

# Norwegian Maritime Cyber Resilience Centre

## Our Vision:

Unified resilience  
against cyber  
threats for  
Norwegian  
Shipping and  
Maritime Sector



# NORMA CYBER

## Our Values:

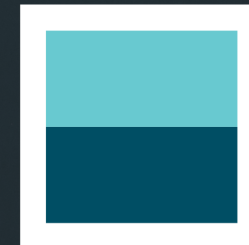
Trusted  
Solid  
Innovative

## Our Set-Up:

Mutually owned by  
Norwegian Shipowners  
and Operators



DEN NORSKE KRIGSFORSIKRING FOR SKIB  
GJENSIDIG FORENING  
The Norwegian Shipowners' Mutual  
War Risks Insurance Association



Norges  
Rederiforbund  
Norwegian  
Shipowners'  
Association



# Current Overview



110 Member organisations



Represented with 2 257 Vessels



12 Employees



Offices and Operations Room in Oslo, Norway

## Services:



- Intelligence & information sharing



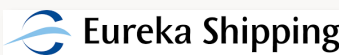
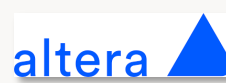
- Response



- Security Operations

Our members:

110 members – 2 257 vessels



Maritime Vendor Members:



KONGSBERG



a Fincantieri company



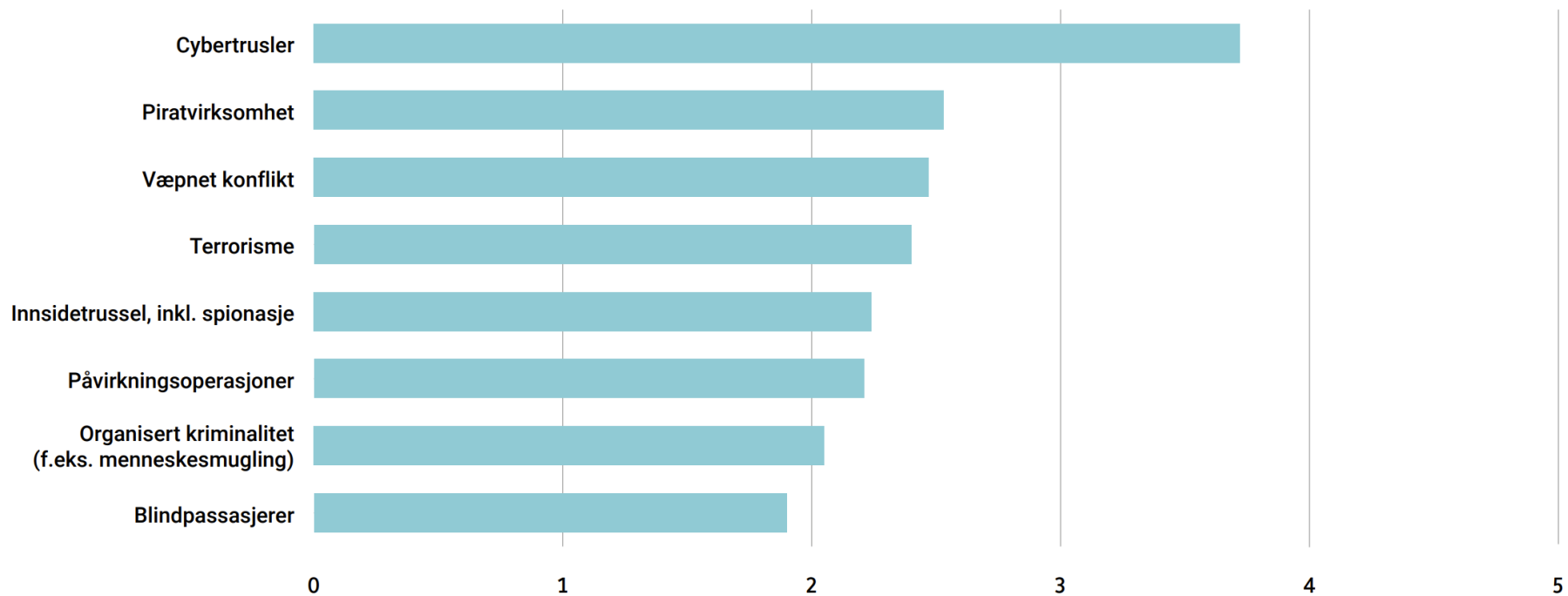
An aerial photograph of a deep fjord, likely in Norway, with a small boat in the center. The water is dark blue, and the surrounding mountains are steep and covered in dense green forest. The sky is overcast with grey clouds. The text "Does the management really care about cyber risks?" is overlaid in white serif font across the middle of the image.

Does the management really care about cyber risks?



## Sikkerhetstruslers påvirkning på rederienes virksomhet

Skala fra 1–5 hvor 1 = ingen grad, 5 = svært stor grad



Kilde: BDO AS/Norges Rederiforbund



# Top management cyber security skills

## How much cybersecurity expertise does a board need?

Feature

Oct 25, 2023 • 12 mins

CSO and CISO Risk Management

Whether a specific requirement or not, companies must either educate their board of directors in cybersecurity and risk management or look to recruit directors with specific cybersecurity experience to improve organizations response and decision-making.

### – Minst ett styremedlem bør ha cyber-kompetanse

– Cybersikkerhet er like viktig kompetanse i et styre som kunnskap om teknologi og finans. Dette er et altfor komplisert felt til at virksomheter kan sette det bort eller delegere det til lavere nivåer.



A dark, silhouetted photograph of a ship's deck. The image shows various pieces of equipment, including a large dome-shaped radar scanner on the right, several smaller antennas and sensors, and a complex network of metal railings and structural beams. The background is a dark, overcast sky. The overall tone is somber and technical.

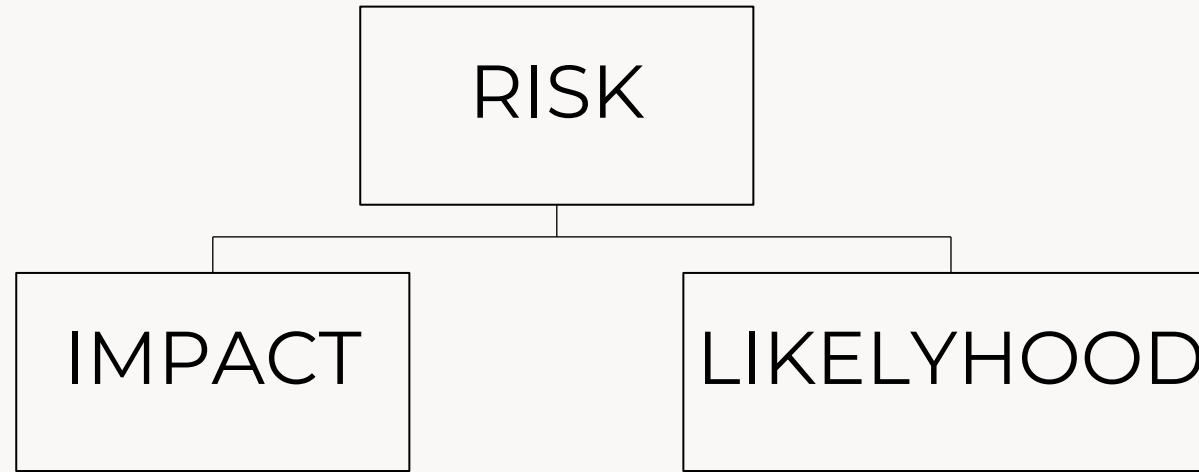
How to communicate cyber risks to top management?



# SECURITY RISK ASSESSMENT

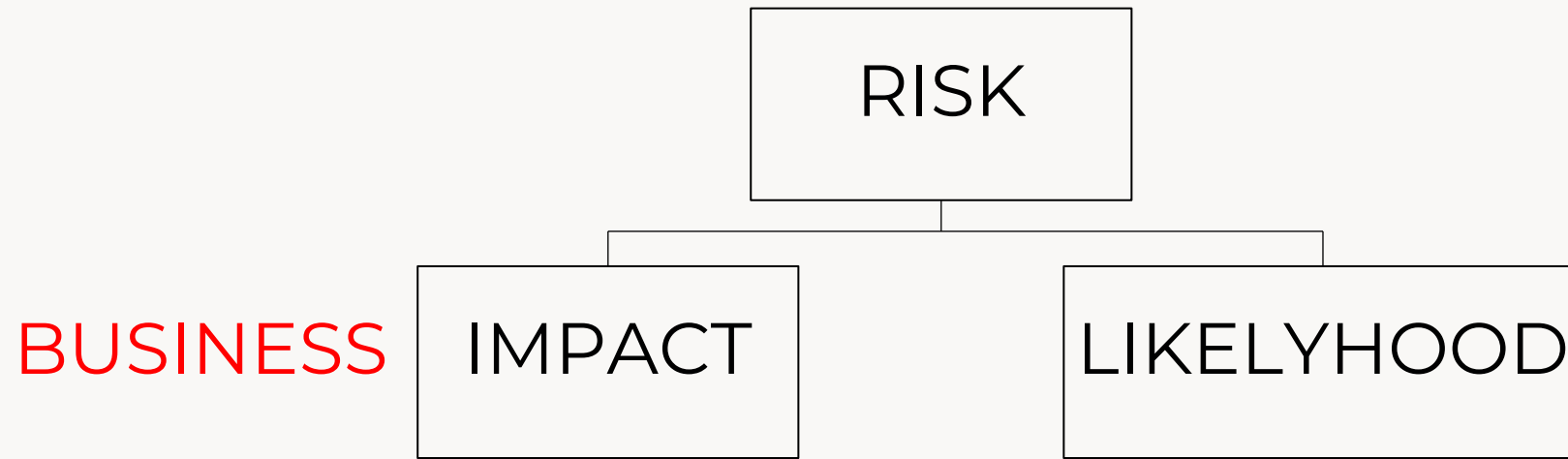
RISK

# SECURITY RISK ASSESSMENT





# SECURITY RISK ASSESSMENT



# BUSINESS IMPACT ASSESSMENT

Sit down with the management team and:

1. List your digital processes supporting your operations
2. Rate how critical each process is in case it is interrupted
3. May use CIA
  1. Confidentiality
  2. Integrity
  3. Availability
4. If little time – define the impacts and then just let the management score the impacts 1 to 4



# BUSINESS IMPACT ASSESSMENT

1	Theft of business critical information	High
2	Collision, grounding or spill incident caused by destructive cyber attack	Critical
3	Loss of access to critical systems	High
4	Reputational loss	Moderate
5	Sensitive data leaked online	High
6	Financial Loss – fraud	Moderate
7	Webpage not operational	Low
8	Manipulation of content on webpages	Moderate

# SECURITY RISK ASSESSMENT

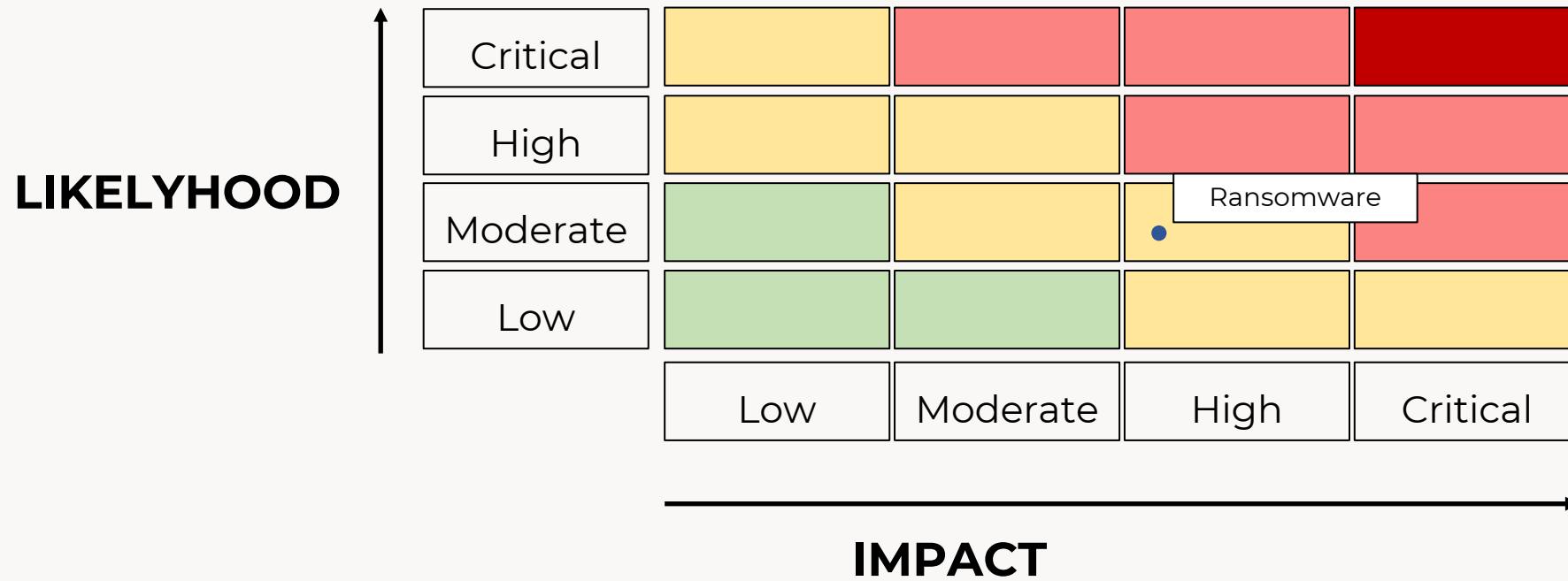
**LIKELIHOOD**

Critical	Moderate	High	High	Critical
High	Moderate	Moderate	High	High
Moderate	Low	Moderate	Moderate	High
Low	Low	Low	Moderate	Moderate
	Low	Moderate	High	Critical

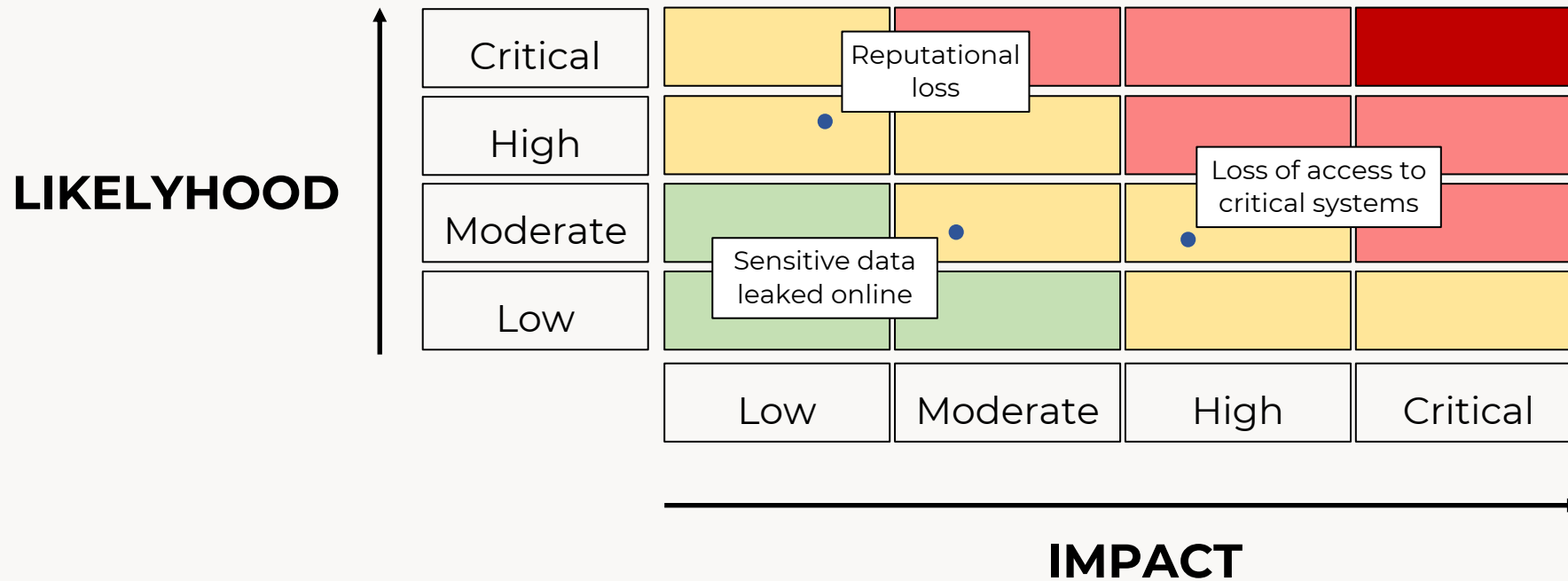
**IMPACT**



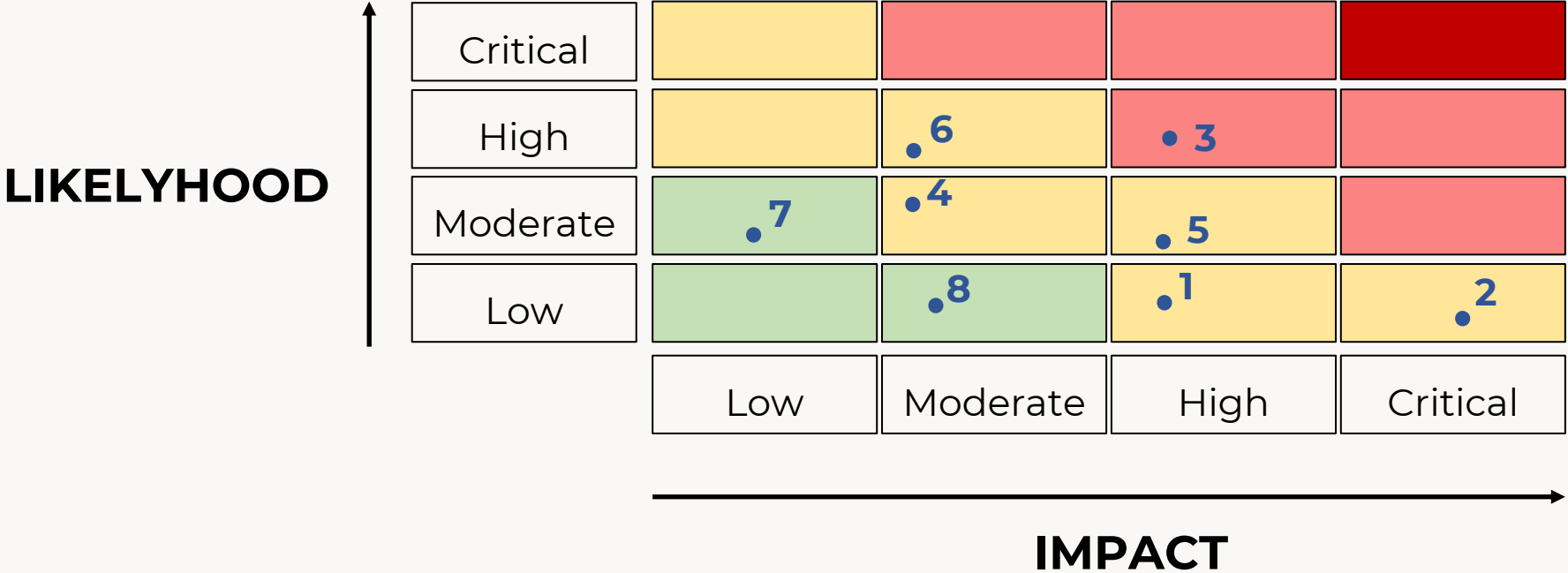
# Example - Ransomware



# Example - Ransomware



# Example – Cyber threats



Nation state

Cyber criminals

Cyber activists

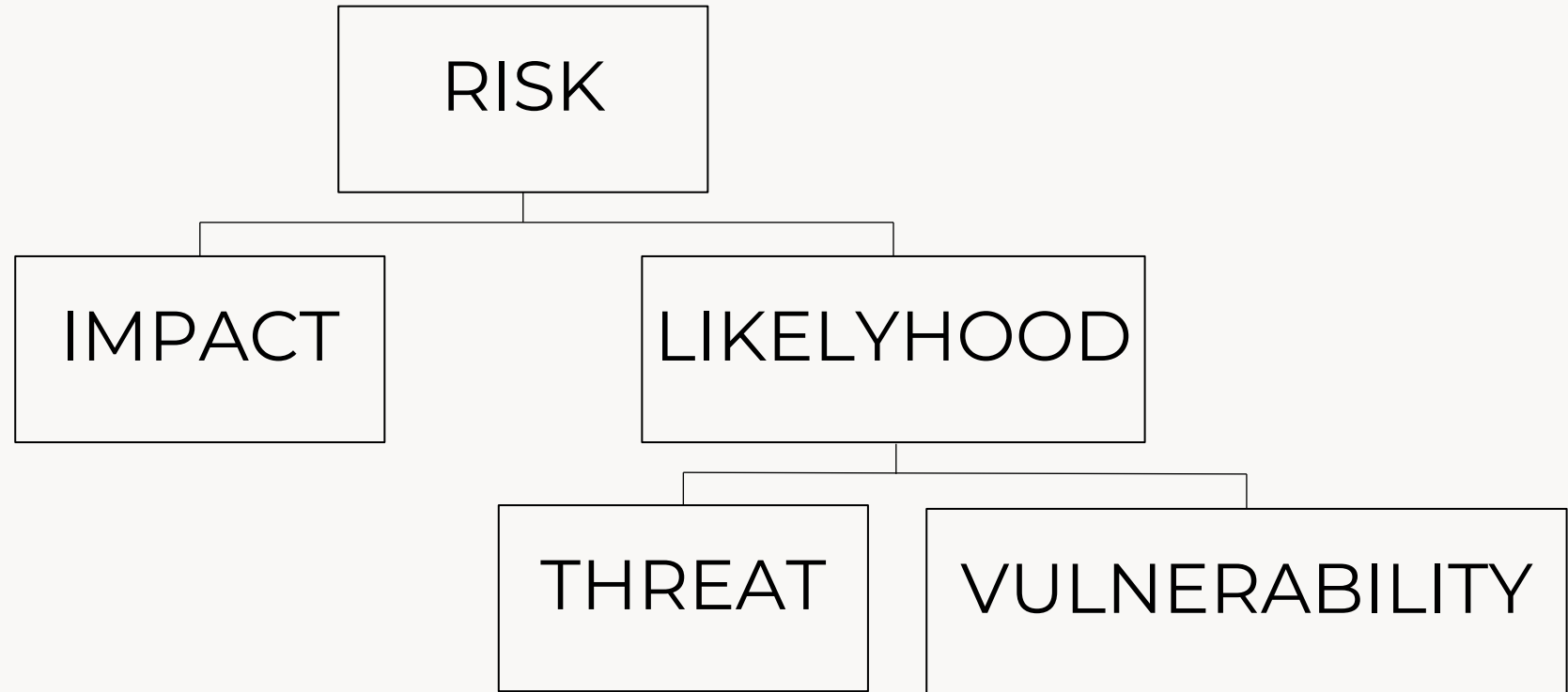
- 1**
- Theft of business critical information
- 2**
- Collision, grounding or spill incident caused by destructive cyber attack
- 3**
- Loss of access to critical systems
- 4**
- Reputational loss
- 5**
- Sensitive data leaked online
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# SECURITY RISK ASSESSMENT



# SECURITY RISK ASSESSMENT





So, what to do if you don't have management attention yet?

# Run a tabletop exercise

- Realistic scenario – something that has happened to other companies similar to yourself.
- Focus on the business impact/implications – not on the technical measures
- How do you manage reserve solutions, internal communication, media handling, clients and stakeholder management, legal aspects?





# Summary

- Focus the communication more on business impact/consequence and less about the technical vulnerabilities and threats
- The magic happens when the technical team sit together with the management team and defines the impact/consequence
- Let the management team define/score the business impacts
- Then you focus on minimizing and monitoring the likelihood
- Communicate consistently  $\text{Risk} = \text{Impact} \times \text{Likelihood}$  (threat x vulnerability)
- Exercise Exercise Exercise!

Norwegian Maritime Cyber Resilience Centre

# Contact information

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Administrative queries:  
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Questions?



**NORMA**  
**CYBER**