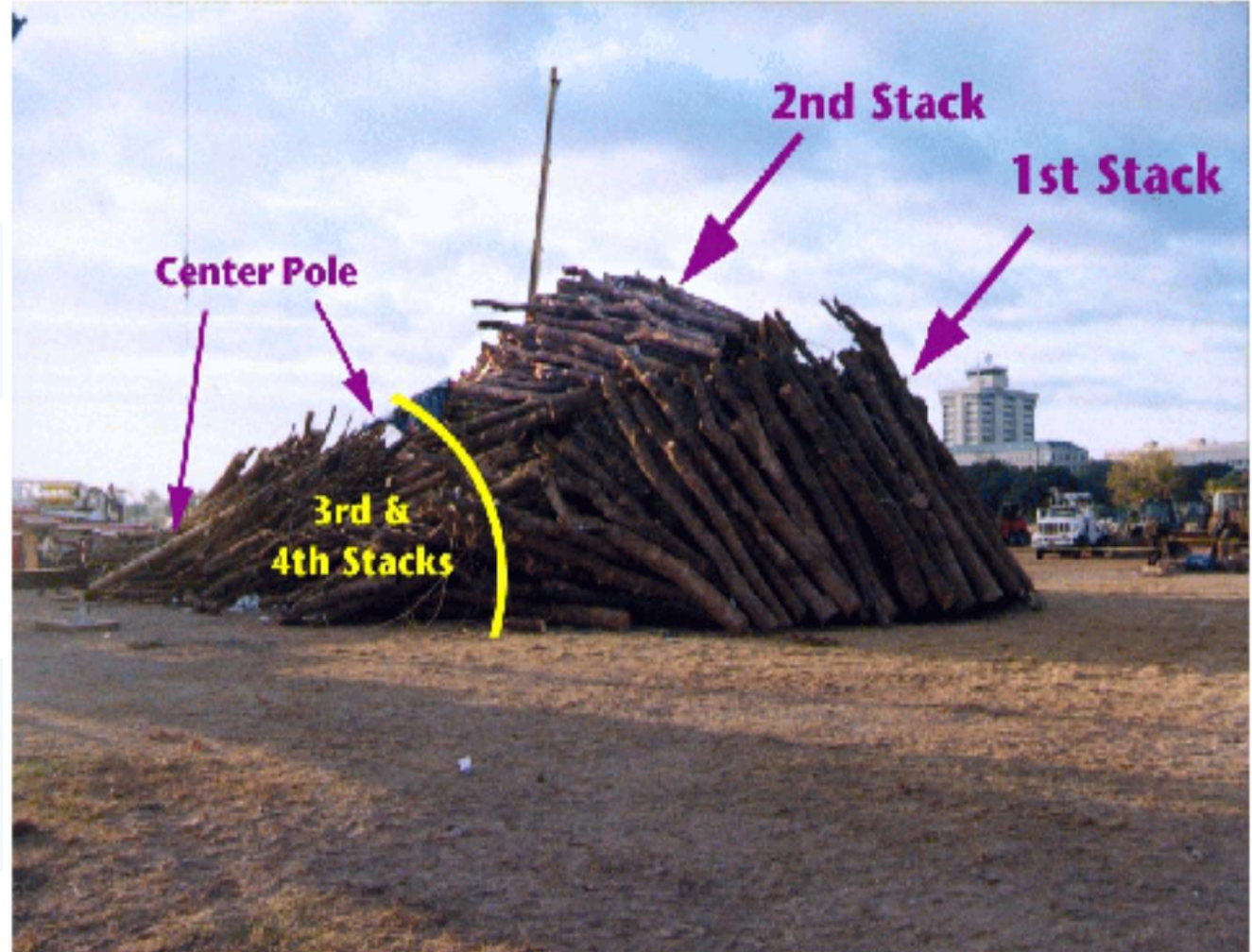
# In January 2000

## I got a call that would change my life!



Photo No. 29

Looking to the West/Southwest  
Bonfire Construction 11/17/99 2:45 p.m.



# In January 2000

## I got a call that would change my life!

### Toughest job I've ever had to do

- NO levity
- Family and friend interviews
- 22,000 pieces of unvalidated data
- All the kids that died were about my kids' age



***Is It Reasonable to  
Believe?***

**A Fair Standard for today?**



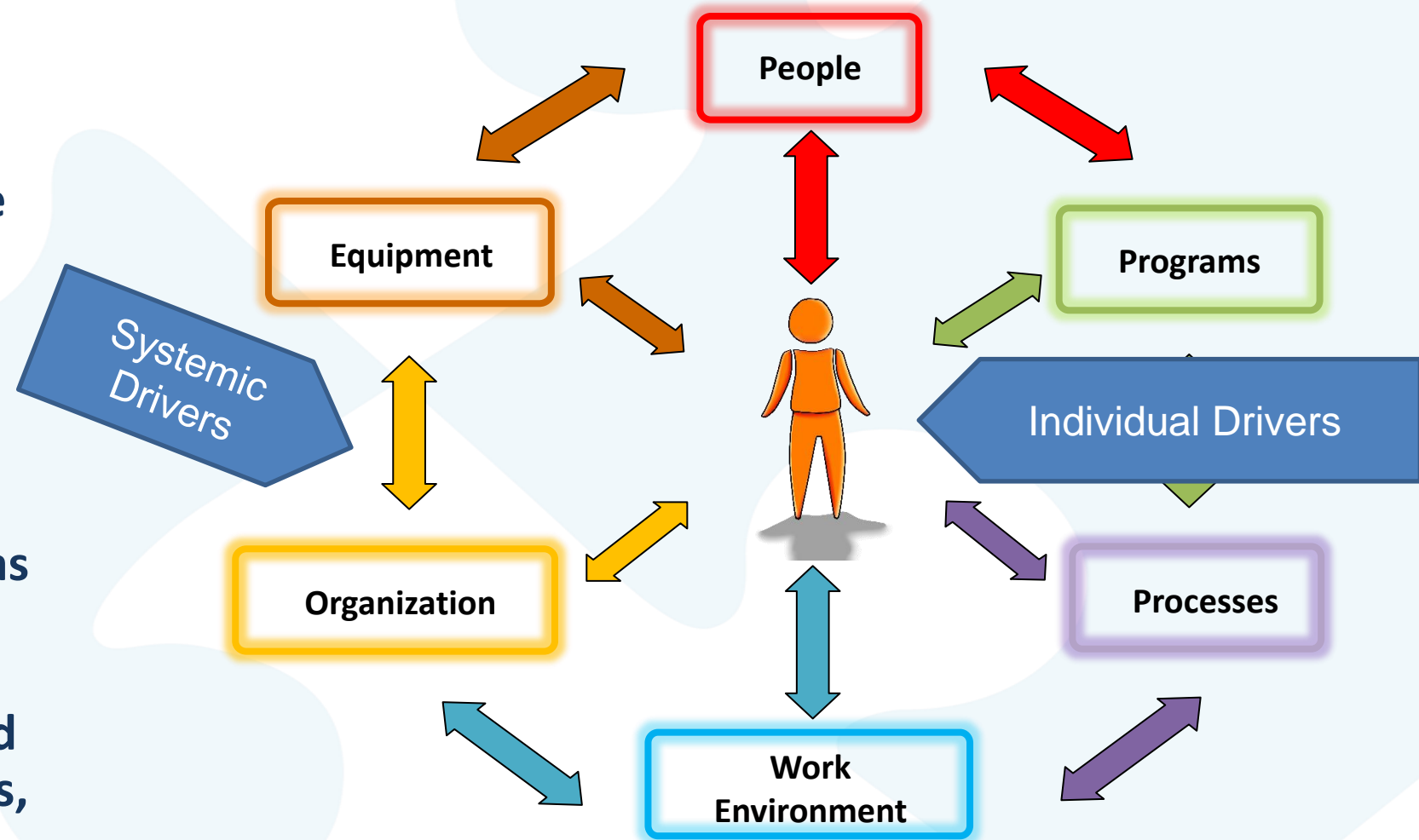
Get Those  
Gears  
Turning!



## HOP Basics

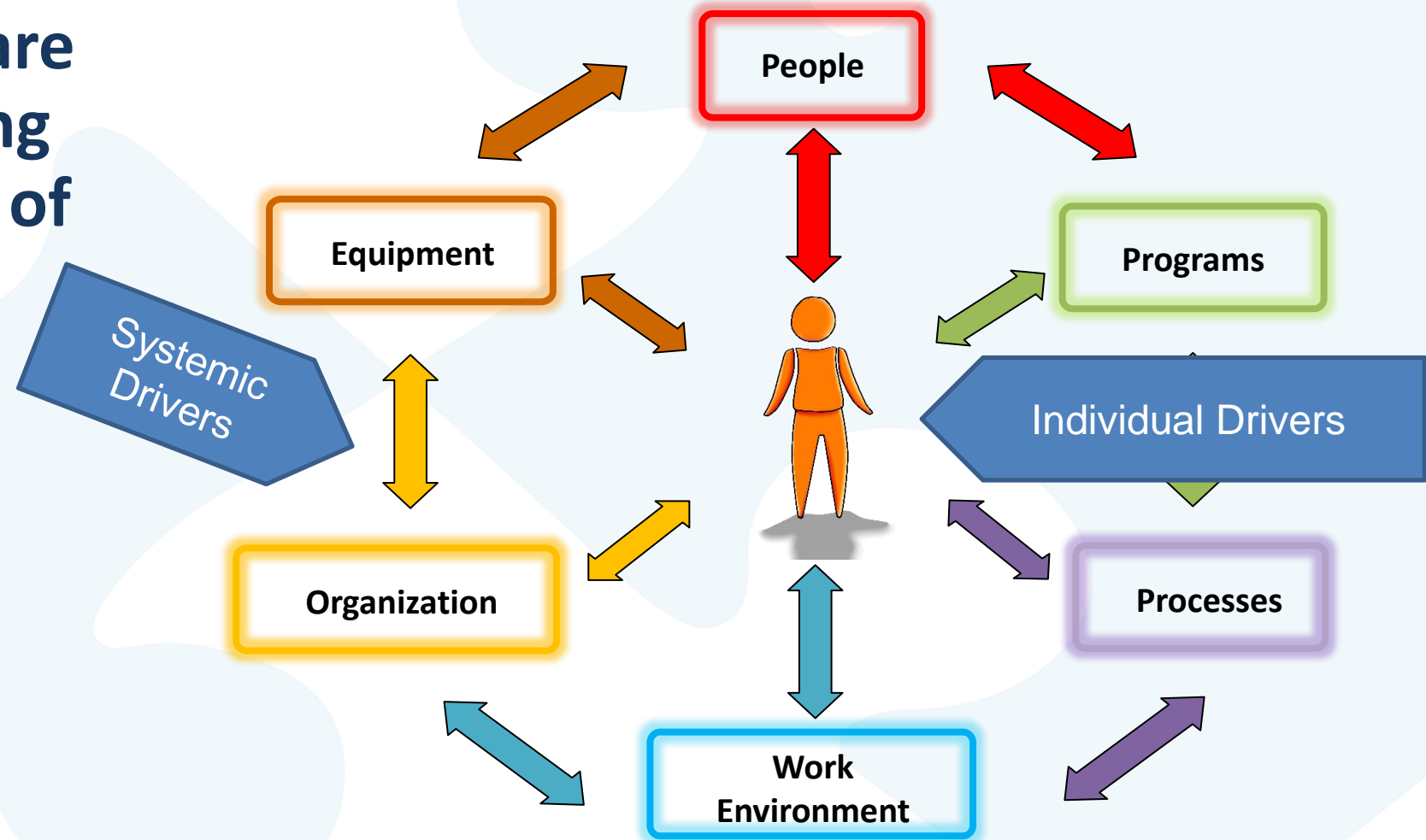
- HOP helps us understand the impact of the Organization, Processes, Programs, Equipment and People on the overall performance of a company.
- HOP strategies allow us to improve the capability and performance of the “human as the lynchpin” in our business model, and as a result error-likely situations are addressed before they become problems, work quality improves, and safety improves.

# The Task-Based System



# The Task-Based System

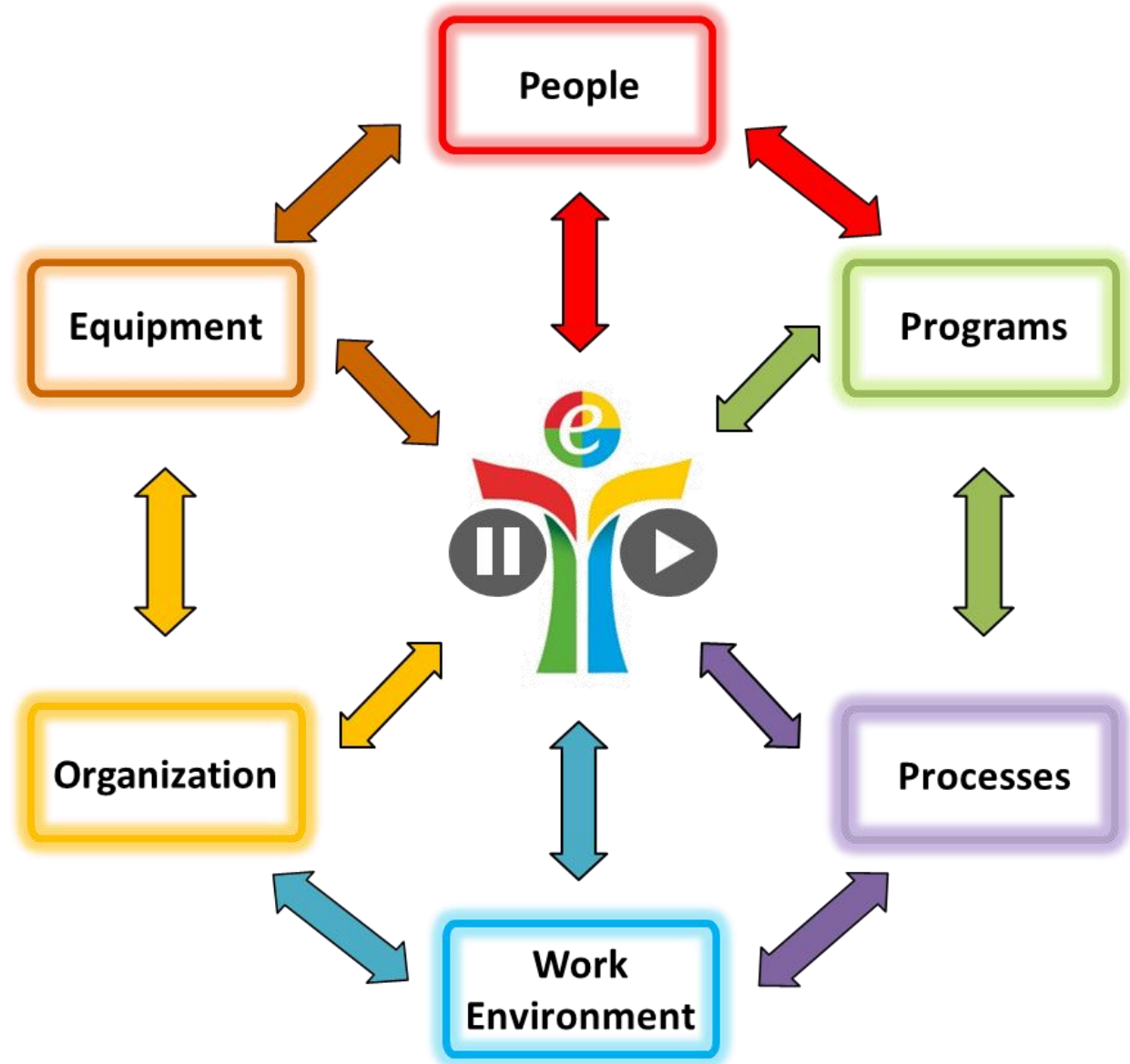
An *INTERDEPENDENT* system where people are aware of and managing the task-based system of People, Programs, Processes, Work Environments, Organizations, and Equipment.



***These are what DRIVE behaviors!***

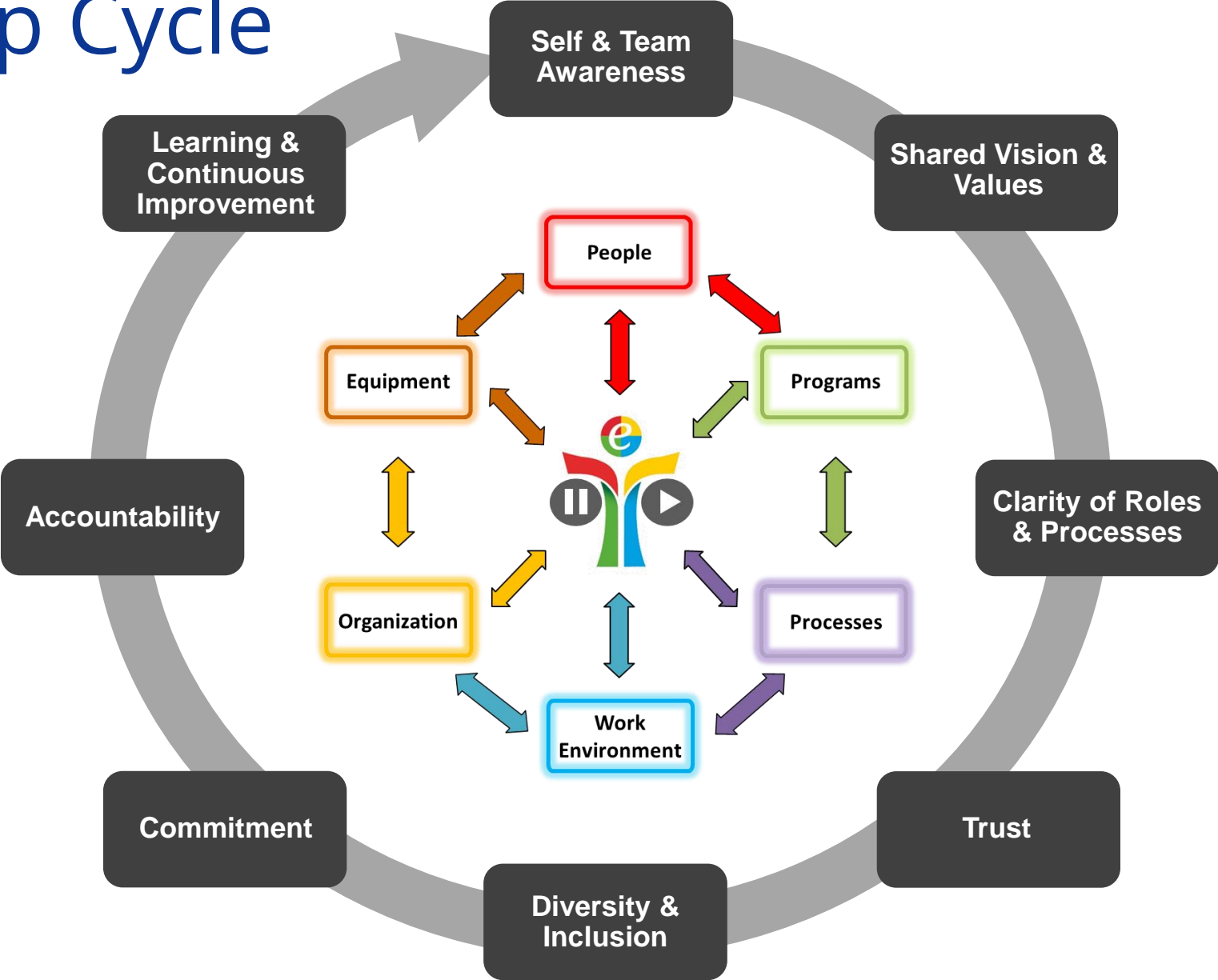
# Systems Connections

*We see and  
manage risk  
based on our  
personality  
tendencies*



# Essential Leadership Cycle

*How an organization controls and manages the task-based system*





Do you know  
**SOMEONE**  
who is



Humans have known for  
over 4000 years that  
different people with  
different but predictable  
personality tendencies will  
behave and see and  
manage risk differently







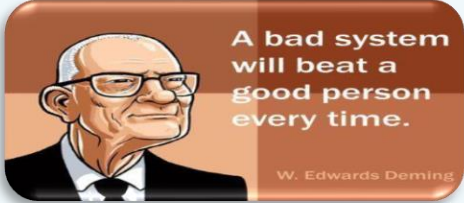
HOP  
Definitions

**true**  
or  
**false** ?

Most problems  
in industry  
are related to  
**Human Error...**

# Some Basic Understandings

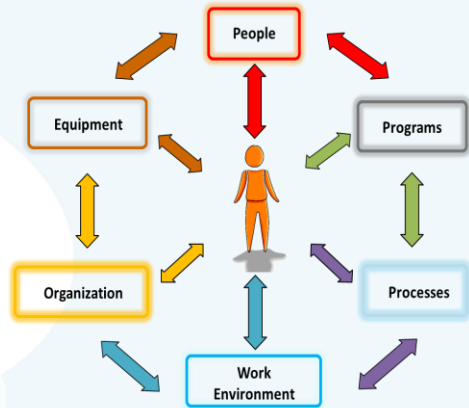
90% of events are caused by something **OTHER THAN JUST** the individual\*



95% of people react very similarly (physiologically) to the same stimuli



People do what they do, at the time that they do it, for reasons that make sense to them at the time\*\*



It is **NOT** common sense!

\* - Derived from "Out of the Crisis", W.E. Deming, 1996

\*\* - Derived from "The Field Guide to Understanding Human Error", Sidney Dekker, 2013

## Science Basis: **Definitions**

### **Error**

An action or inaction that **unintentionally**  
Results in an undesirable or unwanted condition OR  
Leads a task or system out of limits OR  
**Deviates** from a rule, standard, or expectation

### **Event (or incident)**

The undesirable result of an error, a set of errors or a set of conditions

### **Deviation**

Not strictly complying with a rule, standard or expectation

### **Violation**

An action or inaction that intentionally deviates from a rule, standard, or expectation

### **Active Error**

An action or inaction that results in immediate consequence

### **Latent Error**

An action or inaction that results in consequences that are delayed or create latent conditions

We **MUST** learn  
to separate the  
**ERRORS** from the  
**EVENT**

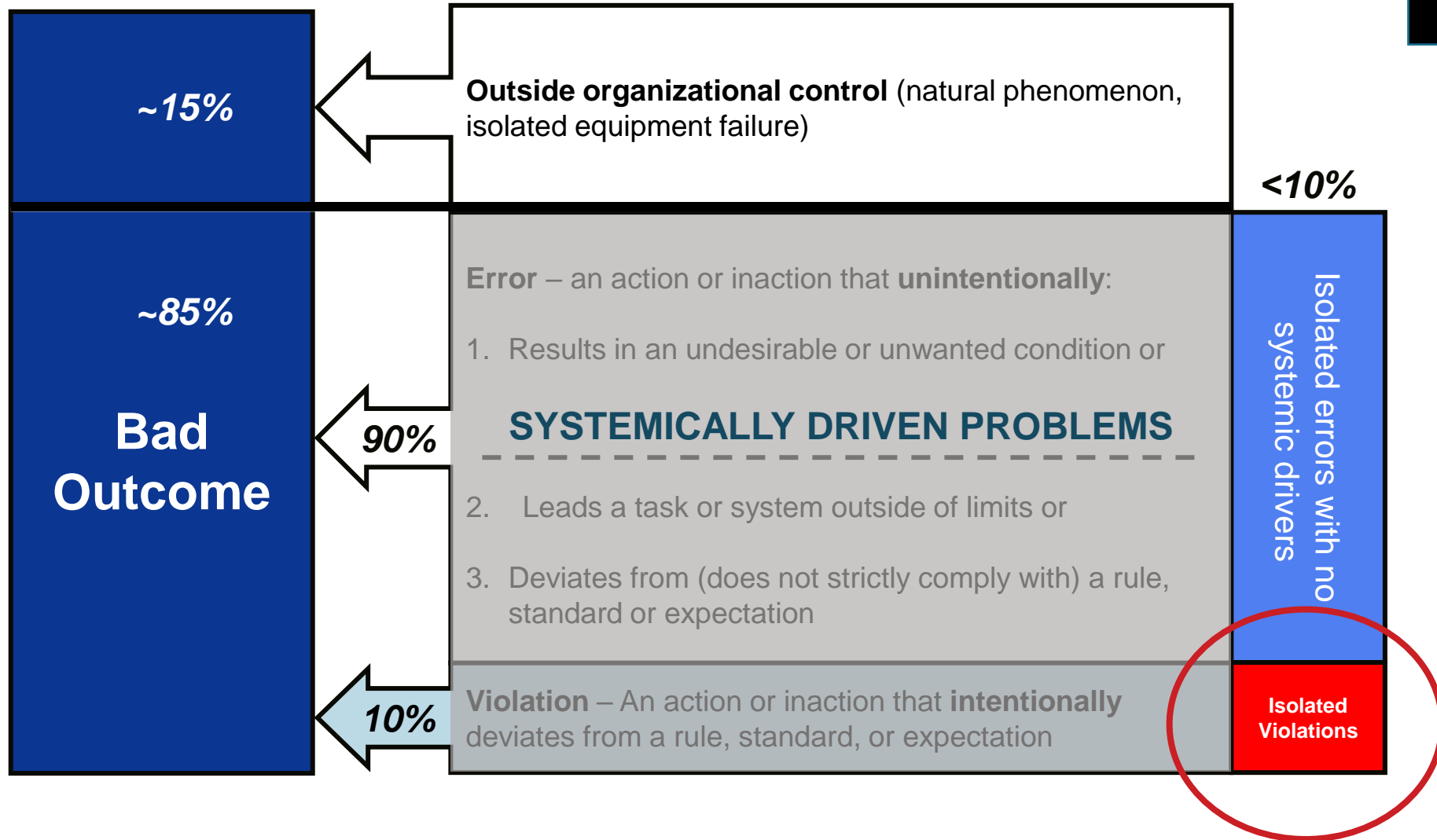
*If **LEADERS** and  
**ADVOCATES**  
don't know the  
definition of  
Error...*

**ERRORS** and **VIOLATIONS**  
are **DIFFERENT THINGS**

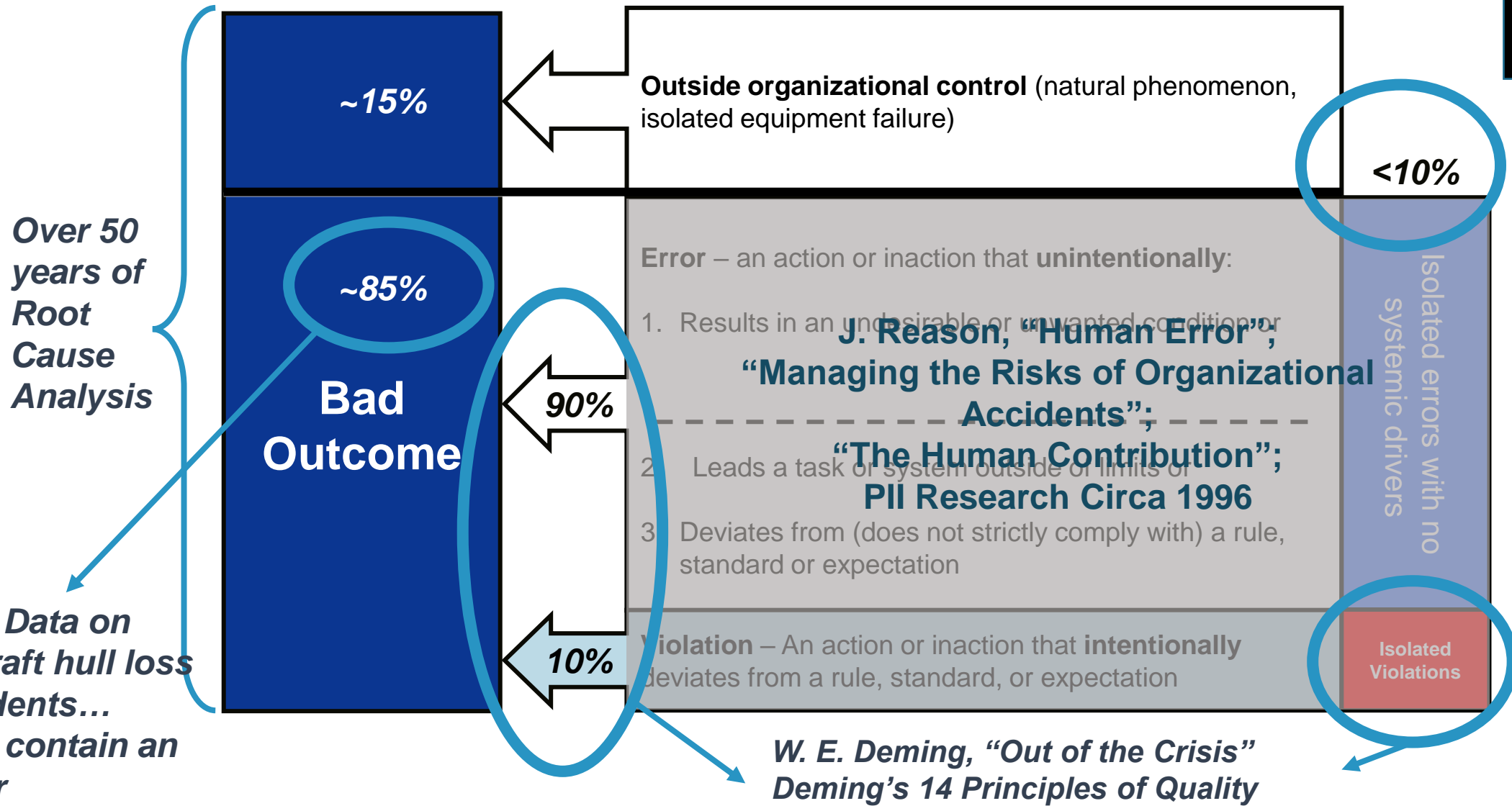
*it is hard to get  
the workforce  
to believe you  
want to help  
them prevent  
them.*

We **MUST** pay **ATTENTION**  
to **ALL TYPES** of **ERRORS**

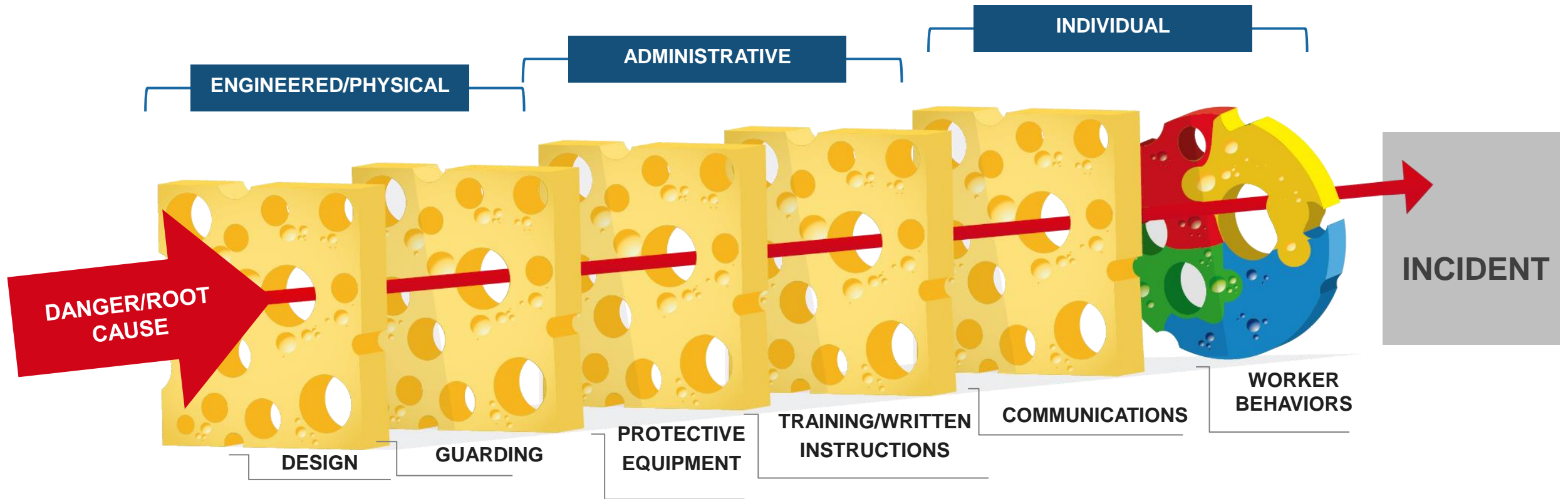
# How Bad Things Happen...



# How Bad Things Happen – References



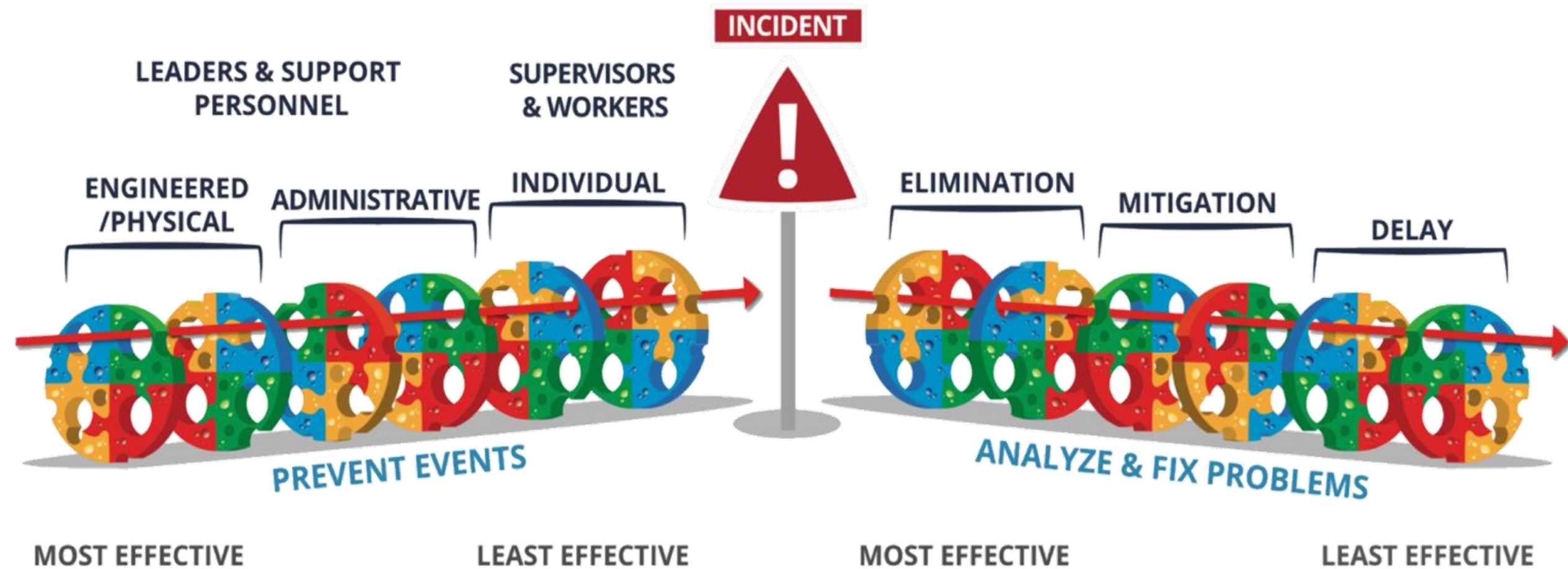
# The Swiss Cheese Model\*



Failed Barriers **CANNOT** be Root Causes

\*Designed after Dr. James Reason's Swiss Cheese Model – Managing the Risks of Organizational Accidents

## HOP: Big Picture Swiss Cheese Model\*



Each layer of protection has individuals that need to be aware of and manage their personality tendencies.



# Performance Modes



Performance Modes  
Relate to...

This **PERSON** on  
This **TASK** at  
This **TIME**

# We are hired to do an OCCUPATION

(operator, mechanic, mobile equipment operator, welder)

**These occupations require us to do JOBS**

Drive Mobile Equipment,  
Perform Lock-out-tag-out  
Operate equipment,  
Weld

**These jobs contain TASKS**

Lock-out-tag-out THIS pump  
**Human Performance**

Drive fork lift into THIS tight place to handle THIS load THIS way

**is about improving our abilities at the TASK and STEP level**

**These tasks contain ACTIONS (Steps)**

Hang locks on each electrical supply

Hang locks on each water supply

Drive lift to see tight place

Load goes into area in truck

# Performance Modes

## Error Rates

- Skill based – habitual tasks – need low or no conscious thought – don't have to think... <7 steps >50 times

**Habits**

**1:1,000**

- Rule based – there is a rule, and the person knows rule exists but does not have to KNOW the rule (we cannot know all of the rules)...

**Process**

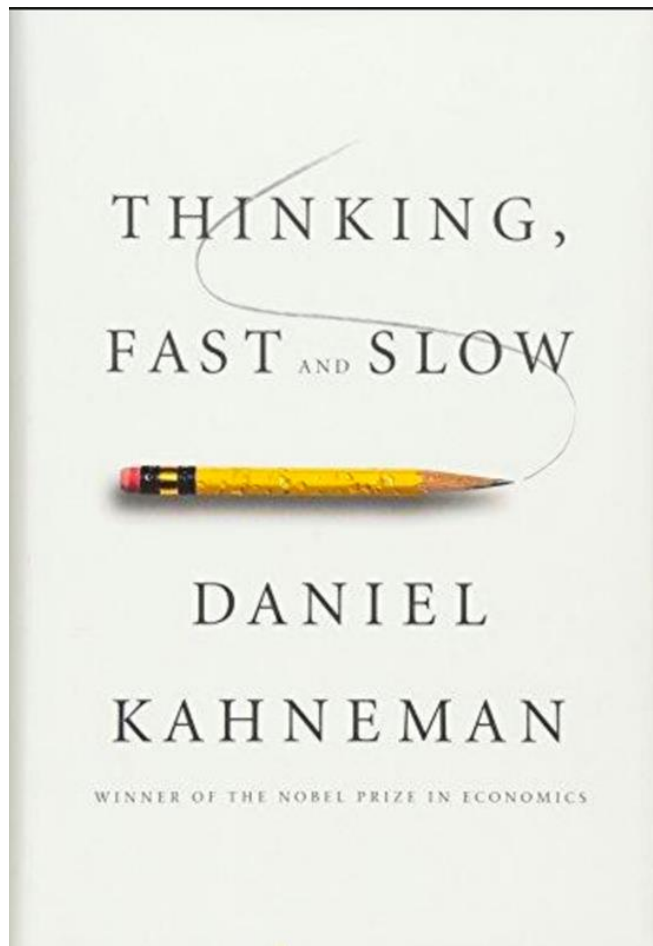
**1:100**

- Knowledge based – The person does not know what they don't know – they THINK they know but have some doubt...

**Gaps**

**1:2 – 1:10 !**

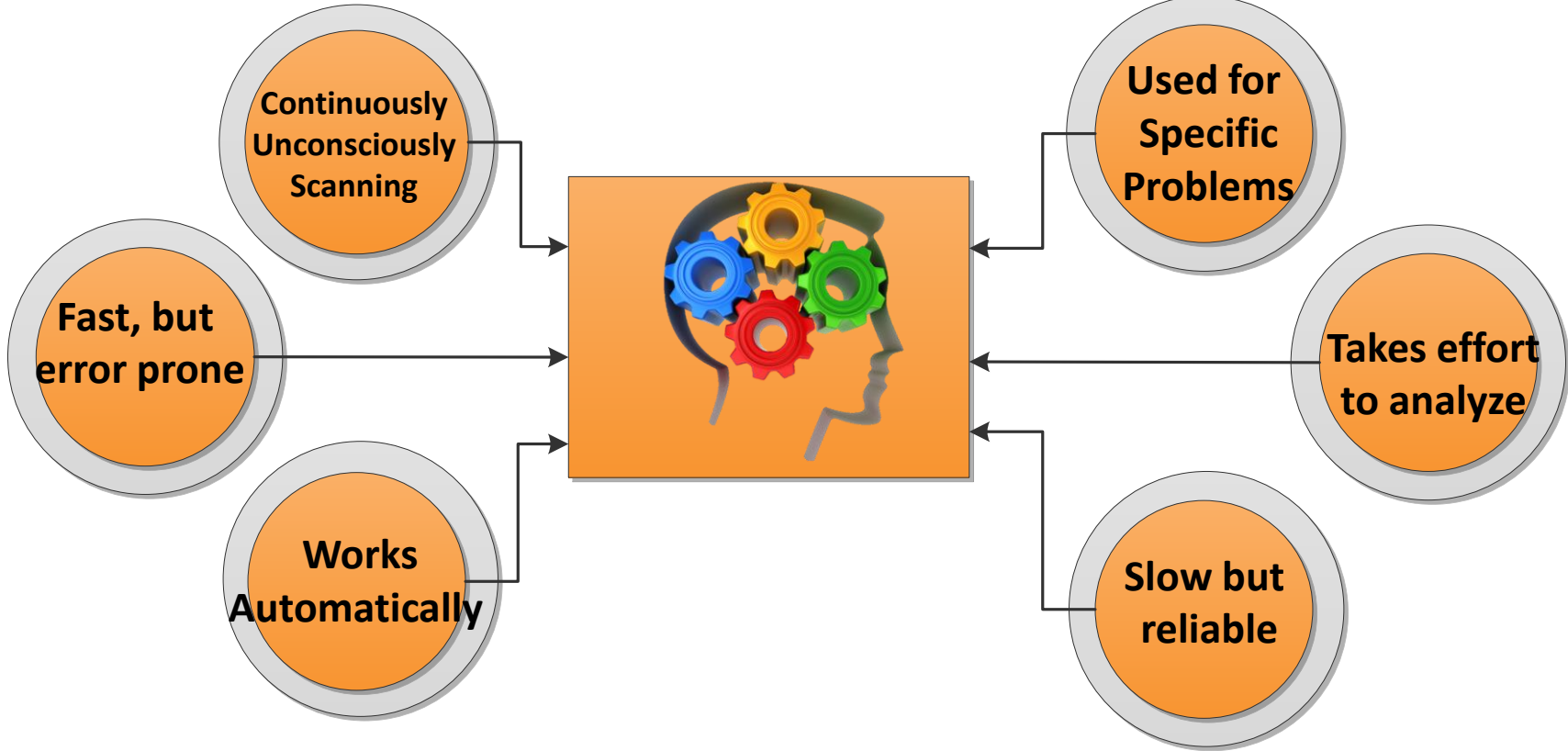
**YOU CAN REDUCE ERROR RATES USING PROVEN TOOLS**



# Thinking Fast and Slow

System 1  
Fast Thinking

System 2  
Slow Thinking



# Triggers



# What are Triggers?

1.

Clues  
Signals,  
Indications,  
Symptoms,  
or Prompts

2.

Observable  
actions or  
reactions  
and should  
“trigger” a  
response

3.

A recognized  
thought or  
individual  
perception

4.

Personality  
Tendency  
driven  
vulnerabilities  
(Internal /  
External)

5.

Utilizing the  
5 senses  
*Smell*  
*Touch*  
*Taste*  
*Sight*  
*Hearing*

6.

The “**6th  
Sense**”- of  
intuition or a  
“**gut feeling**”  
that  
something  
just isn’t right

# OOPPPS as a Trigger

When you find yourself...

“Knowledge-based” situations...

**O**utside  
**O**f  
**P**rocedures,  
**P**arameters,  
**P**rocesses, or the  
**S**ituation  
as you would expect it to be

- Finding yourself in a situation that you are not familiar with, or

- *Where no procedure or process exists*

- Losing track of where you are in a series or sequence of steps

- Troubleshooting

Indicates you are in  
Knowledge-Based Performance mode

# DEFINES UNSURE





## Triggers...

- Scratching Head or chin
- Using terms like...
- “I Think”, “I Believe”, “I’m almost sure...”
- **These Triggers indicate as high as 50% probability of an error!**

# Error Traps



# Top 10 Error Traps

- Stress
- Multi-tasking/High work load
- Time pressure



**All Feel the Same**

- Poor communications
- Vague/poor written guidance
- Overconfidence
- Infrequent or first time task



**Put us in or keep us in Knowledge Based Mode**

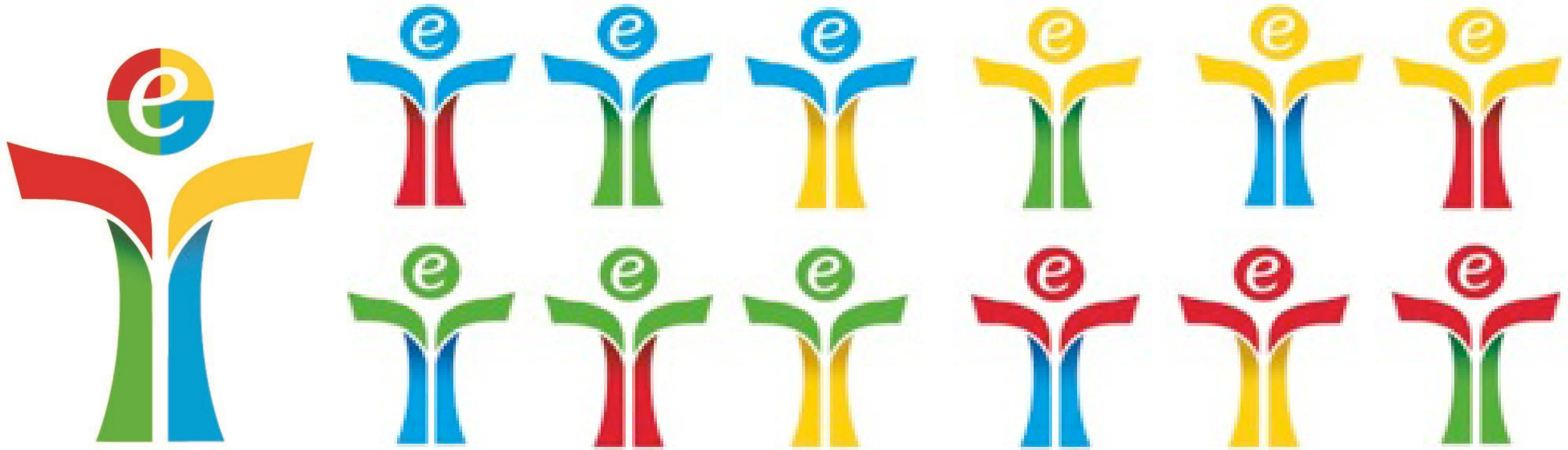
- Distractions
- First working day following time off > 4 days
- The end of work shift or extended hours



**Interact With Other Traps**

**Is it reasonable to believe...**

**Different people with different personality tendencies see traps, feel traps and react to traps differently?**



# Error Reduction Tools



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**Tools help reduce  
the probability  
that  
we will  
make an error**

---

# Error Reduction Tools



Verbalize, Point & Touch  
Step-by-Step  
Stop & Seek Out Help

} Individual

-----  
3-Part Communication  
Pre-Task Brief & Workflow process

} Group

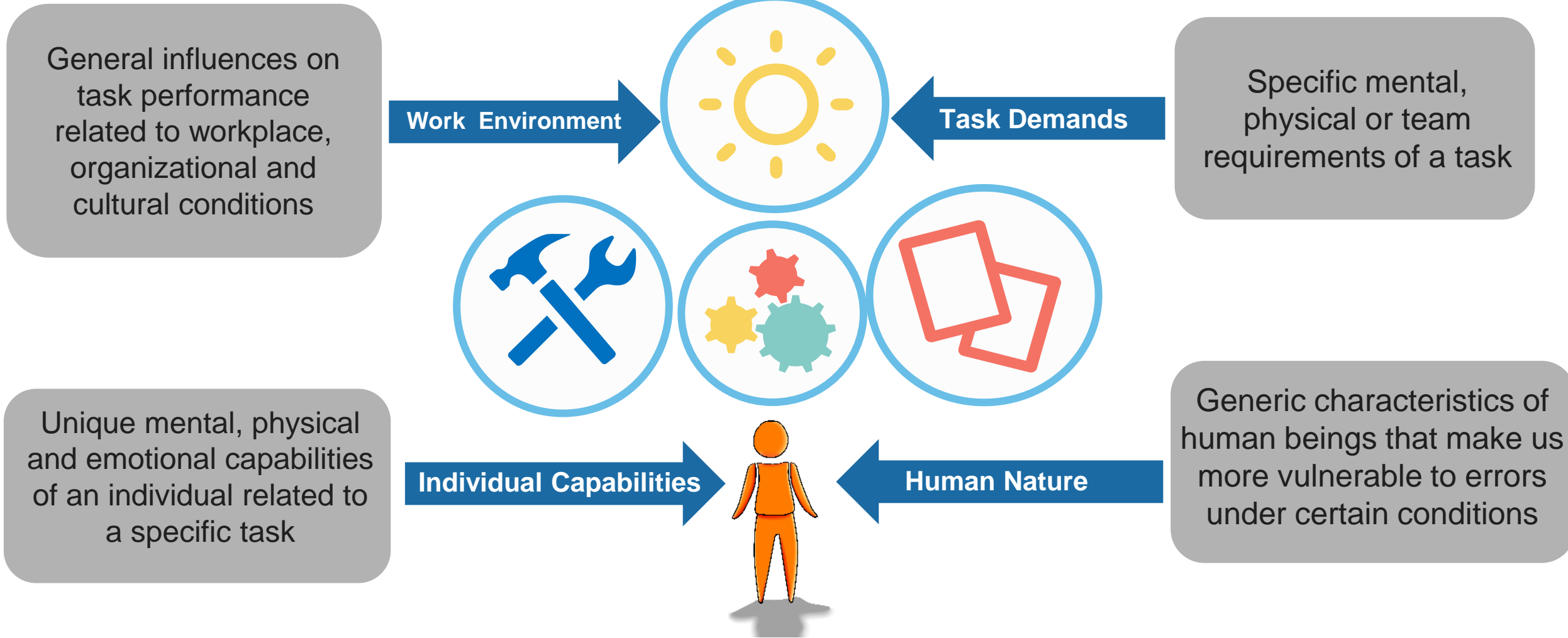
-----  
Show & Tell  
Value & Method based observations

} Leader



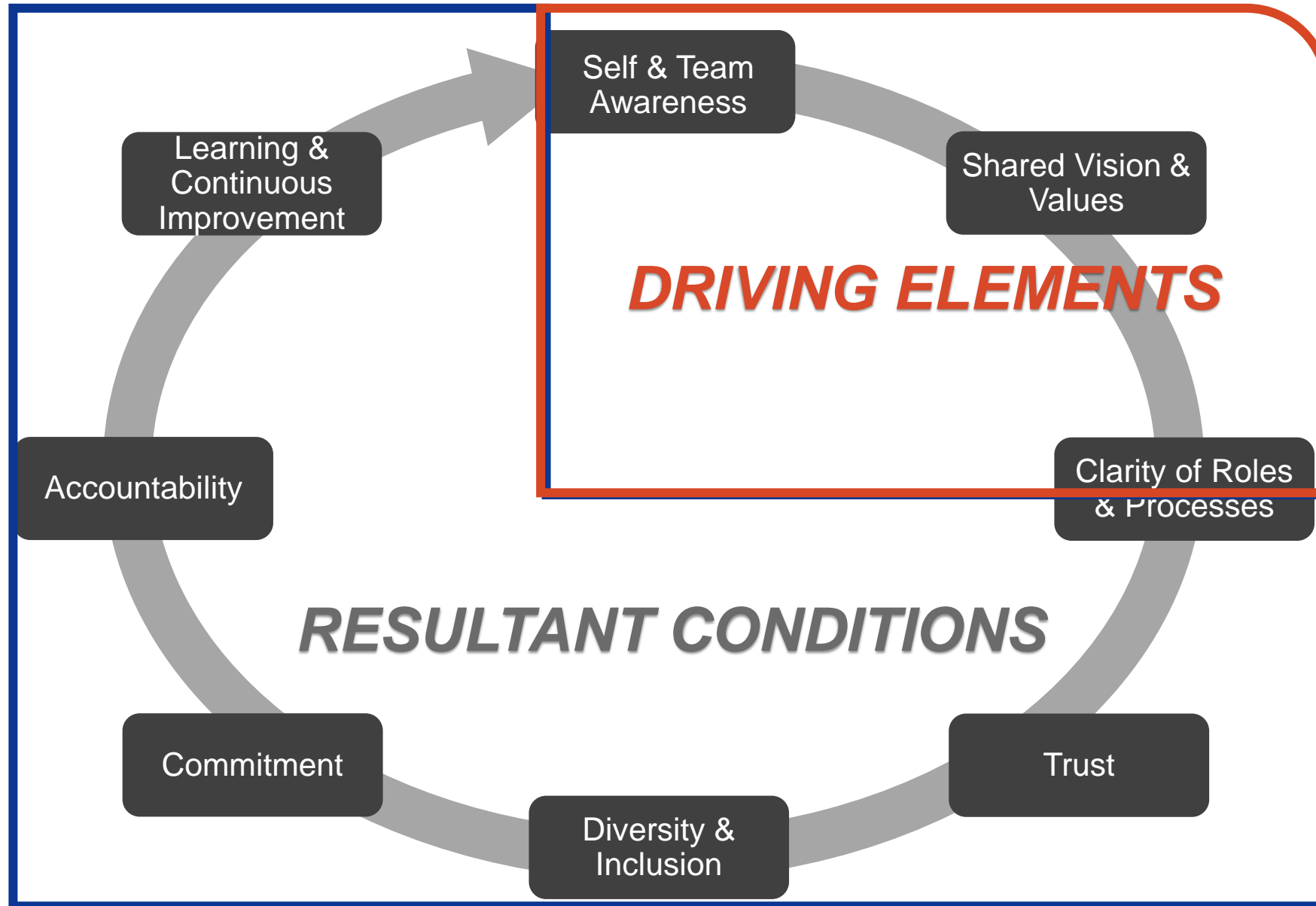
\* Using the right tool the right way in the right performance mode reduces your error rate by a factor of 10.  
Derived from James Reasons creation of GEMS based on Rasmussen's research.

# WITH Model





# The Essential Leadership Cycle



ELC Podcast

# Am I Ready App



APPLE QR Code for “Ready” App



ANDROID QR Code for “Ready” App

The “Am I Ready” checklist provides a less than 2-minute Pre-Task focus for the individual(s) performing a task to consider each of the potential problem areas right before the task begins. It should be done out loud, by the workers performing the task, at the job site.

- Do I understand the task? (If we are not sure what we are to do, we should not be starting the task. Look at the Task-Based System to identify potential risk)
- What personality tendencies may adversely impact the task? (How will I manage these strengths and potential limiters?)
- What error traps and triggers are present? (If a trigger is present, the error rate increases.)
- What error reduction tools will I use? (Use Personal Intervention to use the right tools the right way.)
- What can go wrong? (How can I get into a situation that I shouldn't be in and what am I going to do about it?)
- What's the worst thing that can happen? (Significant credible consequence to people, equipment, or environment)
- What conditions should stop this task? (Identify conditions, consequences, and mitigations.)
- Can I do it safely? (Hazards, PPE, etc., including can I get hurt or hurt someone else?)
- Am I qualified and ready to start work?

# HOP Connections



# HOP Big Picture

- It isn't just about the workers!
- Human (& Organizational) Performance is not a program, it is a new way of thinking, behaving, and integrating practically applied concepts that produce sustainable improvements in Safety, Quality, Effectiveness, Efficiency and Productivity
- Educate the workforce (senior leaders to the floor and contractors) on the connections
- Integrate risk awareness and error reduction and mitigation concepts into company practices and programs
- Make it “how we do business” to create sustainability



# The difference between *Empowering* and *Enabling*

*Empowering* - Telling someone they can or should do something, and establishing the systems to make that happen

*Enabling* - Ensuring they have the individual capabilities to match the task demands and all of the tools needed to be successful

To change someone's paradigm, you have to give them a new one that makes more sense than the one you are asking them to leave!

S. Dekker



## 4 Things to Keep in Mind...

1. Know your **WHY** – When times get tough, that's all that matters
2. Learn **WHAT** to do then do it – What works and what doesn't; and what to do about it
3. Learn **HOW** to do it – If you keep changing the method people will eventually just stop doing it
4. Know **WHO** to go to – For advice and help; and in your organization for leadership

# Thank You!

*Rob Fisher*  
Linked 

Questions?



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