From Data to Serious Harm Prevention: What offshore can learn from mining

May 2026

The number that stays with me

1,098

Fatalities recorded by ICMM member companies during my time working on mining health and safety

115

Fatalities recorded by IMCA contractors over a similar broad period

Different industries. Familiar patterns
Vehicle Interactions | Lifting | Working at Height | Energy Isolation

We should not need to relearn the same fatal lessons with a different logo on the report.

My argument today

Improving injury rates is not the same as controlling serious harm

Data

- Tells us where to look

Critical Controls

- Tells us what must work

Shared Learning

- Tells us how to improve together

2025 shows progress and warning signs

7 fatalities reported
2024: 3

Line of fire
Most common cause of LTIs

1020
Million hours Total
2024: 1015 million hours

524
Million hours offshore
2024: 538 million hours

503
Safety Observation Frequency Rate
2024: 847

LTIFR
Lost Time Injury frequency Rate
(Fatalities + LTIs) x 1,000,000 / Total hours worked

0.27
Total LTIFR
2024: 0.30

0.30
Offshore LTIFR
2024: 0.41

TRIR
Total Recordable Injury Rate
(Fatalities + LTIs + Restricted Work Cases + Medical Treatment cases) x 1,000,000 / Total hours worked

0.98
Total TRIR
2024: 1.11

1.14
Offshore TRIR
2024: 1.39

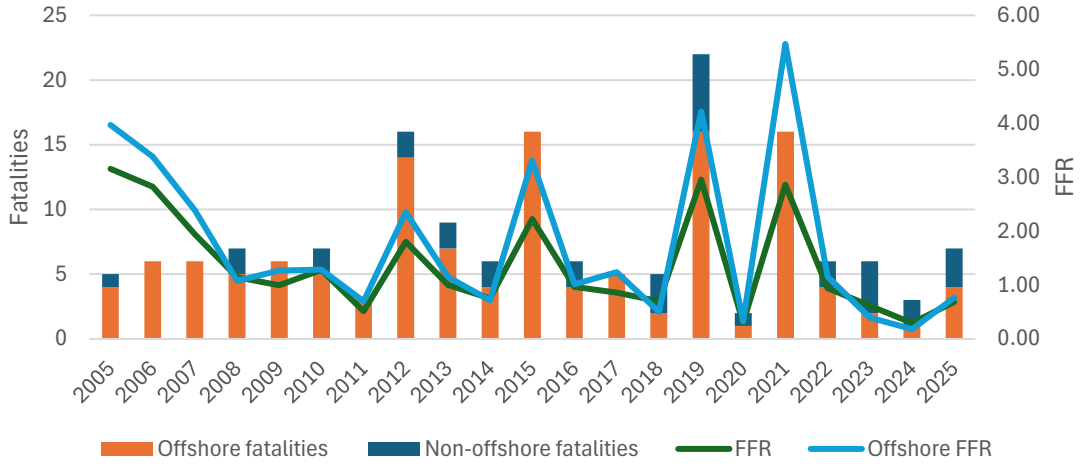
FAR
Fatal Accident Rate
(FAR = Fatalities x 100,000,000 / Total hours worked)

0.69
Total FAR
2024: 0.20

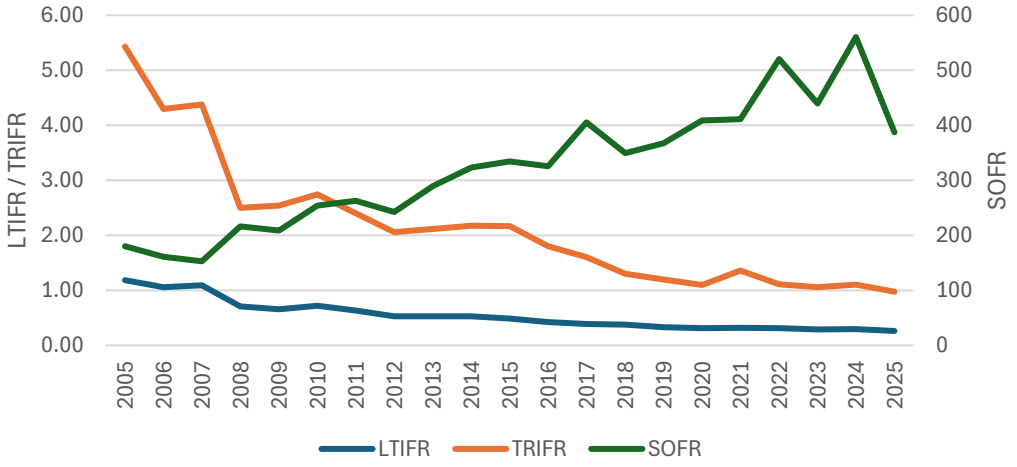
0.76
Offshore FAR
2024: 0.18

Injury performance and fatal risk do not move neatly together

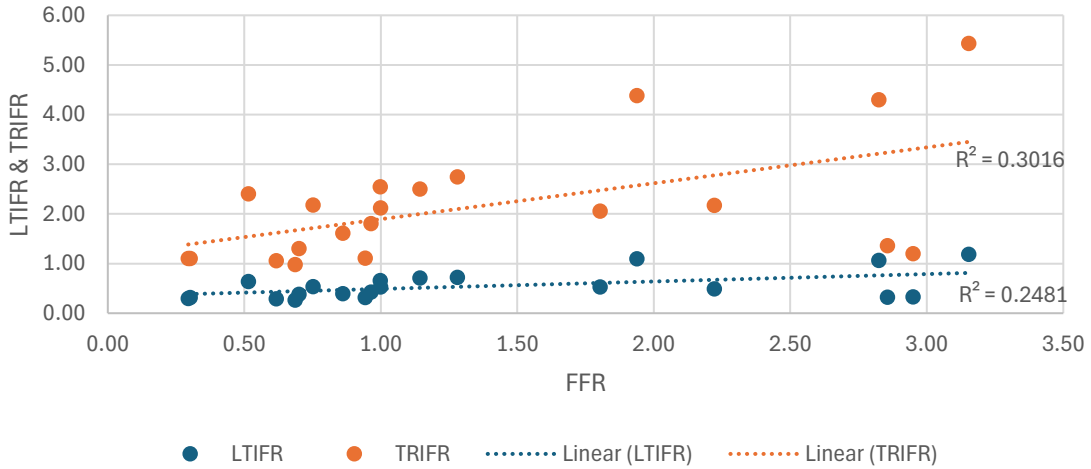
Recorded fatalities & FFR



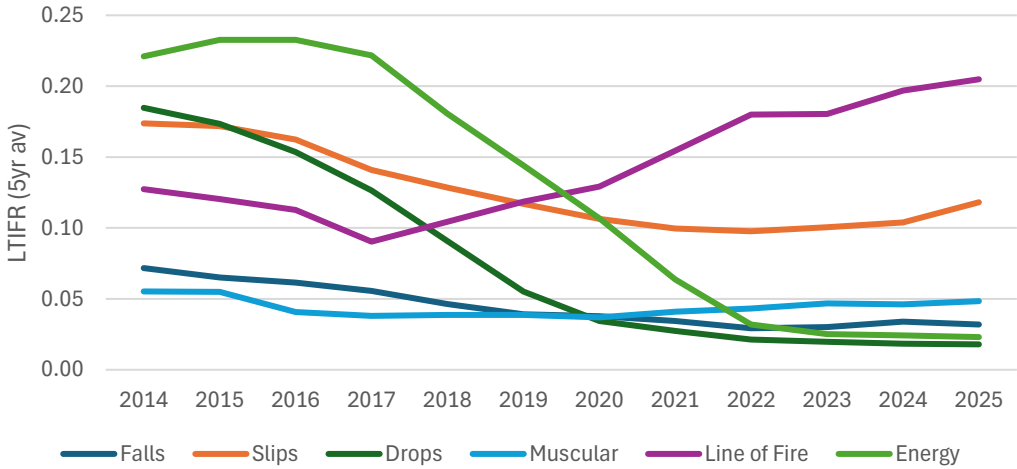
SOFR vs LTIFR & TRIFR



Correlation between FFR and LTIFR / TRIFR



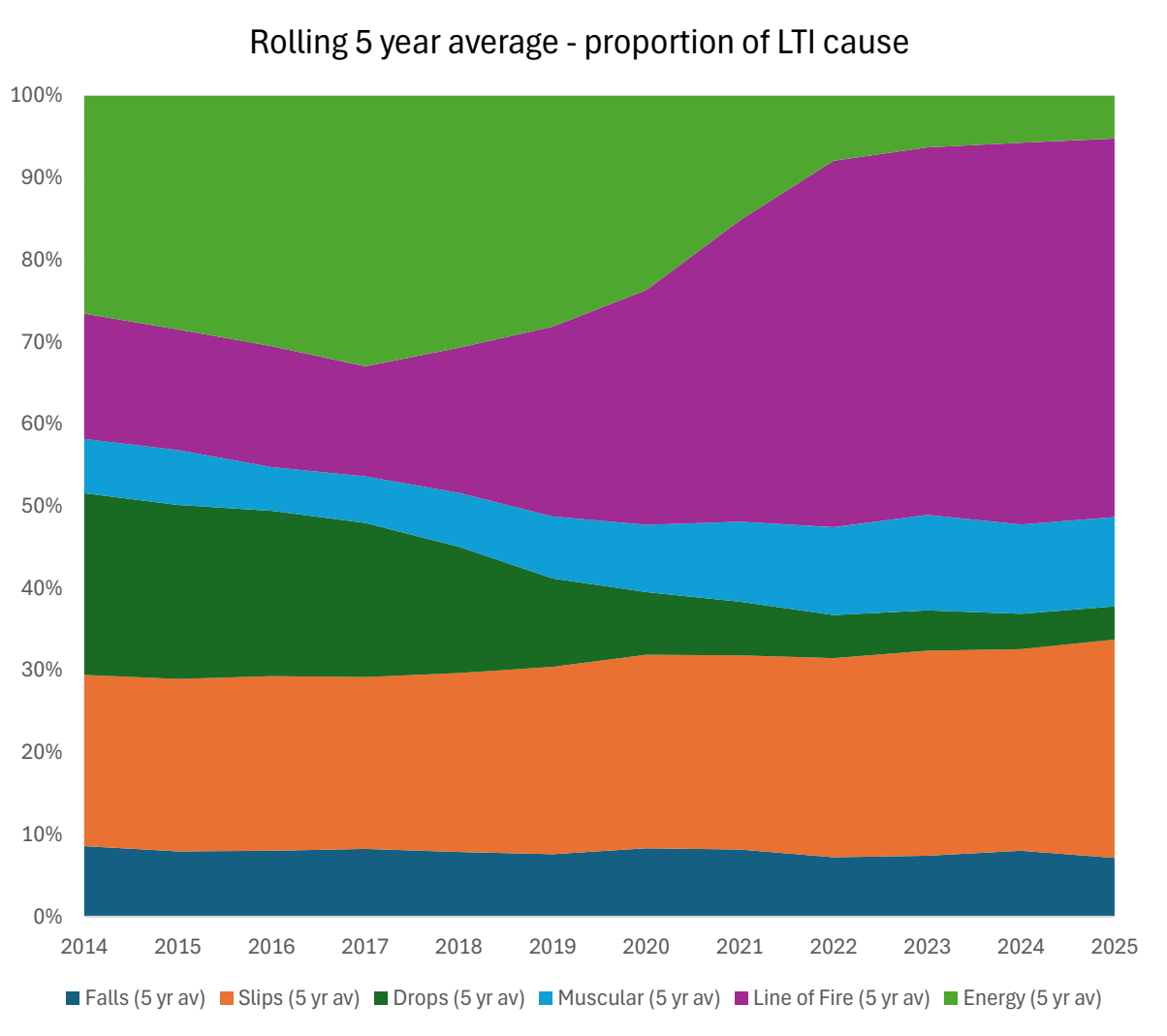
LTI type 5 year rolling average



What the data is pointing towards

- Line of Fire
- Lifting & Rigging
- Dropped Objects
- Working at Height
- Energy Isolation
- Routine work change & new people
- Health needs a stronger place

- Slips, Trips & Falls
- Muscular



Four lessons from mining

Mining increasingly realised: Reducing minor injuries ≠ automatically preventing fatalities.

Zero fatalities mindset

- Zero harm vs zero fatalities
- “Tyranny of TRIFR”
- Injury reduction and fatality prevention overlap, but they are not the same work.

Learning from the past

- Transparency
- Improve sharing of fatality lessons
- No single solution
- Share data, see patterns, and move the conversation to collective learning.

Safety leadership at all levels

- Values-based leadership
- Developing front line leaders
- Decisions, not slogans.
- Stop work, invest in stronger controls, challenge production pressure.

Risk management & critical controls

- Red is our friend
- which controls must work, then verify them where the work is done.

The CCM starting point: known hazards, known controls, weak implementation

Some assumptions:

The majority of fatal events within the industry are known, as are the controls.

<=> More can be less. If everything is critical, nothing is critical. Lengthy lists of controls can be difficult to understand, implement and verify. The more succinct and specific the controls, the more robustly they can be implemented and verified.

Most severe incidents, including fatal events, are associated with failures to effectively implement known controls rather than not knowing what the controls should be.

Some controls are more important than others – the critical controls. These critical controls should gain greater attention and be verified more often.

CCM focuses attention on the controls that matter most

High-risk work has high-consequence hazards
Mining, like offshore, involves complex work, changing conditions and serious energy sources.

Traditional injury rates have limits
TRIFR, LTIs and recordables can improve while fatal and life-altering risks remain.

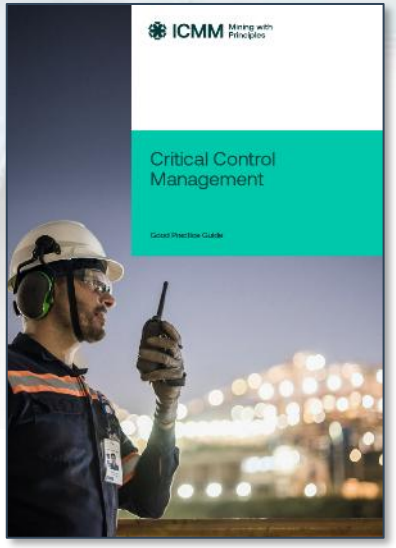
Known controls still fail
Serious incidents often involve controls for known hazards being missing, weak, bypassed or ineffective.

CCM focuses attention on the controls that matter most.

ICMM 9 step process developed

It helps organisations:

- identify fatal hazards and unwanted events
- select the controls that are critical
- define what “good” looks like
- verify whether those controls are in place and effective
- act early when controls are weak



Not everything is a critical control

80% of ‘controls’ were administrative in nature

Supporting activities
Help the control work

E.g.
- Lift plan
- Permit
- Toolbox talk
- Procedure
- Training/ record
- Risk assessment
- Maintenance system

A control (act, object, or a system of the two)
Directly prevent or mitigate harm

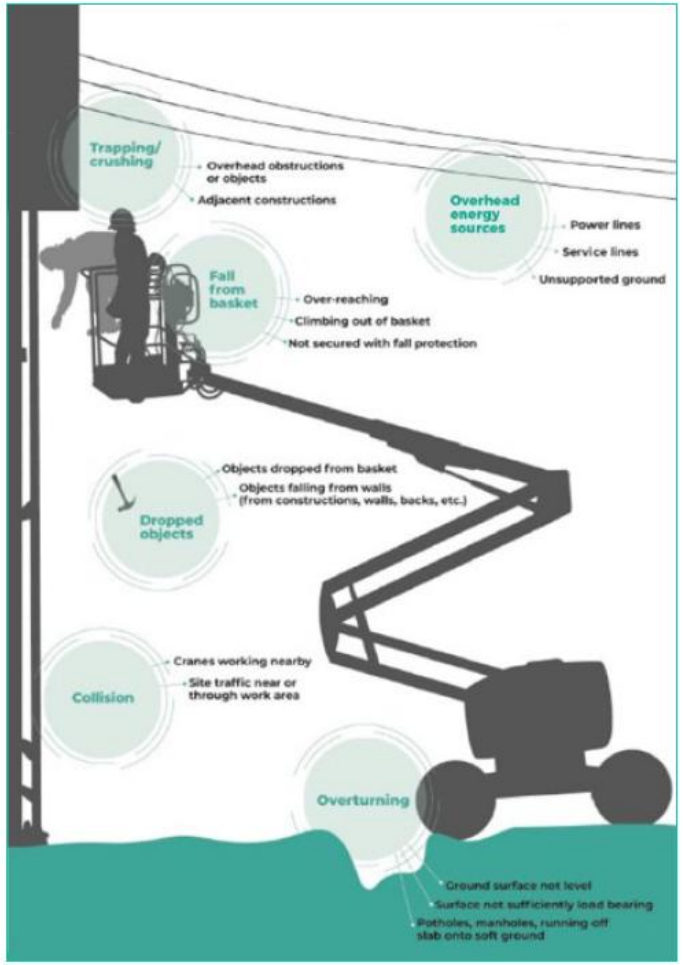
E.g.
- Certified lifting equipment
- Correct rigging configuration
- Exclusion zone
- Secondary retention
- Physical barrier
- Energy isolation
- Competent action at point of work

Verification activities
Check the control is working

E.g.
- Supervisor field check
- Pre-use inspection
- Lift readiness check
- Isolation verification
- Dropped object check
- Stop / Go-No Go decision

Verification makes CCM real

- What was working?
- What was weak?
- What was missing?
- What did we fix?
- What keeps coming back?
- And how did leaders respond when the answer was not comfortable?



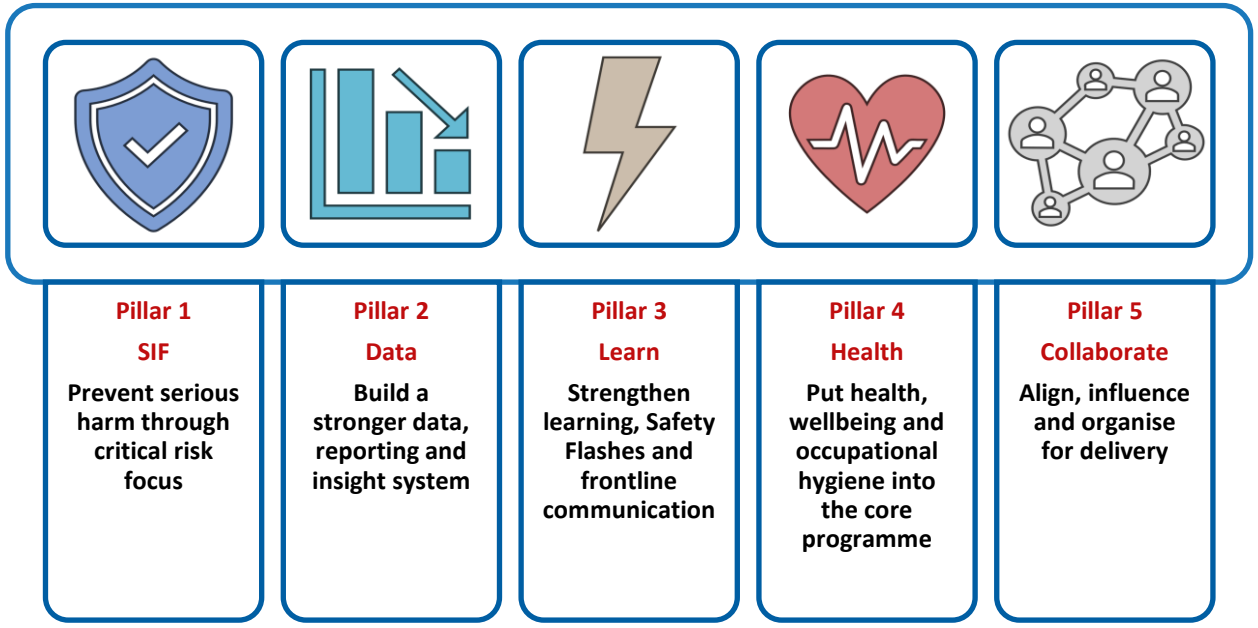
Hazard	Controls	In place / working?
Trapping/ crushing	Secondary guarding or crush protection	☐
	Load limits in personnel basket (including personnel limit)	☐
	Ground supervision by standby person	☐
	Head protection (eg chin strap helmets)	☐
	Visual and radio contact	☐
	Emergency stop switch in basket	☐
Fall from basket	Full body harnesses for fall restraint or fall arrest	☐
	Fall protection with dual lanyards connected to anchor point	☐
	Anchor points and snap hooks inspected by competent person	☐
	Ground supervision by standby person	☐
	Visual and radio contact	☐
	Secure guard rails with self-locking gate	☐
Dropped objects	Signage and hard barricades to demarcate 'no go zone'	☐
	Tools stored securely in toolboxes and bags	☐
	Heavy tooling secured by lanyard	☐
	Only elevate necessary tools and equipment	☐
	Toe boards	☐
Overhead energy sources	Ground supervision by standby person	☐
	Isolation (electrical, mechanical or chemical)	☐
	Do not move with extended boom or with people in basket	☐
	Exclusion zone for overhead power lines	☐
Over-turning	Overload alarm or load limit switch	☐
	Ground condition and stability inspection	☐
	Limit propel function if tele-boom is swung past 90 degrees	☐
	Stability and slope alarm	☐
	Outriggers / stabilisers (if applicable)	☐
Collision	Approved and communicated travel and traffic plans	☐
	Visual and radio contact	☐
	Do not move with extended boom or basket in raised position	☐
	Signage and hard barricades to demarcate 'no go zone'	☐
	Ground supervision by standby person	☐

Where I see this going in IMCA

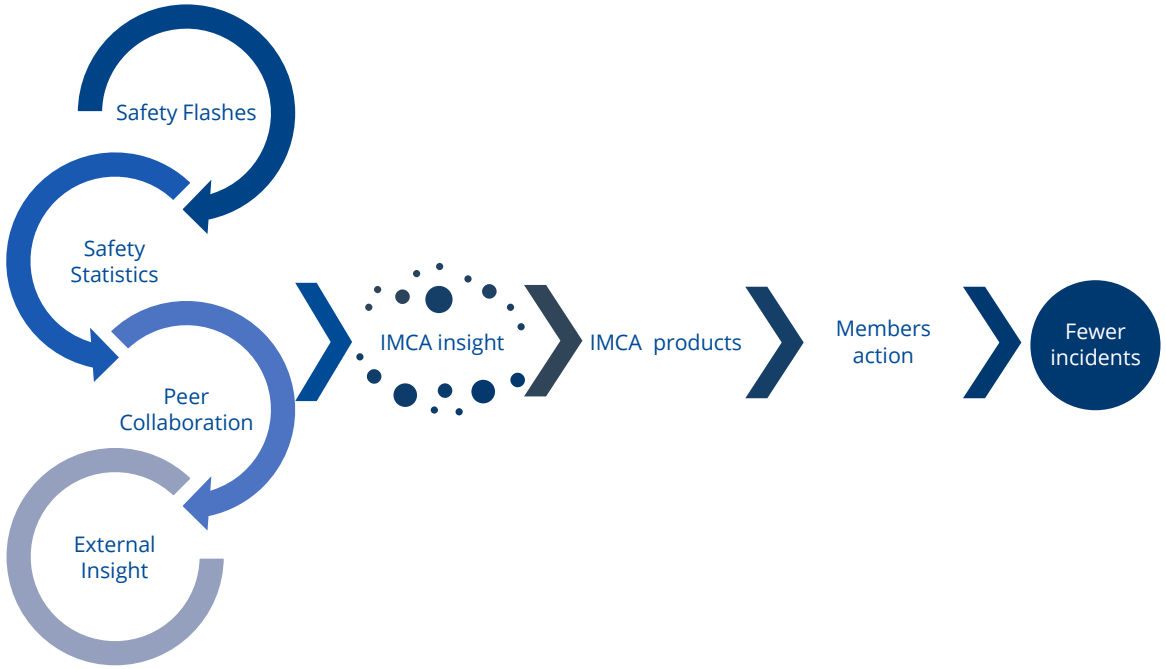
The contractors voice is important:

- often carry operational risk
- move between clients/projects
- see recurring problems across industry

H&S Committee 5 pillar (draft)



IMCA Safety Offer



Sharper, not louder safety

- Know the fatal risks
- Verify the controls
- Share the learning

The next step is not more safety noise.
It is clearer focus.

Thank you