



Cyber-SHIP Lab
SECURING MARITIME



Enhanced Transparency: Improving Maritime Cyber Governance

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Situational Awareness

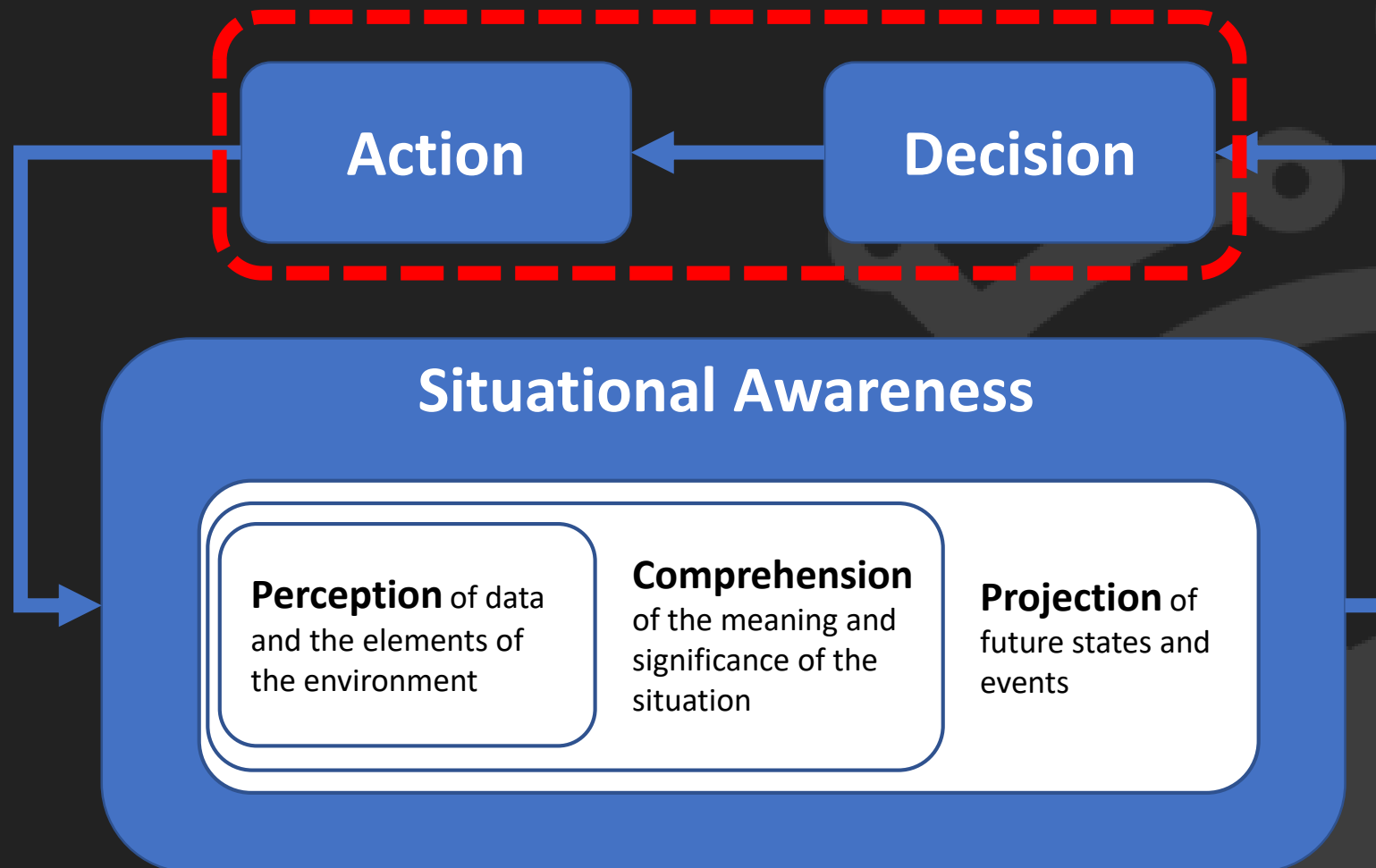
“Situational Awareness is the perception of the elements in the environment within a volume of time and space, the comprehension of their meaning and the projection of their status in the near future”

(Endsley, 1995)

- What does this mean in terms of:
 - Maritime Operations?
 - Cyber security?

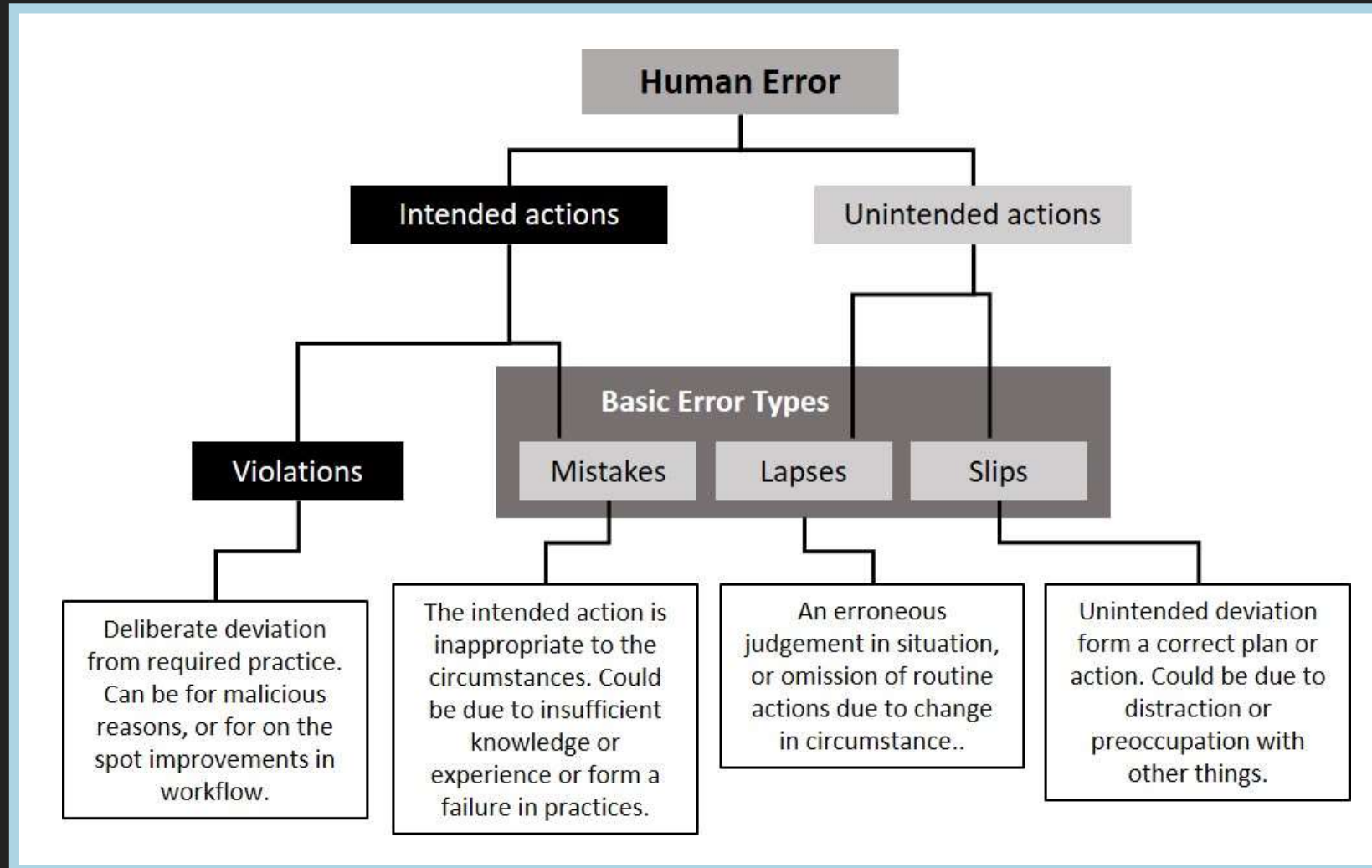


Situational Awareness Loop





Human Error in Decisions





Resolution MSC.428(98)

AFFIRMS that an approved safety management system should take into account cyber risk management in accordance with the objectives and functional requirements of the ISM Code;

NOTING the objectives of the ISM Code which include... the provision of safe practices in ship operations... and the continuous improvement of safety management skills of personnel ashore and aboard ships.

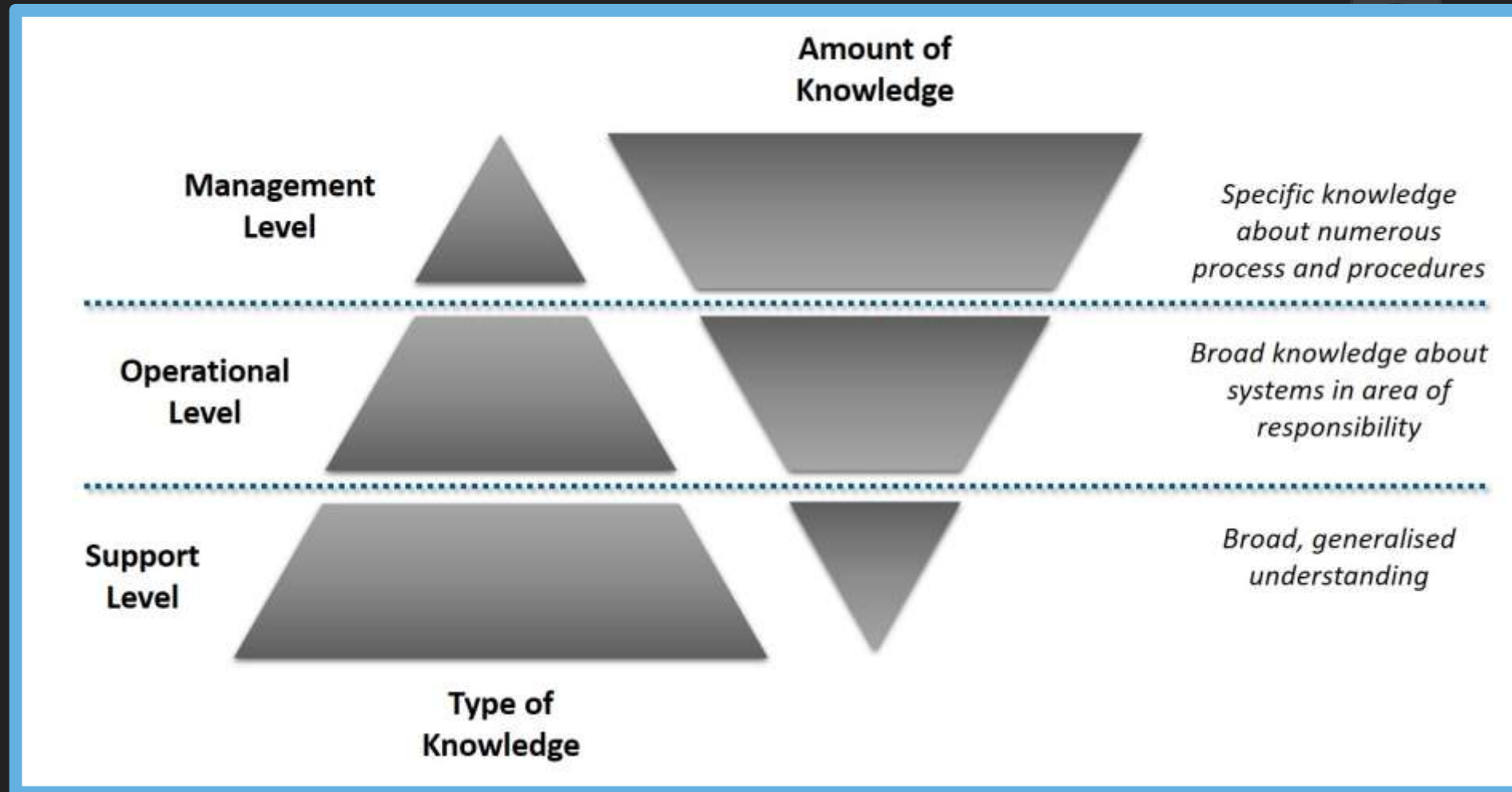


One Size Does NOT Fit all...

- Ships have different functionalities
- Ships are equipped with different systems
- Ships travel through different locations
- **Companies** have different operational practices
- **Companies** are based in different locations
- **Companies** use different systems
- **Attackers** have different interests
- **Attackers** have different resources levels



Digital Competencies & Responsibilities



Cyber-MAR – EU Horizon 2020

The Cyber-MAR aims

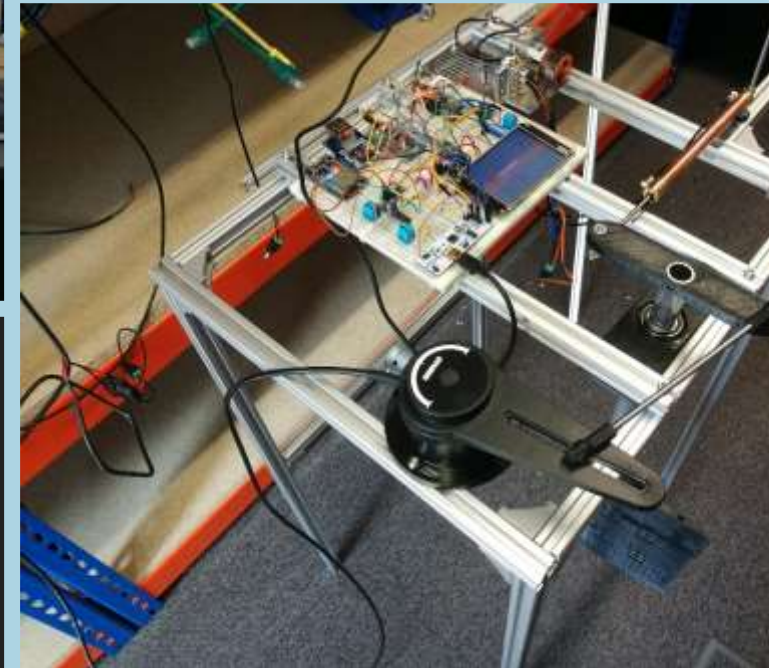
to develop an innovative cybersecurity **simulation environment** for accommodating the peculiarities of the **maritime sector** while, being easily applicable in other transport subsectors, with the view to fully unlock the value of the use of **cyber range** in the **maritime logistics** value chain.

To achieve its objectives, Cyber-MAR platform will be both a **knowledge-based platform** & a **decision support tool** to cybersecurity measures, towards providing business continuity management



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Cyber-SHIP Lab – University of Plymouth





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Thank you

References

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