



Monitoring, Reporting & Verification Regulation (MRV) EU 757/2015

Presence in 11 Countries

Greece / Bulgaria / Ireland / Cyprus / France / Romania / Ukraine
Croatia / Turkey / Lebanon / Saudi Arabia



Market leader in 4 countries

GREECE



IRELAND



BOULGARIA



CYPRUS



>1.000
Verification
certificates



>200.000.000
tnCO₂
verified



30
Lead Verifiers
from all countries



+50%
Growth / Year
the last 2 years

The first Accredited MRV Verifier worldwide

Activity	Type of Verification	(in accordance with Regulation (EE) 2015/757
Verification of carbon dioxide emissions from maritime transport	Assessment of the monitoring plan	Regulation (EU) 2015/757 Delegated Regulation (EU) 2016/2072 Delegated Regulation (EU) 2016/2071

Athens, 20.12.2016



George K. Kallergis
Director of Bodies Accreditation Division

Applicability of the MRV Regulation

Which ships ?

- Applies to ships **above 5000 gross tonnage (GT)** in respect of CO₂ emissions released during their voyages

What type of voyages?

- For voyages of commercial purposes

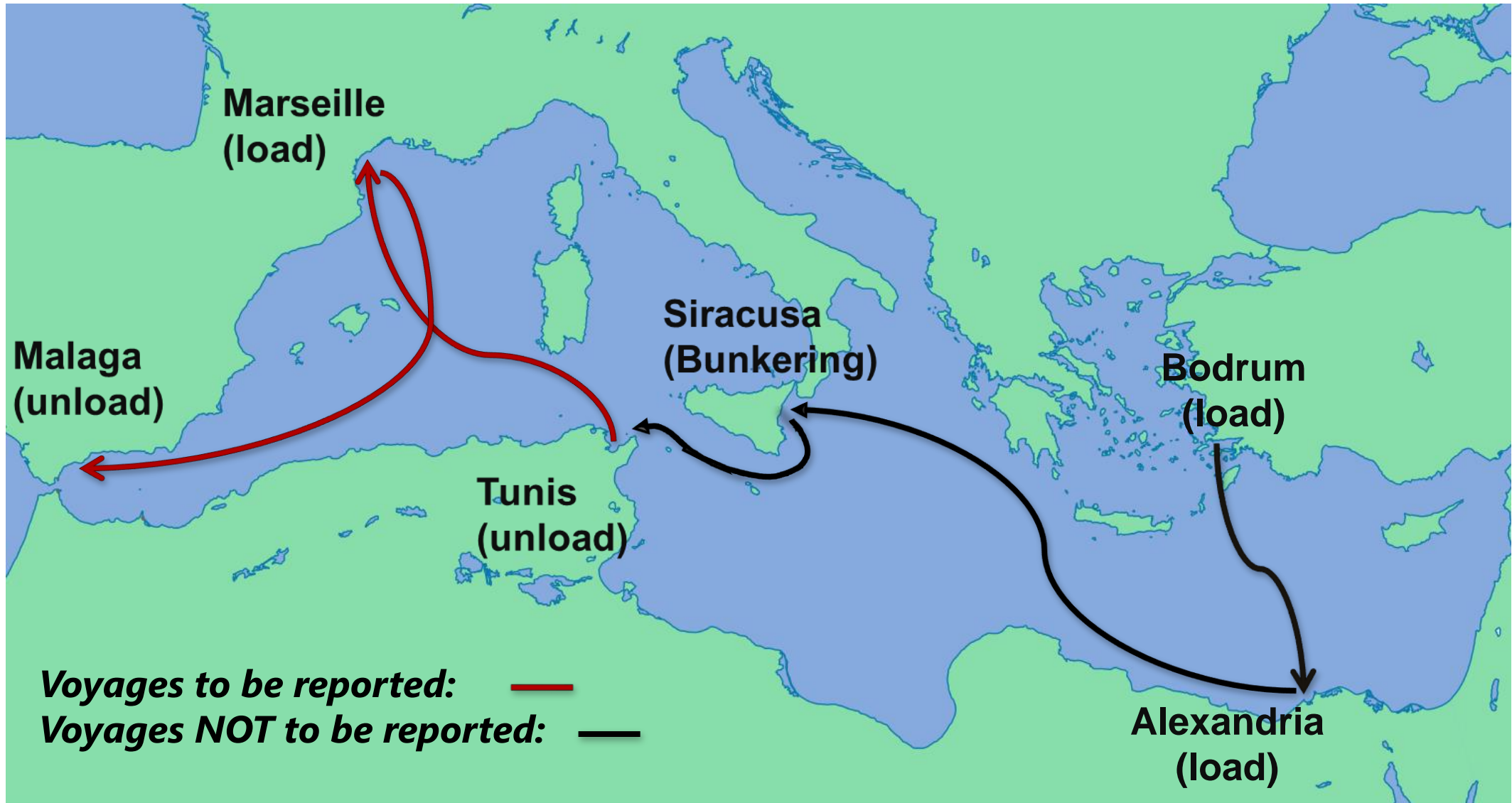
Which voyages?

- A voyage is reportable when at least one Port of Call is in the EU

Exclusions:

- Warships
- Naval auxiliaries
- Fish-catching ships
- Wood ships (primitive build)
- Ships not propelled by mechanical means
- Government ships used for non-commercial purposes
- stops for the sole purposes of refuelling, obtaining supplies, relieving the crew, going into dry-dock or making repairs to the ship and/or its equipment, stops in port because the ship is in need of assistance or in distress, ship-to-ship transfers carried out outside ports, and stops for the sole purpose of taking shelter from adverse weather or rendered necessary by search and rescue activities

Eligible voyages



Monitoring on a per-voyage basis



Based on the monitoring plan **assessed by the verifier**, for each ship arriving in or departing from, and for each voyage to or from, a port under a Member State's jurisdiction, companies shall monitor the following parameters:

- port of departure and port of arrival including the date and hour of departure and arrival;
- amount and emission factor for each type of fuel consumed in total;
- CO2 emitted;
- distance travelled;
- time spent at sea;
- cargo carried;
- transport work.



Methods for Determining CO₂ Emissions



- The company shall define in the monitoring plan which monitoring method is to be used **to calculate fuel consumption for each ship** under its responsibility and ensure that once the method has been chosen, it is consistently applied.
- **Method A : Bunker Fuel Delivery Note (BDN) and periodic stocktakes of fuel tanks**
- **Method B: Bunker fuel tank monitoring on board**
- **Method C : Flow meters for applicable combustion processes**
- **Method D : Direct CO₂ emissions measurements**



Monitoring on an annual basis

Based on the monitoring plan **assessed by the verifier**, for each ship and for each calendar year, companies shall monitor the following parameters:

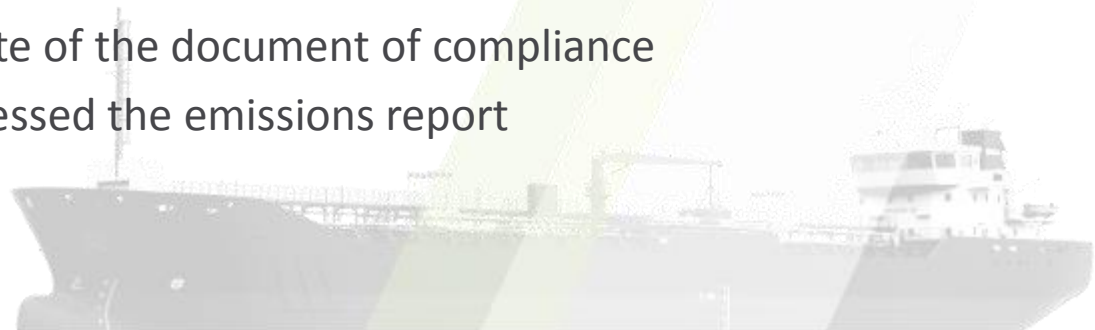
- amount and emission factor for **each type of fuel** consumed in total;
- **total aggregated CO2 emitted** within the scope of this Regulation;
- aggregated CO2 emissions from all **voyages between ports** under a Member State's jurisdiction;
- aggregated CO2 emissions from all **voyages which departed from ports** under a Member State's jurisdiction;
- aggregated CO2 emissions from all **voyages to ports** under a Member State's jurisdiction;
- CO2 emissions which occurred within ports under a Member State's jurisdiction **at berth**;
- total **distance** travelled;
- total **time** spent at sea;
- total **transport work**;
- **average energy efficiency**.



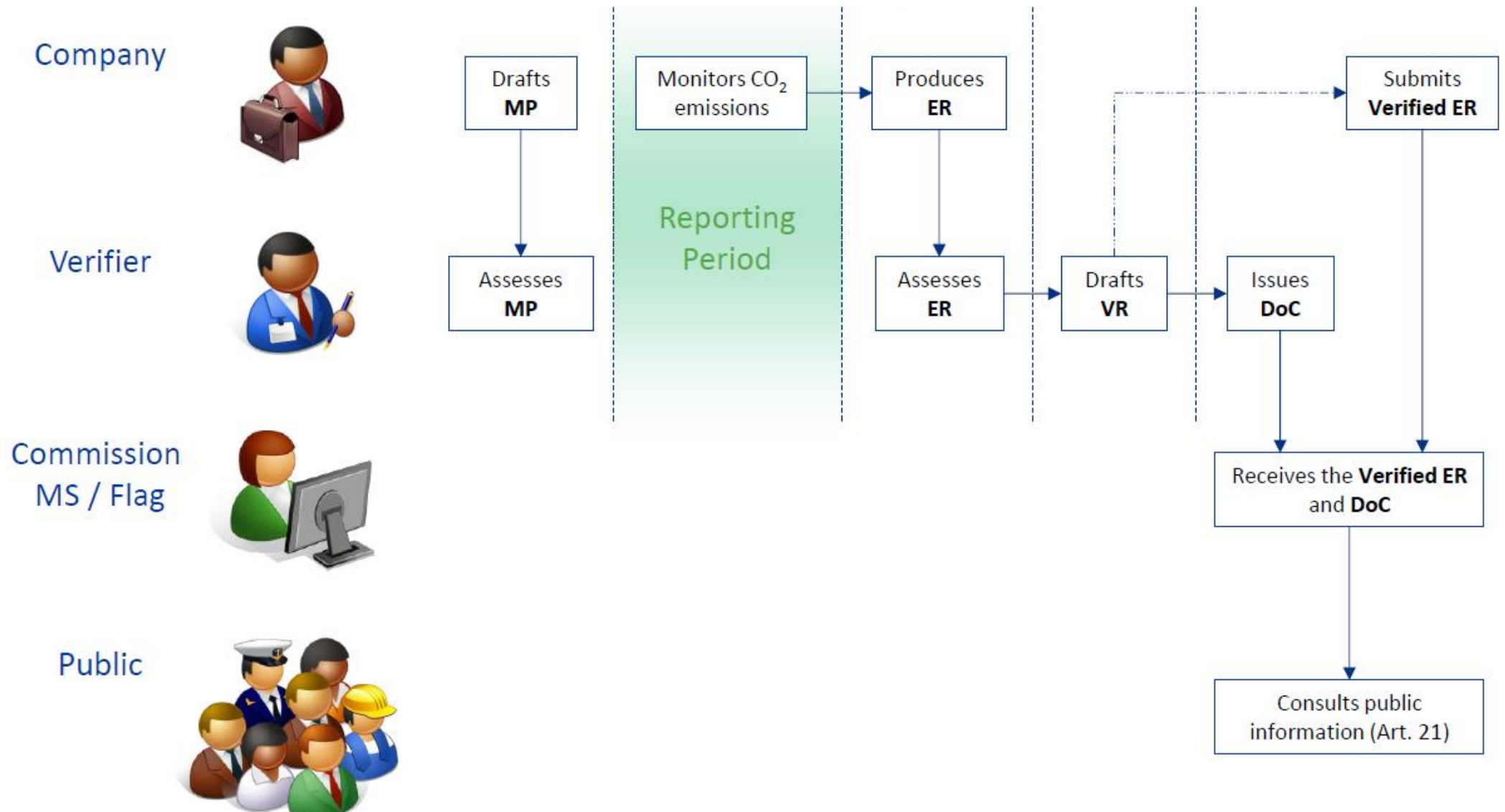
Commission Report



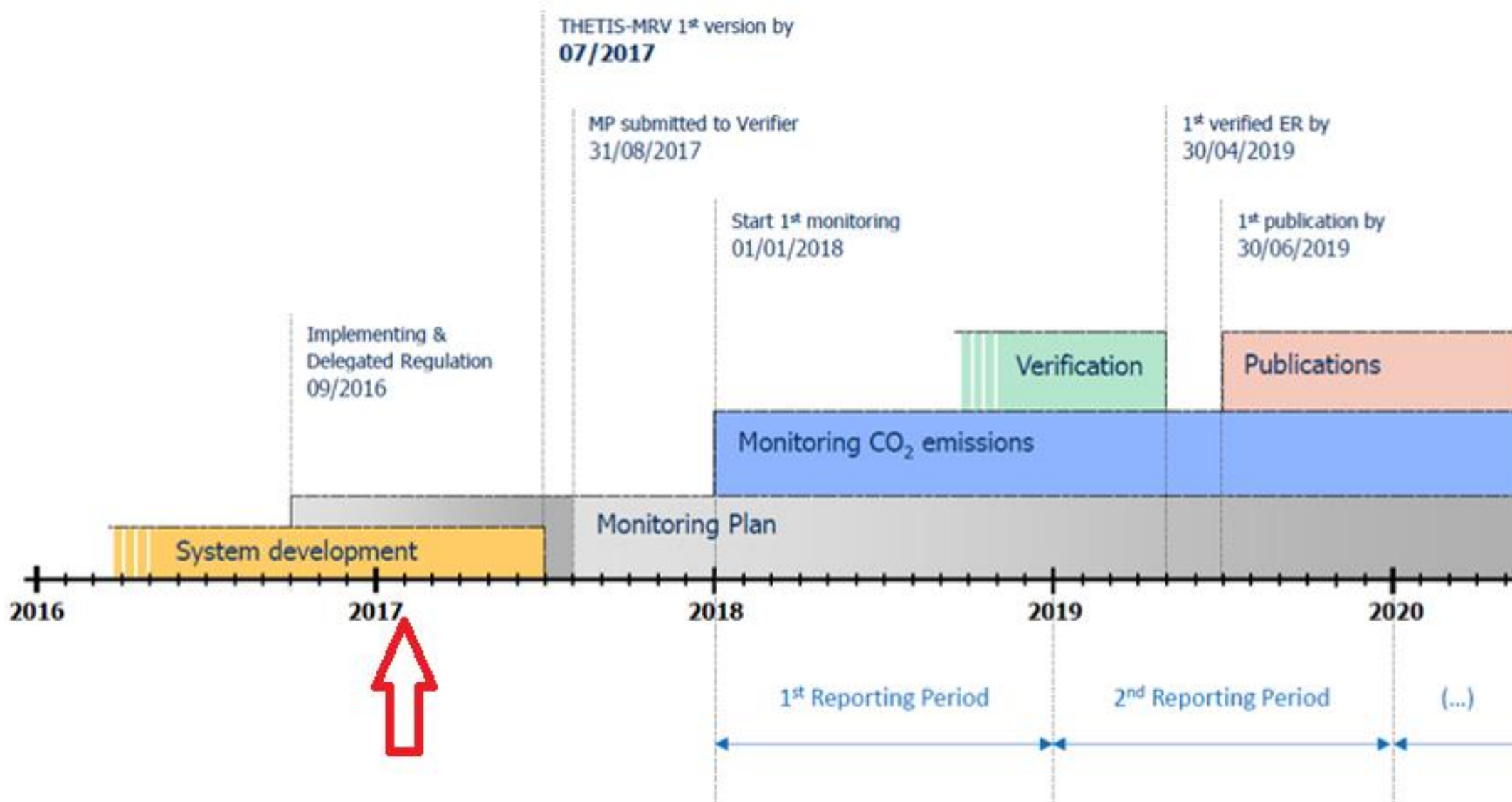
- By 30 June each year, the Commission shall make **publicly available** the information on CO2 emissions reported
- The Commission shall include the following in the information to be made publicly available:
 - ✓ the identity of the ship
 - ✓ the technical efficiency of the ship (EEDI or EIV)
 - ✓ the annual CO2 emissions
 - ✓ the annual total fuel consumption for voyages
 - ✓ the annual average fuel consumption and CO2 emissions per distance travelled of voyages
 - ✓ the annual total time spent at sea in voyages
 - ✓ the method applied for monitoring
 - ✓ the date of issue and the expiry date of the document of compliance
 - ✓ the identity of the verifier that assessed the emissions report



Roles



A Roadmap towards the implementation of Regulation 2015/757



Legal Framework - Completed



- ❑ REGULATION (EU) **2015/757** of 1 July 2015 on the monitoring, reporting and verification (**MRV**) of carbon dioxide emissions from maritime transport.
- ❑ DELEGATED REGULATION (EU) **2016/2071** of 22 September 2016 about the **emission factors**
- ❑ DELEGATED REGULATION (EU) **2016/2072** of 22 September 2016 on the **verification** activities and **accreditation** of verifiers
- ❑ IMPLEMENTING REGULATION (EU) **2016/1927** of 4 November 2016 on **templates** for monitoring plans, emissions reports and documents of compliance
- ❑ IMPLEMENTING REGULATION (EU) **2016/1928** of 4 November 2016 on determination of **cargo** carried for categories of ships



European Sustainable Shipping Forum (ESSF)

- ✓ Subgroup of experts on Monitoring and Reporting
- ✓ Subgroup of experts on Verification and Accreditation:

TF1: Risk assessment to be carried out by verifiers (Feb-17)

TF2: Recommendations for **improvement** (Feb-17)

TF3: Materiality & verification of the emissions report (Feb-17)

TF4: Verification of emissions report - **backward verification** (Apr-17)

TF5: Verification of emissions report - **examples** of verification activities (Feb-17)

TF6: Assessment of verifiers by NABs to issue accreditation certificate (Feb-17)

TF7: Cases of **suspension or withdrawal of accreditation** (Feb-17)

TF8: Assessing the **Monitoring Plan** (Apr-17)

Methodology



Gap Analysis, for identifying the coverage level of the requirements from your processes, practices and systems that are currently in place

Monitoring Plans (MP) Preparation, per ship type

Assessment of the MP(s) from an experienced, specialized verifier, in order to detect, identify, recognize possible non compliance to the Regulation

**MP(s) correction, according to the observations/ suggestions of the verifier
Improvement of the methodology and finalization of the MP
Issuing an MP for every single ship of your fleet**

Approval of the MP(s) from the verifier

Application of the MP(s)

Preparation of the Emissions Report (ER)

Verification of the Emissions Report from the verifier

**Shipping
Company**

Consultant

Verifier

Scope of Verification Activities

Assessment of Monitoring Plan

Verification of Emissions reports

Verification Report

Document of Compliance



Verification of emissions reports

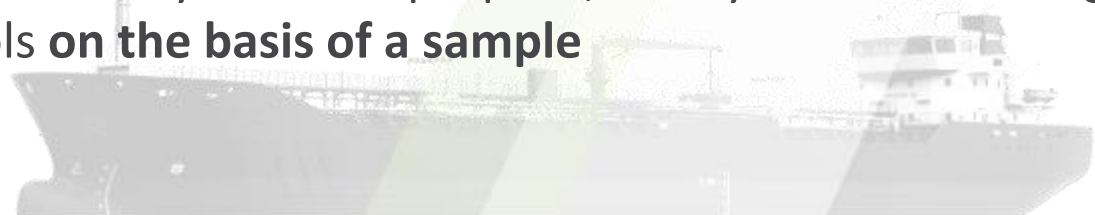
Verification Activities



- The verifier shall implement the verification plan and, on the basis of the risk assessment, verify whether the monitoring and reporting systems, **as described in the monitoring plan** that has been assessed as satisfactory, exist in practice and are properly implemented

- The verifier shall consider carrying out at least the following types of procedure:
 - ✓ inquiry with relevant staff
 - ✓ document inspection
 - ✓ observation and walkthrough procedures

- If applicable, the verifier shall check whether the internal control activities described in the monitoring plan are implemented effectively. For that purpose, it may consider testing the effectiveness of documented controls **on the basis of a sample**



EU MRV and IMO fuel data systems



	EU MRV	IMO system
<i>Monitoring</i>	Ships 5000 GT and above Voyages to/ from EU port of calls EU MRV Monitoring Plan From 01.01.2018	Ships 5000 GT and above All voyages Updated SEEMP From 01.01.2019
<i>Reporting</i>	Fuel consumption Transport work (actual cargo carried) Distance Time	Fuel consumption Transport work (design deadweight) Distance Time
<i>Verification</i>	Independent accredited verifiers	Flags administration / ROs
<i>Compliance</i>	Document of Compliance	Statement of Compliance
<i>Publication</i>	Public database	Anonymous database

Thank you for your attention!

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