

Tugs returning stats & Exposure Hours

Report Frequency

Incidents involving heaving lines

Incident seasonality

Root Cause Pareto

Gaps in Voyage Segment

Gaps in Incidents vs. Near Misses

Spookiness in the gaps

Potential lives in the darkness

Capacity to fail safely is the antidote to potential

LTI

incident

near
miss

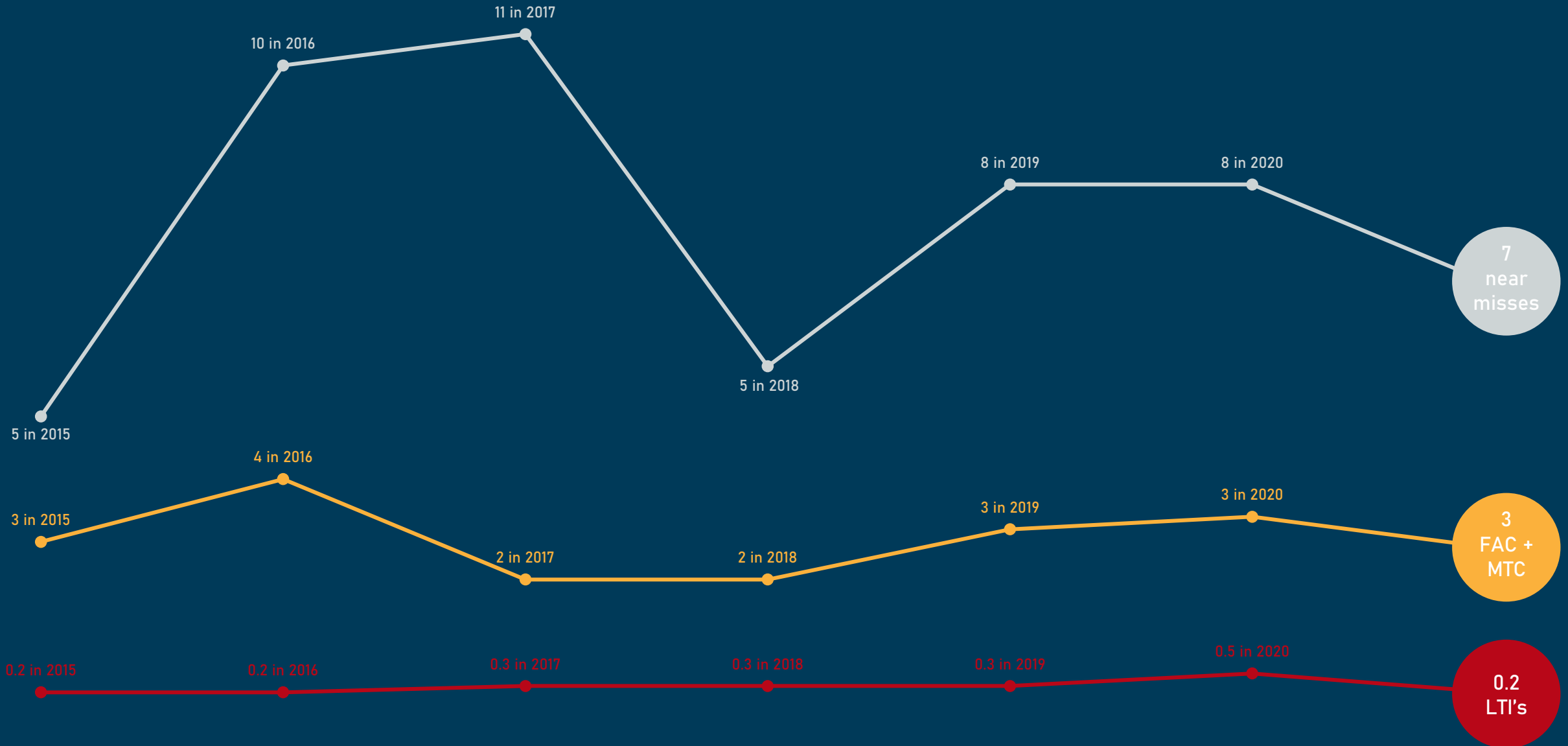
near
miss

2021 safety statistics

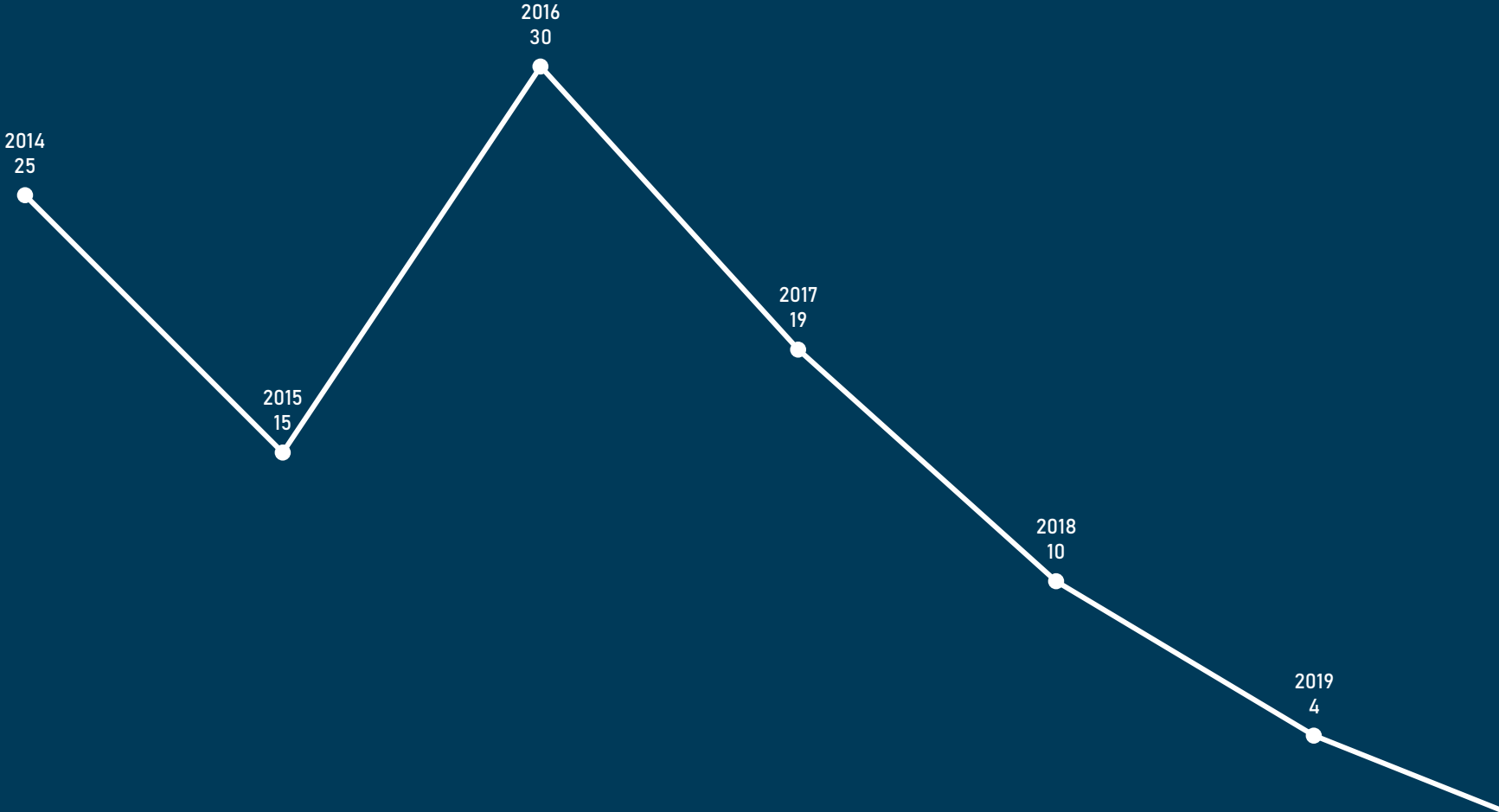
members reporting & exposure hours per tug



reports per 100,000 exposure hours

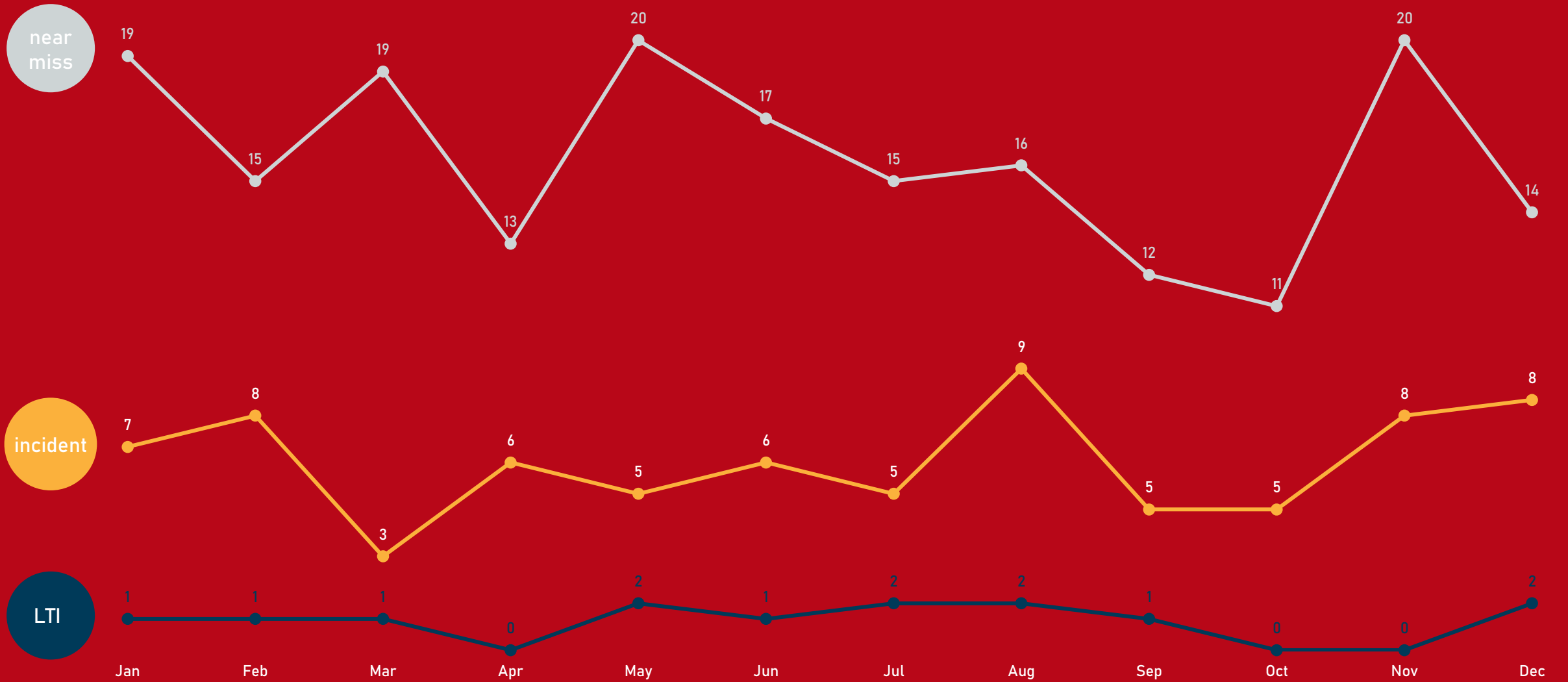


incidents involving illicit heaving lines



2021
second year with
no illicit heaving
line incidents
reported

seasonality

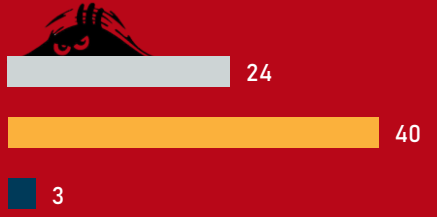


near miss

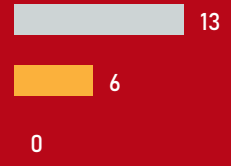
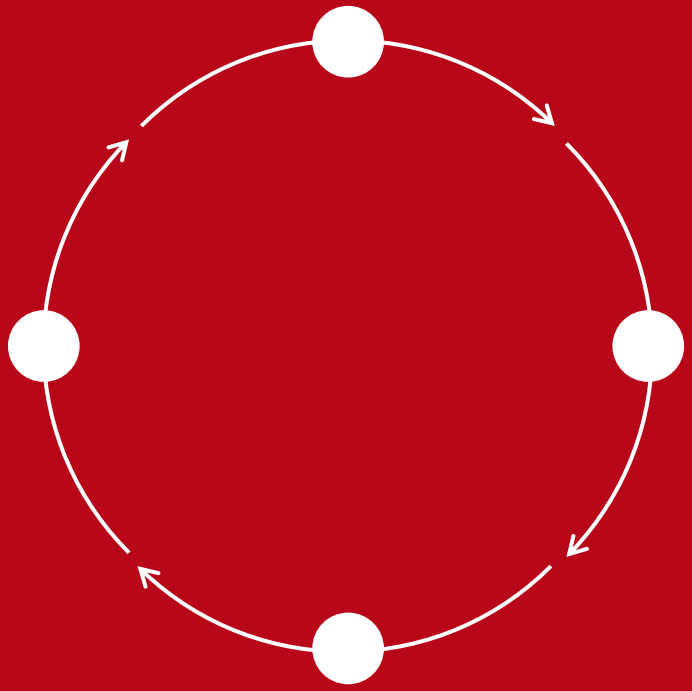
incident

LTI

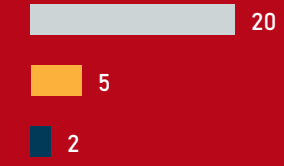
voyage segment



alongside



demobilising



mobilising

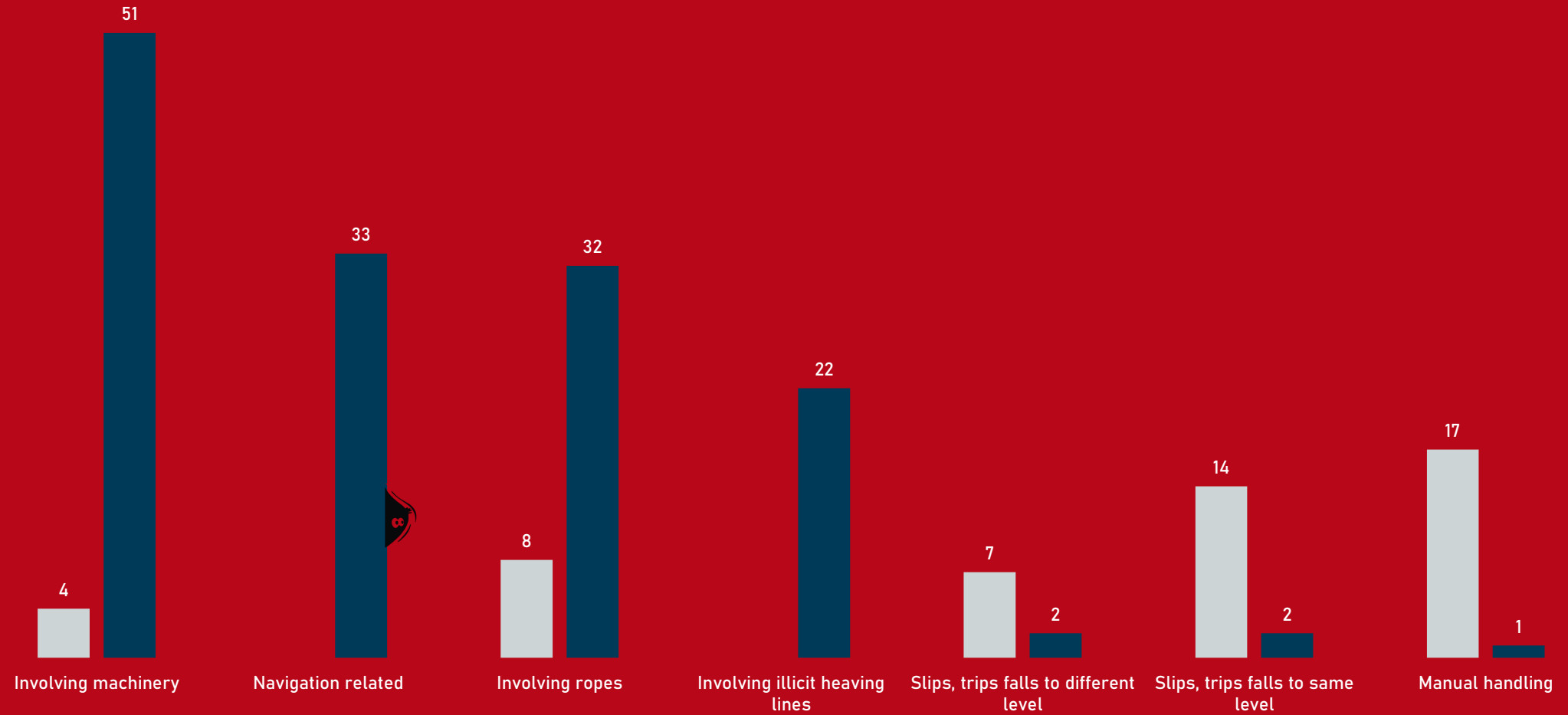
on the job



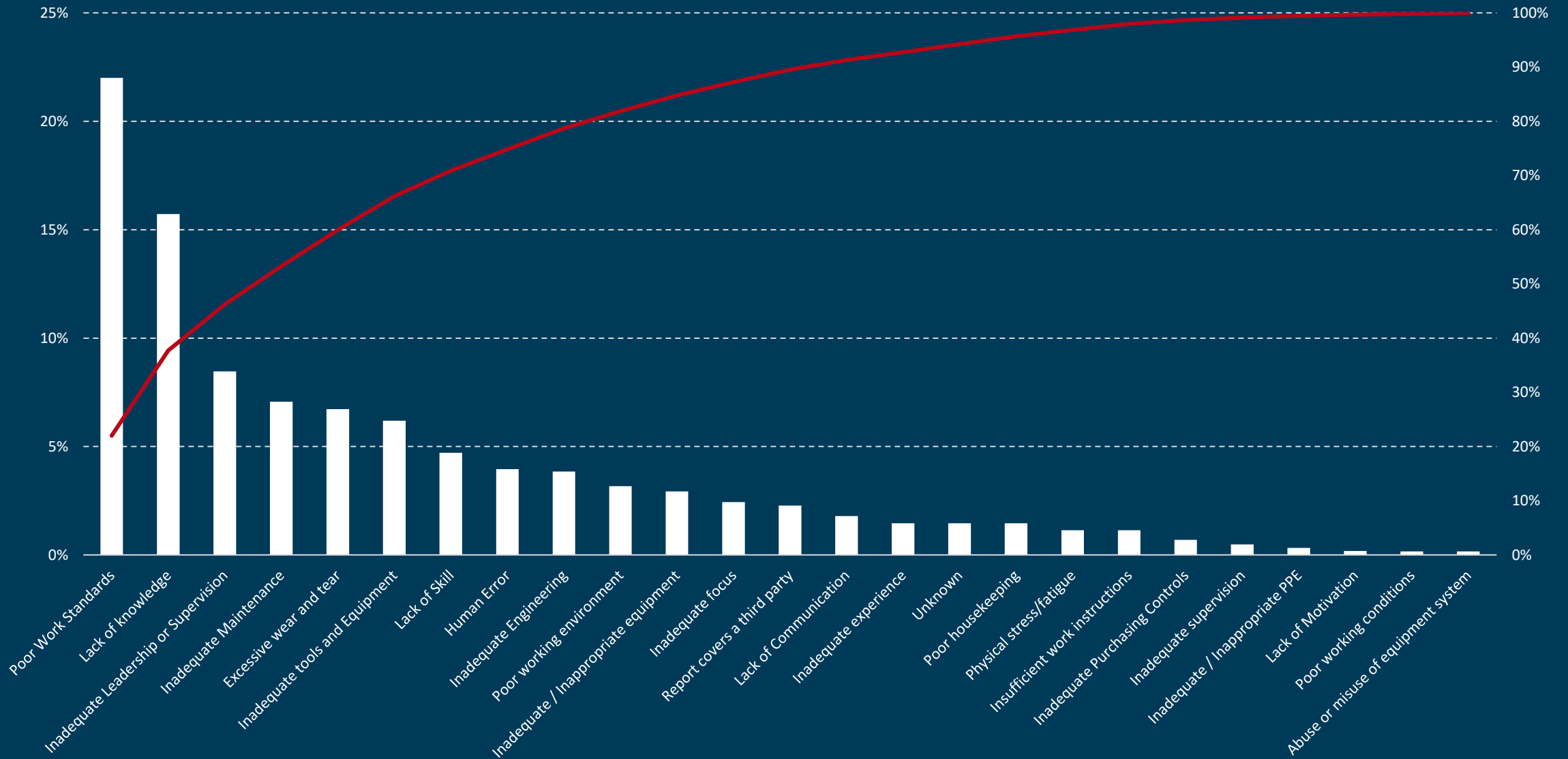
near
miss

LTI +
incident

circumstances



root cause



root cause



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inadequate engineering

root cause



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inadequate engineering

root cause



"an eerie type of chaos can lurk just behind the facade of order -
and yet, deep inside the chaos, lurks and even generates type of order."
do. glas r. hofstadter

inadequate engineering

root cause



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root cause



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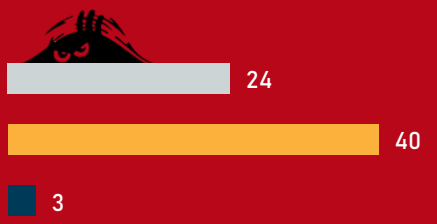
inadequate engineering

near miss

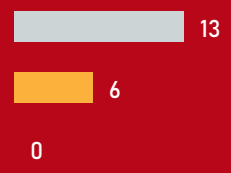
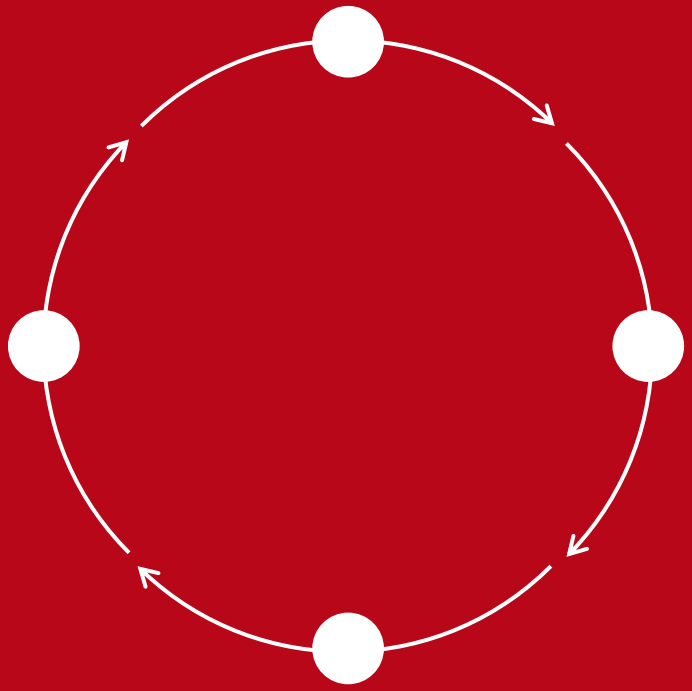
incident

LTI

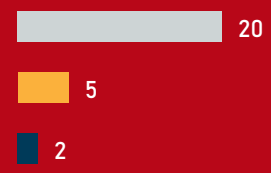
voyage segment



alongside



demobilising



mobilising

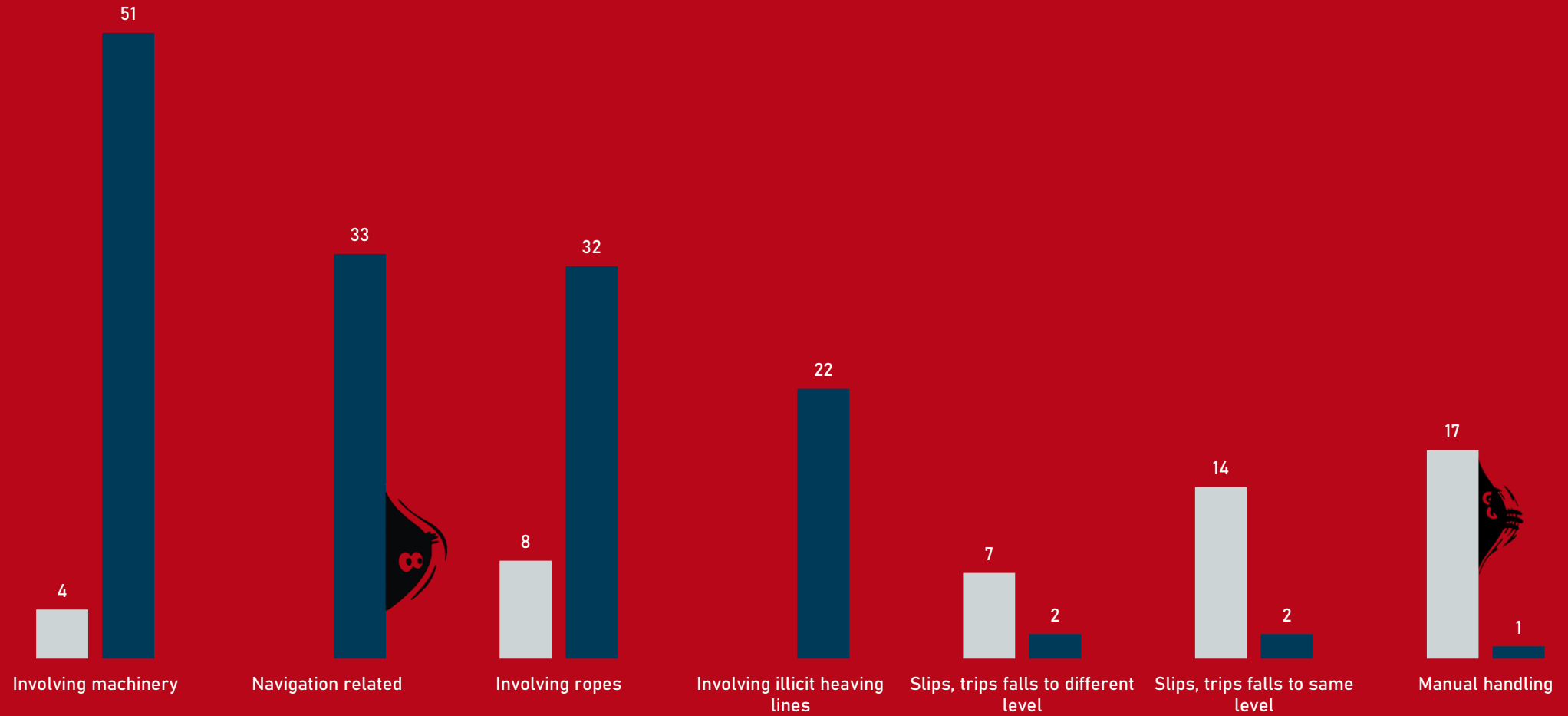
on the job



near miss

LTI + incident

circumstances



focus

potential

capacity