



# **Emissionsberichterstattung**

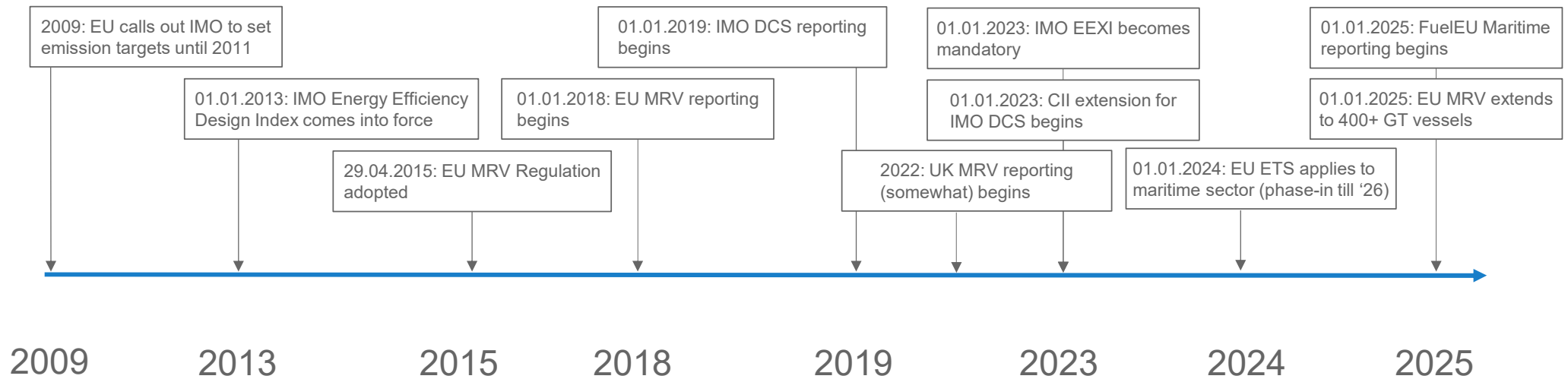
## **Aus dem Compliance-Keller in die Chefetage**



# Agenda

1. History of (Carbon-) Emission Reporting
2. The Verifiers Perspective on IMO DCS and EU MRV
3. FuelEU

# Development of Emission Reporting



## ! Take Aways

- Ever more emission regimes (China MRV was discussed for a while, Australia is drafting nat. legislation)
- Cover ever bigger parts of the global fleet (e.g. EEXI and EU MRV from 400 + GT)

# Three mildly crazy vs. one really mad guy

	EU MRV	EU ETS	FuelEU	IMO DCS
Reporting Period	01.01.-31.12.			
Responsible Party	Owner/ ISM Company	Owner/ ISM Company	ISM Company	ISM Company
Reporting Complexity	Low	Medium („EU MRV +“)	Medium („EU MRV +“)	High (esp. CII)
Carbon approach	Tank-to-wake (TtW)	Tank-to-wake (TtW)	Well-to-Wake (WtW)	Mostly TtW
Administrative Complexity	Medium (Thetis)	High (Thetis, Union Reg, Trader, Owner...)	Medium (Thetis)	High (every single flag state)
Financial Impact	Low	High	High (fuel or fine)	∩_(ツ)_∩
Next Level	400+ GT vessels	First compliance circle	Monitoring Plans	CII rescue

## ! Take Aways

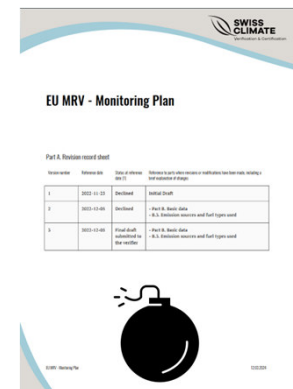
- CII reporting very burdensome. Effect of the regime mostly unknown. Rating not suitable for many operations.
- All EU regimes similar, but not identical: unnecessary complexity. Epic confusion around responsible party.

# The Verifiers Perspective: Monitoring Plans

- It is not enough to have a plan, you better have some more: SEEMP I, II and III, EU MRV Plan, FuelEU Plan, UK MRV Plan
- EU plans have been a paper exercise so far and suddenly come into focus of EU (EMSA) and national (AA) authorities
- It is not clear what the AAs will actually do with these plans
- Site visits now mandatory for EU monitoring plan assessments
- Shift from technical managers to owners for ETS causes trouble

## ! Take Aways

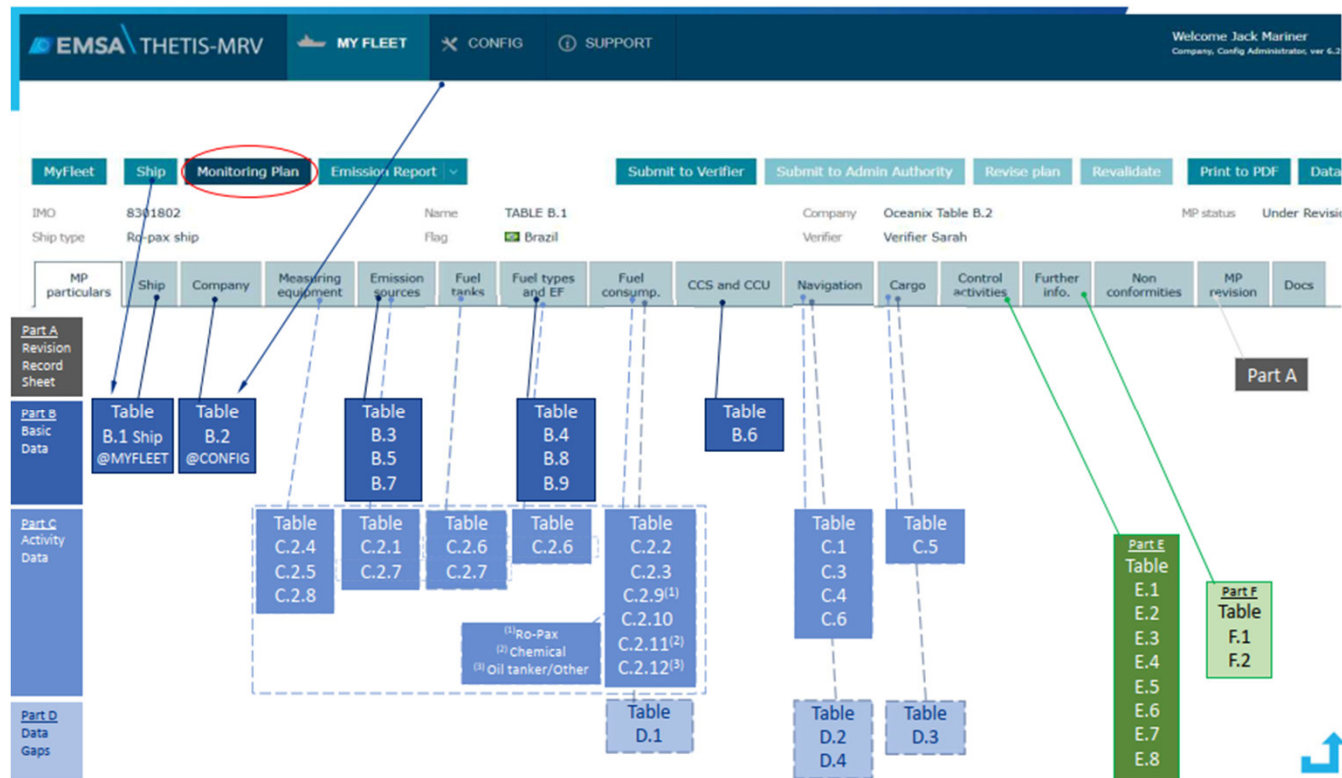
- Timeline on EU plans very tight. Thetis XML upload shaky. Control the results!
- Select one partner for all regimes. Or you will discuss a lot.
- Note EU expectations, clarified in separate [FAQs](#)





# The Verifiers Perspective: Monitoring Plans

...and how the EU wants us to prepare them...



# The Verifiers Perspective: Reporting

- Frequency of verification requests increases
  - Instant Verifications → gold standard, data „frozen“ and part of annual EU MRV balance
  - Instant Validations → quality assurance that provides trust for contract settlement
  - Frequency of verification correlated with EUA prices
- While a lot of shipping companies are looking forward, some are still cleaning up old lapses → enforcement seems to have been weak so far
- Manual/ Excel-based reporting still widespread
- Data quality is becoming better in 2023, but new rules (MRV vs. ETS) cause confusion



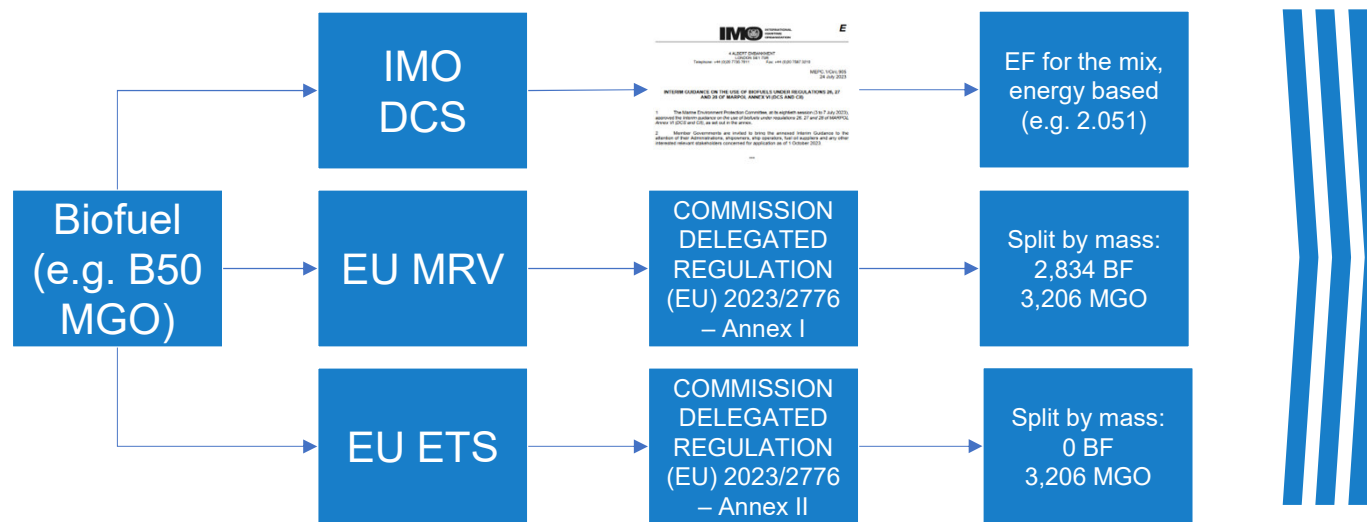
## ! Take Aways

- Verification becomes more automated & requires more expert judgement at the same time (e.g. STS, BF)
- Consistent management reporting requires a tidy single source of truth for all regimes



# The Verifiers Perspective: Biofuels

- Biofuels gain traction and will become more important under FuelEU Maritime
- The differences in accounting between EU MRV and IMO DCS are unintuitive
- Usage should be optimized (100% vs. 50% voyages, CII optimization)



## ! Take Aways

- Only use RED II-certified BF
- Make sure the BDN contains all relevant information
- Educate your crews

# FuelEU Maritime

# FuelEU Main Provisions

## Gradual decrease of GHG intensity of fuels by 2050

The GHG intensity requirements are set at a reference value of 91,16 gCO<sub>2</sub>e/MJ and the reduction can be seen in the table below.

Reductionc	2025	2030	2035	2040	2045	2050
Reduction	2%	6%	14,5%	31%	62%	80%
GHG intensity	89,3	85,7	77,9	62,9	34,6	18,2

## Special incentives for the update of Renewable Fuels of Non-Biological Origin (RFNBO)

To encourage the market development of RFNBOs, the use of sustainable RFNBO applies a multiplier of 2, meaning the energy from RFNO counts double until 2034.

Examples of RFNBOs are e-fuels, ammonia, methanol and hydrogen produced from renewable sources.

# FuelEU Main Provisions

## Obligation for ships to use on-shore power supply

From 2030, most vessels moored at quayside in a port of call within a Member State must connect to on-shore power and use it for all its electrical power demand at berth.

## Voluntary pooling, banking and borrowing mechanisms

Two or more ships can pool their compliance balance to achieve compliance. This is also possible if they are controlled by more than one company.  
If there is a compliance surplus, this can be banked for the next reporting period, or borrowed from the next reporting period in case of a deficit.

## FuelEU penalties

If the compliance is not met, penalties are given out. The revenue from these penalties should be used for projects in support of the maritime sector's decarbonisation.

# Calculation of penalty

The penalty amount that must be paid is based on:

- The compliance balance
- The GHG intensity of the vessel
- The energy content of 1 mt VLSFO (41.000 MJ)
- The amount of EUR paid per mt VLSFO (2.400€)

Calculation for penalty:

$$\text{FuelEU penalty [€]} = \frac{|\text{Compliance Balance}|}{\text{GHG intensity vessel} * 41.000} * 2.400$$

Example:

Year:	2025	(GHG intensity target is 91,16 gCO <sub>2</sub> eq/MJ)
GHG intensity vessel:	92,3	gCO <sub>2</sub> eq/MJ
Energy used on board:	200.000.000	MJ

$$1 \text{ Compliance balance [gCO}_2\text{eq]} = (91,16 - 92,3) * 200.000.000 = -461.500.000$$

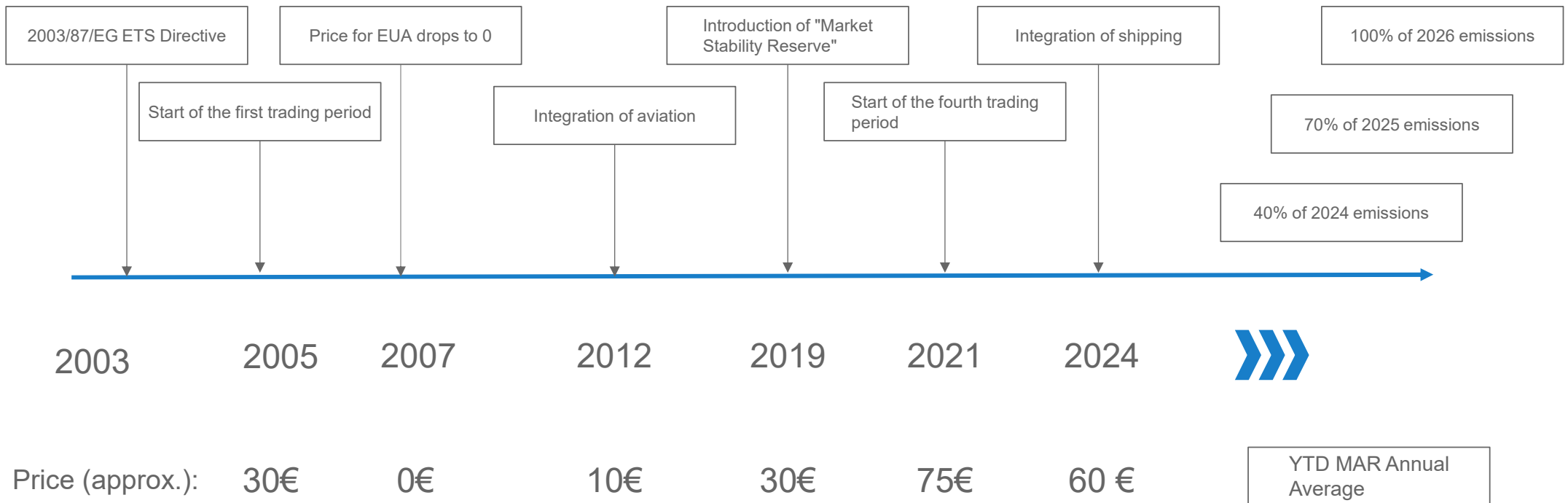
$$2 \text{ FuelEU penalty} = \frac{|-461.500.000|}{92,3 * 41.000} * 2.400 = \text{€}292.682,87$$



# EU ETS



# The Development of the ETS system



# How does the ETS work?

## 1. What is it?

- EU allowances (EUAs) are
- An EUA is the right to pollute the air with one ton of CO<sub>2</sub> (equivalents)
- It's not compensation
- Esp. for CO<sub>2</sub>, but also nitrous oxide or perfluorinated hydrocarbons

## 2. When do I need it?

- If my emissions are covered by the EU ETS
- Usually, 5 months after the determination of the issue (30 September)
- In this case, the necessary EUA will be submitted via the Union Register
- Otherwise, penalty of 100 €/t

## 3. How to get it?

- EUA can be bought
- At primary auctions
- On the secondary market
- In some cases, EUAs are also allocated based on benchmarks (not foreseen for maritime sector)
- Futures, options, .....

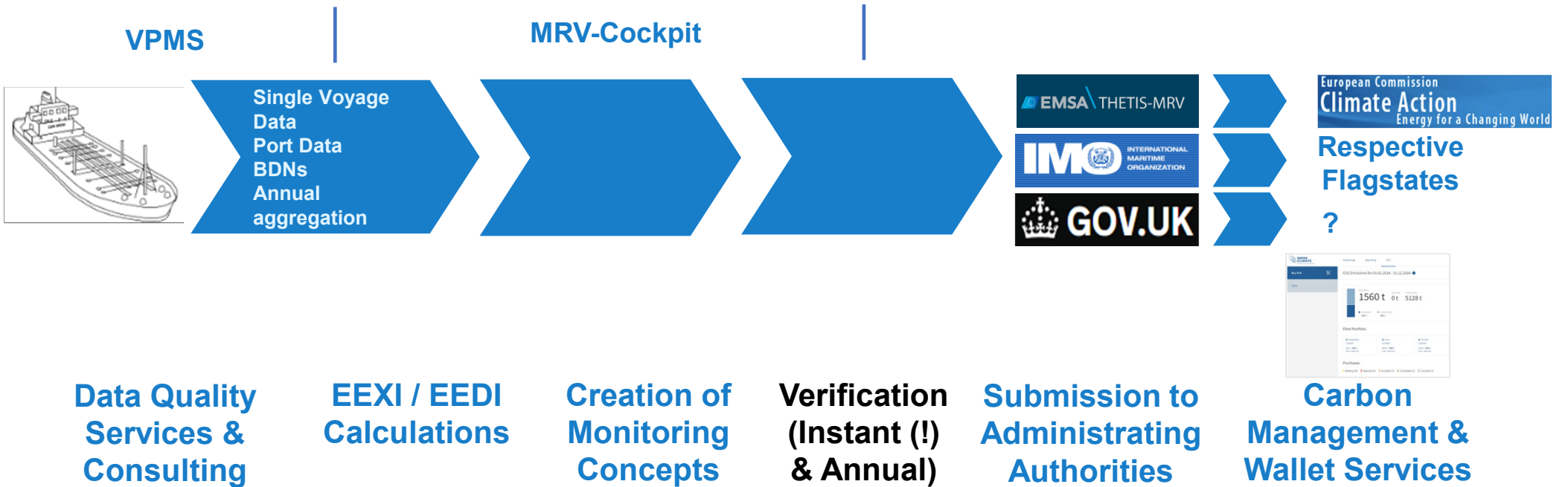
# How does the ETS work?

## 4. Who is involved?

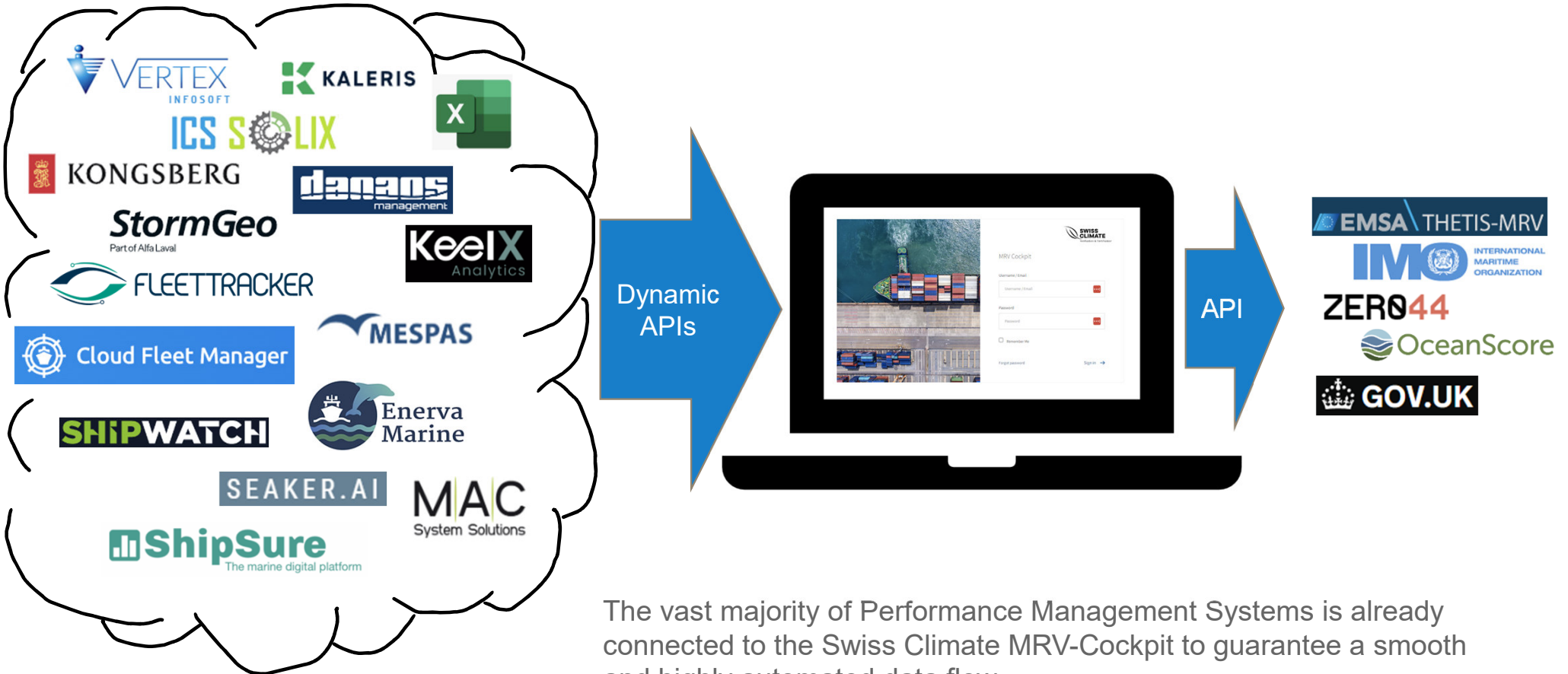
- The **vessel**: it is the source of emissions and the basis for reporting towards the EU
- “The shipping company”: **Owner, manager or bareboat charterer**. Owner and technical manager agree via contract on who is “the shipping company” responsible towards the EU.
- “Polluter pays principle”: In the future, contracts should include a clause for passing on the costs to the party responsible for emissions – the **charterer**.
- **Verification companies**: determine the amount of ETS relevant carbon emissions either at the end of a reporting period (“annual verification”) or intra-annual (“instant verifications”)
- **Traders**, brokers, exchanges as the source of EUAs

# Why us? → We cover the complete process!

The Data is collected on board, reported into the VPMS, validated by the Data Quality Team before submitting to the verification Body. If needed EEXI / EEDI Calculations and Monitoring Plans (SEEMP I-II-III, EU MRV, Fuel EU, UK MRV) can be created. The Auditors Team of the verification body is verifying the data – either on an annual base or as instant verification for given time frames) before submitting same to the Administrating Authorities. The CO<sub>2</sub> Accounting and the buying of EUAs is done in the Cockpit by you or by the Carbon Management Team. - Each service can be booked individually.



# Why us? → We are completely digital!



The vast majority of Performance Management Systems is already connected to the Swiss Climate MRV-Cockpit to guarantee a smooth and highly automated data flow.

# Why us? → We are completely digital!

## MRV Cockpit – CO2 Dashboard – CO2 Calculator

### Data Integration

We collect VPMS data via API – and provide verification data e.g. to ETS Managers.



### Independence

Our platform is independent from classification societies and supports all sizes of clients.



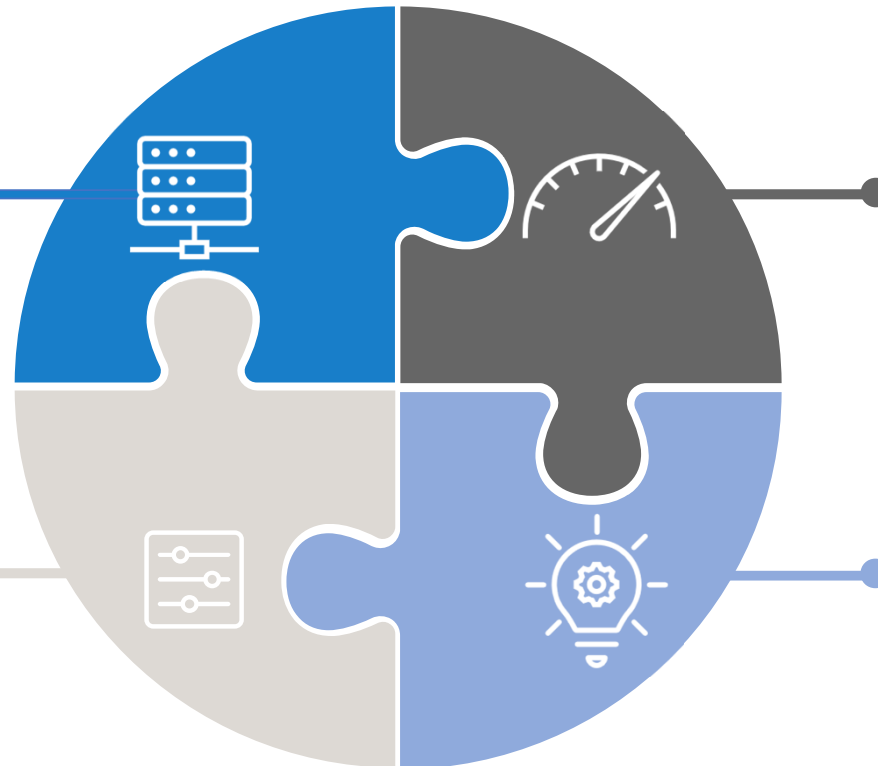
### Future Proof

We are constantly developing the cockpit: Usability is just as mandatory as compliance  
Voluntary and Compliance Market



### Expertise

Our team is always available and has its finger on the pulse of regulatory and technological innovations

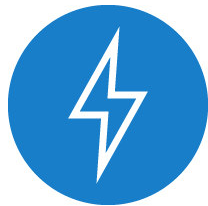




# Your Experts for a Sustainable Future



Sustainability



Energy



CO<sub>2</sub> Management

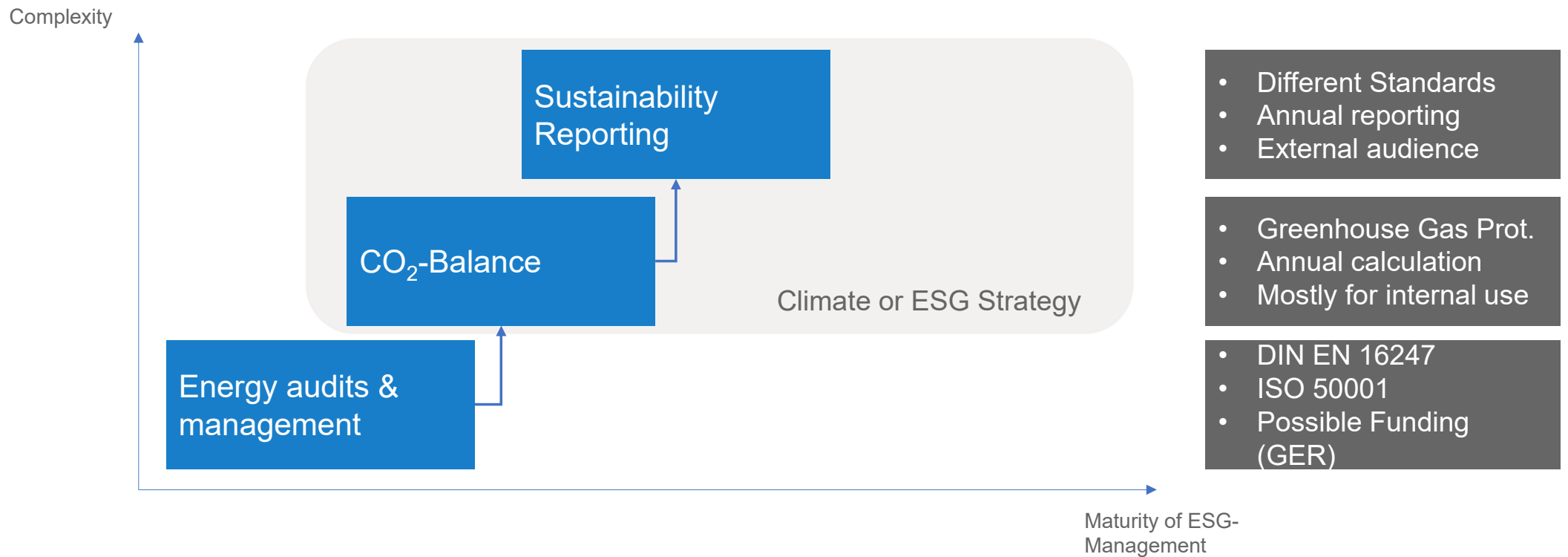


CO<sub>2</sub> Trading &  
Compensation



Verification

# Our Step-by-Step Approach to Sustainability





Vielen Dank!

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