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GUIDELINES VS. REALITY

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- The need for guidelines and regulations
- Applying guidelines and regulations to MAS
- Experiences from developing and delivering MAS
- MAS in the future

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GUIDELINES AND REGULATIONS

WHY DO WE NEED THEM?

- Protection of people, businesses and the environment
- Effective frameworks are needed to support economic growth
- Common terms enable the joint exploration of problems
- They need to be appropriate so that we can get MAS delivered

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WHAT IS MAS?

WHAT IS THE SCOPE OF THE CHALLENGE AND THE OPPORTUNITY?

- Maritime – Not just ships and boats
- Autonomous – Where decisions are made
- Systems – It's a big question
- It's not just a technology problem

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APPLICATION TO MAS

HOW DO WE NEED TO APPLY GUIDELINES AND REGULATIONS?

- Some elements absorbed by existing approaches
- Remote operations introduce complexity
- New guidelines and regulations need to be tested and appropriate

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EXPERIENCE OF MAS

LEARNING AND DEVELOPMENT COMES FROM THE REAL-WORLD

- MAS testing is complex and expensive... and vital
- Many problems are not to do with "autonomy"
- The remote operator needs to be supported

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THE FUTURE

BLENDING REAL AND VIRTUAL WORLD TESTING WILL INCREASE IN IMPORTANCE

- The MAS market will evolve as opportunities are understood
- Digital Twins of systems and the environment will increase in importance
- Assurance of MAS needs guidelines to be developed and agreed

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CONCLUSIONS

GUIDELINES AND REGULATIONS ARE NEEDED TO ASSURE MAS

- Ongoing dialogue is needed across stakeholders
- A standard approach to demonstrating assurance would benefit all stakeholders
- We need to continue working together to enable rapid delivery of safe and effective MAS

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