

Beyond Human Error: Managing Psychosocial Risk under TMSA Element 14



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A focused framework for turning crew experience into Human Element evidence, management decisions and verified improvement.

Listen

Verify

Decide

Act

Check



2ND CSN NORTHERN EUROPEAN CREWING CONFERENCE

Crewing 5.0: Bridging the Gap Between Digital Efficiency and Human Reliability

22 SEPT 2026

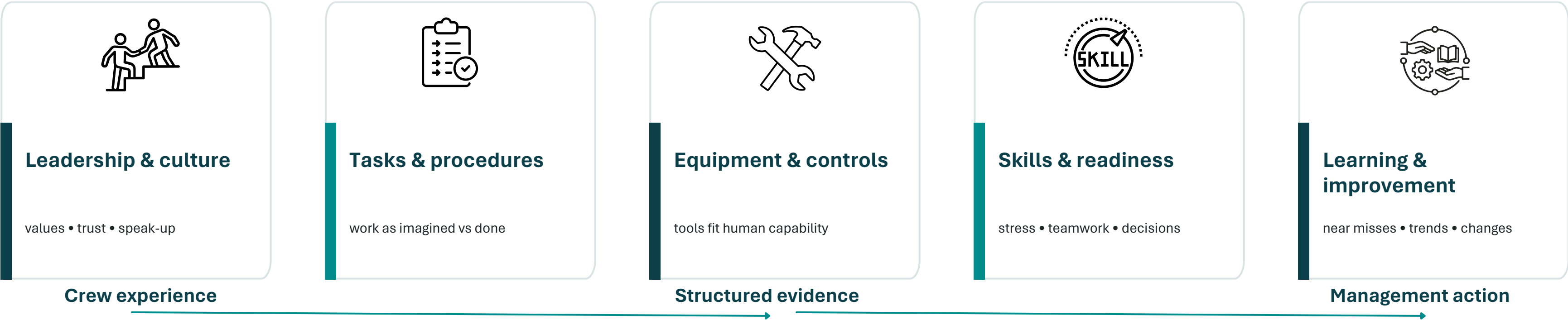
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What Element 14 is asking companies to do

Move from “human error” to managed human performance.



Psychosocial factors are practical inputs to Element 14 reviews on communication, motivation, safety-critical performance and continuous improvement.

Source: TMSA Element 14 objective and five Human Performance pillars.

How psychosocial factors come into play

Treat each factor as an onboard condition that can influence safety-critical performance.

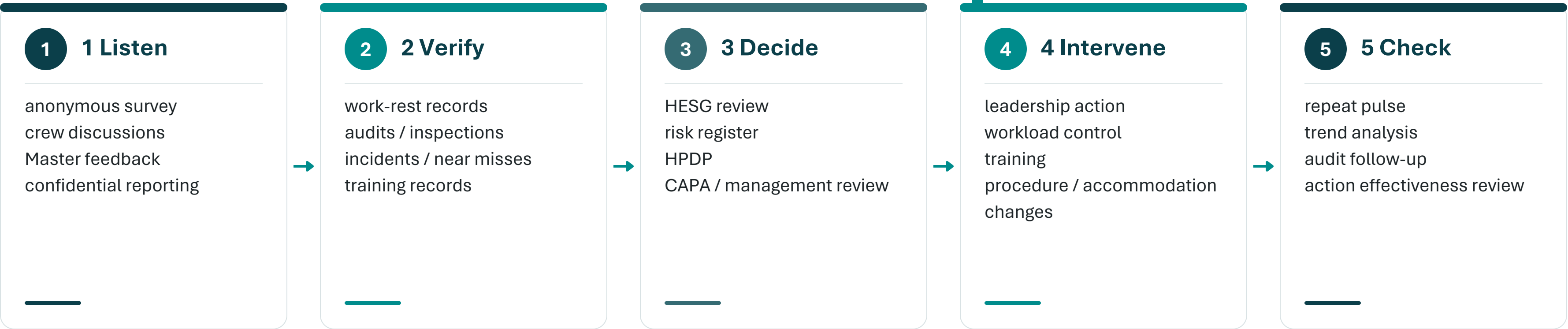


Management question: which onboard condition is creating strain, how does it affect performance, and which TMSA mechanism should review it?

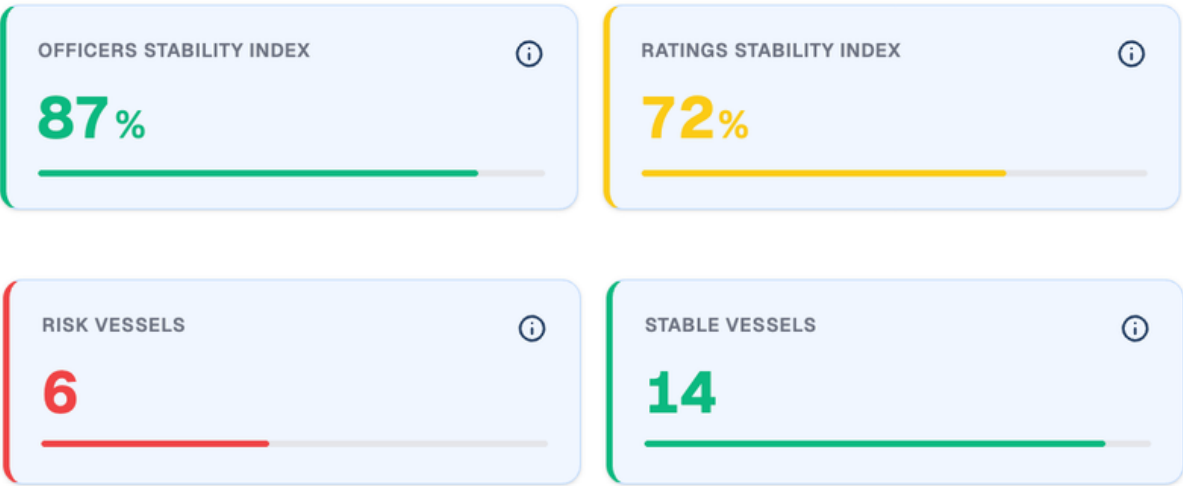
Source: TMSA 14.2.3 factors affecting human performance.

A practical Human Element toolset

Structure tools into layers so information becomes management action.



Rule of practice: every High Risk or repeated Moderate Risk becomes an action, a monitoring item, or a documented rationale.



From risk signal to TMSA management tool

The assessment tells management where to look; TMSA defines how to respond.

Risk signal	Operational effect	TMSA link	Practical tools
Workload / fatigue	errors / shortcuts	14.2.3 Review 14.2.4 Action	work-rest • task load • manning • fatigue controls
Psychological safety	silence / weak reporting	14.1.4 Communication 14.3.2 EMS	speak-up channels • confidential reports • just culture
Conflict / bullying	communication breakdown	14.1.2 Values 14.2.3 Review	conduct process • mediation • Master feedback
Motivation / trust	reduced engagement	14.3.4 Motivation	survey • appraisals • retention • leadership review
Recovery conditions	persistent fatigue	14.2.3 Review 14.3.4 Motivation	accommodation • food • leisure • rest quality

Mapping to TMSA Element 14 KPIs.

The clearest direct link: 14.2.3

TMSA asks companies to review factors that the assessment can capture as crew-wide evidence.

TMSA 14.2.3 review factors

- fatigue, stress, mental health
- working / living conditions
- workload, distractions, shift patterns
- motivation and clarity of goals
- leadership, supervision, support
- teamwork, relationships
- national culture and communication

Psychosocial evidence areas

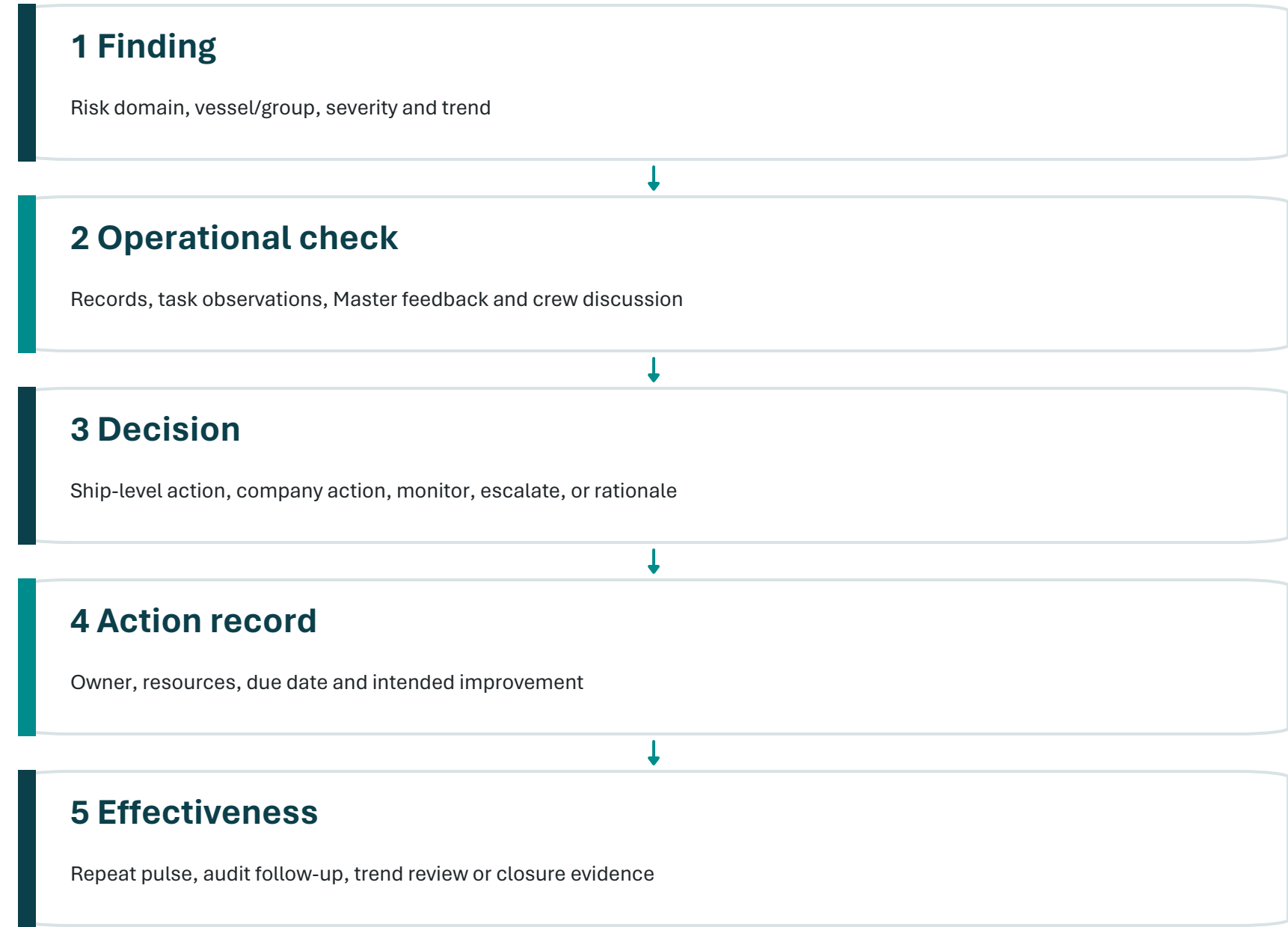
- workload & fatigue management
- engagement & well-being
- leadership & accountability
- psychological safety onboard
- safety culture & risk awareness
- training, skills & preparedness
- environment & safety onboard

Positioning: the assessment does not replace the Human Performance Review. It guides what that review should examine more closely.

Source: TMSA 14.2.3 human-performance review factors and review methods.

From finding to action: 14.2.4

The action bridge from survey signal to documented improvement.



Minimum evidence question: What was found, what was checked, what was decided, what changed?

Source: TMSA 14.2.4 improvement actions and assessment records.
TMSA Element 14 | Psychosocial Risk Mapping

Human Element evidence — does not replace SMS, EMS, audits or management review

Levels 1–4: where the tool fits

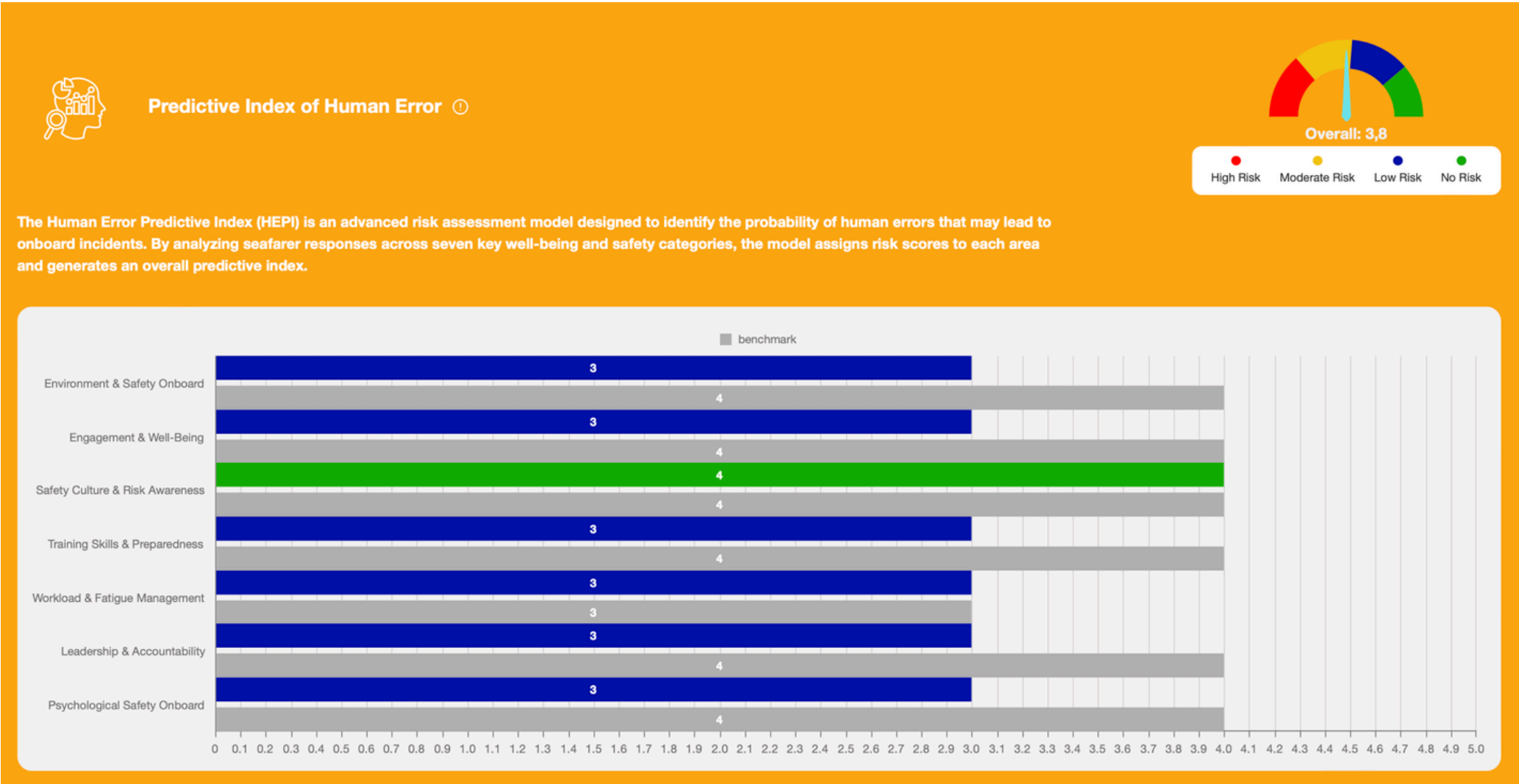
Keep direct and indirect links clear.

TMSA level	Main intent	Practical role of psychosocial data
Level 1 Foundations	HESG, values, HPDP, ship-shore communication	Baseline evidence of trust, support, respect, communication, working conditions and well-being.
Level 2 Basic practice	Training, assessment, task review and improvement action	Prioritises what to check: workload, fatigue, preparedness, leadership, teamwork and recovery.
Level 3 Advanced practice	Independent audit, EMS, advanced training and motivation review	Pre-audit intelligence, reporting-climate evidence, motivation data and training triggers.
Level 4 Future proofing	Data collation, trend scanning, policy review and HPDP update	Internal trend data for risk register, SWOT, management review and intervention effectiveness.

Source: TMSA 14.1–14.4 maturity structure.

Advanced practice: audit, EMS and motivation

Use trends to test whether Human Element systems are working.



Independent audits

Use patterns as pre-audit intelligence: which vessels, departments or risks require closer review?

EMS / just culture

If speak-up is low, reporting data may understate reality. Review blame, confidentiality and learning.

Motivation review

Connect trust, fairness, belonging, remuneration, work-life balance and well-being to performance.

Decision under stress

Use stress and fatigue signals to target drills, teamwork practice and leadership preparation.

Practical test

Do existing systems reveal the same risk, or is the IMEQ tool showing a blind spot?

Source: TMSA 14.3.1–14.3.4 independent audit, EMS, advanced training and motivation review.

Two practical workflows

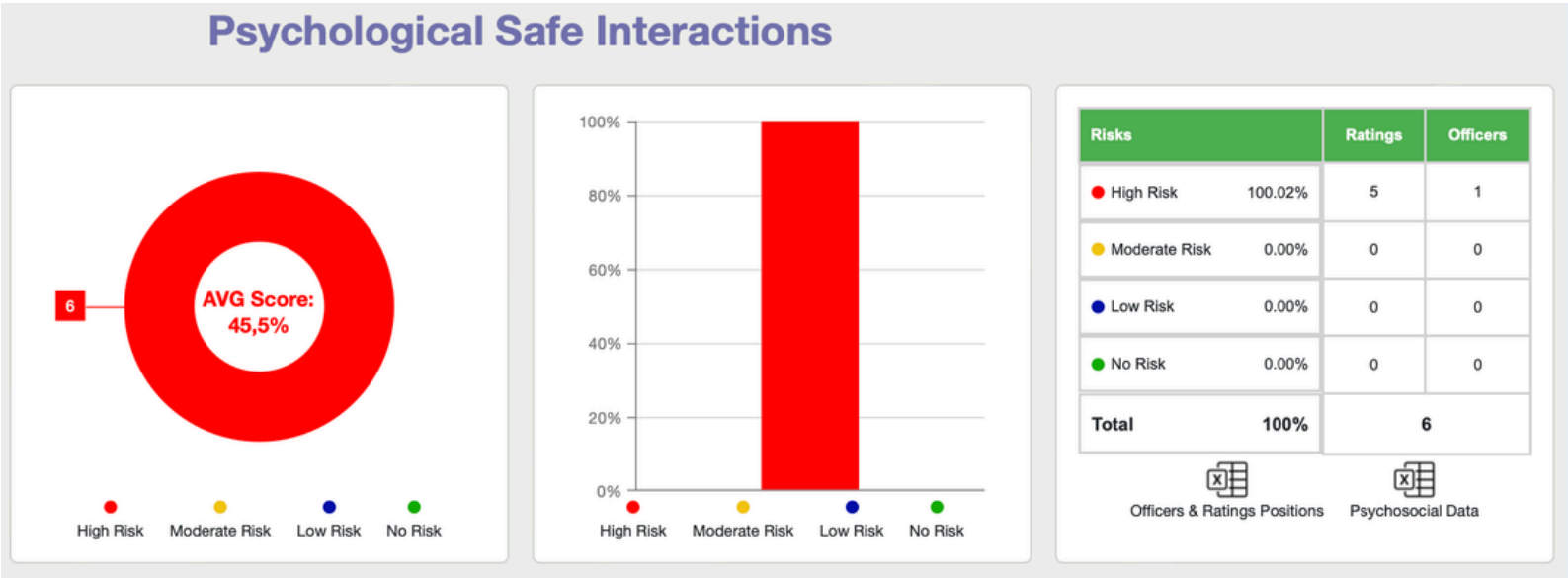
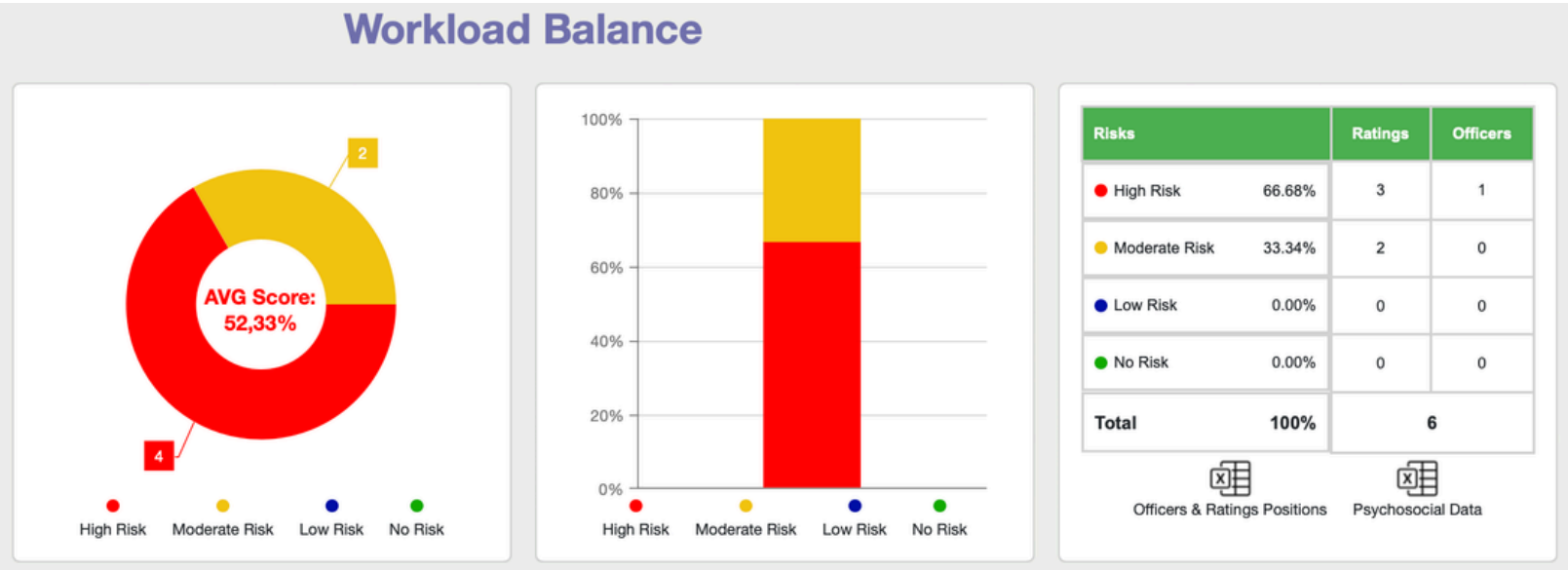
A score is not a conclusion — it is a trigger for structured review.

High workload / burnout risk

- Signal: high workload or recovery strain
- Check: work-rest, port frequency, task allocation, overtime, manning
- Act: fatigue controls, task redistribution, extra support
- Verify: pulse survey, exceptions, audit comments, crew feedback

Low psychological safety

- Signal: crew do not feel safe to speak up
- Check: near-miss reporting, complaints, confidential reports, audit comments
- Act: escalation path, non-punitive reporting, leadership coaching
- Verify: pulse survey, reporting trend, qualitative feedback



Example mapping to TMSA 14.2.3, 14.2.4, 14.3.2 and 14.3.4.

Evidence pack for HESG and management review

Keep the output simple, traceable and audit-ready.

- 01

Scope and crew communication notice
- 02

Baseline report with participation limitations
- 03

HESG agenda/minutes and action log
- 04

TMSA KPI mapping and pillar summary
- 05

CAPA/risk register entries with owners and dates
- 06

Training, welfare, EMS or task-review actions
- 07

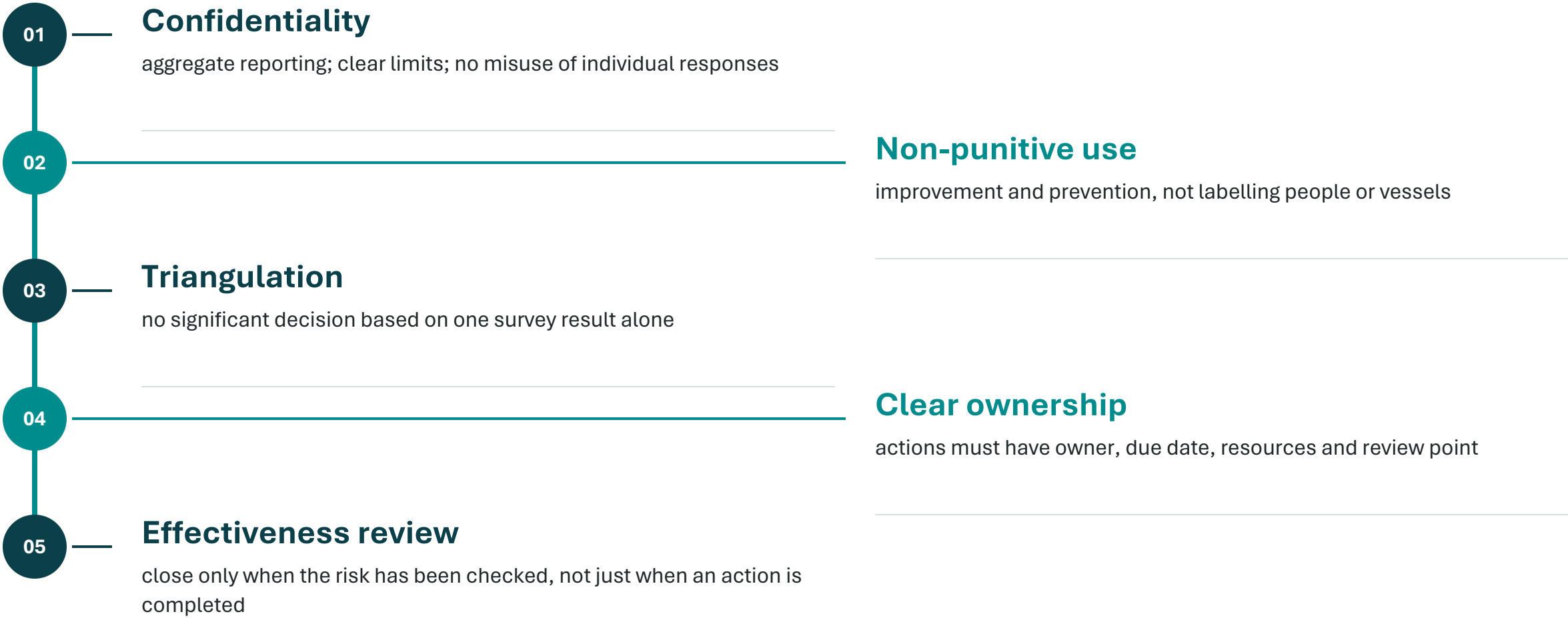
Management review summary and HPDP updates
- 08

Follow-up trend report and effectiveness evidence

Minimum evidence question: “What was found, what was checked, what was decided, what changed?”

Implementation guardrails

The process only works if crews trust the purpose and the company follows up.



Closing: Listen → Verify → Decide → Act → Check → Learn

[Listen](#)[Verify](#)[Act](#)[Learn](#)

IMEQ Center

Thank you

Psychosocial Risk Assessment within TMSA Element 14

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The assessment tells management where to look. TMSA defines how to respond.

Selected source base

For transparency and follow-up.

- OCIMF TMSA Element 14: Human Element — objective, five pillars and Level 1–4 KPIs.
- ISO 45003:2021 — guidance for managing psychosocial risks within occupational health and safety management.
- Maritime literature on fatigue, stress, burnout, leadership, reporting climate and human performance.
- Seafarer psychosocial risk domains used as structured evidence for Human Element review.