



Organizan:



Risk based design with Goal Based Standards and Safety Level Approach. An example based on a Spanish fishing vessel fleet

Organizan:

Proceso de las regulaciones en IMO – ejemplo



Accidente →

Clamor →

Normativa →

Olvido



1912



1914 (1915)



WW I



1960

1974

1929 (1933)

1948



WW II

Accidente



Clamor



Normativa



Olvido



**Herald of the Free
Enterprise, 1987**



Estonia, 1994



Seguridad de buques pesqueros

SEGURIDAD = cumplimiento normativa aplicable (?)



RIESGO

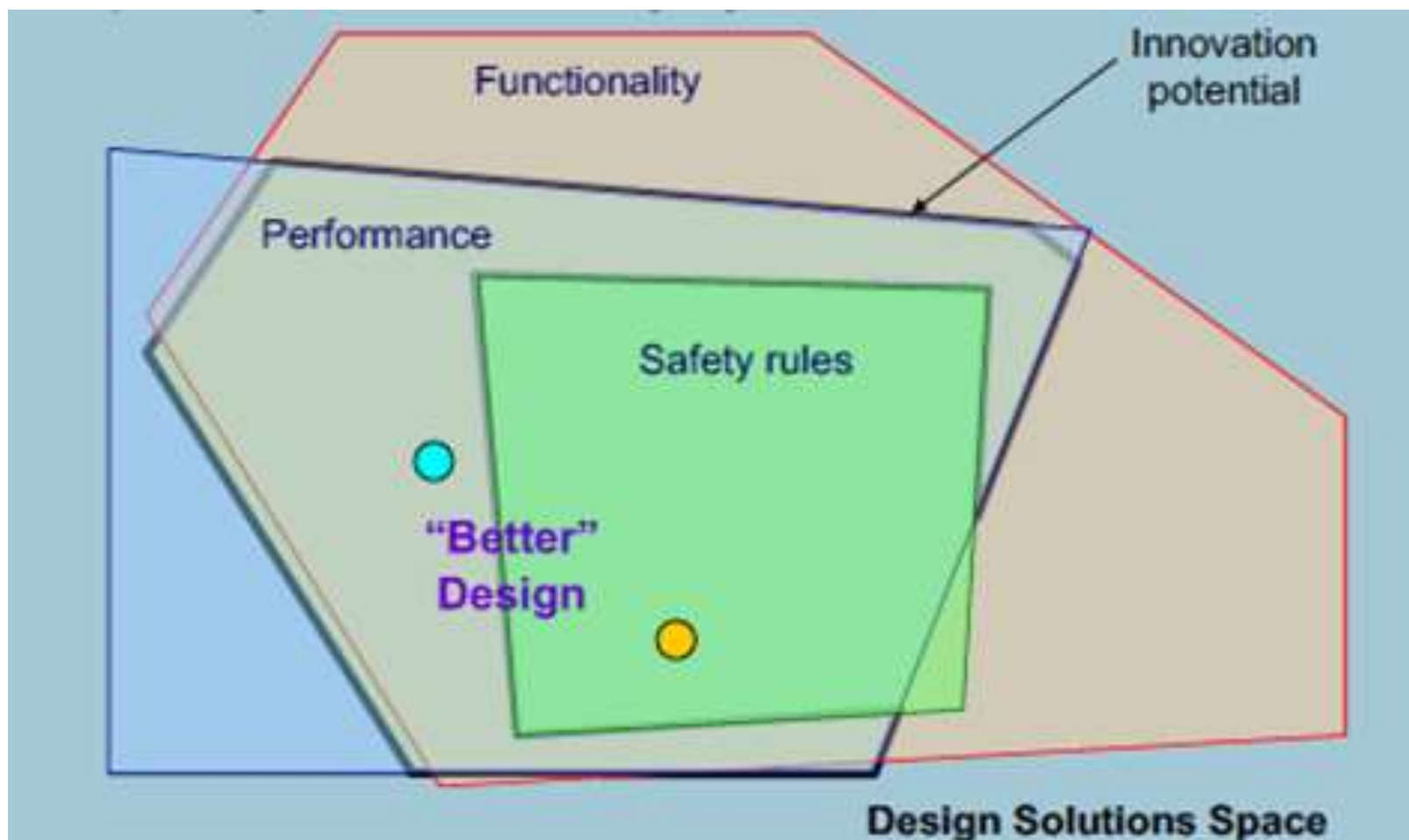


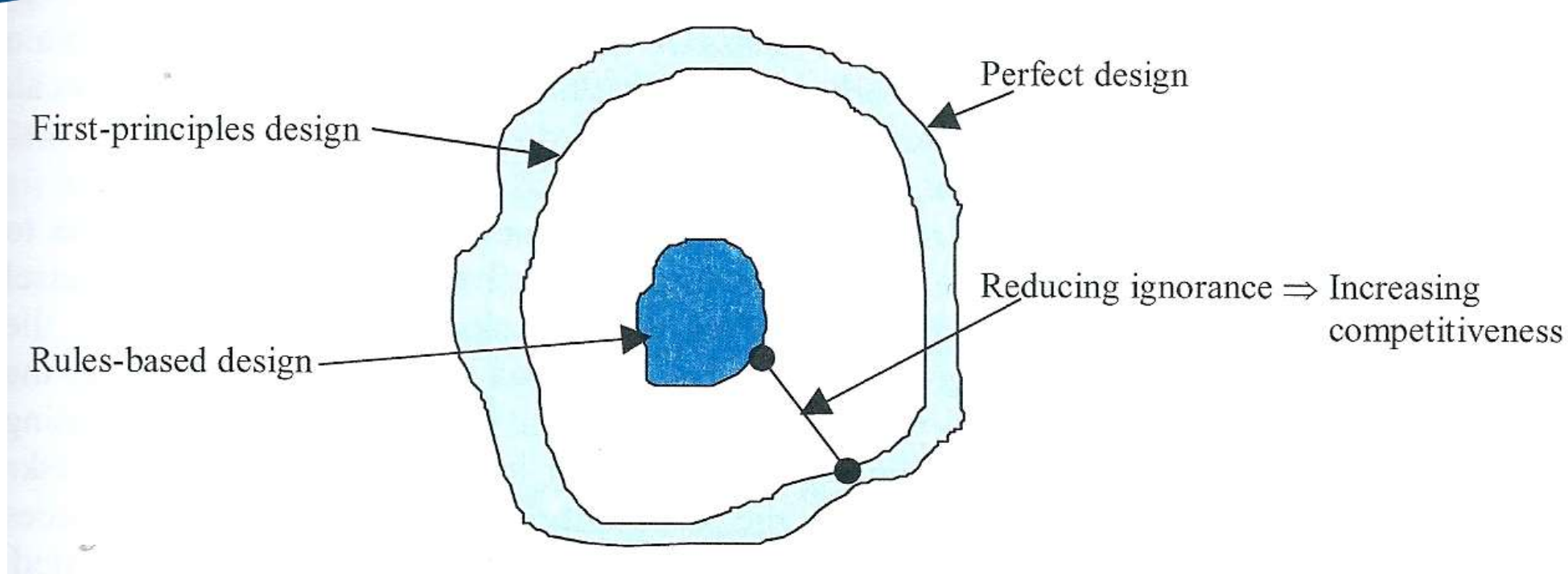
Riesgo aceptado



Riesgo aceptable

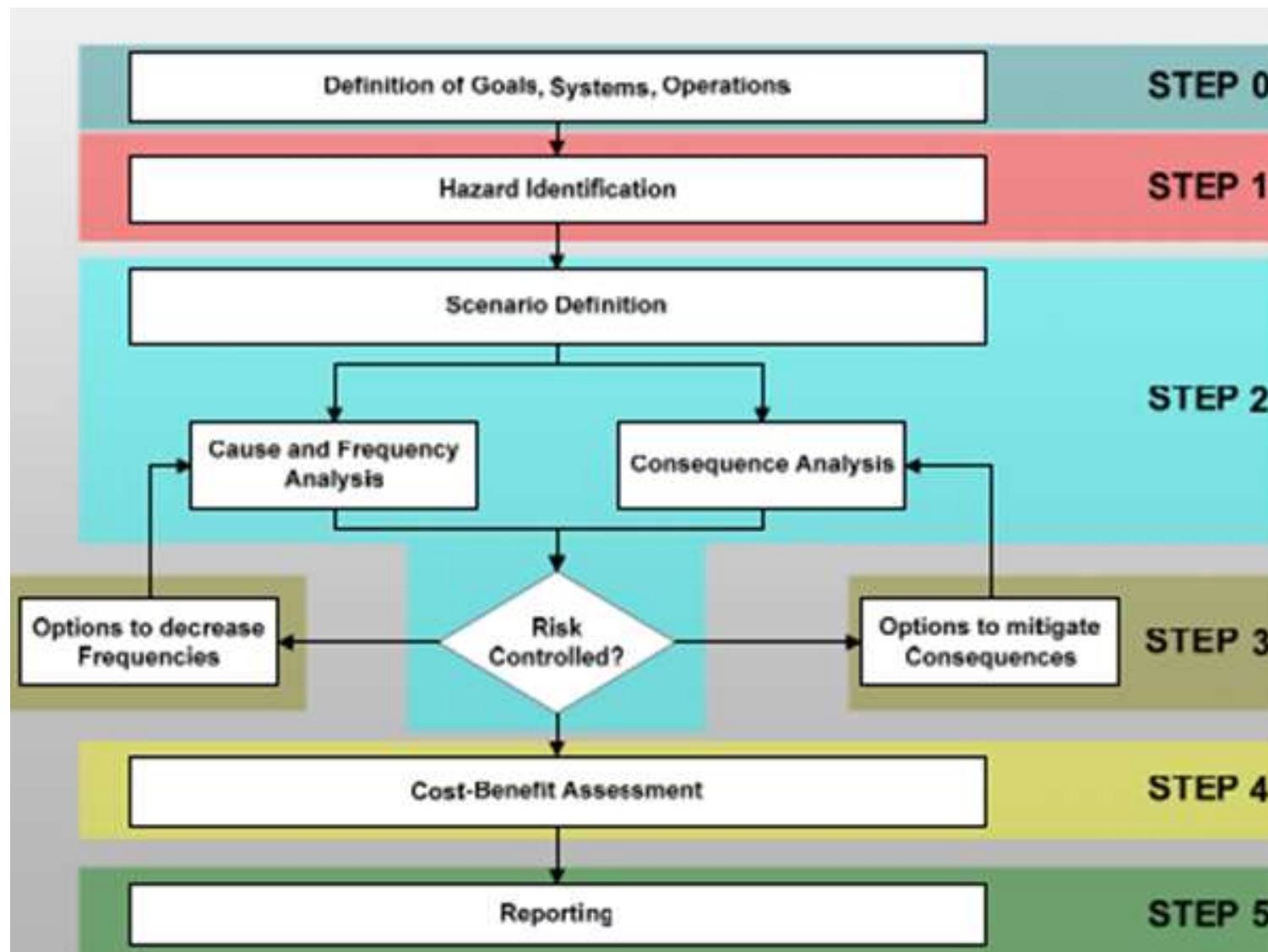




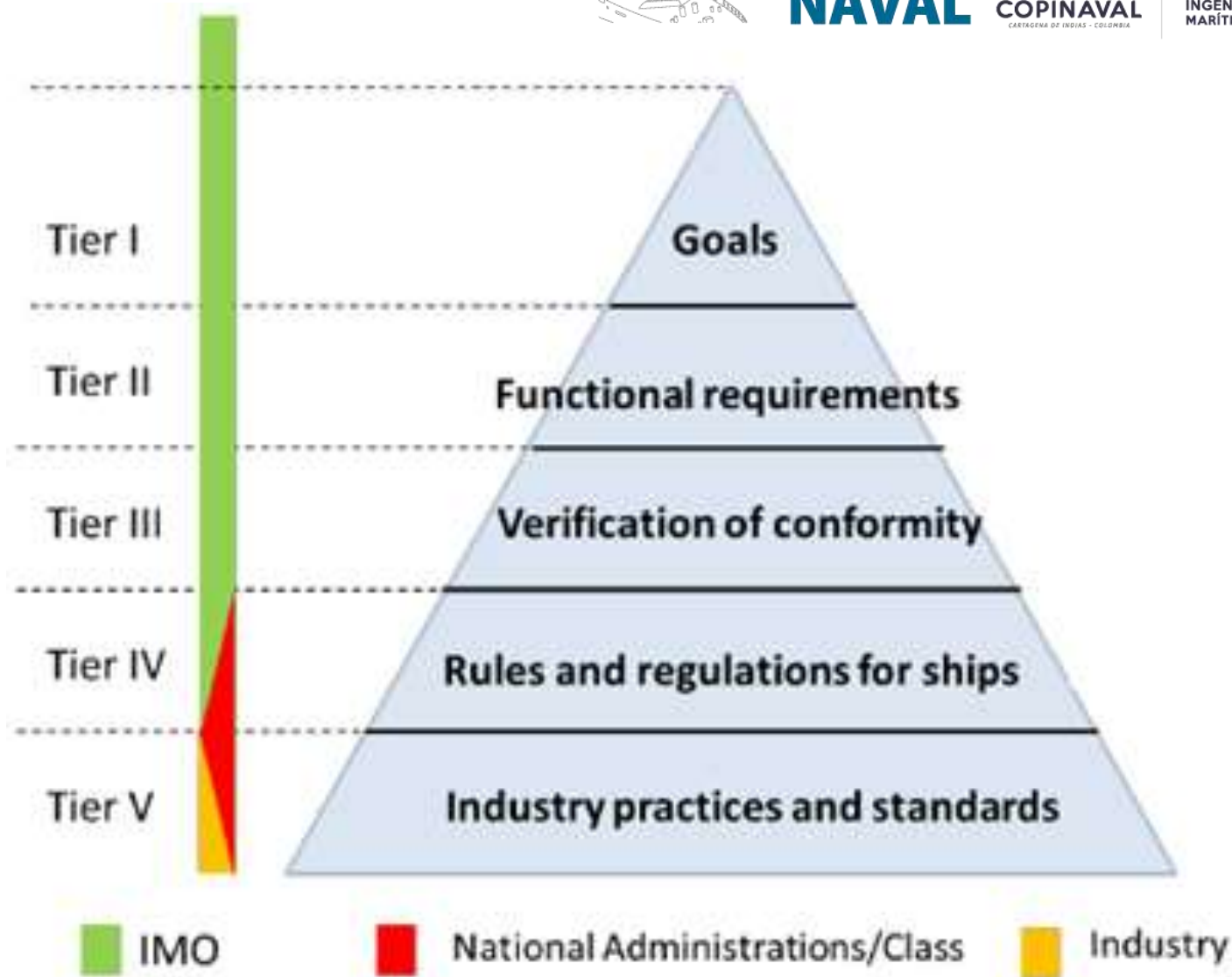


SAFER EURORO: Design for Safety, an integrated Approach to Safe European RoRo Ferry Design (EU 1997-2005)

Formal safety Assessment

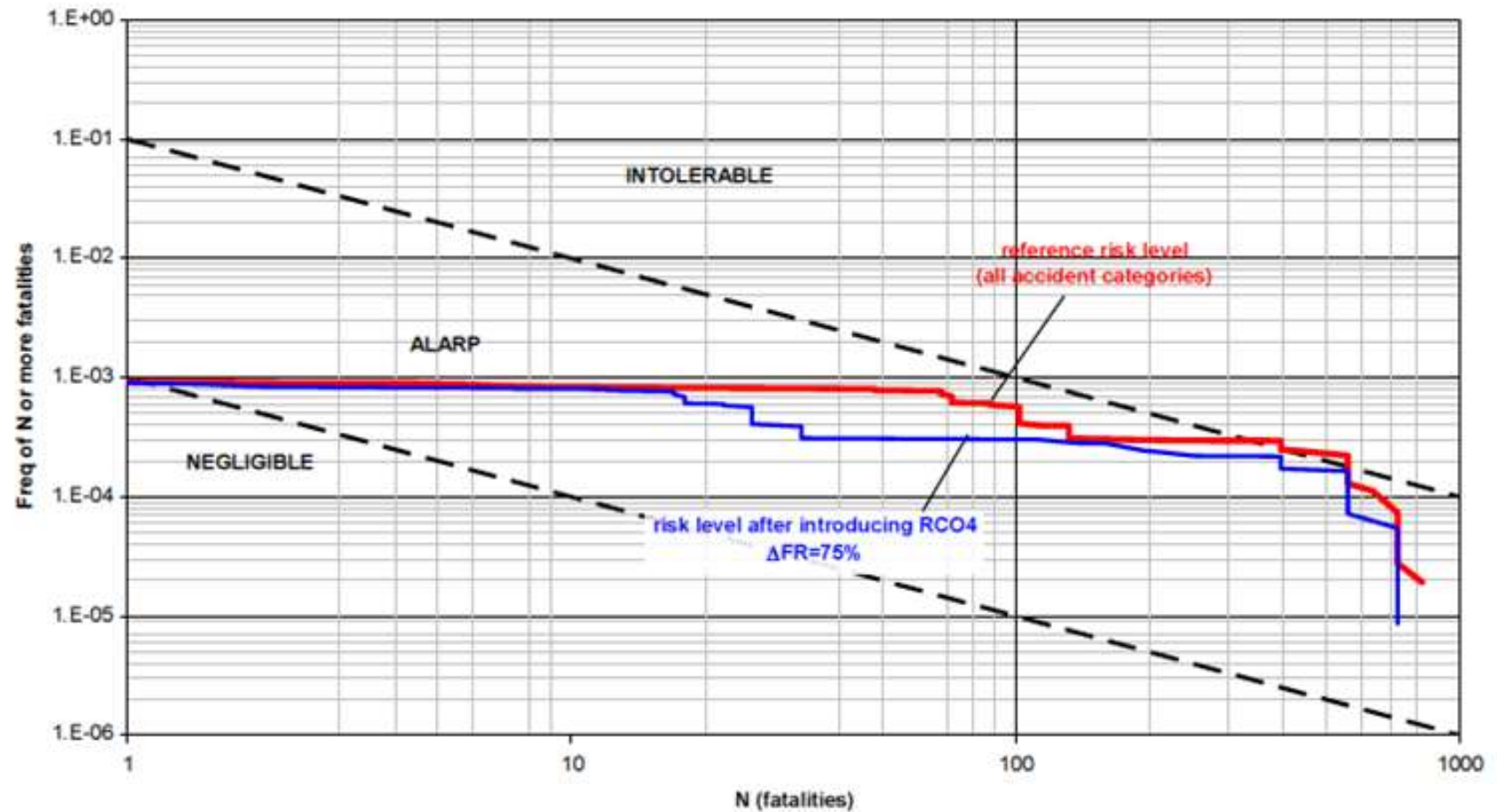


Goal Based Standards

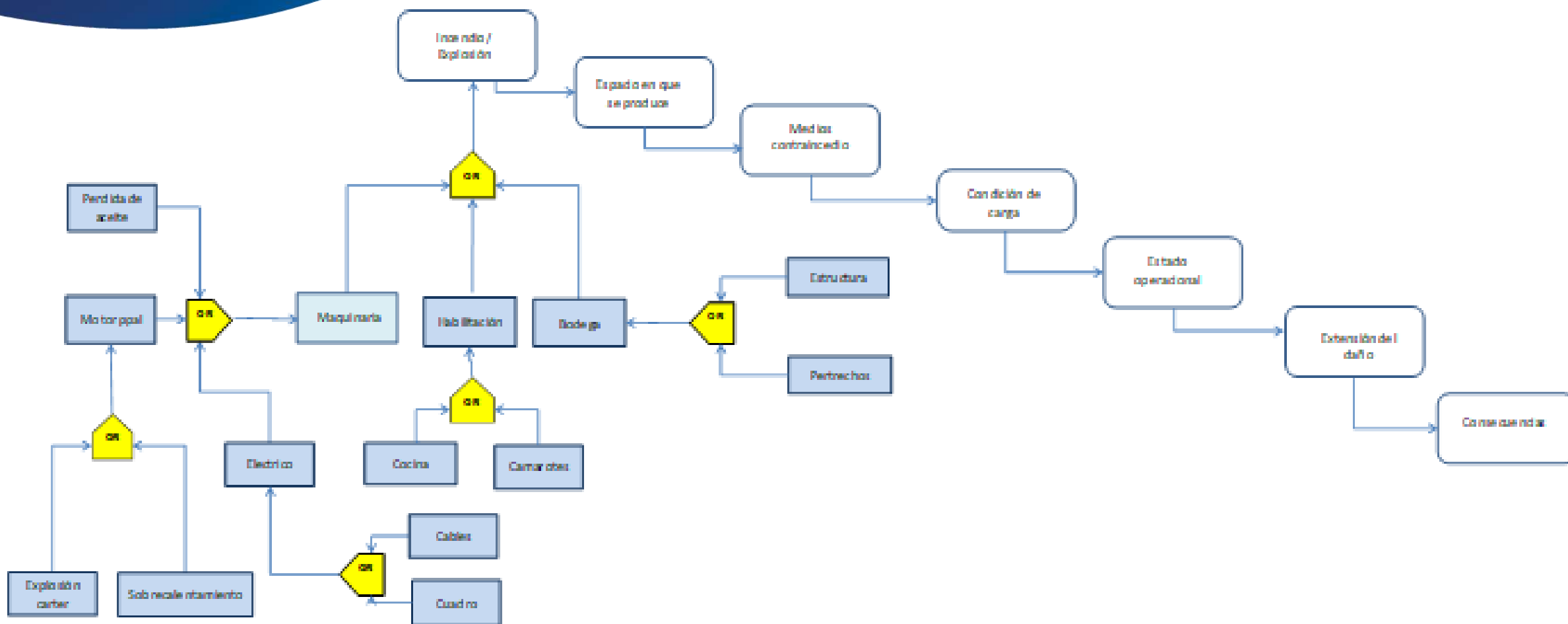


Safety Level Approach

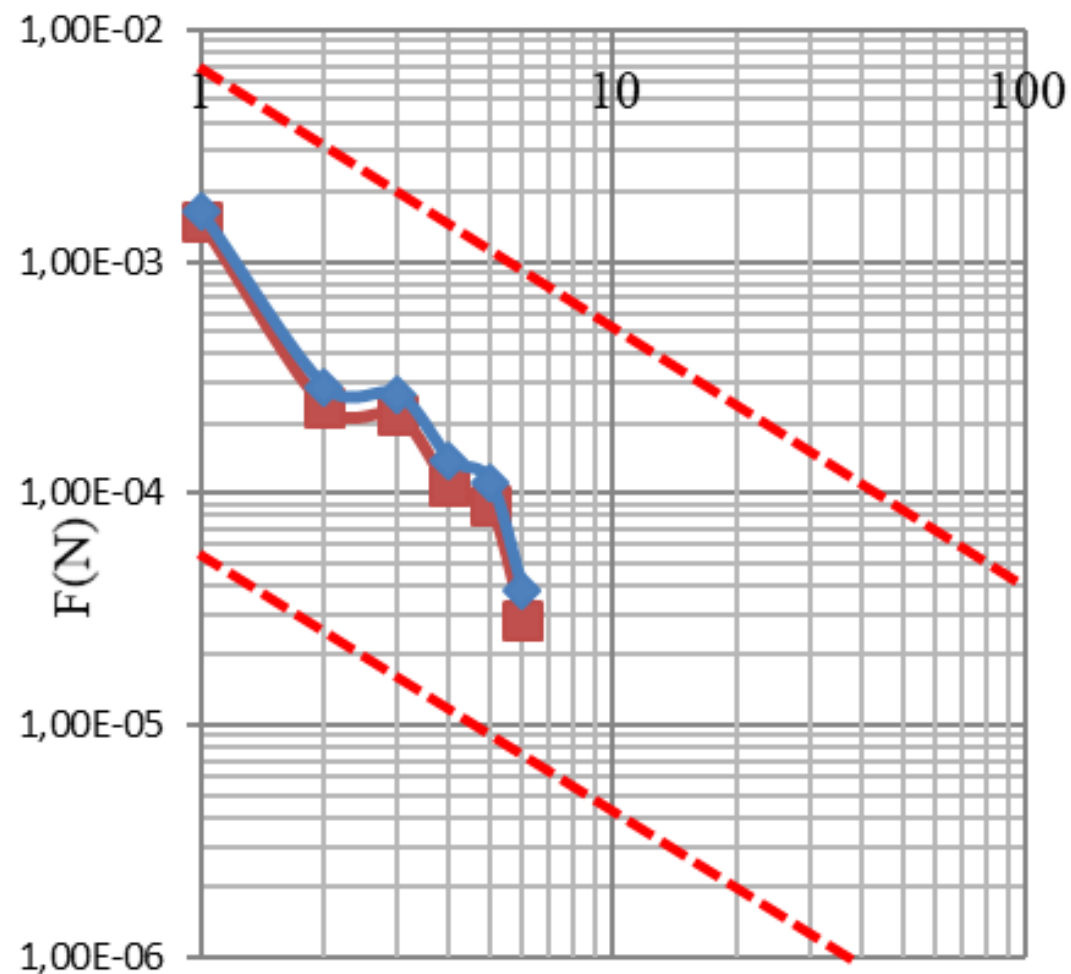
FN RoPax Vessels



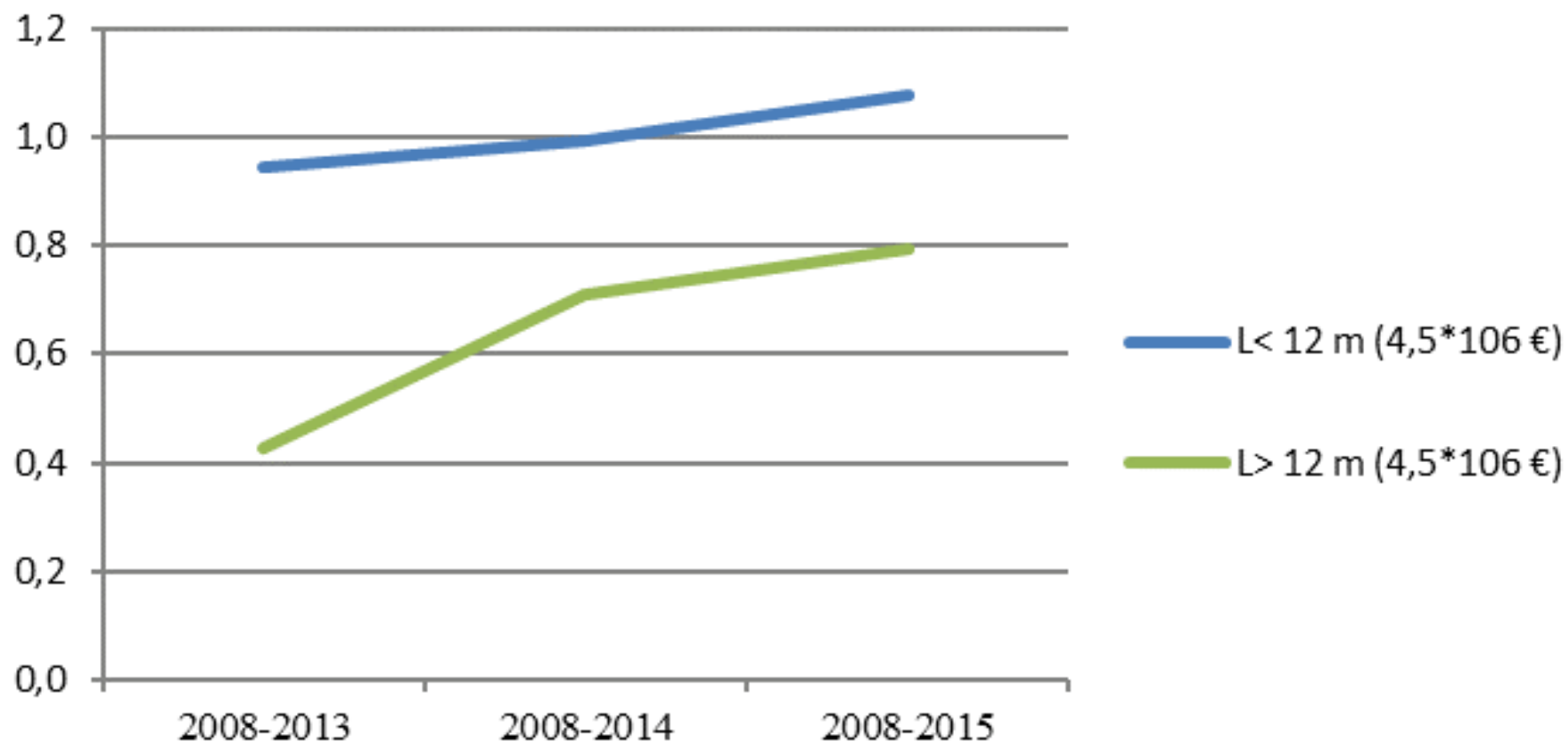




F-N fishing vessels $12 \leq L < 24$ m



Number of N or more fatalities



Conclusions:

- The quick advance in technology impulses the flexibility in ship design
- The risk-based design based in IMO tools could be a solution.
- The approval of risk-based design will need to be transparent, predictable and consistent.
- A practical example based on fishing vessels has been presented carrying out an initial approach to GBS-SLA and FSA.



Colombia
mar **2019**