

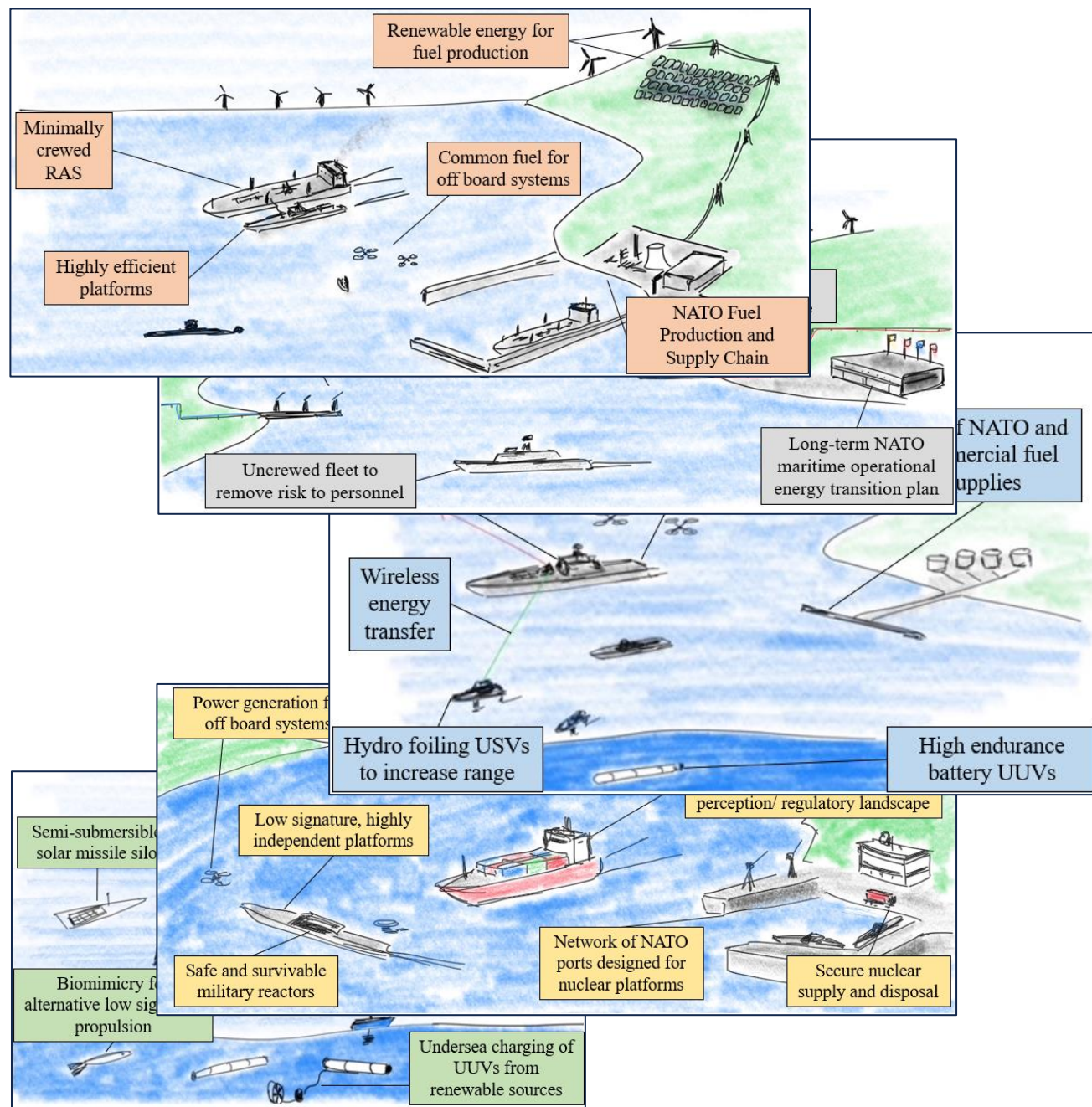


Ministry of Defence



Future Visions for NATO Maritime Power and Energy

The views presented are those of the authors and do not necessarily represent the views of the Ministry of Defence



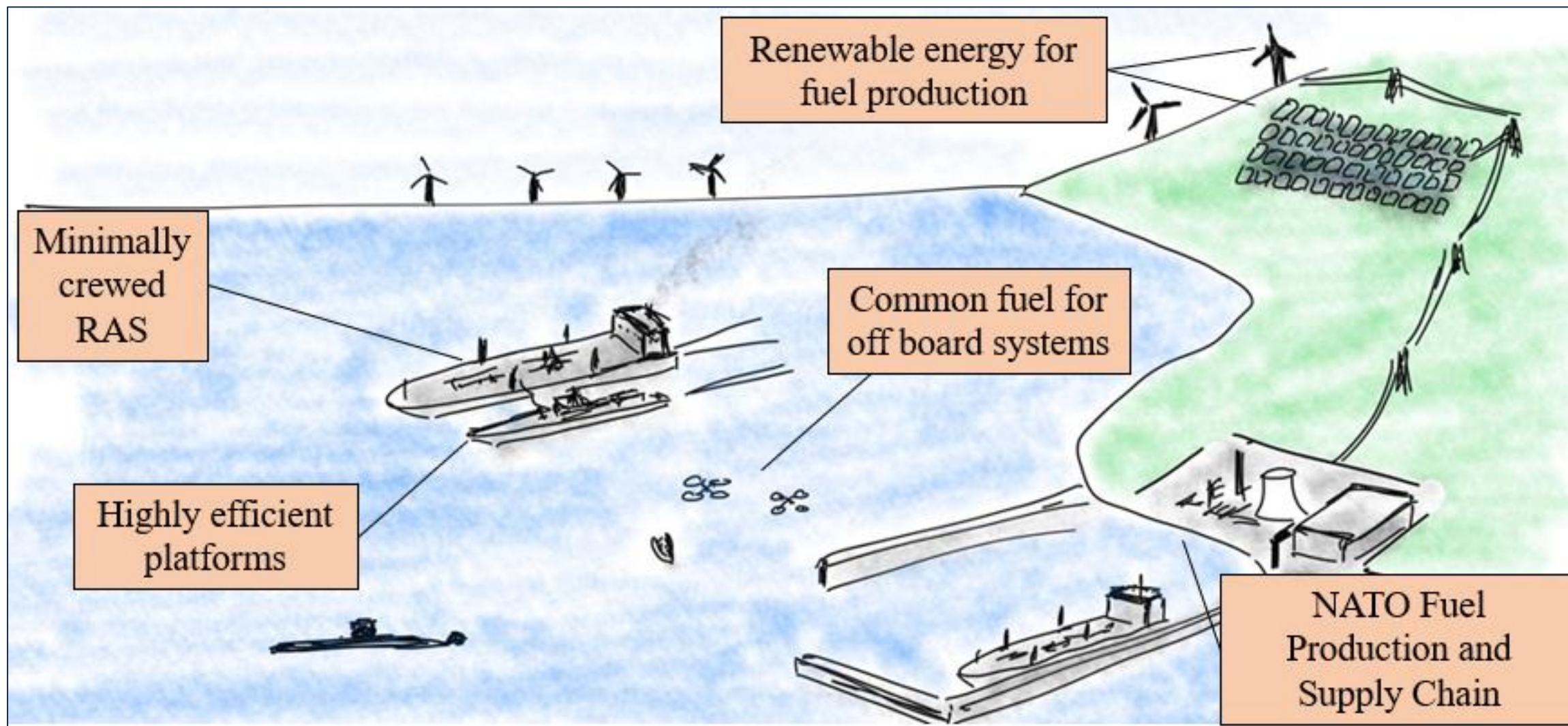
Scope

- Context & Challenges
- Future Visions:
 1. NATO 'Owns' More of the Energy Supply Chain
 2. NATO Aligns to Commercial Shipping
 3. NATO Interoperability is 'Electrical by Default'
 4. Operational Energy Independence via at-sea Nuclear
 5. Leveraging Novel Technology to Deliver Effects Differently
- Conclusions

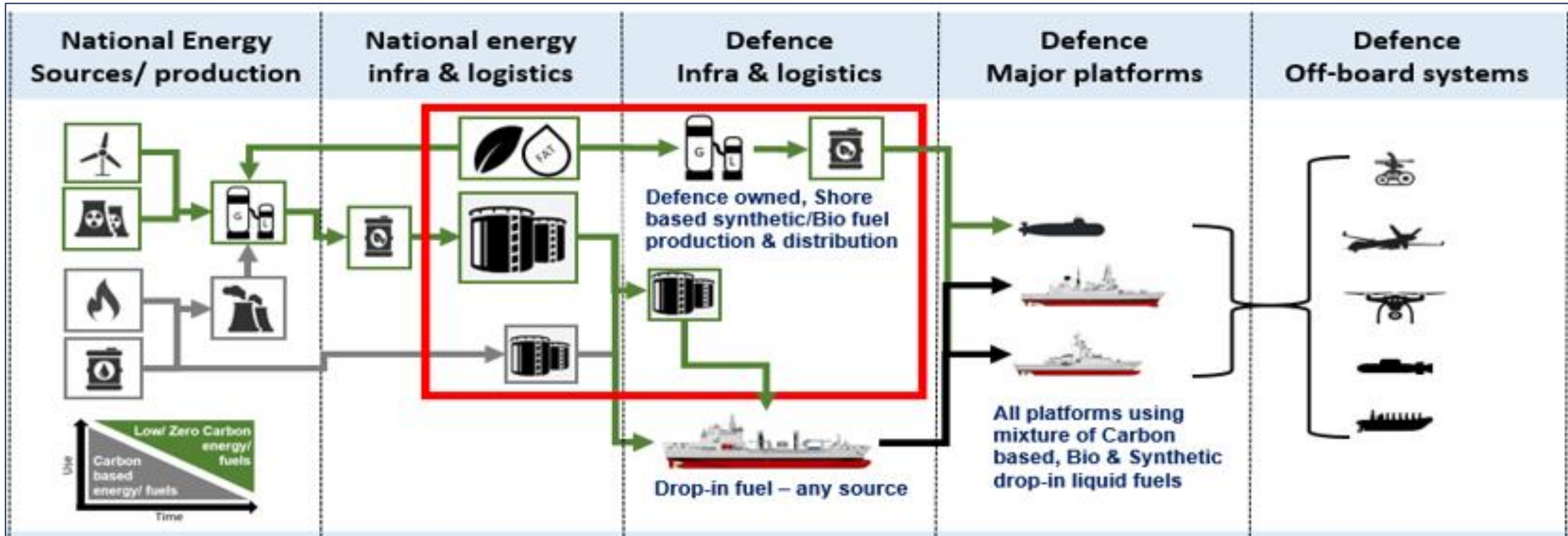
Context and Challenges

- Global energy transition
- Commercial shipping
- Emissions and freedom of manoeuvre
- Future force mix opportunities
- NATO interoperability
- NATO options
- Science and technology – ‘defence delta’

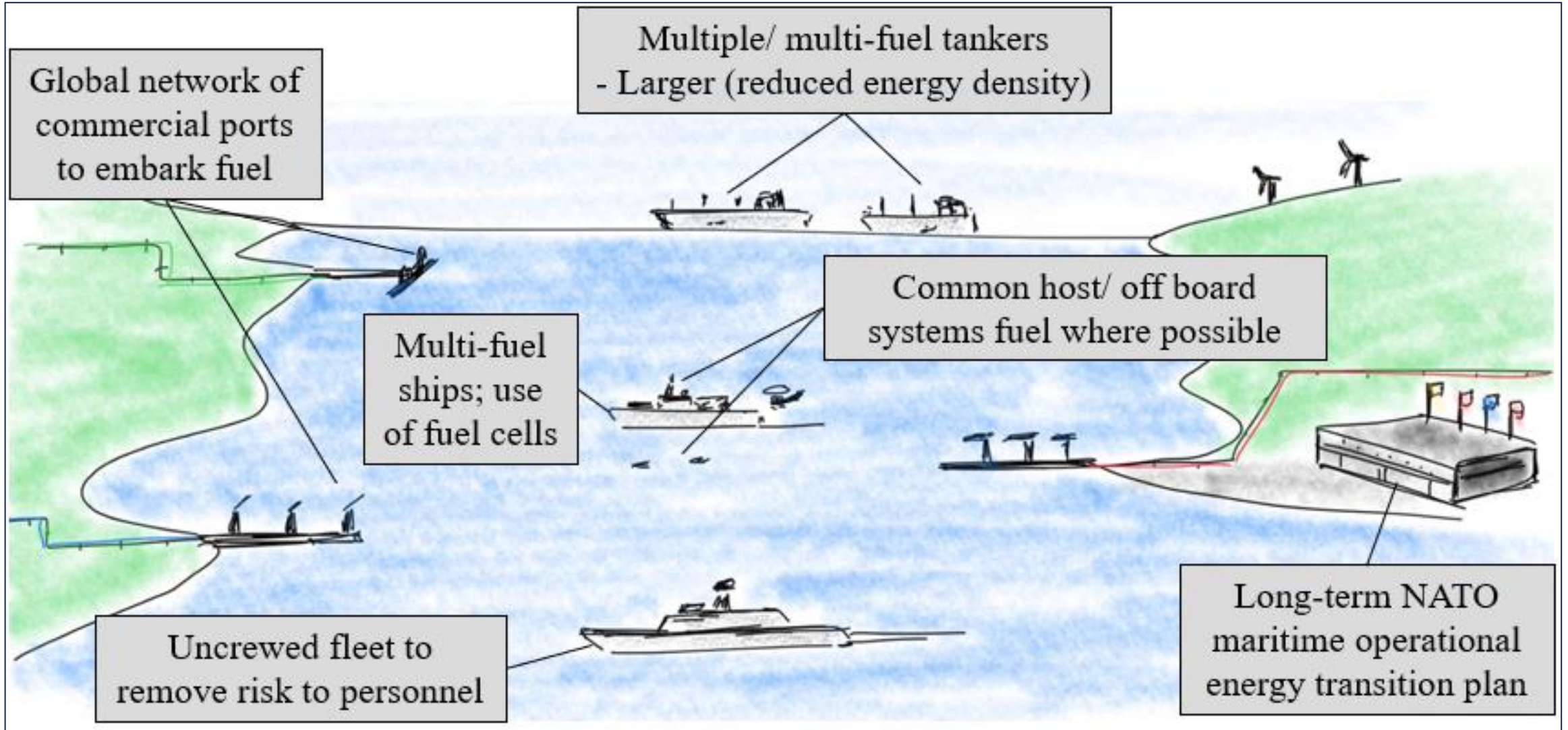
1 – NATO 'Owns' Energy Supply Chain



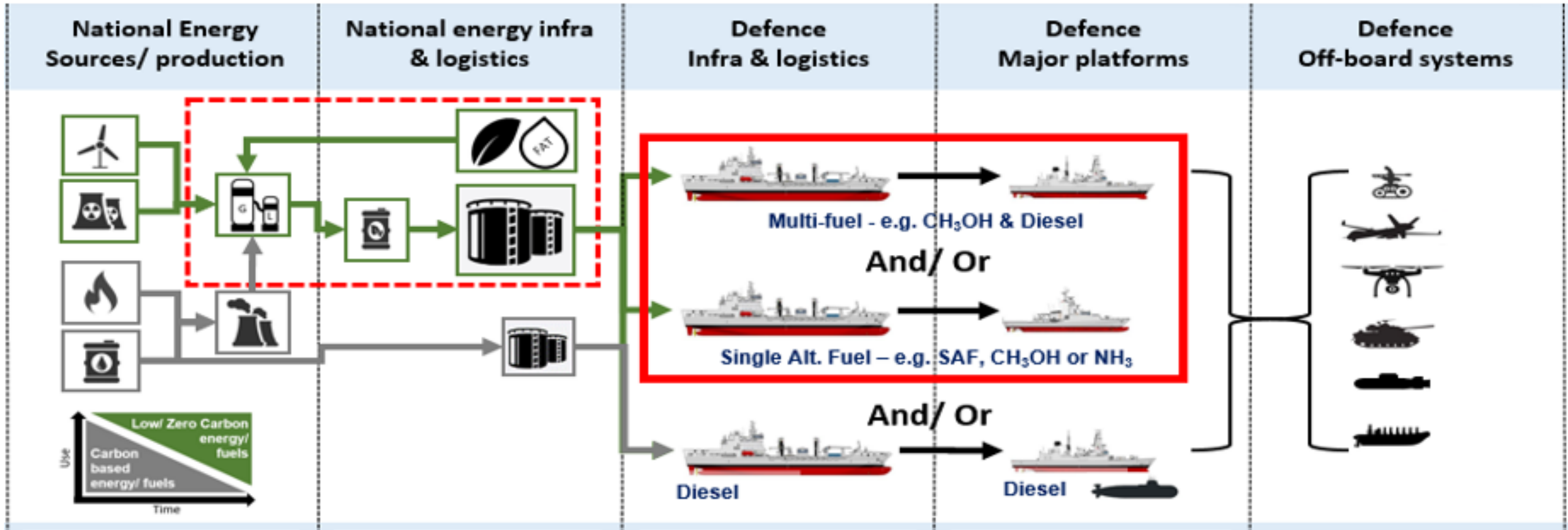
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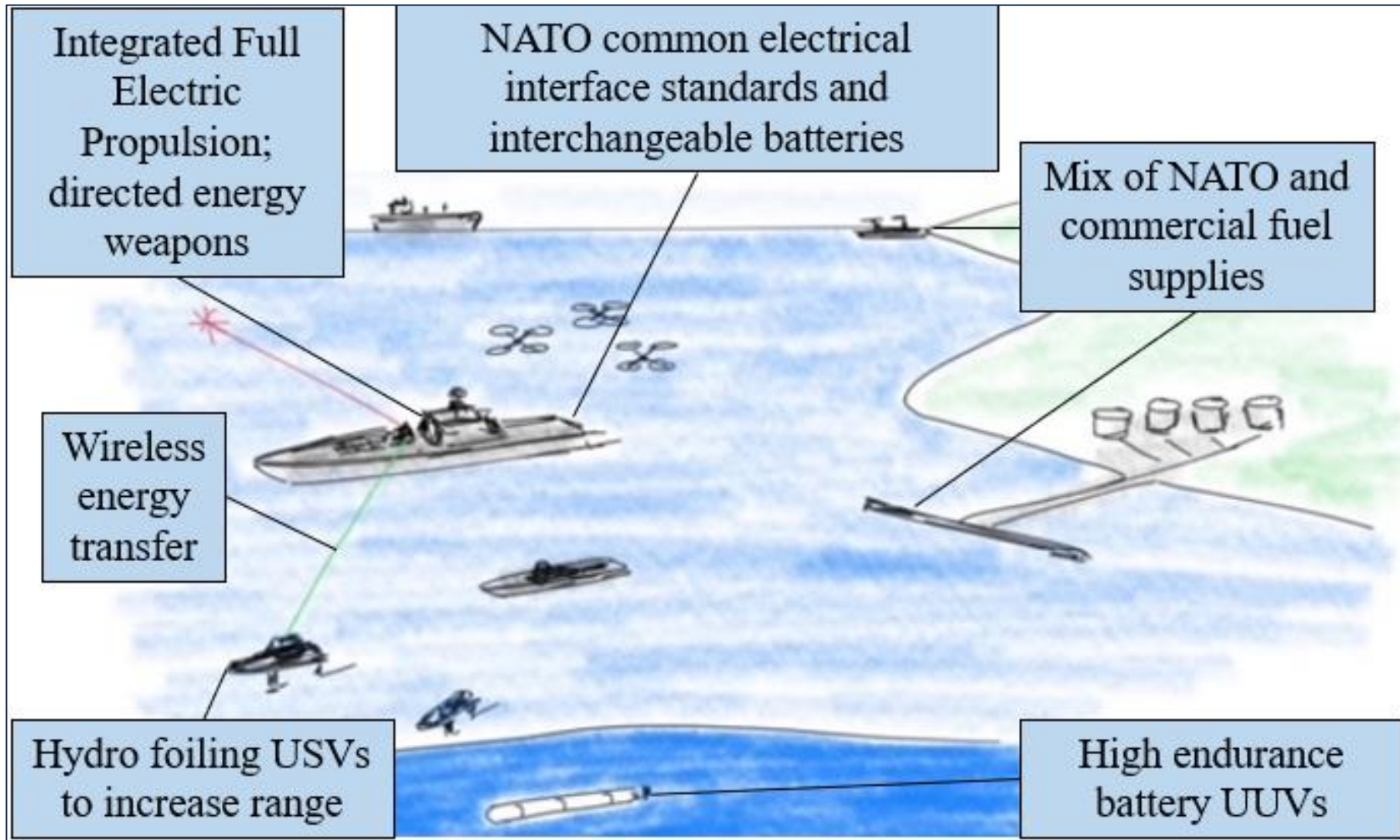
2 – NATO Aligns to Commercial Shipping



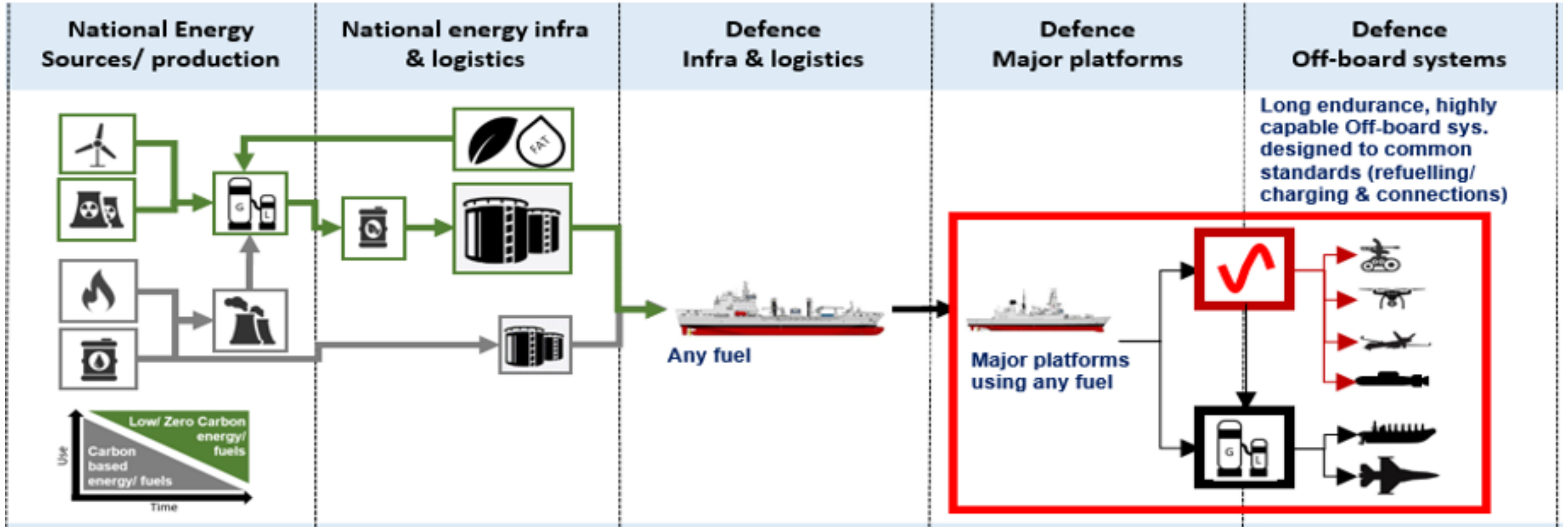
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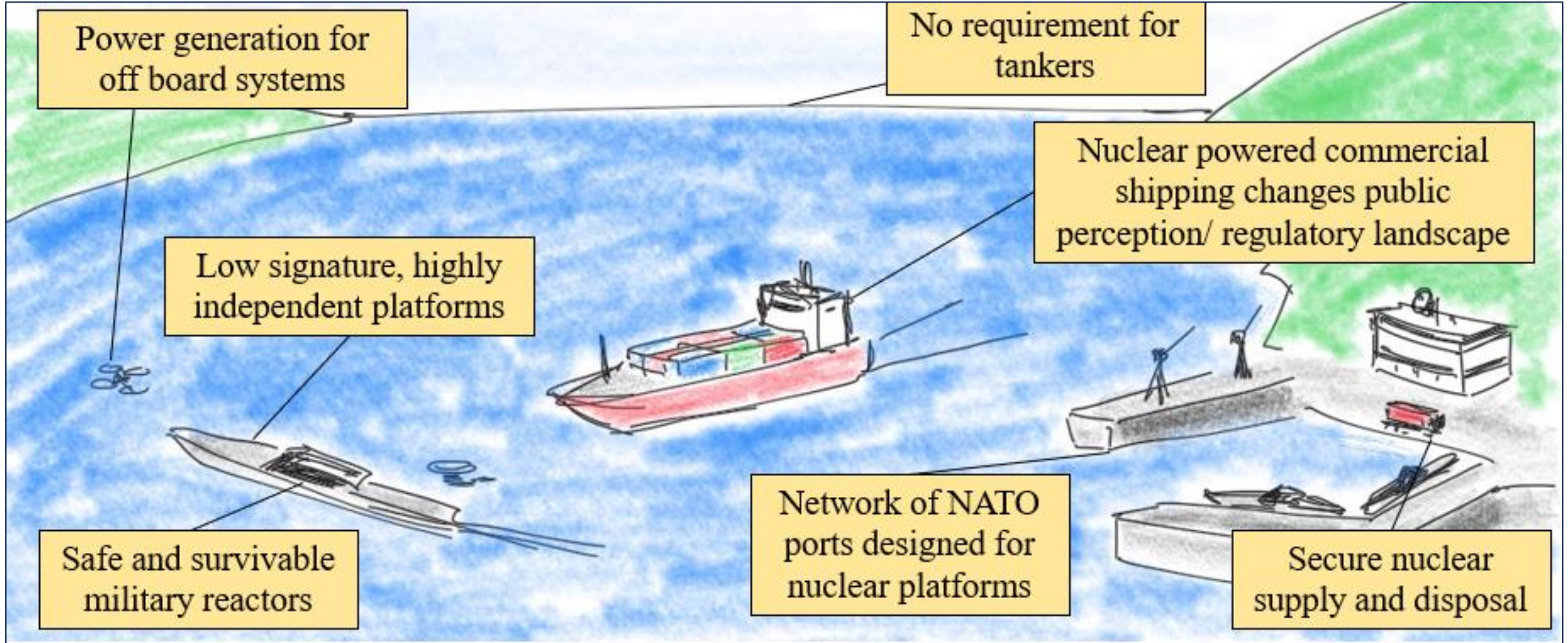
3 – NATO ‘Electrical by Default’



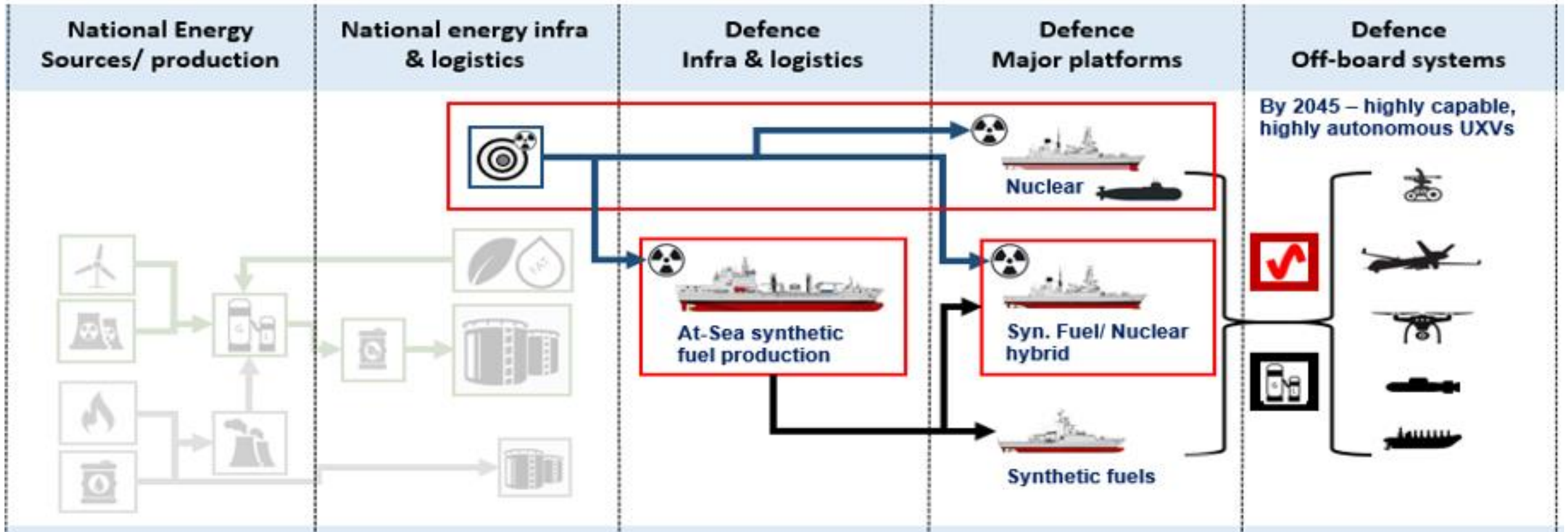
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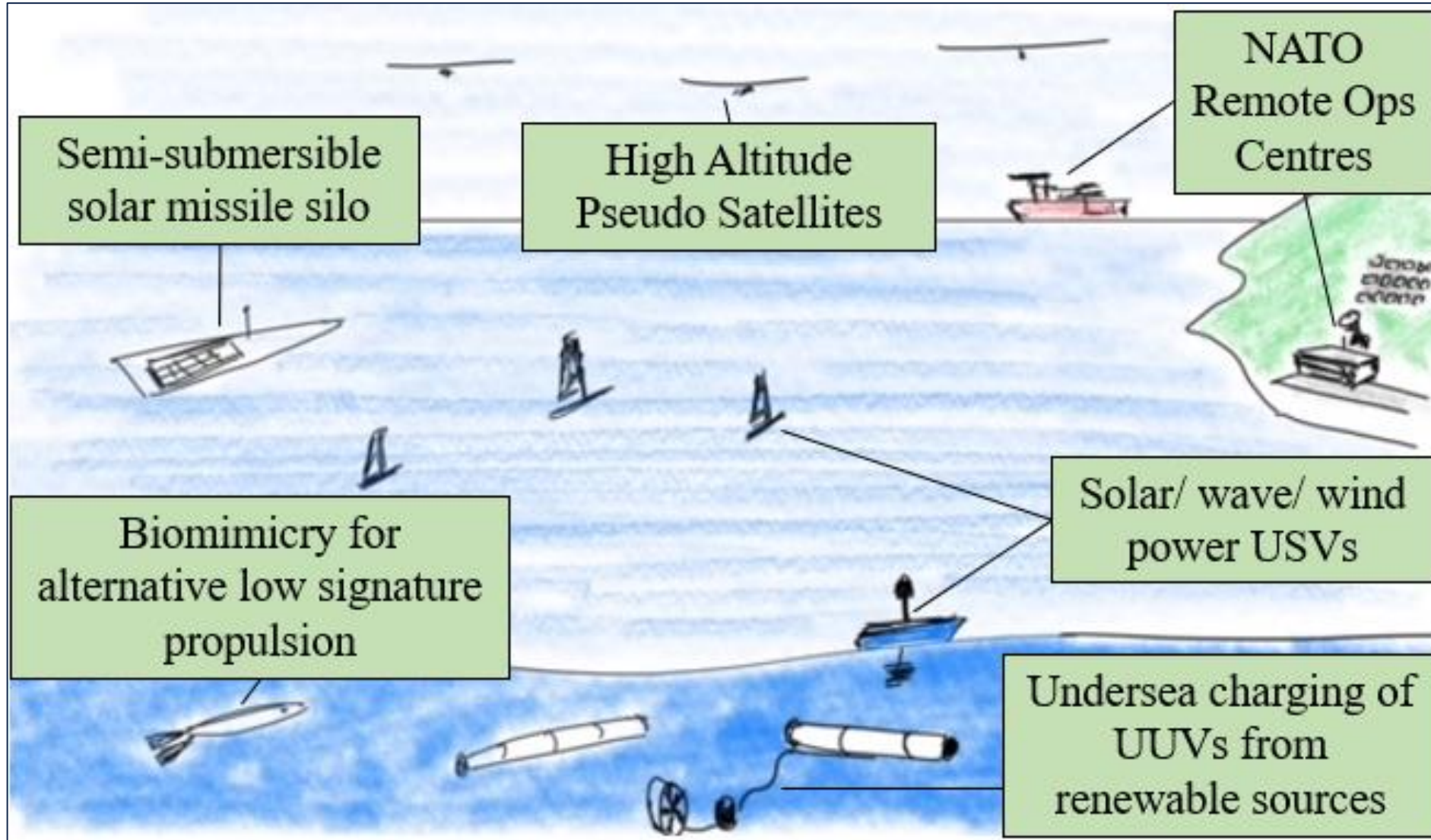
4 – Op Energy Independence: Nuclear



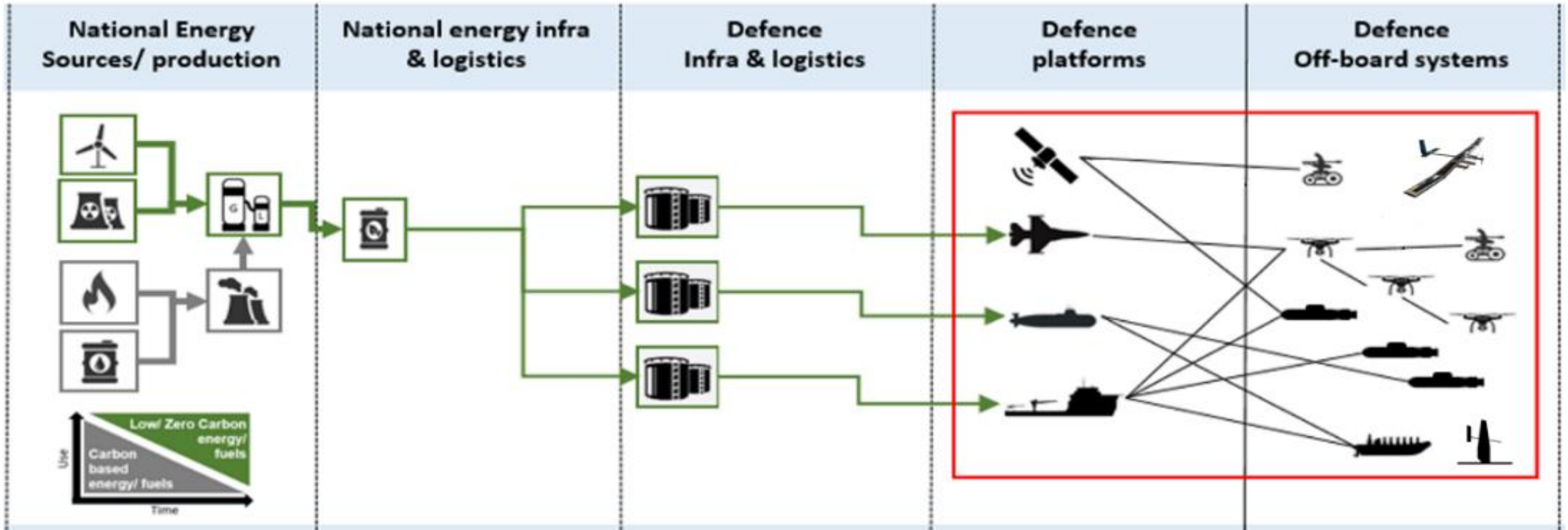
4 – Op Energy Independence: Nuclear



5 – Deliver Effects Differently



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Conclusions

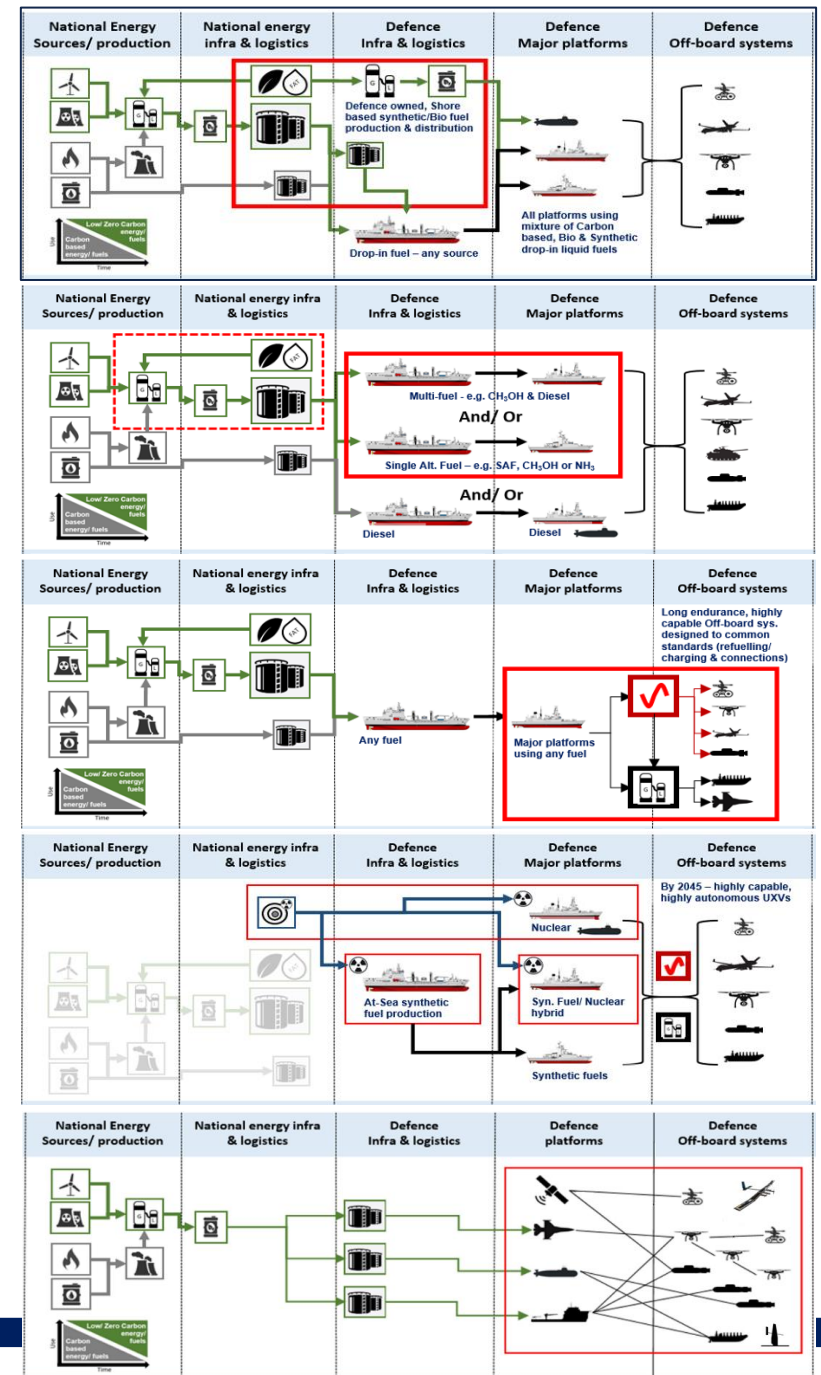
- Energy efficiency in all future visions
- Threat to current model for platform energy and power
- Ability to combine elements of future visions
- NATO coordination for ‘energy transition by design’
- S&T to shape and enable
- Opportunities enabled by technology
- Operational advantage



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Questions



The Defence Operational Energy Strategy

