

# A scenario-based comparison of underground coal mine proximity detection systems

**André De Kock**

Simtars





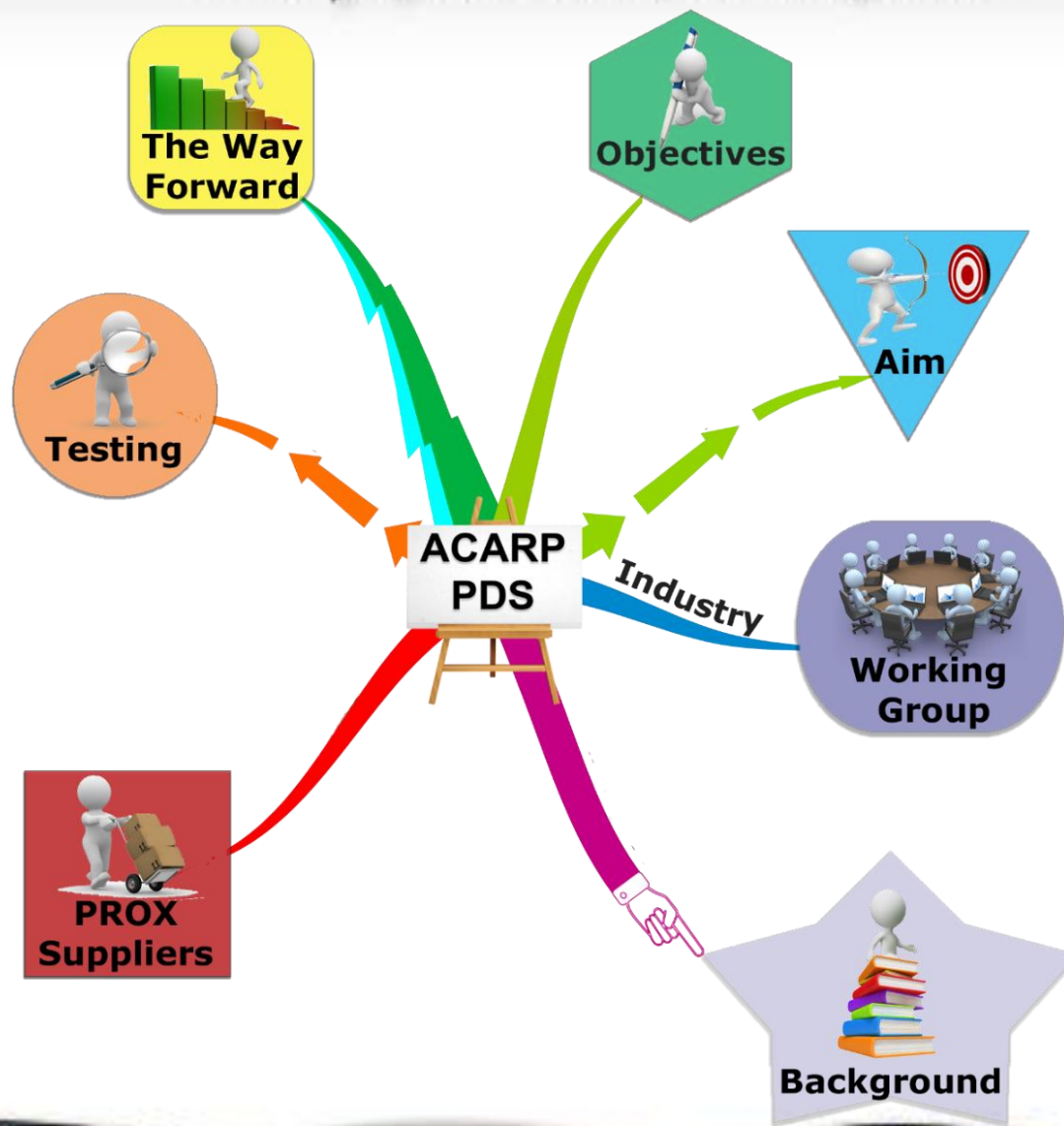
*A Past forgotten is a Future repeated*

# ACARP C24010





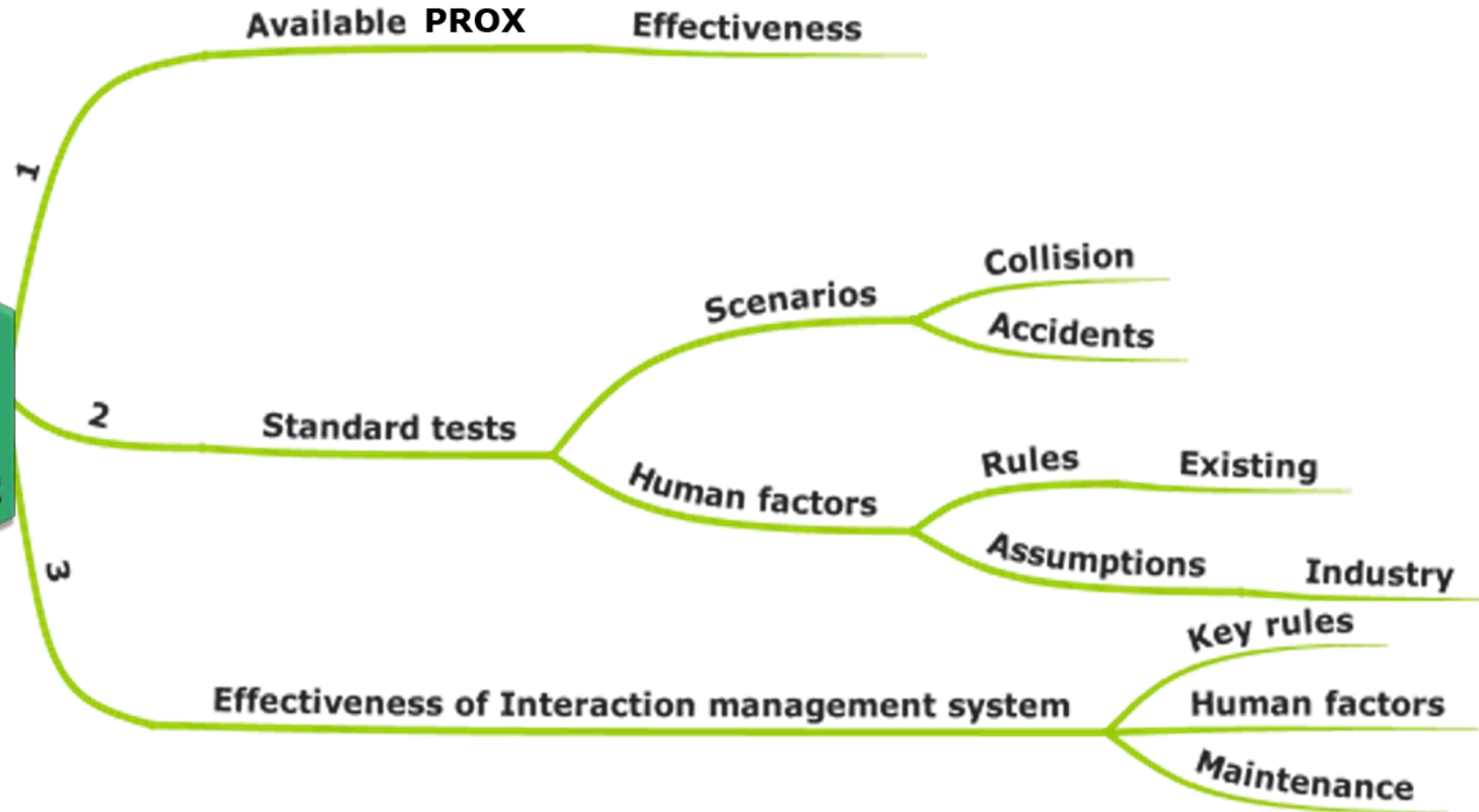
*A Past forgotten is a Future repeated*





*A Past forgotten is a Future repeated*

# Objectives





*A Past forgotten is a future repeated*



**Effectiveness**



**Underground  
Coal**





*A Past forgotten is a Future repeated*



**Seek most prominent collision scenarios**





*A Past forgotten is a Future repeated*



**Industry**





*A Past forgotten is a Future repeated*



**Industry**



**Anglo**  
(Glenn Owens  
Chris Doran)

**Peabody**  
(Shane Apps)

**Glencore**  
(Brad Lucke)

**Rio  
Tinto**  
Kane Usser

**BHP**  
(James Martin /  
Peter Oxenbridge)

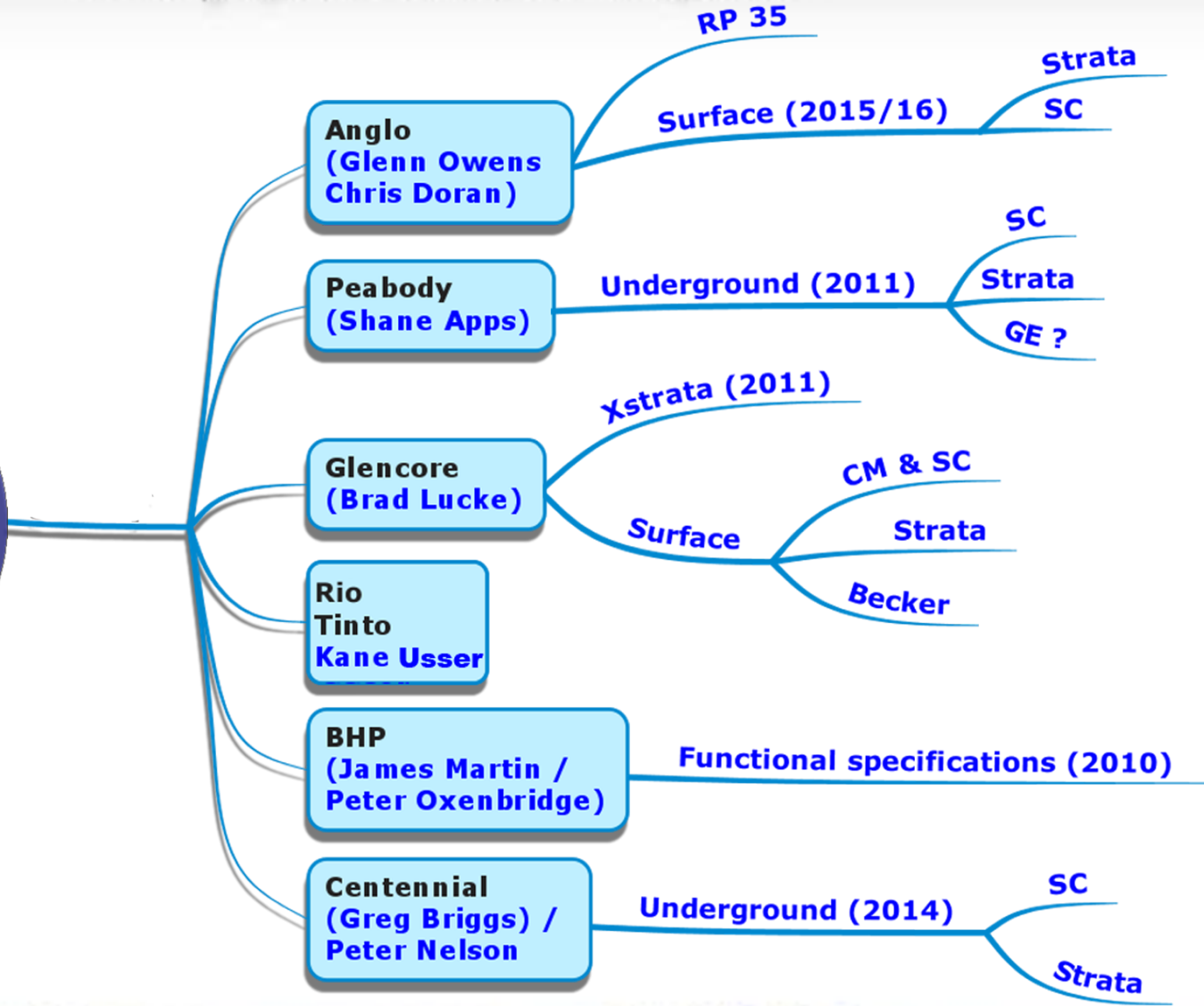
**Centennial**  
(Greg Briggs) /  
Peter Nelson





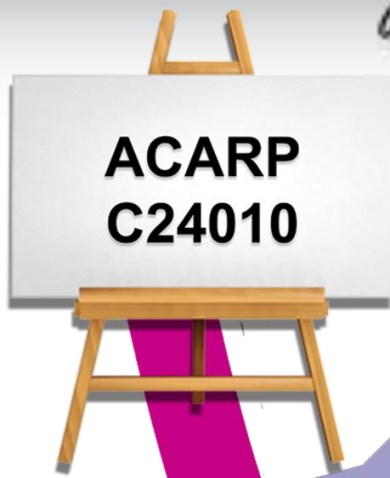


*A Past forgotten is a future repeated*





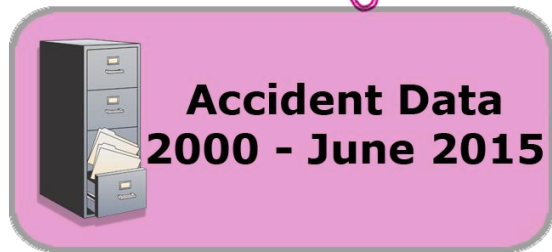
*A Past forgotten is a Future repeated*



**ACARP  
C24010**



**Background**



**Accident Data  
2000 - June 2015**





*A Past forgotten is a Future repeated*



**Background**



# **Mastermyne Tests**

**Results**

**Site**

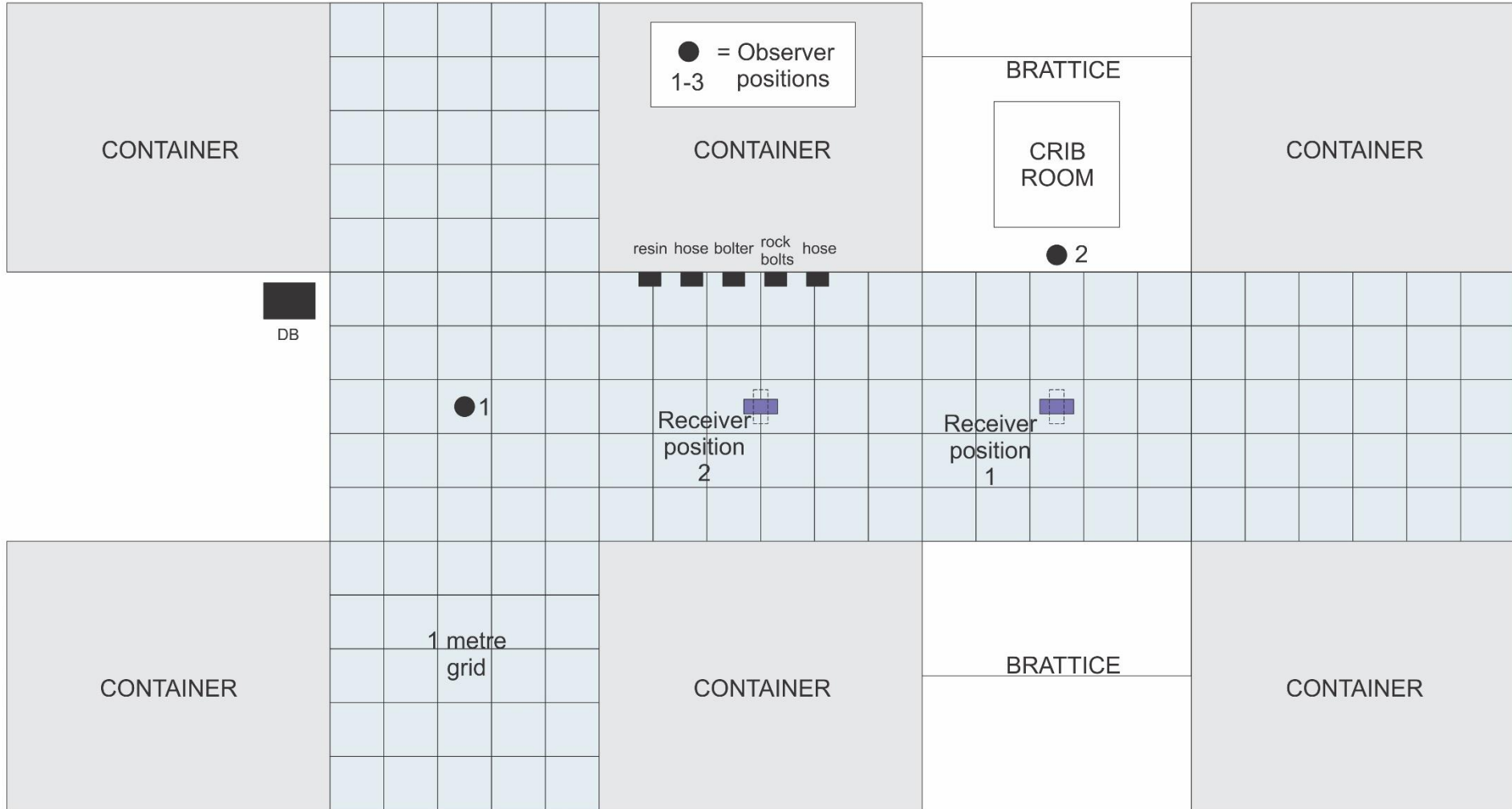
**1**

**2**



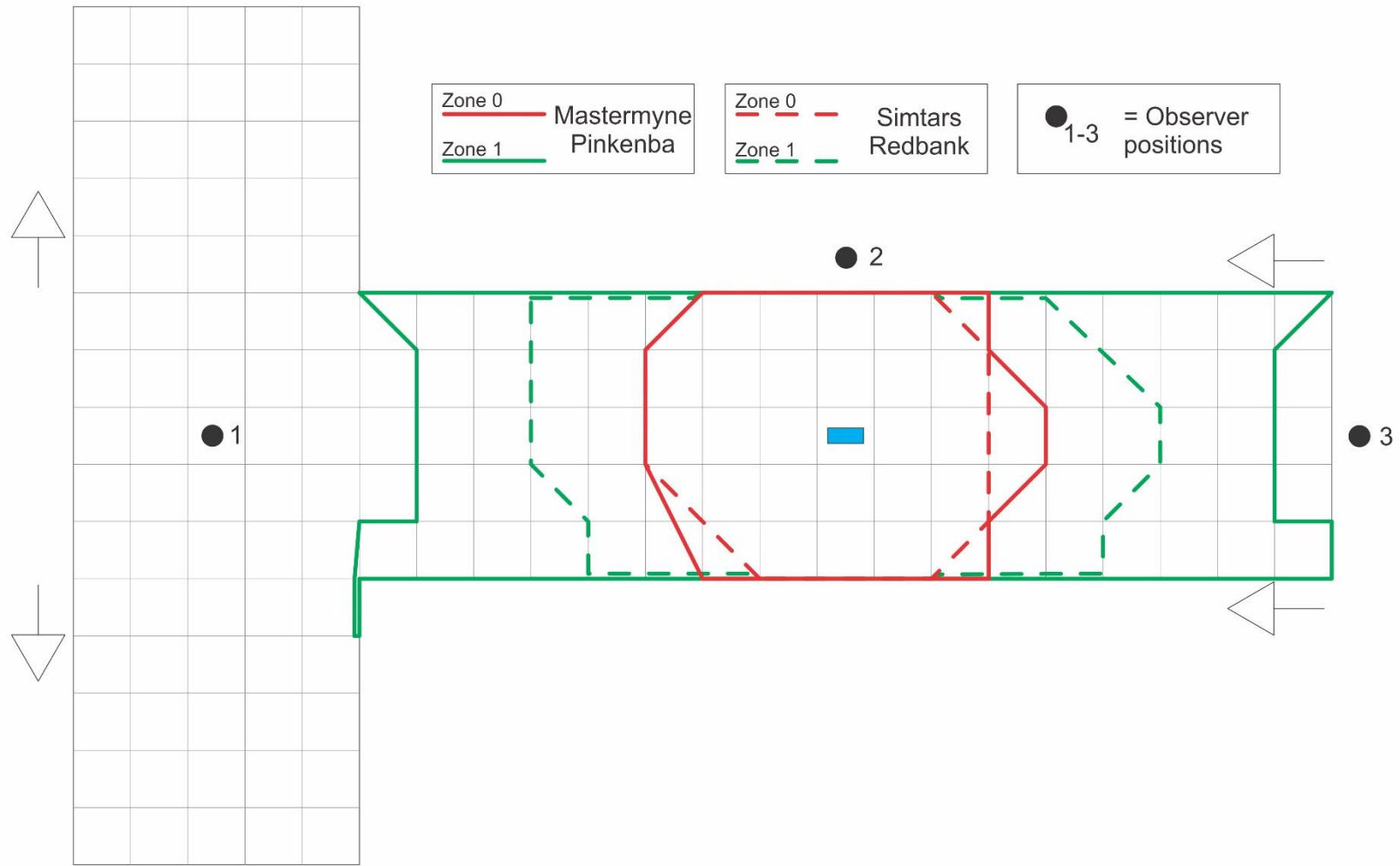


*A Past forgotten is a Future repeated*



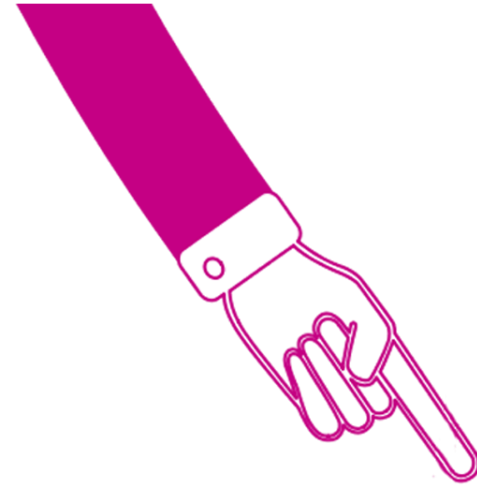


*A Past forgotten is a future repeated*





*A Past forgotten is a Future repeated*



2015  USA

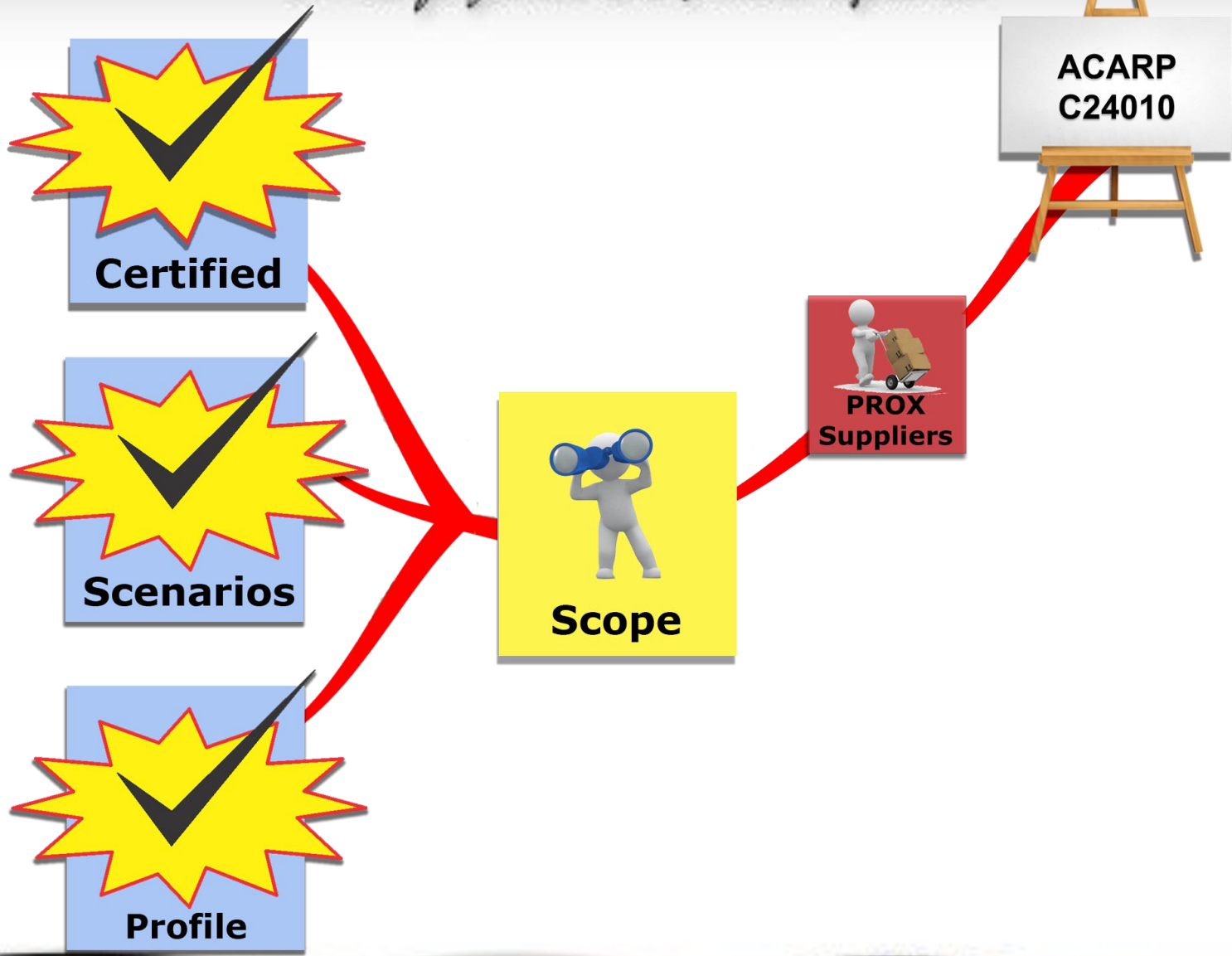
2015  RSA

**Legislated**



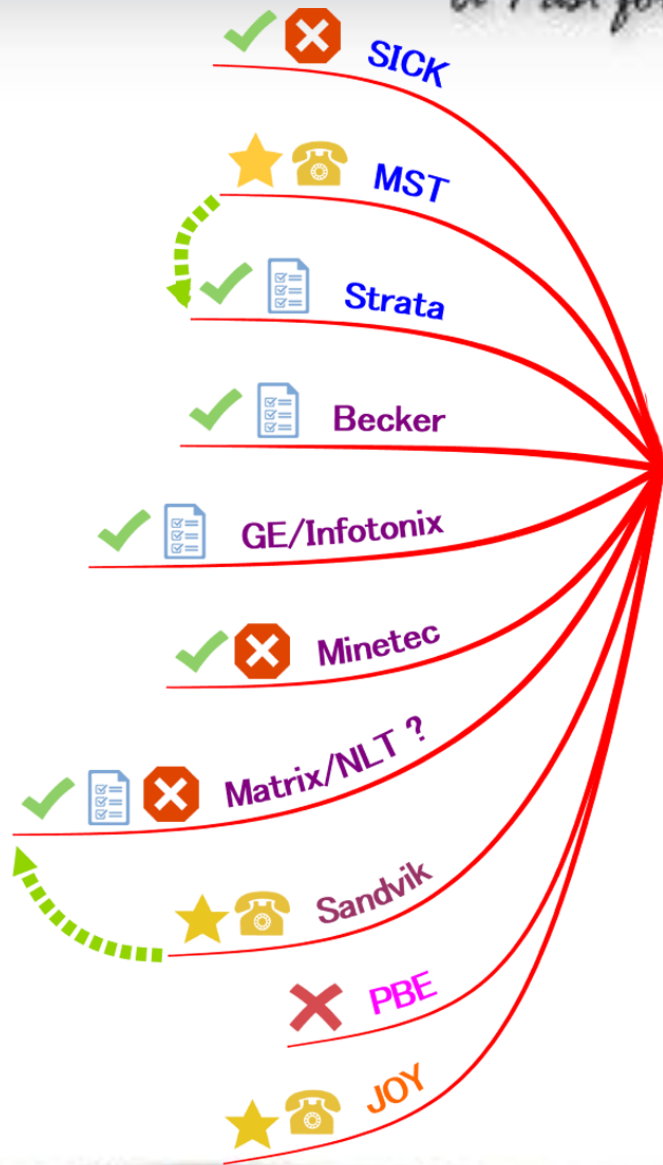


*A Past forgotten is a future repeated*





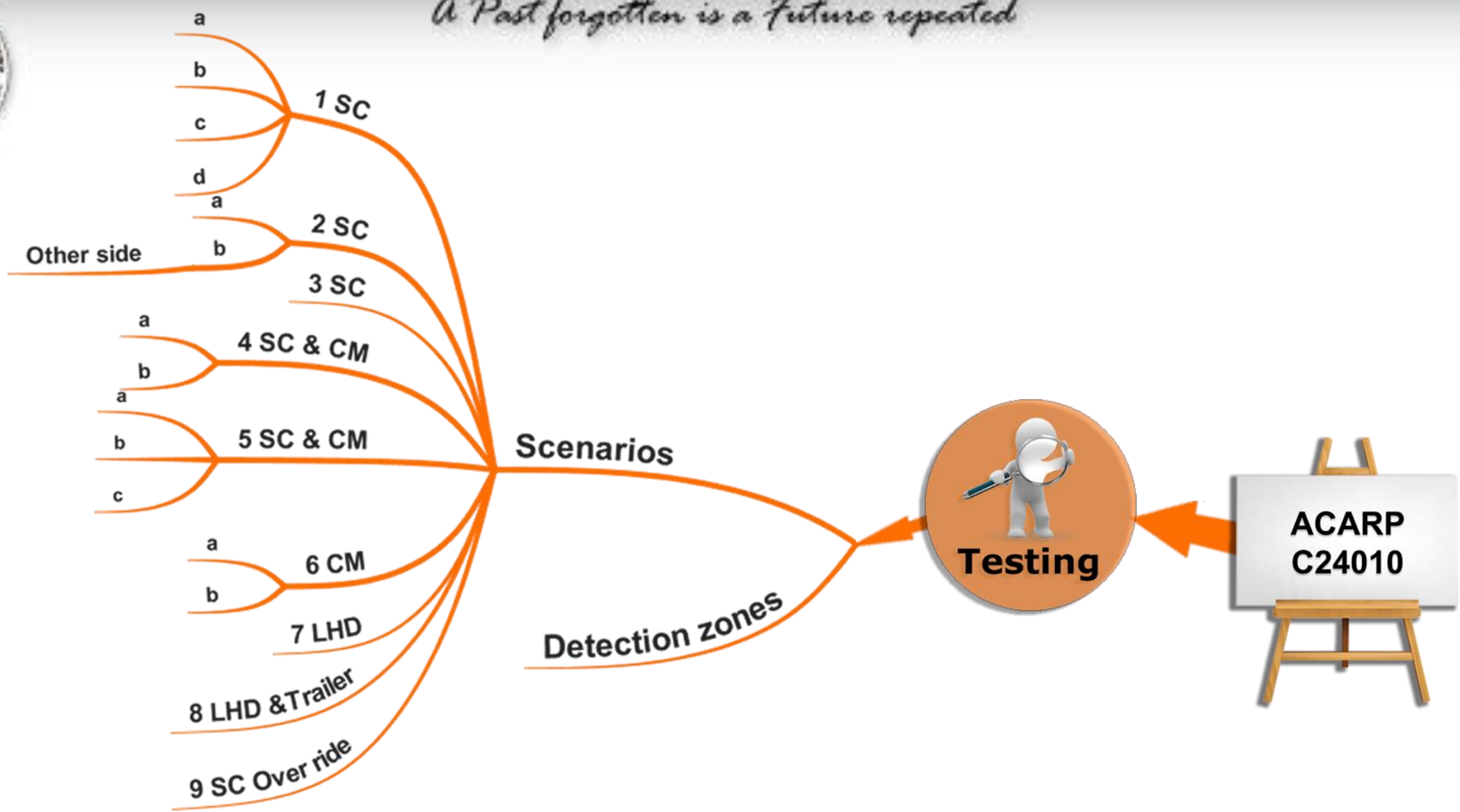
*A Past forgotten is a future repeated*





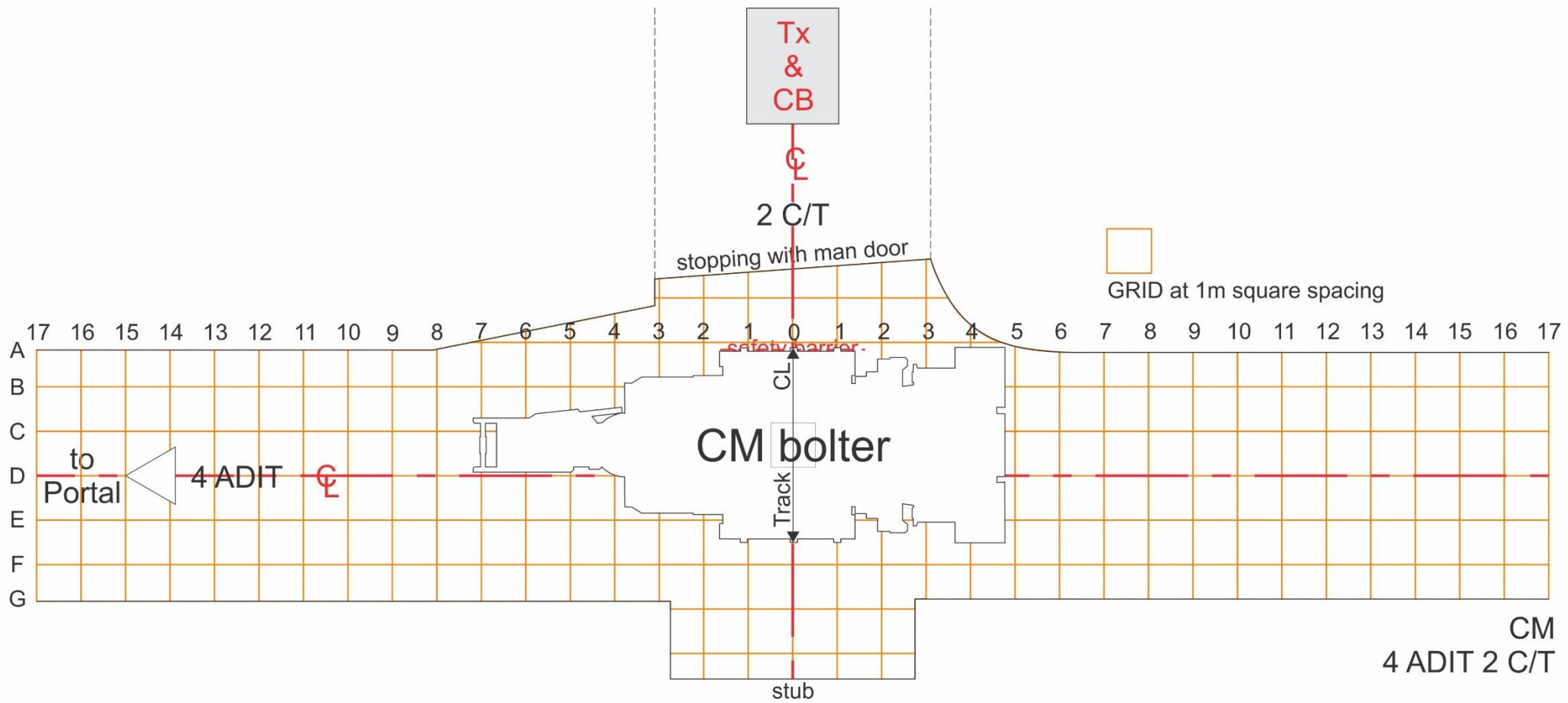


*A Past forgotten is a future repeated*



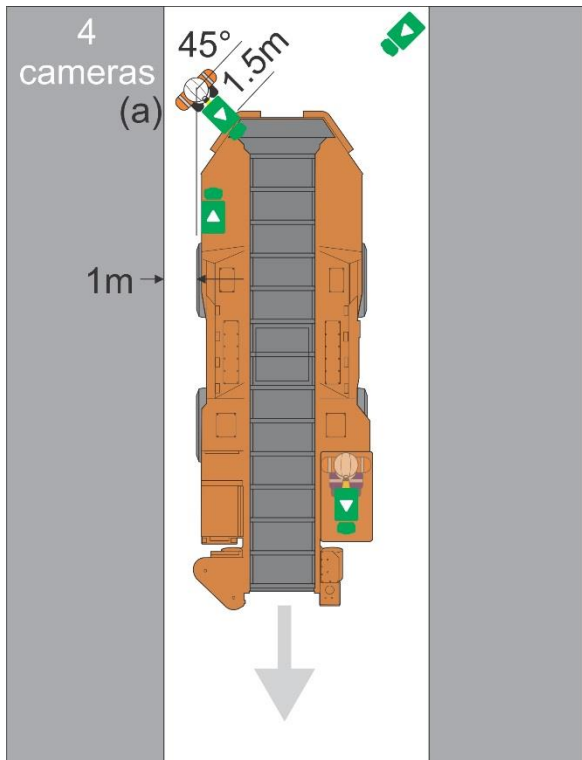


*A Past forgotten is a future repeated*

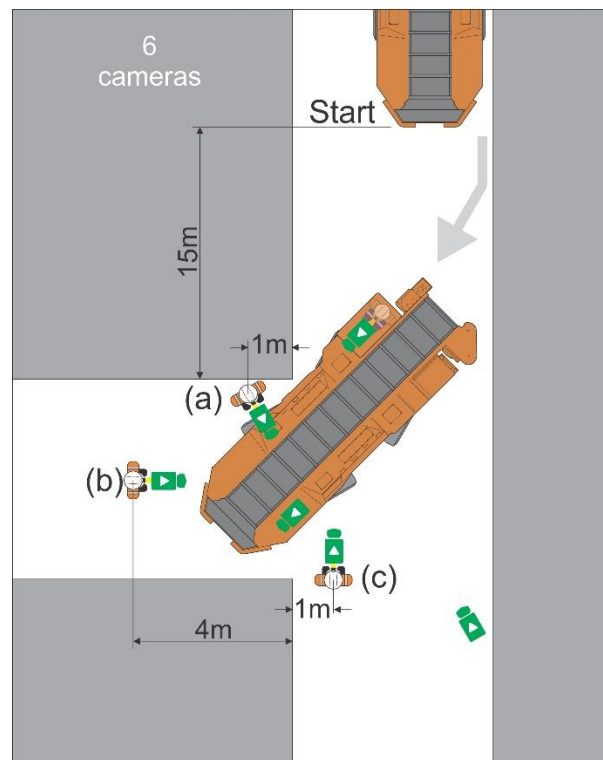




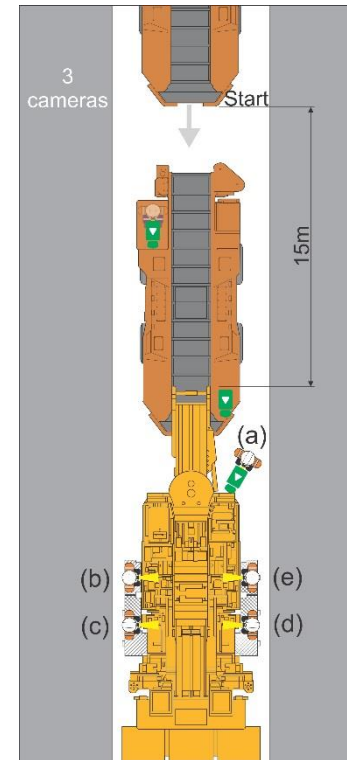
*A Past forgotten is a future repeated*



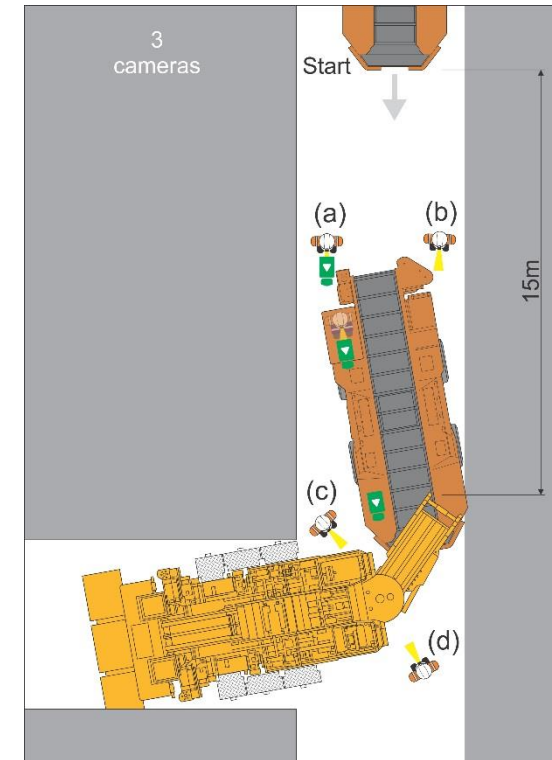
**Scenario 1a**



**Scenario 2a**



**Scenario 4a**

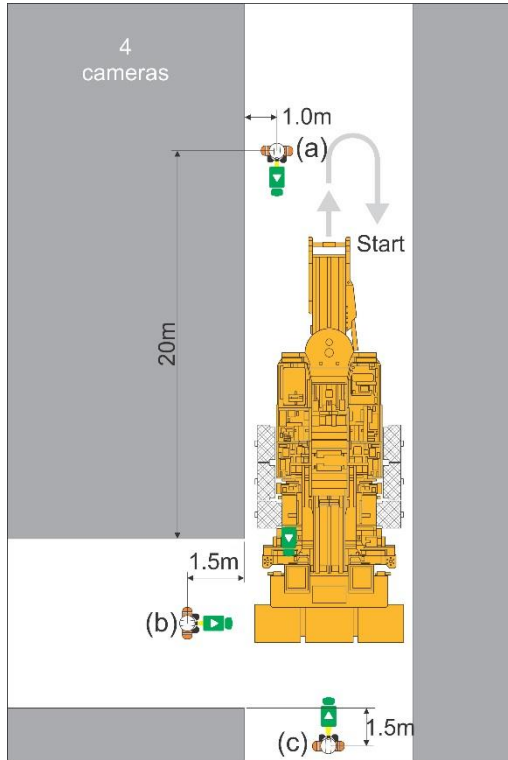


**Scenario 5b**

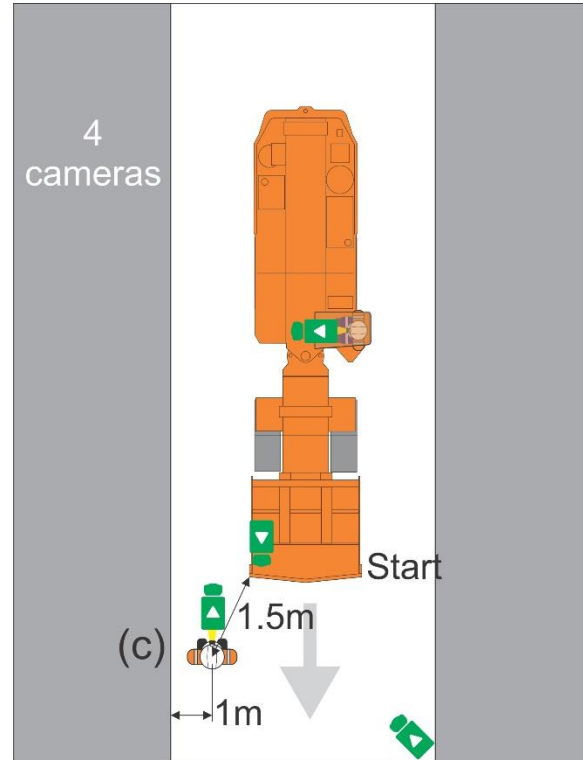




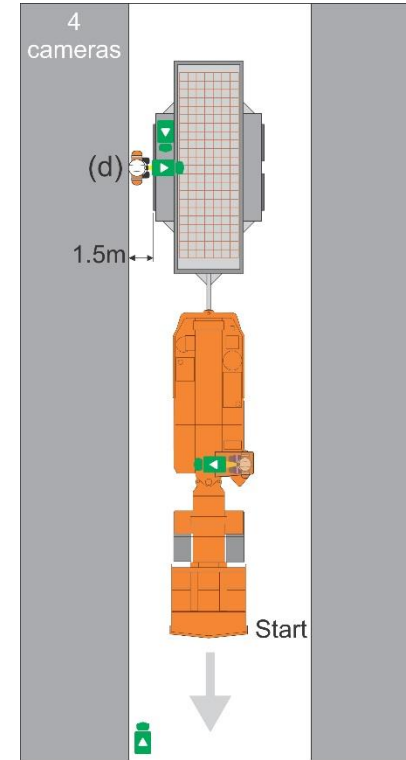
*A Past forgotten is a future repeated*



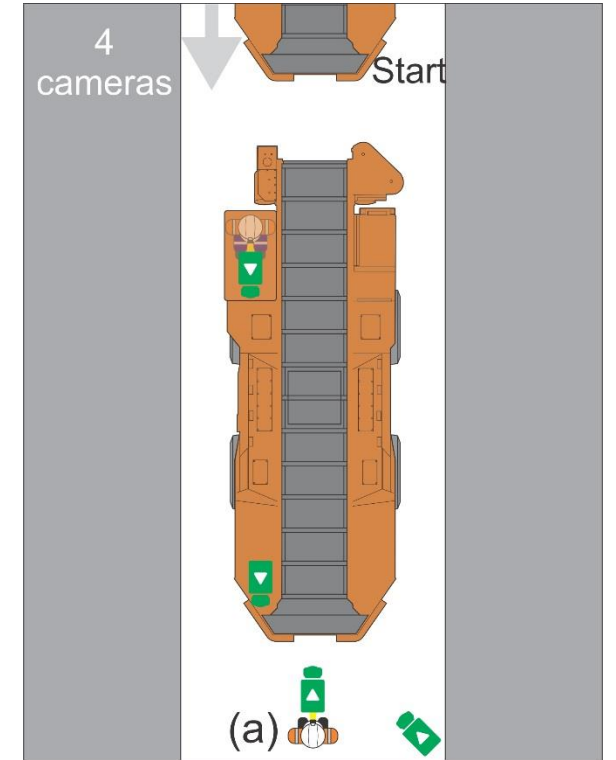
**Scenario 6a**



**Scenario 7c**



**Scenario 8d**

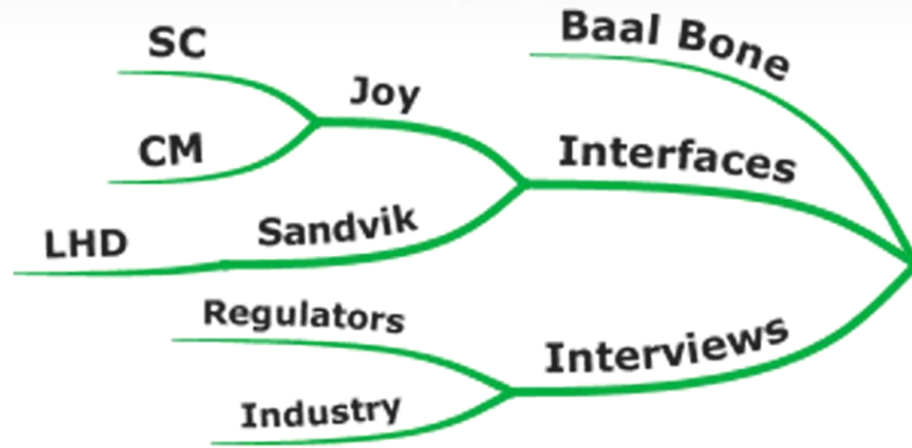


**Scenario 9**





*A Past forgotten is a future repeated*





*A Past forgotten is a Future repeated*

