Output from day 1

Svend Søyland, Senior Advisor, Bellona Foundation

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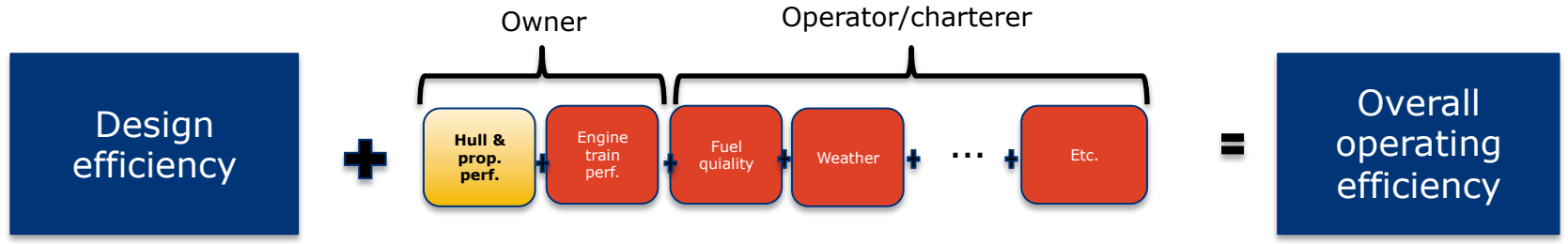
Working definition of Hull & Propeller Performance

- Change in Hull & Propeller Efficiency over time, as compared with a vessel specific Baseline, where
  - the Baseline is to be defined, where applicable likely to be derived from the EEDI verification
  - Hull & Propeller Efficiency is to be defined, where applicable based on established definitions

- To the extent possible the final definition should be compatible with established Ship Energy Efficiency measures currently used by Ship Owners and Charterers



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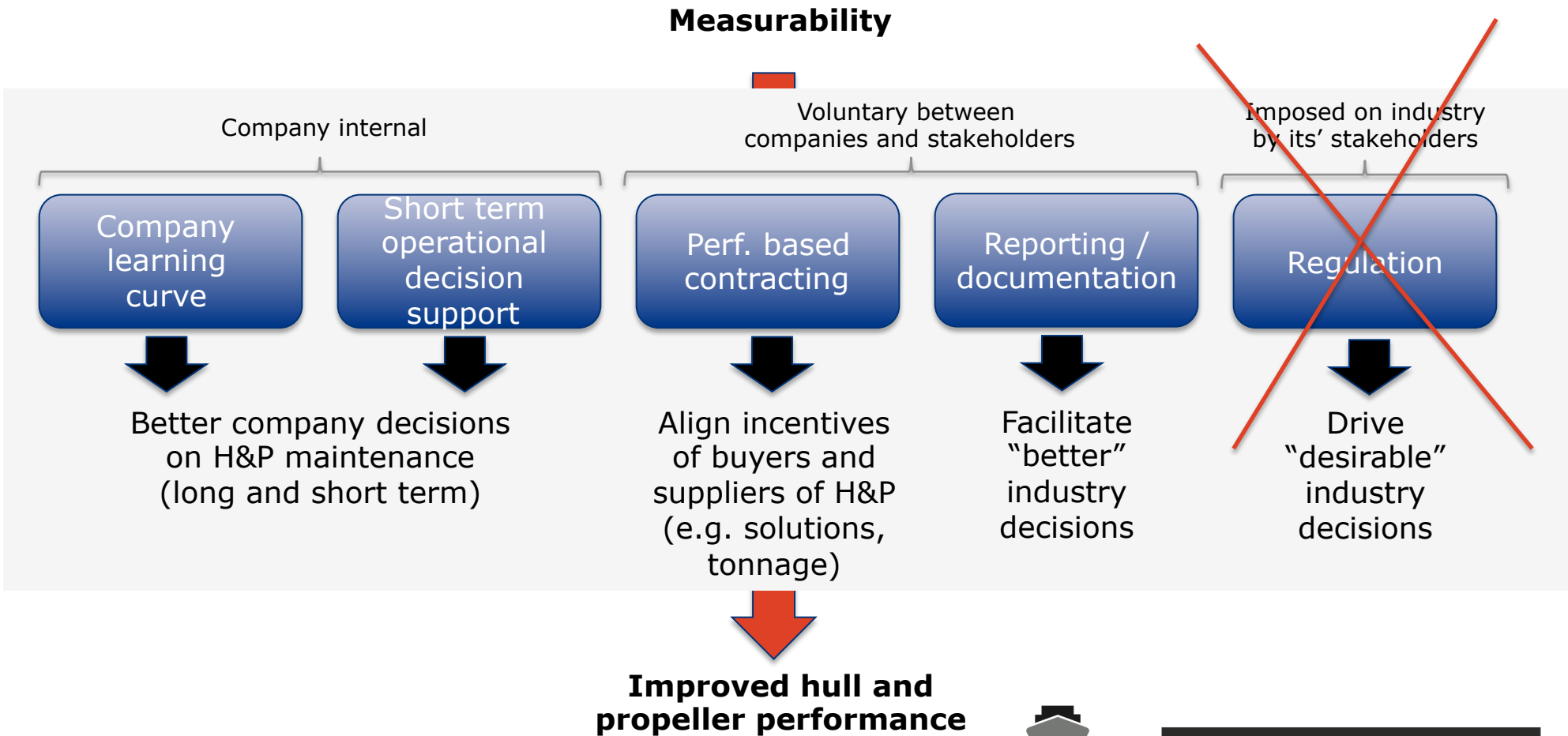
5 underlying working mechanisms / measurement purposes.



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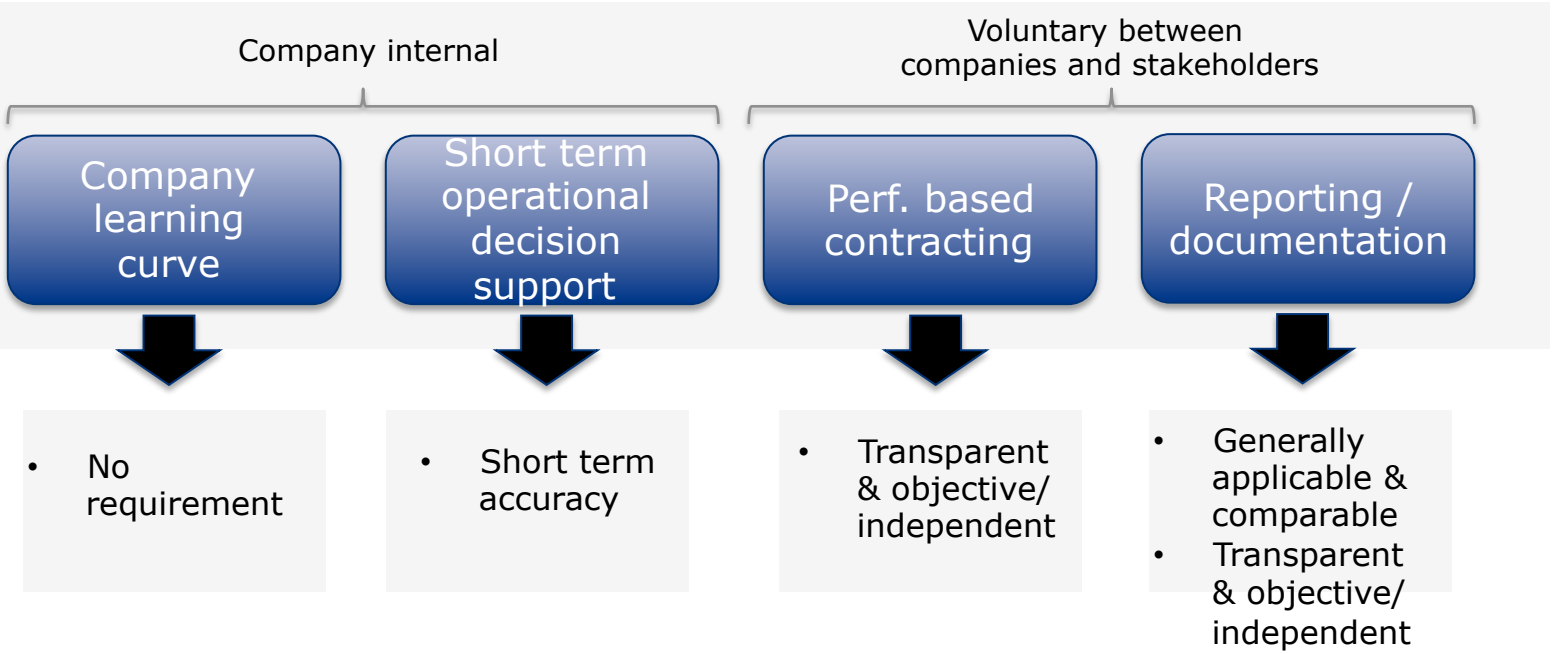
Updated requirements

General requirements

Meaningful → Reliable, sufficiently accurate.

Distinctive requirements



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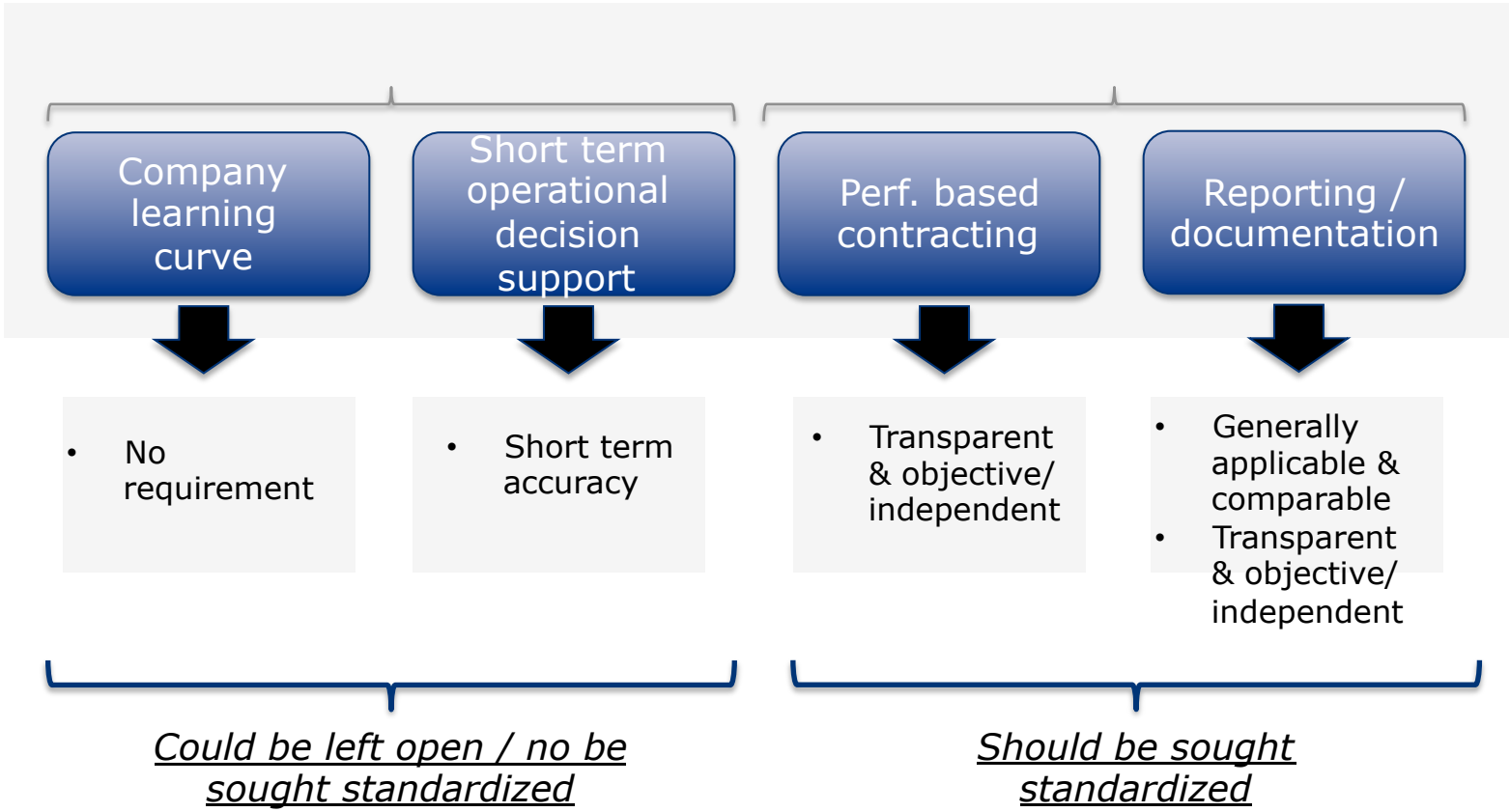
Standardization



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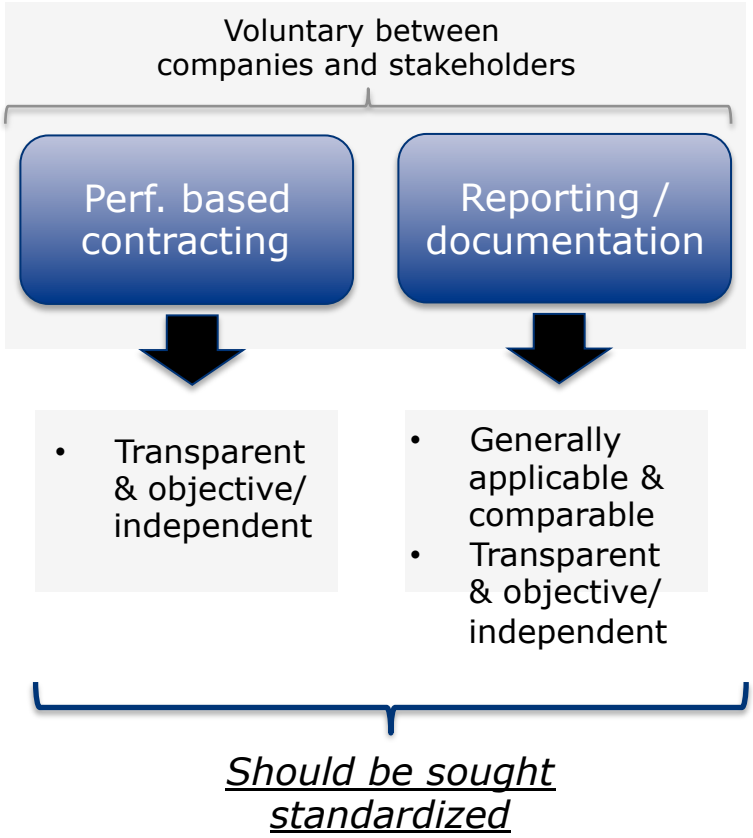
Tiered approach



- Given overall objective – improve hull and propeller performance across the world fleet – must balance accuracy requirements with reach.

- Standard should be tiered.
  - Should aim for "high" accuracy (start at the top)
  - The additional inaccuracy due to "movement down the tiers" should be quantified as a part of the standard

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Measurement approaches

- Measurement methodology will probably be based on “Continuous Monitoring”.
  - Tiers may open also for non-continous monitoring (e.g. noon-reports)
- Measurement methodology will probably based on a blend of “Filtering” and “Normalization”.
- “Supervised Learning” is challenging to combine with the transparency requirement.
  - Providers of performance monitoring solutions that involve supervised learning can (are able and willing) still establish support for a standard as an add-on.

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