

Not Enough Incidents

**Cristian Sylvestre,
Managing Director
SafeStart**



***Is the reason why people
are still getting hurt
because we haven't had
enough incidents?***



***Could it be that we're not
asking the right questions –***

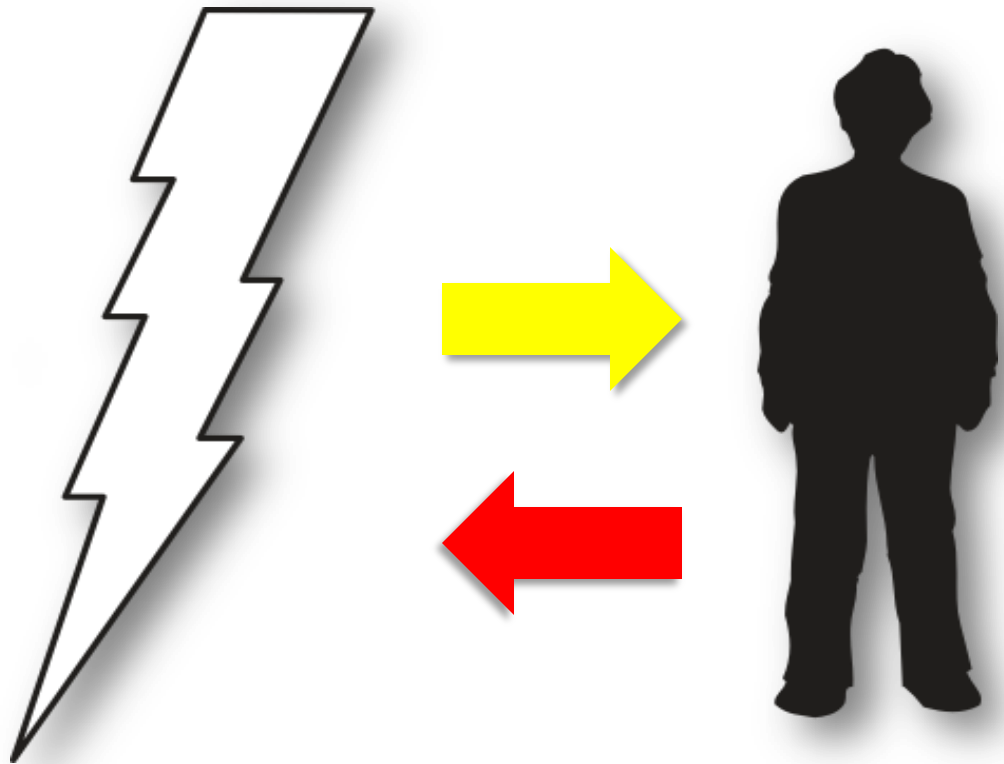
***because we don't
understand incident
causation fully.***



Mechanism for Incidents

**There are only
so many ways
to get hurt in
the short run,
either**

- some hazard contacts you
- or you contact it.

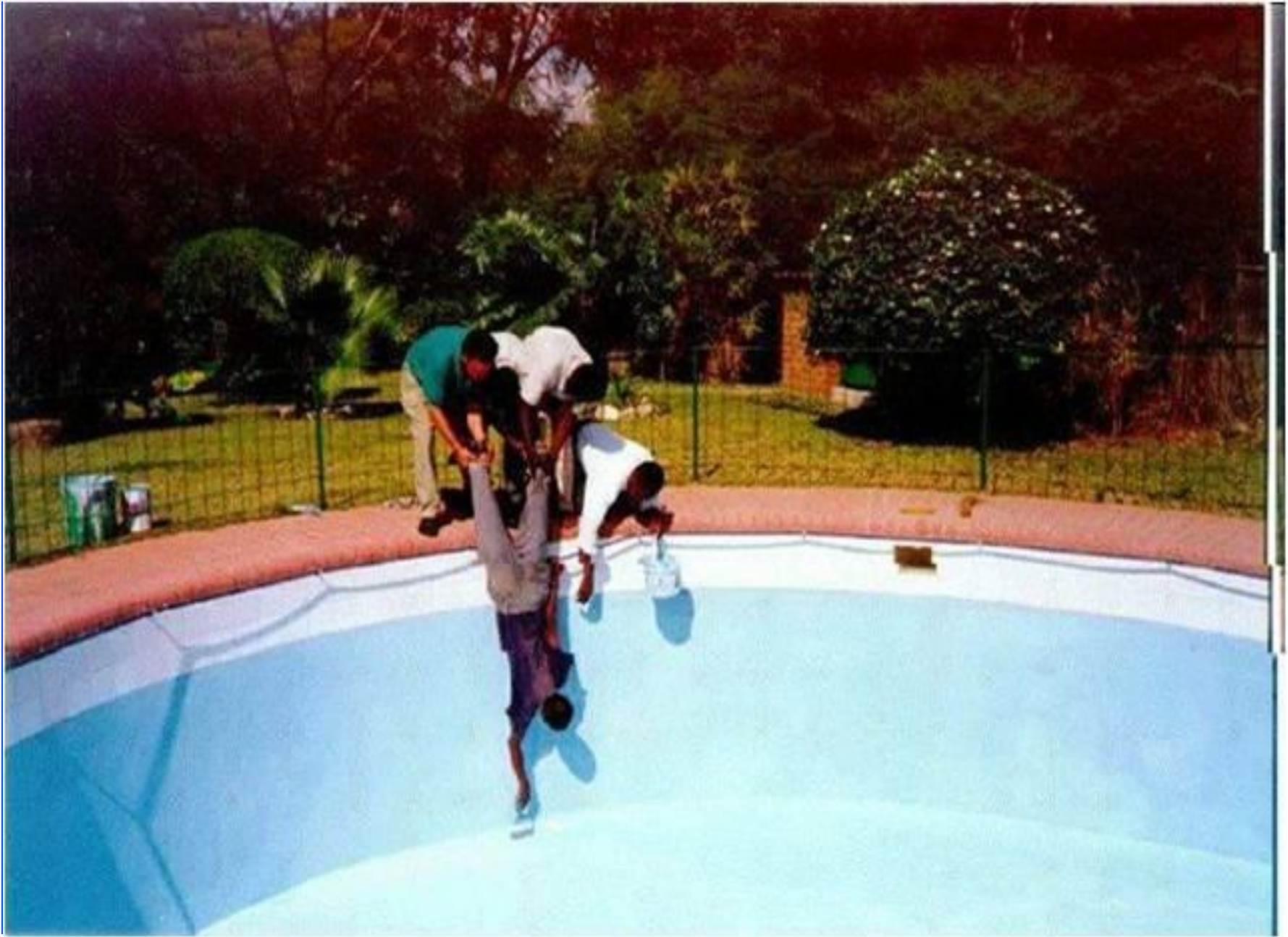




Types of At-Risk Behaviour

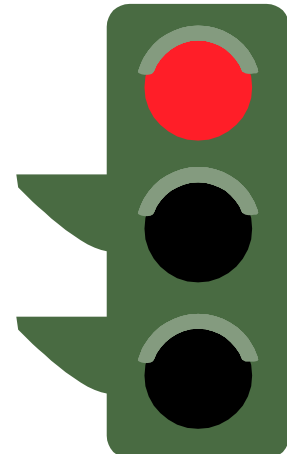
- **Deliberate At-Risk Behaviour**





Types of At-Risk Behaviour

- **Deliberate At-Risk Behaviour**
- **Unintentional At-Risk Behaviour**





 **SAFESTART®**

Types of At-Risk Behaviour

- **Deliberate At-Risk Behaviour**
- **Unintentional At-Risk Behaviour**
- **Habitual At-Risk Behaviour**





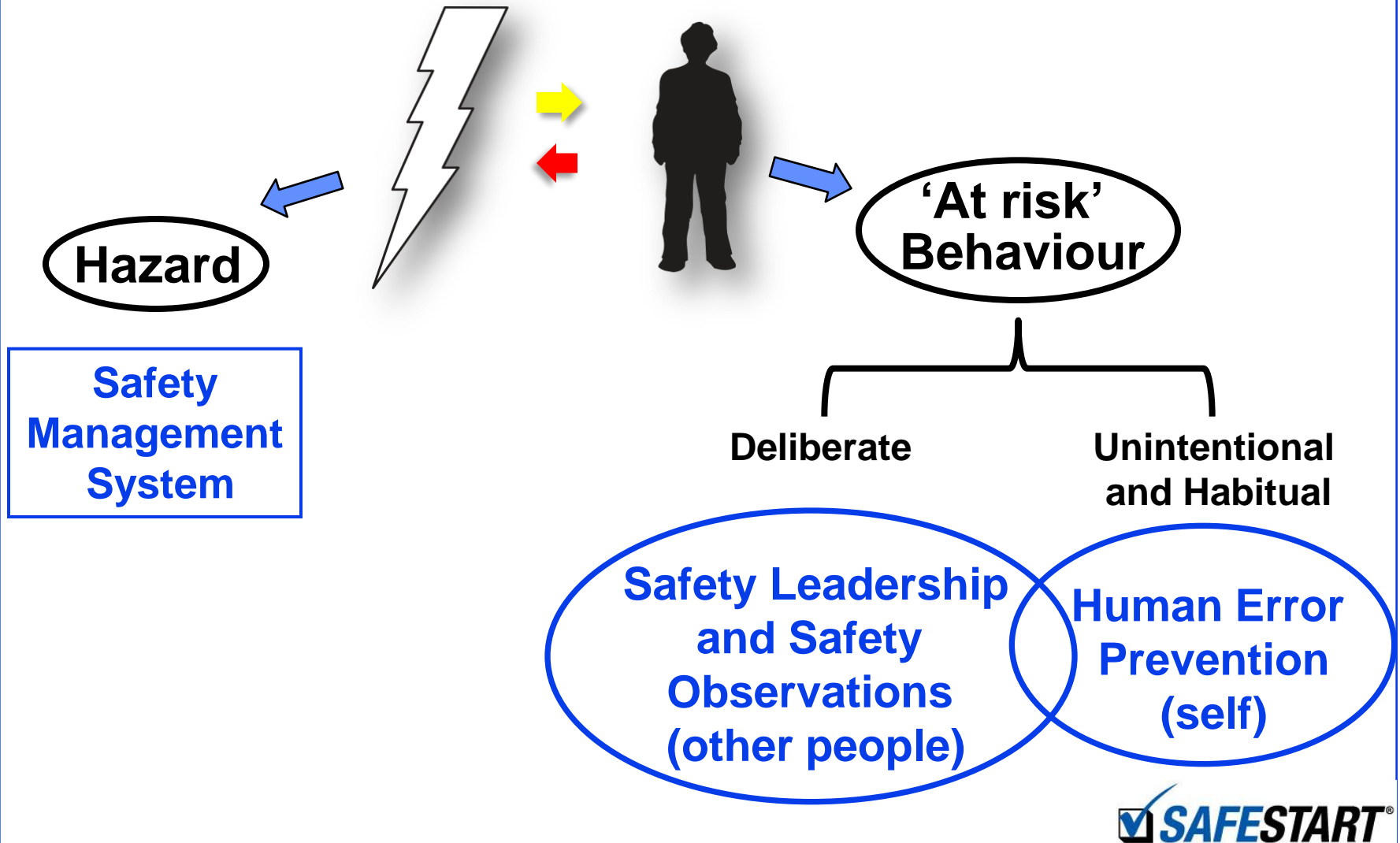
Influencing Person's Behaviour

There are 3 main approaches:-

- **Safety Observations** – your colleague tries to influence your behaviour
- **Safety Leadership** – your boss tries to influence your behaviour (extended to others)
- **Human Error Prevention (or increasing mindfulness)** – you get given the tools so you can influence your own behaviour
 - on and off the job and while driving



Holistic View of Incident Causation



Four Critical Errors

Research with over 20,000 people revealed that the top four critical errors people make (without meaning to) are:-

- eyes not on task**
- mind not on task**
- (being in or moving into) the line of fire**
- (loss of) balance/traction/grip**

Four States

The 4 top states people are in when they make critical errors are:-

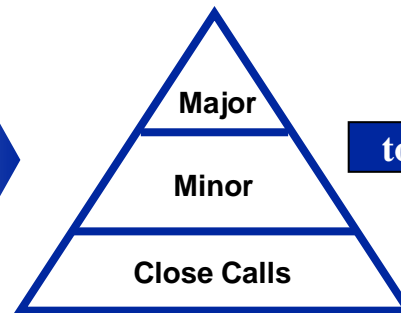
- **rushing**
- **frustration**
- **fatigue**
- **complacency**

The SafeStart Injury Risk Pattern

States (cause) **Errors (which cause)**

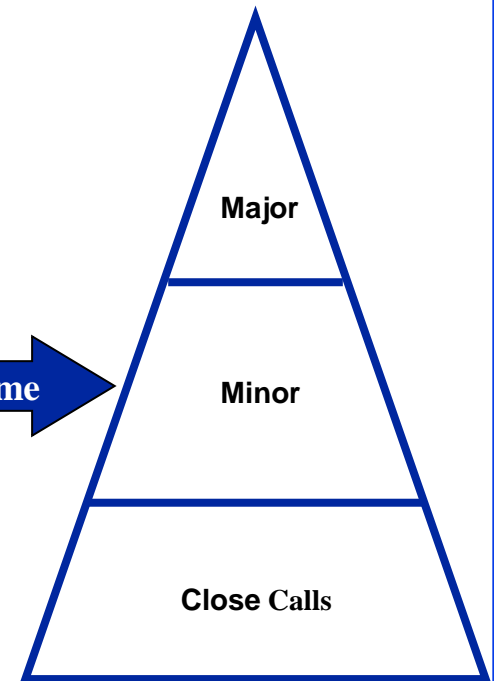
- ✓ Rushing
- ✓ Frustration
- ✓ Fatigue
- ✓ Complacency

- ✓ Eyes Not on Task
- ✓ Mind not on task
- ✓ Line of fire
- ✓ Balance, Traction, Grip



Less Risk

to become



More Risk



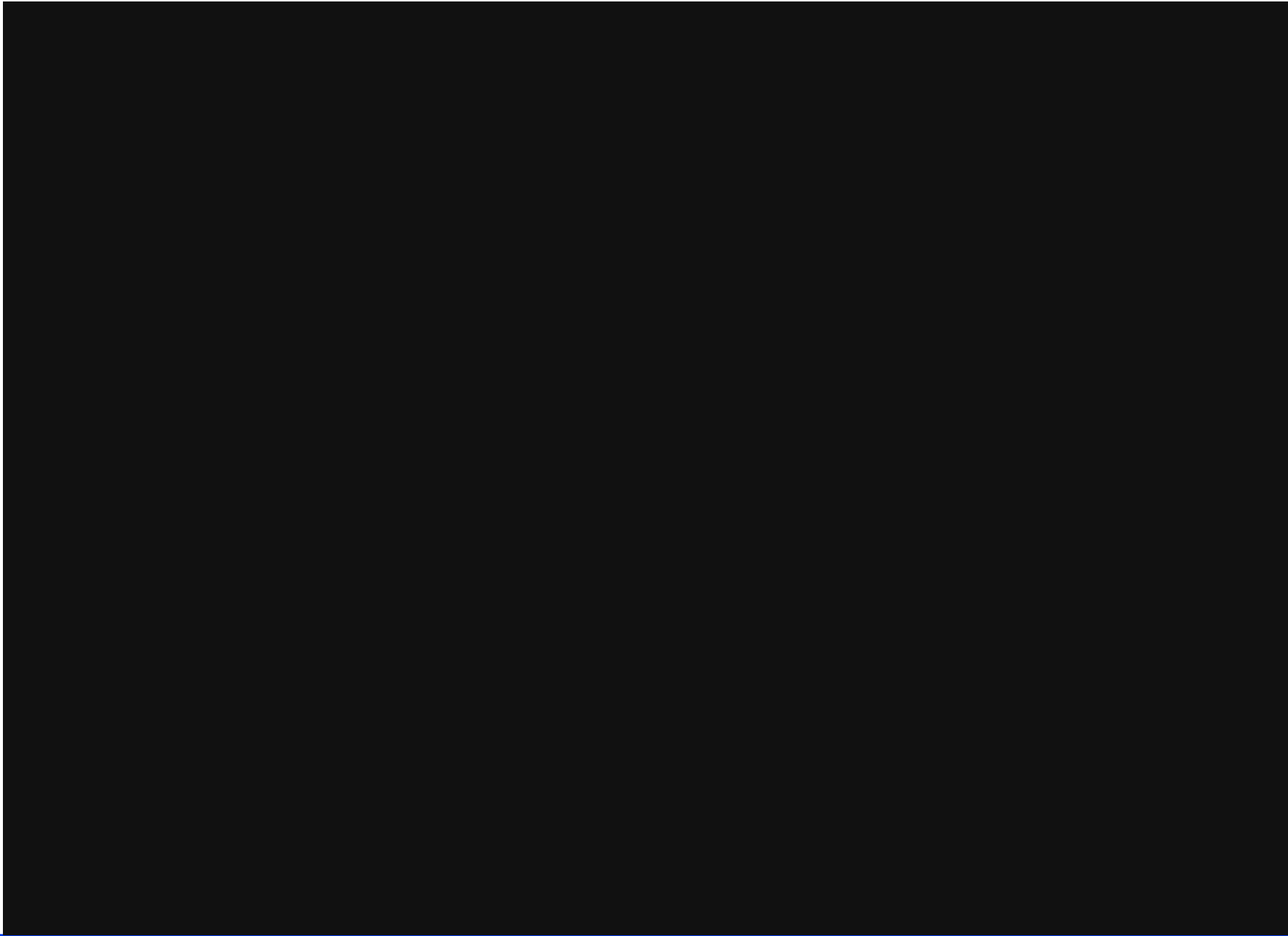
Wallis
DRESS TO KILL

eyesontheball.com



AFRIVEE

ebaumsworld.com



When Person Makes One or More Critical Errors

Hazard Not Present			
Critical error goes totally unnoticed			
Under the Radar			
Almost all of the time			

When Person Makes One or More Critical Errors

Hazard Not Present	Hazard Present but No Contact		
Critical error goes totally unnoticed	Near miss or close call		
Under the Radar	Lucky		
Almost all of the time	Some of the time		

When Person Makes One or More Critical Errors

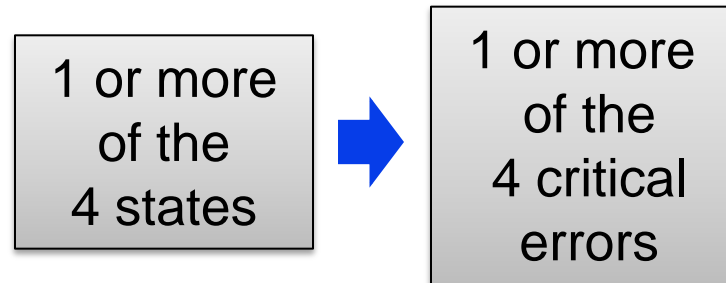
Hazard Not Present	Hazard Present but No Contact	Limited Contact with Hazard or Full Contact in Non-Vital Part of the Body	
Critical error goes totally unnoticed	Near miss or close call	Non-serious injury with high potential or minor injury	
Under the Radar	Lucky	Really Lucky	
Almost all of the time	Some of the time	A little bit of the time	

When Person Makes One or More Critical Errors

Hazard Not Present	Hazard Present but No Contact	Limited Contact with Hazard or Full Contact in Non-Vital Part of the Body	Full Contact with Hazard – Sufficient Energy or Vital Part of the Body
Critical error goes totally unnoticed	Near miss or close call	Non-serious injury with high potential or minor injury	Major injury or fatality
Under the Radar	Lucky	Really Lucky	Unlucky
Almost all of the time	Some of the time	A little bit of the time	Hardly ever

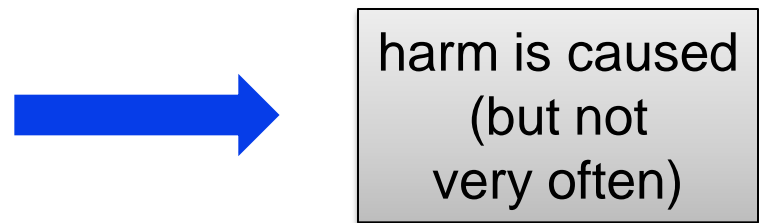
Three Step Incident Model

Person - Initiating Event

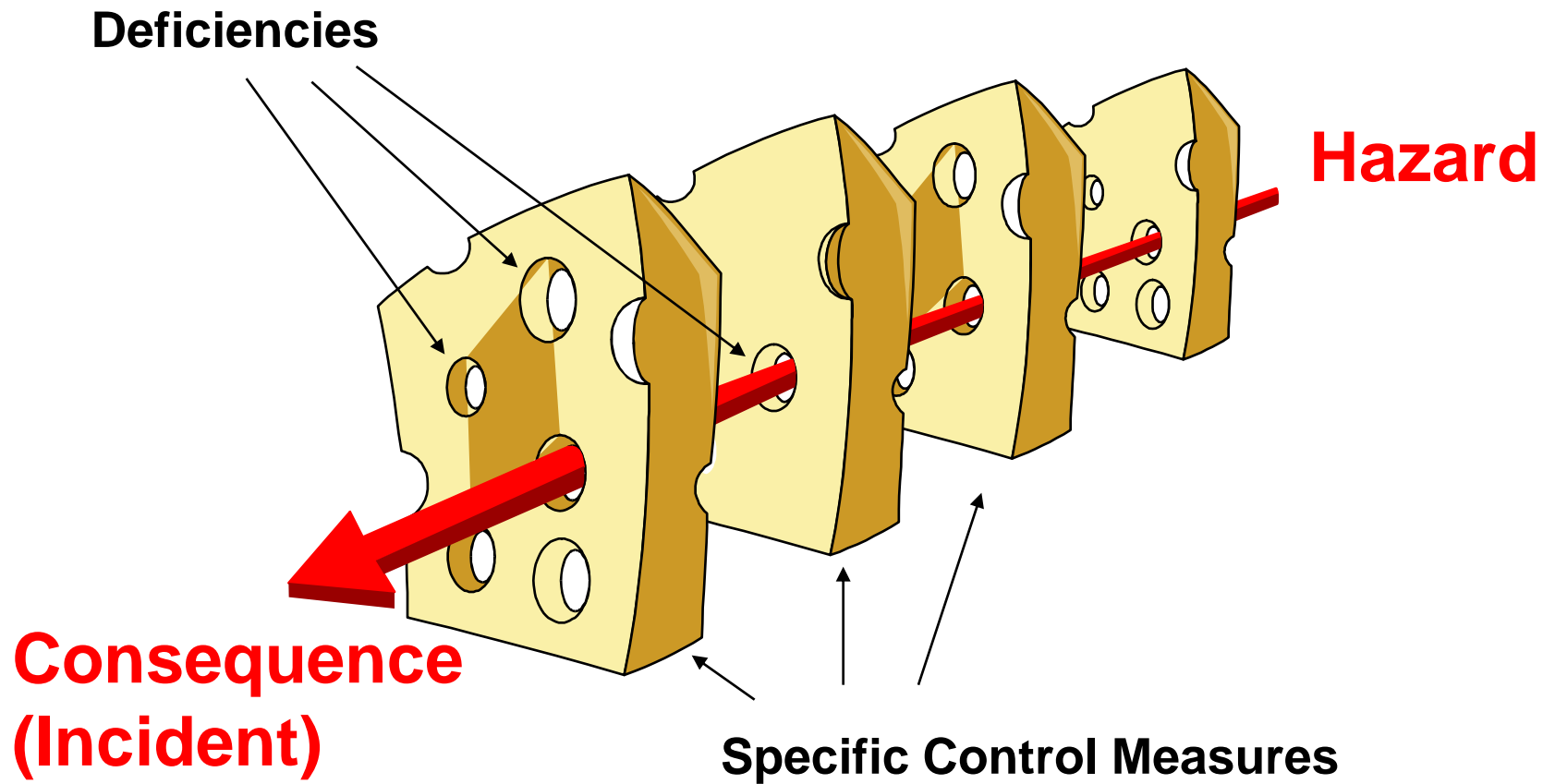


unintentional
and habitual
in 95%+
of acute injuries

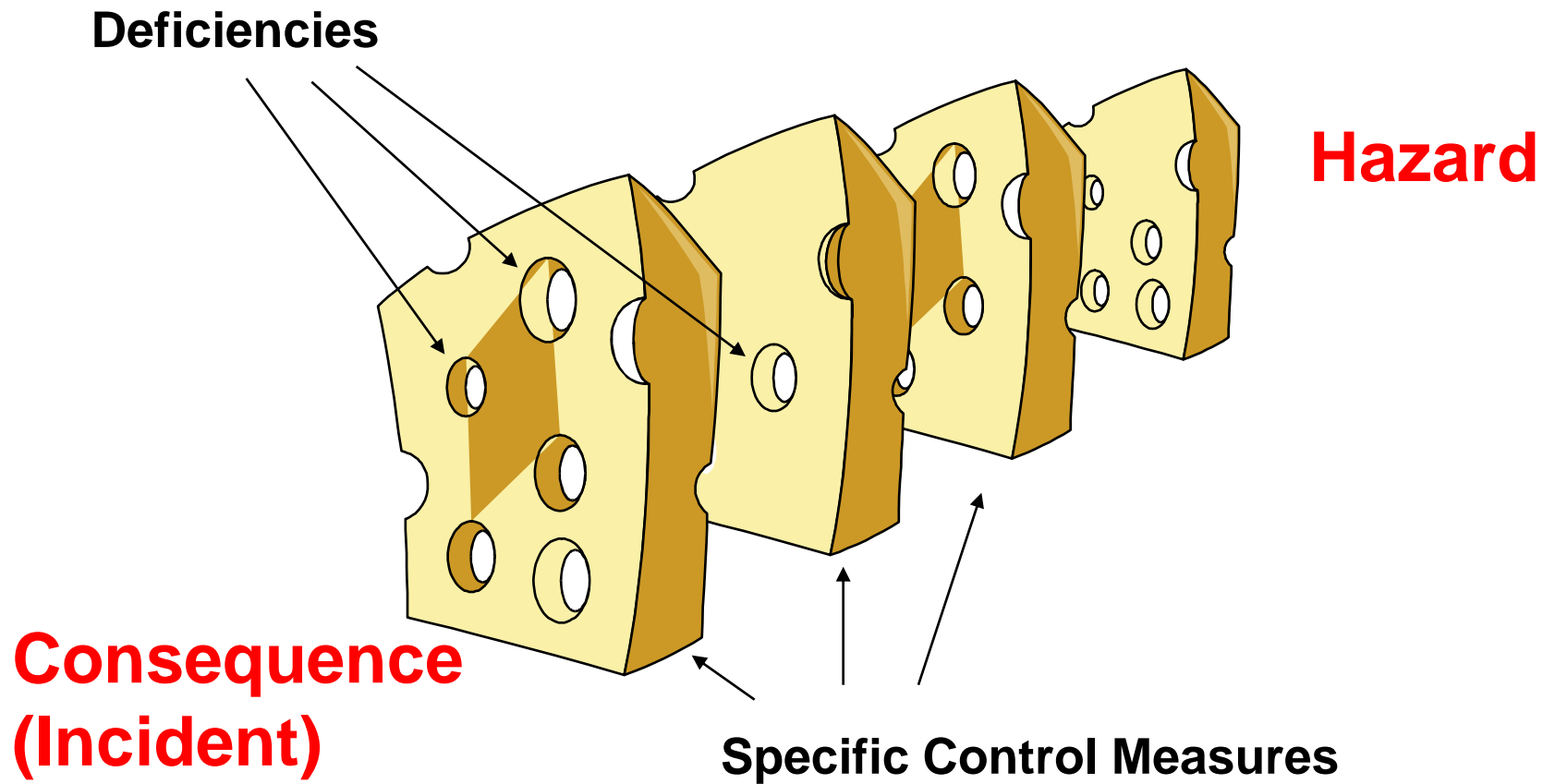
Hazard - Consequence



depends on luck



Reason (2000)



Reason (2000)

When We Find Human Error In Incident Investigations

- **Why do we:-**
 - tick the 'human error' box in the form
 - 'throw our hands' up in the air
 - tell ourselves that little can be done ('to err is human', 'we all make mistakes')
 - and STOP
- **Because we have been conditioned to treat human error as a consequence rather than a cause**

Human Error as a Consequence

**The focus here is on the outcome –
‘something caused’ me to make the error.**

- **‘I burnt myself because Freddie was talking to me at the time’**
- **It was Freddie’s fault because he was talking**

So we look for ‘error-proofing’ of systems, procedures, equipment and environment.



Human Error as a Cause

The focus here is on the action as the cause of the outcome – the error was made doing something

- **‘I burnt myself when I was talking to Freddie’**
- **I wasn’t pay attention to what I was doing**

We hardly ever investigate the causes of the human error – why did it happen?





How Can You Tell When Human Error Is Involved In An Incident?

Corrective actions along the lines of:-

- **‘be more careful’**
- **‘take more care’**
- **‘be more alert’**
- **‘pay more attention’**
- **‘counseling required’**
- **‘review/re-familiarise self with procedure or JSA’**
- ***‘become more cognizant of your situational surroundings in the future’***

How Common is Human Error?

- **84-94% of fatalities and serious accidents (Salminen & Tallberg 1996)**
- **80-90% of accidents (Heinrich 1931)**
- **80-90% of road accidents and 60-80% of aircraft accidents (Pheasant 1991)**
- **50-90% of accidents according to statistics as stated by industry (Kletz 1995)**
- **2/3 of fatal occupational accidents in Australia (Williamson and Feyer)**







Human Error In Investigations

Understanding human error in an incident is the beginning of the investigation process, not the end:-

- **people mostly get injured doing things they have done many times before**
- **the question that never ever gets asked is ‘what was different about THIS time?’**
- **if we ask it in a non-threatening context – the answer is a ‘state to error’ pattern for >95% of acute injuries (on and off the job; while driving)**

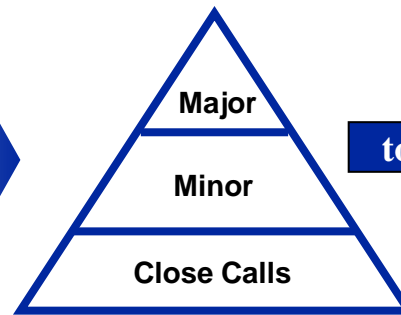


The SafeStart Injury Risk Pattern

States (cause) **Errors (which cause)**

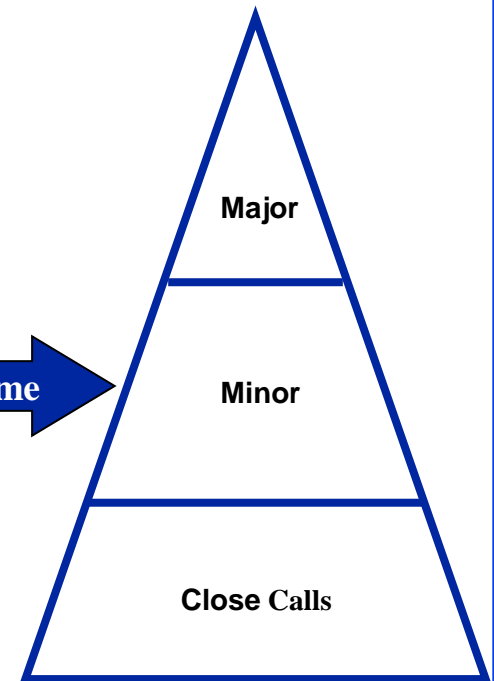
- ✓ Rushing
- ✓ Frustration
- ✓ Fatigue
- ✓ Complacency

- ✓ Eyes Not on Task
- ✓ Mind not on task
- ✓ Line of fire
- ✓ Balance, Traction, Grip



Less Risk

to become



More Risk

Dealing With Human Error Is Not Blaming The Individual

Why do people speak about:-

- human factors rather than human error?
- ‘at risk’ behaviours rather than unsafe acts?

We are reluctant to deal with human error because it can seem like ‘blame’ when we don’t know how to fix it

Not dealing with human error (or focusing solely on the hazard) does not always help

- if my kids can’t swim, I don’t ‘blame’ them
- bulkhead incident

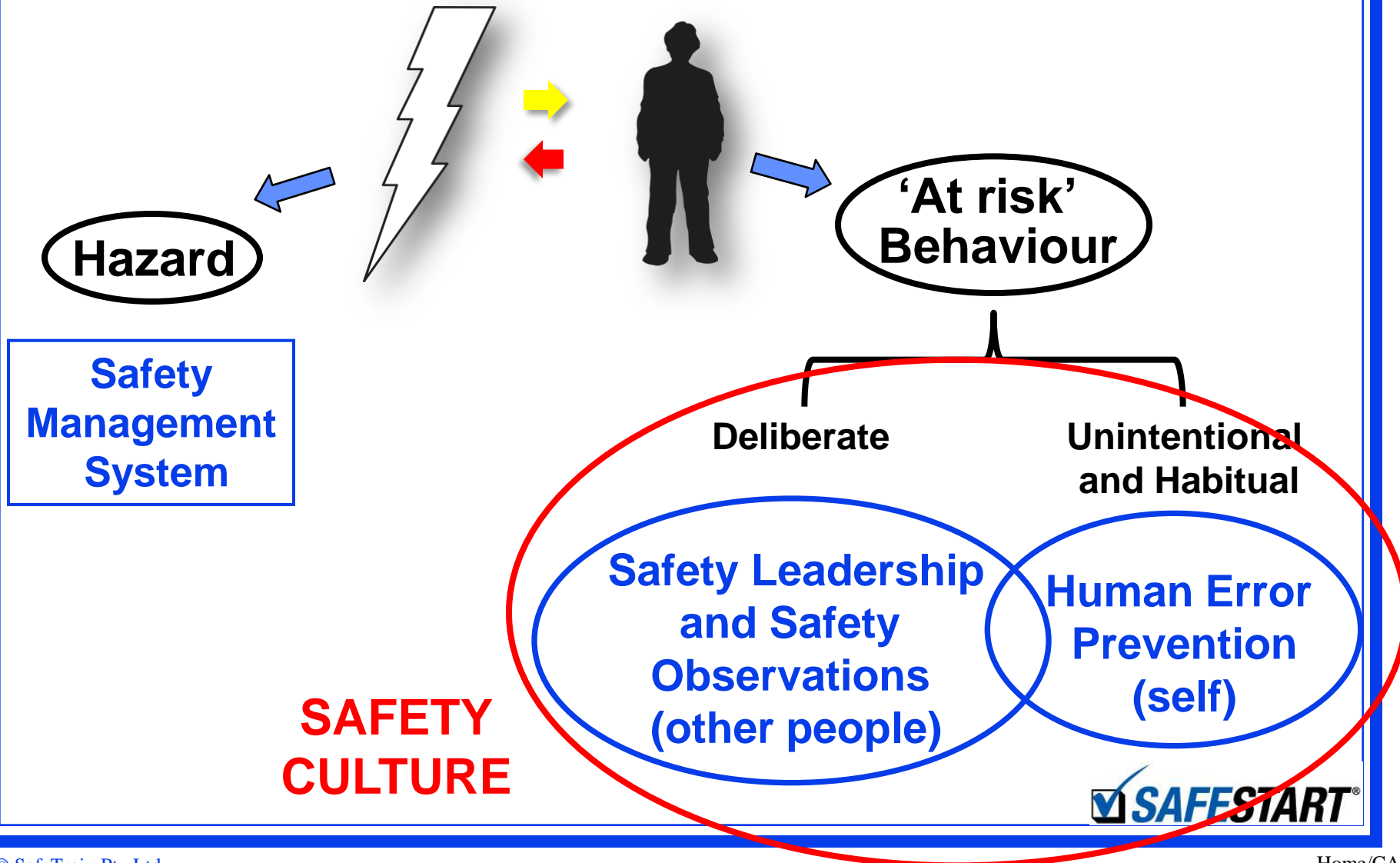


Need to Deal with Human Error in a Non-Threatening Context

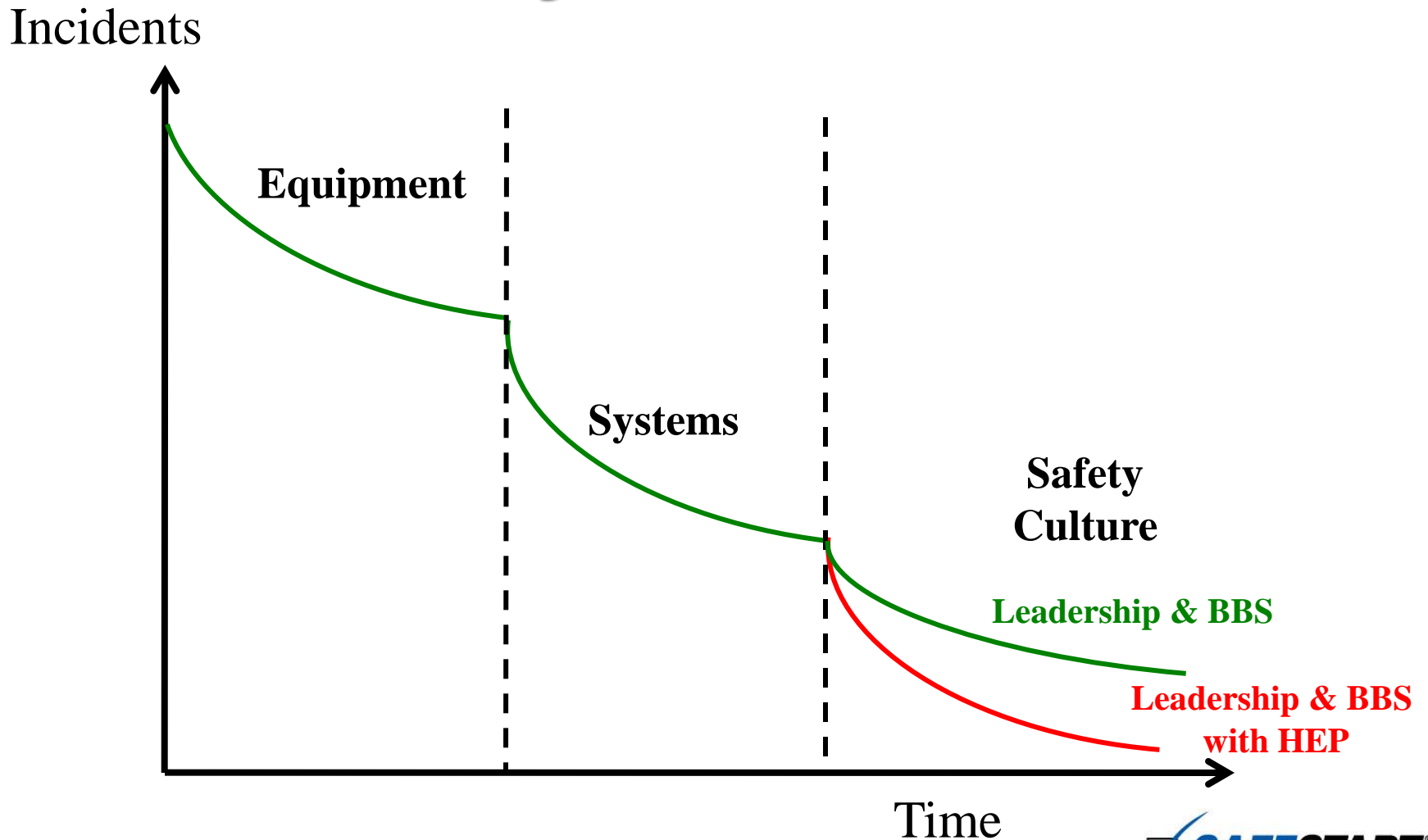
People are less willing to admit a mistake as part of an investigation because they feel they have let the team down somehow.

We need to find a way to get to the bottom of the human error, otherwise our corrective actions are not addressing the root cause (ie, wasting time and money)

Holistic View of Incident Causation



Journey to Zero Harm



Typically, human error prevention programs results in a 60-90% reduction in incident rates within 6-12 months.

1 day workshops (\$100+gst) will be held in:
Perth (6 Sep)
Sydney (22 Nov)

For information and to register, go to
www.safestart.com.au

