

# Finding Truth in Green Shipping

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# The “Carbon Concern”

Trade Financing

Insurance and Underwriting

Compliance Verification

Carbon Taxes and Reporting Costs

Reputation and Share Price

**If you can't validate, it will be prohibitively expensive to operate.**

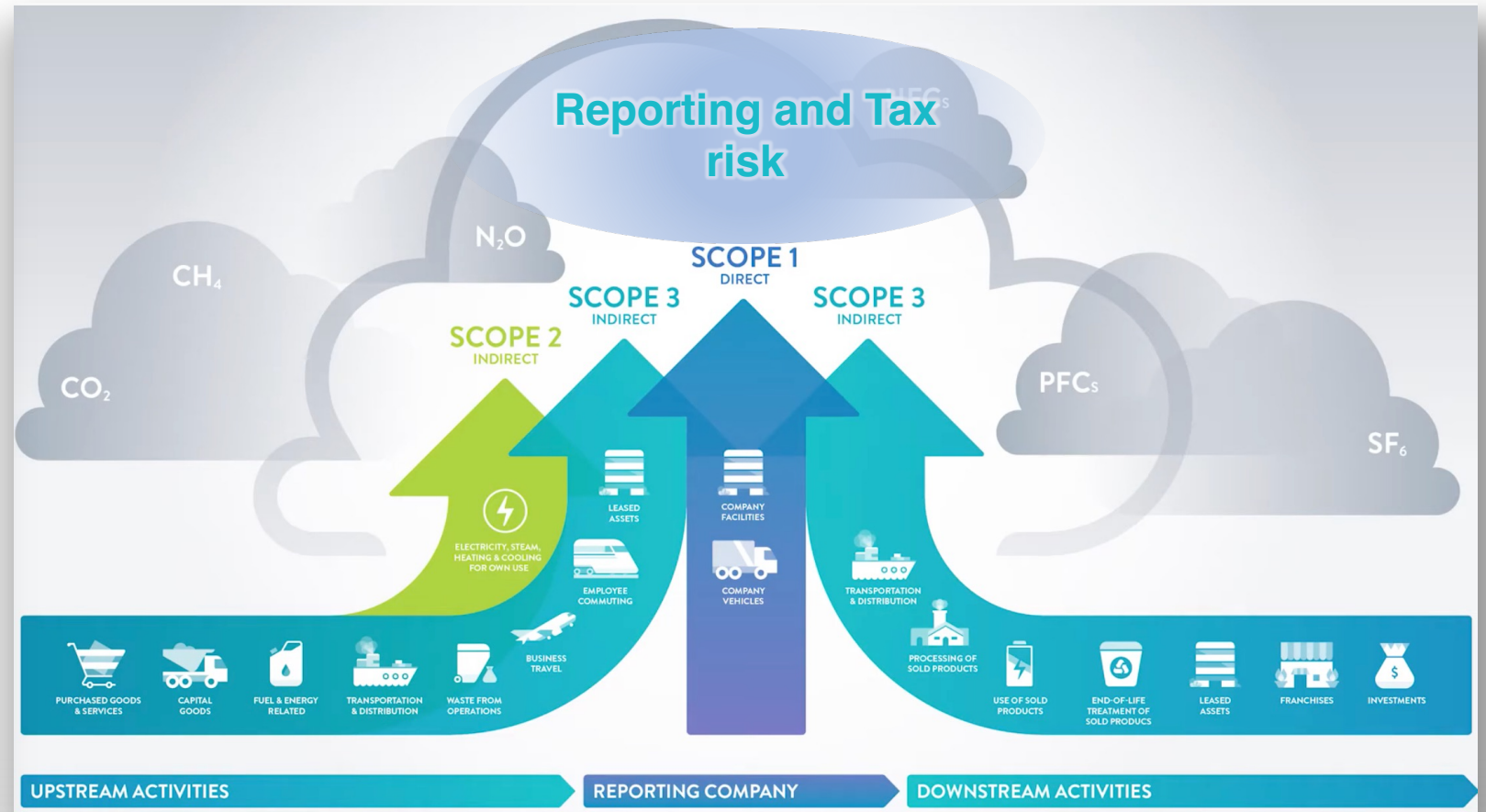
# CO<sub>2</sub> / GHG Traceability is complex

Decarbonization and Compliance are major risks to the Shipping Industry

**Scope 1:** Emissions directly produced by you, your vehicles and your facilities

**Scope 2:** Emissions produced by your energy suppliers

**Scope 3:** Emissions produced by your ENTIRE supply chain, services chain, delivery chain, and end consumer customers  
Approximately 80% of your ESG footprint is Scope 3



Source: Science Based Targets Initiative, <https://sciencebasedtargets.org/>



Transparency and Trust have become critical components of commerce.

Governments around the world have stated the intent to tax GHG emissions across the supply chain.

This includes PASSING TAXES TO THE CARGO CHARTERER AND END CONSUMER

*yet...*

**Over 95% of all Scope 1-3 emissions are OVER-Estimated or Duplicative.**

# Getting Truth from your logistics chain

- Logistics providers are using tools which estimate, approximate, and... guess.
- And so are their partners and providers, and theirs, and theirs... and so on.

**How can a fleet of ships, trucks, or train cars possibly tackle the traceability and transparency of THEIR entire chain, let alone yours?**

**This is already affecting your annual reports, your costs, and your share price.**

**Soon – it will affect your reputation, and your customer’s decision factors.**

**USING MEASUREMENTS AND ACTIVE SCIENCE IS THE ONLY WAY TO GET TO TRUTH AND IMPACT**

Pollutant	
<b>Criteria Air Pollutants</b>	
	PM
	PM10
	PM2.5
	SOx
	NOx
	VOC
	CO
	Lead
<b>Greenhouse Gas Emissions</b>	
	CO <sub>2</sub> <sup>2</sup>
	CH <sub>4</sub> <sup>2</sup>
	N <sub>2</sub> O <sup>2</sup>

Hazardous Air Pollutants	
	1,1,2,2-tetrachloroethane
	1,1,2-trichloroethane
	1,3-butadiene
	1,3-dichloropropene
	Acetaldehyde
	Acrolein
	Benzene
	Biphenyl
	Carbon tetrachloride
	Chlorobenzene
	Chloroform
	Ethylbenzene
	Ethylene dibromide
	Formaldehyde
	Hexane
	Methanol
	Methylene chloride
	Naphthalene
	PAH
	Phenol
	Styrene
	Tetrachloroethane
	Toluene
	Vinyl chloride
	Xylene

# Example: Maritime GHG Truth, Transparency & Privacy

Data is securely written & read on the blockchain

Only counter-parties have permissioned visibility

Subsets of data may be visible where permissioned

Commercial Data

AI Analyze & Enhance  
Validation & Verify

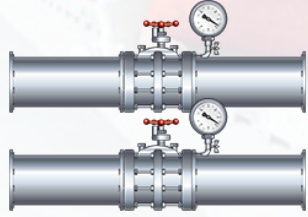
Blockchain  
Privacy &  
Integration



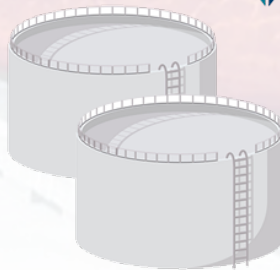
*Applications Provide Access and Enhanced Value to the Blockchain*



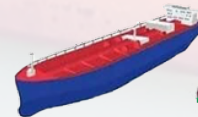
Fuel Producers



MidStreams



Suppliers



Delivery



Ship Owners



Cargo Shippers



Universal eBDN

# Validated Green Voyage

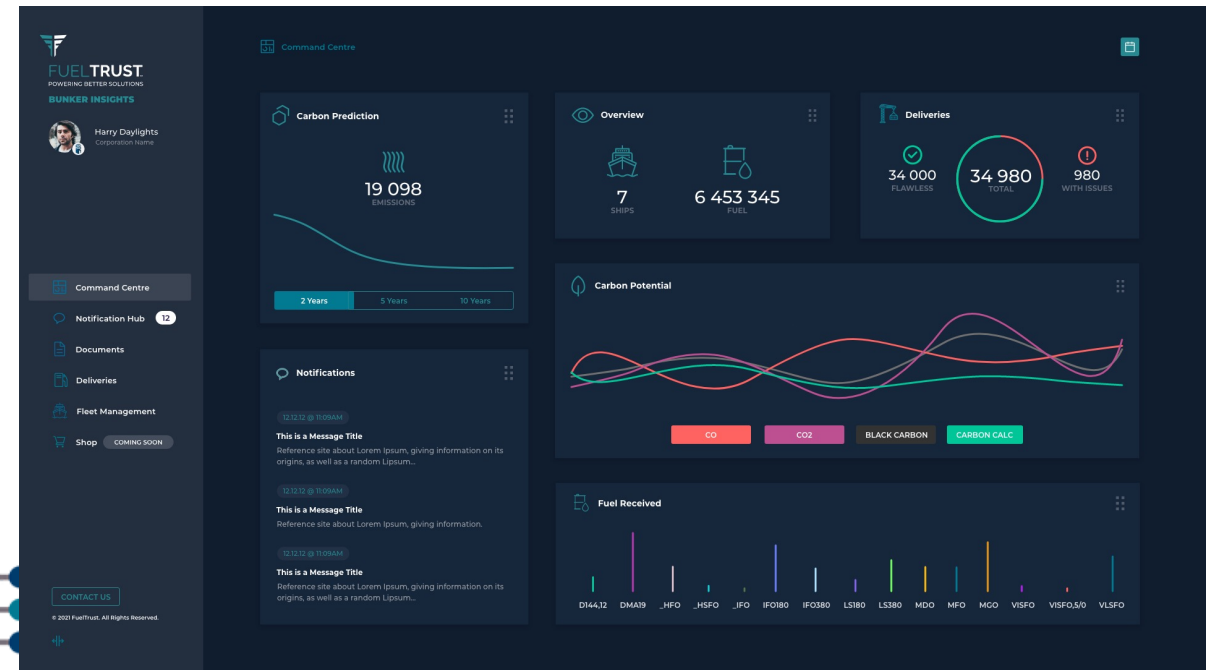


FuelTrust Risk Provenance Platform™  
5 International Patents-Pending

gives transparency and validation based on fuel chemistry and consumption/mitigation:

- Carbon Outcomes
- Compliance
- Quality, Quantity & Compatibility

## Lowering Costs, Fraud, Risks, and Emissions



Our name is what we do.



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[fueltrust.io](https://fueltrust.io)