



# Root cause Failure Analysis

**GETTING TO THE ROOT OF THE PROBLEM**



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### RCFA Corporate Presentation Includes :

- **Understanding Root Cause Failure Analysis**
- **Physical, Human and Latent Cause**
- **Top Reasons Why We Need RCFA**
- **Why People Commit Mistakes**
- **How Root Cause Failure Analysis Works**
- **Acknowledgement**





# ROOTCAUSE FAILURE ANALYSIS

## Module 1 :

# Understanding Root Cause Failure Analysis



### Root Cause Analysis Defined :

**Root Cause Failure Analysis is trying to UNDERSTAND why something went wrong . . . . .**



- **Root Cause Failure Analysis identifies the basic source or origin of the problem so that recurrence of the problem may be prevented**
- **RCFA provides a methodology for investigating, categorizing and eliminating the root cause of incidents w/ safety, quality, reliability & manufacturing process consequences . . .**

***Identifying the Root Cause Failure Analysis event allows us to explain the WHAT, HOW and WHY of the failure***



### Root Cause Analysis Defined :

**Proper Root Cause Analysis identifies the basic source or the origin of the problem . . . .**

- **Every system, spares or components failure happens for a reason. There are specific succession of events that lead to a failure. RCFA follows the cause and effect path from the final failure back to its origin**
- **The root cause analysis methodology provides specific & solid foundation for preventing the recurrence of the problem or failure**

***Root cause analysis is a tool to better explain what happened, to determine how it happened and to better understand why it happen . . . .***



### Root Cause Analysis Defined :

**Root Cause Analysis separates the facts from hearsay. RCFA is not about trial and error and seeing what works and not**

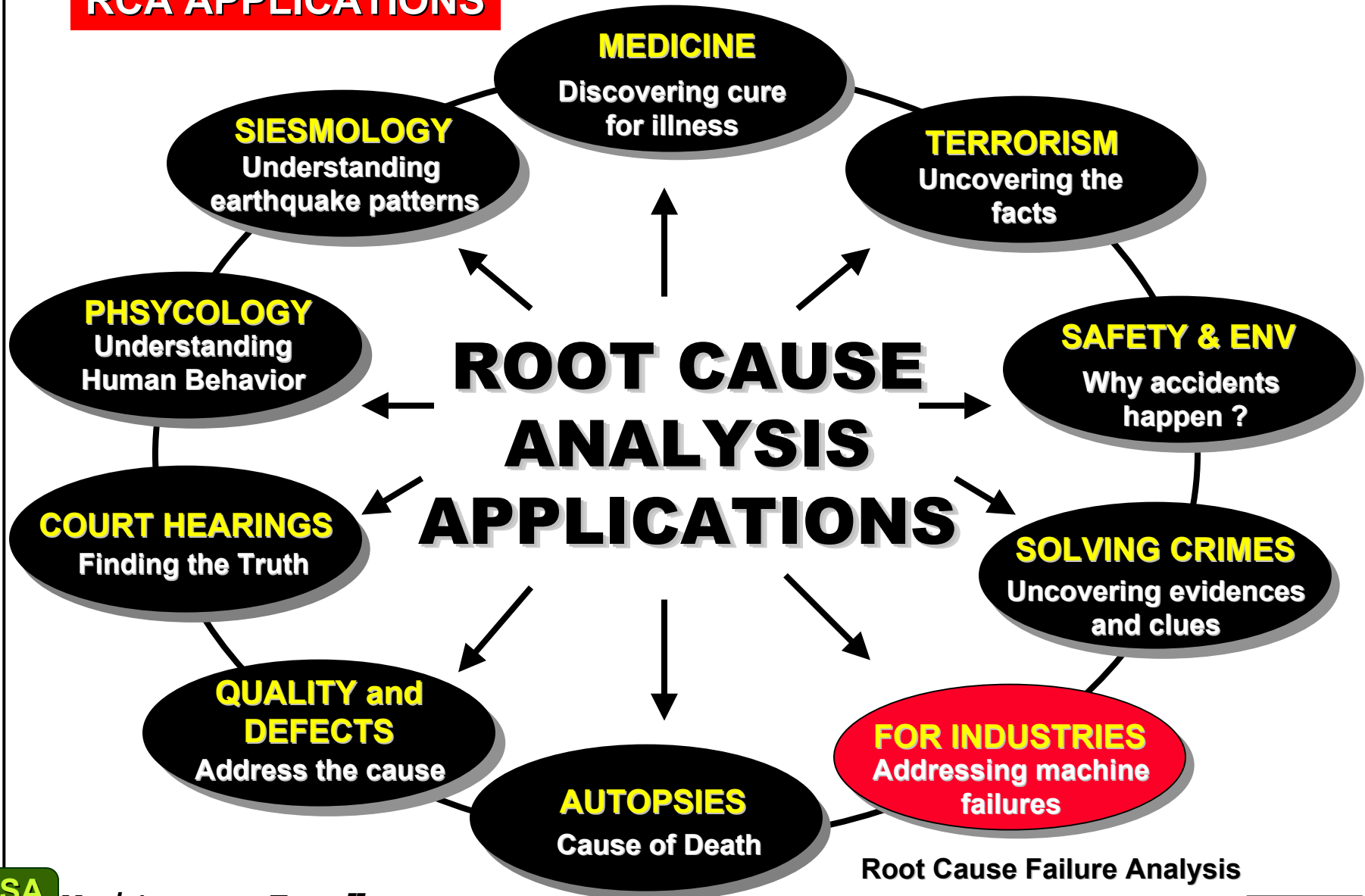
- **While there are many techniques in analyzing a problem which provide a quick answer, it does not mean that the answer is correct everytime. A true and meaningful Root Cause Failure Analysis takes the time to prove that what we say is fact & supports our hypothesis with evidence before we spend our money to improve the design of the equipment**

***When the facts are backed up by evidence & science and they are separated from the fiction we now have a better understanding as to the real Root cause of the problem***



# ROOTCAUSE FAILURE ANALYSIS

## RCA APPLICATIONS



Root Cause Failure Analysis



### ANALYST ARE MANUFACTURING DETECTIVES

- Analyst act like detectives when analyzing failures, since failures leave some sort of clues when they occur
- Every equipment failure happens for a number of reasons. There is definite progression of actions and consequences that leads to a failure
- Root Cause Failure Analysis investigation traces the cause and effect trail from the end failure back to the root cause much like a detective trying to solve a crime



***Detectives tend to freeze the scene and collect as much data as possible for later analysis, they take photographs, finger prints, search for clues and the like . . . . .***



### ROOTCAUSE QUOTE :

*If you really want to get to the real root cause of the problem, you'll end up probing a persons life, their parents personal lives, their grandparents lives, the origin of the original sin and all the way to "ADAM and EVE". The key in Root Cause Analysis is knowing where to stop*

