

EXPLANATORY MEMORANDUM

1. CONTEXT OF THE PROPOSAL

* **Reasons for and objectives of the proposal**

Climate change is a major challenge that needs to be tackled urgently. This is why the Paris Agreement aims to limit global temperature increase well below 2°C compared to pre-industrial levels, and pursue efforts to limit the temperature increase to 1,5°C based on significant greenhouse gases (GHG) emission reductions from all countries.

Due to the considerable consumption of fossil fuels, global shipping activity emits significant amounts of GHG emissions and contributes to climate change. GHG emissions from international maritime transport are estimated to be around 2-3 percent of total global GHG emissions. This is more than the emissions of any EU state. If the shipping sector were a country, it would rank sixth in emission in the world. The impact of the sector at EU level is equally considerable: in 2015, it was 13% of the overall EU greenhouse gas emissions from the transport sector[[1]](#footnote-2). However, maritime transport is the only sector not expressly addressed by an EU emission reduction objective or specific mitigation measures.

In the future, seaborne trade volumes are likely to grow, which will lead to a significant increase of associated GHG emissions if mitigation measures are not put in place swiftly. According to a study[[2]](#footnote-3) from the International Maritime Organisation (IMO), depending on future economic and energy developments, global shipping emissions could grow between 50% and 250% by 2050. At the EU level, CO2 emissions from maritime transport increased by 48% between 1990 and 2008, and are expected to increase by 86% above 1990 levels by 2050 despite the adoption of minimum ship efficiency standards for new ships by the IMO in 2011[[3]](#footnote-4). If nothing is done to tackle these emissions, this risks undermining the goals of the Paris Agreement and the efforts deployed by other sectors.

Following up on the 2011 EU White paper on transport, the EU adopted a strategy in 2013 for progressively integrating maritime emissions into the EU's policy for reducing greenhouse gas emissions[[4]](#footnote-5). As a first step, the European Parliament and the Council adopted in April 2015 the Regulation (EU) 2015/757[[5]](#footnote-6) on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport (the “EU MRV Regulation”), which was completed in 2016 with two Delegated[[6]](#footnote-7) and two Implementing Regulations[[7]](#footnote-8). The EU MRV Regulation was developed with a view to:

* Collect robust and verified CO2 emission data for all ships (above 5000 gross tonnage) calling at European Economic Area (EEA) ports, including CO2 emissions from these ships in ports;
* Provide robust information to support future policy-making decisions and implementation of policy tools, as well as allow for the implementation of international objectives or measures (e.g. on energy efficiency);
* Provide the necessary transparency concerning data to stimulate the up-take of new technologies and operational measures to make ships greener.

According to the EU MRV Regulation, shipping companies have to report their annual CO2 emissions and other relevant information arising from their ships’ voyages to and from EEA ports, and within EEA ports. The obligations for shipping companies started in 2017 with the preparation and submission to accredited verifiers of monitoring plans. The monitoring of fuel consumption, CO2 emissions and energy efficiency started in 2018 and the first emissions reports are due in April 2019.

In 2016, following the entry into force of the Paris Agreement and the adoption of the EU MRV Regulation, the IMO Marine Environment Protection Committee (MEPC) adopted amendments to the MARPOL Convention establishing the legal framework for a global data collection system for fuel oil consumption of ships (“global IMO DCS”). Details and implementing modalities of the global IMO DCS were agreed later on through "guidelines" adopted by MEPC 70 in October 2016 and by MEPC 71 in July 2017. Under the global IMO DCS, monitoring obligations start in 2019, with reporting in 2020.

As a result, from January 2019 ships performing EEA-related maritime transport activities will have to fulfil monitoring and reporting requirements under both the EU MRV Regulation and the global IMO DCS.

The co-existence of these two monitoring, reporting and verification systems at the EU and global level was anticipated in the EU MRV Regulation. Article 22 of this Regulation says: "*In the event that an international agreement on a global monitoring, reporting and verification system for greenhouse gas emissions (…) is reached, the Commission shall review this Regulation and shall, if appropriate, propose amendments to this Regulation in order to ensure alignment with that international agreement.*"

The main objective of this proposal is therefore to amend the EU MRV Regulation in order to take appropriate account of the new global IMO DCS, with a view to allow for streamlining and reducing administrative effort for companies and administrations as possible, while preserving the objectives of the EU MRV Regulation.

* **Consistency with existing policy provisions in the policy area**

The proposed changes to the EU MRV Regulation are consistent with existing policy provisions in the area as they should not undermine the key objectives pursued by the EU MRV system and more generally, they are consistent with EU climate policy. In particular, the proposal aims to preserve the projected positive impact of the EU MRV Regulation in terms of gathering robust and verified data, informing future policy-making decisions and incentivising the up-take of energy efficiency measures and behaviours in shipping.

In addition, this proposal pursues the approach laid down in the other EU emissions reductions policies where the monitoring, reporting and verification of greenhouse gas emissions plays a fundamental role to ensure the effective implementation of EU climate policies, such as under the greenhouse gas emission allowance trading system. The proposal is consistent with the transparency provisions under the EU ETS, including verification by third parties.

* **Consistency with other Union policies**

The EU submitted the Nationally Determined Contribution ('NDC') of the EU and its Member States to the UNFCCC in March 2015, committing to a binding target of at least a 40 % domestic reduction in economy-wide GHG emissions by 2030 below 1990 levels, in line with the 2030 climate and energy policy framework approved by the October 2014 European Council and since adopted into law[[8]](#footnote-9). All sectors need to contribute to the low-carbon transition and to the Paris agreement.

The proposal is consistent with the strategy on low emissions mobility, which addresses actions to further reduce GHG emissions in transport, as part of broader decarbonisation efforts undertaken and committed by the EU, including for the 2030 horizon[[9]](#footnote-10).

By providing robust information on CO2 emissions from individual ships, the EU MRV Regulation is key to facilitate future decision making at Union level and to govern possible future climate policies in this sector. The proposal safeguards this key principle. The EU MRV Regulation as an existing EU policy instrument is a first step in the right direction to be used as a basis for further policy development.

The proposal is also consistent with the “energy efficient first” principle of the Energy Union, as it should enhance the implementation of energy efficiency measures in the shipping sector.

2. LEGAL BASIS, SUBSIDIARITY AND PROPORTIONALITY

* **Legal basis**

Articles 191 to 193 of the Treaty on the Functioning of the European Union (TFEU) confirm and specify EU competences in the area of climate change. The legal basis for this proposal is Article 192 TFEU.

* **Subsidiarity (for non-exclusive competence)**

In accordance with the principle of subsidiarity set out in Article 5 of the Treaty on European Union, the objectives of this proposal can only be achieved through a proposal from the Commission at EU level as the proposal intends to amend existing EU legislation.

Collecting and publishing data of ships' emissions and energy efficiency at EU level has the advantage that the results are fully comparable as based on a single set of requirements. This contributes better to the removal of market barriers due to lack of information.

* **Proportionality**

The proposal complies with the proportionality principle because it does not go beyond what is necessary in order to achieve the objectives of the EU MRV Regulation, while at the same time ensuring the proper functioning of the internal market and the European shipping industry's competitiveness.

* **Choice of the instrument**

This proposal for an amending Regulation follows on the fact that the proposal is to amend the existing EU MRV Regulation.

3. RESULTS OF EX-POST EVALUATIONS, STAKEHOLDER CONSULTATIONS AND IMPACT ASSESSMENTS

* **Ex-post evaluations/fitness checks of existing legislation**

It is relevant to note that the review of the EU MRV Regulation is carried out without prior evaluation as this would only have been possible towards the end of 2019, after the completion of the first compliance cycle. Therefore, an evaluation of the existing EU MRV Regulation was not part of the preparatory work and has not fed into the assessment of the policy options.

* **Stakeholder consultations**

The proposed modifications to the EU MRV Regulation are widely in line with the interests expressed by stakeholders on their replies to the online public consultation and the targeted e-survey. Civil society organisations, national accreditation bodies, research institutions and citizens/individuals widely support that some important objectives need to be preserved when amending the EU MRV Regulation. These include raising awareness on emission reduction, providing robust information to market players on fuel consumption and energy efficiency and collecting data for an informed policy making. For the shipping sector, the main priority is, however, reducing administrative burden. EEA Member States and EU MRV verifiers widely support these objectives too, notably the collection of reliable data to develop future policies and minimising administrative effort.

* **Collection and use of expertise**

Emission projections studies rely on relevant data from the IMO 3rd GHG study[[10]](#footnote-11) and have been taken into account, notably in relation to emissions and emission forecasts for international shipping, as well as the emissions reduction potential arising from technical and operational measures of international shipping.

* **Staff Working Document - impact assessment**

An impact assessment has been developed to analyse which features of the EU MRV Regulation might be aligned with the global IMO DCS ones. This document complements the impact assessment that accompanied the proposal in 2013, which included an estimation of the costs associated with the EU MRV Regulation. In addition, the new Staff Working Document containing this impact assessment builds on the inception impact assessment published in June 2017 and the public consultation concluded in December 2017.

The Regulatory Scrutiny Board of the European Commission assessed a draft version of the impact assessment and issued a positive opinion on 13 July 2018. The Board made recommendations to further improve the report, which are addressed in the revised report. The Executive Summary of the impact assessment and the opinion of the Regulatory Scrutiny Board are on the Commission’s website[[11]](#footnote-12).

Considering the need to preserve the key objectives of the EU MRV Regulation, two alignment candidates were discarded upfront: governance and CO2 reporting. Aligning the governance was not considered to be an option as it would entail that the EU and its Member States can only collect data concerning emissions from EU-flagged ships, leaving aside the GHG emissions emitted by non EU-flagged ships as part of voyages involving EEA ports. In addition, aligning on CO2 reporting would mean that ships would not report CO2 emissions data. This would be fully inconsistent with the very objective of the EU MRV Regulation, which is related to the CO2 emissions performance of ships and their climate impact.

Bearing in mind these limitations, three policy options have been assessed in the impact assessment:

*Option 1 - Baseline Scenario*

This option reflects what would happen if no action is taken.

*Option 2 – Streamlining*

Under this scenario, different alignment options were assessed, in terms of: scope, definitions, monitoring parameters, monitoring plans and templates, verification and transparency.

*Option 3 - High Convergence*

Under this option, the EU MRV Regulation would be amended to harmonise all its technical aspects with the global IMO DCS, at the risk of undermining its expected market impact.

The comparison of the three options led to the following conclusions:

Aligning the definitions, the monitoring parameters and the monitoring plans and templates as appropriate contributes to reducing the administrative burden for shipping companies and national authorities, facilitating compliance with the reporting obligations under the two systems.

At the same time, this does not jeopardise the objectives pursued by the current EU MRV Regulation and its projected positive impacts.

Conversely, aligning aspects such as scope, verification and transparency would severely affect the objectives pursued by the EU MRV Regulation, while not necessarily contributing to the significant reduction of the administrative burden. If there were an alignment on transparency, the benefit of having energy efficiency data available at ship level to incentivise the uptake of such measures would be lost. Aligning verification requirements would mean giving up the homogeneous and independent third party verification system. Finally, an alignment on scope would lead to incomplete information on the EEA related emissions.

Consequently, Option 2 (Streamlining) is the preferred option, and elements such as definitions, the monitoring parameters and the monitoring plans and templates are proposed to be aligned as appropriate.

* **Regulatory fitness and simplification**

The proposed streamlining approach would reduce the compliance efforts compared to a business as usual scenario. As explained above, it would contribute to the reduction of the administrative burden for shipping companies and facilitate compliance with the reporting obligations under the two monitoring, reporting and verification systems. In this context, the proposed review of the EU MRV Regulation is assumed to cover the needs for REFIT requiring exploring the potential for simplification and improving the efficiency of the EU legislation.

* **Fundamental rights**

The proposal respects the fundamental rights and observes the principles recognised in particular by the Charter of Fundamental Rights of the European Union. More specifically, it contributes to the objective of a high level of environmental protection in accordance with the principle of sustainable development as laid down in Article 37 of the Charter of Fundamental Rights of the European Union.

4. BUDGETARY IMPLICATIONS

The proposal has no implication for the Union budget.

5. OTHER ELEMENTS TO BE DEVELOPPED

* **Detailed explanation of the specific provisions of the proposal**

In response to the progress achieved by the Maritime Environmental Protection Committee (MEPC)at its meetings in October 2016 and in July 2017 when adopting relevant guidelines for the global IMO DCS, the Commission has undertaken the analysis under Article 22 of the EU MRV Regulation.

This proposal aims at reducing the administrative burden for ships performing maritime transport activities that are covered by both the EU MRV Regulation and the global IMO DCS while preserving the specific objectives of the EU action in this area.

Therefore, it is proposed to make the following amendments:

1. Definitions of "company" and "reporting period" and also the attribution of monitoring and reporting obligations in case of "changes of company" are to take into account the global IMO DCS parallel provisions. This will ensure that the same legal entities monitor and report according to similarly calculated reporting periods for their ships performing EEA-related maritime transport activities under the EU MRV Regulation and under the global IMO DCS. In order to do so, Article 3 and 11(2) of the EU MRV Regulation will be amended.

2. Global IMO DCS provisions on data to be monitored and reported annually should be taken into account so as to ensure that streamlined data is collected for ships' activities falling under both systems. In order to do so, "deadweight tonnage" should be defined and reported as a compulsory parameter while "cargo carried" is kept as a voluntary monitoring parameter for those companies willing to provide a calculation of their ships' average energy efficiency based on cargo carried. EU Shipping current parameter "time at sea" should be replaced by the global IMO DCS definition of “hours underway". Finally, calculation of “distance travelled” should take as a basis the options retained under relevant IMO DCS guidelines. In order to do so, Articles 6(3), 9(1), 10, 11(3), 21(2) and Annex II, letter A(1) of the EU MRV Regulation will be amended.

3. Minimum content of monitoring plans should be streamlined so as to take into consideration IMO "Guidelines for the development of a Ship Energy Efficiency Management Plan (SEEMP)” except for those provisions which are necessary to ensure that only EU-related data are monitored and reported under the EU MRV Regulation. In order to do so, Article 6(3) of the Regulation will be amended.

On the other hand, some relevant features of the EU MRV Regulation should be maintained. They are as follows:

1. Scope in terms of ships and activities covered under the EU MRV Regulation will be maintained (thus covering the majority of ships above 5000 GT calling at EU ports for maritime transport purposes). Ship activities that are not considered maritime transport such as dredging, laying pipelines and supporting offshore installation activities continue not to be subject to monitoring and reporting requirements.

2. Ships' CO2 emissions within Union ports are also to be monitored and reported separately, so as to incentivise the use of available measures for reduction of CO2 emissions within EU ports and to bring further awareness of shipping emissions. Also data on voyages internal to any EU Member State is to be monitored and reported so as to enable Member States authorities to have robust and comparable data of their national shipping emissions. Current MRV provisions on verification of data by accredited third parties are to be kept so as to preserve the EU objective of providing comparable over time and robust information for further decision making at the EU or at the global level.

3. The EU MRV Regulation provisions on publication of individual ships' data of CO2 emissions and energy efficiency is also to be kept to help remove market barriers hampering the uptake of more energy efficient technologies and behaviours in the sector.

2019/0017 (COD)

Proposal for a

REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

amending Regulation (EU) 2015/757 in order to take appropriate account of the global data collection system for ship fuel oil consumption data

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 192(1) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee[[12]](#footnote-13),

Having regard to the opinion of the Committee of the Regions[[13]](#footnote-14),

Acting in accordance with the ordinary legislative procedure[[14]](#footnote-15),

Whereas:

(1) Maritime transport has an impact on the global climate, as a result of carbon dioxide (CO2) emissions from shipping. In 2015, it emitted 13% of the total Union greenhouse gas emissions from transport[[15]](#footnote-16). International maritime shipping remains the only means of transportation not included in the Union's commitment to reduce greenhouse gas emissions.

(2) All sectors of the economy should contribute to the reduction of greenhouse gas emissions in line with the commitment of the co-legislators as expressed in Regulation (EU) 2018/842 of the European Parliament and of the Council[[16]](#footnote-17) and Directive (EU) 2018/410 of the European Parliament and of the Council[[17]](#footnote-18).

(3) The European Parliament's Resolution of February 2014 on a 2030 framework for climate and energy policies called on the Commission and the Member States to set a binding Union 2030 target of reducing greenhouse gas emissions by at least 40% compared to 1990 levels. The European Parliament also noted that all sectors of the economy would need to contribute to the reduction of greenhouse gas emissions if the Union is to deliver its fair share of global efforts.

(4) In its Conclusions of 24 October 2014, the European Council endorsed a binding Union target of an at least 40% domestic reduction in greenhouse gas emissions by 2030 compared to 1990. The European Council also stated the importance of reducing greenhouse gas emissions and risks related to fossil fuel dependency in the transport sector and invited the Commission to examine further instruments and measures for a comprehensive and technology-neutral approach, including for the promotion of emissions reduction, renewable energy sources, and energy efficiency in transport.

(5) Building on the 2011 Union White paper on transport[[18]](#footnote-19), in 2013 the Commission adopted a strategy for progressively integrating maritime emissions into the Union's policy for reducing greenhouse gas emissions[[19]](#footnote-20).

(6) In April 2015, the European Parliament and the Council adopted Regulation (EU) 2015/757 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport [[20]](#footnote-21) (the “EU MRV Regulation”), which was complemented in 2016 with two Delegated Regulations[[21]](#footnote-22) and two Implementing Regulations[[22]](#footnote-23). The aim of the EU MRV Regulation is to collect data on shipping emissions for further policymaking and to incentivise emission reductions by providing information on ships' efficiency to relevant markets. The EU MRV Regulation obliges companies to monitor, report and verify the fuel consumption, CO2 emissions and energy efficiency of their ships on voyages to and from European Economic Area (EEA) ports on an annual basis, starting from 2018. It also applies to CO2 emissions within EEA ports. The first emissions reports are due by 30 April 2019.

(7) Article 22 of the EU MRV Regulation states that the Commission will, in the event of an international agreement on a global monitoring, reporting and verification system, review the EU MRV Regulation and, if appropriate, propose amendments in order to ensure alignment with that international agreement.

(8) Under the Paris Agreement that was adopted in December 2015 at the 21st Conference of the Parties of the United Nations Framework Convention on Climate Change (UNFCCC)[[23]](#footnote-24), the Union and its Member States have undertaken an economy-wide reduction target. Efforts to limit international maritime emissions through the International Maritime Organisation (IMO) are under way and should be encouraged. The IMO adopted[[24]](#footnote-25) in October 2016 a data collection system for fuel oil consumption of ships ("the global IMO DCS").

(9) Considering the co-existence of these two monitoring, reporting and verification systems, the Commission assessed pursuant to Article 22 of the EU MRV Regulation how to align the two systems so as to reduce administrative burden for ships, while preserving the objectives of the EU MRV Regulation.

(10) The impact assessment indicated that a partial alignment of the two monitoring, reporting and verification systems could contribute to reducing the administrative burden for shipping companies, while preserving the key objectives of the EU MRV Regulation. Such a partial alignment should however not modify the governance, scope, verification, transparency or CO2 reporting requirements of the EU MRV Regulation as it would severely undermine its objectives and affect its capacity to inform future policy-making decisions and to incentivise the uptake of energy efficiency measures and behaviours in shipping. Any amendments to the EU MRV Regulation should therefore limit the alignment with the global IMO DCS in relation to definitions, monitoring parameters, monitoring plans and templates.

(11) Amendments to the EU MRV Regulation should ensure that the same legal entities are responsible for monitoring during similarly calculated reporting periods where a ships activities fall under both systems. Thus definitions concerning companies and reporting periods including reporting in case of change of companies should be amended to take into account the IMO provisions.

(12) Global IMO DCS provisions on data to be monitored and reported annually should be taken into account so as to ensure that streamlined data is collected for ships' activities falling under both systems. In order to do so, the parameter "deadweight tonnage" should be reported but "cargo carried" should remain on a voluntary basis. "Time at sea" should be replaced by the global IMO DCS definition of “hours underway". Finally, calculation of “distance travelled” should be based on global IMO DCS [[25]](#footnote-26) to reduce administrative burden.

(13) Content of monitoring plans should be streamlined so as to take into consideration the global IMO DCS except for the parts of the plan which are necessary to ensure that only Union-related data are monitored and reported under the EU MRV Regulation. Therefore, any "*per voyage*" provisions should remain as part of the monitoring plan.

(14) The deferred date of application is necessary to ensure that on-going monitoring, reporting and verification are implemented consistently for the reporting period.

(15) The objective of Regulation (EU) 2015/757 is to monitor, report and verify CO2 emissions from ships calling at EEA ports as the first step of a staged approach to reduce greenhouse gas emissions. This cannot be sufficiently achieved by the Member States but can rather, by reason of its scale and effects, be better achieved at Union level. The global IMO DCS should be taken into account and this Regulation ensures the continued comparability and reliability of collected data based on a single set of requirements. The Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 of the Treaty on European Union. In accordance with the principle of proportionality as set out in that Article, this Regulation does not go beyond what is necessary in order to achieve that objective.

(16) Regulation (EU) 2015/757 should therefore be amended accordingly,

HAVE ADOPTED THIS REGULATION:

Article 1

1. Article 3 is amended as follows:
   * + 1. point (d) is replaced by the following:

"(d) 'company' means the shipowner or any other organisation or person such as the manager or the bareboat charterer, which has assumed the responsibility for the operation of the ship from the shipowner and has agreed to take over all the duties and responsibilities imposed by Regulation (EC) No 336/2006 of the European Parliament and of the Council;";

* + - 1. point (m) is replaced by the following:

"(m) 'reporting period' means the period from 1 January until 31 December inclusive. For voyages starting and ending in two different calendar years, the respective data shall be accounted under the calendar year concerned;";

* + - 1. a new point (p) is added:

"(p) ‘deadweight tonnage’ means the difference in tonnes between the displacement of a ship in water of relative density of 1025 kg/m3 at the summer load draught and the lightweight of the ship. The summer load draught should be taken as the maximum summer draught as certified in the stability booklet approved by the Administration or an organisation recognised by it.".

1. Article 6 is amended as follows:
   * + 1. paragraph 3 is amended as follows:

(i) points (a), (b) and (c) are replaced by the following:

“(a) the ship particulars, including name, IMO identification number, type of the ship and the name of the company;”;

“(b) a description of the ship's engines and other fuel oil consumers and fuel oil types;”;

“(c) emissions factors;".

(ii) point (d) is deleted;

(iii) point (g) is deleted;

(iv) in point (h), point (iii) is replaced by the following:

"(iii) the procedures, responsibilities, formulae and data sources for determining and recording hours underway;";

(v) point (i) is replaced by the following:

“(i) data quality, including procedures to identify and address data gaps;”;

1. In Article 9, paragraph 1 is amended as follows:
   * + 1. points (e) and (f) are replaced by the following:

"(e) hours underway;”;

“(f) cargo carried, on a voluntary basis;";

1. Article 10 is amended as follows:
   * + 1. points (h) is replaced by the following:

"(h) total hours underway;”;

1. Article 11 is amended as follows:
   * + 1. paragraph 2 is replaced by the following:

"2. Where there is a change of company, the previous company shall submit to the Commission and to the authorities of the flag State concerned, as close as practical to the day of the completion of the change and no later than three months thereafter, a report covering the same elements as the emissions report but limited to the period corresponding to the activities carried out under its responsibility.”;

* + - 1. a new point (xi) is added to paragraph 3(a):

“(xi) deadweight tonnage of the ship;”;

1. In Article 21(2), point (g) is replaced by the following:

"(g) the annual total hours underway;";

1. Annex II is amended in accordance with the Annex to this Regulation.

Article 2

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union.*

It shall apply from 1 January following the year of entry into force of this act. This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,

For the European Parliament For the Council

The President The President

1. https://www.eea.europa.eu/data-and-maps/indicators/transport-emissions-of-greenhouse-gases/transport-emissions-of-greenhouse-gases-10. [↑](#footnote-ref-2)
2. http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Pages/Greenhouse-Gas-Studies-2014.aspx. [↑](#footnote-ref-3)
3. IMO Resolution MEPC.203(62). [↑](#footnote-ref-4)
4. COM (2013) 479. [↑](#footnote-ref-5)
5. Regulation (EU) 2015/757 of the European Parliament and the Council of 29 April 2015 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport and amending Directive 2009/16/EC, *(OJ L 123, 19.5.2015, p. 55)*. [↑](#footnote-ref-6)
6. Commission Delegated Regulation (EU) 2016/2072 on the verification activities and accreditation of verifiers pursuant to Regulation (EU) 2015/757 (OJ L 320, 26.11.2016, p. 5) and Commission Delegated Regulation (EU) 2016/2071 of 22 September 2016 amending Regulation (EU) 2015/757 of the European Parliament and of the Council as regards the methods for monitoring carbon dioxide emissions and the rules for monitoring other relevant information (*OJ L 320, 26.11.2016, p. 1)*. [↑](#footnote-ref-7)
7. Commission Implementing Regulation (EU) 2016/1927 of 4 November 2016 on templates for monitoring plans, emissions reports and documents of compliance pursuant to Regulation (EU) 2015/757 of the European Parliament and of the Council on monitoring, reporting and verification of carbon dioxide emissions from maritime transport *(OJ L 299, 5.11.2016, p. 1–21)* and Commission Implementing Regulation (EU) 2016/1928 of 4 November 2016 on determination of cargo carried for categories of ships other than passenger, ro-ro and container ships pursuant to Regulation (EU) 2015/757 of the European Parliament and of the Council on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport *(OJ L 299, 5.11.2016, p. 22–25 )*. [↑](#footnote-ref-8)
8. Directive (EU) 2018/410, Regulation (EU) 2018/842 and Regulation (EU) 2018/841 on Land Use. [↑](#footnote-ref-9)
9. COM (2016) 501. [↑](#footnote-ref-10)
10. http://www.imo.org/en/OurWork/Environment/PollutionPrevention/AirPollution/Documents/

    Third%20Greenhouse%20Gas%20Study/GHG3%20Executive%20Summary%20and%20Report.pdf. [↑](#footnote-ref-11)
11. http://ec.europa.eu/transparency/regdoc/?fuseaction=ia. [↑](#footnote-ref-12)
12. OJ C […],[…], p.[…]. [↑](#footnote-ref-13)
13. XXX [↑](#footnote-ref-14)
14. XXX [↑](#footnote-ref-15)
15. https://www.eea.europa.eu/data-and-maps/indicators/transport-emissions-of-greenhouse-gases/transport-emissions-of-greenhouse-gases-10. [↑](#footnote-ref-16)
16. Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013 (OJ L 156, 19.6.2018, p. 26). [↑](#footnote-ref-17)
17. Directive (EU) 2018/410 of the European Parliament and of the Council of 14 March 2018 amending Directive 2003/87/EC to enhance cost-effective emission reductions and low-carbon investments, and Decision (EU) 2015/1814 (OJ L 76, 19.3.2018, p. 3). [↑](#footnote-ref-18)
18. https://ec.europa.eu/transport/sites/transport/files/themes/strategies/doc/2011\_white\_paper/white-paper-illustrated-brochure\_en.pdf. [↑](#footnote-ref-19)
19. COM (2013) 479. [↑](#footnote-ref-20)
20. Regulation (EU) 2015/757 of the European Parliament and the Council of 29 April 2015 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport and amending Directive 2009/16/EC, *(OJ L 123, 19.5.2015, p. 55)*. [↑](#footnote-ref-21)
21. Commission Delegated Regulation (EU) 2016/2072 on the verification activities and accreditation of verifiers pursuant to Regulation (EU) 2015/757 of the European Parliament and of the Council on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport (OJ L 320, 26.11.2016, p. 5); Commission Delegated Regulation (EU) 2016/2071 of 22 September 2016 amending Regulation (EU) 2015/757 of the European Parliament and of the Council as regards the methods for monitoring carbon dioxide emissions and the rules for monitoring other relevant information (*OJ L 320, 26.11.2016, p. 1)*. [↑](#footnote-ref-22)
22. Commission Implementing Regulation (EU) 2016/1927 of 4 November 2016 on templates for monitoring plans, emissions reports and documents of compliance pursuant to Regulation (EU) 2015/757 of the European Parliament and of the Council on monitoring, reporting and verification of carbon dioxide emissions from maritime transport (OJ L 299, 5.11.2016, p. 1–21); Commission Implementing Regulation (EU) 2016/1928 of 4 November 2016 on determination of cargo carried for categories of ships other than passenger, ro-ro and container ships pursuant to Regulation (EU) 2015/757 of the European Parliament and of the Council on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport (OJ L 299, 5.11.2016, p. 22–25) [↑](#footnote-ref-23)
23. Paris Agreement (*OJ L 282, 19.10.2016, p. 4–18).* [↑](#footnote-ref-24)
24. IMO Resolution MEPC.278(70) amending MARPOL Annex VI. [↑](#footnote-ref-25)
25. IMO Resolution MEPC 282 (70). [↑](#footnote-ref-26)