



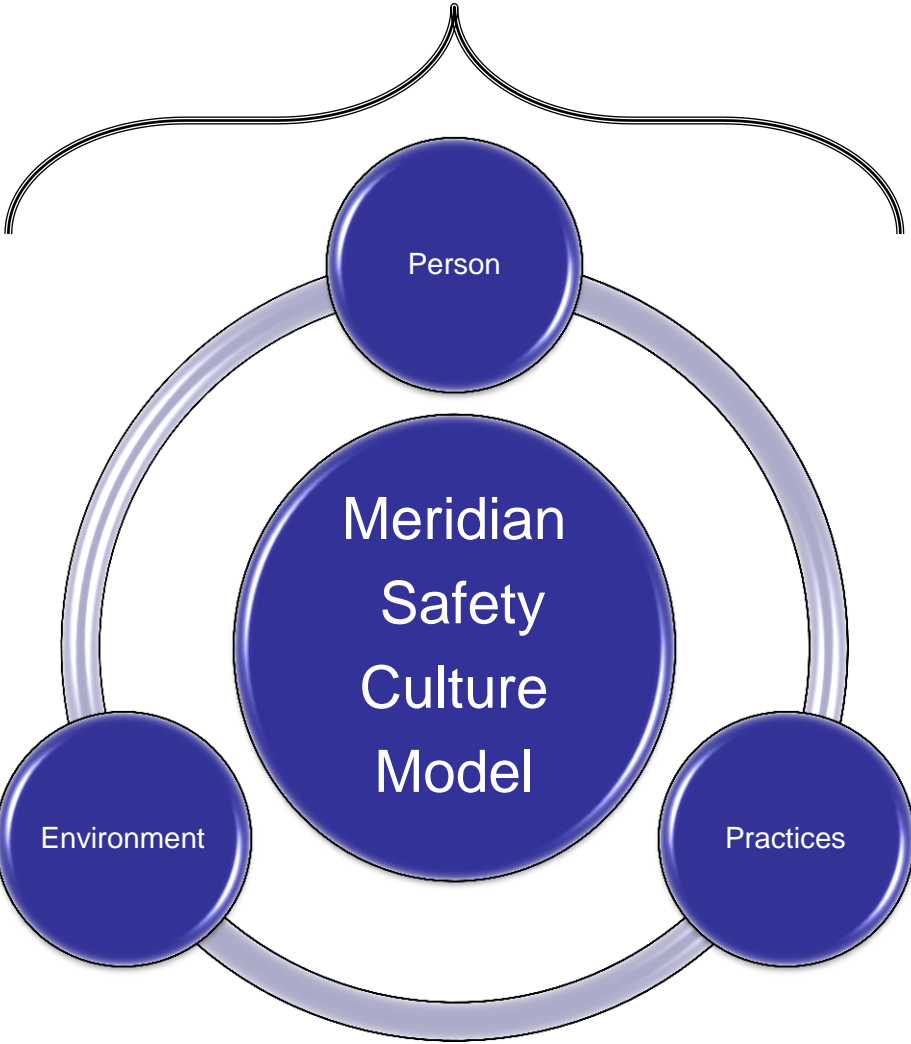
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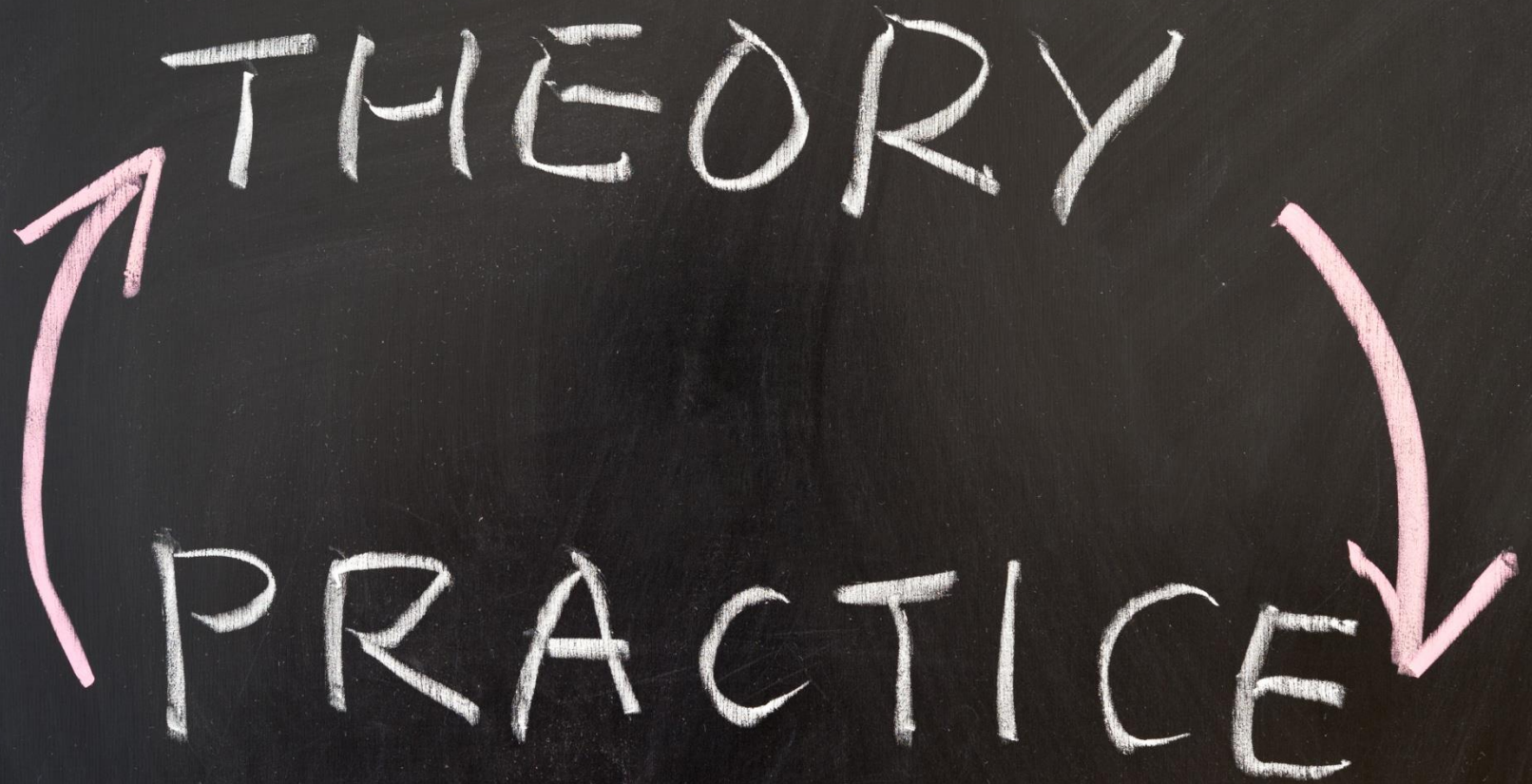
From Theory to Practice

Growing a Positive Safety Culture



Leadership





Leadership



- Executive commitment
- Involvement at all levels
- Part of our fabric
- Safety is for keeps
- Walk the talk

Environment

A photograph of a worker in a yellow hard hat and dark clothing standing on the nacelle of a white wind turbine. The turbine is positioned over a vast blue ocean. In the background, there are blue mountains under a clear blue sky with scattered white clouds. The word 'Environment' is written in large white letters at the top left of the image.

- PPE
- Approved Tooling and Equipment
- Engineering
- Physical Work Location

Practices



- Policies
- Procedures
- Guidelines
- Roles
- Wind Turbine Safety Rules
- Safety Training
- Procurement
- Reporting
- Performance Standards
- ICAM Investigation Process
- Site Safety Meetings
- Safety Committees
- Open Communications
- Continuous Improvement

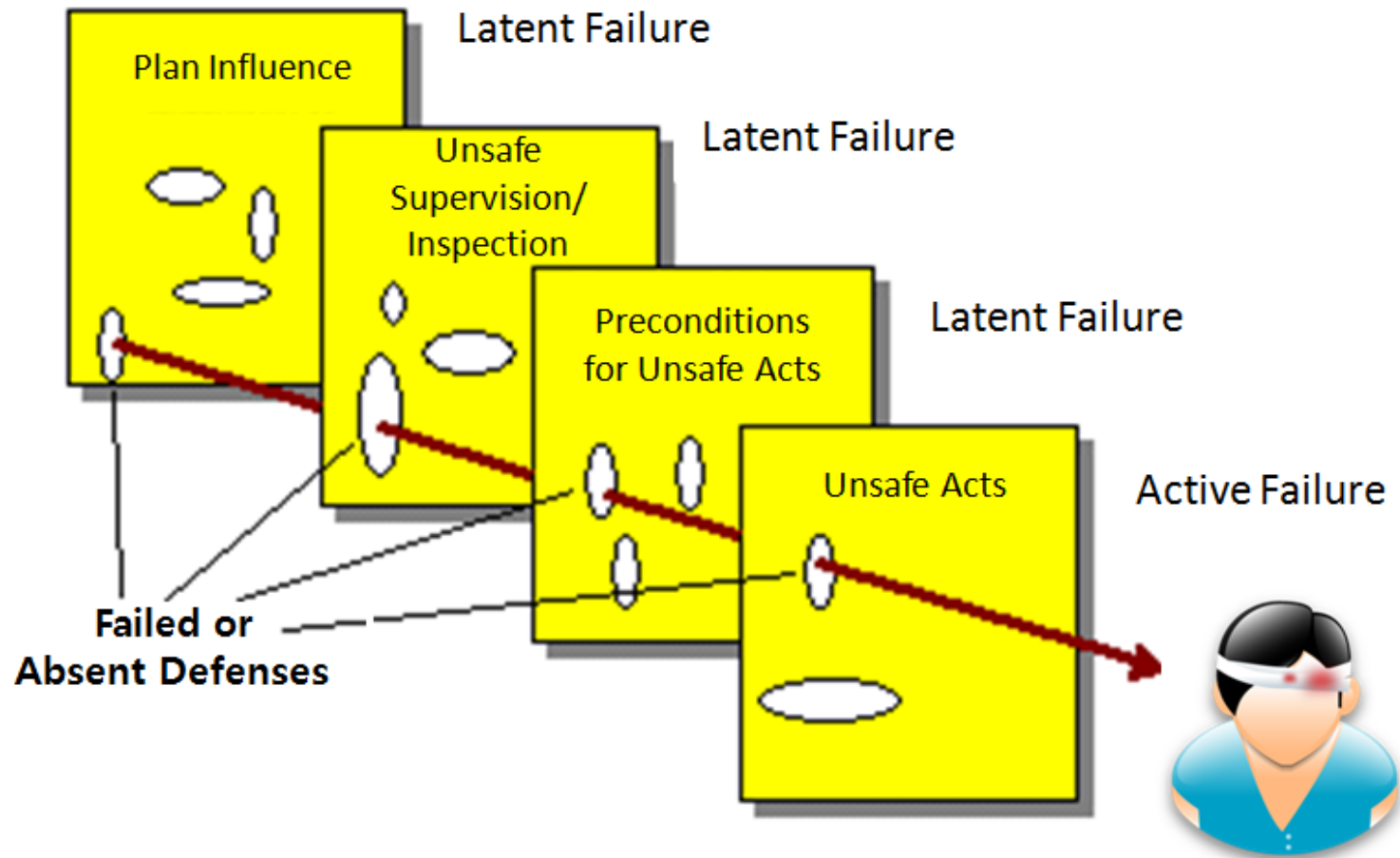
Person



- Knowledge
- Competencies
- Skills
- Experience
- Motivation
- Behaviour
- Attitude

ICAM

Incident Cause Analysis Method





BWEA Wind Turbine Safety Rules



“Safety from the System”

Clear responsibilities of each work party member

Approved documentation suite

Transferable across sites and owners

Meets the requirements of the GPG's and SMEI's

The Wind Turbine Safety Rules (WTSR) clearly specify actions and procedures which have to be followed in order that persons working on wind turbines are safeguarded from inherent dangers that exist from the installed electrical and mechanical equipment in wind turbines.

They have been developed jointly by owners and manufacturers of wind turbines. They have been in use since 2005 and are endorsed by the BWEA as representing industry best practice for operational wind farms.

The WTSR provide a single way of managing operational safety, giving owners and wind turbine maintenance service providers a consistent and auditable process across their UK portfolios. They are a fine example of how key members of BWEA have been working together for the good of the industry and represent a world leading approach to managing operational safety in wind turbines.

A wind farm consists of two distinct systems: the high voltage (HV) infrastructure and the wind turbines with their associated low voltage (LV) infrastructure.

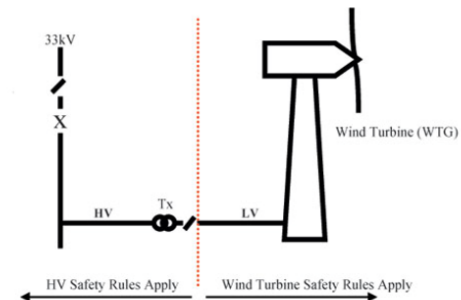
The WTSR apply only to the wind turbine and associated LV infrastructure.

To carry out work on equipment in a wind turbine, the WTSR require Approved Written Procedures (AWP's) to be put in place for each work package significant enough to warrant it. An AWP is a procedure which specifies how work on plant & apparatus below 1000V AC or 1500V DC, will be carried out safely – it is similar to a method statement and it includes checkpoint signatures as auditable proof that safety precautions were applied for the duration of the work.

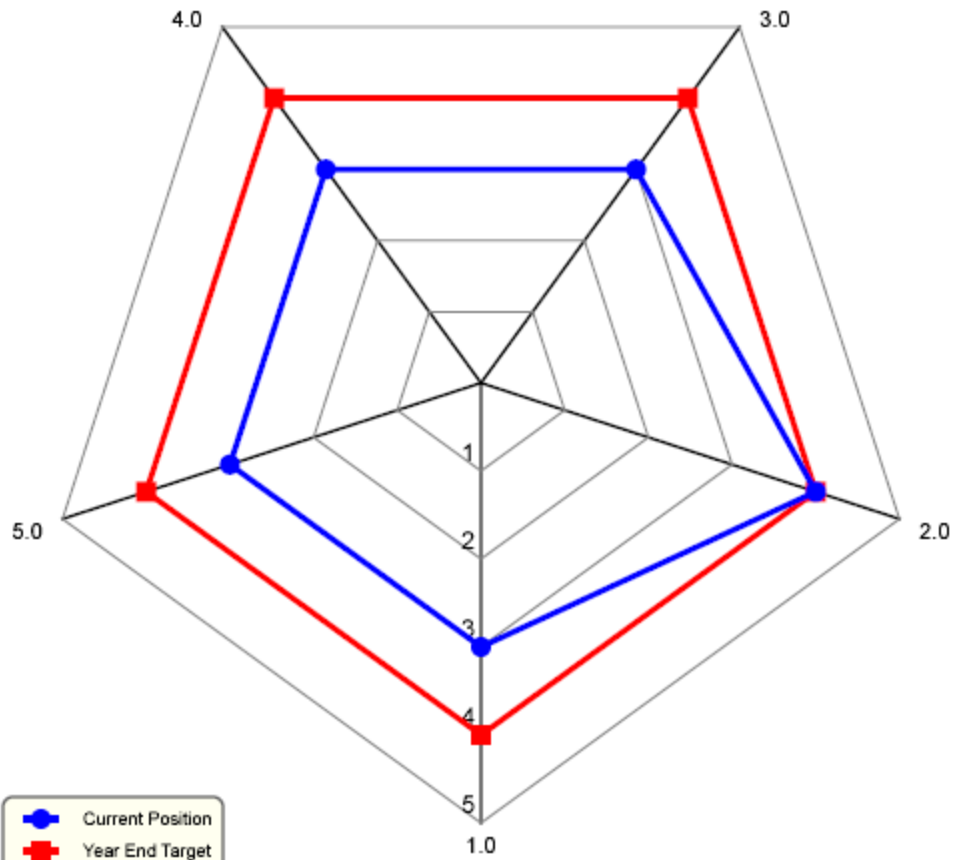
The WTSR's also give guidance on when AWP's are required; and when they are not necessary.

The WTSR are currently implemented in the UK at over 100 wind farms. Major industry players advocate their use. The BWEA supports a WTSR review group whose remit is to review their use and recommend improvements based on operating experience. The WTSR were updated in June 2009 to incorporate changes suggested by the group.

An implementation support package consisting of the WTSR, support and guidance documents are available on the BWEA website to assist members to introduce the WTSR into their companies - online at www.bwea.com/safety/safety_rules.



Lead Indicators - Feb-2014



1.0 Site Rep Training to Level 2

2.0 Site Audit Programme and Progress Reporting

3.0 Site Induction Video

4.0 Site Equipment Cert. and Test/Tag Register

5.0 Awareness Programme



ZERO INCIDENT PROCESS

I'm not OK, you're OK:
we are at fault and others are capable.

I'm not OK, you're not OK:
everyone is at fault.

I'm OK, you're not OK:
problems are temporary only.

I'm OK, you're OK:
clear and undistorted view of the world.

I'm not OK You're OK	I'm OK You're OK 
I'm not OK You're not OK	I'm OK You're not OK

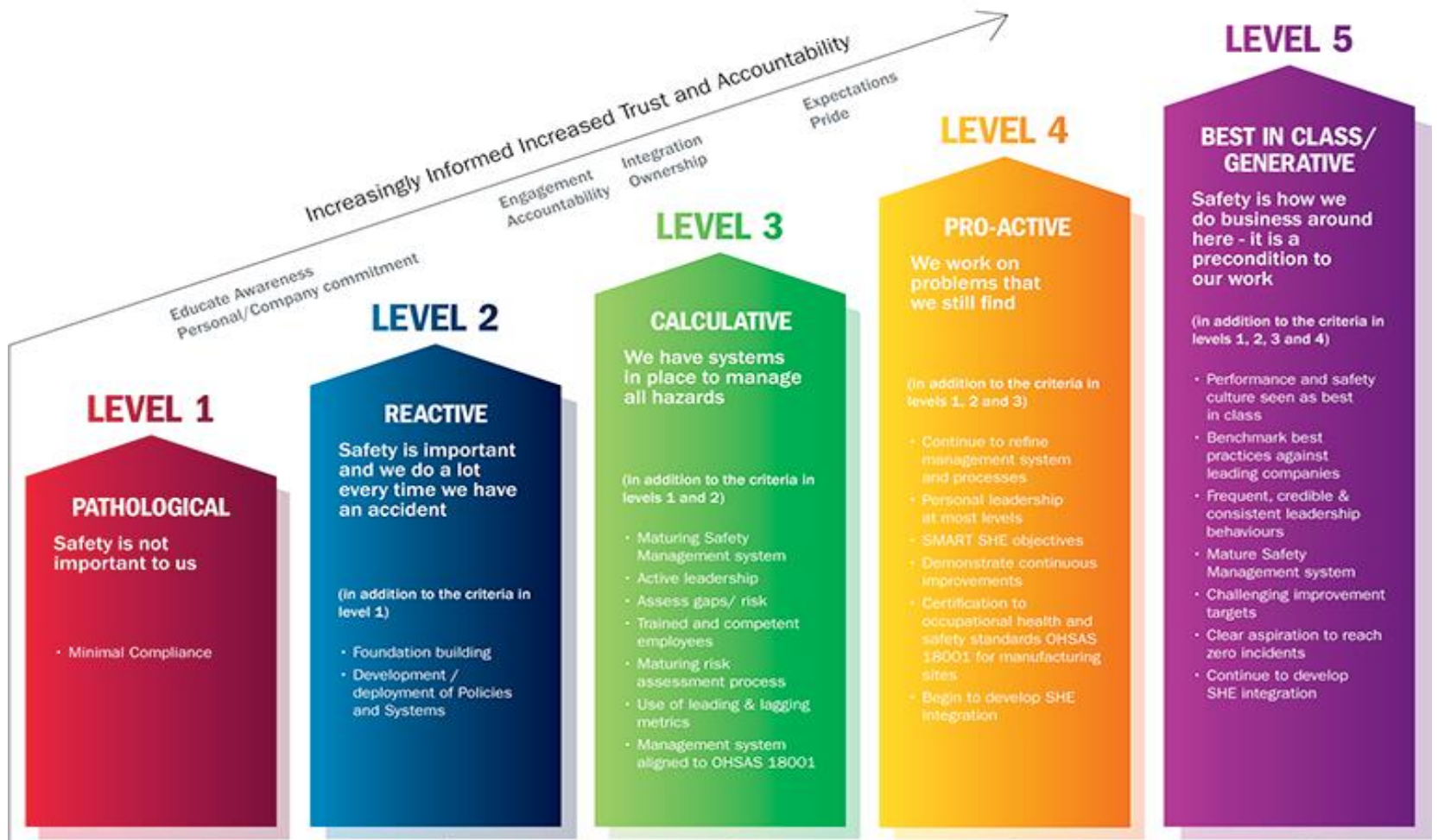


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Visible Management Commitment	Safety is a top-down commitment, with the Executive always pushing safety initiatives.	
Safety Communication	Safety is always the first item on the Agenda	
Production vs Safety	Message from Team Leaders and Site Managers that it's safety first, no matter what.	
Learning Organisation	Taking the learning's and actions from investigations and implementing them	
Health and Safety Resources	Getting PPE is never an issue	
Participation in Safety	Everyone on the team has access to Reps and the Monthly Committee meeting is well attended	
Risk Taking Behaviours	We look out for our mates and challenge risk taking behaviour	
Trust	We trust our Managers as they follow up the issues	
Industrial Relations	There is good working relationships across the team	
Competency	Competencies are assessed against safe operating procedures	

“We are all responsible for Safety”



- Executive commitment
- Management focus
- Involvement across all levels of the organisation
- Safety integrated into every workplace activity
- Walk the Talk
- Be prepared to change if it's not working

Any Questions?

