



HUMAN FACTORS MATURITY® MODEL

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About us

- Experienced leaders in the marine industry providing the following:
 - Marine and Operational Leadership to support organisational, structural and process changes.
 - Human Factors guidance in the development and implementation within the industry
 - Support on shipping legal, expert witness and maritime arbitration
 - Subject matter expertise on all issues related to the vetting of tankers and the SIRE programme
 - Tanker voyage optimisation

Human Factors – What is it...?



The UK Health and Safety Executive defines human factors as:

“environmental, organisational and job factors, and human and individual characteristics which influence behaviour at work in a way which can affect health and safety”.

It is not just about preventing accidents and ill-health, but also about optimising performance.

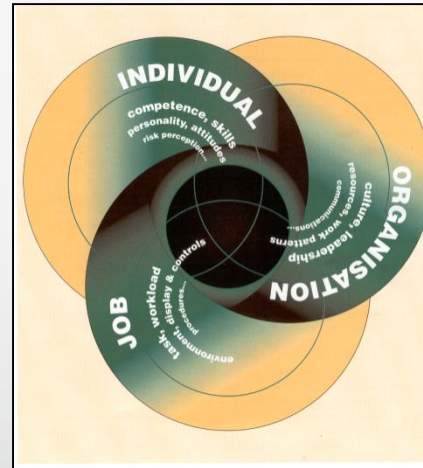
Why is Human Factors Important?

Major accidents

- 80% of incidents have human factors contributions
- “behavioural safety” not enough

Occupational health

- Environmental / inherent hazards
- Musculoskeletal injury
- Stress related disorders



Performance and cost benefits

- Setting people up for success
- Create positive mindset

Regulators

- IMO, OCIMF, SIGTTO, etc

Client / partner expectations

- Industry is developing its own expertise

Most Common 'Human Factors' Contributors to Major Accidents in Hazardous Industries

Known as the HSE's top ten Human & Organisational Factors (HOF)

- Managing human failure
- Procedures
- Training and competence
- Staffing
- Organisational change
- Safety-critical communication
- Human factors in design
- Fatigue & shiftwork
- Organisational (safety) culture
- Maintenance, inspection and testing

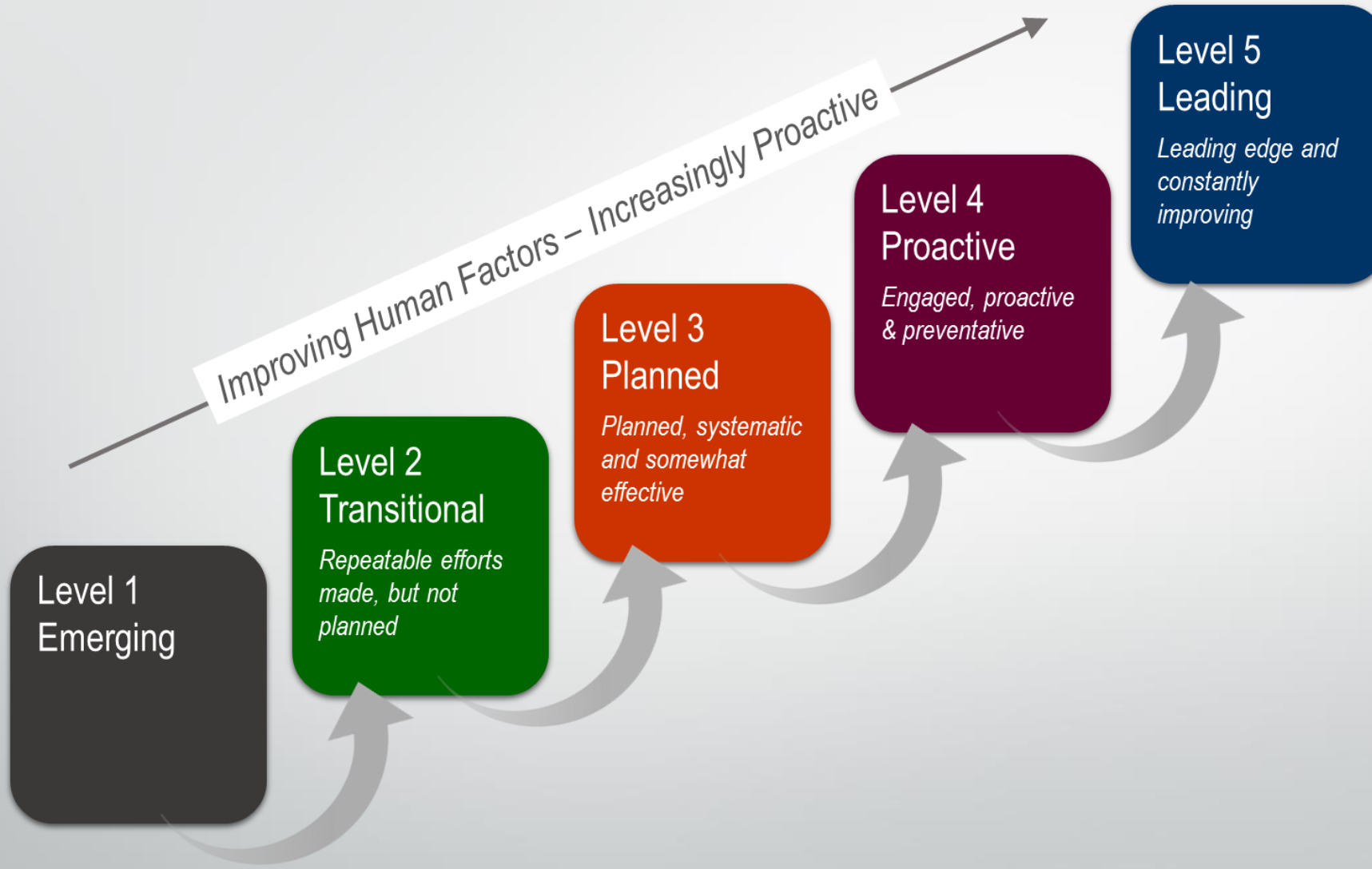
Recurrent Themes in Major Accidents

Major Accident	Human failure (including maintenance)	Procedures	Training / Competence	Staffing	Organisational Change	Safety Critical Communications	Human Interface Design	Fatigue / shift work	Safety Culture
Oil & gas									
Piper Alpha	X	X	X			X			X
Buncefield	X	X	X	X	X	X	X	X	X
Texas City	X	X	X	X	X	X	X	X	X
Nuclear									
Three Mile Island	X	X	X				X		
Chernobyl	X	X	X		X				
Chemicals and plastics									
Formosa	X	X	X				X		
Bhopal	X	X	X	X	X	X			X
Flixborough	X		X						
Transport									
Herald of Free enterprise	X						X	X	X
Kegworth	X		X		X	X	X		

Applied Human Factors

- Understanding Human Factors key principles and the theories associated is an important step in the human factors journey.
- In establishing the correct direction and strategy, it is also important to understand what areas of human factors that currently exists within the organisation's current operations
- The **HUMAN FACTORS MATURITY® MODEL** was developed to address this need

Human Factors Maturity® Model



Twelve HFM[®]M topics

9



The assessment process

Assemble 6-8 ,members of middle management of the organisation that is able to speak authoritatively on:

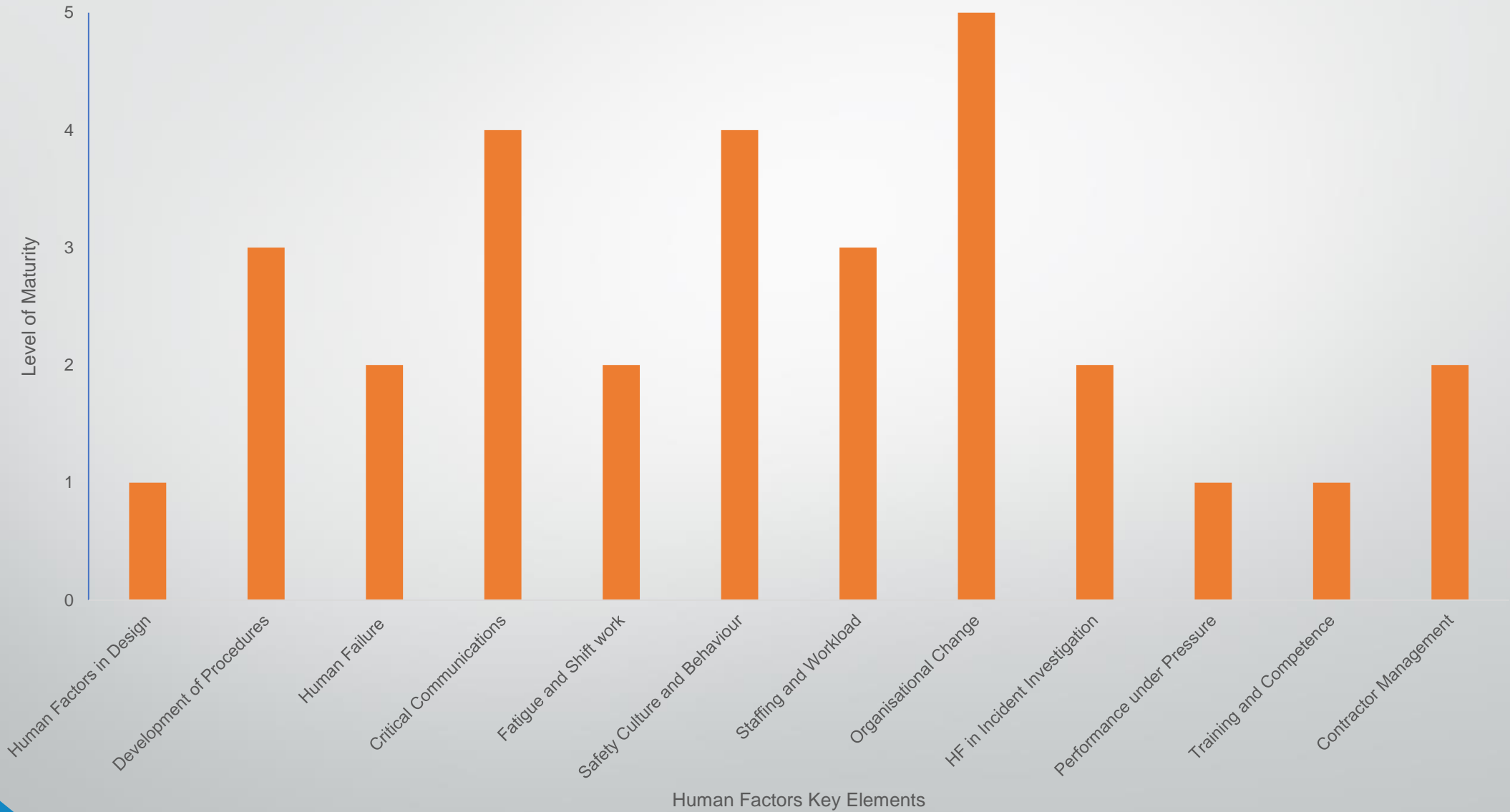
- Work hours, shift patterns, fatigue management, work planning and staffing, contractor management, training and competence management
- Incident investigation, assessment of human error, safety culture, permit to work systems, shift handover, procedure development, management of change, and stress management
- Engineering programmes for ship modifications, procurement, and equipment design/purchase

Carry out an interview based on a pre-designed protocol

Collate results and provide a slide pack summarising the results to senior management. A written report provided within 14 days.

Based on the results provide recommendations on focus areas for the organisation to continue its human factors journey

Example HFM[®] M



Thank you!

For more information please go to:

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or write to

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