

Internal Pools as Stepping Stones – The Role of Internal Pools and Technology for FuelEU Compliance and Contractual Implications

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Decarbonization Targets in Shipping and The Problems

- **The Target** - FuelEU – 80% reduction of GHG intensity by 2050, all ships over 5000 tonnage regardless of their flag
 - Combination perspective & tech neutrality
- **The Problem** - Cost, feasibility, accessibility, environmental impact, fair competition
 - Simply, we are not there yet – an unrealistic short-term target?
 - Alternative to alternative fuels? Sustainability focus? Quickly adaptable and effective?
- **An alternative solution? Green digital twins and internal pools?**
 - The holistic technology of digital ship twins? Internal pools as 'easy to establish' stepping-stones? Internal pools deploying digital twins as a combo?

FuelEU Compliance and Pooling as a Compliance Mechanism

- **FuelEU Compliance**
 - A 'relentless' timeline & increasingly stringent compliance requirements & penalties
- **Responsibility for Compliance**
 - Document of Compliance (DOC) shows ship's energy use and compliance with GHG emissions limits, does not have compliance deficit, not failed to meet reporting requirements etc.
 - DOC Holder – irrelevant whether DOC holder is the shipowner or a third-party technical manager – they may have no impact on fuel type and consumption
- **Pooling as a Compliance Mechanism**
 - The use of over-performance of one ship to compensate under-performing ships, provided that total pool compliance is positive
 - A Legal Mismatch? Multiple vessels, Multiple DOC holders.
 - Multiple DOC holders negotiating different terms and obligations with different charterers.
 - No control over fuel type and operations

Green Digital Ship Twins as Compliance Facilitators: Data for Decarbonization



data driven approach enabling shipping companies to identify, analyse and address inefficient energy use on any vessel, in any location, in any weather conditions, in real-time.

Alternatives to Alternative Fuels (for Compliance) – Green Digital Twins

- **Effective and holistic approach** - FuelEU promotes the adoption of the most suitable combination of technologies and fuels
- Digital twins can assist in **optimising operation and chartering arrangements** – efficiency and predictive analytics (ie. chartering strategies to maximise the utilization of each ship in the fleet scheduling cargo shipments)
- **Speed and performance warranties** – digital twins enable easy compliance by monitoring real-time efficiency & showing possible deviation from expected performance & suggest adjustments for routes, operational procedures, and engine settings for the reduction of fuel consumption



Shipping Pools and the Law

Legal Basis

Article 21 FuelEU,
validity

- DOC and exclusivity
- Total balance to be positive
- Ships with initial deficit can not have increased deficit
- Ships with initial surplus must not end with deficit

Legal Status

- Raison d'être – Commercial v Compliance
- Hybrid status? – private for public target

Legal Structure

- Control – member v administration
- Pooling agreement

Liability and Pools

- Commercial pools – traditional structures in shipping
 - Shared commercial prospect (ie. Liability concerning commercial optimization)
 - No joint or several liability with any other member of the pool
- Compliance pools (external & internal) – regulation-specific hybrid models
 - Joint compliance entity (joint responsibility for pooled compliance balance through regulatory instruments)
 - Several DOC holders collectively participate in the same compliance targets – but the pool only distributes compliance balances, it does not transfer legal responsibility (penalty sticks)
 - Pool agreement must contractually allocate how surpluses, deficits, penalties shared – complex contracts & need for contractual safeguards (ie. Cross indemnities, mechanisms to address under-performance etc.)

EXTERNAL POOLS

- Complex contractual structure
- various members and third-party vessels & various DOC holders
- Very little control over parameters affecting compliance and contracts
- very new legislation, uncertainty at early stages

INTERNAL POOLS

- Less complexity, aligned contracts
- same fleet & same DOC holder to be assigned for the whole fleet
- Internal control and policies governing contracting and operations
- leverage point for future pools, easier to adapt to contemporary application

Digital Twins in a Pool

- **Pool compliance ensured in real-time** - Real-time data on consumption, emission, compliance. Twin analytics of pool performance – advise regarding which blend of fuels, which route to follow to minimize wave resistance etc.
- **Fair allocation of costs** – clear demonstration of how vessel performs
- **Clear and aligned contractual structure** - Standard terms that apply to twins in the same pool

Internal Structures as Enablers of Compliance

- Internalization of FuelEU related policies and provisions within the company structure
- Contractual implications of and Internal FuelEU compliance pool
 - Intragroup contracts
 - Shipping contracts with third parties

Contractual Structures of (Internal) Pools that can Facilitate Compliance - Digital Ship Twins Specific Charterparty Clauses

- **Digital Twin Utilization Clause**

- Clear framework
- What are the rights and obligations for utilization (or fail to utilize)

- **Fuel Efficiency and Consumption Reduction Clause**

- the role of the twin in enabling such based on the models
- Should include a requirement for digital twin to track and verify fuel efficiency and carbon intensity (failure causing a potential breach?)

- **Data Sharing Transparency Clause**

- Ensures digital twin system is accessible by both S/O and charterer and clarify real-time data sharing obligations
- Companies love sharing data as long as data is not theirs – collaborative work
- Rights and obligations and ownership of data
- Risk, responsibilities, preventive and reparative measures concerning data

Internal Pools Involving Digital Twins as Stepping Stones

- Internal pool as a sandbox - Easier and more flexible strategic decisions, with more control
- Easier and quicker to implement green tech (ie. standard charterparties for digital twins in the same fleet) & contractual alignment in an internal pool
- Green digital twins can ensure regulatory compliance and provide great bargaining power for future pools for FuelEU compliance

Thank you 😊
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