European Commission

CEF support to

Motorways of the Sea

Innovation and Networks Executive Agency

Motorways of the Sea

FEBRUARY 2018

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1. Introduction

The following report provides an overview of the maritime part of the 2014 – 2017 CEF Transport programme as well as its contribution to fulfilling the Detailed Implementation Plan for Motorways of the Sea, as defined by the European Coordinator Mr Brian Simpson. This Plan was presented to the Parliament in June 2016 and while it is currently undergoing stakeholder consultations, it is scheduled for its final publication in 2018. Consequently, this report aims at providing an updated state of play as well as outlook for the CEF Motorways of the Sea portfolio.

Maritime transport remains a key component of both the global and the intra-European trade and transport system. Not only does a thriving maritime industry connect European industry with its global markets, but the continued development of short sea shipping enables the further decongestion of land based networks with its associated environmental benefits. To illustrate, in 2015 1.8 billion tons of cargo was transported with short sea shipping in Europe, which accounts for 59% of all maritime transport of goods in European ports.

The CEF funding programme contains a significant maritime Action portfolio which is detailed in section 2 of the report. Out of this portfolio, Motorways of the Sea is the most important funding priority. It is dedicated to creating a safe, sustainable, competitive and integrated short sea shipping sector in Europe and has done so through financing multi-country interventions. In doing so, it has supported Actions within the three pillars of the Detailed Implementation Plan: (1) improving the Environment, (2) Integrating the maritime transport in the logistics chain and (3) improving safety, Traffic Management and the Human Element. The progress within each pillar is detailed in Section 3 of this report.

Several challenges for this priority still remain. By solely funding Actions spanning multiple countries, the CEF programme has successfully increased cooperation between Port Authorities and other maritime stakeholders bringing forward better connections between core network corridors. However, some of the maritime link Actions in the MoS portfolio could have more balanced port/ship investments, and also would have needed a greater cooperation between the Action partners.

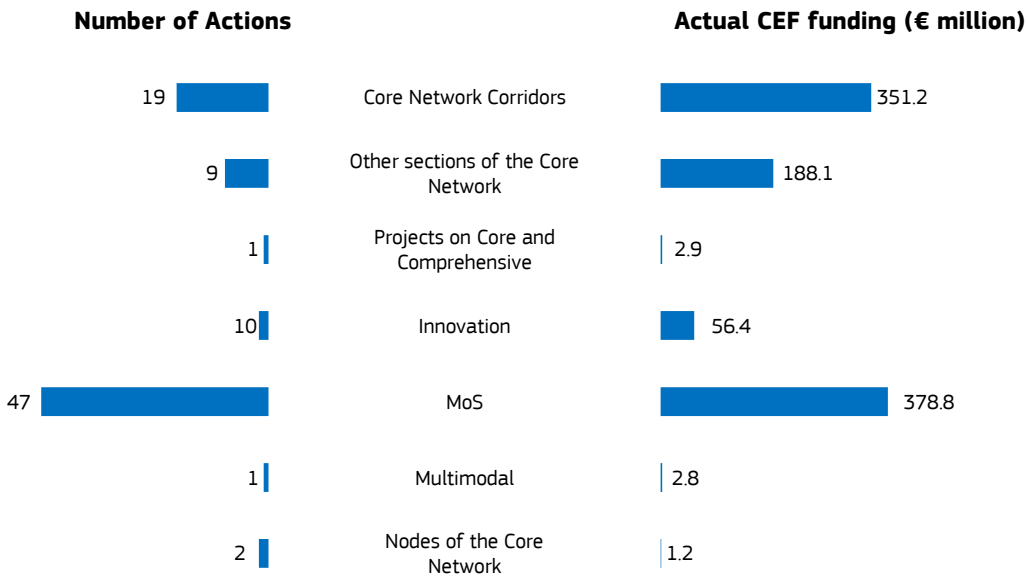
Moreover, the increasing number of environmental challenges put more and more needs to streamline investments in the maritime sector towards these objectives. The CEF has constantly supported Actions dealing with installation of abatement technologies and clean fuels in order to help shipowners comply with the new environmental requirements as well as to green the image of shipping. Further interventions in this area, in particular in relation to the LNG as fuel and cutting CO2 emissions, will remain a priority for the MoS.

2. Overview of the Maritime Action portfolio

The current Maritime portfolio is comprised of a total of total 89 Actions[1] receiving €981.3 million of actual CEF Transport funding. 8 multimodal innovation Actions, which receive €51.6 million in CEF Transport funding, have been included in this report because they contribute to the development of the maritime portfolio.

With 378.8 million euro of grant financing, and 47 Actions[2], the Motorways of the Sea (MoS) funding priority remains the most important instrument in financing maritime interventions in Maritime Ports, European vessels, hinterland services and other economic actors. Only one Action has been terminated, and is excluded from further analysis. The funding priorities 'Core Network corridors' and 'Other sections of the Core Network' also contain important port upgrading investments (as shown in the chart below).

Figure 1: Actual CEF T funding for Maritime Actions per priority, € million (number of Actions)



An example of the different possibilities for receiving financing in the maritime sector is the Port of Trelleborg. While receiving financing under the 2014 and 2015 General Call within the MoS priority in order to upgrade the link between the ports of Trelleborg and Swinoujscie, it has in the 2017 Blending-1 Call received a grant within the Core Network Corridor priority to build amongst others two new quays. This report flags this issue; however its content will cover purely the MoS portfolio in further analysis as of section 3.

[1] Of which 81 have been signed following the 2014-2016 Calls, and 8 are under preparation following the 2017 Blending-1 Call.

[2] Of which 46 have been signed following the 2014-2016 Calls, and 1 is under preparation following the 2017 Blending-1 Call.

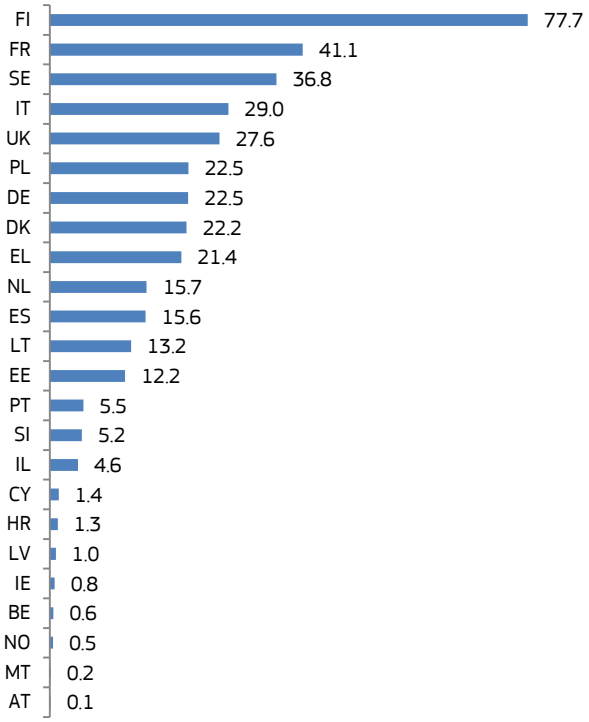
3. The Motorways of the Sea portfolio: State of Play

3.1 Operational implementation

In order to be eligible under the MoS priority, Actions must involve activities in two Member States and the Actions thus receive an associated benefit of a 10% co-financing bonus for works when compared to the other priorities.

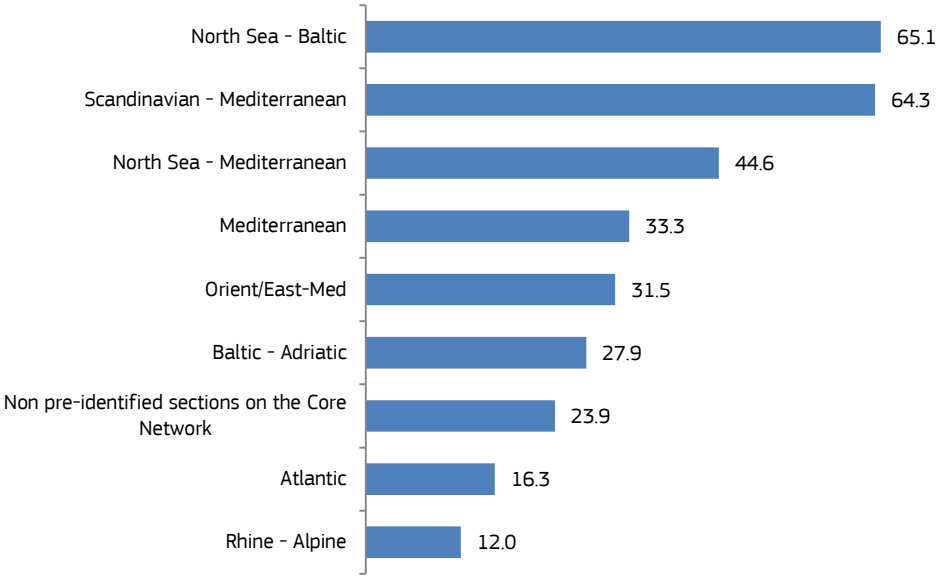
Finland is the largest recipient of the EU Grant funding under the MoS priority. While a complete country overview is shown in figure 2, this larger investment particularly reflects its involvement in several key MoS Actions, namely the redevelopment of the Port of Helsinki (2014-EU-TM-0087-M), the surveying of the Baltic Sea (2014-EU-TM-0152-M & 2015-EU-TM-0132-M) as well as the integration of multimodal container transport routes (2015-EU-TM-0098-M) Actions.

Figure 2: Actual CEF T MoS funding per country



This information can also be visualised by assessing the financing granted to the different Corridors. While all corridors were recipients of CEF financing throughout the 2014 - 2017 period, the North Sea - Baltic and Scandinavian - Mediterranean corridors have been larger recipients of EU financing for the maritime investments through MoS. This reflects a total grant of €295 million euro, with 83.8 million euro invested in other areas of the core and comprehensive network.

Figure 3: Actual CEF T funding for MoS per Corridor, € million



Finally, the Motorways of the Sea portfolio should also be assessed in terms of the three pillars described within the Detailed Implementation Plan of the European Coordinator for MoS, Mr Brian Simpson. These refer to his three funding priorities for the multi-annual annual framework between 2014 - 2020, namely:

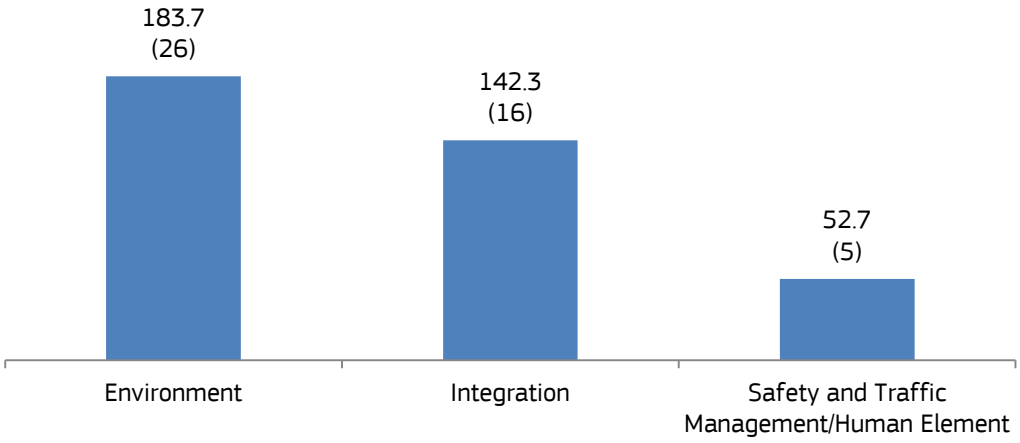
1) Environment (pillar 1)

2) Integration of maritime transport in the logistics chain (pillar 2)

3) Safety, Traffic Management and the Human Element (pillar 3)

The distribution of the 47 selected Actions amongst these pillars is reflected in the chart below.

Figure 4: Actual CEF T funding for MoS Actions per Pillar, € million (number of Actions)



3.1.1 Environmental pillar

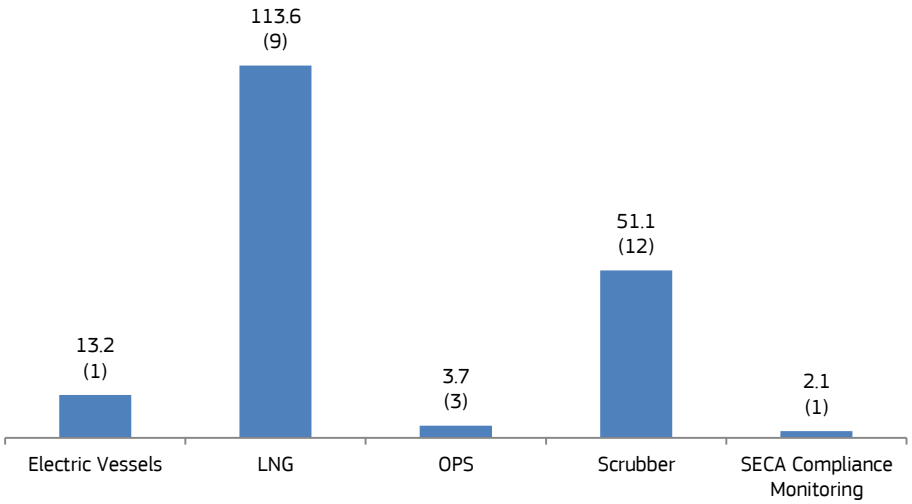
The environmental pillar is the largest pillar, both in terms of grant financing and number of Actions selected, and aims at eliminating the environmental externalities associated with shipping operations by supporting Actions contributing to emission reductions, green infrastructure deployment and the introduction of innovative environmental technologies. In doing so, this pillar aims at supporting the maritime industry in its adaptation to the strict environmental requirements imposed under the MARPOL sulphur regulations and the 2021 Baltic and North Sea NOx Emission control area (NECA).

26 Actions have been selected in the CEF portfolio, and the CEF Transport funding of €183.7 million is expected to generate a total investment of €499.2 million. Most of these Actions finance work components, and accordingly receive the largest share (76%) of CEF Transport funding. Moreover, 58% of CEF funding goes to the testing and introduction of innovative and/or ancillary investments in vessels.

Successful examples of innovative vessel based investments include **Zero Emission Ferries** (2014-EU-TM-0489-S) Action which financed the conversion of two complex gasoil RoPax vessels to a fully electric-based propulsion system and **NextGen Link** (2016-EU-TM-0092-W) whose Action which includes environmental upgrades on a RoPax vessel, notably an auxiliary wind propulsion system.

The table included below illustrates the categorisation of Actions selected under the Environmental pillar. LNG remains an important priority under MoS, receiving 61.8% of grant financing under this Pillar during the 2014 - 2017 period.

Figure 5: Actual CEF T funding per Category, € million (number of Actions)



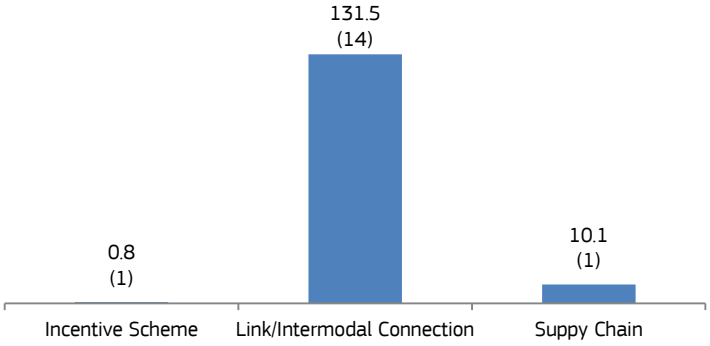
Successful examples of these LNG infrastructure Actions include **Blue Baltics** (2015-EU-TM-0179-W), which is financing the deployment of an LNG bunkering infrastructure in Lithuania, Estonia and Sweden or the **ReaLNG** (2014-EU-TM-0095-W) Action which has already successfully built a 6500m^3 maritime LNG fuelled bunkering vessel as well as bunkering facilities in the Ports of Rotterdam and Lübeck.

3.1.2 Integration of maritime transport in the logistics chain pillar

This second MoS pillar is dedicated to creating an efficient maritime transport service, thereby contributing to the integration of MoS within trade and logistical services. Investments are particularly focussed on the upgrade of maritime links through investments in ports (upgrading capacity and terminal access), the automation of maritime transport services and improvement of connections to the hinterlands.

This pillar includes 16 Actions which have been financed with CEF Transport funding of €142.3 million, mostly under the general envelope, for a total investment in the EU of €421.1 million. Most of these Actions finance works (90%), namely the upgrade of a maritime link (92%, see chart below) through physical investments in the Ports (82% of allocated CEF funding in this pillar went to port authorities).

Figure 6: Actual CEF-T funding per Category, € million (number of Actions)



Successful examples of intermodal connection Actions include the **BRIDGE** (2014-EU-TM-0333-W) Action, which through investments in port infrastructure and traffic management is upgrading the maritime link between the ports of Dover and Calais. The **Fresh Food Corridors** (2014-EU-TM-0531-S) Action is a key Supply Chain Action which aims at improving the intermodal logistic connection between the Mediterranean and the Northern Europe.

3.1.3 Safety, Human Element and Traffic Management

Finally, the last MoS pillar is dedicated to ensuring the seamless and safe movement of people and goods. This is particularly accomplished through investments in human capital, the digitalisation of ICT services and wider investments (e.g. icebreaking, hydrographic surveying) which benefit the industry widely.

5 Actions have been financed with CEF Transport funding of €52.7 million for a total investment in the EU of €128.6 million. Nevertheless, it is important to note that many Actions included in the first and second pillar also include investments in training and human capital as well as maritime safety.

The **FAMOS Freja** (2014-EU-TM-0152-M) and **FAMOS Odin** (2015-EU-TM-0132-M) Actions are a good example of such wider benefit Actions, greatly contributing to the safety of maritime operations. With a consortium of 15 beneficiaries, distributed in 6 EU countries, these Actions aim at improving the navigational safety in the Baltic Sea region through hydrographic surveying and electronic navigational

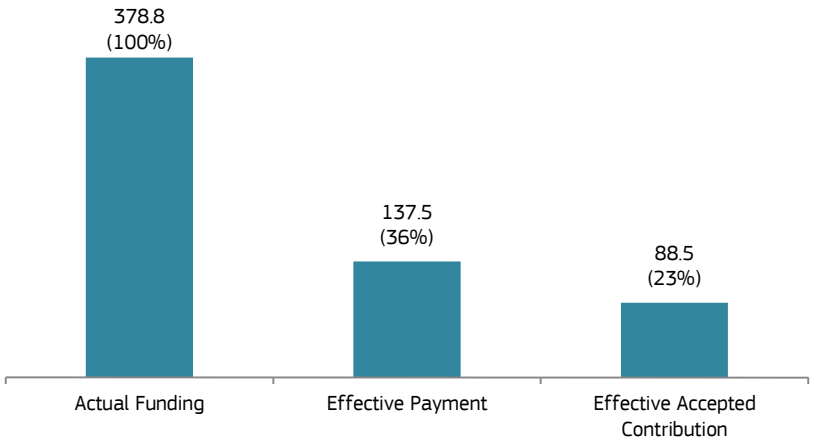
chart production focussing particularly on water depths. FAMOS Freja has successfully ended in 2016 and the ongoing FAMOS Odin is planned for completion in 2018.

The **Sea Traffic Management Validation** (2014-EU-TM-0206-S) Project is an important Action in the digitalisation sphere which aims at piloting and testing a digital communication system to improve information sharing between port authorities, operators and other maritime stakeholders. Procurement for the necessary on-board equipment is currently on-going and a large scale test of the system will be conducted during 2018 - 2019.

3.2 Financial implementation of MoS Actions

The state-of-play of the financial implementation of the portfolio is shown in the figure below. The effective payment[3] (including pre-financing) corresponds to €137.5 million, 36% of the total actual CEF Transport funding. As a consequence of the interim cost claims introduced by the beneficiaries in 2016 and 2017, €88.5 million of costs have presently been accepted corresponding to 23% of the actual CEF Transport funding.

Figure 7: Financial implementation ratios (€ million)



Effective payments and effective contribution at the end of 2017 may appear as relatively low. This is due to two main reasons:

- Beneficiaries are due to submit interim payment claims every two years. As a consequence, the "accepted contribution" by the end of 2017 corresponds to cost claims sent in 2017 for some actions and in 2016 for other actions. Moreover, the cost claims received in 2017 include costs incurred until 31/12/2016 and those received in 2016 include costs incurred until 31/12/2015.

- The bulk of the funding goes to works (or major studies). These actions usually start with a study and/or a tendering phase during which the costs incurred are relatively low. Therefore, the bulk of the costs are incurred in the last implementing years of these actions, as shown in figure 3.

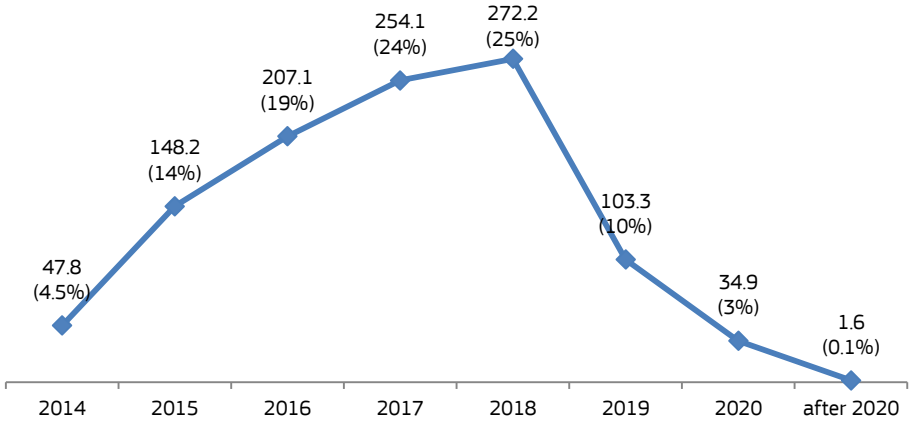
For these reasons, the level of effective accepted contribution reached by the end of 2017 can be considered as normal for the start-up phase of major works. Moreover, it has to be noted that effective

[3] (closed payments – recoveries)

payments are higher than effective accepted contribution due to the fact that advance payment (pre-financing) are made.

This correlates well with the estimated financial implementation of this portfolio. In terms of the cost distributions, included in the figure 8 below, 50% of the total costs are expected to be incurred in 2017 and 2018 enabling their assessment and acceptance in 2018 and 2019.

Figure 8: Estimated budget implementation (€ million)



4. Evolution of the MoS portfolio

4.1 Result of CEF T Calls for Proposals

Five calls were opened for MoS between 2014 and 2017 with the total indicative budget of €670 million. Following these calls, 49 MoS proposals were retained for funding (corresponding to CEF-T awarded funding of €401.5 million). However, two of these proposals were cancelled before the grant agreement had been signed, resulting in 47 grant agreements corresponding to an initial CEF T funding of €389.5 million.

The actual CEF T funding allocated to MoS Actions differs from this initial CEF-T funding as a result of (1) termination and (2) amendments:

1. One Action (Environmental compliance and service upgrade of the North Sea MoS Cuxhaven-Immingham) was terminated due to no longer meeting its eligibility criteria (corresponding EU contribution of €1.6 million).
2. Overall, 14 formal amendments were signed for the MoS portfolio, of which 4 included the revision of costs and funding, which have led to funding reductions of €9.2 million.

After these corrections, the total MoS portfolio currently receives €380.2 million in actual CEF T funding.

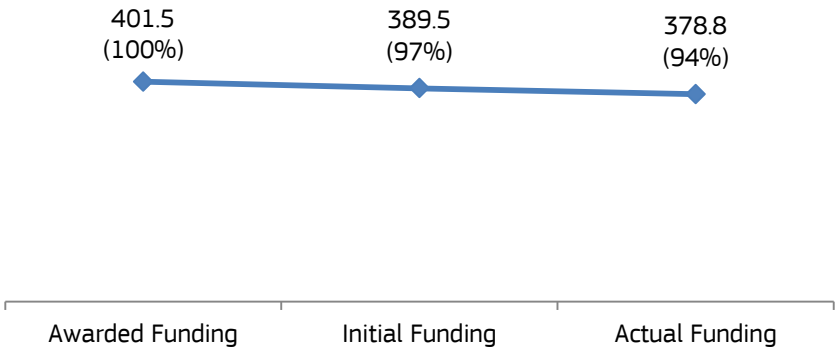
It should be highlighted that the majority of supported actions (44 Actions – €354 million CEF-T funding) have been selected as a result of the calls falling under the general envelope. Meanwhile only 3 (€24.8 million CEF T funding) Actions have been selected under the cohesion envelope; even though a significant amount of funding of €270 million has been pre-allocated to the cohesion calls. This shows the trend that the MoS implementation is mostly financed under the general envelope.

4.2 Funding variations

An important indicator when measuring the successful implementation of MoS Actions is the effective usage of the funding put at their disposal by the CEF Transport Programme. As shown in Figure 9 and as explained above, CEF T funding allocated to MoS Actions has only been reduced by 6% with respect to the selection decision and by a slight 3% with respect to the initial grant agreement signature.

The main reasons for this reduction were either difficulties in making the initial commitment for some partners in an implementation consortia or a revised investment strategy by some shipowners which resulted in the respective shipowner renouncing its grant. Nevertheless, the MoS portfolio is still in an early phase, with most investments only scheduled for implementation in 2018. Further reductions may thus materialise as this portfolio matures.

Figure 9 : CEF T funding variations (€ million)



4.3 Issues affecting the implementation of MoS Actions

Several challenges to the full implementation of MoS Actions still remain. Most notable are the changing market conditions and their effect on investment decisions. For instance, the presently higher LNG price has meant that some ports have been unable to find a client willing to commit to LNG bunkering in their port. As this often is a pre-condition for the launch of works, such delays have sometimes resulted in the relevant investments being suspended or terminated. The existence of such agreements could be followed up in future MoS calls.

Moreover, operators can receive EU financing for their investments on vessels when upgrading a maritime link. It should be noted that a condition for receiving this financing is that the vessel subsequently continues to to serve applicable maritime link throughout the full duration of the Action. Changes market conditions has however lead to the termination of a grant Agreement where its vessel operator was no longer willing to satisfy this condition. This termination also led to further loss of grants for the involved ports.

Motorways of the Sea Actions are by nature complex investments involving many different stakeholders. As a result, it is vital that the members of these consortiums continue to communicate regularly, create partnership agreements and produce the appropriate enforcement protocols. As full receipt of CEF

financing is conditional to the completion of all investments, some stakeholders have been negatively affected within the CEF programme when their partners decided not to complete their obligations.

Finally, the Brexit negotiations remain an important issue to be followed up during 2018. An agreement that ensures that British applicants continue to remain eligible participants in CEF grants will be needed for the Actions which only end by 2020. However, the withdrawal of the United Kingdom may also create border control barriers and further investments in port automation and custom facilities could be needed. Exploring additional investments in islands and other peripheral regions could also be explored to strengthen European Short Sea Shipping in particular to allow smooth flow of goods between Ireland and the continental Europe.

5. Conclusion and outlook

The implementation of CEF Actions within the Motorways of the Sea priority continues to contribute to the further development of the maritime short sea shipping sector and its three pillars as identified in the Detailed Implementation Plan of the European Coordinator. It has also served a valuable part in increasing the cooperation between port authorities, operators and other stakeholders.

In particular, the CEF portfolio reflects the significance of the current environmental challenges. With new legislative drivers, for instance the forthcoming global sulphur cap, the Baltic/North Sea NOx Emission Control Area and the current ambition to create an ambitious GHG reduction strategy, the European maritime industry must continue to adapt and decarbonise its shipping operations.

CEF Transport funding has, and will continue to, contribute towards this objective. Most of the CEF financing within the 2014-2017 period has consequently been allocated to the Environmental pillar, particularly for the deployment of LNG technologies as well as the installation of abatement technologies on vessels. Further investments in the deployment of LNG in ports and vessels are still required.

That being said, LNG remains a fossil fuel contributing to GHG emissions and to meet a future GHG reduction strategy the future CEF investments should also focus on (pilot) actions supporting the introduction of non-fossil fuels and other fuel reducing technologies such as wind propulsion or solar energy.

The future of MoS will also have to look at consolidating wider benefit actions, serving the whole shipping sector, as this process highlights the importance of the EU funding and the EU added value of Actions. Icebreaking and safety of navigation will remain the key areas of intervention.

The upgrade of maritime links and support of key port infrastructural investments will also maintain its importance in order to better connect the core network corridors and bridge the existing gaps. MoS will also be the tool allowing better integration of important TEN-T sections with both core and comprehensive ports.

Lastly, the digitalisation of transport remains an important priority within the second and third maritime pillar, and has been supported through Actions investing both in terminal operating systems as well as wider industry traffic management solutions. Future investments in the automation of terminal management processes could be greatly beneficial to port operators as a means of increasing capacity and service levels. Nevertheless, as demonstrated by the Petya cyber attack which took place last June 2017, the security of such systems remains an important concern for future strengthening. Additional Actions within the third pillar addressing these concerns should be supported.

6. List of Motorways of the Sea Actions

DIP Pillar	Project Code	Title	TYPE	Category	Actual Start Date	Actual End Date	Actual Contribution
Environment	**2014-EU-TM-0066-M**	The Northern ScanMed Ports - Sustainable Maritime Links	**Mixed**	OPS/WWM	**01/01/2014**	31/12/2016	2,650,000
Environment	**2014-EU-TM-0095-W**	ReaLNG: Turning LNG as marine fuel into reality in the North Sea-Baltic region	**Works**	LNG	**01/01/2014**	30/09/2017	13,082,775
Environment	**2014-EU-TM-0120-W**	HEKLA – Helsingborg & Klaipeda LNG Infrastructure Facility Deployment	**Works**	LNG	**01/01/2015**	30/06/2018	4,704,263
Environment	**2014-EU-TM-0379-M**	Back from Black -Study and deployment of the affordable scrubber retro fitting technology for SME shipowners	**Mixed**	Scrubber	**01/01/2014**	30/06/2017	5,582,008
Environment	**2014-EU-TM-0385-M**	Environmental compliance and upgrade of the North Sea MoS Felixstowe-Vlaardingen	**Works**	Scrubber	**01/01/2014**	31/12/2016	1,302,000
Environment	**2014-EU-TM-0391-M**	Upgrading and sustaining the competitive core Baltic MoS link Helsinki-Lübeck	**Mixed**	Scrubber	**01/01/2014**	31/03/2017	7,781,805
Environment	**2014-EU-TM-0396-M**	Environmental compliance and upgrade of the North Sea MoS Esbjerg-Immingham	**Works**	Scrubber	**01/01/2014**	31/12/2016	3,147,108
Environment	**2014-EU-TM-0437-M**	Upgrading and sustaining competitive sea-based transport service on Baltic MoS Klaipeda-Karlshamn	**Mixed**	Scrubber	**01/01/2014**	31/12/2017	2,955,600
Environment	**2014-EU-TM-0451-M**	Scrubbers: Closing the loop	**Mixed**	Scrubber	**21/04/2014**	31/12/2018	6,344,400
Environment	**2014-EU-TM-0487-M**	Biscay Line - Multiple port Finland-Estonia-Belgium-Spain long distance MoS, relevant to many core network corridors	**Mixed**	Scrubber	**01/01/2014**	31/12/2016	4,732,054
Environment	**2014-EU-TM-0489-S**	Zero Emission Ferries - a green link across the Öresund	**Studies**	Electric Vessels	**01/01/2014**	31/12/2017	13,150,000
Environment	**2014-EU-TM-0507-M**	Upgrading and sustaining the competitive Baltic MoS link Germany-Finland (RoRo multiple ports loop)	**Mixed**	Scrubber	**01/01/2014**	31/12/2016	5,411,553
Environment	**2014-EU-TM-0520-M**	Motorway of the Sea Rostock-Gedser - Part 2	**Mixed**	Scrubber	**01/01/2014**	31/12/2017	6,331,500
Environment	**2014-EU-TM-0546-S**	Compliance monitoring pilot for Marpol Annex VI (CompMon)	**Studies**	SECA Compliance Monitoring	**01/01/2014**	31/12/2016	2,145,315
Environment	**2014-EU-TM-0673-S**	Poseidon Med II	**Studies**	LNG	**01/06/2015**	31/12/2020	26,639,703
Environment	**2014-EU-TM-0698-M**	Sustainable LNG Operations for Ports and Shipping - Innovative Pilot Actions (GAINN4MOS)	**Mixed**	LNG	**01/01/2015**	30/09/2019	19,191,067
Environment	**2014-EU-TM-0723-M**	Study and deployment of integrated gas & water cleaning system and biofuel-MGO blend for the upgrade of the Atlantic corridor	**Mixed**	Scrubber	**01/03/2015**	20/12/2017	3,187,500
Environment	**2014-EU-TM-0724-W**	Installation of gas and water cleaning system for the upgrade of the Atlantic Arch	**Works**	Scrubber	**01/03/2015**	20/12/2017	4,322,500
Environment	**2014-EU-TMC-0700-S**	Sustainable LNG Operations for Ports and Shipping - Innovative Pilot Actions (GAINN4MOS)	**Studies**	LNG	**01/01/2015**	30/09/2019	1,307,725
Environment	**2015-EU-TM-0098-M**	DOOR2LNG -Upgrade of the maritime link integrated in the multimodal container transport routes	**Mixed**	LNG	**16/02/2016**	30/06/2019	16,958,000
Environment	**2015-EU-TM-0178-M**	Bothnia Bulk - Environmental upgrade of year-round supply in the northern Baltic Sea	**Mixed**	LNG	**16/02/2016**	30/06/2019	6,800,000
Environment	**2015-EU-TM-0179-W**	Blue Baltics – LNG infrastructure facility deployment in the Baltic Sea Region	**Works**	LNG	**01/03/2016**	30/06/2019	15,046,500

DIP Pillar	Project Code	Title	TYPE	Category	Actual Start Date	Actual End Date	Actual Contribution
Environment	**2015-EU-TM-0235-S**	ELEMED – ELectrification of the Eastern MEDiterranean area (use of Cold Ironing and electricity as a propulsion alternative)	**Studies**	OPS	**01/04/2016**	31/03/2018	1,013,869
Environment	**2015-EU-TM-0236-S**	ELEMED – ELectrification of the Eastern MEDiterranean area (use of Cold Ironing and electricity as a propulsion alternative)	**Studies**	OPS	**01/04/2016**	31/03/2018	75,800
Environment	**2015-EU-TM-0307-M**	S/F SamueLNG for a blue Atlantic Arch	**Mixed**	LNG	**01/08/2016**	30/06/2019	9,862,060
Environment Total							**183,725,104**
Integration	**2014-EU-TM-0087-M**	TWIN-PORT 2	**Mixed**	Link/intermodal connection	**01/01/2014**	31/12/2018	29,300,000
Integration	**2014-EU-TM-0333-W**	BRIDGE (Building the Resilience of International and Dependent Gateways in Europe) - Motorways of the Sea II	**Works**	Link/intermodal connection	**01/07/2015**	31/12/2020	33,493,500
Integration	**2014-EU-TM-0531-S**	FRESH FOOD CORRIDORS	**Studies**	Suppy Chain	**01/09/2014**	31/07/2018	10,055,833
Integration	**2014-EU-TM-0544-S**	MED-ATLANTIC ECOBONUS	**Studies**	Incentive Scheme	**01/07/2015**	31/12/2018	771,919
Integration	**2014-EU-TM-0640-M**	Sweden-Poland Sustainable Sea-Hinterland Services "Sustainable Swinoujscie-Trelleborg MoS based on upgrading port infrastructure, developing intermodal transport and integrating hinterland corridors."	**Mixed**	Link/intermodal connection	**01/01/2014**	31/12/2019	2,480,000
Integration	**2014-EU-TM-0671-S**	Atlantic Interoperable Services (ATLANTIS)	**Studies**	Link/intermodal connection	**01/01/2014**	30/04/2017	1,823,879
Integration	**2014-EU-TMC-0641-M**	Sweden-Poland Sustainable Sea-Hinterland Services "Sustainable Swinoujscie-Trelleborg MoS based on upgrading port infrastructure, developing intermodal transport and integrating hinterland corridors."	**Mixed**	Link/intermodal connection	**01/01/2014**	31/12/2019	22,437,167
Integration	**2015-EU-TM-0250-M**	CarEsmatic – Supporting cars and electric cars distribution using Motorways of Sea's solutions and promoting sustainable shipping concepts	**Mixed**	Link/intermodal connection	**01/03/2016**	31/12/2018	5,230,280
Integration	**2015-EU-TM-0310-M**	Adriatic MoS Upgrated Services - Adri-Up	**Mixed**	Link/intermodal connection/LNG	**01/03/2016**	20/12/2020	7,130,500
Integration	**2015-EU-TM-0375-M**	Motorway of the Sea Nantes Saint Nazaire - Gijón	**Mixed**	Link/intermodal connection	**16/02/2016**	31/12/2018	1,079,760
Integration	**2016-EU-TM-0092-W**	NextGen Link -Upgrade of the maritime link with the port interconnection in the ScanMed Corridor	**Works**	Link/intermodal connection	**07/02/2017**	31/12/2020	11,778,630
Integration	**2016-EU-TM-0256-W**	Nordic Maritime Link - Connecting the ScanMed Corridor via Integrated MoS	**Works**	Link/intermodal connection	**07/02/2017**	31/12/2018	3,780,000
Integration	**2016-EU-TM-0290-M**	Sweden-Poland Sustainable Sea-Hinterland Services III	**Mixed**	Link/intermodal connection	**07/02/2017**	31/12/2019	955,740
Integration	**2016-EU-TM-0341-W**	Development of port capacity for integrated Baltic MoS link(s) on Rostock – Hanko	**Works**	Link/intermodal connection	**07/02/2017**	31/12/2019	4,821,370
Integration	**2016-EU-TM-0342-M**	MoS Venice–Patras. Developing and upgrading of the East-Mediterranean Mos link Italy-Greece	**Mixed**	Link/intermodal connection	**01/07/2017**	31/03/2020	2,831,300
Integration	**2017-EU-TM-0037-W**	BClink: MoS for the future	**Works**	Link/intermodal connection	**01/01/2018**	31/12/2021	4,338,889
Integration Total							**142,308,767**

DIP Pillar	Project Code	Title	TYPE	Category	Actual Start Date	Actual End Date	Actual Contribution
Safety and Traffic Management/Human Element	**2014-EU-TM-0152-M**	FAMOS Freja: Finalising Surveys for the Baltic Motorways of the Sea	**Mixed**	Safety and Traffic Management	**01/01/2014**	31/12/2016	11,890,731
Safety and Traffic Management/Human Element	**2014-EU-TM-0206-S**	STM Validation Project	**Studies**	Safety and Traffic Management	**01/01/2015**	31/12/2018	21,488,717
Safety and Traffic Management/Human Element	**2015-EU-TM-0014-M**	Winter Navigation Motorways of the Sea II, WINMOS II	**Mixed**	Safety and Traffic Management	**11/02/2016**	31/10/2019	6,641,500
Safety and Traffic Management/Human Element	**2015-EU-TM-0108-S**	Preventing Incident and Accident by Safer Ships on the Oceans	**Studies**	Safety and Traffic Management	**01/05/2016**	30/06/2018	1,924,417
Safety and Traffic Management/Human Element	**2015-EU-TM-0132-M**	FAMOS Odin: Finalising Surveys for the Baltic Motorways of the Sea	**Mixed**	Safety and Traffic Management	**15/02/2016**	31/12/2018	10,789,590
Safety and Traffic Management/Human Element Total							**52,734,955**

6. List of other Actions in the Maritime portfolio

Priority	Project Code	Title	TYPE	Actual Start Date	Actual End Date	Actual Contribution
Core Network Corridors	**2014-EU-TM-0343-M**	Improving North Adriatic ports' maritime accessibility and hinterland connections to the Core Network (NAPA4CORE)	**Mixed**	01/01/2014	31/12/2018	21,959,999
Core Network Corridors	**2014-FR-TM-0367-S**	Studies of river access to Port 2000	**Studies**	05/01/2015	14/05/2018	1,000,000
Core Network Corridors	**2014-HR-TMC-0144-W**	Port of Rijeka multimodal platform development and interconnection to Adriatic Gate container terminal (POR2CORE-AGCT)	**Works**	16/07/2015	31/12/2019	30,222,600
Core Network Corridors	**2014-IE-TM-0091-W**	Port of Cork Ringaskiddy Project	**Works**	01/01/2015	31/12/2019	12,736,001
Core Network Corridors	**2014-IE-TM-0222-W**	Dublin Port Alexandra Basin Redevelopment Project - Creating Capacity and Removing a Bottleneck on a Core Port on the North Sea-Meditteranean Corridor	**Works**	23/03/2015	31/12/2019	22,782,055
Core Network Corridors	**2014-IT-TM-0276-W**	INES - Implementing New Environmental Solutions in the Port of Genoa	**Works**	01/07/2015	30/06/2019	4,651,000
Core Network Corridors	**2014-IT-TM-0450-S**	GAINN4CORE	**Mixed**	01/06/2015	30/09/2019	12,441,929
Core Network Corridors	**2015-HR-TM-0032-W**	Upgrade of the Rijeka Port infrastructure - Zagreb Pier container terminal (POR2CORE-ZCT)	**Works**	01/10/2016	31/12/2020	26,849,056
Core Network Corridors	**2015-HR-TM-0399-W**	Upgrade of the Rijeka Port infrastructure - General cargo terminal (POR2CORE-GCT)	**Works**	02/01/2017	31/12/2019	3,132,042
Core Network Corridors	**2015-PL-TM-0413-W**	Modernisation of the fairway, expansion of the quays and improvement of navigation in the Internal Port in Gdansk	**Works**	31/08/2016	31/12/2020	93,735,340
Core Network Corridors	**2015-RO-TM-0046-M**	Upgrade of infrastructure and environmental protection in Constanța Port - PROTECT	**Works**	01/07/2016	31/07/2019	10,791,706
Core Network Corridors	**2016-BG-TMC-0083-S**	From East 2 West. Access to the OEM Corridor through the Core port of Burgas	**Studies**	01/07/2017	30/09/2019	2,269,500
Core Network Corridors	**2016-CY-TMC-0330-M**	Design study of the improvement of Lemesos Port-Vasiliko Terminal	**Studies**	01/06/2017	29/03/2019	441,920
Core Network Corridors	**2016-HR-TMC-0067-W**	Upgrade of the Rijeka Port infrastructure - Rijeka Basin (POR2CORE-Rijeka Basin)	**Works**	02/10/2017	31/12/2020	28,614,466
Core Network Corridors	**2016-HR-TMC-0171-W**	Upgrade of the Rijeka Port infrastructure - Bakar bulk cargo terminal (POR2CORE-BCTB)	**Works**	02/10/2017	31/12/2019	5,180,464
Core Network Corridors	**2017-IT-TM-0044-W**	Ravenna Port Hub: infrastructural works	**Works**	01/07/2018	31/12/2023	37,377,000
Core Network Corridors	**2017-PL-TM-0038-W**	Expansion of the Northern quay at the peninsular breakwater in the Port of Gdańsk	**Works**	28/02/2018	31/12/2021	19,914,950
Core Network Corridors	**2017-FI-TM-0027-W**	Vuosaari Fairway - Improvement of the maritime access of the Port of Helsinki, Vuosaari Harbour	**Works**	01/01/2018	31/12/2021	6,720,000

Core Network Corridors	**2017-SE-TM-0061-W**	Long-term achievements - ready for a sustainable core port in Trelleborg (LARS)	**Works**	01/08/2017	31/12/2021	10,388,333
Core Network Corridors Total						**351,208,362**
Multimodal	**2014-PT-TM-0601-M**	Multimodal Logistics Platform of the Port of Leixões (Phase 2)	**Mixed**	01/01/2014	31/12/2017	2,788,991
Multimodal Total						**2,788,991**
Nodes of the Core Network	**2015-PL-TM-0280-S**	Design and environment documentation for the expansion and modernization of core network node in the Port of Gdańsk concerning road and rail infrastructure	**Studies**	16/02/2016	30/03/2018	527,492
Nodes of the Core Network	**2016-ES-TM-0063-S**	Removal of bottlenecks that prevents Cartagena's Port to connect core network and improvement of urban traffic (studies)	**Studies**	01/01/2017	31/12/2019	647,500
Nodes of the Core Network Total						**1,174,992**
Other sections of the Core Network	**2014-ES-TM-0272-M**	Improvement of the hinterland rail connection to the Port of Valencia (CONNECT VALENCIAPORT)	**Mixed**	01/01/2014	31/12/2020	11,615,075
Other sections of the Core Network	**2014-ES-TM-0433-W**	FUTURE PROOFING BILBAO – CORE PORT OF THE ATLANTIC CORRIDOR	**Works**	01/01/2015	31/12/2019	23,248,284
Other sections of the Core Network	**2014-FR-TM-0007-M**	GIRONDE XL - Dredging and innovative navigation	**Mixed**	01/01/2015	31/12/2018	3,120,000
Other sections of the Core Network	**2014-FR-TM-0135-W**	Atlantic Container Centre: Efficient Terminal in Nantes Saint-Nazaire Core Port	**Works**	01/01/2014	31/12/2017	3,680,000
Other sections of the Core Network	**2014-FR-TM-0323-W**	Improvement of vessel access to the Port of Rouen dredging from Courval to Rouen, creation of an emergency backup berth, port infrastructure adaptation	**Works**	02/01/2015	26/03/2019	30,480,000
Other sections of the Core Network	**2014-FR-TM-0395-W**	Calais Port 2015	**Works**	01/01/2014	31/12/2019	82,315,200
Other sections of the Core Network	**2014-IE-TM-0355-W**	Jetty Enhancement for Sea Port Infrastructure Connectivity (JESPIC)	**Works**	01/01/2014	28/02/2017	2,200,000
Other sections of the Core Network	**2014-UK-TM-0405-W**	BRIDGE (Building the Resilience of International and Dependent Gateways in Europe) - Funding Objective 1	**Works**	01/07/2015	31/12/2018	26,937,200
Other sections of the Core Network	**2017-IE-TM-0014-W**	Capacity Extension of Shannon Foynes (CESF)	**Works**	01/04/2018	31/12/2023	4,477,600
Other sections of the Core Network Total						**188,073,359**
Projects on Core and Comprehensive	**2014-EU-TA-0314-W**	Nordic Maritime Hub - Linking Northern Denmark to Core Network Corridors and Motorways of the Sea	**Works**	01/09/2015	31/08/2018	2,904,140
Projects on Core and Comprehensive Total						**2,904,140**

Innovation	**2014-ES-TM-0711-S**	CLEANPORT - Alternative Fuels and Solutions for Port's Cold-Ironing: Standardisation of Regulatory Framework and Demonstration of Feasible Exploitation	**Studies**	01/01/2014	30/09/2017	3,174,529
Innovation	**2015-EU-TM-0417-S**	Masterplan for OPS in Spanish ports	**Studies**	01/11/2016	31/12/2019	1,641,815
Innovation	**2014-ES-TM-0593-S**	LNG Technologies and Innovation for Maritime Transport for the Promotion of Sustainability, Multimodality and the Efficiency of the Network (GAINN 4 SHIP INNOVATION)	**Studies**	01/01/2015	31/12/2018	7,512,782
Innovation	**2014-EU-TM-0503-S**	Planning, construction, demonstration and market roll-out of small-scale liquefaction and supply facility for Liquefied Biogas (LBG) as alternative fuel for the transport sector	**Studies**	01/06/2014	30/06/2019	6,836,750
Innovation	**2014-EU-TM-0686-S**	e-Freight Implementation Action (e-Impact)	**Studies**	01/07/2015	30/06/2018	1,950,000
Innovation	**2014-EU-TM-0732-S**	CORE LNGas hive - Core Network Corridors and Liquefied Natural Gas	**Studies**	01/01/2014	31/12/2020	16,647,880
Innovation	**2016-EU-TM-0277-S**	BENEFIC	**Studies**	01/07/2017	31/12/2020	7,580,000
Innovation	**2016-PL-TM-0268-S**	The construction of a pilot docking station, as a part of an LNG distribution system based on cryogenic tank containers	**Studies**	01/12/2017	03/12/2020	945,291
Innovation	**2017-EL-TM-0048-W**	SuperGreen (SG)	**Works**	01/01/2019	30/04/2021	3,938,981
Innovation	**2017-EU-TM-0062-W**	GAINN4MID -GAINN for Mobile Infrastructure Deployment	**Works**	01/11/2017	31/08/2020	6,165,304
Innovation Total						**56,393,331**