



WHEN TRUST MATTERS

EU ETS webinar

Navigating the EU's Decarbonization of Shipping



Agenda

- Industry Challenges - Managing a period of transition
- EU ETS regulations - Applying the 'Polluter Pays' principle
- Contract Management
- Common platform needed for Emission Data exchange
- EU ETS – from annual MRV reporting to managing emissions performance
- Emissions Connect - Fleet, Vessel and Voyage monitoring and verification.
Verified Emissions data and ETS statements

Industry Challenges – just around the corner

ETS increases cost of shipping in European waters

Commercial agreements need to be updated to clarify roles and responsibilities between the parties



Trusted Emissions Data

Acquiring and managing EUA transactions



Industry Challenges

A more complex puzzle

Once, the maritime industry was simply about crossing oceans.

Today, the maritime value chain actors are facing a more complex business environment:

- Emission performance in contractual agreements
- Emission is taxed, and data quality is key
- Requirements on transparency and data sharing
- Increased stakeholder requirements on information sharing



Compliance reporting and Transparency

Once, shipping was easier. Fuel was selected based on cost, and the maritime industry did not focus on emissions.

Today, the ship managers, owners and operators have to comply with:

- Growing number of regulations and reporting requirements from EU, IMO..
- Report emissions data by ship, voyage and leg to customers as input to ESG reporting.
- Report emissions intensity to banks for access to finance
- Report to an increasing number of stakeholders

EU ETS REGULATIONS

Who pays? => Company responsibility...

- It is intrinsically the company reporting the MRV data that is **legally responsible** for surrendering EUAs and thus initially bears the ETS cost. This is the “shipping company”, formally defined as;

‘shipping company’ means the shipowner or any other organisation or person, such as the manager or the bareboat charterer, that has assumed the responsibility for the operation of the ship from the shipowner and that, on assuming such responsibility, has agreed to take over all the duties and responsibilities imposed by the International Management Code for the Safe Operation of Ships and for Pollution Prevention’ ...

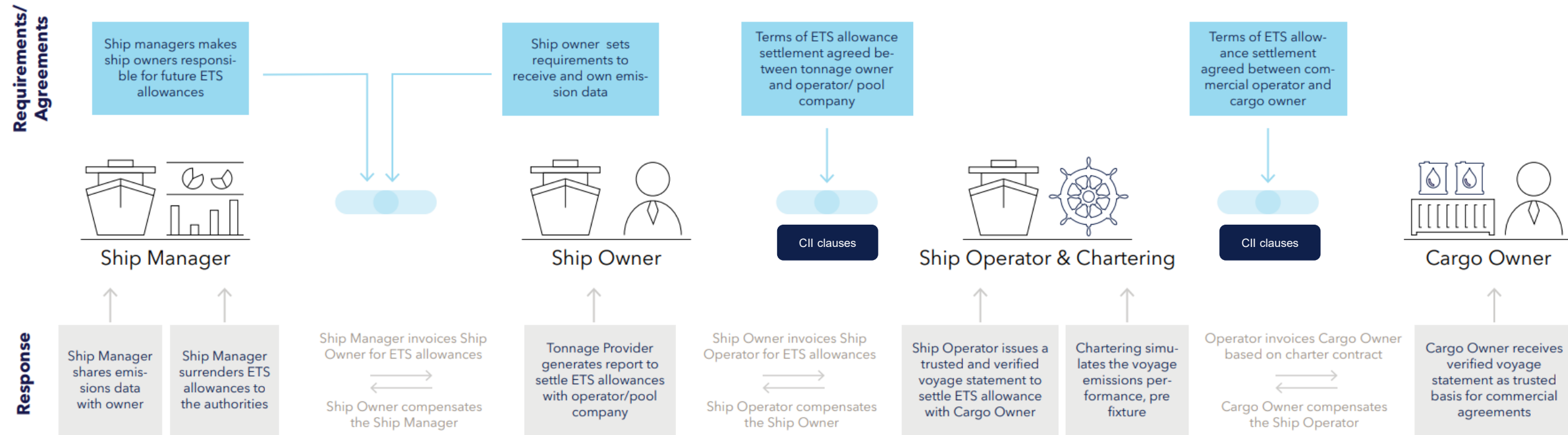
- NOTE – The above has been subject to a hearing, whereafter EU Commission revised the proposal as follows;

The Shipowner is the legally responsible party for surrendering EUAs into EU, - unless there is a signed agreement in place between shipowner and DOC holder (technical manager) in which the latter takes the responsibility. Following this change, this will most likely also mean that the annual MRV reporting into EU will need to be carried out by the shipowner, inasmuch as annual reporting of emissions and the surrendering of EUAs into EU will need to be handled by the same entity.

- final decision still pending ultimo September...

CONTRACT MANAGEMENT

Updating Commercial contracts to manage “the polluter pays principle”



To facilitate the above ;

Shareable, real-time verified emissions data and voyage statements ready to facilitate ETS settlements with trust

CONTRACT MANAGEMENT

BIMCO ETS clause for Time Charter Parties

ETS - EMISSION TRADING SCHEME ALLOWANCES CLAUSE FOR TIME CHARTER PARTIES 2022

Notwithstanding any other provision in this Charter Party, the Owners and the Charterers (the "Parties" and each individually a "Party") agree as follows:

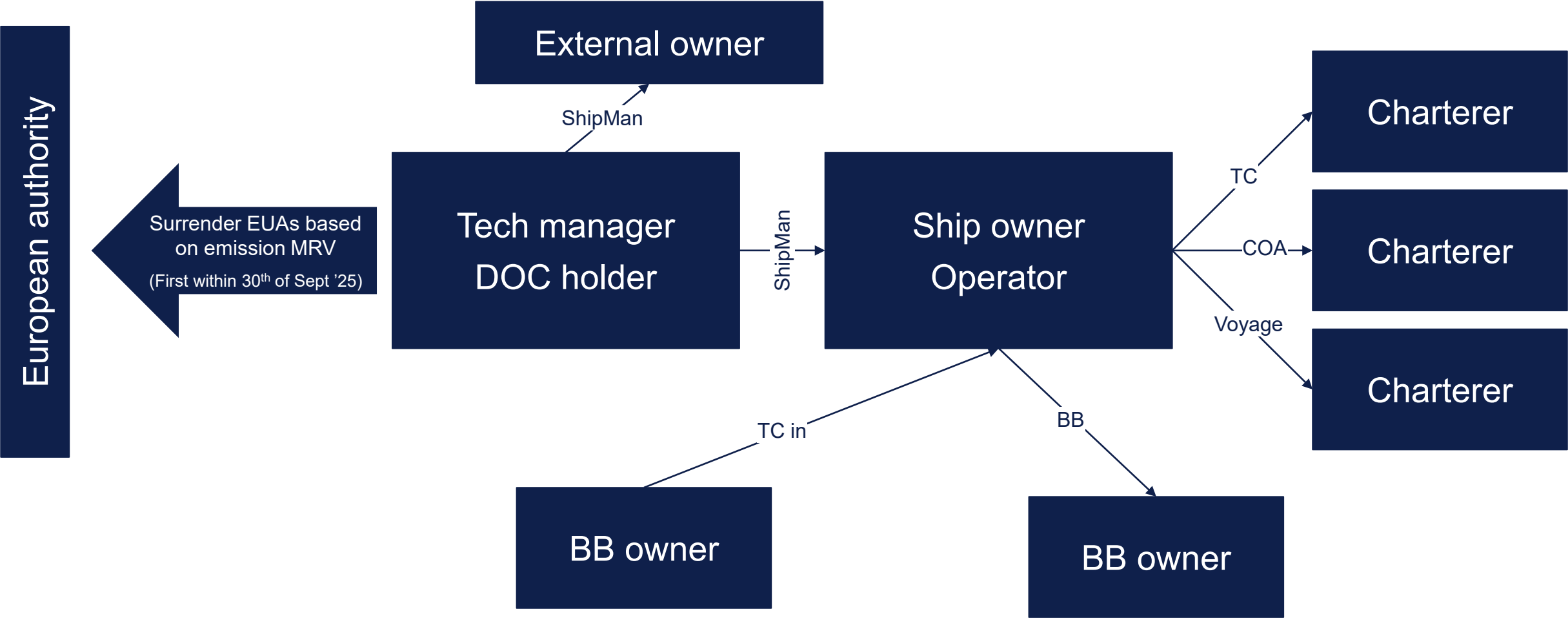
"Emission Allowances" means an allowance, credit, quota, permit or equivalent, representing a right of a vessel to emit a specified quantity of greenhouse gas emissions recognised by the Emission Scheme.

"Emission Scheme" means a greenhouse gas emissions trading scheme which for the purposes of this Clause shall include the European Union Emissions Trading System and any other similar systems imposed by applicable lawful authorities that regulate the issuance, allocation, trading or surrendering of Emission Allowances.

(a) The Owners and the Charterers shall co-operate and exchange all relevant data and information in a timely manner to facilitate compliance with any applicable Emission Scheme and enable the Parties to calculate the amount of Emission Allowances in respect of the Vessel that must be surrendered to the authorities of the applicable Emission Scheme for the period of the Charter Party.

(b) The Owners shall monitor and report the relevant greenhouse gas emissions of the Vessel for verification by an independent verifier in accordance with the applicable Emission Scheme.

CONTACT MANAGEMENT - Contractual agreements



Recommendation: Map contractual arrangement, review how ETS should be managed, and update contracts as necessary/possible

CONTRACT MANAGEMENT – Illustration of ETS cost per vessel



4 mill euro



1,2 mill euro



2 mill euro



12,3 mill euro



1,5 mill euro

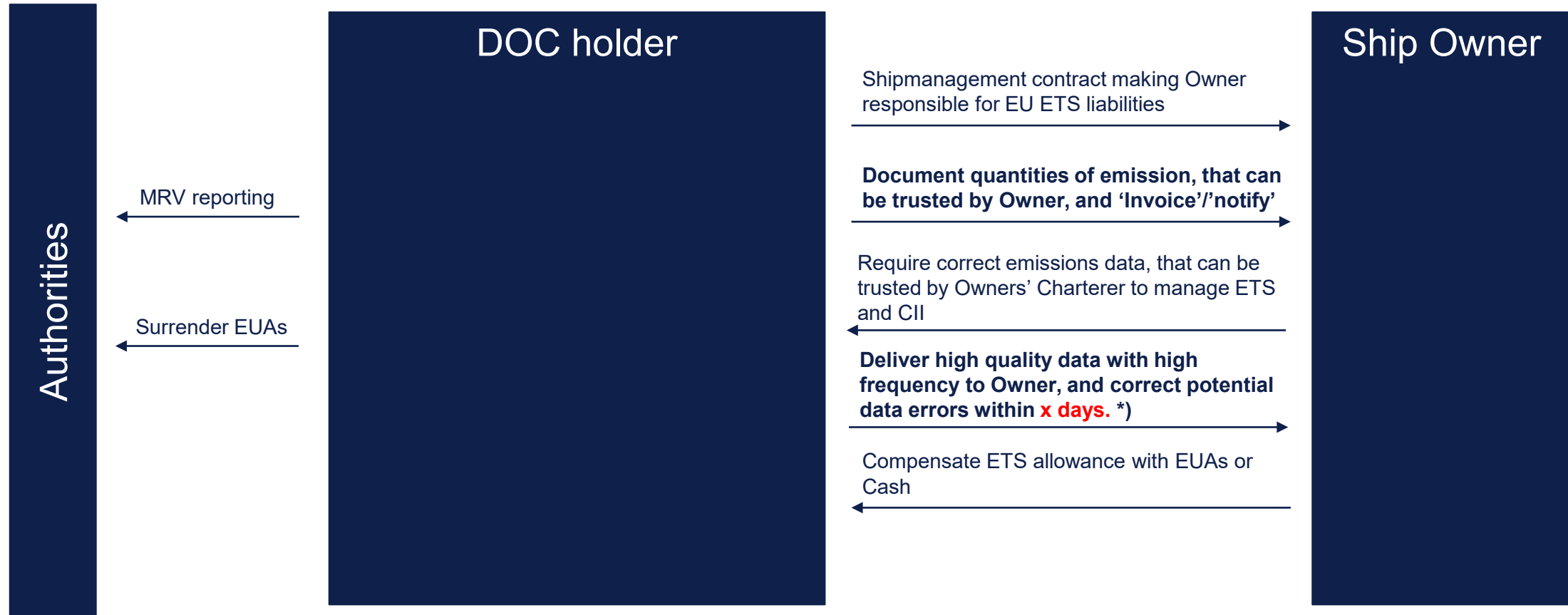


2,6 mill euro



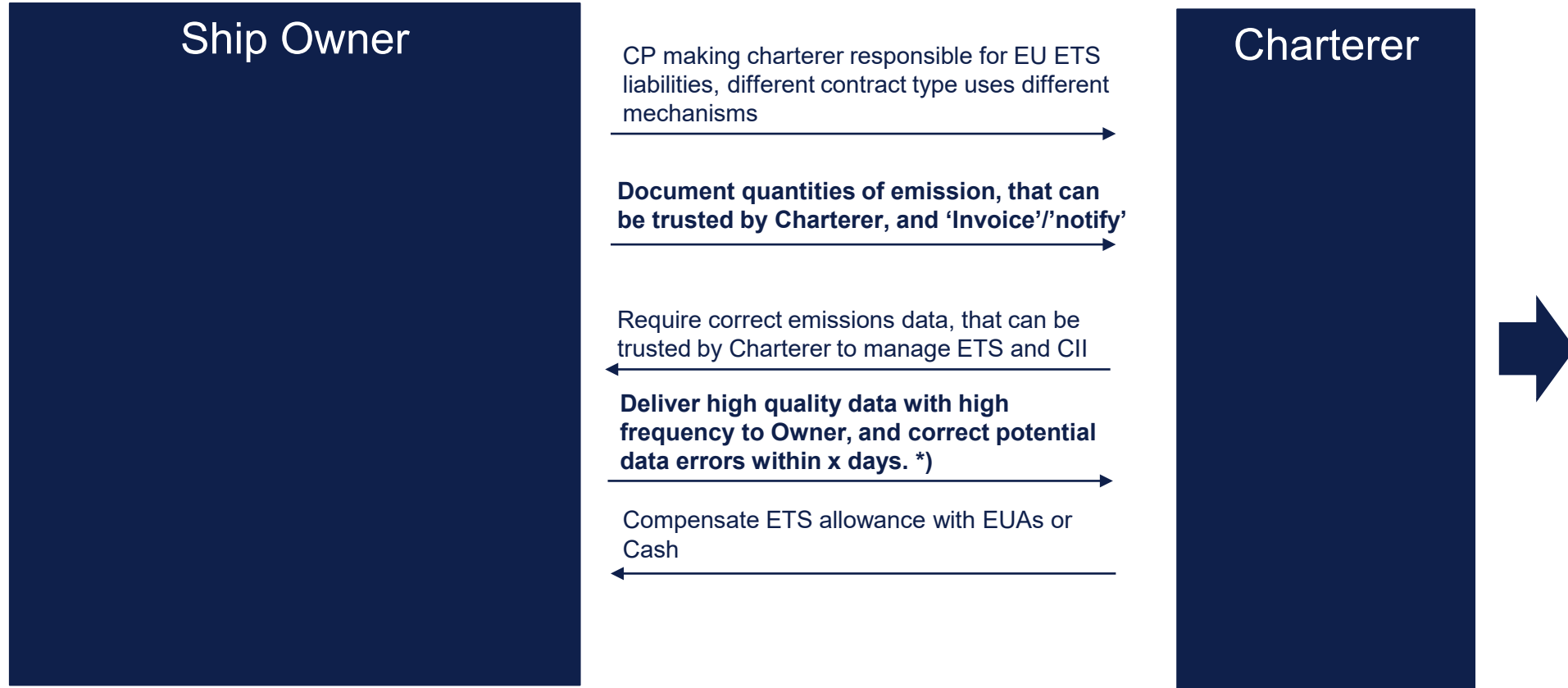
3,6 mill euro

The Ship Manager challenge



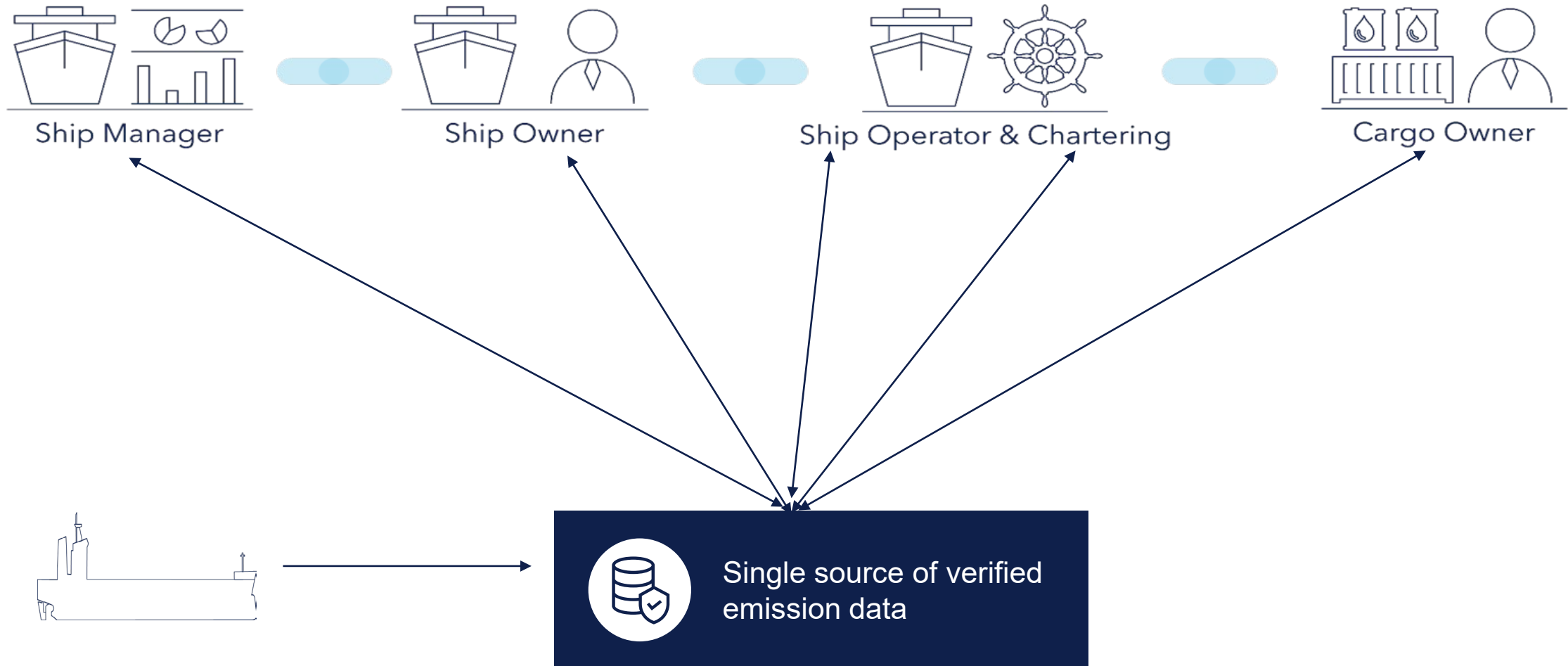
*) Max 3-4 days, given the 7 days deadline for TC settlement between Owner and Charterer

The Ship Owner challenge

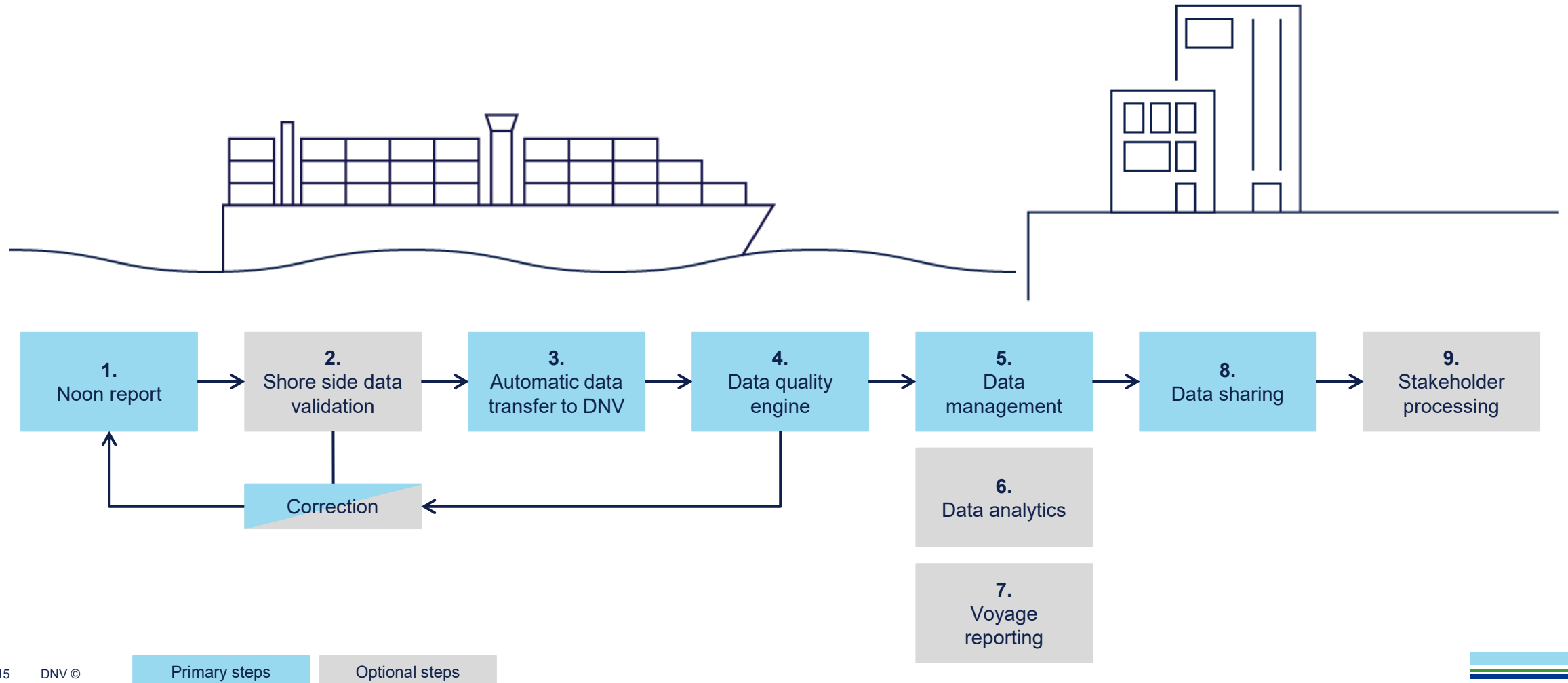


*) Max 3-4 days, given the 7 days deadline for TC settlement between Owner and Charterer

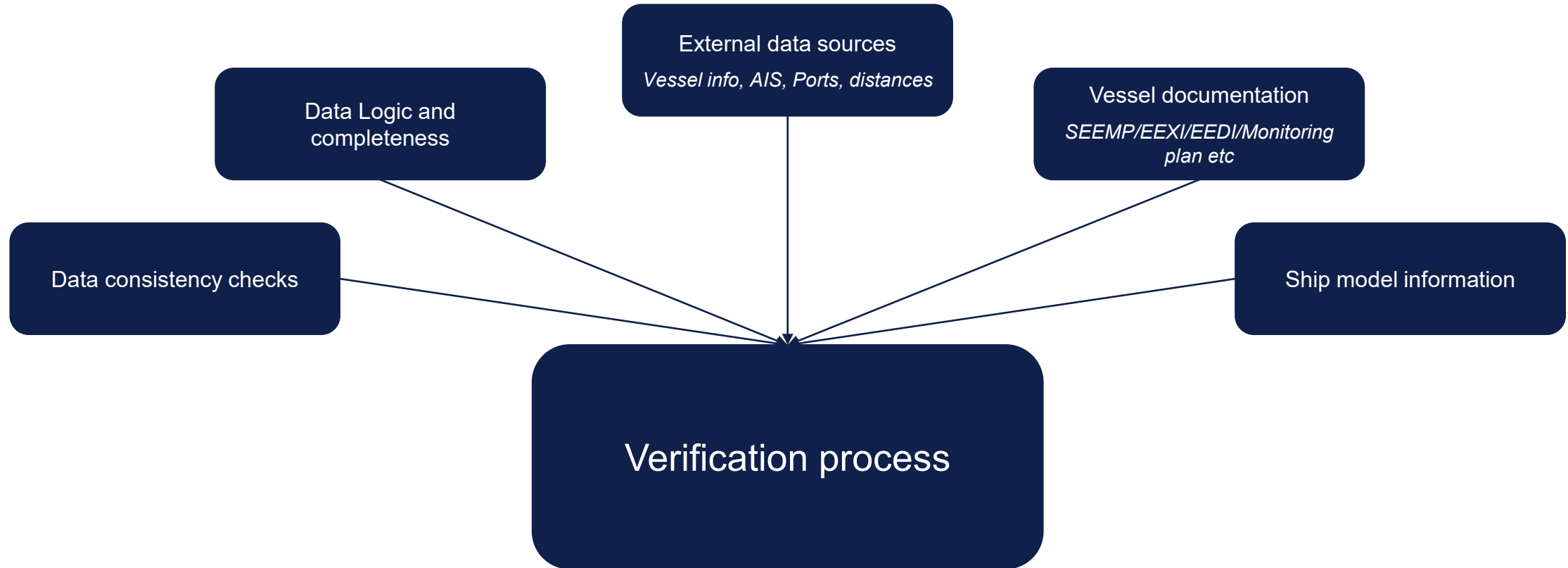
The stakeholders in the value chain need access to a common and trusted data set, governed by data owner



A continuous voyage data verification process will support business needs in the entire value chain



Key elements in data verification process



Traditional MRV approach is not meeting future business requirements....

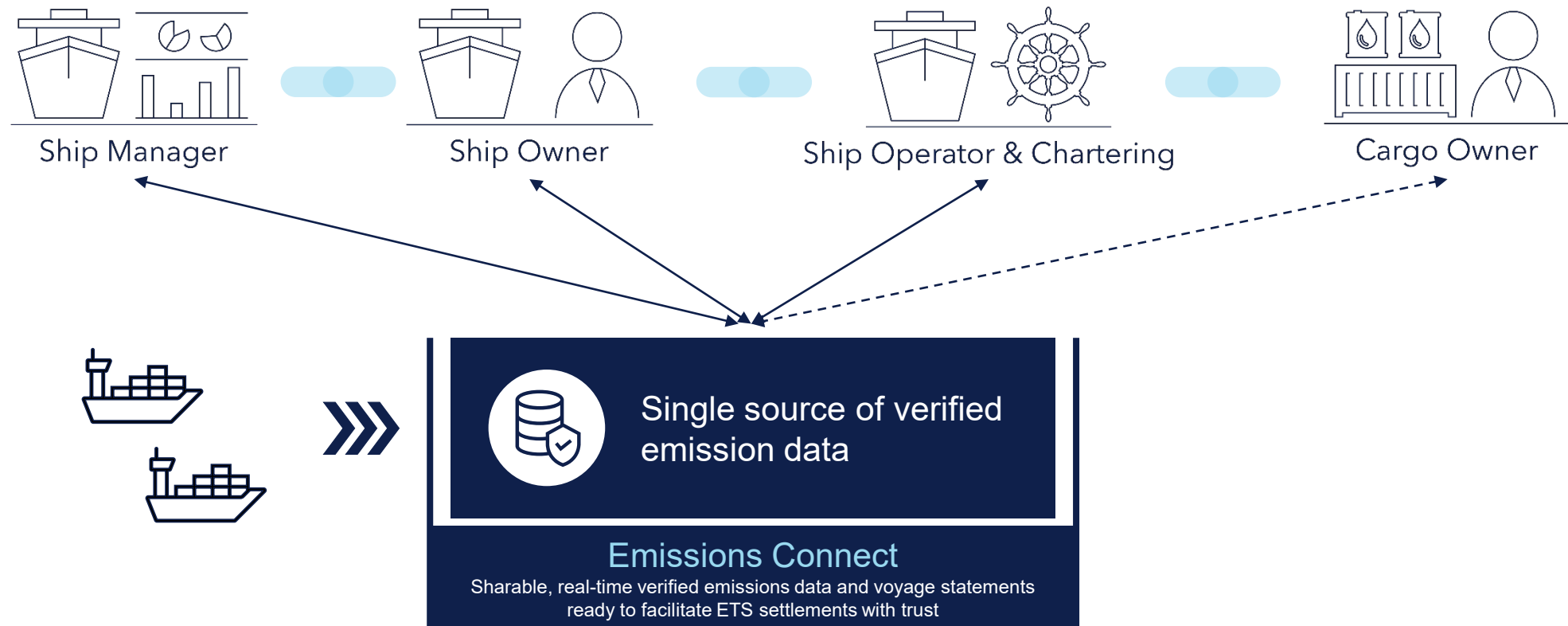
Traditional:

- Fit for being compliant – ticket to trade
- Data set compiled and sent for verification once per year, or on a quarterly basis
- Only annual ship statements available, - a quarter into the following year
- Data is 'owned', controlled and managed by DOC holder
- Verified data is only shared on an aggregated level to the ship owner

Future proofed approach:

- Enables monitoring and control of ETS and CII
- Automated data transfer daily from performance management system or sensors
- High frequency - Minimum daily reporting
- 'Real time' verification and access to data
- Enabling all relevant stakeholders to use same verified data set, across the value chain
- Updated verified data enabling users to make more **informed decisions**
- Data can be exported to own data systems for use in own bespoke solutions, or to partners

Emissions Connect enables the different roles in the value chain to use the same verified data

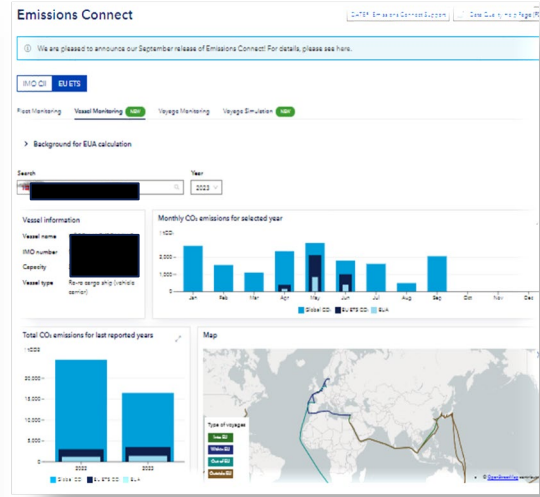


Emissions Connect consist of 5 modules, enabled by DNV data quality and verification engine

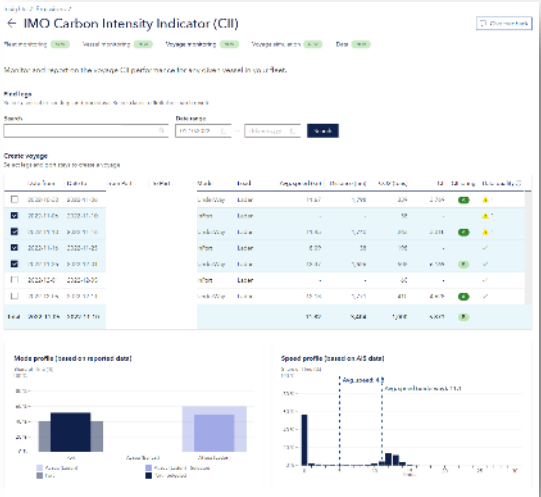
Fleet monitoring



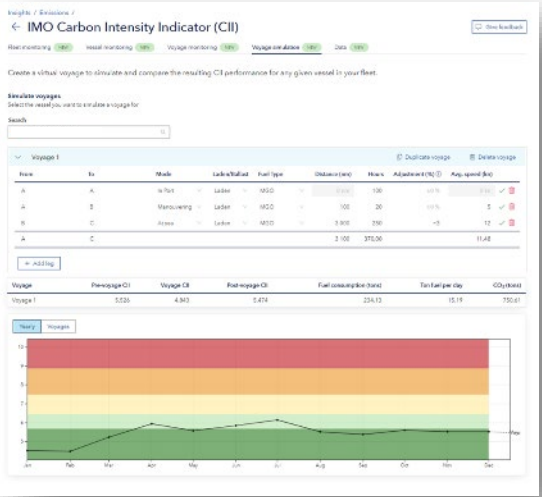
Vessel monitoring



Voyage monitoring, verification and reporting



Voyage EUA simulation



DNV's *Emissions Connect* is proven and set up to support the maritime value chain to manage EU ETS

- Emissions Connect v1.0 into production with key partners in September 2022. Emissions Connect is updated basis industry feedback and regulatory maturity , **currently V6.0 is in production**
- Emissions Connect **verifies data on a daily basis**
- Emissions Connect have established API integration with leading performance management providers – **enables more than 38 000 vessels to report daily** to the platform.
- Emissions Connect ensures verified base data for **EU ETS emissions and EUA statements** , which can be produced by the user on Voyage and time period basis.

Emissions Connect deliver trusted data in multiple dimensions

*Verified data for
financial accounting*

*Verified statements
for ETS settlement –
day after completion*

*Verified data to be
used in pricing
strategies for
chartering*

*Gives full control and
management
capabilities to the
subscriber*

**Emissions
Connect**

*Sharing of verified
data to key business
partners*

Real time verification

*Enables all
stakeholder to work
with the same verified
data set*

*Non proprietary
architecture enabling
easy integration with
other systems*

Steps to take in 2023

- Update relevant contractual agreements – to include ETS Clause and data processing requirements.
- Prepare for and facilitate sharing of vessel data to value chain counterparts
- Enable high frequency (daily) data reporting and verification process,
- use 2023 to improve data quality.
- Clarify ETS compensation process with all contractual counterparts
- Take measures to establish a necessary level of trust in the emissions data across the value chain