

Procedure file

Basic information	
COD - Ordinary legislative procedure (ex-codecision procedure) Directive	2011/0190(COD) Procedure completed
Prevention of pollution from ships: sulphur content of marine fuels Amending Directive 1999/32/EC 1997/0105(SYN)	
Subject 3.20.03 Maritime transport: passengers and freight 3.60.02 Oil industry, motor fuels 3.70.02 Atmospheric pollution, motor vehicle pollution 3.70.05 Marine and coastal pollution, pollution from ships, oil pollution	

Key players			
European Parliament	Committee responsible	Rapporteur	Appointed
	ENVI Environment, Public Health and Food Safety		26/09/2011
		Vers/ALE HASSI Satu	
	Committee for opinion	Rapporteur for opinion	Appointed
	ITRE Industry, Research and Energy	The committee decided not to give an opinion.	
	TRAN Transport and Tourism		30/08/2011
		ALDE SAVISAAR-TOOMAST Vilja	
Council of the European Union	Council configuration	Meeting	Date
	Transport, Telecommunications and Energy	3196	29/10/2012
	Environment	3139	19/12/2011
European Commission	Commission DG	Commissioner	
	Environment	POTOČNIK Janez	
European Economic and Social Committee			
European Committee of the Regions			

Key events			
15/07/2011	Legislative proposal published	COM(2011)0439	Summary
13/09/2011	Committee referral announced in Parliament, 1st reading		
19/12/2011	Debate in Council	3139	Summary
16/02/2012	Vote in committee, 1st reading		

27/02/2012	Committee report tabled for plenary, 1st reading	A7-0038/2012	Summary
11/09/2012	Results of vote in Parliament		
11/09/2012	Debate in Parliament		
11/09/2012	Decision by Parliament, 1st reading	T7-0315/2012	Summary
29/10/2012	Act adopted by Council after Parliament's 1st reading		
21/11/2012	Final act signed		
21/11/2012	End of procedure in Parliament		
27/11/2012	Final act published in Official Journal		

Technical information

Procedure reference	2011/0190(COD)
Procedure type	COD - Ordinary legislative procedure (ex-codecision procedure)
Procedure subtype	Legislation
Legislative instrument	Directive
	Amending Directive 1999/32/EC 1997/0105(SYN)
Legal basis	Treaty on the Functioning of the EU TFEU 192-p1
Mandatory consultation of other institutions	European Economic and Social Committee European Committee of the Regions
Stage reached in procedure	Procedure completed
Committee dossier	ENVI/7/06591

Documentation gateway

Legislative proposal		COM(2011)0439	15/07/2011	EC	Summary
Document attached to the procedure		SEC(2011)0918	15/07/2011	EC	
Document attached to the procedure		SEC(2011)0919	15/07/2011	EC	
Amendments tabled in committee		PE478.489	16/12/2011	EP	
Committee draft report		PE475.799	21/12/2011	EP	
Committee opinion	TRAN	PE474.004	17/01/2012	EP	
Economic and Social Committee: opinion, report		CES0151/2012	18/01/2012	ESC	
Committee report tabled for plenary, 1st reading/single reading		A7-0038/2012	27/02/2012	EP	Summary
Text adopted by Parliament, 1st reading/single reading		T7-0315/2012	11/09/2012	EP	Summary
Commission response to text adopted in plenary		SP(2012)665	11/10/2012	EC	
Draft final act		00031/2012/LEX	21/11/2012	CSL	

Follow-up document	COM(2013)0475	28/06/2013	EC	Summary
Additional information				
National parliaments	IPEX			
European Commission	EUR-Lex			
Final act				
Directive 2012/33 OJ L 327 27.11.2012, p. 0001 Summary Final legislative act with provisions for delegated acts				

Prevention of pollution from ships: sulphur content of marine fuels

PURPOSE: to amend Directive 1999/32/EC as regards the sulphur content of marine fuels with a view to reducing air pollution and improve human health and the environment.

PROPOSED ACT: Directive of the European Parliament and of the Council.

BACKGROUND: the EU actions over the past decades have resulted in a considerable reduction of emissions of most air pollutants, including sulphur dioxide (SO₂), nitrogen oxides (NO_x), volatile organic compounds, ammonia and particulate matter (PM). The greatest share of these reductions has been achieved by land-based emission sources such as industrial plants or road transport. Evidence shows that further reduction of such pollutants will deliver significant benefits to the health of EU citizens, the environment, and the economy at large. Projections made in 2005 showed that without further regulatory action the continued growth in emissions of SO₂ and NO_x from the maritime sector will surpass total emissions of these pollutants from all land-based sources by 2020.

Directive 1999/32/EC as amended regulates the sulphur content of fuels used by maritime transport and incorporates certain rules, agreed under the International Maritime Organisation (IMO), into EU law. In particular, the Directive incorporates more stringent rules on sulphur content of marine fuels to be used in areas in need of special environmental protection, the Sulphur Emission Control Areas (SECAs).

Since the amendment of the Directive in 2005, and with strong EU support, IMO rules, among others in relation to SO₂, were revised in October 2008. These rules are contained in Annex VI of the Marine Pollution Convention 73/78 (Revised MARPOL Annex VI).

The revised Annex VI to MARPOL entered into force on 1 July 2010. It introduces, inter alia, stricter sulphur limits for marine fuel in SECAs (1.00% as of 1 July 2010 and 0.10% as of 1 January 2015) as well as in sea areas outside SECAs (3.5% as of 1 January 2012 and, in principle, 0.50% as of 1 January 2020).

Most Member States are obliged to require ships to use fuel with maximum 1.00% sulphur content in SECAs as of 1 July 2010 based on their international commitments. In order to ensure coherence with international law as well as to secure proper enforcement of new globally established sulphur standards in the Union, the provisions of Directive 1999/32/EC should be aligned with the revised Annex VI to MARPOL.

IMPACT ASSESSMENT: in its analysis, the Commission:

- confirms the cost-effectiveness of the full alignment of the Directive with the IMO stricter fuel standards and the rules on emission abatement methods;
- recommends maintaining the link between the stricter fuel standards in SECAs and those applying for passenger ships on a regular service outside SECAs. However, the introduction of a new SECA standard for passenger ships would be delayed by 5 years in order to avoid potential problems with fuel availability. The benefit to cost ratios for this option range from 1.5 to 6 (if the 0.1% standard is introduced in 2020) and from 0.8 to 10 (if the 0.1% standard is introduced in 2025);
- suggests to first develop guidance on monitoring and implementation of the Directive and, should this approach fail, to consider adopting binding rules;
- recommends that the European Commission and Member States use and, where possible and necessary, adapt existing instruments, to assist industry in the transition towards the new best available technology standards.

LEGAL BASIS: Article 192(1) of the Treaty on the Functioning of the European Union (TFEU).

CONTENT: this proposal is consistent with the EU 2020 Strategy and its associated flagship initiatives, notably those relating to the [low carbon society roadmaps](#) and [innovation Union](#), as well as existing EU policies for sustainable transport.

The purpose of this proposal is to revise Directive 99/32/EC on the sulphur content of certain liquid fuels with the aim to:

- (1) align the Directive with the IMO rules on fuel standards, including the standards applicable outside SECAs;
- (2) align the Directive with the IMO rules on the emission abatement methods;
- (3) maintain the link between the stricter fuel standards in SECAs (now requiring maximum sulphur content of marine fuel of 1.5% and from 2015 - 0.1%) and those applying for passenger ships on a regular service outside SECAs (at the moment 1.5%);
- (4) strengthen EU monitoring and enforcement regime.

According to the Commission, the main advantages of the proposed Regulation are as follows:

- incorporating the international fuel standards into EU law would strengthen the effectiveness of these standards as they would be

- monitored and enforced under the EU regime, which is more effective than the international enforcement system;
- extended access to and promoting the use of innovative emission abatement methods as an equivalent compliance option addresses concerns about the cost implications resulting from the new IMO rules for certain industries. This would significantly lower the IMO compliance costs (by 50% to 88%) and promote innovative industry solutions, in line with the priorities of the Europe 2020 Strategy and Article 3 of the Treaty on European Union (TEU);
- stricter fuel standards for passenger ships on a regular service, which operate mostly in ports or close to shore, would ensure improvement of air quality in coastal areas. The introduction of the stricter fuel standard for passenger ships would be delayed by 5 years in comparison with SECAs in order to avoid potential problems with fuel availability;
- lastly, strengthening EU monitoring and enforcement regime is particularly important considering that the significantly stricter fuel standards and the associated compliance costs may increase the incentives for circumvention.

BUDGETARY IMPLICATION: this proposal has no budgetary implication for the Union budget.

Prevention of pollution from ships: sulphur content of marine fuels

The Council took note of a progress report on the proposal for a directive amending directive 1999/32/EC as regards the sulphur content of marine fuels. The Council will pursue its work on the text under the incoming Danish Presidency.

- Member states in general welcomed the report and several ministers underlined the harmful effects for human health of emissions from shipping due to the combustion of marine fuels with a high sulphur content, which contribute to air pollution in the form of sulphur dioxide and particulate matter, thus also causing acidification.
- Several member states and the Commission called for the application of stricter fuel quality standards applicable to SO₂ Emission Control Areas (SECAs) to all territorial waters of the EU Member States. However, some ministers pointed out that this could lead to distortions of competition, since other non-EU countries will not apply the same rules and therefore any SECAs enlargement should only be done within the framework of the IMO.

Furthermore, a number of ministers also expressed concerns regarding the fact that adapting vessels to comply with the new rules would imply additional costs for ship owners and required a transitional period. Some member states also voiced doubts on the availability of low sulphur fuels from the date of entry into force of the directive.

Prevention of pollution from ships: sulphur content of marine fuels

The Committee on the Environment, Public Health and Food Safety adopted the report by Statu HASSI (Greens/EFA, FI) on the proposal for a directive of the European Parliament and of the Council amending Directive 1999/32/EC as regards the sulphur content of marine fuels.

The committee recommends that the European Parliaments position in first reading following the ordinary legislative procedure should amend the Commission proposal as follows:

Biofuels: stressing that the use of biofuels is already today technically possible for vessels, Members consider that the Directive clearly allow bio-fuels to be used.

Maximum sulphur content of marine fuels used in SO_x Emission Control Areas and by passenger ships operating to or from Union ports:

- Members propose that SECA bordering Member States must be allowed to compensate temporarily through state aid the costs for the enterprises that are under global competition and which are exposed to significant costs related to sulphur regulation. The Commission shall adopt at the latest by the end of 2013 guidance on applicable state aid rules to be followed in this regard.
- The report states that marine fuels should not be used in the areas of their territorial seas, exclusive economic zones and pollution control zones if the sulphur content of those fuels by mass exceeds: (a) 3.50 % as of 1 January 2012; (b) 0.50 % as from 1 January 2015; (c) 0.10 % as from 1 January 2020.
- In the event of non-compliance with these and after examination of all pieces of evidence, authorities exercising Port State Control shall be empowered to detain the ship until the violation has been rectified. On-compliant vessels shall be required to de-bunker and be subject to a penalty for each violation per day.
- By way of derogation, where conformity with the limit values result in a significant negative social impact on local communities living on islands in the outermost regions of the Union and on the whole or part of the territory of Greece, the Member States concerned may postpone by a maximum of five years the deadlines referred to in that paragraph with regard to a limited number of passenger ships operating on regular services on routes between Union ports, provided that the relevant air quality standards are respected.
- Furthermore, Member States shall take all necessary measures to ensure that marine fuels are not used in their territorial seas and pollution control zones falling outside SO_x Emission Control Areas by any ships to or from any Union port if the sulphur content of those fuels by mass exceeds 0.10 % as from 1 January 2015. This shall apply to all vessels of all flags, including vessels whose journey began outside the Union.

Maximum sulphur content of marine fuels used by ships on inland waterways, and by any ships at berth in Union ports: the report notes that under the current regime, different sulphur limit values apply to ocean-going ships and inland vessels, even though they sail in the same estuary. Members propose to remedy this and align the sulphur content of marine fuels used by ships on inland waterways, in the territorial seas of the Union or by any ships at berth in Union ports with the values contained in Directive 98/70/EC from 1 January 2015.

Availability of marine fuels: Member States shall take the necessary measures to ensure the availability and balanced distribution of marine fuels where the sulphur content does not exceed 0,10% as from 1 January 2015.

Equivalents: the Administration of a Member State may allow any fitting, material, appliance or apparatus to be fitted in a ship or other procedure, alternative fuel oil or compliance method used as an alternative to that required by this Directive if such fitting, or other procedure,

alternative fuel oil or compliance method is at least as effective in terms of emissions reductions as that required by the Directive.

Use of new technologies for emission reduction: the proposal provides that ships using the emission abatement methods shall continuously achieve reductions of sulphur dioxide emissions that are at least equivalent to the reductions that would be achieved by using marine fuels that meet the requirements of the directive. Members propose to delete the word continuously so as to ensure that scrubbers which may temporarily fall out of compliance are still permitted under the Directive. The deletion would also allow for the use of other compliance methods such as averaging.

Member States shall, as an alternative solution for reducing emissions, encourage the use of onshore power supply systems by docked vessels.

Members also state that port authorities must include in the harbour fee or other charges any costs of reception, handling and disposal of effluents from exhaust gas cleaning systems in accordance with Directive 2000/59/EC, irrespective of whether or not wastes are delivered.

Fuel oil availability: the report inserts a new provision stating that if a ship is found by a Member State not to be in compliance with the standards for compliant fuel oils set out in the Directive, the competent authority of the Member State may require the ship to: (a) present a record of the actions taken to attempt to achieve compliance; and (b) provide evidence that it attempted to purchase compliant fuel oil in accordance with its voyage plan and, if it was not made available where planned, that attempts were made to locate alternative sources for such fuel oil and that despite best efforts to obtain compliant fuel oil, no such fuel oil was made available for purchase.

Reports and review: the Commission shall, by 31 December 2013, submit a report which shall be accompanied, if appropriate, by legislative proposals. The Commission shall consider in its report:

- potential impacts on the internal market, in particular regarding competitiveness, from the application of different emissions standards in the Union ;
- the designation of additional SO_x and NO_x Emission Control Areas;
- quality standards for marine fuel oils along the lines of those applicable to Directive 98/70/EC;
- additional or alternative complementary measures to further reduce emissions from ships.'

The Commission shall also carry out an impact assessment of this Directive and by the end of 2012 propose a set of compensatory measures to diminish the negative impacts on shipping industries throughout the Union.

Prevention of pollution from ships: sulphur content of marine fuels

The European Parliament adopted by 606 votes to 55, with 13 abstentions, a legislative resolution on the proposal on the proposal for a Directive of the European Parliament and of the Council amending Directive 1999/32/EC as regards the sulphur content of marine fuels.

Parliament adopted its position on first reading following the ordinary legislative procedure. The agreement was the result of a compromise negotiated between Parliament and Council. The main amendments to the proposal are as follows:

Definitions: according to the amended text:

Heavy fuel oil means:

- any petroleum-derived liquid fuel, excluding marine fuel, falling within CN code 2710 19 51 to 2710 19 68, 2710 20 31, 2710 20 35, 2710 20 39, or
- any petroleum-derived liquid fuel, other than gas oil as defined in points 2 and 3, which, by reason of its distillation limits, falls within the category of heavy oils intended for use as fuel and of which less than 65% by volume (including losses) distils at 250 o C by the ASTM D86 method. If the distillation cannot be determined by the ASTM D86 method, the petroleum product is likewise categorised as a heavy fuel oil;

Gas oil means:

- any petroleum-derived liquid fuel, excluding marine fuel, falling within CN code 2710 19 25, 2710 19 29, 2710 19 47, 2710 19 48, 2710 20 17 or 2710 20 19, or
- any petroleum-derived liquid fuel, excluding marine fuel, of which less than 65% by volume (including losses) distils at 250 o C and of which at least 85% by volume (including losses) distils at 350 o C by the ASTM D86 method.

Diesel fuels, as defined in Directive 98/70/EC relating to the quality of petrol and diesel fuels, are excluded from this definition. Fuels used in non-road mobile machinery and agricultural tractors are also excluded from this definition.

Maximum sulphur content in marine fuel: Member States shall:

- ensure that marine fuels are not used within their territory if their sulphur content exceeds 3,50% by mass, except for fuels supplied to ships using emission abatement methods operating in closed mode;
- take all necessary measures to ensure that marine fuels are not used in the areas of their territorial seas, exclusive economic zones and pollution control zones if the sulphur content of those fuels by mass exceeds 3.50% as from 18 months following the entry into force of the Directive;
- take all necessary measures to ensure that marine fuels are not used in their territorial seas, exclusive economic zones and pollution control zones falling outside SO_x Emission Control Areas by passenger ships operating on regular services to or from any Union port if the sulphur content of those fuels exceeds 1,50% by mass until 1 January 2020. Member States shall be responsible for the enforcement of this requirement at least in respect of vessels flying their flag and vessels of all flags while in their ports.

Availability of marine fuels that comply with this Directive: Member States shall endeavour to ensure the availability of marine fuels which comply with this Directive and inform the Commission of the availability of such marine fuels in its ports and terminals.

If a ship is found by a Member State not to be in compliance with the standards for marine fuels which comply with this Directive, the

competent authority of the Member State is entitled to require the ship to:

- present a record of the actions taken to attempt to achieve compliance; and
- provide evidence that it attempted to purchase marine fuel which complies with this Directive in accordance with its voyage plan and, if it was not made available where planned, that attempts were made to locate alternative sources for such marine fuel and that, despite best efforts to obtain marine fuel which complies with this Directive, no such marine fuel was made available for purchase.

The ship shall not be required to deviate from its intended voyage or to delay unduly the voyage in order to achieve compliance. A port State shall notify the Commission when a ship has presented evidence of the non-availability of marine fuels which comply with this Directive.

Member States shall ensure that marine diesel oils are not placed on the market in their territory if the sulphur content of those marine diesel oils exceeds 1.50% by mass.

Emission abatement methods: Member States shall, as an alternative solution for reducing emissions, encourage the use of onshore power supply systems by docked vessels.

Where justified in the light of scientific and technical progress regarding alternative emission abatement methods and in such a way as to ensure strict consistency with the relevant instruments and standards adopted by the IMO, the Commission shall i) be empowered to adopt delegated acts in accordance with Article 9a amending Annexes I and II; ii) adopt implementing acts laying down the detailed requirements for monitoring of emissions, where appropriate.

Financial measures: Member States may adopt financial measures in favour of operators affected by this Directive where such financial measures are in accordance with State aid rules applicable and to be adopted in this area.

Report and follow-up: by 31 December 2013, the Commission shall submit a report to the European Parliament and to the Council which shall be accompanied, if appropriate, by legislative proposals. The Commission shall consider in its report the potential for reducing air pollution taking into account, inter alia: annual reports submitted in accordance with paragraph 1 and 1a; observed air quality and acidification; fuel costs; potential economic impact and observed modal shift; and progress in reducing emissions from ships.

The Commission shall, in cooperation with Member States and stakeholders, by 31 December 2012, develop appropriate measures promoting compliance with the environmental standards of this Directive, and minimising the possible negative impacts.

Penalties: Member States shall determine the penalties applicable to breaches of the national provisions adopted pursuant to this Directive. The penalties determined must be effective, proportionate and dissuasive and may include fines calculated in such a way as to ensure that the fines at least deprive those responsible of the economic benefits derived from their infringement and that those fines gradually increase for repeated infringements.

Prevention of pollution from ships: sulphur content of marine fuels

PURPOSE: to amend Directive 1999/32/EC as regards the sulphur content of marine fuels with a view to reducing air pollution and improve human health and the environment.

LEGISLATIVE ACT: Directive 2012/33/EU of the European Parliament and of the Council amending Council Directive 199/32/EC as regards the sulphur content of marine fuels.

CONTENT: following an agreement at first reading with the European Parliament, the Council adopted a Directive amending Directive 1999/32/EC as regards the sulphur content of marine fuels.

Emissions from shipping due to the combustion of marine fuels with a high sulphur content contribute to air pollution in the form of sulphur dioxide and particulate matter, which harm human health and the environment and contribute to acid deposition. This Directive therefore seeks to amend Directive 1999/32/EC in order to substantially reduce these emissions by making the most recent International Maritime Organisation (IMO) rules with respect to marine fuels binding in the EU.

The main changes introduced by the Directive are as follows:

Maximum sulphur content: in order to ensure coherence with international law as well as to secure proper enforcement of new globally established sulphur standards in the Union, Directive 1999/32/EC is aligned with the revised Annex VI to MARPOL. In accordance with this revised annex:

- the maximum sulphur content of marine fuels used in SO_x Emission Control Areas is set at: (i) 1% until 31 December 2014 and (ii) 0.1% as from 1 January 2015;
- the maximum sulphur content of marine fuels used in maritime areas not in SO_x Emission Control Areas is set at: (i) 3.5% as from 18 June 2014 and (ii) 0.5% as from 1 January 2020.

Member States shall:

- ensure that marine fuels are not used within their territory if their sulphur content exceeds 3.5 % by mass, except for fuels supplied to ships using emission abatement methods operating in closed mode;
- ensure that gas oils are not used within their territory if their sulphur content exceeds 0.1% by mass;
- take all necessary measures to ensure that marine fuels are not used in their territorial seas, exclusive economic zones and pollution control zones falling outside SO_x Emission Control Areas by passenger ships operating on regular services to or from any Union port if the sulphur content of those fuels exceeds 1.5 % by mass until 1 January 2020.

Member States shall endeavour to ensure the availability of marine fuels which comply with this Directive and inform the Commission of the availability of such marine fuels in its ports and terminals.

Member States shall, as an alternative solution for reducing emissions, encourage the use of onshore power supply systems by docked vessels.

Financial measures: Member States may adopt financial measures in favour of operators affected by this Directive where such financial

measures are in accordance with State aid rules applicable and to be adopted in this area.

Member States may, in cooperation with other Member States, as appropriate, approve trials of ship emission abatement methods on vessels flying their flag, or in sea areas within their jurisdiction.

Penalties: Member States shall determine the penalties applicable to breaches of the national provisions adopted pursuant to this Directive. The penalties determined must be effective, proportionate and dissuasive and may include fines calculated in such a way as to ensure that the fines at least deprive those responsible of the economic benefits derived from their infringement and that those fines gradually increase for repeated infringements.

Report and monitoring: by 31 December 2013 the Commission shall submit a report to the European Parliament and to the Council which shall be accompanied, if appropriate, by legislative proposals. The Commission shall consider in its report the potential for reducing air pollution taking into account, inter alia: annual reports; observed air quality and acidification; fuel costs; potential economic impact and observed modal shift; and progress in reducing emissions from ships.

ENTRY INTO FORCE: 17/12/2012.

TRANSPOSITION: no later than 18/06/2014.

DELEGATED ACTS: the Commission shall be empowered to adopt delegated acts to amend the provisions of Directive 1999/32/EC to scientific and technical progress and in such a way as to ensure strict consistency with the relevant instruments of the IMO. The power to adopt delegated acts shall be conferred on the Commission for a period of five years from 17 December 2012 (a period that may be tacitly extended for periods of an identical duration, unless Parliament or the Council objects). A delegated act shall enter into force only if no objection has been expressed either by the European Parliament or the Council within a period of three months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by three months at the initiative of the European Parliament or of the Council. If the European Parliament or the Council objects, the delegated act does not enter into force.

Prevention of pollution from ships: sulphur content of marine fuels

This is the First Progress report prepared by the Commission on the implementation of its Staff Working Paper "Pollutant emission reduction from maritime transport and the Sustainable Waterborne Transport Toolbox" (also known as the toolbox). It covers the period September 2011 to January 2013.

To recap, the toolbox accompanied the proposal for an amendment to Directive 1999/32/EC transposing the 2008 International Maritime Organization (IMO) standards on the maximum level of sulphur permitted for fuels used in the shipping sector. It proposed a number of short-term accompanying measures, under the current financial perspective, to reduce compliance costs in relation to the new low sulphur standards, as well as a set of medium and longer-term accompanying measures aimed at addressing the environmental challenges confronting the EU shipping sector from a broader perspective and in a more integrated manner.

The report presents the current state of implementation of the measures set out in the toolbox and puts forward proposals for closer cooperation between the Commission, Member States and industry stakeholders to manage the implementation of the measures and provides a means for developing additional measures where appropriate.

The report briefly describes the progress to date related to the short-term accompanying measures, which were aimed at ensuring that current EU financial instruments, and national funding schemes, would continue to provide specific support to maritime-based projects which focused on promoting solutions complying with the new low sulphur standard.

Work on the formulation of medium and longer-term accompanying measures has already commenced with a set of actions focusing on identifying and addressing the regulatory gaps hampering the safe and secure implementation of clean ship technologies and use of alternative fuels, notably marine LNG, as well as on the development of the necessary standards and green infrastructure.

The report briefly outlines the way forward for the Commission, Member States, and industry stakeholders to jointly progress the toolbox implementation. In this context, the Commission proposes the creation of a dedicated expert group the European Sustainable Shipping Forum (ESSF).

Next steps: the ESSF will provide a platform for a structural dialogue, exchange of best practices and technical knowledge, cooperation, and coordination amongst relevant public and private maritime industries' stakeholders and relevant Commission services in areas jointly identified. The ESSF will be assisted by technical working groups which will focus in the first instance on scrubbing technology and marine LNG deployment, coordination of research and development activities and innovation (working on the basis of the broader research and development orientations provided by the WATERBORNE Technology Platform), financing aspects and exchange of best practices for the implementation of Directive 2012/33/EU.

Annex 1 to this report presents a Roadmap for advancing the implementation of the Sustainable Waterborne Transport Toolbox and Annex 2 lists the TEN-T co-funded Motorways of the Sea (MoS) and ports projects in support of the low sulphur political priority.