

# Human Factors – It's All About You!

Danielle Willett, Senior Safety Engineer, National Grid



**nationalgrid**

The power of action.™

# ICE BREAKER - Video

---



# Human Factors – Why You? ... Why me?

---

- ◆ Like it or not Human Factors are around us all day, every day
- ◆ Everything we do is affected by human factors
- ◆ **IF YOUR LIFE DEPENDED ON IT – YOU WOULD BE INTERESTED**

# Safe Surgery Saves Lives

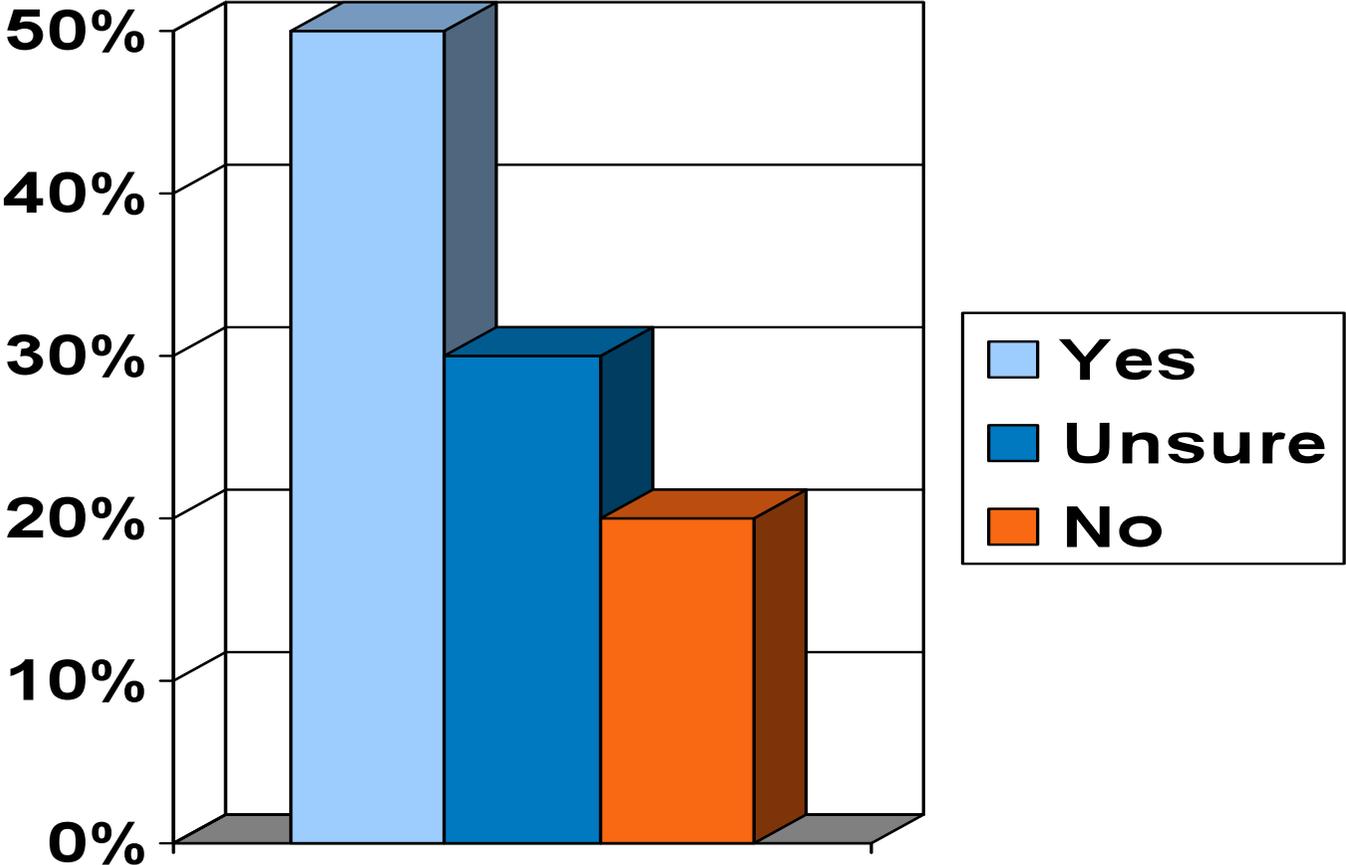
---

- ◆ **October 2007 to September 2008**
- ◆ **WHO trial 19 point surgical safety checklist**
- ◆ **Trialled in 8 hospitals in 8 cities (developed and developing world)**
- ◆ **Data from 3,733 patients before**
- ◆ **Data from 3,955 patients after**



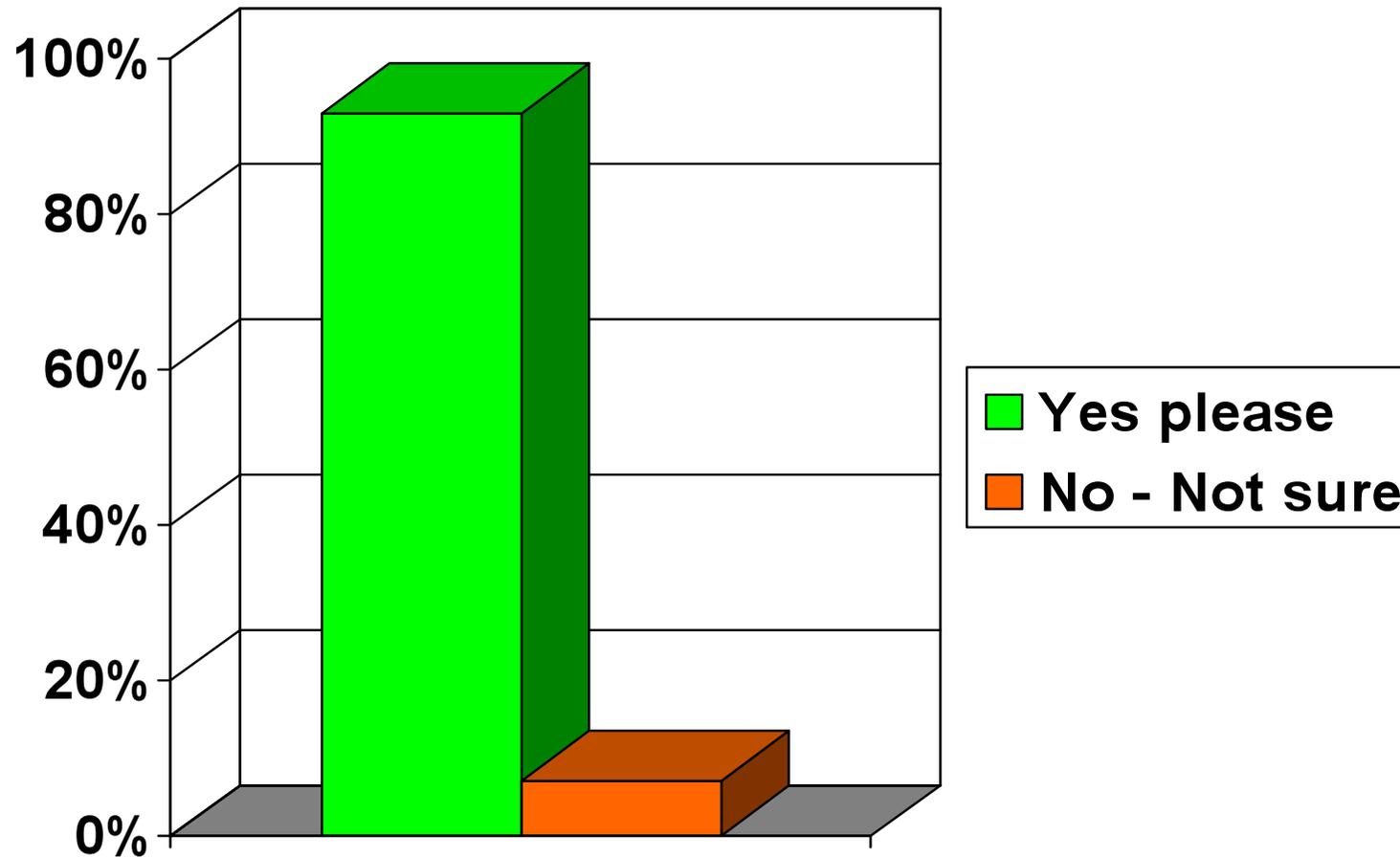
# Resistance to the Checklist - Before

---



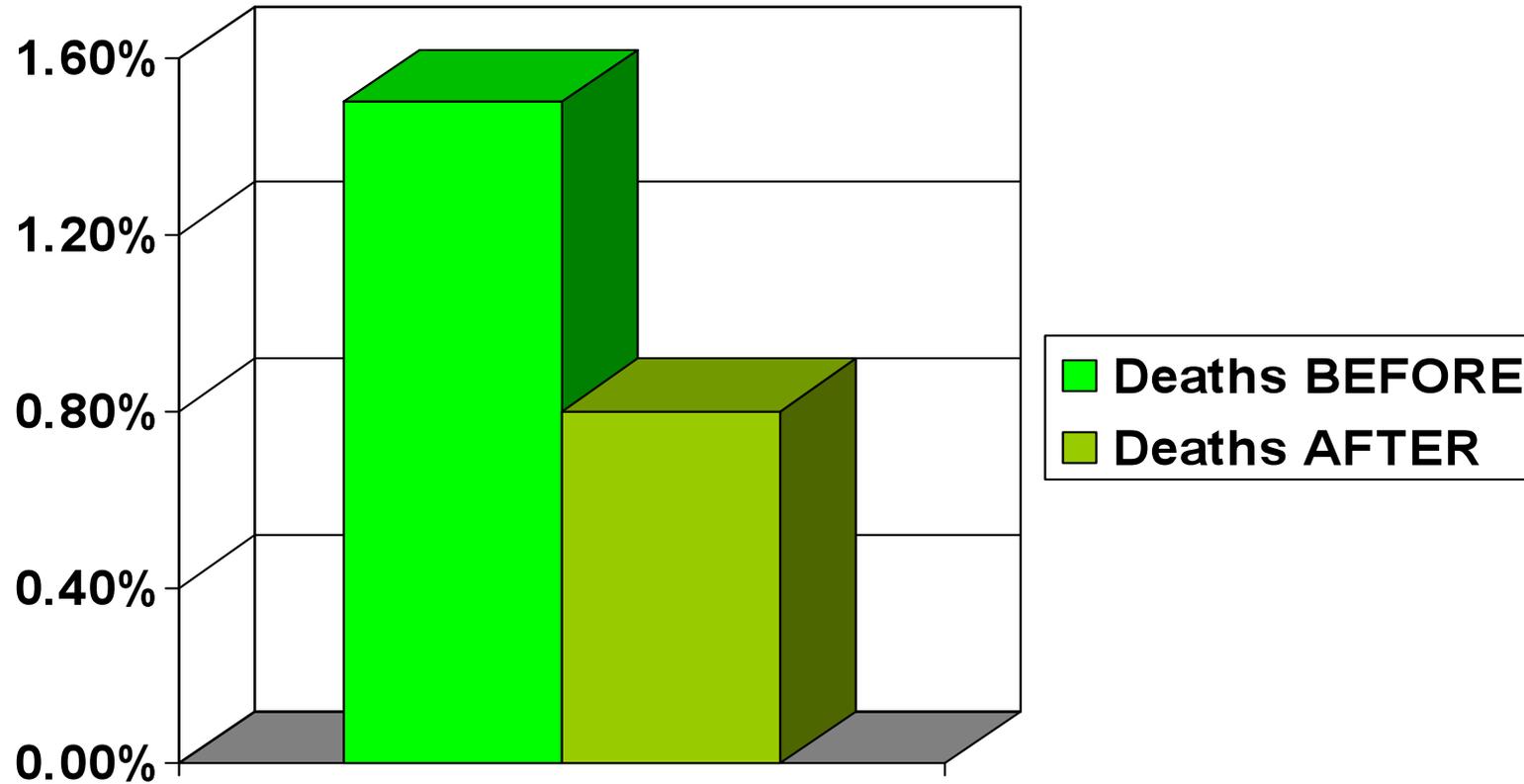
# Would YOU want the Checklist to be used?

---



# Surgical Checklist cuts deaths by 40%

---



# What's on the Checklist?

---

- ◆ What's the patient's name?
- ◆ Do all the operating team know each other?
- ◆ Do the operating team know what everyone else does?
- ◆ Which part of the body are we operating on?
- ◆ What procedure will be applied?
- ◆ Does the patient have known allergies?
- ◆ Are all instruments and items used during surgery accounted for?

# The Checklist

## WHO Surgical Safety Checklist

(adapted for England and Wales)

National Patient Safety Agency  
National Reporting and Learning Service

**SIGN IN** (To be read out loud)

**Before induction of anaesthesia**

Has the patient confirmed his/her identity, site, procedure and consent?  
 Yes

Is the surgical site marked?  
 Yes/not applicable

Is the anaesthesia machine and medication check complete?  
 Yes

Does the patient have a:  
Known allergy?  
 No  
 Yes

Difficult airway/aspiration risk?  
 No  
 Yes, and equipment/assistance available

Risk of >500ml blood loss (7ml/kg in children)?  
 No  
 Yes, and adequate IV access/fluids planned

**TIME OUT** (To be read out loud)

**Before start of surgical intervention**  
for example, skin incision

Have all team members introduced themselves by name and role?  
 Yes

Surgeon, Anaesthetist and Registered Practitioner verbally confirm:  
 What is the patient's name?  
 What procedure, site and position are planned?

Anticipated critical events  
Surgeon:  
 How much blood loss is anticipated?  
 Are there any specific equipment requirements or special investigations?  
 Are there any critical or unexpected steps you want the team to know about?

Anaesthetist:  
 Are there any patient specific concerns?  
 What is the patient's ASA grade?  
 What monitoring equipment and other specific levels of support are required, for example blood?

Nurse/ODP:  
 Has the sterility of the instrumentation been confirmed (including indicator results)?  
 Are there any equipment issues or concerns?

Has the surgical site Infection (SSI) bundle been undertaken?  
 Yes/not applicable

- Antibiotic prophylaxis within the last 60 minutes
- Patient warming
- Hair removal
- Glycaemic control

Has VTE prophylaxis been undertaken?  
 Yes/not applicable

Is essential imaging displayed?  
 Yes/not applicable

**SIGN OUT** (To be read out loud)

**Before any member of the team leaves the operating room**

Registered Practitioner verbally confirms with the team:  
 Has the name of the procedure been recorded?  
 Has it been confirmed that instruments, swabs and sharps counts are complete (or not applicable)?  
 Have the specimens been labelled (including patient name)?  
 Have any equipment problems been identified that need to be addressed?

Surgeon, Anaesthetist and Registered Practitioner:  
 What are the key concerns for recovery and management of this patient?

**PATIENT DETAILS**

Last name:

First name:

Date of birth:

NHS Number\*:

Procedure:

\*If the NHS Number is not immediately available, a temporary number should be used until it is.

This checklist contains the core content for England and Wales

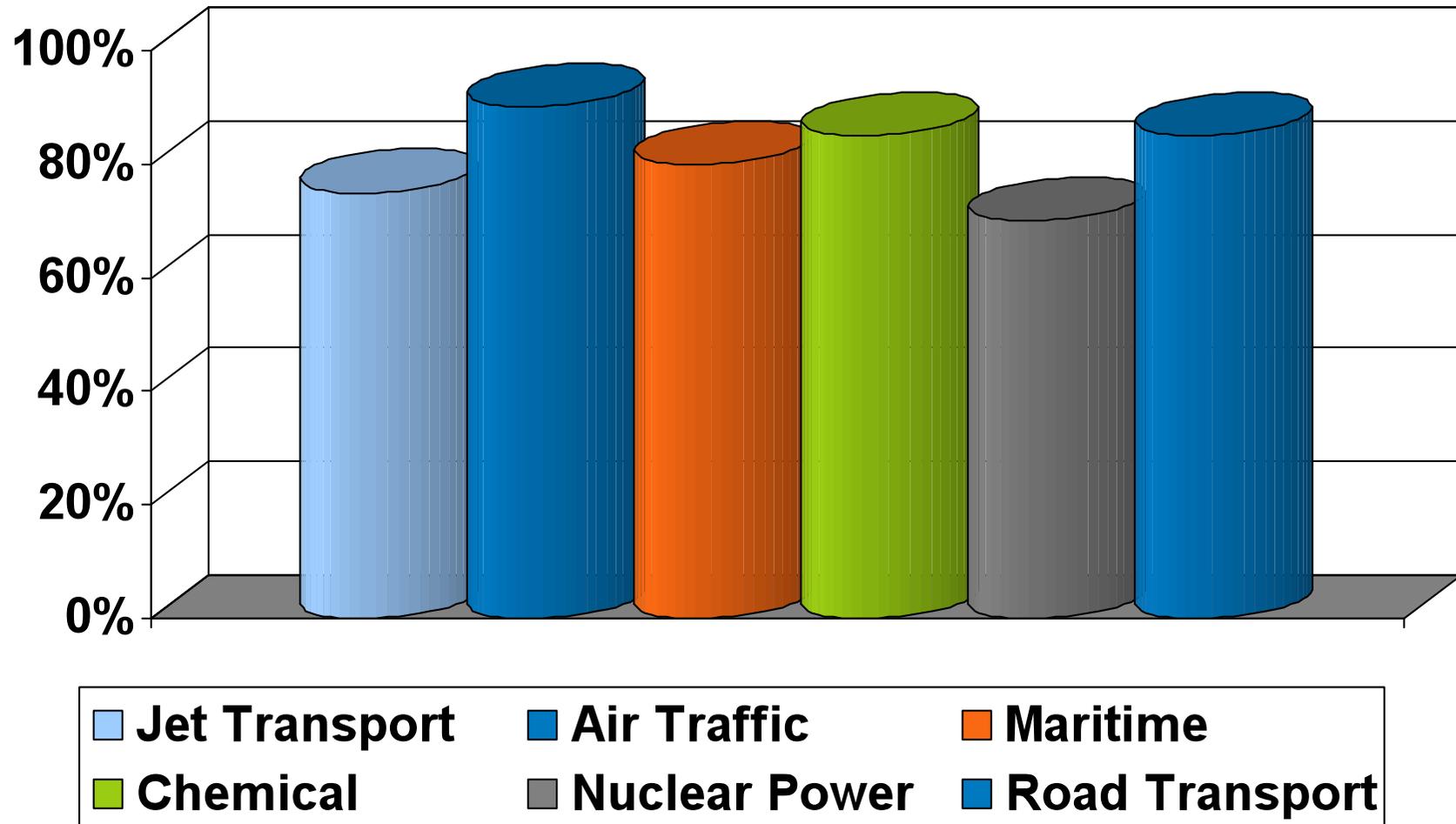
[www.npsa.nhs.uk/nrls](http://www.npsa.nhs.uk/nrls)

# What's this got to do with me?

---

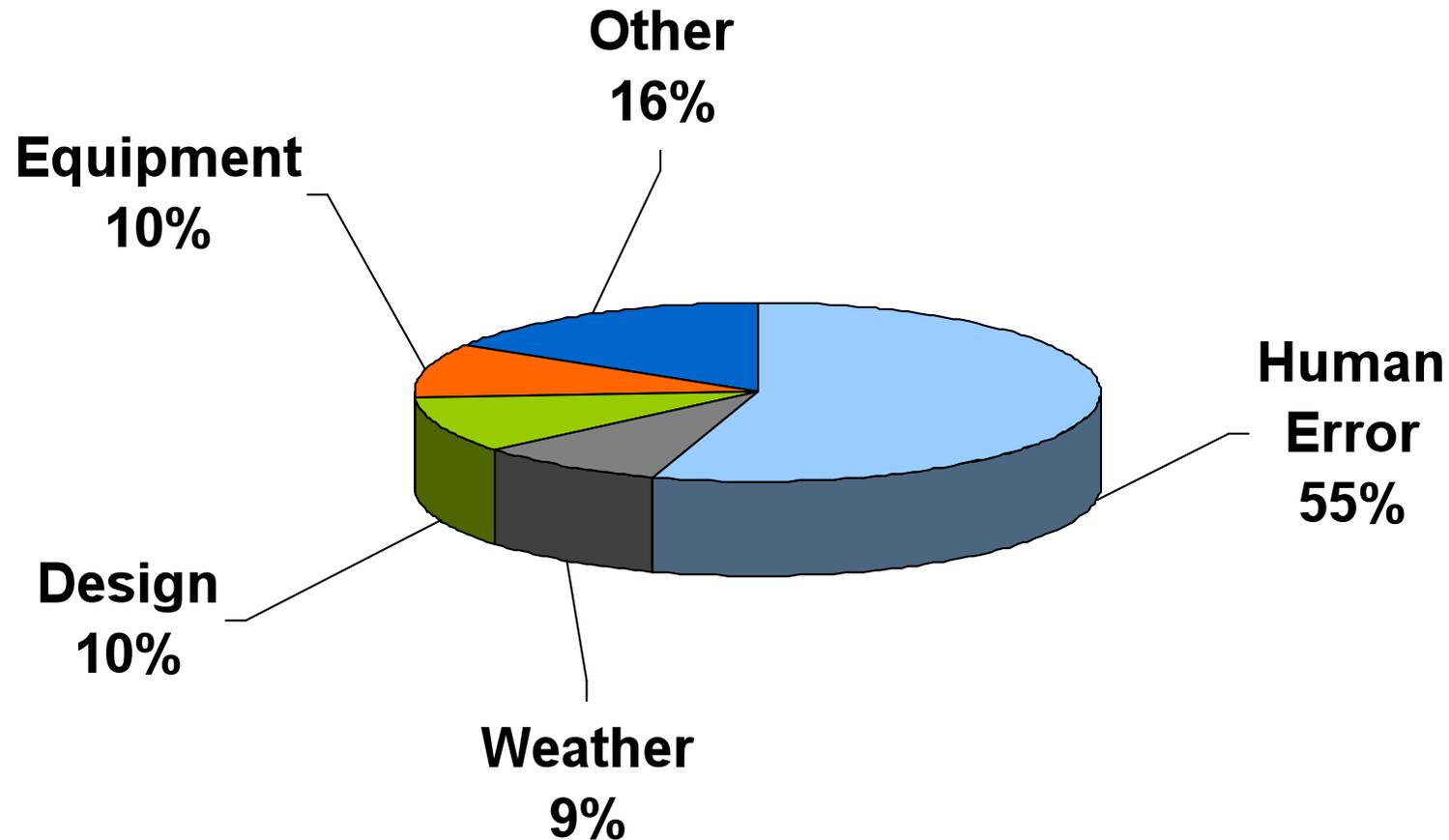
- ◆ If you're having surgery any time soon – it's pretty relevant!
- ◆ A back catalogue of major incidents with human failure
- ◆ Past performance may indicate future performance
- ◆ Human Factors should be included within a good safety management system

# Human Error - Estimate of All Failures

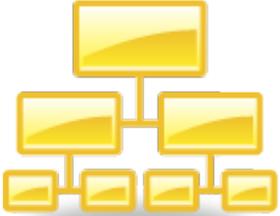


# Petrochemical Industry – Incident Cause

---



# 'Human Factors' – what do we mean?

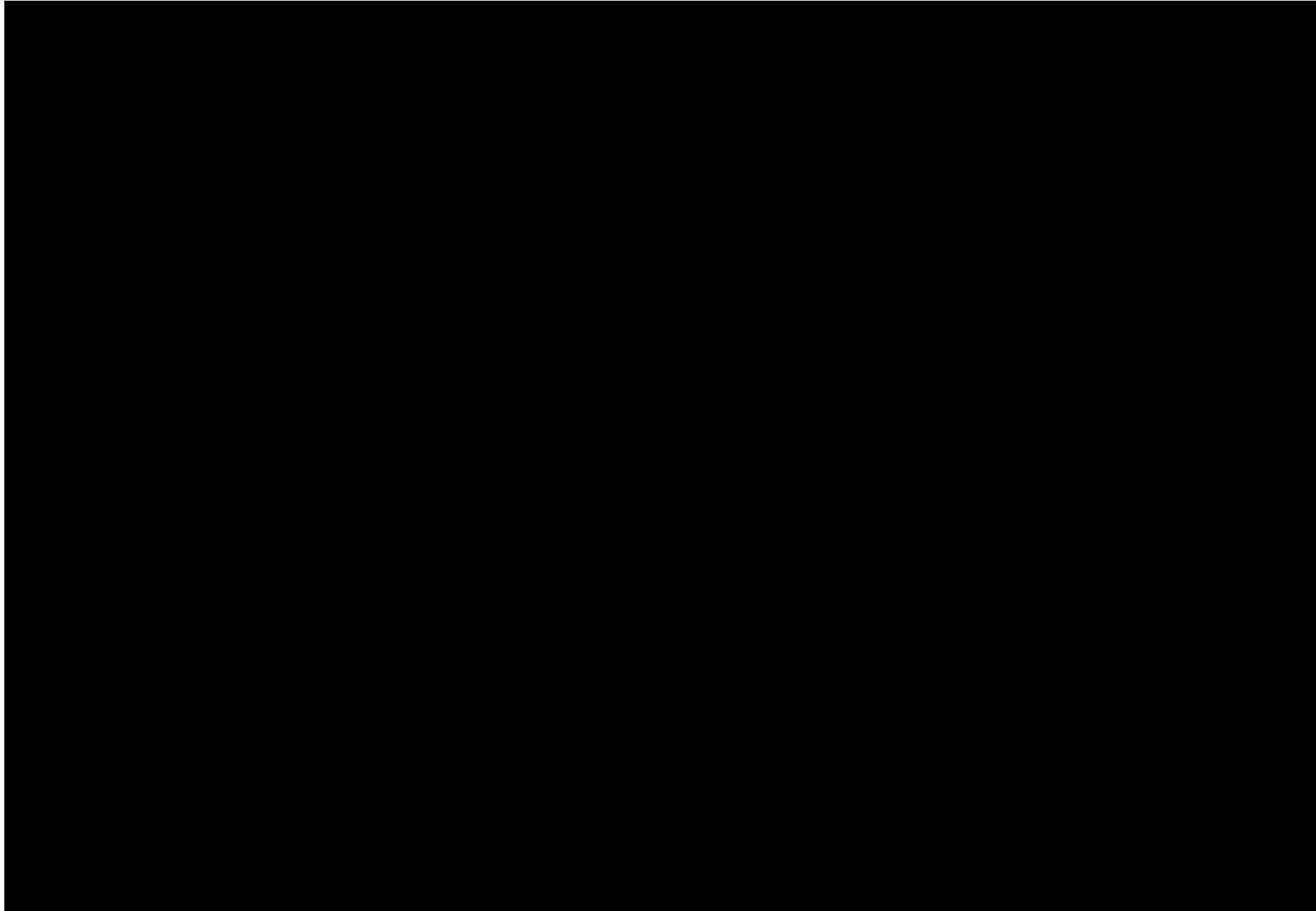
<p><b>JOB</b></p> 	<p>Task, Workload, Complexity, Time Available, Work Environment, Labels, Signs, Instructions, Procedures, Displays, Controls, Accessibility</p>
<p><b>ORGANISATION</b></p> 	<p>Culture, leadership, Work Pattern, Work Scheduling, Communication</p>
<p><b>INDIVIDUAL</b></p> 	<p>Competence, Skills, Personality, Attitudes, Perception of Risk</p>

# Process Industry – Top 10



# Human Factors – that sinking feeling video

---



# HUMAN FACTORS - HTA

---

- ◆ Handover to Kelvin