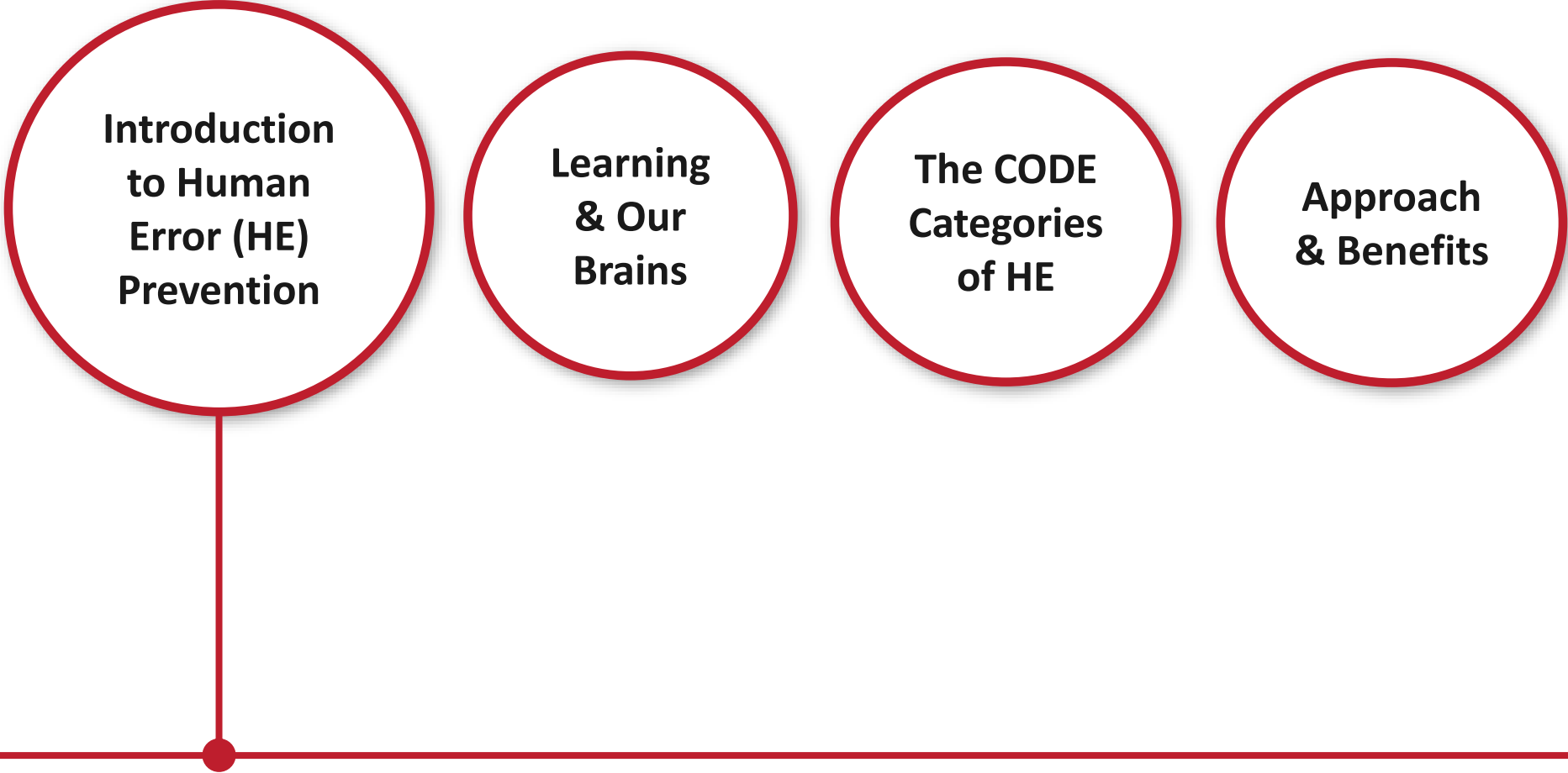




Enabling Safety & Quality Culture through Human Error Prevention

Presented by

Maria Ryan & Christy Murphy
Crystal Lean Solutions



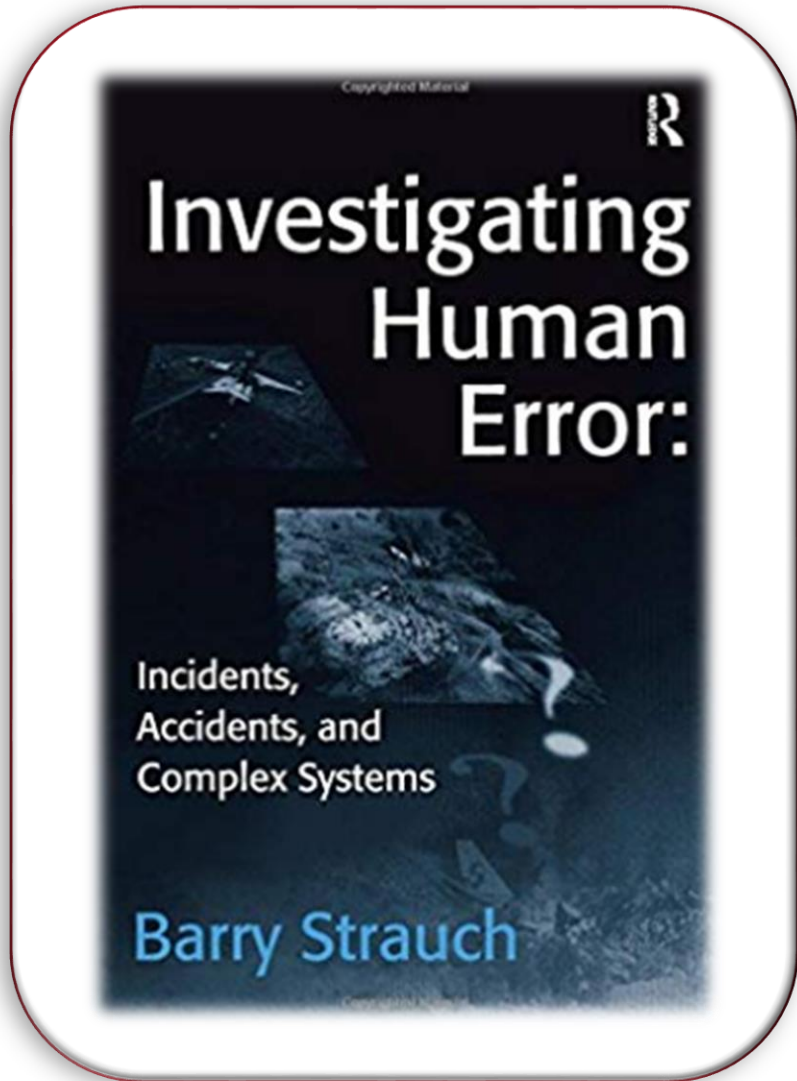
**Introduction
to Human
Error (HE)
Prevention**

**Learning
& Our
Brains**

**The CODE
Categories
of HE**

**Approach
& Benefits**

Human Error Defined



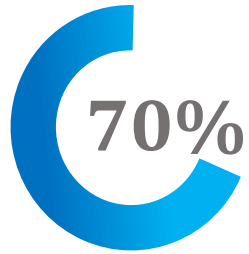
Definition

“An action or decision that results in one or more unintended negative outcomes

Strauch, 2004

Assumptions

- Nobody wants to make an error at work
- Everyone does best with available resources



Of all Airline Accidents

44,000  96,000

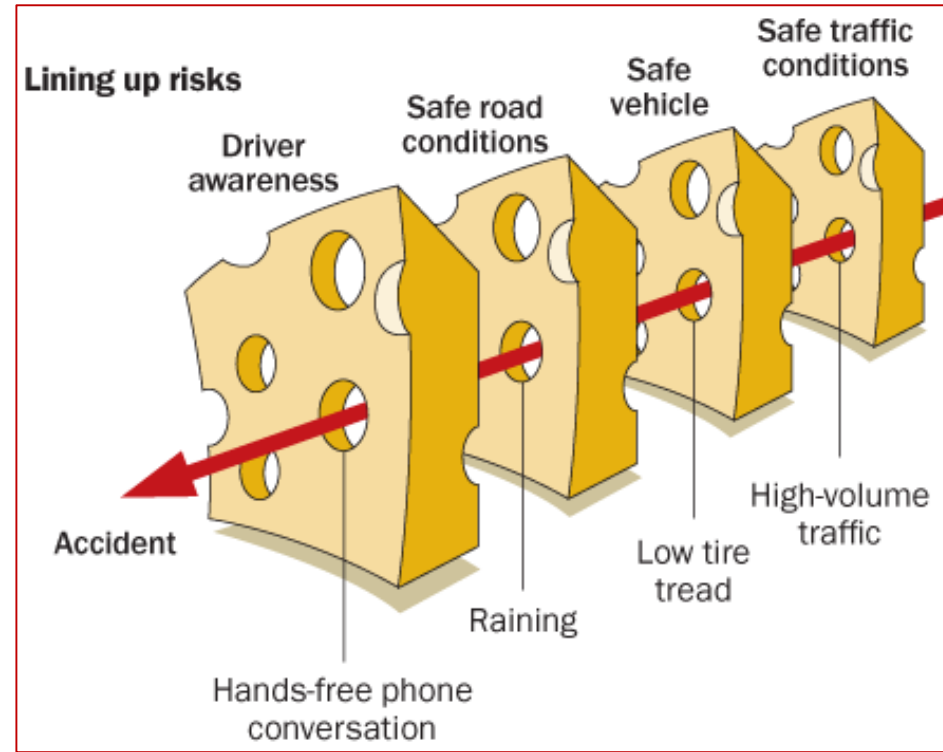
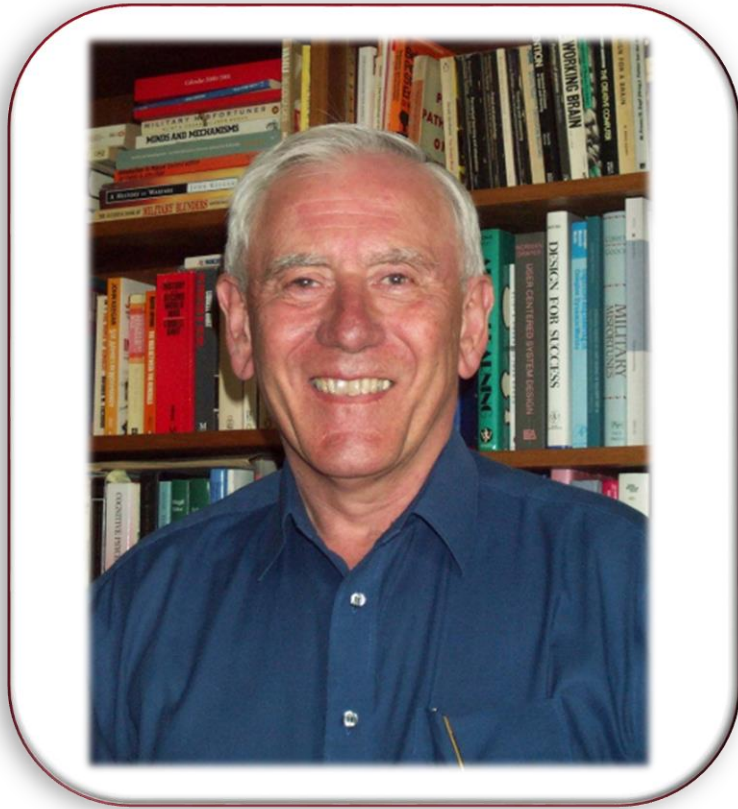
People Die in US Hospitals Annually

€60M



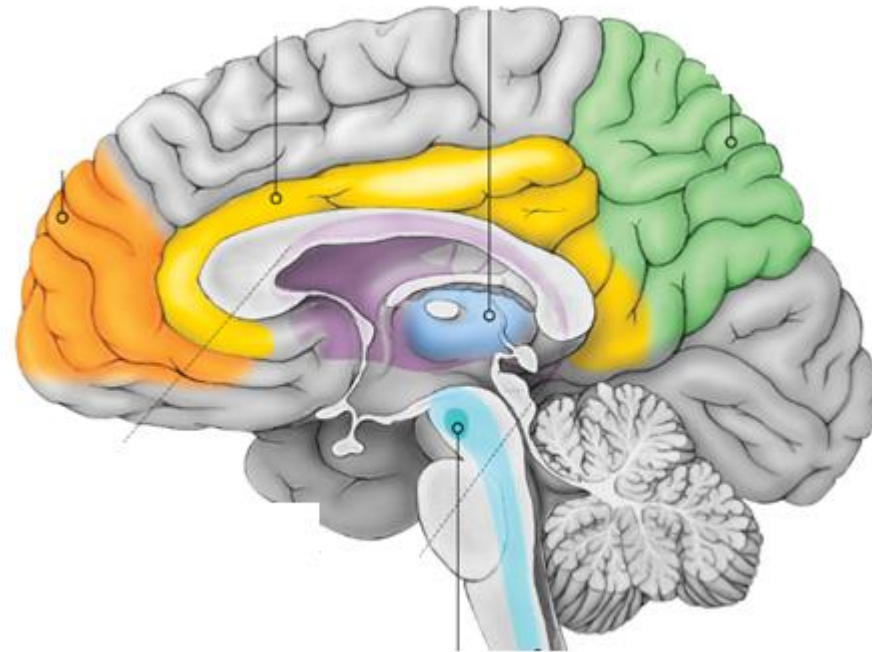
Annual Cost, in a company
of 100,000

Origins of Human Error Prevention



“Workplaces and organizations are easier to manage than the minds of individual workers. You cannot change the human condition, but you can change the conditions under which people work.”

Dr. James Reason



Starting Point

RAS – Reticular Activating System

Filter

End Point

Cerebellum

Sub Conscious Memory

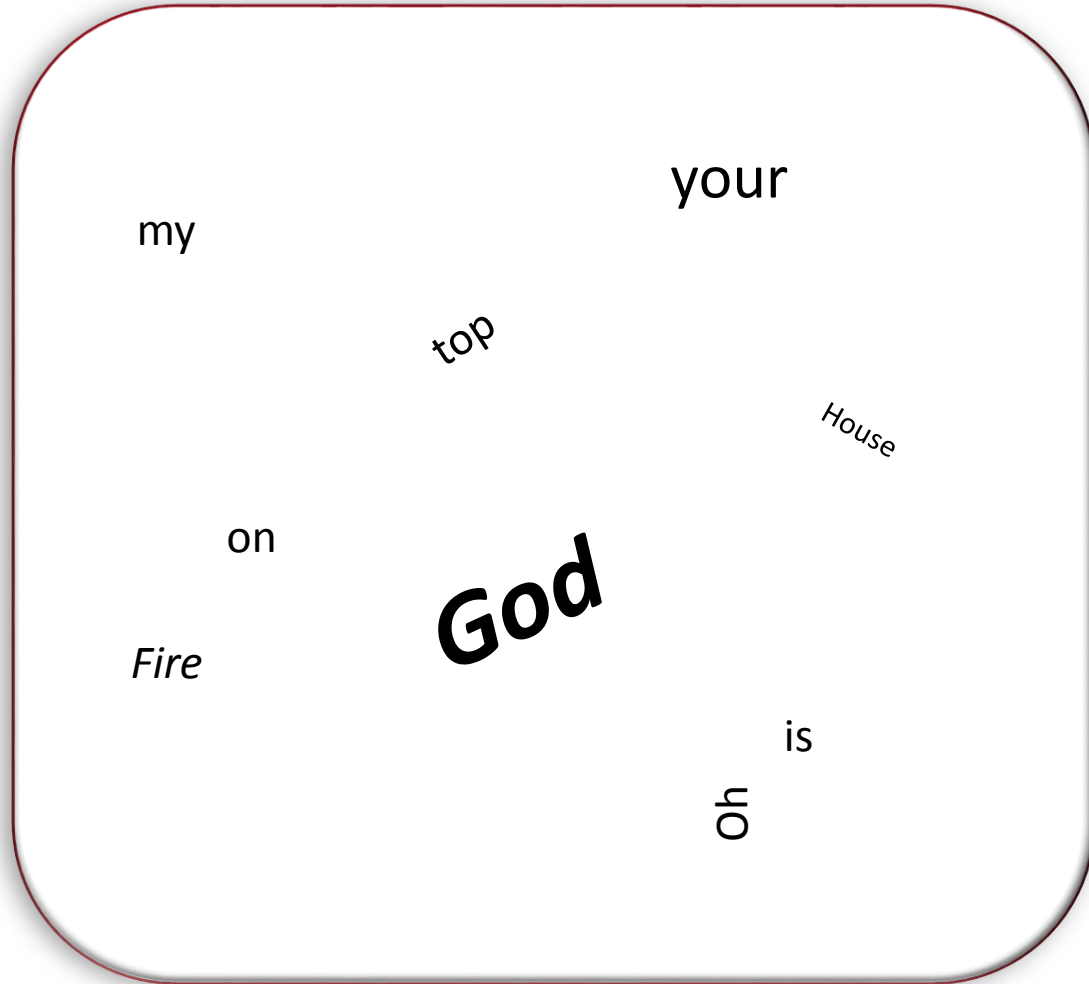
Hemispheres

Left Hemisphere: Logic & Reason

Right Hemisphere: Creativity & Imagination



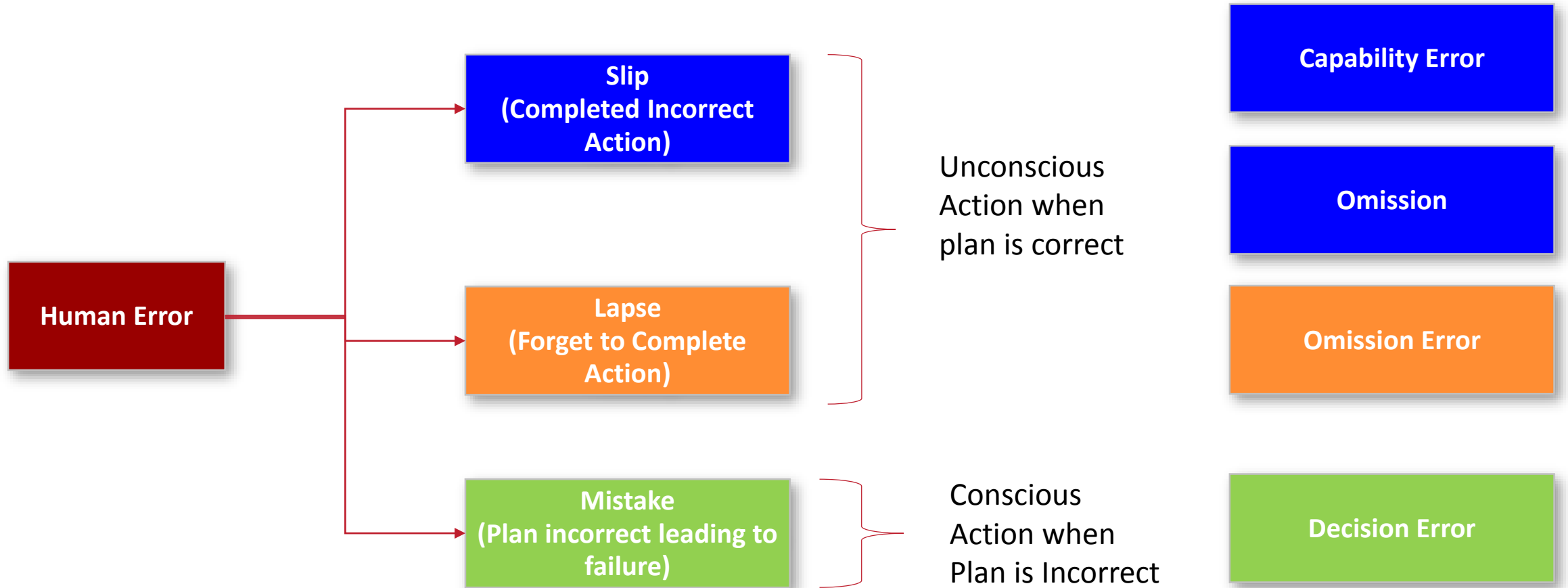
Example of Left and Right Brain in Action



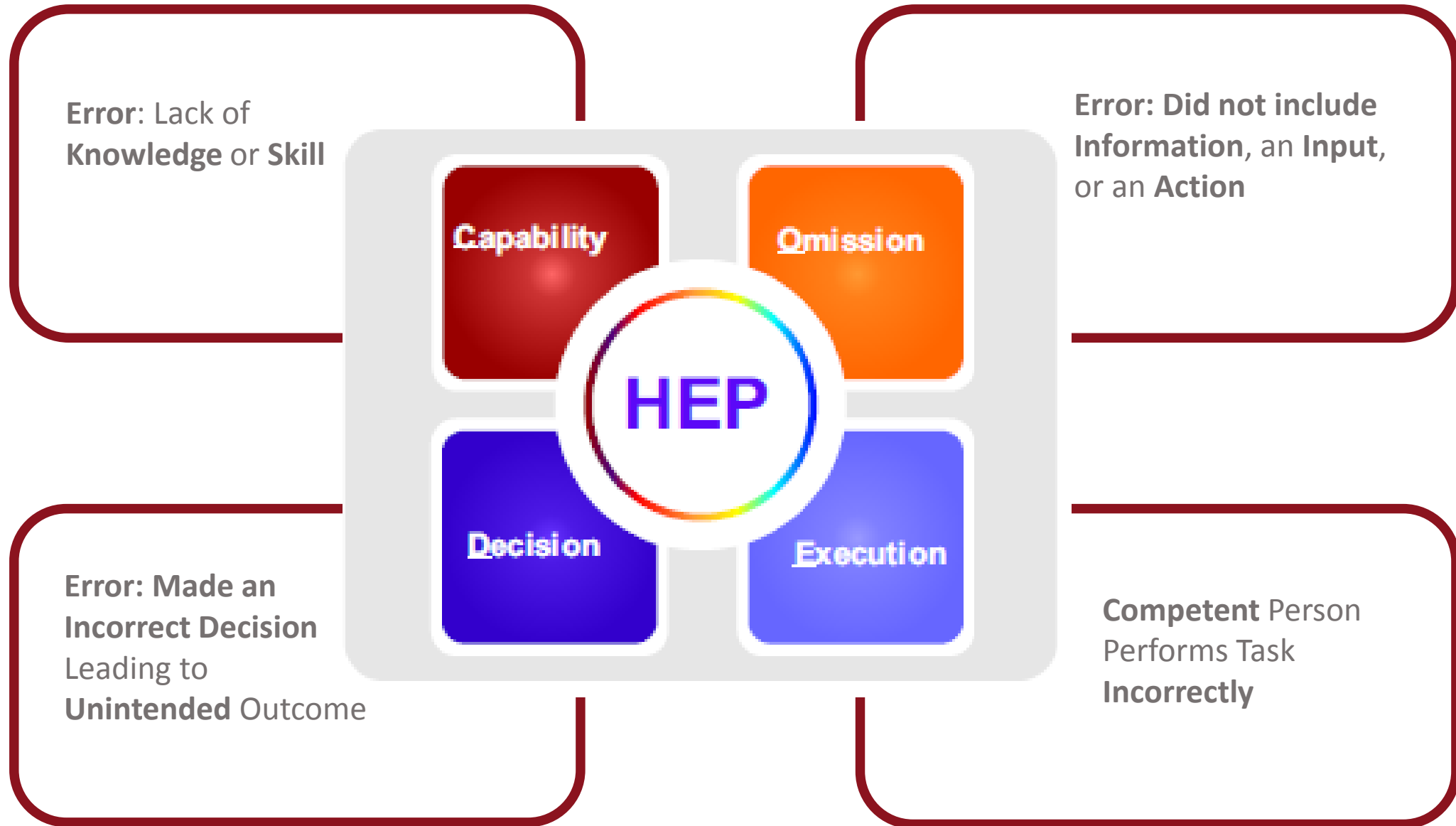
"It doesn't matter in what order the letters in a word are, the only important thing is that the first and last letter be at the right place. The rest can be a total mess and you can still read it without problem. This is because the human mind does **not** read every letter by itself, but the word as a whole.

. . . Our Brains Will Fill in the Gaps!

Error Types



Dr. James Reason



Capability Human Error – Scenario Planning



**January 15th 2009: US Airways Flight Airbus A320 land in Hudson River
All 155 Passengers survive**

Omission Error – Distraction



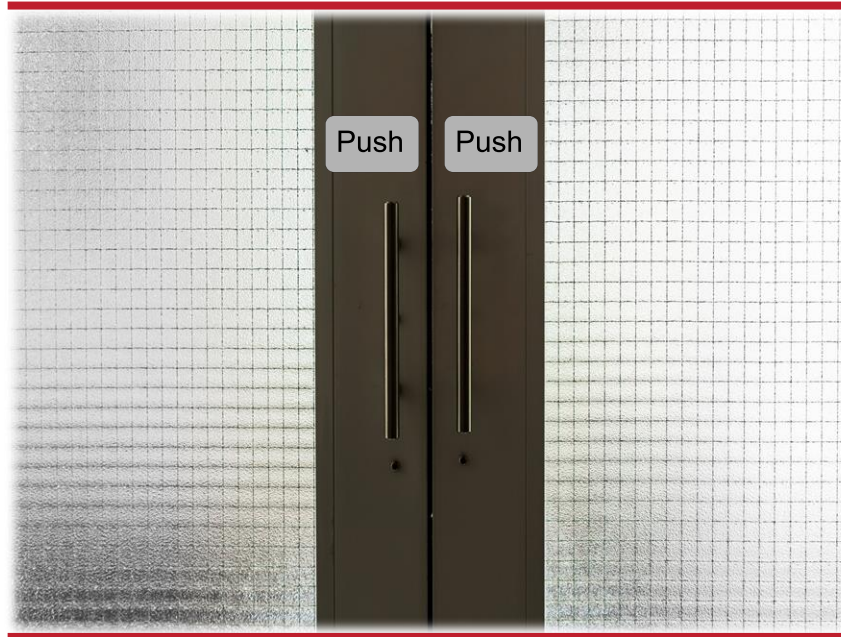
Decision Error – Bystander Effect



Definition: Individuals are less likely to offer help to a victim when other people are present

[John M. Darley](#) and [Bibb Latané](#) in 1968

Execution Error – Intuitive Design

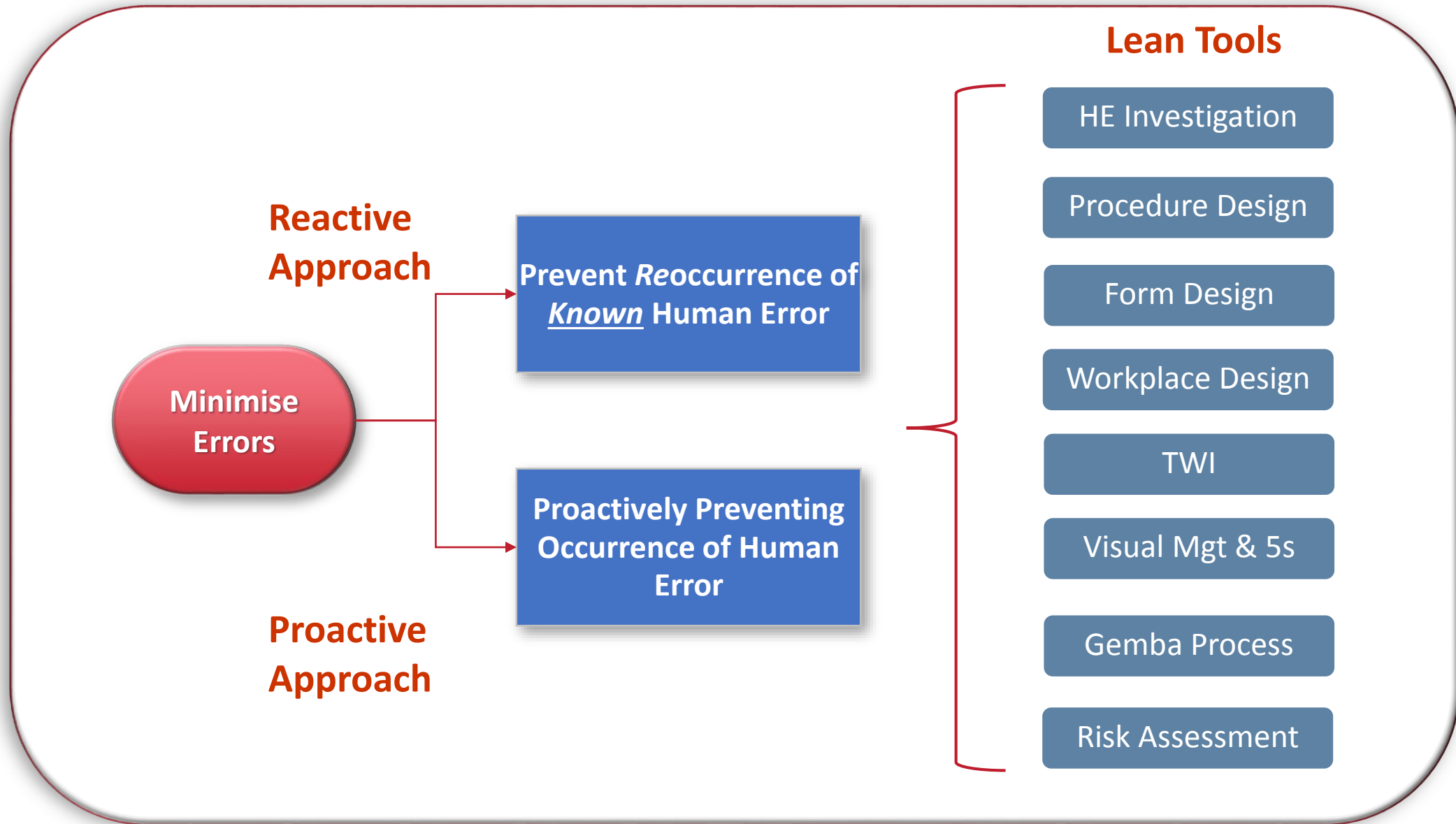


Issue: Not intuitive to use

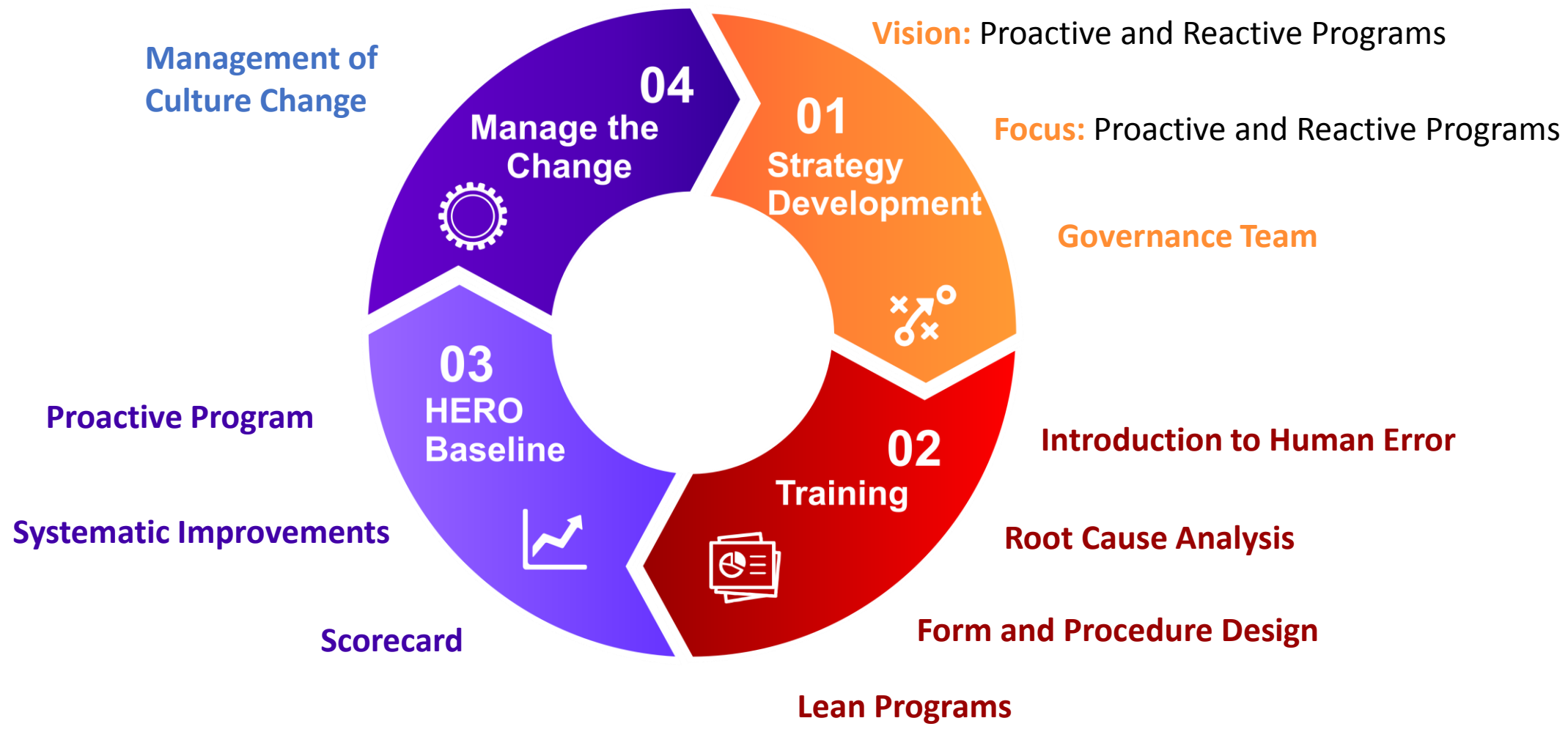


Action: Design so user does not have to think about how to use process

Approach to Minimising Human Error Risk



Proactive Human Error Prevention Strategy



Benefits of Approach



- ✓ Zero Reoccurrence of Errors
- ✓ Minimise Risk of Errors



- ✓ Enable Growth safely

Creating a Culture of Problem Preventers

Summary



- Systematic Approach to Build and Sustain a Culture of Human Error Prevention
- CODE – Categories of Error that can be contained or prevented
- Enhances Safety Culture
- Enhances Quality Culture



Thank You For Your Time

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