European Sustainable Shipping Forum
3rd Plenary Meeting
Brussels, 04 December 2014

Final Report Submission from ESSF Sub-Groups

Submission from:

ESSF sub-group on Financing

This document reflects the outcomes of deliberations of the Financing subgroup of the European Sustainable Shipping Forum of which the European Commission is part. It is not an official document adopted by the European Commission.

1. INTRODUCTION

Mandate and achievements of the sub-group

The Sub-group on Financing Aspects was set up under the ESSF plenary (the 27th of November 2013). It aims to advance the implementation of the Sustainable Waterborne Transport Toolbox for a cost efficient and coherent implementation of the directive 2012/33/EU by exploring all financing opportunities, assess and recommend financial mechanisms within and beyond the EU financial framework. The report on the activities of the group during 2014 underlines that:

1. the challenges of SECA provisions reveal specific costs for existing financial mechanisms so as the sub-group has to work on the specific solutions to finance environmentally-friendly devices (having precised that financial supports should focus on healthy companies according with risk absorption policy of every financial institutions);
2. ESSF works accompany a shift towards a wider utilization of public financial instruments;
3. flexibility and innovative ways of financing may overcome existing barriers and leverage private financing to support a greener SECA shipping;
4. some best practices for access to public and private investments may inspire economic operators;
5. specific documents in annexes will advice those who seek financing.
This Sub-group consists of representatives of ship-owners, representatives of ports, of manufacturers and shipyards, representatives of Member States and experts in shipping who worked with INEA, DG MOVE, EIB and EMSA’s European functionaries. It has examined public financial supports and pointed to the need for leveraging private financing to offer a complete solution for operators involved with SECA’s compliance investments.

After the ESSF meeting 26 June 2014 a joint meeting between the Sub-group on Financing and the Sub-group on Competitiveness was held 25 September 2014. A central outcome of this meeting was a decision on a joint ECSA, Commission and INEA meeting on the industry’s need for financing in relation to “the ideas for a private public partnership (PPP) retrofit fund and/or bond instrument for financing environmental SECA retrofit investments for the existing fleet on the basis of mature technology.”, re. the recommendation to the Plenary’s meeting 26 June.

Furthermore, the retrofit bond/instrument could be expanded to energy-efficiency investments and thereby improving the business case for SECA retrofit investments.

The Connecting Europe Facility (CEF) through the new financial instruments can create the necessary leverage for a fund/bond instrument.

2. ANALYSIS OF FINDINGS

1. The state of play and the potential and conditions of all relevant private and public financial mechanisms

The sulphur rules apply to every ship, both new-building and existing vessels: the Directive refers to international Convention (Marpol, Annex VI) of which retroactivity implies specific costs for vessels whatever the strategy adopted by shipowners.

The costs entailed by the different ways to comply with the rules are, for the present time, far from allowing a possible return on investment : to become attractive solutions for investors, they need for mechanized process of installation or mature grids for the supply of bunkering provisions (LNG for example).

Shipowners can switch to desulphured fuels (<0,1%) and accept a significant increase of OPEX (operational costs) without investing a lot (conversion of the motors needs limited operations at a cost estimated from 100 000 to 200 000€). The choice of low-sulphured fuels implies a higher and fluctuating cost of MGO versus HFO despite the recent decrease of the oil prices. The differential of prices may approach 30 to 40 % of the current bunkering prices. The cost may grow higher if the distance crossed in SECA is longer. On the long term evolution, MGO’s prices should fluctuate a lot but shall remain costlier than HFO and may aggravate the voyage costs as far as threatening the competitiveness of shortsea shipping companies.

Shipowners can invest in abatement technologies such as exhaust gas cleaning systems (scrubbers) and new motorisations with appropriate tanks for the use of LNG). Such choices imply high investments which may represent an impediment in the context of shipping crisis.

Eventually, a strategy of investment in abatement technologies may be economical
Despite the important initial costs. For scrubbers (estimated at 4 M€ on purchase), the cost of an installation may extend to 15M€ (depending on both the kind of technology and the type of the vessel). For LNG retrofitting, prices may start from 12M€ to more than 30M€. The scale of the works nears new-build costs rather than repairs and maintenance operations. A document in the annex lays out the main costs for different types of vessels.

Some shipowners have released some estimated general costs: it was mentioned that the implementation of Annex VI Marpol costs the sector 3 billion euros (integrating other charges of compliance within a general increase of the environmental requirements). It appears that the cost of compliance may carry weight in several sectors and principally on short-sea shipping. If most shipowners can pass on the costs in the prices they charge because of the lack of transport alternatives, shortsea shipping has to compete with multi-modal ways which aren’t affected by the new rules (aerian and land-based services of transport) despite big differences in economic strengths and competitiveness.

Long-trip ships shall switch to MGO while entering SECA whereas feeders and ferries which operate quite totally within SECA will not bear the operational costs in the same way. For instance, the exploitation of ferries reveals specific questions and needs tailored solutions because these expensive ships entail higher costs for SECA compliance with adapted scrubbers for ferries, or special LNG retrofittings. Exploitation life of these ships is longer than other ships (25 to 30 years); the renewal of the fleets is slower elsewhere. We should take into consideration the lower mobility for ferries (links adapted and connected to ports infrastructures) limiting their second-hand market; profits may be weaker and contained within narrow spreads (compared to freight shipping) whereas the modal competition (air, railways and roads) limits the capacity to modify the prices according to the new costs.

Seeking financing solutions for their compliance strategies, shipowners have to succeed in a context of lower margins because of a six-year on-going crisis in the shipping (low charters-rate and weak cashflows) whereas the access for liquidity and maritime loans particularly narrowed. Commercial banks have reduced their exposure to maritime sector and made more severe their criteria of risks analysis before granting any loan.

However, the task of the sub-group should not consist in seeking a global response to the crisis in the sector or to tackle with particular economic difficulties. Anyway, financial solutions have to comply with the EU framework and its guidelines. Whatever the way of financing (private or public), the applicant(s) must have the financial capacity to complete the action for which the grants are sought. State aids and European funding cannot support enterprises in difficulty and banks incur sanctions if they provide « abusive support » to entities without creditworthiness. Moreover, difficulties arise from several and mixed reasons so that problems may not be caused solely by the requirements following the entry-into-force of Marpol Annex VI.

The dilemma between investing in abatement technologies (CAPEX) or bearing the increasing bunkering charges (OPEX) remains the central uncertainty. Each solution leans upon different evolutive scenarii which could jeopardize the financial strategies. Without a clear vision of bunkering future prices (and the risks of a shortfall of appropriate fuels implying soaring costs) or a complete analysis of feasability on abatement technologies (keeping in mind technical, environmental and economic risks), environmental projects might keep investors at bay
2. Analysis of the performance and utilization of existing financial instruments

Although several financial support programmes exist at EU level, the TEN-T Programme from 2007-2013 has been the main programme offering grant funding support available for retrofitting of the affected vessels in case of investing strategy in abatement technologies within its particular rules (rates of co-financing, sizes of its budgets).

EU financial support directly for TEN-T projects comes in two forms: grants and financial instruments. Grants are implemented and managed by INEA, the financial instruments are implemented and managed by the EIB. The financial instruments offered through either the TEN-T Programme or now through the CEF, are often referred to as risk-sharing instruments because the EU funds from the Commission are used to risk-share with the EIB. Therefore the EIB can offer better terms and consider projects with higher risk than their usual guidelines allow. The most visible example of this is the project bond instrument, which was piloted in the TEN-T Programme.

There are two main points respecting the CEF:

- Grants: the eligibility of investments to receive grant funding and the amount of grant funding available have increased relative to the TEN-T programme;
- Financial instruments: the flexibility to develop new financial instruments, such as the possibility of a dedicated investment vehicle (the retrofit fund/bond), is much greater under CEF than it was under the TEN-T Programme. There is a need for an ex-ante assessment to confirm the need for a new financial instrument, but the possibility exists. A key conclusion of the work of the ESSF group should be to support an ex-ante assessment for the development of a financial instrument for sustainable shipping issues, notably improving environmental performance and increasing energy efficiency. Some of the output of the ESSF sub-group makes a contribution to this assessment.

Although the TEN-T Programme also offered financial instruments such as the LGTT and the pilot phase of the project bond instrument through the EIB, both instruments targeted primarily large infrastructure projects procured as project finance investments. The range of financial instruments offered under the Connecting Europe Facility can be expanded and thus creates opportunities for the development of financial instruments more targeted to the needs of the ESSF stakeholders.

As a first Work-Package, some shortcomings of the TEN-T Programme were analysed by shipowners (Brittany Ferries and Interferry). The historic focus of the TEN-T co-funding aims at infrastructure while ships are generally not considered to be infrastructure. Ferry companies will have to adapt their entire fleet while TEN-T grant-funding for ship retrofits has been focused on pilot projects and not implementing of fleet equipment, in particular for innovative elements. Scarcely, limited operations on ships reach international level for partnerships which are required to get European visibility (involving at least two Member States).

Both DG MOVE and INEA provided an in-depth reply to the requests. Although it's impossible to solve the challenges, CEF provide a real leverage instrument. At first, the amount of grant-funding available for maritime projects have been increased in the
transport sector of the new Connecting Europe Facility (with €250M for the Motorways of the Seas plus an additional €100 M for Member states eligible to cohesion funding in 2014 and with additional allocations under other priorities and objectives of the call). The available amount granted to improve the environmental performance of maritime transport shall be higher than the previous one in the entire financial framework (up to €900 million for MoS plus additional allocations under other objectives).

Innovative pilot actions which foresee 50% of co-funding should have a clear innovative element. Otherwise, the 30% co-funding rate applies and the ‘up-grading’ of Motorways of the Seas link’ requires a consortium of at least two ports and a shipowner operating between those ports. The pre-selection required in the previous programme at regional level disappears under the CEF.

The last Call under the former TEN-T Programme, launched in December 2013 allowed applications of maritime projects focused on Marpol Annex VI requirements: scrubbers and LNG were considered as a priority. Several projects were recommended by INEA and its experts for co-funding under the multi-annual work programme.

The European Investment Bank offers different available mechanisms for financing shipping sector which consists of project loans and intermediate loans. Project loans can be directly borrowed for individual projects for which the total investment costs exceed €25 million and can cover up to 50% of the total cost for both public and private sector borrowers. EIB pays special attention that the ships it finances use the best available technologies and that the borrowers use sound environmental management practices.

It was mentioned that for many shipowners, especially in relation to retrofitting, the required €25 million as minimum loan is often too high. The Bank’s intermediated loans are loans below the €25 million provided through local banks and other intermediaries. However, this mechanism does not help the applicants since the risk remains with the local bank: it implies that nothing changes in comparison with normal private lending. Only companies with an excellent credit rating can still profit of the system which doesn’t share the risks between local banks and EIB.

State aids complete the public support. They depend on national policies and are based on EU guidelines (especially for environmental protection).

The updated guidelines include state-aid for the purpose of compliance above existing standards (can be granted up to 60% in the case of small companies, 50% for SMEs and 40% for large companies) and aid for early adaptation. However, since the low sulphur requirements already enter into force on 1/1/2015 and is mandatory for all ships, the so-called ‘incentive effect’ for such early adaptation is not applicable. State-aid for retrofitting can be given to one year before the entry into force of the new requirements.

In case of a scheme for aid to go beyond applicable standards, this would have to go below the 0,1% which would work for LNG fuelled vessels which have basically 0% sulphur emissions. However in that case the aid can only be granted to the involved costs for going beyond the existing standard of 0,1% (so the margin from 0,1% to 0% sulphur emissions). Scrubbers\(^1\) which also may provide an improvement of CO2 and PM

\(^1\) The superior performance of vessels burning HFO in combination with a scrubber with respect to PM and CO2 values versus burning MGO should be proved. Whereas the PM reduction is well documented in various actual, the claim that HFO/scrubber solution is also beneficial to CO2 levels is less documented. It may thus be relevant to include a reference here. This could be by referring to EN 16258:2012 (E), table A.1. where the CO2 emissions on a well-to-
emissions can receive state-aid for that as long as there are no binding EU requirements/standards for those emissions. However, it is to be proved that the aid was granted to investments in the particular field of PM or CO2 reduction.

Finnish and French schemes were presented during the meetings (see annexes): the Finnish scheme works under the previous guidelines for the protection of environment (2008) whereas French Call for projects (‘investing in clean ferries’) applies the new guidelines (2014).

*The sub-group addressed recommendations on concrete remedial actions about investment risks and possible barriers for access to finance;*

Taking into consideration the shortcomings of current financial instruments, including EU financial support; the sub-group pointed towards two paths to explore and recommended the following submissions to the plenary (26th of June 2014)

- At first, it insisted on TEN-T financial support and the need for flexibility and global information on EU funding to orient the applicants.

In view of the challenge for the maritime transport industry to meet environmental requirements, CEF/TEN-T calls should contain, in line with the TEN-T work programme, a high priority and flexibility for projects implementing solutions to meeting these environmental requirements

The plenary agreed to recommend to the associations of the industry and public (regional and local) authorities to provide tailored information and create better awareness among their members / stakeholders on the (new) possibilities, including financial instruments in addition to grant support of the Connecting Europe Facility (CEF) and other EU-Funds (including ERDF, Interreg, EMFF). The sub-group accepted to be tasked to identify/assemble, in cooperation with the European Commission / INEA appropriate information material to that regard. A guiding document achieving this objective accompanies the present report.

- Second, the analysis of current barriers brought to light a real difficulty to leverage private funding despite State aids or EU fundings (WP 2). As a matter of fact, it appeared that a solution may consist in risk-sharing mechanisms.

On one hand, there were prospective works about EIB credit policy and shipyards stakes (see annexes); on the other hand an innovative idea was proposed during the plenary (26th) to the members of the forum who enhanced the works in order to set-up a “European retrofiting fund/bond”.

A PPP retrofit fund and/or bond instrument for financing environmental SECA retrofit investments for the existing fleet on the basis of mature technologies could be a solution. Such a dedicated investment vehicle should be seen as a facilitator based on economic considerations but with a higher risk profile than for existing lending. Developing a portfolio of loans according to an eligible investments and borrower profile and

wheel basis is given as 3.92 for MGO and 3.41 HFO or a 15% difference. These figures do naturally not take in to account that the additional 15 mill ts of MGO demand Europe will require from 1.1.2015 will have to be imported and a similar amount of HFO will have to be exported from Europe, nor the CO2 effect of the modal shift.
administered by fund managers (with shipping knowledge) responsible for evaluating and monitoring the individual lending transactions. However, the high risk profile needs to be mitigated possibly through risk-sharing mechanisms such as capital contributions using EU and national funds and the use of instruments such as the Project Bond Credit Enhancement (PBCE) product provided by the EIB for the debt portion of the capital structure of the dedicated investment vehicle.

Several best practices for access to public and private investments were discussed (see annexes)

One may consider the Norwegian NOx Fund as a possible model. The Fund is basically a joint programme of the government and the wider industry (all NOx emitting sources subject to the fiscal NOx tax). The NOx Fund has granted a lot of support to LNG related projects and allows for up to 80% funding of the additional investment costs in case sufficient reduction of NOx emissions can be achieved. As of November 2014 75 LNG fuelled ships projects have received grants for up to 250 million€ which has resulted in a reduction of up to 7700 NOx ton/year. The programme will run until the end of 2017 and its continuation depends on that a renewed agreement between the industry and authorities can be established and the assessment of whether it complies with renewed environmental state aid rules. According to Norwegian law one has to pay a tax for emitting NOx. However it is possible to join the NOx Fund, get a tax exemption and pay a fee to the Fund for emitting NOx. This fee is lower than the NOx tax and implementation of mitigating measures can be a prerequisite, e.g. LNG or catalytic converters. The fees collected by the NOx Fund are solely used for investments in mitigating measures and the companies have the possibility to apply for partial funding of investments.

Under the umbrella of the International Association of Ports and Harbours (IAPH) the World Ports Climate Initiative (WPCI) was set-up. One of the work items in the WPCI is the use of the Environmental Ship Index among the largest possible number of ports globally participating in the WPCI. The Environmental Ship Index provides a tool for measuring the environmental performance of seagoing ships (air emissions) relative to IMO rules. The tool is based on credits that ships can obtain in accordance with their environmental performance. The way of calculating the credits is equal for all participating ports, however, the advantages a ship can obtain in terms of reduction of port dues is left to the individual port (the higher the score, the more reduction a ship can obtain).

The Environmental Ship Index is a voluntary system and leaves most part of the responsibility with the ship owner. The tool is suitable for all sizes and types of ships (all kinds of ships are participating in the system). Currently there are 2362 participating ships of 153 companies and 29 ports worldwide using the Environmental Ship Index.

Reference was made to eco-bonus system as another good example of obtaining reductions as a consequence of ‘greener performance’ of a ship: incentives may be efficient if their’s a real financial support.

3. SUMMARY

Shipping is in a constant structural change. Looked at from the market, changes in transport demand, cooperation/competition with other transport modes and new technologies are important drivers. Looked at from a regulation point of view the new
sulphur regulation in North European Waters, the (coming) ballast water regulation and the Energy Efficiency Design Index can be mentioned.

In general the current state of the shipping industry is characterized by overcapacity, limited earnings, falling ship values and hereby equity problems. Looked at from a financial perspective the situation is influenced by the aftermath of the financial crisis, new banking regulations aiming at securing a robust banking system, banks trying to bring down their shipping balances and a reduced risk appetite. From an equity point of view new players like capital funds have entered.

However the situation varies between the shipping companies and looked at from a policy point of view an “average” cannot be applied. Furthermore policy initiatives must not “punish” early movers.

From a member state point of view initiatives are limited by EU state aid guidelines for environmental protection and in general state aid initiatives in relation to the new sulphur regulations have been limited.

Looked at from an EU perspective possibilities for supporting the structural changes are available. However, these possibilities do not target the general shipping industry. Horizon2020 tries to pave the way toward a sustainable and competitive shipping industry focussing on the future and seen from a competitive European Maritime Cluster perspective. The Connecting Europe Facility (CEF) takes on board existing and novel technologies, especially through Motorways of the Sea and innovation. For ships it is possible to apply for funding of additional costs compared to an “ordinary” solution. But when it is demonstrated that the technology works the possibility for grants are very limited. CEF grants to infrastructure in ports, e.g. for LNG bunkering and hinterland connections are facilitating in relation to the competitiveness of shipping. However, through the new financial instruments CEF offers a novel financial possibility applicable for shipping companies with the potential to catch up with the structural changes in shipping. Basically this changes demand a new balance between capital costs (CAPEX) and operational costs (OPEX).

The two submissions from the Finance group to the ESSF meeting 26 June 2014 focussed on the new financial CEF instruments supporting a retrofit fund/bond initiative and better utilization of EU instruments.

With regard to the retrofit fund/bond initiative the starting point was shipping companies with a competitiveness potential and mature technologies. Mature technologies make the business case less risky.

Credit ratings shall not be assessed by a Member State or by an EU institution but by private financial entities on a case by case basis. A portfolio of different shipowners implies a reduced risk. However, as risks are high there is a need for supplementary capital and/or risk coverage provided through the new financial instruments. If possible, supplementary capital can be provided through other sources, i.e. development banks and state budgets.

A wide range of instruments targeting the needs of the shipping industry, especially environmental and energy-efficiency investments with the new financial instruments as vehicle can be worked out. Basically two strategies can be applied for developing these instruments, a top down with extensive work on different models or a market based bottom up strategy bringing in financing entities in the very beginning by EU calls
containing the framework for development of instruments towards the industry. The latest possibility has an obvious “time to market” advantage.

4. REQUESTS TO THE PLENARY

1) The risk sharing mechanism according to the CEF demands business cases in developing instruments as the retrofit fund/bond instrument. These can already be found/will be further developed; e.g.

- The Norwegian NOX Fund which has an extensive range of business case in relation to investments in NOX abatement; e.g. LNG
- Swedish projects on scrubbers and LNG according to the Zero Vision Tool and Motorways of the Sea projects
- Motorways of the Sea projects in general
- Business cases from the Commission consultancy work, LOT 3 on “Completion of an EU framework on LNG fuelled ships and its relevant fuel provision infrastructure”
- Others

ECSA has offered to facilitate coordination for the establishment of financial instruments targeting shipping industry needs. In this view, ECSA is committed itself to further work on this opportunity with support of DG MOVE and INEA. The role of ECSA will be essential in raising awareness and ensure support from all involved parties.

Business cases as mentioned above, involving the maritime industry (shipowners, ports, shipyards), financial institutions (EU, public and private) and Member States is thus the prerequisite for developing financial instruments targeting the shipping industry. The mentioned actors are represented in the Sub-Group on Finance.

The Commission, INEA and the EIB will initially be the central drivers in this work aiming at creating models/frameworks for the exploitation of the CEF financial instrument. Furthermore, assistance from other contributors is welcome.

Aspects of the work will be the EIB lending policy as the basis for the need for financial instruments, involvements of development banks, attraction of private capital, private entities as assessing risks, alternative amortisations of loans, e.g. through energy savings and energy efficiency investment as gearing the SECA investments etc.

The results of this initial work shall be disseminated in the Sub-group on Financing and decisions on further steps shall be taken. The aim for the development is a concrete proposal for the next ESSF plenary meeting mid-2015.

2) A specific document integrating the works for a vade-mecum for a better utilization of EU instruments shall be edited with the additional comments and answers of the

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2 A SECA investment must be seen as expenditure without direct income compared to an energy-efficiency investment. But the “smartest” SECA investment depending on the trade and the abatement investment choice will give the best “business case”. Furthermore a SECA investment can be seen as a “license to operate”.
European Commission, INEA and EIB on the basis of documents and questions enclosed in the annex.

3) For pragmatic reasons, it is furthermore recommended that the practice of having joint meetings with the Competitiveness Sub-Group – or other Sub-Groups if and when appropriate – is continued.

4) The ESSF Plenary is invited to approve this report of the Sub-Group and the recommendations contained herein
ANNEXES:

Annex 1: Outlook on OPEX and CAPEX arising from SECA implementation

1) OPEX:

Voyage costs will depend on fuel prices and the differential between HFO usually used (1%) and MGO (distillate under 0,1%) may vary sensitively. The following graphics illustrate recent variations (from 55 % to 62%).

**HFO (sources: Bunkerworld)**

Switching from one fuel to the other needs adaptation operations on injectors and the circuits: it cost may be estimated around 130 to 200 000€ per vessel.

2) CAPEX:

**Scrubbers:** from 4M€ to 11M€ for open loops systems; and 20 to 30% more expensive for hybrid systems. The cost depends on the size of the scrubber, the number of scrubbers installed in one vessel and the costs linked to specific ships. For a Ro-Ro, for Ro-Pax or Cruiser, prices are different from tankers, bulk carriers or box-carriers.

**LNG retrofits:** Prices may vary from 12M€ to more than 30M€ according with the size of engines, the type of vessel.
Annex 2: Mobilizing private financing (state of play) by PwC, Karin Meyer Zu Bergsten - January 2014

**What are sustainable Shipping investments?**
Who bears the costs?

<table>
<thead>
<tr>
<th>Reduction of sulphur emission</th>
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<tr>
<td>• LNG fueling</td>
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<td>• Scrubber</td>
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<td>• (MGO-fuelling?)</td>
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<th>Reduction of biological emission</th>
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<tr>
<td>• Ballast water treatment</td>
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</table>

- 1st step: EU-SECA area Baltic Sea (2015) – 0.1% sulphur, Others (2020) – 0.5% sulphur → LNG

Alignments with the IMO rules
- Imply investment costs on the ship owners (LNG fuelling, scrubber)
  
  **and/or**

- Imply higher energy costs on the charterer/shipping companies (e.g. scrubber require more energy, use of MGO more expensive)

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**Ship financing normally asset based**
Asset based financing of a freight going vessel

<table>
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<tr>
<th>Financing structure</th>
<th>purchase 12 years of debt repayment (OECD consensus)</th>
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<tr>
<td>Equity (30)</td>
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<td>Debt (70)</td>
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<td><strong>Bank/cred 70</strong></td>
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<td>possible: ECA coverage (66)</td>
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Diagram showing financing structure with Equity, Debt, and Asset value.
Shipping crisis – ongoing in its 6th year

Lowest charter rate level in over 20 years, though OPEX remain high

Source: Clarksons Research Services, 13 Januar 2014

Ship financing with distortions
Almost no debt services on 5y old ships

Financing structure  | purchase  | 12 years of debt repayment (OECD consensus)

Equity (30)  | Debt (70)  | possible: ECA coverage (66)

Source: Clarksons Research Services, 13 Januar 2014
Barriers to financing

#1 Shipping crisis
Burn out of private funds of small and medium sized players

Liquidity situation of a 1.700 TEU container vessel
#2 Reduced shipping exposures
New shipping loans 2007-2012 of the 9 largest German ship financing banks (in bn. €)

![Map of Germany with shipping banks loan data]

Source: business and press reports
*Association of German Pfandbrief Banks 8.6 bn € + KfW IPEX 2.5 bn € (2011), 4.9 bn. € + KfW IPEX 2.5 bn € (2012)*

## Incentives split

### Ship owners
- finance + operate + staff ships
- charter rate
- Costs for:
  - Ship / OPEX
  - Maintenance
  - Classification
  - bear cost of new technology

### Charter parties / liner companies
- charter + freight + move ships
- Costs for:
  - Fuel
  - Harbour
  - Affreightment ...
Annex 3: toward a guidance document on EU funding for LNG (JB Erhardt)

Mission de coordination sur l’emploi du GNL

The use of Liquefied Natural Gas as a marine fuel by ships

Mobilizing EU Funding - Towards a vade-mecum

Summary

This working paper aims to present the various EU Funding Regulations, the State aids and the mechanisms of the European Investment Bank which could support the energy change of the shipping sector to respond to the environmental rules.

The use of LNG as a fuel by the shipping sector is fully compliant with the existing or foreseeable environmental constraints, and is in line with the EU policy on the decarbonisation of the waterborne transport and the deployment of alternative fuels.

The implementation of the Sulphur Directive costs the sector 3 billion Euro. Ship-owners have to undertake huge investments to adapt or to renew their fleet by 1 January 2020. The price of a ferry using LNG as fuel can be approximately 20 to 25% more than a ferry with a conventional propulsion. The conversion of a ferry to LNG could cost between 20-25 million Euro.

Unfortunately, ship-owners can encounter some difficulties in accessing banking resources. Banks can be unwilling to grant loans to ship-owners due to their own financial and regulation constraints. Moreover several European banks withdraw from maritime loans.
It appears in the aggregate report on the comprehensive assessment published on 26 October 2014 by the European Central Bank (ECB) that shipping assets could present particular financial risks.

Therefore, the EU financial instruments turn out to be crucial to encourage shipowners to adapt their vessels. Moreover, these instruments can promote the deployment of LNG infrastructure in ports.

A final part of the working paper contributes to a vade-mecum on the implementation of these EU financial instruments.

This working paper is an updated version of a previous working paper on 2 April 2014, and can be revised subsequently.

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Background

Following Directive n°2012/33/EU of 21 November 2012 on the sulphur content of marine fuels, a sulphur content of 0.1% shall be applied on 1 January 2015 in the Baltic Sea, the North Sea and the English Channel which are the unique Sulphur Emission Control Area (SECA) in the European Union. Outside SECA, all ships in the European Union shall use fuel with a sulphur content of 0.5% from 1 January 2020.

The implementation of these rules on the sulphur content of fuel used on board ships will lead to considerable additional costs for ship-owners, beginning with ferries operators in SECA. At the second meeting of the Sub-group on Financing Mechanisms of the European Sustainable Shipping Forum, it was mentioned that the implementation of the Sulphur Directive costs the sector 3 billion Euro. According to various studies, the increase in vessel operating costs and a lower competitiveness of shipping could lead modal shifts from short sea shipping to road transport in SECA.

As the schedule for the sulphur limits approaches, Liquefied Natural Gas (LNG) as a marine fuel is being considered as an alternative option to conventional marine bunker fuel oils because it produces emissions with a sulphur dioxide (SOx) content of virtually 0%. The use of LNG will also reduce the emission of nitrogen oxides (NOx) up to 80 %, of CO2 by 20% and eliminate particulate matter (PM).

In accordance with the White Paper entitled "Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system"3, the use of LNG by vessels will reduce the negative impact on the environment and improve the competitiveness and the sustainability of the maritime transport. Therefore, LNG is able to match the objective of Clean Transport in the EU.

Nevertheless, LNG as a marine fuel requires considerable investments for a shipping company, and for the deployment of a LNG bunkering infrastructure at the scale of a port operator.

This Working Paper aims to present the economic and financial aspects to adapt the European Shipping to the environmental constraints (Part 1), the EU funding regulations (Part 2), the State aids (Part 3), the mechanisms of loans and guarantees of the European Investment Bank (Part 4), the funds defined by Directive 2014/94/EU on the deployment of alternative fuels (Part 5) and a proposal for a vade-mecum on EU Funds (Part 6) in order to facilitate the use of EU Funds for the operators.

1. Economic and financial aspects

All the studies realized in the framework of the Intelligent Energy Programme or the trans-European transport network (TEN-T) programme, such as MAGALOG (2007-2008), LNG as a fuel for shipping in the Netherlands (TNO - 1 Mars 2011) and the North European LNG infrastructure study coordinated by the Danish Maritime Authority (May 2012) demonstrate that LNG is a viable, reliable and available, both economically and technically, solution to comply with the new rules on sulphur content of bunker fuel, in particular for short sea shipping in the SECA of Northern Europe.

3 COM (2011) 144 final on 28.3.2014
These studies underline the financial constraints of the developments of LNG fueled ships and the associated infrastructure, and the need to create business incentives for LNG infrastructure investments. It is also recommended to establish a funding scheme for the development, the construction and the operation of LNG bunker vessels in the early stage of LNG as marine fuel introduction on the market.

To evaluate the infrastructure costs, the North European LNG Infrastructure project considered three models: large-scale, medium-scale and small-scale terminal installations.

Port Case I is defined as a large-scale facility that is incremental to an existing LNG import terminal. Medium-scale and small-scale, Port Case II and Port Case III respectively, would be “purpose built” installations with storage capacity of 20,000 m³ and 2 x 700 m³, respectively.

The three port cases are based on projected numbers from ports and reflect actual traffic and calls and hereby throughput. The cases therefore involve equipment to meet the local foreseen LNG bunkering demand, but also supplementary equipment that is required in order to meet demand in nearby ports and land-based demand.

The financial implications from an investment point of view and associated needed income to finance the investments are shown in the table below.

<table>
<thead>
<tr>
<th>LNG Port Case</th>
<th>Large-scale Port Case I</th>
<th>Medium-scale Port Case II</th>
<th>Small-scale Port Case III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total initial investment cost [million €]</td>
<td>69</td>
<td>137</td>
<td>15</td>
</tr>
<tr>
<td>- thereof investment in bunker vessels [million €]</td>
<td>32</td>
<td>60</td>
<td>-</td>
</tr>
<tr>
<td>Total operational cost [million €/yr]</td>
<td>10</td>
<td>17</td>
<td>3</td>
</tr>
<tr>
<td>- thereof fixed operational costs of bunker vessels [million€/yr]</td>
<td>2</td>
<td>4</td>
<td>-</td>
</tr>
<tr>
<td>- thereof fuel costs for bunker vessels [million€/yr]</td>
<td>0.5</td>
<td>1</td>
<td>-</td>
</tr>
</tbody>
</table>

This financial implication applies to the ports, the LNG facilities and shipping in the scope of the North European LNG Infrastructure project, coordinated by the Danish Maritime Authority. It shall be considered, but the costs can differ in other areas.

The cost of a LNG tank-truck is estimated to be more than 350 000 €. The logistic chain to deliver LNG to two or three LNG ferries can be estimated at 10M€. An intermediary LNG storage installation is evaluated at 10M€. The price of a LNG feeder ranges between 32M€ and 60 M€, depending on the capacities. A dedicated berth for the LNG feeder can exceed 100M€.
Ship-owners have to undertake huge investments to adapt or to renew their fleet by 1 January 2020.

The price of a ferry using LNG as fuel can be approximately 20 to 25% more than a ferry with a conventional propulsion. A conversion of a ferry to LNG could cost between 12M€ to more than 30M€.

Unfortunately, ship-owners can encounter some difficulties in accessing banking resources. Banks can be unwilling to grant loans to ship-owners due to their own financial and regulation constraints. Moreover several European banks withdraw from maritime loans.

It appears in the aggregate report on the comprehensive assessment published on 26 October 2014 by the European Central Bank (ECB) that shipping assets could present particular financial risks. The asset quality review of the report contains additional detail on the review of shipping exposure. The ECB placed particular emphasis on the treatment of shipping exposure across the Single Supervisory Mechanism given the divergent practices observed across banks and National Competent Authorities. Following the credit file review, a total of 21.3% of the shipping debtors reviewed were reclassified to non-performing, and the total amount of provisions increased from €5.9 billion to €7.3 billion (+25%).

Therefore, the EU financial instruments turn out to be crucial to encourage shipowners to adapt their vessels. Moreover, these instruments can promote the deployment of LNG infrastructure in ports.

2. EU financial support

2.1. General framework

This Working Paper aims at identifying which of the EU financial instruments can participate in the funding of the investments needed to deliver LNG to ships or to implement LNG infrastructure in ports.

This Working Paper is not in the opinion that all the additional costs of investments or operating costs of the ships shall be covert by an EU funding. On the contrary, it considers that innovation shall be encouraged, and the need to establish a minimal infrastructure enabling a secure market should be supported by the EU programmes.

It has also taken into account that all the actions related to the development of the LNG installations and the construction of LNG vessels will spread out till at least 2020.

Consequently, the communications from the Commission allowing the implementation of the directive on sulphur content4 and the programmes associated with the Multiannual Financial Framework for 2014-20205 have been considered.


5 Regulation EU, Euratom N°1311/2013 on 2 December 2013 laying down the multiannual financial framework for the years 2014-2020
The first progress report from the Commission on the implementation of the sustainable waterborne transport toolbox asserts the will to provide support for the greener shipping sector and related port infrastructure development including marine LNG bunkering barges. This will remain a priority under the subsequent annual and multiannual TEN-T calls for proposals. There also needs to be a focus on other measures such as the validation and testing of innovative clean technologies, support for alternative fuels, including LNG, and the possibility of particular ship adjustments in order to meet environmental standards. It will also be important to address new measures combined with an upgrade to existing and planned Motorway of the Sea (MoS) connections. State aid rules will be observed with respect to TEN-T projects, where applicable.

The report takes action to ensure better use of the EU transport funding instruments and coordination with other EU instruments i.e. Structural funds, Horizon 2020, EIB loans, etc.

In this line of argument, the Working Paper analyses the various regulations which could be used by the maritime transport.

2.2. Connecting Europe Facility (CEF)

2.2.1. Financial envelope

The Connecting Europe Facility (CEF) is established by Regulation (EU) No 1316/2013 of 11 December 2013.

For the transport sector, according to article 5 (1), the financial envelope for the implementation of the CEF for the period 2014 to 2020 is set at € 26,250 million, of which € 11,305 million shall be transferred from the Cohesion Fund to be spent exclusively in Member States eligible for funding from the Cohesion Fund.

2.2.2. Projects of common interest

In the transport sector, the CEF shall support projects of common interest that pursue the objectives set out below:

- ensuring sustainable and efficient transport systems in the long run, with a view to preparing for expected future transport flows, as well as enabling all modes of transport to be decarbonised through transition to innovative low-carbon and energy-efficient transport technologies, while optimising safety. The achievement of this objective shall be measured by the number of inland and maritime ports of the TEN-T core network equipped with supply points for alternative fuels in the Union.

- optimising the integration and interconnection of transport modes and enhancing the interoperability of transport services, while ensuring the accessibility of transport infrastructures. The achievement of this objective shall be measured by the number of improved or new connections between ports through motorways of the sea.

In the transport sector, only actions contributing to projects of common interest shall be eligible for support through Union financial assistance in the form of procurement and financial instruments under this Regulation. Only the following shall be eligible to receive Union financial assistance in the form of grants under this Regulation:

- actions implementing the core network, including the deployment of new technologies and innovation, and projects and horizontal priorities;

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- actions implementing the comprehensive network;
- actions supporting motorways of the sea.

2.2.3. Amount of Union financial assistance

In the transport sector, the amount of Union financial assistance shall not exceed:

(a) with regard to grants for studies, 50% of the eligible costs;
(b) with regard to grants for works:
   - for inland waterways: 20% of the eligible costs; the funding rate may be increased to a maximum of 40% for actions addressing bottlenecks and to a maximum of 40% for actions concerning cross-border sections;
   - for inland transport, connections to and the development of multimodal logistics platforms including connections to inland and maritime ports, as well as the development of ports: 20% of the eligible costs;
   - for actions supporting new technologies and innovation for all modes of transport: 20% of the eligible costs;
(c) with regard to grants for telematic applications systems and services:
   - for actions to support the development of motorways of the sea: 30% of the eligible costs.

The funding rates may be increased by up to 10 percentage points over the percentages listed above for actions with synergies between at least two of the sectors covered by the CEF.

The amount of financial assistance to be granted to the actions selected shall be modulated on the basis of a cost-benefit analysis of each project, the availability of Union budget resources and the need to maximise the leverage of Union funding.

Actions supported by means of financial instruments shall be selected on the basis of maturity and shall seek sectoral diversification as well as geographical balance across the Member States.

They shall:

(a) represent European added value;
(b) respond to the objectives of the Europe 2020 Strategy;
(c) present a leverage effect with regard to Union support, i.e. aim at mobilising a global investment exceeding the size of the Union contribution according to the indicators defined in advance.

2.2.4. List of general orientations

When setting award criteria, at least the following general orientations shall be taken into account:

(a) maturity of the action in the project development;
(b) soundness of the implementation plan proposed;
(c) stimulating effect of Union support on public and private investment, when applicable;
(d) the need to overcome financial obstacles, such as the lack of market finance;
(e) when applicable, the economic, social, climate and environmental impact, and accessibility;
(f) the cross-border dimension, when applicable.
2.3. Trans-European Transport network (Ten-T)

Regulation (EU) No 1315/2013 of 11 December 2013 set up the guidelines for the development of the trans-European transport network.

The trans-European transport network shall demonstrate European added value by contributing to the sustainability through contribution to the objectives of low greenhouse gas emissions, low-carbon and clean transport, promotion of low-carbon transport with the aim of achieving by 2050 a significant reduction in CO₂ emissions.

Member States shall take all necessary measures to ensure that the projects are carried out in compliance with relevant Union and national laws, in particular with Union legal acts on the environment, climate protection, safety, security, competition, and state aid.

2.3.1. The Comprehensive Network

Member States shall make all possible efforts with the aim of completing the comprehensive network by 31 December 2050.

In order to complement the measures, particular consideration shall be given to measures that are necessary for ensuring fuel security through increased energy efficiency, and promoting the use of alternative and, in particular, low or zero carbon energy sources and propulsion systems.

The Regulation defines LNG as an 'alternative clean fuel', which contributes to its decarbonisation and enhances the environmental performance of the transport sector.

Motorways of the sea

Motorways of the sea are included in the maritime transport infrastructure. Motorways of the sea, representing the maritime dimension of the trans-European transport network, shall contribute towards the achievement of a European maritime transport space without barriers. They shall consist of short-sea routes, ports, associated maritime infrastructure and equipment, and facilities as well as simplified administrative formalities enabling short-sea shipping or sea-river services to operate between at least two ports, including hinterland connections. Motorways of the Sea shall include a maritime links between comprehensive and core ports and at least two EU Member States ports and a third-country port where such links are of strategic importance to the Union. Motorways of the Sea projects need at least two member States.

In the promotion of projects of common interest related to maritime infrastructure, priority shall be given to promoting the motorways of the sea including short-sea shipping, facilitating the development of hinterland connections and developing measures to improve the environmental performance of maritime transport.

New technologies and innovation

In order for the comprehensive network to keep up with innovative technological developments and deployments, the aim shall be in particular to:

(a) support and promote the decarbonisation of transport through transition to innovative and sustainable transport technologies;

(b) make possible the decarbonisation of all transport modes by stimulating energy efficiency, introduce alternative propulsion systems, and provide corresponding infrastructure.

2.3.2. The Core Network

Member States shall take the appropriate measures for the core network to be developed by 31 December 2030.
Availability of alternative clean fuels for inland waterway and maritime transport infrastructure shall be met by the infrastructure of the core network.

**Nodes of the core network**

The nodes of the core network include:

(a) urban nodes, including their ports and airports;
(b) maritime ports and inland waterways ports.

Core network corridors cover the most important long-distance flows in the core network and are intended, in particular, to improve cross-border links within the Union.

Core network corridors shall be multimodal and open to the inclusion of all transport modes covered in this Regulation. They cross at least two borders and, if possible, involve at least three transport modes, including, where appropriate, motorways of the sea.

### 2.3.3. Building the Transport Core Network

In the communication Building the Transport Core Network\(^7\), the European commission aims at:

- providing information on the potential budget and instruments available under the future framework;
- guiding potential applicants with regard to direct management of funds and providing information on the expectations of the Commission's from potential beneficiaries;
- explaining how the Commission intends to support the creation and the functioning of the Core Network Corridors.

Each Core Network Corridor will embrace all the transport modes (road, rail, inland waterways, maritime and air transport). Wherever appropriate, the Corridors will use Motorways of the Sea as the maritime dimension of the Core Network Corridors.

The communication clarifies that the Marco Polo Initiative will be continued as integral part of the CEF in line with the definition of the Sustainable Freight Transport Services in Article 32 of the TEN-T Regulation.

For the period 2014-2020, the indicative amounts scheduled for the Motorways of the Sea are €500-900 million, the indicative amounts for new technologies and innovation for all modes are €250-400 million and the indicative amounts for Sustainable Freight Transport Services are €150-200 million.

The CEF will be managed directly by the Commission, assisted by an Executive Agency. The annual and multiannual work programmes which define for calls for proposals the indicative budget, the timetable, the objectives and the foreseen results, the priorities, the maximum possible rate of co-financing as well as the eligibility, the selection and award criteria, will be adopted by the Commission after the approval of the CEF Committee under the examination procedure.

One of the key elements of the CEF is the objective to increase the use of innovative financial instruments (amongst which Project Bonds), in order to build an environment

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\(^7\) COM(2013) 940 final on 7.1.2014 Building the Transport Core Network: Core Network Corridors and Connecting Europe Facility
conducive to private investment in infrastructure. The latter is with the view to offer an alternative to the traditional grant funding and plug financing gaps for strategic investments. The Commission is pursuing consultations with several partners, including financial institutions, and will present when appropriate, a policy document explaining the framework, the objectives and the conditions for the use of financial instruments in the field of transport, in line with the CEF Regulation.

The European Commission evaluates the pilot phase of the project bond initiative in an interim report on 19 December 2013\(^8\). It concludes that the initiative is fulfilling expectations and is a success in terms of providing financing to projects. Nevertheless, more work is needed to improve the project bond initiative.

An incoming Commission delegated regulation specifies that, in the framework of the multiannual work programmes, the funding priorities aim to ensure sustainable and efficient transport systems in the long run, by the deployment of new technologies and innovation in all transport modes, with a focus on decarbonisation, safety and innovative technologies.

### 2.3.4. Transport work programmes 2014

On 5 March 2014, the CEF Committee approved the annual and the multiannual work programmes for financial assistance in the field of transport sector for 2014, which has been endorsed by two Commission implementing decision of 26 March 2014\(^9\).

#### 2.3.4.1. Annual programme

The total amount of financial assistance, to be allocated in 2014 on the basis of the annual call, to projects of common interest in the field of the trans-European transport network shall be of the amount of €930 million of which €65 million under the budget line for ensuring sustainable and efficient transport in the long run.

The calls have been launched on 11 September 2014. In this annual programme, two priorities are relevant for the deployment of alternative fuels by the maritime sector.

- **New technologies and innovation**

  This priority includes the possibilities for all modes of transport to be decarbonised through transition to innovative low-carbon and energy-efficient transport technologies. TEN-T development must keep up with state of the art developments of new technologies and innovation. In this respect, TEN-T development for all transport modes and systems shall complement Research and Innovation action under "Horizon 2020" by pursuing a market-oriented approach and promoting the deployment of innovative technological and organisational solutions.

  This deployment of new technologies and innovation has a specific objective to introduce alternative propulsion systems and to provide corresponding infrastructure. This objective applies to the comprehensive network (excluding the core network parts).

  The indicative amounts for the deployment of new technologies and innovation other than those covered by the multiannual work programme are €20 million.

- **Freight transport services**

  The general objective is to stimulate and deploy innovative, efficient and sustainable freight transport services that use the infrastructure of the comprehensive network and


\(^9\) Commission implementing decision C(2014) 1919 and 1921 of 26 March 2014
contribute to reducing carbon dioxide emissions and other environmental impacts of transport.

One of the specific objectives is to stimulate resource and carbon efficiency of freight transport services in individual modes.

The indicative amounts for the Freight Transport Services are €25 million.

Therefore, in the annual programme for 2014 the total indicative amounts applicable to the alternative fuels projects are €45 million.

2.3.4.2. Multi-Annual Work Programme

The total amount of financial assistance, to be allocated in 2014 on the basis of the annual call, to projects of common interest in the field of the trans-European transport network shall be of the amount of €11,000 million of which € 250 million under the budget line for ensuring sustainable and efficient transport in the long run, and € 750 million under the budget line for optimising the integration and interconnection of transport modes and enhancing interoperability, safety and security of transport.

The calls have been launched on 11 September 2014.

2.3.4.2.1. Ensuring sustainable and efficient transport

- New technologies and innovation

This priority includes the deployment of new technologies and innovation in all transport modes, with a focus on decarbonisation. TEN-T development for all transport modes and systems shall complement Research and Innovation action under "Horizon 2020" by pursuing a market-oriented approach and promoting the deployment of innovative technological and organisational solutions.

This deployment of new technologies and innovation has specific objectives to introduce alternative propulsion systems and to provide corresponding infrastructure, with regard to the support of the implementation of the alternative fuels strategy.

The indicative amounts for the deployment of new technologies and innovation are €160 million.

- Freight traffic

Freight traffic includes specific objectives, such as alternative fuel solutions.

2.3.4.2.2. Motorways of the Sea (MoS)

Actions addressed with this programme may concern studies, pilot actions or implementation measures as well as a combination of studies and implementation.

To support the overall objectives of motorways of the sea, the promotion of "wider benefits" of the MoS development, such as infrastructure development in ports, notably including alternative fuelling facilities shall be promoted.

A priority will be given to implementation projects, pilot projects and studies which contribute to addressing the environmental challenges faced by the Maritime sector, in particular in view of the forthcoming requirements with respect to the implementation of the requirements of Annex VI of the IMO MARPOL Convention and of Directive 2012/33/EU.

This will include in particular:

- Actions supporting the deployment of alternative fuels and emission abatement technologies.
- Actions supporting the development of reception facilities for oil and other waste, including residues from scrubbers.

- Studies and deployment of alternative fuel infrastructure, in particular but not limited to LNG, either through publicly accessible fixed or mobile (including trucks and barges) refuelling points and related infrastructure.

- Upgrades of vessels used on existing services and existing or new Motorways of the Sea links, but limited to the additional efforts for environmental upgrades.

The indicative amounts for the Motorways of the Sea (MoS) are €250 million.

Proposed Actions submitted to this call for proposals under Priority "Motorways of the Sea" must include applicants from and be supported by a minimum of two different Member States. Derogation from this eligibility criterion is possible for Motorways of the Sea proposals between a Cohesion Member State and Member State not eligible to the Cohesion Fund. In such case, two separate proposals shall be submitted under this call and call for proposals for Cohesion countries and both proposals must make clear reference to the twin proposal.

2.4. European Structural and Investment Funds (ESI Funds)

Regulation (EU) No 1303/2013 of 17 December 2013 lays down the common provisions and general provisions on the European Regional Development Fund (ERDF), the European Social Fund (ESF), the Cohesion Fund and the European Maritime and Fisheries Fund, which operate under a common framework (the 'European Structural and Investment' - 'ESI Funds').

**Thematic objectives**

The Regulation establishes 11 thematic objectives in order to contribute to the Union strategy for smart, sustainable and inclusive growth. Among these 11 thematic objectives are:

- thematic objective 4 to support the shift towards a low-carbon economy in all sectors;
- thematic objective 7 to promote sustainable transport and removing bottlenecks in key network infrastructures.

**Common Strategic Framework**

The Common Strategic Framework ('CSF') establishes strategic guiding principles to facilitate the programming process and the sectoral and territorial coordination of Union intervention under the ESI Funds and with other relevant Union policies and instruments.

The Common Strategic Framework set up coordination and synergies between ESI funds and other union policies and instruments such as:

- Horizon 2020 and other centrally managed Union programmes in the areas of research and innovation.
- Connecting Europe Facility (CEF).

To maximise European added value in the fields of transport, telecommunication and energy, Member States and the Commission shall ensure that ERDF and Cohesion Fund interventions are planned in close cooperation with the support provided from the CEF, so as to ensure complementarity, avoid duplication of efforts and ensure the optimal
linkage of different types of infrastructure at local, regional and national levels, and across the Union.

Prioritisation of investments which have an impact beyond a certain Member State, particularly those which are part of the core TEN-T network corridors, shall be coordinated with TEN-T planning and core network corridors implementation plans, so that investments by the ERDF and the Cohesion Fund in transport infrastructure are fully in line with the TEN-T Guidelines.

Once identified, investments shall be prioritised according to their contribution to mobility, sustainability, to reducing greenhouse gas emissions, and to the Single European Transport Area, in accordance with the vision set out in the 2011 Transport White Paper, highlighting that a significant reduction in greenhouse gases is required in the transport sector.

**Preparation of the Partnership Agreement**

Each Member State shall prepare a Partnership Agreement for the period from 1 January 2014 to 31 December 2020.

### 2.4.1. European Regional Development Fund (ERDF)

According to Regulation (EU) No 1301/2013 of 17 December 2013 on the European Regional Development Fund and on specific provisions concerning the Investment for growth and jobs goal, the ERDF shall support investment priorities within the thematic objectives set out in the Regulation (EU) No 1303/2013.

Among them are the priorities to promote sustainable transport and remove bottlenecks in key network infrastructures by:

- supporting a multimodal Single European Transport Area by investing in the TEN-T;
- developing and improving environmentally-friendly (including low-noise) and low-carbon transport systems, including inland waterways and maritime transport, and ports.

### 2.4.2. European territorial cooperation

Regulation (EU) no 1299/2013 of 17 December 2013 defines, for the European territorial cooperation goal, the priority objectives and organisation of the ERDF, the criteria for Member States and regions to be eligible for support from the ERDF, the financial resources available for support from the ERDF, and the criteria for their allocation.

Under the European territorial cooperation goal, the ERDF shall support the following components:

1. cross-border cooperation between adjacent regions to promote integrated regional development between neighbouring land and maritime border regions in two or more Member States;
2. transnational cooperation over larger transnational territories, involving national, regional and local partners and also covering maritime cross-border cooperation;
3. interregional cooperation to reinforce the effectiveness of cohesion policy.

For interregional cooperation, support from the ERDF shall cover the entire territory of the Union.

Resources for the European territorial cooperation goal shall amount to 2.75 % of the global resources available for budgetary commitment from the ERDF, ESF and the Cohesion Fund for the 2014-2020 programming period and shall be allocated as follows:

(a) 74.05 % (i.e., a total of EUR 6 626 631 760) for cross-border cooperation;
(b) 20.36 % (i.e., a total of EUR 1 821 627 570) for transnational cooperation;
(c) 5.59 % (i.e., a total of EUR 500 000 000) for interregional cooperation.

At least 80 % of the ERDF allocation to each cross-border cooperation and transnational programme shall be concentrated on a maximum of four of the thematic objectives set out in the first paragraph of Article 9 of Regulation (EU) No 1303/2013.

All of the 11 thematic objectives set out in the first paragraph of Article 9 of Regulation (EU) No 1303/2013 may be selected for interregional cooperation

2.4.3. Cohesion Fund

The Cohesion Fund, established by Regulation (EU) No 1300/2013 of 17 December 2013, is aimed at Member States whose Gross National Income (GNI) per inhabitant is less than 90 % of the EU average. It aims to reduce economic and social disparities and to promote sustainable development.

It is now subject to the same rules of programming, management and monitoring as the ERDF and ESF though the Common Provisions Regulation.

For the 2014-2020 period, the Cohesion Fund concerns Bulgaria, Croatia, Cyprus, the Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovakia and Slovenia.

Under the Connecting Europe Facility (CEF), €11.305 billion will be available only for projects in Member States eligible for the Cohesion Fund.

Within the thematic objectives set out in the first paragraph of Article 9 of Regulation (EU) No 1303/2013, the Cohesion Fund shall support the investment priorities promoting sustainable transport and removing bottlenecks in key network infrastructures by:

(i) supporting a multimodal Single European Transport Area by investing in the TEN-T;
(ii) developing and improving environmentally-friendly (including low-noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links.

2.5. HORIZON 2020


General objective, priorities and specific objectives

The general objective of Horizon 2020 is to contribute to building a society and an economy based on knowledge and innovation across the Union by leveraging additional research, development and innovation funding and by contributing to attaining research and development targets.

The general objective shall be pursued through three mutually reinforcing priorities dedicated to:

(a) Excellent science;
(b) Industrial leadership;
(c) Societal challenges.

Budget
The financial envelope for the implementation of Horizon 2020 is set at € 77,028 million in current prices of which a maximum of €74,316 million shall be allocated to activities under Title XIX TFEU.

The amount for activities under Title XIX TFEU shall be distributed among the priorities:

(a) Excellent science, € 24,441 million in current prices;
(b) Industrial leadership, € 17,015 million in current prices;
(c) Societal challenges, € 29,679 million in current prices.

**Complementarity with other Union programmes**

Horizon 2020 shall be implemented in a way which is complementary to other Union funding programmes and policies, including the European Structural and Investment Funds (ESI Funds), the Common Agricultural Policy, the Programme for the Competitiveness of Enterprises and small and medium-sized enterprises (COSME) (2014–2020), the Erasmus+ programme and the Life Programme.

**Priority 'Societal challenges'**

This priority responds directly to the policy priorities and societal challenges that are identified in the Europe 2020 strategy and that aim to stimulate the critical mass of research and innovation efforts needed to achieve the Union's policy goals.

Smart, green and integrated transport is a specific objective to achieve a European transport system that is resource-efficient, climate- and environmentally-friendly, safe and seamless for the benefit of all citizens, the economy and society.

Research and innovation must bring about focused and timely advances for all transport modes that will help achieve key Union policy objectives, while boosting economic competitiveness, supporting the transition to a climate-resilient, energy-efficient and low-carbon economy, and maintaining global market leadership both for the service industry as well as the manufacturing industry.

**Coordination and synergies with the sustainable waterborne transport**

On 13 September 2012, the European Commission introduced a communication on research and innovation for Europe's future mobility\(^{10}\). The Commission proposed a range of initiatives to implement the necessary actions. They will contribute to fulfilling the policy objectives and help meet the Transport challenge in Horizon 2020.

The strategic transport-technology plan will support the implementation of the funding programmes proposed by the Commission for the next multiannual financial framework, subject to the adoption by the legislative authority. This includes Horizon 2020, the Connecting Europe Facility, the ERDF and Cohesion Fund, and the Programme for the Competitiveness of Enterprises and SMEs.

After this communication, the first progress report from the Commission on the implementation of the sustainable waterborne transport toolbox\(^{11}\) aims to contribute to the definition of the work programme for the calls for proposals under HORIZON 2020 to:

(a) suggest appropriate topics and type of actions.

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(b) inform and guide the interested organizations to make best use of Horizon 2020 funding for the implementation of the Toolbox. It also foresees to contribute to the Strategic Research and Innovation Agenda for the maritime transport sector under Horizon 2020. The objectives are to:

(a) monitor progress and update research and development requirements for the Toolbox.
(b) help aligning the EU research and innovation actions with policy implementation.

2.6. LIFE


Budget

The financial envelope for the implementation of the LIFE Programme for the period from 2014 to 2020 is set at €3,456 million in current prices.

The budgetary breakdown for the sub-programmes shall be as follows:

(a) €2,592 million of the overall financial envelope shall be allocated to the sub-programme for Environment;
(b) €864 million of the overall financial envelope shall be allocated to the sub-programme for Climate Action.

With a view to contributing to the reduction of greenhouse gas emissions, the priority area Climate Change Mitigation shall in particular have the specific objective to contribute to the development and demonstration of innovative climate change mitigation technologies, systems, methods and instruments that are suitable for being replicated, transferred or mainstreamed.

The sub-programme for Climate Action includes also a priority on Climate Governance and Information.

The Commission and the Member States shall ensure that support from the LIFE Programme is consistent with the policies and priorities of the Union and complementary to other financial instruments of the Union while also ensuring that simplification measures are implemented.

Action grants may finance pilot projects, demonstration projects, best practice projects, integrated projects, technical assistance projects, capacity-building projects, preparatory projects, information, awareness, and dissemination projects.

The LIFE multi-annual work programme for 2014-2017 has been adopted by a Commission Decision on 19 March 2014. The total budget for funding projects during the period covered amounts to €1.3 billion under the sub-programme for Environment and €0.44 billion under the sub-programme for Climate Action.

Under the sub-programme for Climate Action, the LIFE multiannual work programme will contribute to the transformation of the Union into a low carbon society, a central part of the Europe 2020 climate and energy package. Emerging climate mitigation technology will be facilitated through extended piloting and integrative demonstration.

Traditional projects under the sub-programme for Climate Action could get 60% co-financing during this multi-annual work programme.
3. State aids

In its first progress report from the Commission on the implementation of the sustainable waterborne transport toolbox, the European Commission has stated on the conditions for the application of the Community Guidelines on State aid for environmental protection to support early adaptation to the new environmental standard. Accordingly, Member States wishing to provide support to operators affected by the low sulphur standard introduced by Directive 2012/33/EU may grant State aid for:

- The acquisition of new ships that comply with the new sulphur limits provided that acquisition takes place until one year before the new standard enters into force, i.e. until 31 December 2013. The maximum aid intensity is 10%, 15% and 20%, respectively for large, medium and small-sized companies;

- Retrofitting of existing vessels in order to comply with the new sulphur limits (e.g. installation of scrubbers) before the new standard enters into force, i.e. until 31 December 2014. The maximum aid intensity is 50%, 60%, and 70%, respectively for large, medium, and small-sized companies.

This progress report should be updated, taking into account the new regime on state aids which could be applied to LNG projects following the publication of various texts in June 2014, in application of the Treaty on the Functioning of the European Union.

The Treaty on the Functioning of the European Union lays down the principle that any aid granted by a Member State or through State resources in any form shall be incompatible with the internal market (art.107). But the Council, on a proposal from the Commission and after consulting the European Parliament, may make any appropriate regulations for the application of this principle and may determine the categories of aid which can be exempted (art.109). The Commission may adopt regulations relating to the categories of State aid that the Council has determined (art.108).

Council Regulation (EC) No 994/98 empowers the Commission to declare, in accordance with Article 109 of the Treaty, that the following categories may, under certain conditions, be exempted from the notification requirement: aid to small and medium-sized enterprises (SMEs), aid in favour of research and development, aid in favour of environmental protection, employment and training aid and aid that complies with the map approved by the Commission for each Member State for the grant of regional aid.

In this legal framework, the European Commission has adopted the Commission Regulation (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty. Regional aid, aid for environmental protection and aid for research and development and innovation, which seem to be relevant for LNG projects, are covered by this Regulation.

The communication (2014/C 198/01), published on 27 June 2014, from the Commission specifies the framework for State aid for research and development and innovation.

The Guidelines on State aid for environmental protection and energy 2014-2020 are set up by the Communication (2014/C 200/01) from the Commission published on 28 June 2014.

The Guidelines on regional State aid for 2014-2020 are set up by the Communication (2013/C 209/01) from the Commission published on 23 July 2013.

A further reflection is needed to determine the appropriate use of state aids for LNG projects regarding the relevant guidelines, and to combine a state aid with an EU fund.
4. European Investment Bank

In line with the EU 2020 Strategy and the EU transport policy objectives and targets, the European Commission recalls that the European Investment Bank (EIB) will continue to provide financial support to the commercial shipping sector. Particular attention will be given to projects that better assist the sector to cope with the environmental challenges and encourage, in line with EU legislation, the development of clean technology, and increased fuel efficiency as well as more concentrated effort in the safe and environmentally efficient methods of phasing out older and less fuel efficient vessels.

The EIB Transport Lending Policy adopted on 13 December 2011 states that lending for inland waterway, port, logistics and maritime projects are also prioritized in support of sustainable transport solutions. Shipping projects are subject to particular scrutiny with respect to the procurement, supplier and operating arrangements.

It appears that the LNG projects are fully compliant with the policy defined by the EU transport policy and the EIB.

The developments of LNG infrastructure and LNG vessels are in the specific criteria established by EIB for the waterborne transport. The objective is to comply with the Annex VI of MARPOL convention covering air pollutant emissions from ships, and the sulphur content of fuels.

The EU projects are also in the scope of the considerations of the EIB regarding the European aspects of shipping: vessels will be operated under an EU flag to ensure compliance with the European safety, operating and environmental rules. All EU projects related to LNG will adhere to all EU and IMO safety and environmental rules and regulations with regard to the construction and operation of vessels.

The EU projects will be in full compliance with the Intellectual Property Rights, the trade agreements and the competitive practices, as quoted in the Transport Lending Policy of the EIB. A particular attention is given to perform the projects in European shipyards.

There is a need to examine with the EIB experts the possibilities for operators, either ship-owners or port operators to apply for an EIB loan in the framework of the EU programmes mentioned in this working paper.

In this domain, two types of EIB interventions should be examined: applying for a loan in the framework of the EIB products, including applying for an EU/EIB finance support through intermediary banks/financial institutions, and EIB intervention in the framework EU risk-sharing financial instruments, including the possibility to apply for a project bond.

In October 2012, the European PPP Expertise Centre (EPEC) adopted a publication “Financing PPPs with project bonds: issues for public procuring authorities”, available on the EIB’s site. The aim of this publication is to contribute to and stimulate discussions on public-private partnerships (PPPs) as well as to foster the diffusion of best practices in this area. It lists the key characteristics of bond financing: maturity/refinancing risk, pricing, credit quality, transaction size, preparatory costs, deliver-ability and pricing uncertainties, cost of carry, termination provisions, controlling creditor.

The EIB published on 21 December 2012 “An outline guide to Project Bonds Credit Enhancement and the Project Bond Initiative” which describes the Project Bond Credit Enhancement (PBCE) Facility and defines the roles of the Procuring Authority, the Bidder and EIB at each stage of the tendering of a project which may incorporate PBCE.

The European Commission published on 19 December 2013 an interim report on the pilot phase of the European 2020 project bond initiative, which concludes that a liquid
project bond market requires better prepared and more mature projects. Governments should thus commit to long term planning so as to ensure a more stable and transparent pipeline of infrastructure projects. In this respect, CEF foresees technical assistance at institutional and project level to help prepare future pipelines of project of common interest in order to support Member States and the private sector. There is also scope to expand the project bond initiative (PBI) to other policy areas where the financing of smaller local infrastructure projects could be pooled at national or regional level. It is important to know that project bonds tend to have quite high administrative costs. Therefore, project bonds are more suited for large projects (over €300 million investment as indicative), where administrative costs can be split over the high value of the projects.

An “Ad-hoc audit of the pilot phase of the Europe 2020 Project Bond Initiative - Final Report on 17 June 2014” by EY is also available on the EIB’s site.

The mechanisms of guarantees offered by the EIB should also be taken into consideration.

The communication on research and innovation for Europe's future mobility\textsuperscript{12} foresees to invite the EIB to intensify the provision of preferential loans via the Risk Sharing Finance Facility (RSFF), expand its lending to the transport sector under its new lending policy and provide increased technical assistance to public and private stakeholders.

5. Directive on the deployment of alternative fuels infrastructure

The Council and the European Parliament have formally adopted a Directive on the deployment of alternative fuels infrastructure, based on the final compromise text reached at the 20 March 2014 informal trilogue. The Directive 2014/94/EU on 22 October on the deployment of alternative fuels infrastructure was published on 28 October 2014.

The recitals of Directive 2014/94/EU set up a link between the deployment of alternative fuels infrastructure and the EU financial programmes. Therefore, CEF, TEN-T, Horizon 2020 and European Regional Development Fund will contribute to finance the projects on the implementation of alternative fuels infrastructure.

It emerges from Directive 2014/94/EU that the development of new technologies and innovation, in particular regarding the decarbonisation of transport, is eligible for Union funding. It recalls that the CEF Regulation provides for additional funding to be granted for actions which exploit the synergies between at least two of the sectors covered by the Regulation (transport, energy and telecommunications). The CEF would therefore contribute to the deployment of alternative fuels infrastructure (Recital 16).

The revised guidelines of the Trans-European Network for Transport (TEN-T) require with regards to new technologies and innovation that the TEN-T shall enable the decarbonisation of all transport modes by stimulating energy efficiency as well as the introduction of alternative propulsion systems and the provision of corresponding infrastructure. The TEN-T guidelines also require that inland and sea ports, airports and roads of the Core Network provide for the availability of alternative clean fuels. In the Connecting Europe Facility (CEF), the TEN-T funding instrument makes eligible for grants the deployment on the Core Network of these new technologies and innovation, including infrastructure for alternative clean fuels. In addition, the deployment of infrastructure for alternative clean fuels on the broader comprehensive network will be

able to receive financial assistance from the CEF in the form of procurement and financial instruments, such as project bonds (Recital 20).

Regarding the innovative projects, Directive 2014/94/EU states that the Horizon 2020 framework programme will also provide support for research and innovation with regard to alternative-fuel vehicles and the related infrastructure, in particular through the Societal Challenge "Smart, green and integrated transport". This specific source of financing should also contribute to the development of alternative fuels infrastructure and should be fully considered as an additional opportunity to ensure a sustainable mobility market throughout the Union. (Recital 17).

Directive 2014/94/EU invites the Commission and the Member States to support national and regional development measures in this area, in order to trigger investments in sustainable transport and support the deployment of a continued network of alternative fuels infrastructure in the European Union. They should encourage the exchange of best practices in alternative fuels infrastructure deployment and management between local and regional development initiatives and, to this aim, they should promote the use of the European Structural and Investment Funds, in particular the European Regional Development Fund and the Cohesion Fund (Recital 18).

Regarding the State Aids, Member States may consider it necessary to provide support to operators affected by this Directive in accordance with the applicable State aid rules. Any national support measures for alternative fuel infrastructure notified to the Commission should be assessed without delay (Recital 19).

The use of LNG as a marine fuel is fully compliant with the EU policies on alternative fuels, decarbonisation of transport, clean transport, air quality, climate change, technology development and innovation which are recalled and applied by the EU funding regulations.

The European Commission has underlined that the Trans-European Transport Network will continue to finance projects addressing environmental issues and promoting the development of related green infrastructure and facilities. Implementation projects, pilot actions, and studies supporting the deployment of LNG technologies are among the priority actions of the TEN-T Motorways of the Seas work programme. For example, these may include the deployment of LNG stations. LNG bunkering vessels could also be funded as pilot projects.

This policy will be reinforced by Directive 2014/94/EU on the deployment of alternative fuels infrastructure.

The “Frequently Asked Questions -General” published in the framework of the CEF Transport -2014 Calls for proposals recall that the same costs cannot be supported more than once under the EU budget (section 14.1.1 on ‘Other sources of financing’ in each call text): "Pursuant to Article 129 of the Financial Regulation, no Union financial aid shall be awarded to Actions receiving funds from other sources of EU financing. In no circumstances shall the same costs be financed twice by the Union budget."

It is possible however that a Global Project receives funding from different EU sources for different activities to implement it. However, such activities have to be operationally
and financially managed and reported in a separate Action to exclude any ambiguity of double funding.

Nevertheless some key issues need a deep examination.

**6.1. The use of TEN-T Fund**

It is a necessity to have a common definition of port infrastructures, LNG infrastructure, bunkering infrastructure, barge, bunker-vessel, feeder, equipments to supply LNG to ships, other components, either on board the vessels or onshore, and the modifications of vessels which could receive an EU fund.

In this framework, the concept of Motorways of the Sea has been developed by the Commission Implementing Decision of 26 March 2014 establishing a Multi-Annual Work programme 2014 for financial assistance in the field of Connecting Europe Facility. This Implementing Decision details the specific objectives of the Motorways of the Sea. A priority will be given to implementation projects, pilot projects and studies which contribute to addressing the environmental challenges faced by the Maritime sector, in particular in view of the forthcoming requirements with respect to the implementation of the requirements of Annex VI of the IMO MARPOL Convention and of Directive 2012/33/EU on sulphur content.

To improve the environmental performance of freight transport services in the EU, the European Commission implemented the Marco Polo programme in the period 2003-2013. The main objective of this programme was to reduce the amount of freight transported by road.

In the questionnaire of a public consultation opened until 2 April 2014, the Commission states that the design of the funding scheme for freight transport services needs to take into account market needs and the results delivered by the Marco Polo programme. As the questionnaire included questions on energy efficiency, air pollution reduction and innovation, the foreseen funding scheme for freight transport services should take into account LNG projects.

The funding scheme for freight transport services is included in the revised TEN-T guidelines and using the instruments provided by the Connecting Europe Facility.

As specified by the transport work programme 2014 (see paragraph 2.3.4 above), the annual and multi-annual programmes 2014 contribute to the improvement of the efficiency and sustainability of freight transport in Europe. Innovation and new technologies, including alternative fuel solutions are amongst the specific objectives.

**6.2. Coordination between EU Funds**

In addition to the Connecting Europe Facility, the Ten-T Regulation also authorizes public and private stakeholders to use other specific European programmes, in particular those supporting regional development, 'European Territorial Cooperation', 'Research and Innovation' or 'Environment and Climate action'. Those stakeholders may thereby contribute to achievement of the objectives of this Regulation and, moreover, specifically strengthen the promotion of sustainable transport solutions, such as low-carbon and other innovative transport solutions and environmental improvements.

On this legal basis, the coordination and the synergies between the EU Funds should be clearly established. The rules regarding the eligibility, the selection and award criteria of each EU Fund should be set up.

The eligibility of projects interesting the ports of the comprehensive network defined by the TEN-T Regulation needs a comprehensive understanding, taking into account the
ERDF Regulation. It is necessary to precise in which case a project is eligible to a TEN-T grant and in which case a project is eligible to an ERDF grant.

In this case, it is necessary to take into account the Partnership Agreement concluded by each Member State with the Commission, in the framework of the ESI Funds.

Regarding the new technologies or the innovation, there is also a need to clearly define the projects to be eligible to TEN-T Fund and the projects to be eligible to HORIZON 2020. Acoordination with the Leadership 2020 Initiative, which aims to support European shipyards, is to be set up.

It is understood that TEN-T promotes innovative measures facilitating the decarbonisation of all transport modes by stimulating energy efficiency, introducing alternative propulsion systems, and providing corresponding infrastructure. TEN-T does not fund the research and development phase of a project. TEN-T can fund prototype under the condition that this prototype is market-oriented, which means that the prototype can be deployed afterwards.

HORIZON 2020 can fund the research and development phase of a project and a prototype, which could difficultly be deployed in the market.

The possibility to use the LIFE Programme for the deployment of technologies or instruments which could contribute to the reduction of greenhouse gas emissions should be examined.

6.3. State Aids

Regarding the State Aids, the European Commission has focused on the State aid for environmental protection, with a constraint on the end date, 31 December 2014, for the retrofitting of existing vessels in order to comply with the new sulphur limits. But this coming limit for sulphur content concerns the SECA. For other maritime zones, the rule will change on 1 January 2020. Consequently, the recourse to the State aid for environmental protection could be examined for the projects outside the SECA. The possibilities to grant State aid to LNG projects beyond 31 December 2014 should also be reassessed taking into account that the use of LNG as a fuel improves the environment beyond the environmental rules on shipping.

Moreover, the possibility to get a grant in the domain of State aid for research and innovation should be studied. This issue should be reviewed in the line of the strategic transport-technology plan presented by the European Commission in the communication on research and innovation for Europe’s future mobility.

The limits between State aid and EU funds for an overall project should be clearly defined, taking into account the guidelines on environmental and energy aid for 2014-2020, the guidelines on research and development and innovation framework (R&D&I Framework) and the General block exemption Regulation ("GBER") on State aids.

As it seems that EU Fund are not a State aid, it is understood that a same project can combine an EU Fund and a State aid provided that a principle of proportionality shall be applied. Obviously, it is also understood that the principle of proportionality means that the total amount of the State aid grant and the EU Fund grant shall not exceed 100% of the eligible costs for the EU Fund. Nevertheless, a more precise guidance is needed on this issue.

The “Frequently Asked Questions -General” published in the framework of the CEF Transport -2014 Calls for proposals indicates that applicants have to notify the Commission whether their national co-financing granted for the proposed Action is
considered as state aid under Article 107(1) of the Treaty. According information must be provided in Application Form Part C, chapter III.

In case state aid is involved, the applicant is required to explain if a notification pursuant to Article 108(3) to the Commission (DG Competition) has taken/will take place and set out possible grounds for compatibility with state aid rules.

6.4. EIB financial mechanisms

A real financial engineering should be set up with EIB in order to have a clear and comprehensive understanding on the use of EU Funds with the financial mechanisms (loans and guarantees) of the Bank. The objective is to clarify with the EIB the modalities for these operators to submit their projects to the EIB. It appears that EIB only works directly with beneficiaries of large amounts. The advices of the EIB in this domain will be highly appreciated.

For example, it was released on 8 July 2014 that EIB provided a EUR 124 million loan to a shipping company for the expansion of its fleet, to boost the development of sustainable sea transport. It is noted that the loan has been secured by a guarantee from the Kingdom of Norway, through the state support credit agency.

The interim report from the European Commission on the pilot phase of the project bond initiative indicates that this financial instrument is relevant for motorways, gas storage or grid connections. The required conditions to apply the project bond initiative to maritime projects should also be assessed.

Comprehensive guidelines on the use of EU funds and EIB financial mechanisms should be of high interest and utility for the operators (shipowners, ports, shipyards, LNG infrastructures operators) belonging to various sectors (shipping, industry, energy).

On 14 October 2014, the Economic and Financial Affairs Council welcomes the establishment of a Task Force, led by the EIB and the Commission, with a view to working on concrete measures to boost investment. The Council agrees with the need to focus on key sectors with EU-added value, such as energy and transport infrastructure, to boost the competitiveness and the growth potential of the Union. The need to make the action of the EIB more effective, including by fully exploiting its risk bearing capacity to support European investment in key sectors to boost competitiveness and growth potential is underlined by the Council.

Due to the financial risks presented by the shipping sector as indicated by the European Central Bank, it is expected that the shipping sector will be included in the works of the Task Force, led by the EIB and the Commission.

The shipping sector is committed in a deep energy change, which will last for at least 20 years to adapt the fleets and the ports to the incoming environmental constraints. Therefore, the financial instruments defined to sustain the European shipping should take into account the Green Paper on Long-term financing of the European economy, which promotes investments for a low carbon economy.
Annex 4: Table of investments and relevant EU fundings

<table>
<thead>
<tr>
<th>Type of Investment</th>
<th>Project coordinator</th>
<th>Financing</th>
<th>Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship building</td>
<td>Shipowner</td>
<td>Shipyard</td>
<td>TEN-T Fund</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>For new vessels, could studies, or action supporting the deployment of alternative fuel new technologies and innovation limited to the additional efforts for environmental purposes be eligible to TEN-T Fund as it is the case for conversion of vessel propulsion system to LNG fuel?</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>State Aid for environmental protection and energy</td>
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<tr>
<td></td>
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<td></td>
<td>Conditions defined by the Guidelines (Communication (C2014/C 200/01) from the Commission) published on 28 June 2014</td>
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<tr>
<td></td>
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<td></td>
<td>State Aid for Research &amp; Development &amp; Innovation</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Framework defined by the Communication (C2014/C 198/01) from the Commission published on 27 June 2014</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Regional State Aid</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Conditions defined by the Guidelines (Communication (2013/C 209/01) from the Commission) published on 23 July 2013</td>
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<tr>
<td></td>
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<td></td>
<td>EIB</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>EIB Transport Lending Policy adopted on 13 December 2011 Vessels will be operated under an EU flag to ensure compliance with the European safety, operating and environmental rules. All EU projects related to LNG will adhere to all EU and IMO safety and environmental rules and regulations with regard to the construction and operation of vessels. The EU projects will be in full compliance with the Intellectual Property Rights, the trade agreements and the competitive practices, as quoted in the Transport Lending Policy of the EIB. A particular attention is given to perform the projects in European shipyards. Studies and deployment of alternative fuel infrastructure, in particular (but not limited to) LNG are addressed in the MoS Priority as defined in the multi-annual Work</td>
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</tbody>
</table>
| Ship modification | Shipowner | TEN-T Fund | Programmes 2014. Upgrades on vessels are limited to the additional efforts for environmental purposes and cannot cover the full costs of acquiring or constructing a vessel. This kind of investment could be considered as eligible under certain conditions:

- The ship will be part of an upgraded or a new MoS link established between two ports in two different countries on an intermodal corridor, or
- The ship intends to pilot and validate some new technological solutions which have not been tested before on other ships in Europe. The piloting actions should be innovative.

The ship receiving a CEF Transport grant will be required to provide services between the EU ports for a period of at least five years after the project end date. Please note that CEF Transport does not support the conversion of a fleet of vessels non-related to the specific maritime links upgrade. | State Aid for environmental protection and energy | Conditions defined by the Guidelines (Communication (C2014/C 200/01) from the Commission published on 28 June 2014) |
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<tbody>
<tr>
<td>State Aid for Research &amp; Development &amp; Innovation</td>
<td>TEN-T Fund</td>
<td>Framework defined by the Communication (C2014/C 198/01) from the Commission published on 27 June 2014</td>
<td>Conditions defined by the Guidelines (Communication (C2013/C 209/01) from the Commission) published on 23 July 2013.</td>
<td>Regional State Aid</td>
<td>EIB EIB Transport Lending Policy adopted on 13 December 2011</td>
</tr>
</tbody>
</table>

| Bunker vessel | Shipowner | TEN-T Fund | As stipulated in the TEN-T Work Programme, costs related to the introduction of a LNG bunkering barge are eligible for co-funding under the MoS Priority. The co-funding rate cannot exceed 30% (85% for proposals submitted under the call addressing the Cohesion Fund allocation). A barge is considered as part of port infrastructure and should therefore offer services on non-discriminatory grounds. Moreover, the services should remain publicly accessible. A co-financed bunkering barge will be required to provide the |
customary services in the EU ports for a period of at least five years after the project end date.

<table>
<thead>
<tr>
<th>State Aid for environmental protection and energy</th>
<th>Conditions defined by the Guidelines (Communication (C2014/C 200/01) from the Commission published on 28 June 2014)</th>
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</thead>
<tbody>
<tr>
<td>State Aid for Research &amp; Development &amp; Innovation</td>
<td>Framework defined by the Communication (C2014/C 198/01) from the Commission published on 27 June 2014</td>
</tr>
<tr>
<td>Regional State Aid</td>
<td>Conditions defined by the Guidelines (Communication (2013/C 209/01) from the Commission) published on 23 July 2013.</td>
</tr>
<tr>
<td>EIB</td>
<td>EIB Transport Lending Policy adopted on 13 December 2011</td>
</tr>
</tbody>
</table>

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<thead>
<tr>
<th>Port Authority Region, District Port manager Port Facility Manager</th>
<th>CEF Regulation TEN-T Fund</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a) with regard to grants for studies, 50 % of the eligible costs; b) with regard to grants for works:  - for inland waterways: 20 % of the eligible costs; the funding rate may be increased to a maximum of 40 % for actions addressing bottlenecks and to a maximum of 40 % for actions concerning cross-border sections;  - for inland transport, connections to and the development of multimodal logistics platforms including connections to inland and maritime ports, as well as the development of ports: 20 % of the eligible costs;  - for actions supporting new technologies and innovation for all modes of transport: 20 % of the eligible costs;  (c) for actions to support the development of motorways of the sea: 30 % of the eligible costs. See the TEN-T annual and multi-annual calls specifications</td>
</tr>
<tr>
<td>ESI, ERDF and Cohesion Funds</td>
<td>- thematic objective 4 to support the shift towards a low-carbon economy in all sectors;  - thematic objective 7 to promote sustainable transport and removing bottlenecks in key network infrastructures. Priorities to promote sustainable transport and remove bottlenecks in key network infrastructures by:  - supporting a multimodal Single European Transport Area by investing in the TEN-T;  - developing and improving environmentally-friendly (including low-noise) and low-carbon transport systems, including inland waterways and maritime transport, and ports.</td>
</tr>
<tr>
<td>Category</td>
<td>Description</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Shore-based LNG Infrastructures</strong></td>
<td>EIB Transport Lending Policy adopted on 13 December 2011 states that lending for port projects are also prioritized in support of sustainable transport solutions.</td>
</tr>
<tr>
<td><strong>LNG Infrastructures manager or owner</strong></td>
<td>CEF Regulation TEN-T Fund See above Port infrastructure and the TEN-T annual and multi-annual calls specifications</td>
</tr>
<tr>
<td><strong>CEF Regulation</strong></td>
<td>ESI, ERDF and Cohesion Funds See above port infrastructure</td>
</tr>
<tr>
<td><strong>EIB</strong></td>
<td>To be defined</td>
</tr>
<tr>
<td><strong>LNG trucks parks</strong></td>
<td>CEF Regulation TEN-T Fund See above port infrastructure and LNG infrastructure</td>
</tr>
<tr>
<td><strong>Port authority Region, District Facility manager or owner</strong></td>
<td>ESI, ERDF and Cohesion Funds See above port infrastructure and LNG infrastructure</td>
</tr>
<tr>
<td><strong>Innovative climate change mitigation technologies</strong></td>
<td>The priority area Climate Change Mitigation shall in particular have the specific objective to contribute to the development and demonstration of innovative climate change mitigation technologies, systems, methods and instruments that are suitable for being replicated, transferred or mainstreamed. The sub-programme for Climate Action includes also a priority on Climate Governance and Information. Action grants may finance pilot projects, demonstration projects, best practice projects, integrated projects, technical assistance projects, capacity-building projects, preparatory projects, information, awareness, and dissemination projects.</td>
</tr>
<tr>
<td><strong>Region Industry</strong></td>
<td>LIFE Programme</td>
</tr>
<tr>
<td>innovation for Europe's future mobility</td>
<td>The strategic transport-technology plan will support the implementation of the funding programmes. This includes Horizon 2020, the Connecting Europe Facility, the ERDF and Cohesion Fund, and the Programme for the Competitiveness of Enterprises and SMEs.</td>
</tr>
</tbody>
</table>
Annexe 5: Norwegian Nox Fund by Mr Tommy Johnsen

**Support to LNG projects**

- Support cover *additional costs* of investing in LNG fuelled ship
- Up to 80% of investment cost and up to **300 NOK/kg** NOx reduced
- Support also possible for LNG distribution infrastructure
<table>
<thead>
<tr>
<th>Type</th>
<th># projects</th>
<th>Grant (mill. EUR)</th>
<th>NOx-reduction (ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LNG small scale infrastructure</td>
<td>3</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>Offshore service ships</td>
<td>28</td>
<td>95</td>
<td>2800</td>
</tr>
<tr>
<td>Ferry and passenger</td>
<td>18</td>
<td>70</td>
<td>1800</td>
</tr>
<tr>
<td>Tankers and cargo ships</td>
<td>24</td>
<td>80</td>
<td>2000</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>73</strong></td>
<td><strong>251</strong></td>
<td><strong>6600</strong></td>
</tr>
</tbody>
</table>

What does it take to shift to LNG

New *PSV in Norway, no support*

<table>
<thead>
<tr>
<th>ENGINE AND OPERATION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Time in ECA</td>
<td>100%</td>
</tr>
<tr>
<td>Installed power</td>
<td>6,000 kW</td>
</tr>
<tr>
<td>Baseline</td>
<td>Marine Gas Oil (MGO)</td>
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<table>
<thead>
<tr>
<th>FUEL PRICE</th>
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<tbody>
<tr>
<td>MGO</td>
<td>1,000 USD/tonne + tax</td>
</tr>
<tr>
<td>LNG High</td>
<td>MGO parity</td>
</tr>
<tr>
<td>LNG Low</td>
<td>MGO parity - 20%</td>
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<table>
<thead>
<tr>
<th>FINANCIAL</th>
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</thead>
<tbody>
<tr>
<td>Discount rate</td>
<td>8%</td>
</tr>
<tr>
<td>Inv. decision</td>
<td>Newbuild</td>
</tr>
<tr>
<td>Tax regime</td>
<td>CO₂, SO₂, and NOₓ</td>
</tr>
<tr>
<td>CAPEX LNG</td>
<td><em>8,100,000 USD</em></td>
</tr>
<tr>
<td>CAPEX SCR</td>
<td><em>750,000 USD</em></td>
</tr>
</tbody>
</table>

*Negative values mean savings compared to fuel switch*
What does it take to shift to LNG
New PSV in Norway, NOx Fund support

![Diagram showing cumulative discounted cost difference compared to baseline (MUSD)]

<table>
<thead>
<tr>
<th>ENGINE AND OPERATION</th>
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<tbody>
<tr>
<td>Time in ECA</td>
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<tr>
<td>Installed power</td>
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<tr>
<td>Baseline</td>
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<tr>
<td>CAPEX LNG</td>
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<tr>
<td>CAPEX SCR</td>
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</tbody>
</table>

What does it take to shift to LNG
Retrofit container example (1000 TEU), no support

![Diagram showing cumulative discounted cost difference to HFO baseline (MUSD)]

**Explanation**
Each line represents the additional cumulative costs of the respective configuration compared to baseline (HFO).
LNG has a high investment cost, but depending on the fuel price the operational savings can be significant.

- MGO price: 930 USD/tonne
- 23 USD/MMBtu
- HFO price: 615 USD/tonne
- 16 USD/MMBtu

The LNG price spread shows which price levels are required for certain payback times. It serves as a good basis for decision making and negotiation with LNG fuel suppliers and system suppliers.
Annex 6: Reflections on EIB credit policy

EUROPEAN INVESTMENT BANK AND PRIVATE FINANCING

(Jean Philippe NEAU/ Adam KAPELLA)

I – BACKGROUND: PERFORMANCES OF EUROPEAN INVESTMENT BANK AND CHALLENGE OF THE NEW ENVIRONMENTAL STANDARDS (A KAPELLA)

In line with the EU 2020 Strategy and the EU transport policy objectives and targets, the European Commission recalls that the European Investment Bank (EIB) will continue to provide financial support to the commercial shipping sector. Particular attention will be given to projects that better assist the sector to cope with the environmental challenges and encourage, in line with EU legislation, the development of clean technology, and increased fuel efficiency as well as more concentrated effort in the safe and environmentally efficient methods of phasing out older and less fuel efficient vessels.

The EIB Transport Lending Policy adopted on 13 December 2011 states that lending for inland waterways, ports, logistics and maritime projects are also prioritized in support of sustainable transport solutions. Shipping projects are subject to particular scrutiny with respect to the procurement, supplier and operating arrangements.

Promotion of Motorways of the Sea projects (infrastructures and vessel components as LNG elements and scrubbers) is fully in line with the policy objectives defined by the EU transport policy and the EIB. The developments of LNG infrastructure and LNG vessels are among the specific criteria established by EIB for the waterborne transport. The objective is to comply with the Annex VI of MARPOL convention covering air pollutant emissions from ships, and the sulphur content of fuels.

EU objectives are also in the scope of the considerations of the EIB regarding the European aspects of shipping: vessels will be operated under an EU flag to ensure compliance with the European safety, operating and environmental rules. All EU projects related to LNG will adhere to all EU and IMO safety and environmental rules and regulations with regard to the construction and operation of vessels. The EU projects will be in full compliance with the Intellectual Property Rights, the trade agreements and the competitive practices, as quoted in the Transport Lending Policy of the EIB. A particular attention is given to assist the projects in European shipyards.

There is a need to examine with the EIB experts the possibilities for operators, either ship-owners or port operators to apply for an EIB loan in the framework of the EU programmes mentioned in this submission. In this domain, two types of EIB interventions should be examined: applying for a loan in the framework of the EIB products, EIB intervention in the framework of the Connecting Europe Facility (CEF). The mechanisms of guarantees offered by the EIB may be the project bond instrument offered through the EIB is a risk-sharing financial instrument of the CEF.

The communication on research and innovation for Europe's future mobility foresees to invite the EIB to intensify the provision of preferential loans via the former Risk Sharing Finance Facility (RSFF), expand its lending to the transport sector under its new lending policy and provide increased technical assistance to public and private stakeholders.

The commitment of EIB depends on several conditions which were conceived to the financing of big projects (infrastructures): long-term loans, financial instruments offered
through risk-sharing with EU funds, such as the pilot phase of the project bond instrument in the TEN-T Programme. These risk-sharing financial instruments were designed for project finance models, normally associated with public-private partnership (PPP) procurements. The threshold of its project loans directly borrowed for individual projects is set at 25M€ for investment costs and can cover up to 50% of the total cost for both public and private sector borrowers. The bank has financed a number of ships, paying a special attention that the ships use best available technologies.

Under the intermediated loan scheme, project managers secure loans with commercial banks which shoulder part of the commercial risks while EIB provides support to the “intermediated loan”. Eligible companies are autonomous SMEs with less than 250 employees (max. loan of 25 million €) or Mid-cap businesses with less than 3000 employees (max. loan of 50 million €). Loan conditions can be flexible in terms of the size, duration, structure etc. Lending decisions remain with the intermediary institutions, which also retain part of the financial risk of the on-lending. The EIB does not have a contractual relationship with final beneficiaries. The intermediary must transfer a financial advantage reflecting the impact of EIB funding.

Those conditions apply to retrofitting shipyards imperfectly because the investments are in majority under the 25 M€ threshold and shipowners have to secure loans from commercial banks. Shipowners highlighted that the intermediated loan does not help them since the risk remains at the level of local banks, which implies that in fact nothing changes in comparison with normal private lending. Also here the problem is that the rest value of the vessel is too low in comparison with the required loans for retrofitting (for instance a feeder vessel was worth 18 million € in 2006, and is now worth only 4 million €). The intermediate, commercial, bank has to be convinced of the loan. Companies with a good credit rating can still profit. However, it was mentioned that for small companies, which own only one vessel this may not solve their problem. Moreover, for many banks the required loans are too small for the amount of administration/complication they require.

The access to credit is limited since 2008 and the crisis of private financing. Banks reduce their exposure to shipping market and withdraw dramatically, we should underline that private banking hardly intends to conceive special loans for challenging environmental compliance even if the retrofitting shipyards are expensive and similar to building shipyards. Shipowners cut investment and European shipyard activity slowed down since 2010 (Opinion of the European Economic and Social Committee on the European ship maintenance, repair and conversion sector).

The exploitation of ferries reveals specifics questions and needs bespoke solutions: more expensive ships and higher costs for SECA compliance (adapted scrubbers for ferries reach 10M€), special LNG retrofits (15 /35M€). The exploitation life of the ship is longer than other ships (25 to 30 years) and the renewal of the fleets is slower than other sectors of the shipping. There is a lower mobility for ferries because exploitations are adapted and connected to ports infrastructures: it limits the second-hand market which however sets the price of the asset in case of foreclosure. Profits are weaker and contained within narrow margins and reduced cashflows. The modal competition (air, railways and roads) limits the capacity to modify the prices according to the new costs. In those conditions, an examination of the requirements and the process for granting loans should be explored.
II-PROPOSALS FOR ADAPTED CONDITIONS FOR LOANS FINANCING SHIPOWNERS & SHIPBUILDERS (JP. NEAU)

A real financial engineering should be set up with EIB in order to have a clear and comprehensive understanding on the use of EU Funds with the financial mechanisms (loans and guarantees) of the Bank. The objective is to clarify and improve with the EIB the modalities for these operators to submit their projects to the EIB.

A-At EU level the financial support may be more pragmatic and thus can be strengthened. For example, scrubber business may be analysed as though :

- Scrubber equipment suppliers are only a few: Norwegian (Green Tech Marine), Swedish (Alfa Laval, Finnish,Wartsila), etc....

- Market demand: Strong for ECA reasons (but not only), sustainable demand up to [2020-25].

- Project size: Below 25m€ for 95% of the considered transaction.

- Project content (as statistical): 40% scrubber equipment + 35% engineering studies + 25% installation on board.

- Project profile: [5-7] years return on equity

- Project industrial Leader: Shipbuilder - Drydock needed most of the time.

- Project timeline: Betw.[6months-1 year] to install the scrubber on board.

- Purchaser profile: Ship owner - buying a turnkey contract to Shipbuilder.

- Seller profile: Shipbuilder - signing the turnkey contract with the Purchaser.

- Financing profile: Corporate loan/Mortgage loan/Supplier credit (if shipbuilder is a borrowing entity)

- Borrowing entity: Owner or Shipbuilder of all B/S size (small/medium/large Cy)

- Employment impact: Created by Shipbuilder, both at shipbuilder Cy (engineering) and on board (installation) if needed.

Taking into account this features, if at EU level there is a strong support for the implementation of that kind of asset on board re. Scrubber, the appropriate funding solutions could be as follows:

1. Financing

(a) The new mecanism must be focused on providing guarantees and not banking liquidity. Because the banking market is now liquid however the risk takers are not always there due to the zero growth situation in the EUR which strongly impacts the net margin of the companies.
(b) **Risk Sharing mechanism between Financiers [local and supranational]**

EIB could guarantee up to 50% of the project cost the local bank against the payment default of the Cy, leading to the issuance of a first, irrevocable and on demand guarantee to be issued by EIB in favor of the intermediary bank.

In parallel, the local bank put in place a credit agreement, providing the funding of the total transaction, being counterguaranteed by EIB and tentatively by an Export credit Agency, located in the country of the scrubber equipment supplier. The intermediary bank bears an EIB counterparty risk which is acceptable being a AAA S&P LT risk

EIB should also be in a position to draw its credit policy with acceptable counterparty banking risks with a minimum S&P LT ratings [A].

(c) **Maturity:** EIB should offer a long term maturity in terms of guarantee, up to 12 years from the effectiveness of the commercial contract.

(d) **Currency:** EIB should offer its guarantee in USD or in Euro.

(e) **Refund guarantees:** The purchaser should ask to the shipbuilder some guarantees to protect its commitment under the financing. EIB could also provide these refund guarantees to help the closing of the commercial contract. As of today, commercial banks are not keen to take lots of risk on shipbuilders, even if the yards are key component of the whole transaction and drive the process in terms of jobs impacts

(f) **Purchase guarantees:** ESSF should discuss with EIB about purchase guarantees by which a shipyard protect its commitment against Ownerships’ failure.

(g) **Financial documentation:** ESSF should create a working group to discuss with EIB about the tentative wording of this guarantee which will include both Yard's representative, Ownership representatives and commercial bankers. For the refund guarantees, a pre-agreed bond wording should be designed to be used in all transactions.

2. **Origin of equipment and Supplier involvement**

(a) The equipment to execute the commercial contrat between the Buyer and the Purchaser should mainly come from Europe, at least for a minimum of 70% European content.

(b) The commercial contract should be executed within yards of the EU community.

3. **Jobs impact**

(a) The contract should imply by the yard the employment of young people from the EU community, aged below 30 years. The undertaking should come from the yard.

**B -For all the other potential transactions excluding scrubber ones, but including assets tied with the shipping industry a viable solution at EU level should be found.**
EU financial support has eligibility conditions that must be respected, the nature of the transactions need to be better identified. What we see is that comparable institutions in the world are much more supportive than we have in Europe despite the fact that we have some big players in the EU Community in the ship owner side or in the yards industry or equipments suppliers. The reality is that we could be much more efficient with adequate funding mechanism that could match what they have in Japan or in South Korea, in USA or in China or even in Brazil.

To be efficient, what could be of help with real added value and what could fill the gap in the current situation. If the general goal is to allow a quicker and easier implementation of the sulphur directive as such, then the general matter is to easier the financial closing of the project.

Based on the fact that in Europe to build accurate innovative ships and marine platforms, we have:

- relevant technical capabilities in some yards,
- accurate project management capabilities in some yards,
- adapted equipment suppliers with high quality - most likely in a better situation than in Asia (re. China lower)
- quality of equipments which could be a quite important issue when passengers vessels projects are considered for obvious safety reasons),

Then there is often a low closing project process due to non performance financial process with only few options available for business partners. Only some few commercial banks are there to consider the transactions, all the more if:

- there is a small considered transactions of less than 50 M€ equivalent.
- this is a shipping related deal due to ongoing stuck banking portfolio
- all the business partner are European based, then the US Bank and Asian Bank are not generally interested to support the transaction. The latters then prefer to support some relationships client partially or in connection with national/supranational banks from USA (UX EXIM BANK), from Asia (Korean exim bank, KDB, China bank, JBIC, BNDES, EXPORT CREDIT NORWAY.....).

So to fill the gap and given the quality of the business partners to close any related shipping projects, EIB or another European Financial entity should strengthen its capacity to support any European business interest like their peers outside Europe. Where is the key point to intervene:

- Financing the industrial project leader or the shipowner (re. Borrowing entity), generating activity in the European industry with the financing of the supply chain, then the money goes not only to this borrower but to the sub contractor generally European Sme's. BNDES is doing so well in this respect.
- Create a financing department with dedicated human resources in charge of developing this activity is a must to have. Indeed, this can create some
additional workload, and our perception of EIB current capabilities is that
the current team is quite small and already stuck with some important
transactions in Europe for big players in a quite broad nature of activities
(from ship finance to port infrastructure financing which is more project
finance related and has nothing to do with the current attempts of the
European players in terms of financing).

- Create a ready-to-use financial documentation for such transaction to save
time and be on time as time is of essence in business to create business
activities and generate some economic growth.

- Officialise a clear and no questioned credit policy paper of :
  - Eligible asset to finance : Passenger vessels, Offshore Supply
    Vessels, offshore platform,
  - Eligible borrowing entity : Shipbuilder and not only shipowners for
    obvious reason and leasing backed entity
  - Adequate credit maturity: today to be efficient a [15-25] years
    financing is a needed to let the shipowner and its shareholders
    sufficient time to amortize the asset to finance. This is a strategic
    point when considering the financing of ship finance.
  - Adequate credit rating: for the time being, the EIB credit rating is
    far too strict which can not allow the financing of the main
    commercial companies in Europe. EIB should be in a position to
    take some credit risk on European counterparty without the latter
    having some official rating and strong balance sheet. The principle
    of the risk-sharing financial instruments in the CEF supports the
    credit enhancement of investments.
  - Requiring an official financial covenant to be know by all :
    - EIB can finance up to 25% of the equity amount
    - Leverage ratio lower than
    - Gearing ratio Debt/Equity
    - Credit decision should be also discussed in the EIB
      representative respective European countries within a limit
      of authorization of 30M€ per transaction and subject to the
      setting up of a financing structure respecting the general
      guidelines of the EIB HQ credit policy paper.

- Leasing product: EIB should be in a position to propose a leasing
  financing product alike its peers in Asia (Korean, Chinese and Japanese)
  where the EIB should act as lessor and thus attracting some good names
  acting as lessee. This requires some sectorial expertise but this is where now
  the business key components are. This is a key real point for shipowner and
  yards as of today and this financial scheme is an real attractive product in
  other competitive countries (we have to compare ourselves to the best
  countries in this field, ie, Korea - China - Japan - USA)

- A/B loan like the IFC in the USA, and EBRD - where EIB has an impact on
  the credit policy: EIB should also sponsor an A/B loan where EIB is
  offering to banks a umbrella risk cover on the
  Bloan when EIB is offering directly a A
  loan. This A/B loans profile having long maturity, offering €/$ financing,
  with potential fix/floatin interest rate.

- In terms of flag, EIB is usually asking for some registration in Europe
  which is not so realistic because of the current organization of the shipping
  business on a worldwide basis (lots of flag from bahamas,..). We suggest to
allow flag from cooperative countries re. OECD rules and that all non
banned and all cooperative countries are flag accepted.