Incident Investigation, Prevention & Lessons Learned

Agenda:

1- Introduction

2- Social Security Incidents Statistics.
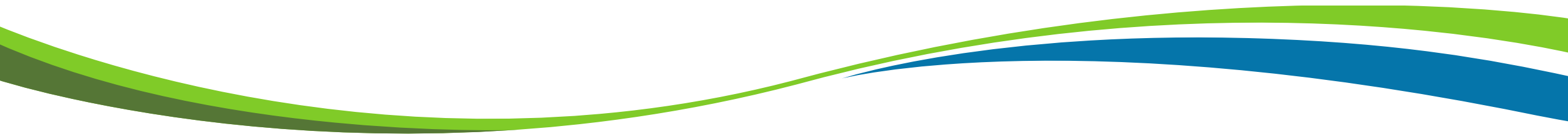
3- Investigation Benefits.

4- Incident Elements.

5- RCA Methodology

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Introduction

➢ When issues arise within a company, there are a number of ways to problem solve. Root Cause Analysis (RCA) is an effective method to identify and solve problems in business by determining the underlying inefficiencies or imperfections and taking the necessary steps to address them to prevent the problem from arising again.

➢ Root Cause Analysis (RCA) can be an effective tool for any business and is widely used in industries such as oil and gas, engineering, healthcare, aviation, and IT operations. RCA works backward in an attempt to zero in on the potentially minor errors that are causing or could cause major concerns.

Social Security Occupational Incidents Statistics

➤ **2019** : 12,000 Work Injuries were occurred

➤ **2020**: 18,000 work injuries were occurred
 Approx. Cost: 5,000,000 JD

➤ **2021**: 21,388 Work Injuries were occurred
 196 fatalities
 One Injury occurred each 25 minutes.
 Approx. Cost: 2,000,000 JD

➤ **2022**: 16020 Work Injuries were occurred till end of Sept.2022
 Approx. Cost: 9,600,000 JD

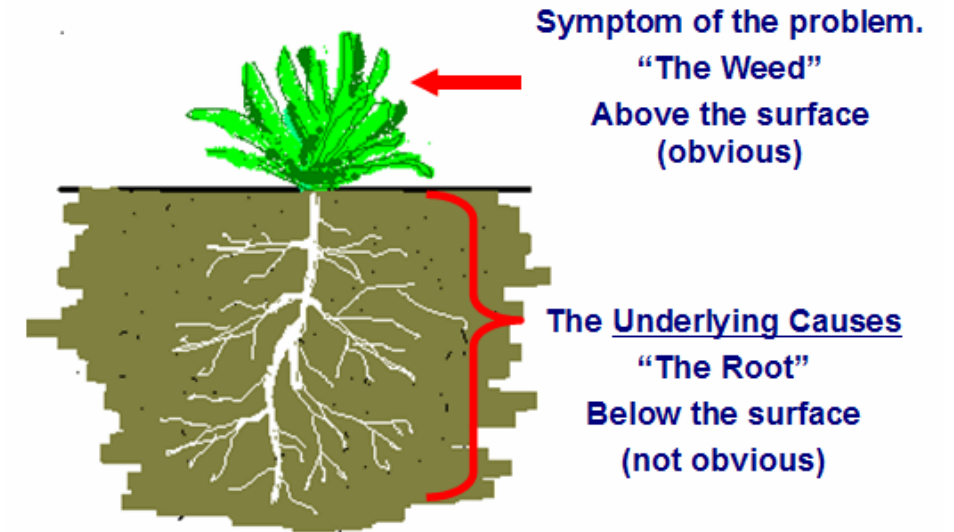# Incident Prevention Key Elements

Some tips of incidents Prevention & Practices:
- ➢ **Reporting** & **Responsiveness**.
- ➢ **Competence & Training**.
- ➢ **Persistence**.
- ➢ **Workplace Environment**.
- ➢ **Involvement**.
- ➢ **Ownership**.
- ➢ **Investigation-RCA**.

Safety
Report

SMS
Database

Safety
Management
Team

Safety Reporting System

OWNERSHIP

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What is Root Cause Analysis (RCA)?

➢ Root Cause Analysis (RCA) is a structured process to identify:

- Root Causes that allowed one or more Incidents to occur.

- Corrective actions to be implemented to prevent recurrence of similar Incidents.

➢ RCA can also be used proactively to identify and solve problems before they result in an incident.

Symptom of the problem. "The Weed" Above the surface (obvious)

The Underlying Causes "The Root" Below the surface (not obvious)

Why Is RCA Important?

➢ A desire to understand:

  • Identify WHAT, HOW and WHY something happened as a matter of fact.

  • The purpose is not to place blame on individuals.

➢ Desired result of an RCA is to prevent recurrence of the incident.

➢ Provide greater clarity, consistency and quality to the identification and correction of root causes for any unwanted event or condition.

RCA identifies WHY an incident happened without putting a blame on individuals

Benefits of effective Investigation / RCA

➢ Helps to ensure that our people, contractors and community members are kept safe.

➢ Responsive actions eliminate chances of a similar Incident:

• Where Incident occurred

• Other locations

➢ Eliminate/reduce risk.

➢ Improve processes & procedures.

➢ Meet legal requirements.

➢ discover the root cause of a problem or event
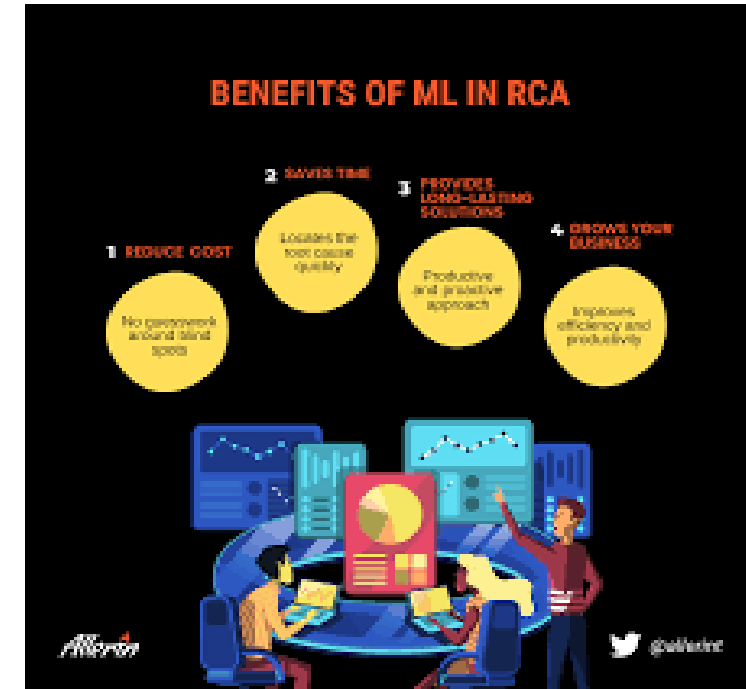
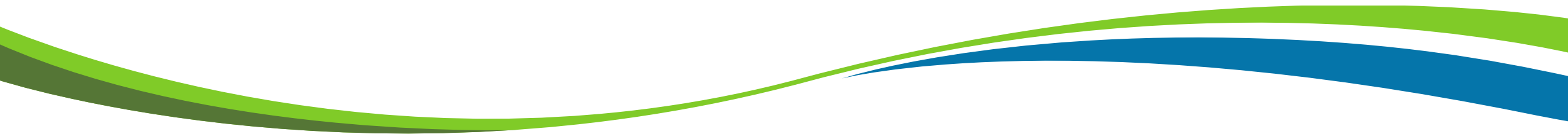# Root Cause Analysis enables identification of effective corrective actions (SMART)

➢ Appropriate corrective and preventive actions must be developed for all identified Root Causes.

➢ Elimination, Substitution

➢ Engineering Controls

➢ Administrative Controls

➢ Personal Protection (PPE)

➢ Corrective actions to include:

- Immediate correction

- Actions to address root causes

- Preventive actions for similar activity, location, Equipment, Doc, etc.

Specific
Measurable
Attainable
Realistic
Time Bound

Response to Incidents & Conduct Investigation

➢ **Secure the Scene**

➢ **Ensure Injured Person Receives Care**

➢ **Incident Identification – Reporting**

➢ **Incident Categorization**

➢ **Significant Injury and Potential (SIP) Classification**

➢ **Incident Investigation**:

1- Planning for Incident Investigations

2- Onsite Investigation

3- Incident Investigation Team

4- Initiate Investigation and Gather Evidence

5- Analyze Facts / Conduct Root Cause Analysis (RCA

6- Finalize Investigation and Make Recommendations

7- Quality Assurance and Finalize Incident Investigation Report

8- Share Lessons Learned

Root Cause Analysis Methodologies

The more common techniques in performing a root cause analysis:

➢ *Five Whys*

➢ *Fishbone Diagram*

➢ *Pareto Chart*

➢ *Taproot Software*
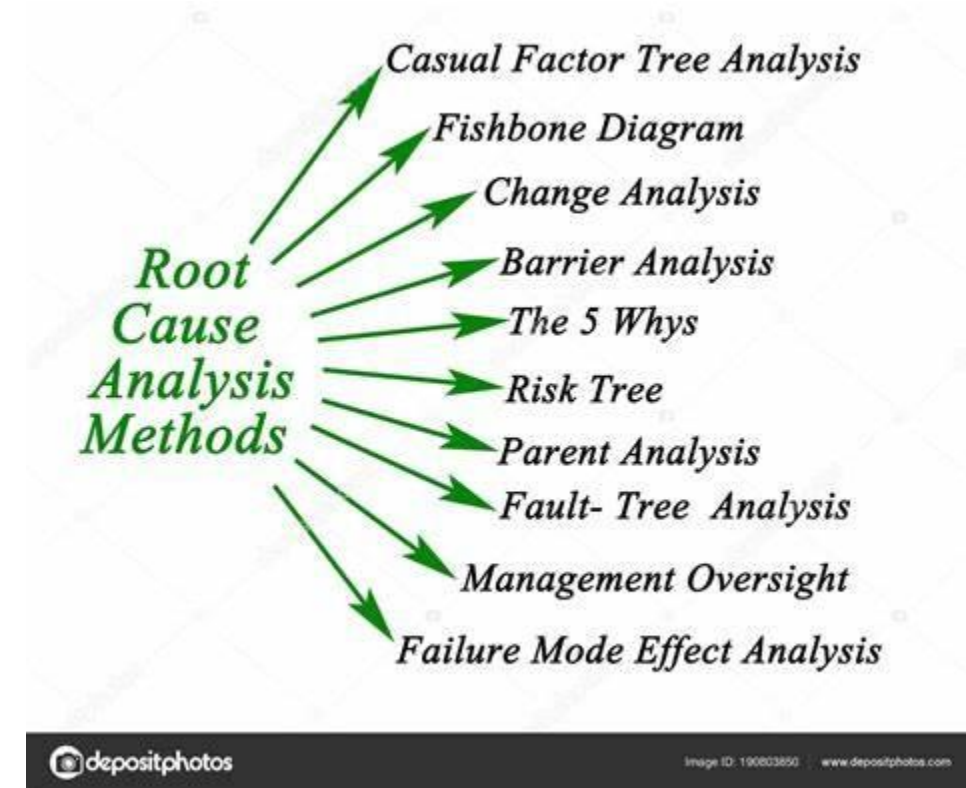
What is TapRooT?

➢ TapRooT is a systematic process (and software tool) used to conduct detailed root cause analyses.

➢ TapRooT allows to learn from the small problems (precursor incidents) and fix them to prevent major accidents.

➢ TapRooT's embedded intelligence allows to find the true root causes and solving problems once and for all.

How is TapRooT Different?

TapRooT investigation tools are simple enough for use in the field for everyday problems and yet robust enough even for the most complex safety incident investigation.

➢ TapRooT helps to:

➢ Identify a clearly defined problem, Focused set of root causes and sound mix of corrective actions.

➢ Improve discovery of facts

➢ Limit investigator bias

➢ Provide consistent investigation results.

➢ Prepare and present effective corrective actions.

Methodology & Tools

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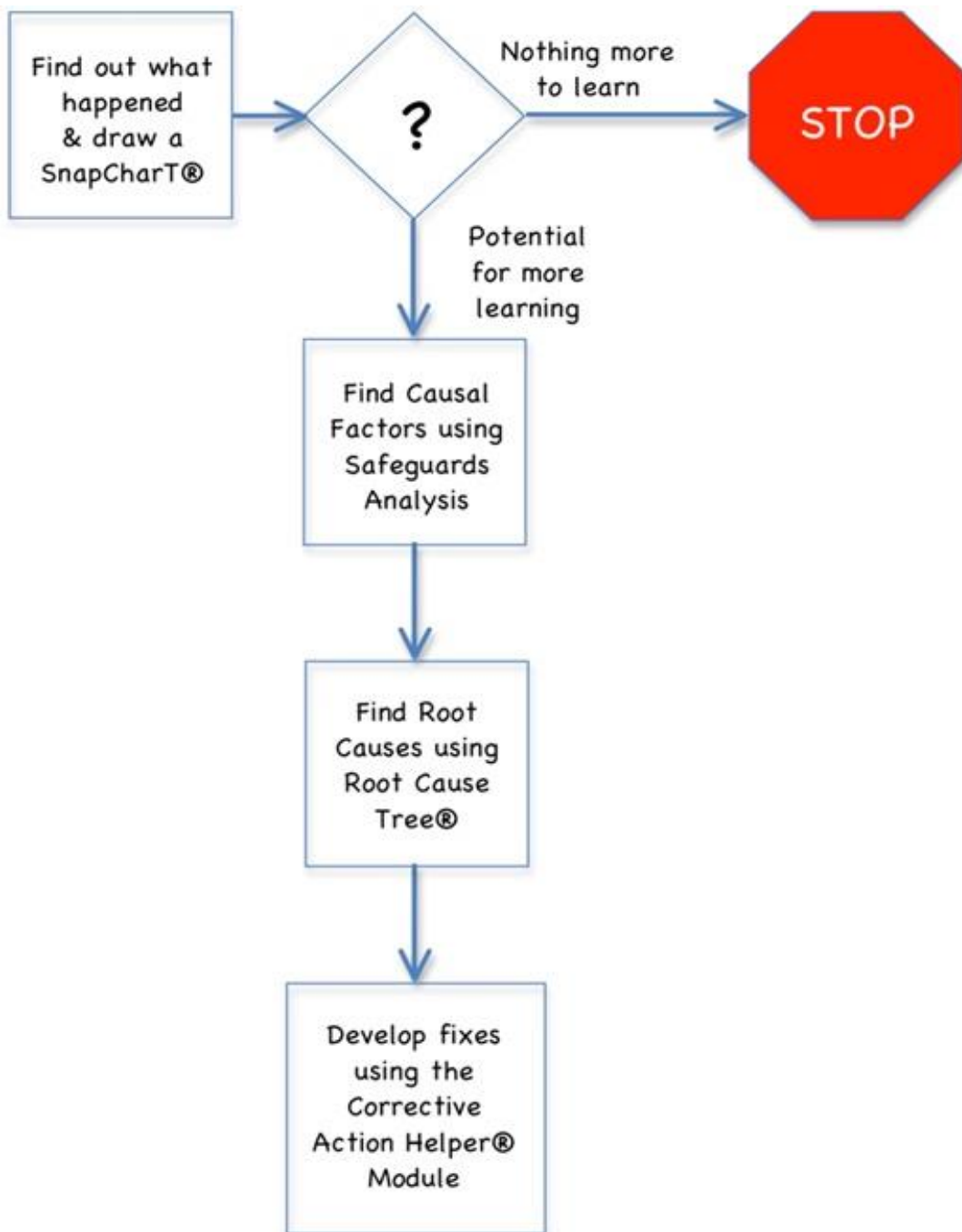
➢ People trained and certified in TapRooT methodology drive the RCA.

➢ The basis of the investigation is the SnapCharT.

  ➢ Creating the SnapChart provides a visual timeline of what happened and aids with planning and data collection.

➢ A Causal Factor is a mistake that someone made or the failure of a piece of equipment that, if corrected, could have kept the incident from happening or made it much less severe.

➢ Root causes are absence of a best practice or the failure to apply knowledge that would have prevented the problem (Causal Factor), or significantly reduced its likelihood or consequences.

➢ Root Cause Tree is a structured tool that ensures consistent, reliable, and defendable root cause identification.

➢ Action Helper Module will help develop well-rounded problem solutions.

TapRooT Software

Share Lessons Learned – Incident Alert

➤ It is important to share lessons learned from each Incident investigation throughout the organization that experienced the Incident and with other Businesses where the information may be applicable.

➤ What to be shared if applicable:

- Immediate Cause   - Incident Description

- Critical Factors / Root Causes   - Recommendations / Corrective Actions

➤ The Benefit is to share the knowledge & apply the new ideas, solutions or recommendations if applicable.

Thank You