

**“TMSA &
Risk Assessment
A Continuous
Improvement”**



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“TMSA & Risk Assessment A Continuous Improvement”

PRESENTATION THEMES

- 1. TMSA – THE NEW INDUSTRY STANDARD**
- 2. MARINE RISK ASSESSMENT**
- 3. STRATEGY TO MEET THE STANDARD**

What is the TMSA?

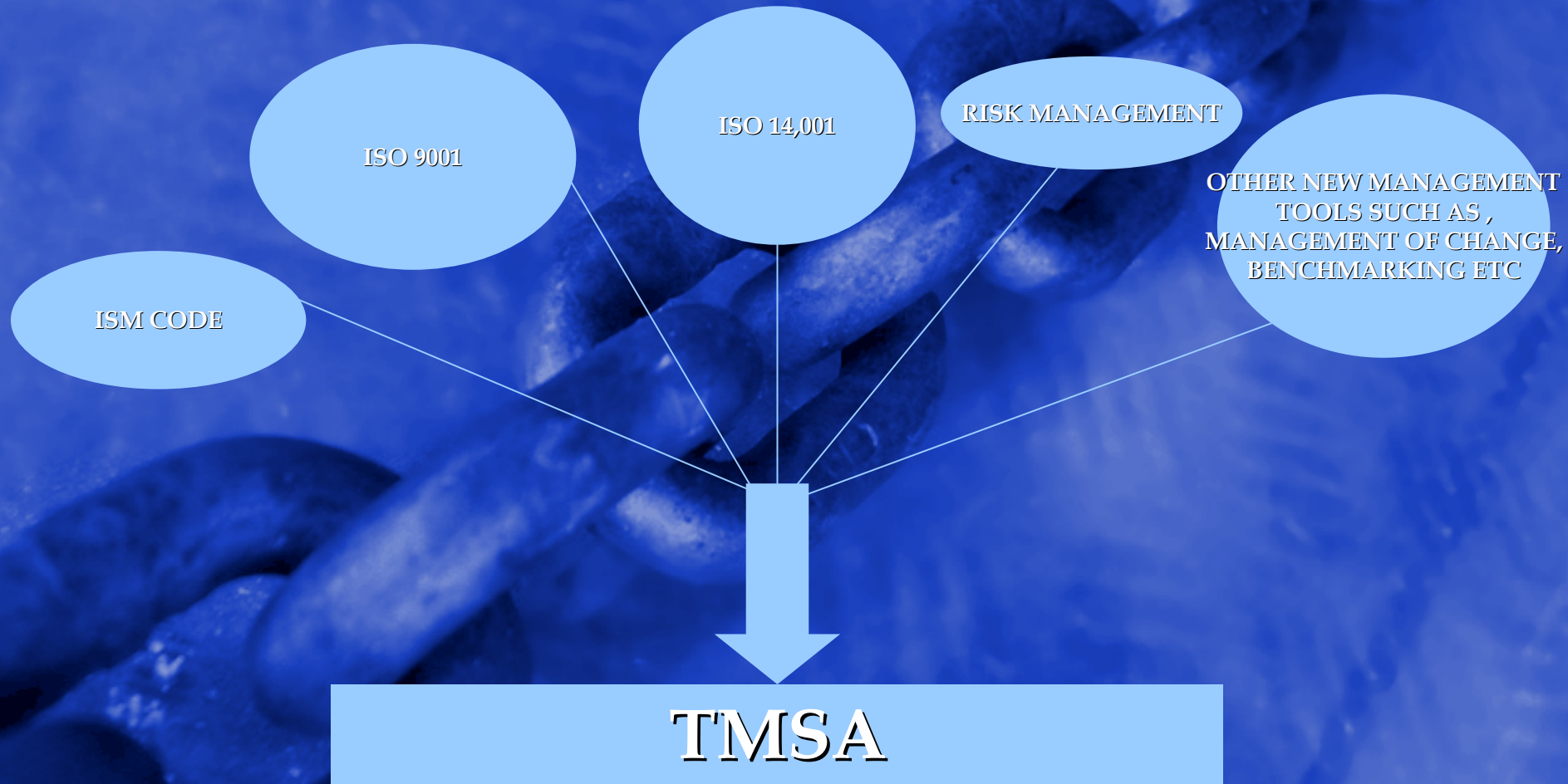
- A tool to help ship operators to measure and improve their management systems (against specific KPI's).
- A “best practice guidance” – A NEW INDUSTRY STANDARD
- A method to report to OIL MAJOR the company's performance
- A method for the OIL MAJOR to evaluate and rank the ship operators (A VETTING TOOL!!!!)



Key Elements of the TMSA

- 12 KEY ELEMENTS each one with a MAIN OBJECTIVE
- Specific KEY PERFORMANCE INDICATORS (KPI) & BEST – PRACTICE GUIDE
- PERFORMANCE EVALUATION BASED ON 4 STAGES

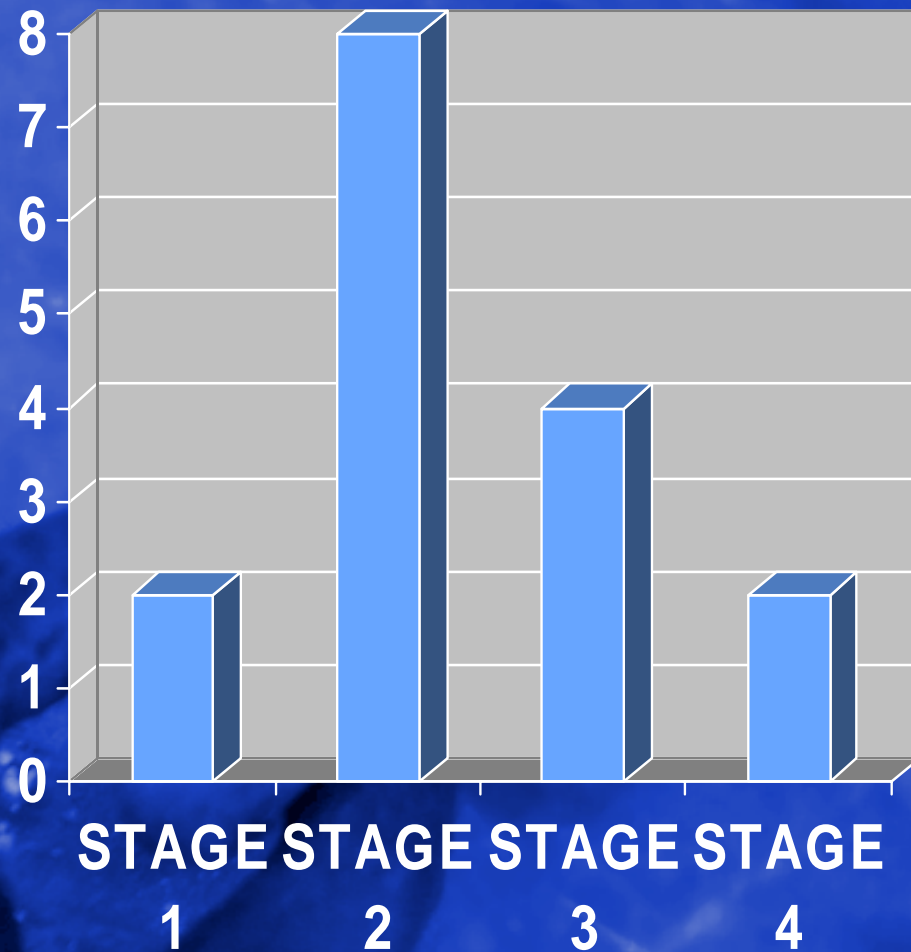
TMSA CORRELATIONS



TMSA: THE REQUIREMENTS

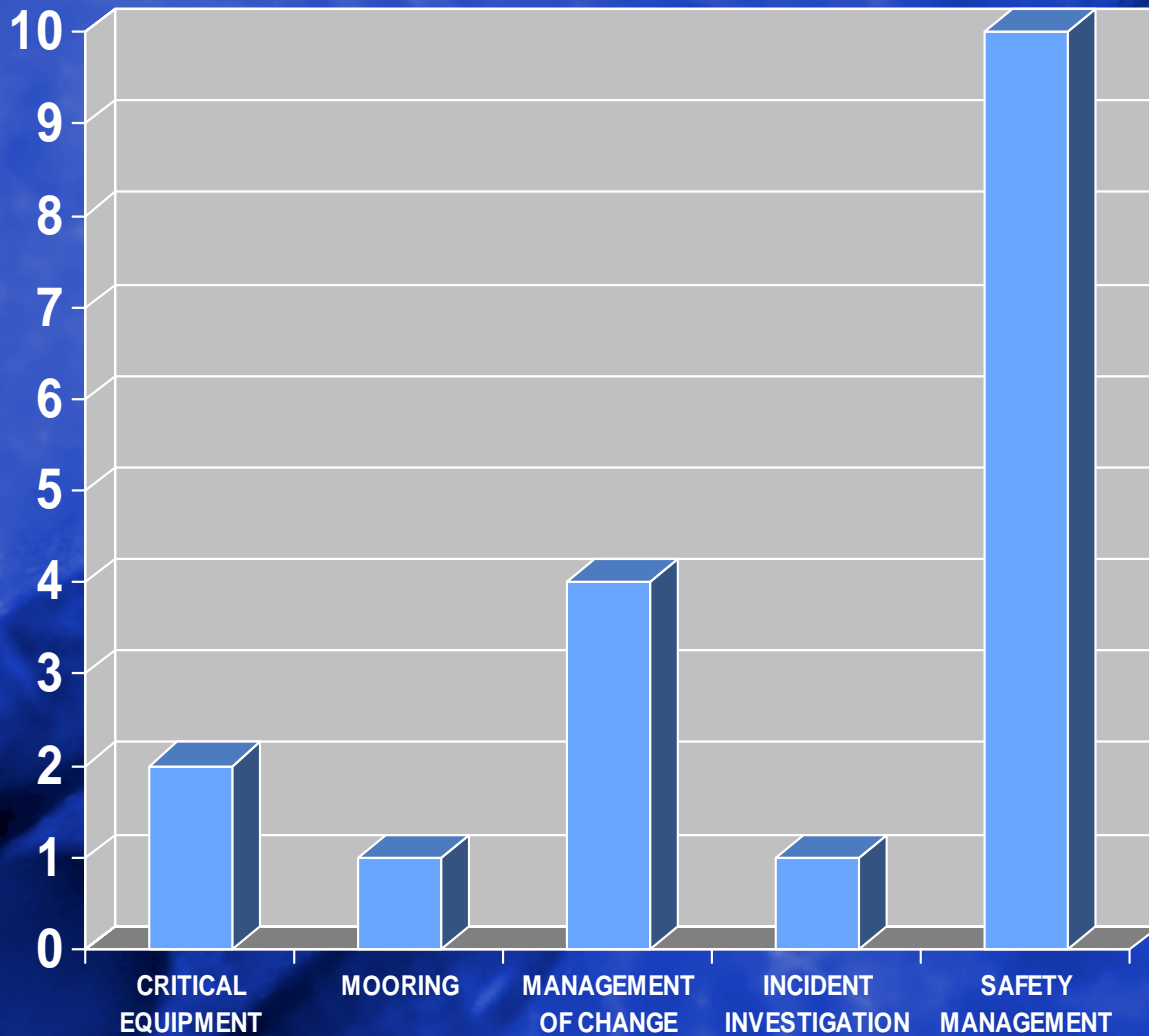
- ❑ TMSA REQUIREMENTS EXCEED USUAL ISM / ISO / INDUSTRY STANDARDS
- ❑ THE CONCEPT OF RISK ASSESSMENT BECOMES AN INTEGRAL PART OF THE MANAGEMENT SYSTEM
- ❑ CHANGE OF PHILOSOPHY TOWARDS A PROACTIVE, CONTINUOUSLY IMPROVING SYSTEM

Risk Assessment Requirement Under TMSA



■ NUMBER OF KPI's
RELATED TO
RISK
ASSESSMENT

Risk Assessment Requirement Under TMSA



■ RISK ASSESSMENT KPIs RELATED TO KEY ELEMENTS

RISK ASSESSMENT DEFINITION

○ RISK = PROBABILITY X CONSEQUENCE

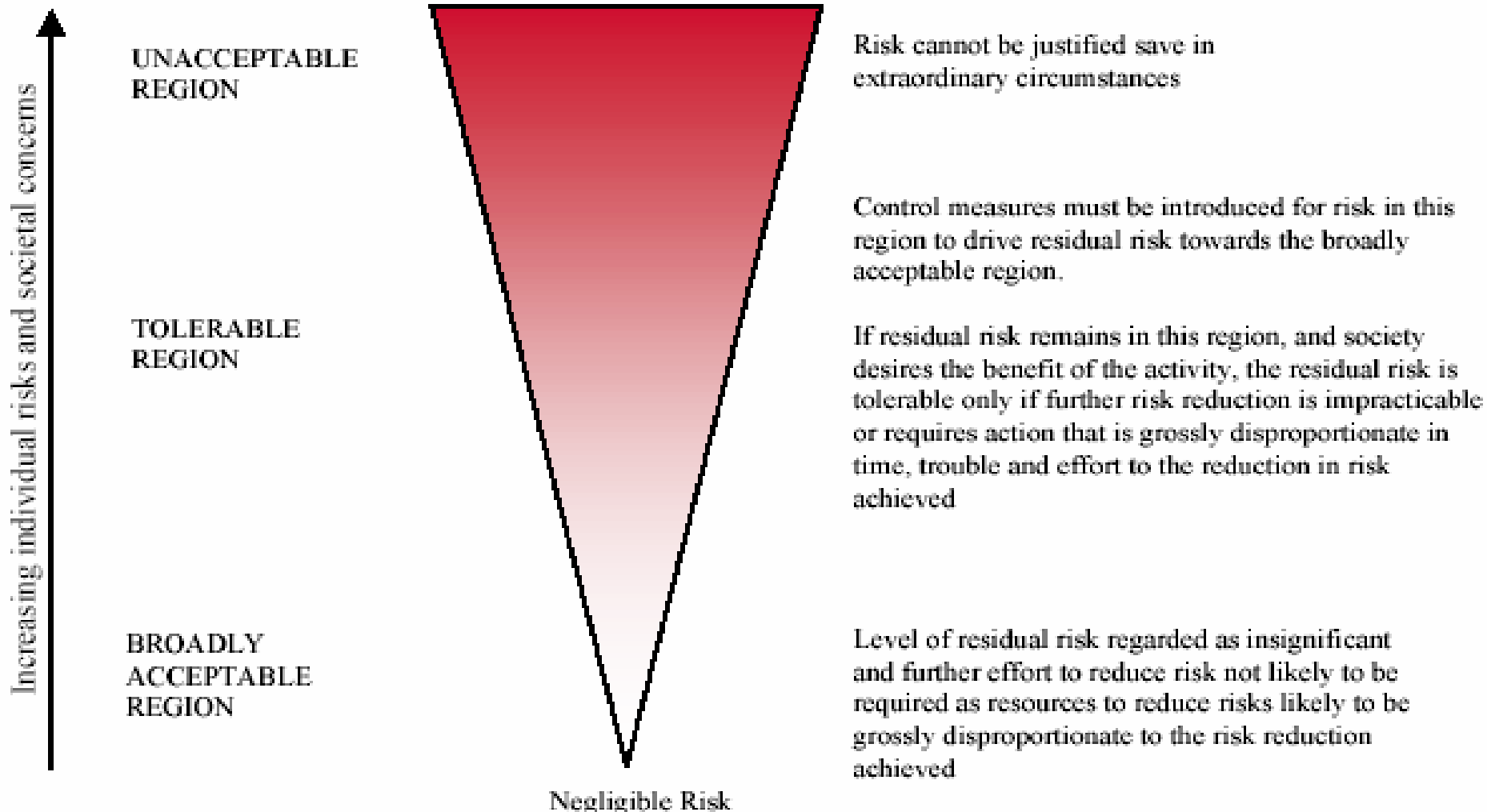


Risk Management Process:

- AWARENESS (Training of key personnel).
- HAZARD IDENTIFICATION (Group systems and subsystems and identify hazards)
- ASSESSMENT / EVALUATION OF RISK
- IMPROVEMENT (Risk control options and Cost benefit analysis)
- MONITORING & REPORTING OF RESULTS

Risk Criteria Framework

USE OF ALARP CONCEPT



Company's Risk Management program

- Evaluate existing systems / subsystems and identify operations/hazards outside acceptable levels based on the company's documented management system
- Establish on going office risk assessment process/procedure
- Establish Vessel On Going Risk Assessment Process/Procedure

TYPES OF RISK ASSESSMENT

- Qualitative Risk Assessment approach is easier to apply , requires less resources and expertise but provide the least degree of insight
- Quantitative (QRA) approach is more demanding on resources and expertise but eventually provides the best understanding and evaluation of risk

Risk assessments need only be as complex as the problem they are trying to address.

Risk Assessment tries to answer five simple questions:

• **What can go wrong? (Hazard Identification)**

How bad? (Consequence Modeling)

How often? (Frequency Estimation)

So what? (Risk Assessment)

What do I do? (Risk Management)

Our Course of Actions



Followed Strategy

STEP 1
INITIAL SCORING
AGAINST
THE TMSA

STEP 3
RISK & HAZARD
IDENTIFICATION

STEP 2
GAP ANALYSIS REPORT

STEP 4
RISK ASSESSMENT & EVALUATION

STEP 5
STRATEGIC DECISION
IMPROVEMENT & ACTION PLAN FOR NEXT STAGES

STEP 6
REVIEW MANAGEMENT SYSTEM DOCUMENTATION

STEP 7
IMPLEMENT & SET UP REPORTING AND MONITORING SYSTEM

STEP 8
TMSA RE-SCORING

STEP 9
ATTAIN NEXT TMSA STAGE



Steps for Compliance

- RISK ASSESSMENT CBT CD for Sea Going Staff
- Risk assessment in house training seminars for shore based staff
- Risk assessment in house training seminars for Sea Going Staff
- Introduction and on board training for the new management system
- Tailor made management system familiarization CBT CD for Sea Going Staff
- On board audit against the revised management system

Is TMSA an Added Value?

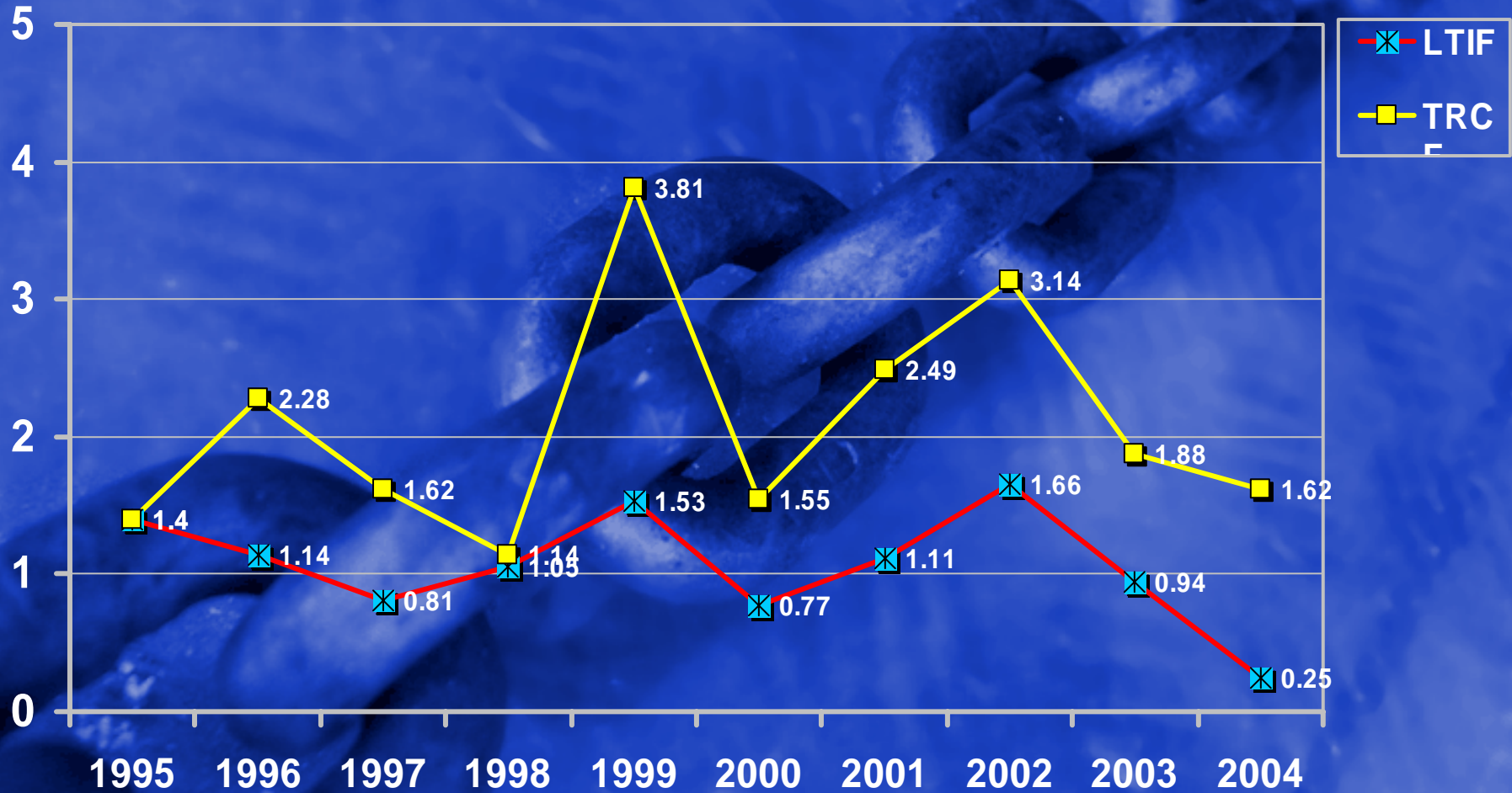
The question should be if TMSA can add value into a quality operator?



OSG (GR) Safety Performance

LTIF= Number of LTIs per unit exposure hours

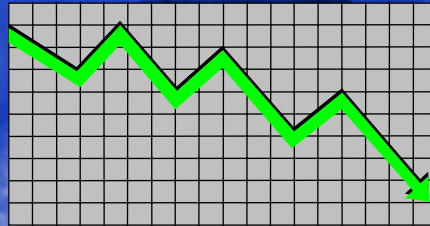
TRCF= LTIs + RWCs + MTCs per unit exposure hours



Source: Safety Department

Reporting Scheme

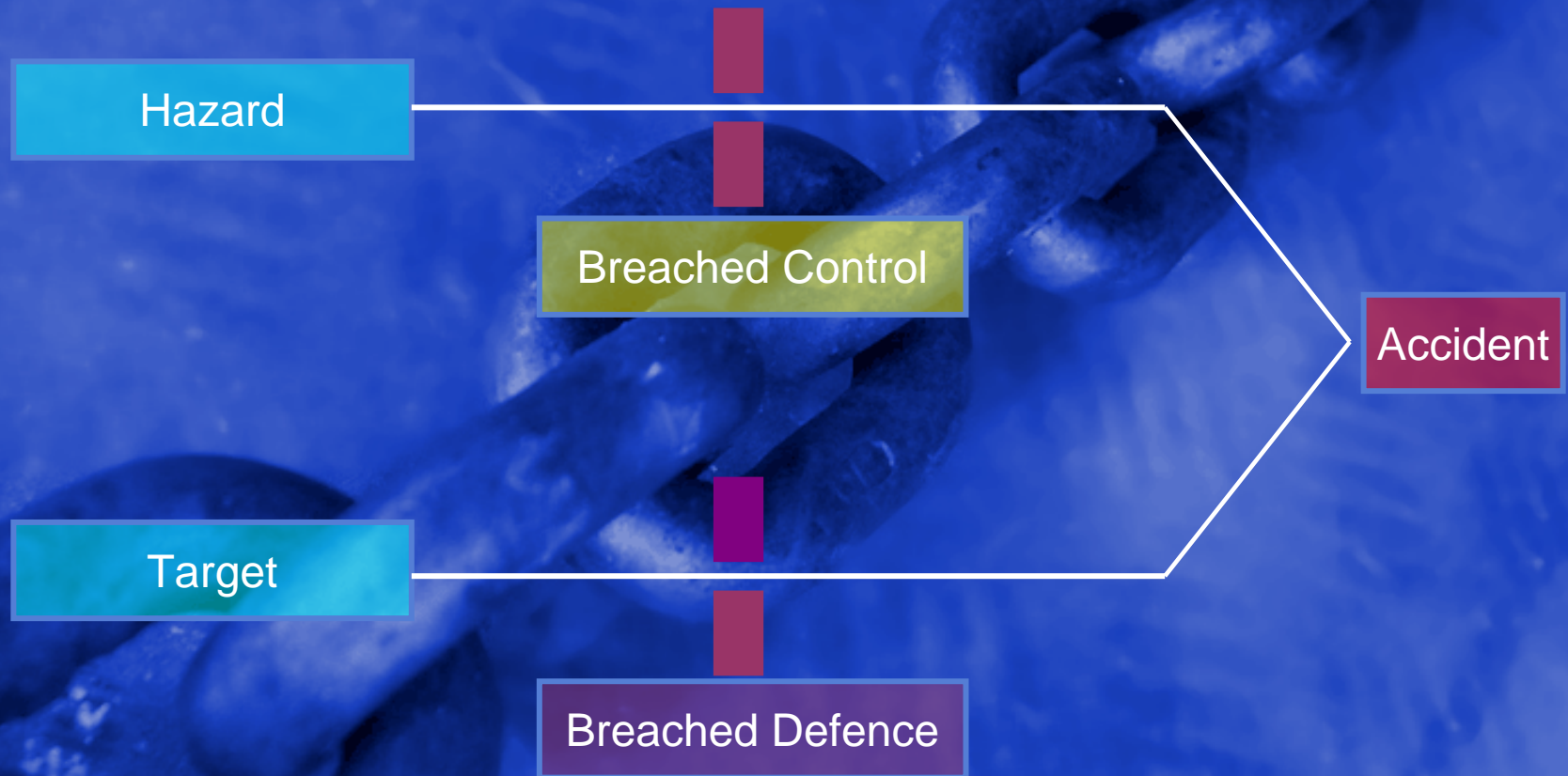
Statistical analysis based on reports give company the necessary tool to reduce accidents and incidents by:



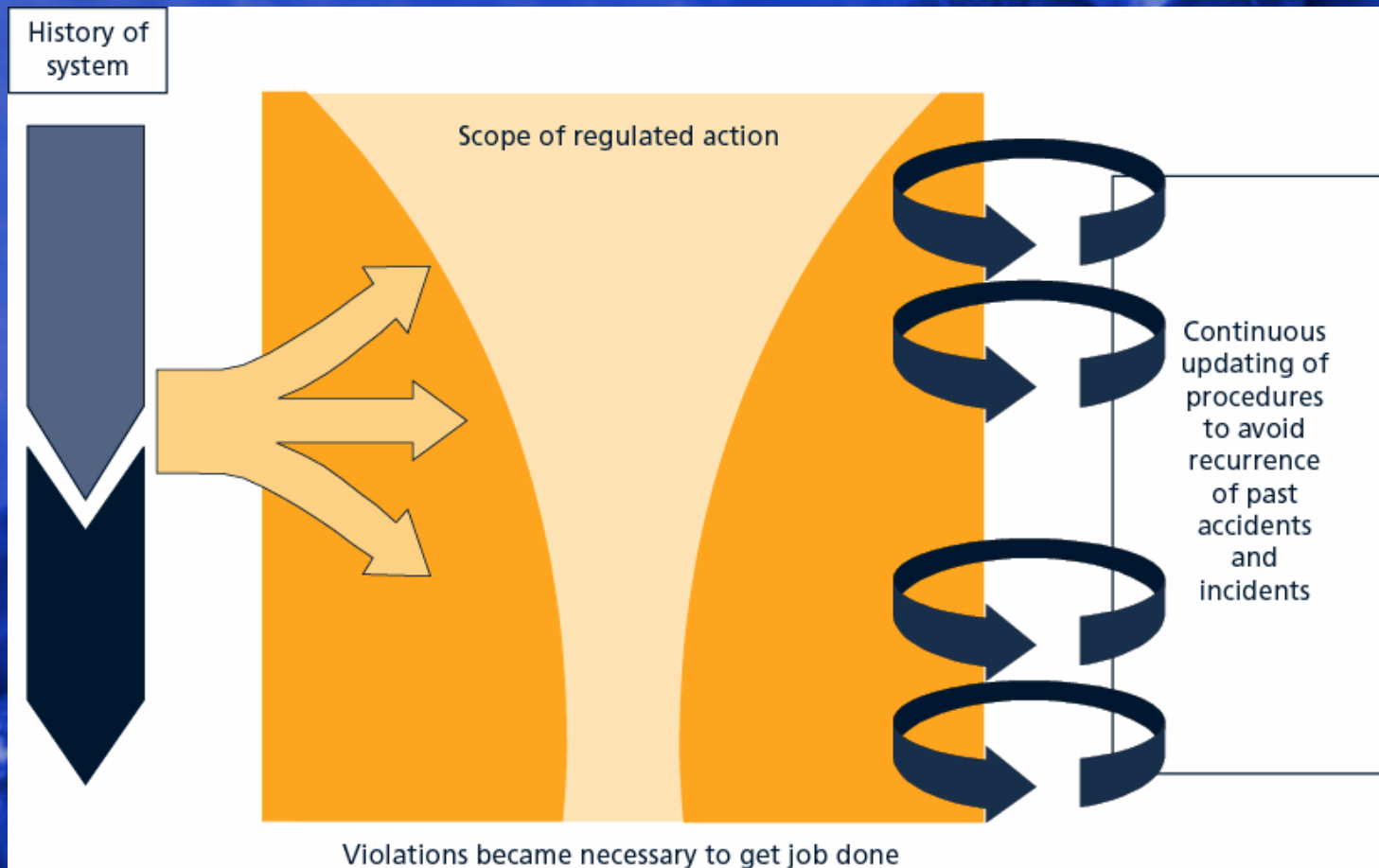
- Investigating accidents and “near miss” incidents, so that their causes and means for prevention are identified
- Analyzing injury and illness trends, so that common cause patterns can be identified and prevented

The identification of system faults

Accident pattern



The Need for Continuous Updating



The Answer is...

Yes

A quality operator **FINALLY** has a “documented” chance through TMSA to make the difference.

