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Vessels of the Future Workshop

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UK's Aims

- The MCA is committed to meeting the Governments target to reduce emissions from shipping by 2035 with International Shipping reducing its emissions by half by 2050



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Evolution of our current system

- The Internal Combustion Diesel Engine is over 120 years old.
- The technology evolved from coal which was understood, to a fuel that quickly established itself as “relatively” safe to use.
- Generally the principles of storage of the fuel, its injection into the engine and exhausting have remained essentially the same.
- The rules evolved through national and international legislation are what we would describe as prescriptive.



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What are the likely new technologies

- Hydrogen
- Ammonia
- Stored power (sometimes called battery)
- Nuclear.



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What are the challenges with existing rules -1

- Rules are prescriptive, based on current technology
- Any system must allow sufficient time to deploy LSA



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What are the challenges with existing rules - 2

- Fuel and fuelling systems are different
- Location of technology may be different
- Systems may be miniaturised
- Different risks with the fuels



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What are the MCA doing

- Dedicated team to lead the transition
- Talking to industry about approved products or system
- Support and involvement with grant funding
- Training for design engineers and surveyors



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What does this mean in Fishing

- Installations need MCA involvement and approval
- New technologies may invalidate current certificates



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What are the routes to certification

- MGN6644 gives a route to Certification
- Installation via exemptions



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MGN664

- Robust certification process for vessels using Innovative Technology or where a risk-based approach is used
- Supplements prescriptive regulations that do not cover all aspects of the technology
- Although guidance is intended to be generally applicable, details of the certification process and related documentation need to be confirmed at the start with MCA
- Dynamic document as understanding of good practice evolves.
- Separate, supplemental guidance, when applicable, aimed at managing the risks may be developed



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Exemptions

- In most cases, installation on vessels may be via the provision of exemption from the Regulations.
- Allowed under one of the Annexes of MARPOL VI for Domestic vessels
- Must still provide sufficient information to the MCA prior to installation that all the risks have been addressed and mitigated.
- Expected that the equipment is type approved, installed under supervision and is otherwise certified for its intended use.