



# The Marine Underwriting Triangle

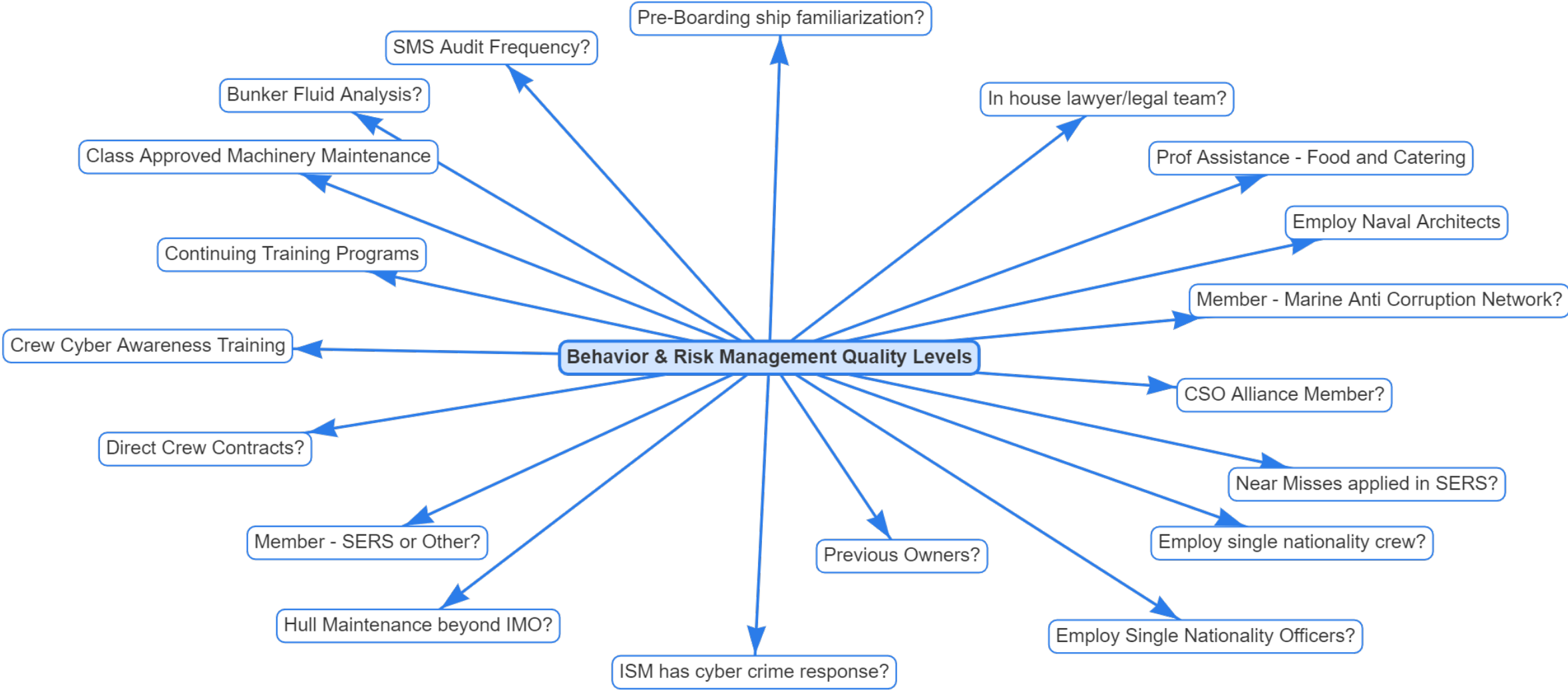
An AI Approach to Maritime Risk



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- The Marine Underwriting Triangle, is the adoption of analyzing: “Human Behavior”; “Technical ” & “Commercial Underwriting” augmented by AI to enable a consistent and mathematical approach to facilitate, profitable marine underwriting.”
  - The number and variety of questions underwriters require to keep in mind, when considering insuring a fleet or even a singleton are numerous it is simply an impossibility for the human brain to consistently and accurately analyze and process the data.
  - The importance of the human element to date has not been easily factored into the underwriting process.
  - The use of the AI and SUE supports a consistent multidimensional approach whilst still allowing for flexibility.
  - The Triangle gives senior managers the ability to understand the complex decisions made by the line underwriter and monitor them against an agreed strategy.

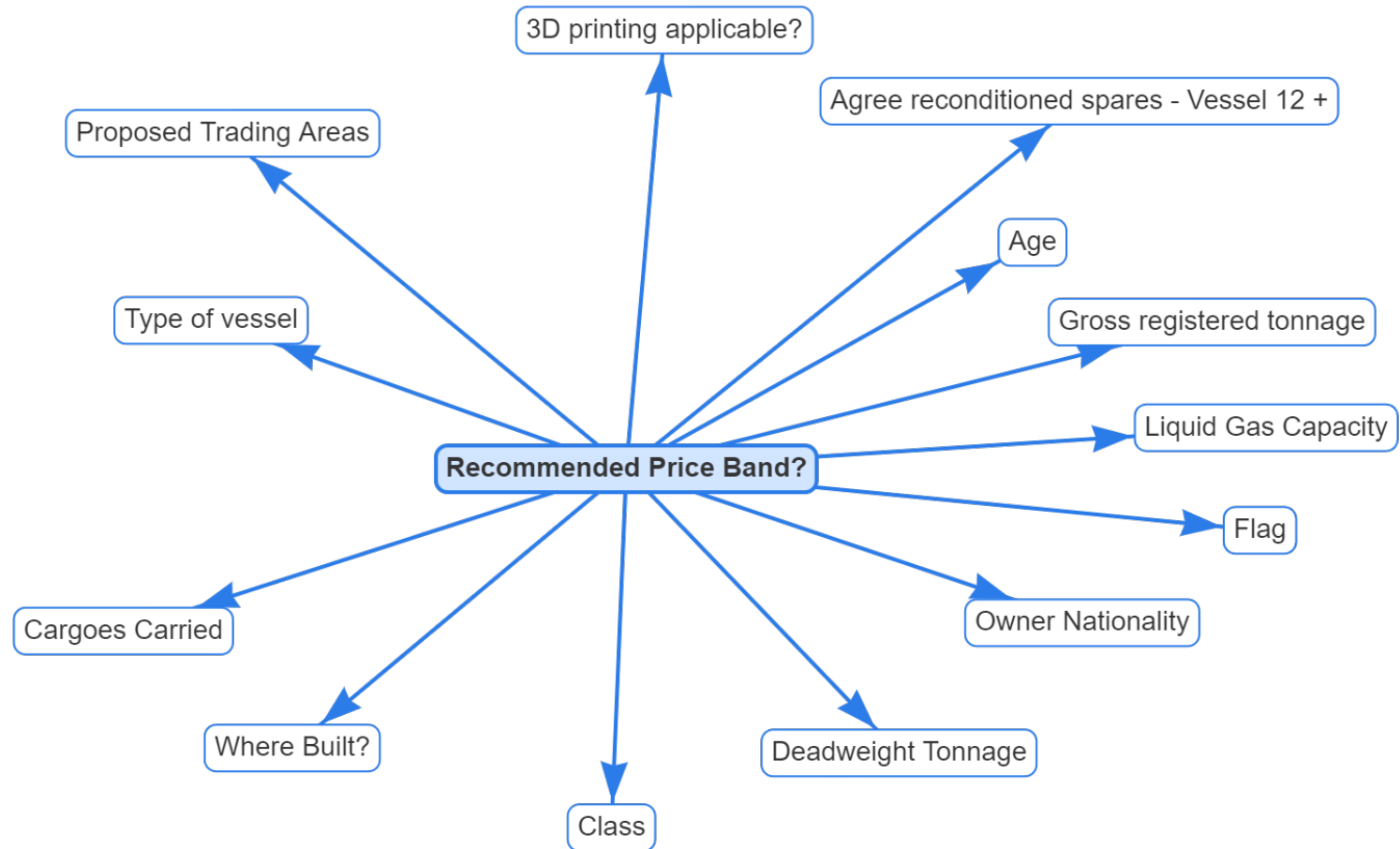


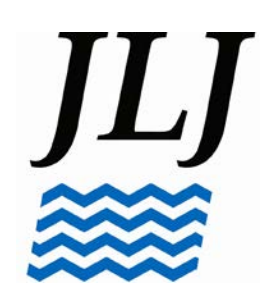
# Human





# Technical





# Sue

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- Bespoke, adaptable maybe retrained business strategy.
- Aides' development and training.
- A unique tool to share with assureds to clearly see that certain activities will be recognised and rewarded.
- Disrupts conventional underwriting which has proved consistently to fail, such failure is to no one's long-term benefit.
- Promotes **Proactive** Risk analysis & management rather than **Reactive** is flexible and can also be easily programmed by the to take account of new risks and issues as they arise , such as the impact of climate change and methods of propulsion.



# Our Goals

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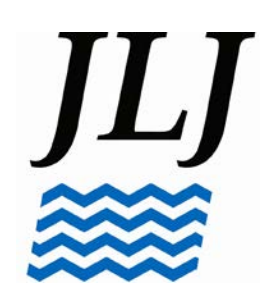
- *The profit motive of a Shipping Company coupled with the proper development of individuals have in the past been considered to be poles apart. However, investing in soft skills will give greater efficiency, resulting in maximum economy, whilst achieving greater satisfaction for the individuals and so increase crew retention”.*
- A wrong decision can cost millions.
- Underwriters should want to be Recognised and Respected by the industry.
- Insurers to clearly and transparently reward quality ship operators.
- To mathematically benchmark our portfolio and risk appetite transparently to our colleagues our shareholders and our clients.
- To know and understand our client’s management ethos and approach to Risk.
- We want to be in a position of offering fast and efficient settlement of claims.



# The UK House of Lords Select Committee, review of the causes of ship losses concluded the following -

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- Poor level of training and experience among officers and crew in the merchant fleet.
- Poor design.
- Inadequate equipment.
- Incomplete repairs.
- Incorrect loading and overloading.
- **This review was undertaken some 185 years ago in 1836!**
- Remember it is not the motorcar that causes the accident, but the driver or the level of maintenance applied or both. It is not the shotgun that kills, but the finger on the trigger and the training and attitude to safety, which the bearer applies.



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- Owners are well aware that insurance underpins their operation, that Insurers intrinsically have the right to a high degree of knowledge.
  - They understandably want proactive recognition when they have gone beyond statutory requirements.
  - Generally, Owners are surprised by the lack of detail underwriters require.





# We have adopted 5 key attitudes towards risk

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## Pathological

- ◆ Don't care about Safety, Health or the Environment.
- ◆ Who cares, as long as we are not caught.
- ◆ “It's a dangerous business.”

## Reactive

- ◆ Safety is important. A lot is done to avoid accidents.
- ◆ “If only they would do what they are supposed to”
- ◆ “Those who have the accidents are those who cause them.”
- ◆ “You have to understand it is different here.”



# We have adopted 5 key attitudes towards risk

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## Calculative

- ◆ Systems in place to manage all hazards.
- ◆ Focus on procedures, stats & audits.
- ◆ Surprised when accidents happen.

## Proactive

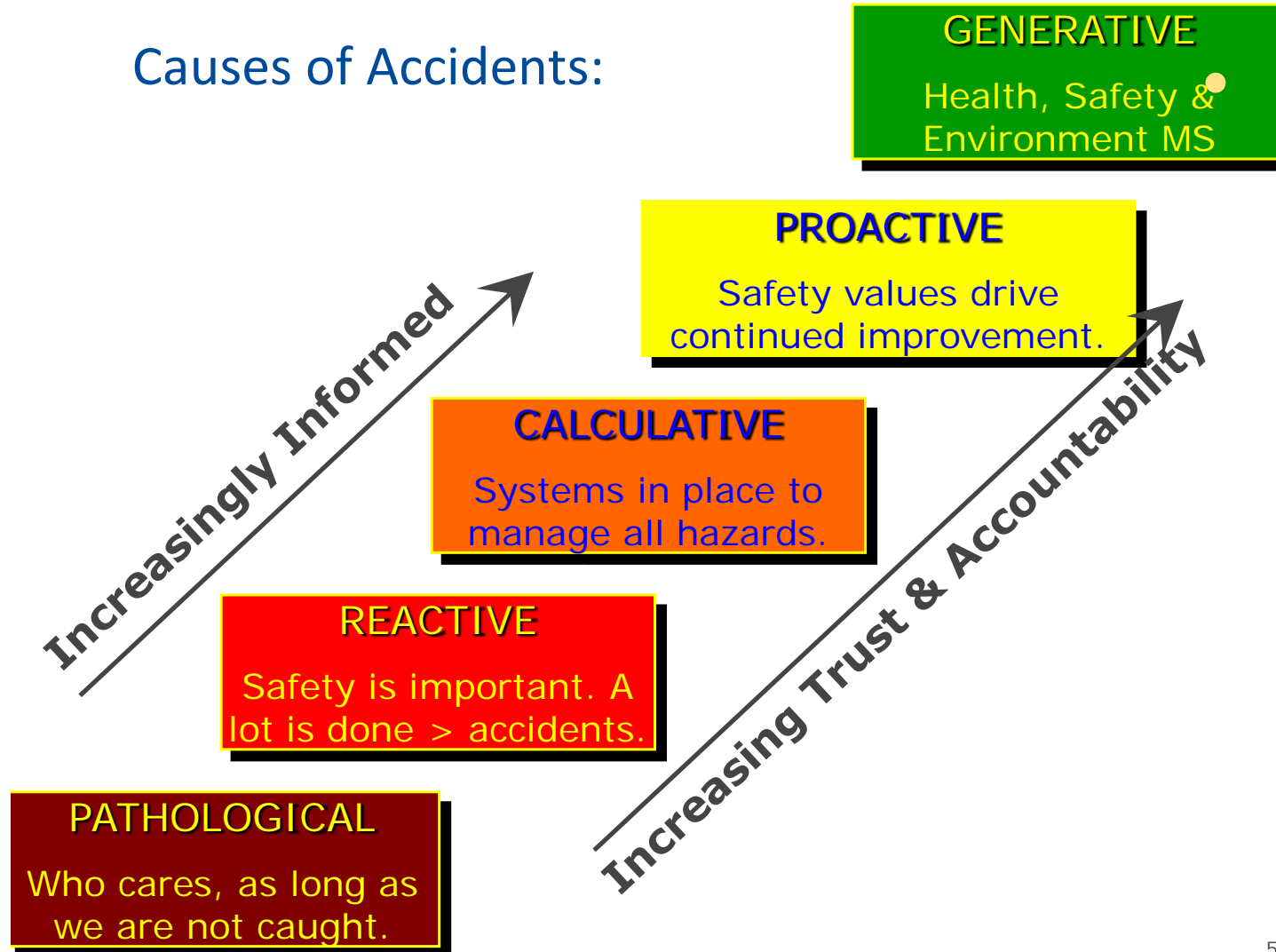
- ◆ Safety values drive continued improvement.
- ◆ Safety is not only Safety Officer's Concern!
- ◆ Try to prevent next (not last) week accident.

## Generative

- ◆ Health, Safety & Environment Management Systems.
- ◆ Honest about failure.
- ◆ Don't afraid to admit mistakes.
- ◆ Don't just try to get it right, but better.
- ◆ Well-informed.

# Causes of Accidents

Causes of Accidents:





# Aviation V Shipping: lessons learned

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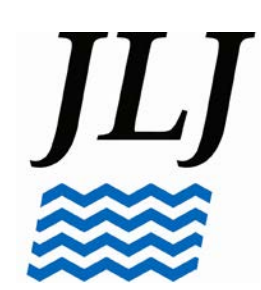
- ◆ March 1977 two 747s collided killing 583 people.
- ◆ Many contributory causes but key was a misunderstanding in communication.
- ◆ Key consequence was the emphasis placed on human factors or “non-technical” skills.
- ◆ Reactive safety management changed to a Pro-active approach.
- ◆ A cultural change not as yet witnessed in shipping.
- ◆ Reactive however, is the most ineffective and expensive form of safety.
- ◆ Crews must be rewarded and respected and they must be recognised as playing a vital role.
- ◆ The Safety officer must become the pivotal role between the Office and vessel.
- ◆ This has become 2nd nature in the Aviation world.



# Lessons Not learned in Shipping

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- ◆ The need to Change
- ◆ Fear of Change
- ◆ It upsets our comfort zones.
- ◆ Many shipping companies are very hierarchical.
- ◆ An approach not conducive to creating an open minded and team approach.



# Insurance Lessons

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- ◆ The Insurance industry has to play its part in creating & supporting the change.
- ◆ Which in itself will need to change.
- ◆ Complacency, ignorance or Resistance to Change?



# Accident Reduction

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Accidents can be reduced because they

- ◆ have, over time.
- ◆ have, where it mattered.
- ◆ depend on (conscious) choices.
- ◆ are mainly due to lack of soft skills.



# Safety

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Why are we concerned with Safety?

*Because*

**We have Accidents:**

- Which damages the environment
- Costs life's
- Causes financial loses





# What is Risk Management?

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RISK MANAGEMENT is a formalised way of thinking to identify hazards and to take reasonable measures to reduce risk to:

- Personnel
- Property & the Environment
- The Company
- Identify Hazards
- Assess the Risks
- Analyze Risk Control Measures
- Make Control Decisions
- Implement Risk Control Measures
- Supervise and Review