



European
Commission



CEF support to

Maritime and Motorways of the Sea

May 2020

*Innovation
and Networks
Executive Agency*

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1. Introduction

The following report provides an overview of the Motorways of the Sea (MoS) investments as well as the wider maritime portfolio within the 2014 – 2020 CEF Transport programme and its contribution to the priorities of the Detailed Implementation Plan for Motorways of the Sea of the European Coordinator Prof. Kurt Bodewig. This Plan is currently undergoing stakeholder consultations and is scheduled for its publication in June 2020. Consequently, this report provides an updated state of play as well as an outlook for the CEF maritime project 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.

Maritime ports have requested and received European co-financing through 8 different funding priorities, ranging from the maritime ports priority to innovation and multimodality. In absolute numbers, most investments were financed through the Motorways of the Sea priority: with 50 multi-country cooperation Actions financed. However, there are many other Actions within the CEF Transport programme contributing to the European Maritime Space, which is why this report has taken a larger scope and examined the full impact of Maritime CEF Transport Portfolio.

This Portfolio, and in particular the Motorways of the Sea Actions are examined in chapter 2. Dedicated to creating a safe, sustainable, competitive and integrated short sea shipping sector in Europe it has done so through financing multi-country interventions. In doing so, it has supported Actions within the three pillars of the Detailed Implementation Plan, i.e. the creation of a: (1) *sustainable*, a (2) *seamless* and (3) *smart* European Maritime Transport Space.

The Detailed Implementation Plan has also undertaken a new level of analysis. For the first time, the European Coordinator has assessed the transport flows and formulated maritime needs at a sea basin level. This report accordingly has followed the same structure, examining the maritime investments at a sea basin level in chapter 3.

This has been done on the basis of the latest developments of the reporting system used by INEA. The latter has allowed a more detailed allocation of the separate components of Actions to the ports benefitting from the investments, thus producing a more accurate and granulated picture of the distribution of CEF funding across the maritime basins.

The maritime portfolio is currently in a mature stage as we approach the end of the CEF1 financing framework. The maritime portfolio plays a crucial role in tackling the current environmental challenges facing the transport sector and transitioning towards a multimodal and environmentally friendly transport mechanism envisioned within the European Green Deal. This is witnessed by the numerous investments in abatement technologies, alternative fuels and the strengthening and upgrade of maritime links between European ports and sea basins. Moreover, the classic maritime infrastructure investments supported under the CEF programme will benefit an efficient European market, contributing to connecting countries and basins and will deliver benefits to operators, cargo forwarders and final consumers.

2. Overview of the Motorways of the Sea and Maritime portfolio

The following chapter assesses both the Motorways of the Sea priority as well as the wider maritime portfolio i.e. all CEF Transport actions belonging to the maritime transport mode. This maritime portfolio is composed of 151 Actions which jointly receive up to €1.58 billion of actual CEF Transport funding. Moreover, six additional Actions, which affect maritime ports are described in section 3.6¹.

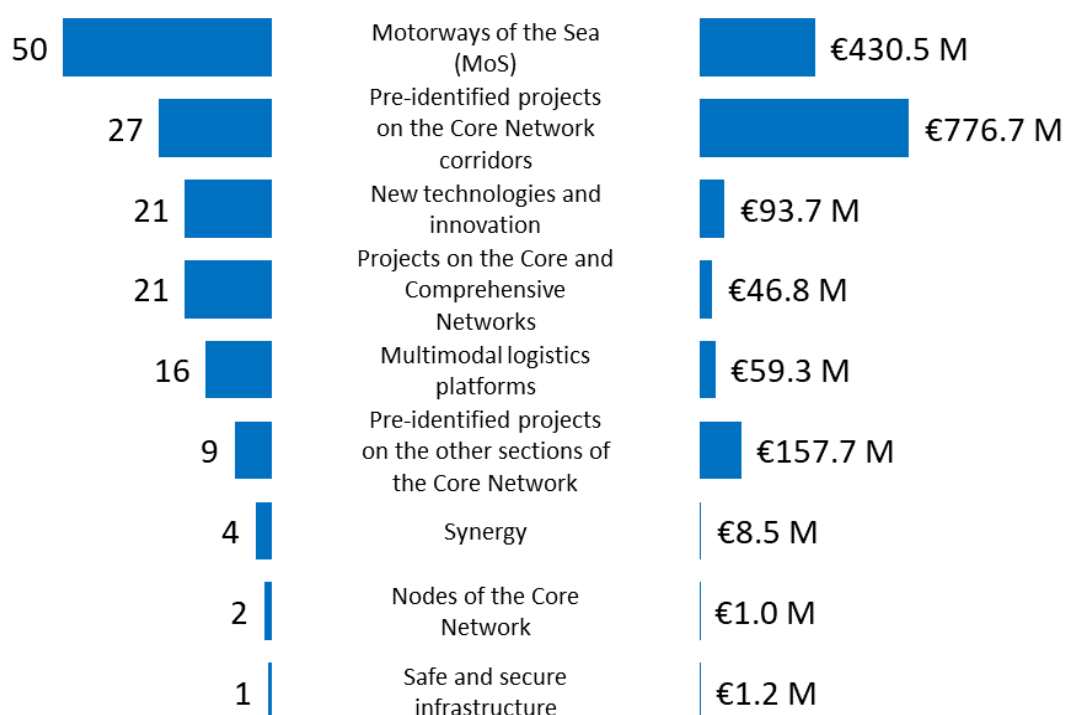
These Actions are categorised in terms of the call priority they were selected under, how they contribute to the 9 Core Network Corridors, as well as their impact on a country and regional sea basin level.

2.1. By call and horizontal priority

The majority of Actions funded within the maritime portfolio are within the Motorways of the Sea priority, with 50 Actions funded and €430.5 million in grant financing. Actions within this priority bring together maritime ports, maritime operators, hinterland services and other economic actors to form a multi-beneficiary and multi-country consortia.

As can be seen from the chart below, in particular the 'pre-identified projects on the Core Network Corridors' priority with €776.7 million in grants, 'Pre-identified projects on the other section of the core network' as well as the 'New Technologies and Innovation' are also key priorities which contribute to the investments in the European Maritime Space.

Figure 1: Number of maritime Actions per priority, (EU contribution, millions)



¹ As of May 2020

The maritime portfolio also significantly contributes to the further development of two horizontal priorities, namely 'New Technologies and Innovation' and 'Motorways of the Sea'. 45 Actions in the maritime portfolio contain important alternative fuel investment components such as the piloting of alternative fuel technologies on vessels, the construction of LNG bunkering vessels and other facilities. Moreover, 24 of the Core maritime ports benefit from investments in Alternative Fuel infrastructure financed within 20 CEF Transport Actions.

With regard to the Motorways of the Sea horizontal priority, the Actions selected can be classified by the three pillars included within the Detailed Implementation Plan of the European Coordinator for MoS, Professor Kurt Bodewig. These are the Actions which are Sustainable, Seamless and Smart:

Pillar 1: Sustainable

This pillar aims at creating a sustainable European Maritime Space: addressing the challenges of climate change and improving the air and water quality. Actions categorised within this pillar include investments into an alternative fuels network, in decarbonisation, innovative propulsion systems and eco-incentives.

Pillar 2: Seamless

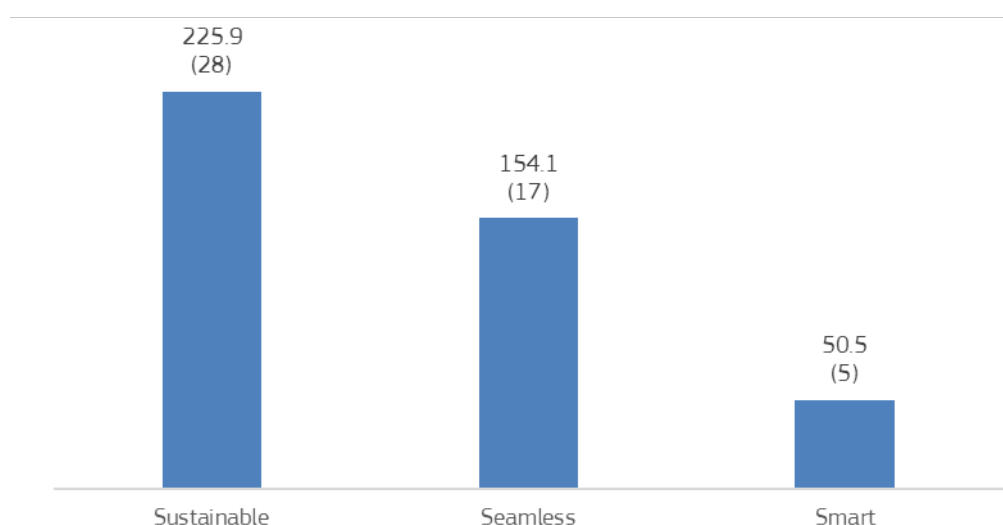
This pillar aims at ensuring the seamless connectivity of the European hinterlands, ports and regions through well-functioning multimodal transport links. Actions categorised within this pillar are focussed particularly on the upgrade of maritime links, focussed on the upgrade of port infrastructure including in particular rail hinterland access, maritime access and the construction of basic infrastructure in ports.

Pillar 3: Smart

This final pillar aims at ensuring a smart European Maritime Transport Space through in particular the improved adoption of digital tools throughout the industry, creating interoperable data sharing and Sea Traffic Management solutions as well investment into safety. Actions categorised in this pillar have in particular included investments in Sea Traffic Management pilots, hydrographic surveying as well as safety pilots.

It is important to note that the three pillars are closely inter-related and have synergies between them: with some Actions supporting multiple pillar objectives. When examining the Motorways of the Sea portfolio, the majority of Actions are selected under the sustainability pillar and have financed works supporting the maritime industry in its adaptation to the environmental requirements established under the MARPOL sulphur regulations and the 2021 Baltic and North Sea NOx Emission control area (NECA). The exact distribution is shown in the chart below:

Figure 2: Actual CEF-T funding for MoS per Pillar, € million (number of Actions)



2.2. By network allocation

Maritime Actions are mostly taking place in maritime ports. Overall, 113 maritime ports are involved in CEF Actions receiving €1.5 billion of CEF Transport funding (95% of the total allocated to maritime Actions), with €1.4 billion going to Core maritime ports and €117 million going to comprehensive maritime ports.

This funding can also be represented in terms of its contribution to the Core Network Corridors. €52.4 million was invested in other areas of the Core network (e.g. Ports of Harwich or Tees and Hartlepool) and 13 Actions within the maritime portfolio are implementing activities not directly linked to a particular port – which are further described in section 3.7.

All Core Network Corridors have benefitted from the maritime investments. In particular, the Baltic Adriatic Corridor is the largest recipient of EU financing for maritime investments. €678 million of grant funding, of which €54.8 million is from the Motorways of the Sea priority, was allocated to this Corridor.

When examining solely Actions financed under the Motorways of the Sea priority, it is the North Sea Baltic and the Scandinavian–Mediterranean Core Networks Corridors who have been the largest recipients of grant funding with €93.6 and €71.7 million allocated accordingly.

Figure 3: Actual CEF T funding for Core Network Corridors, € million

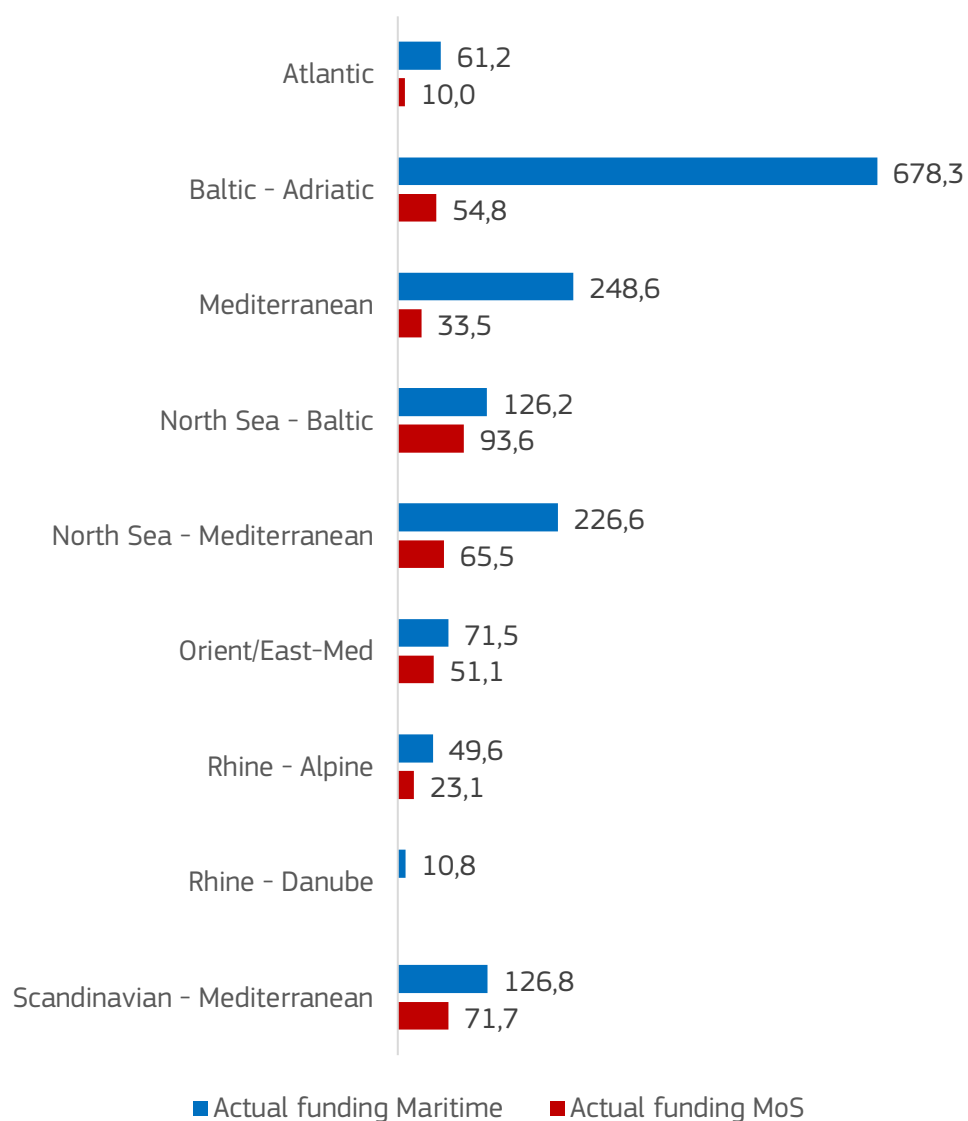
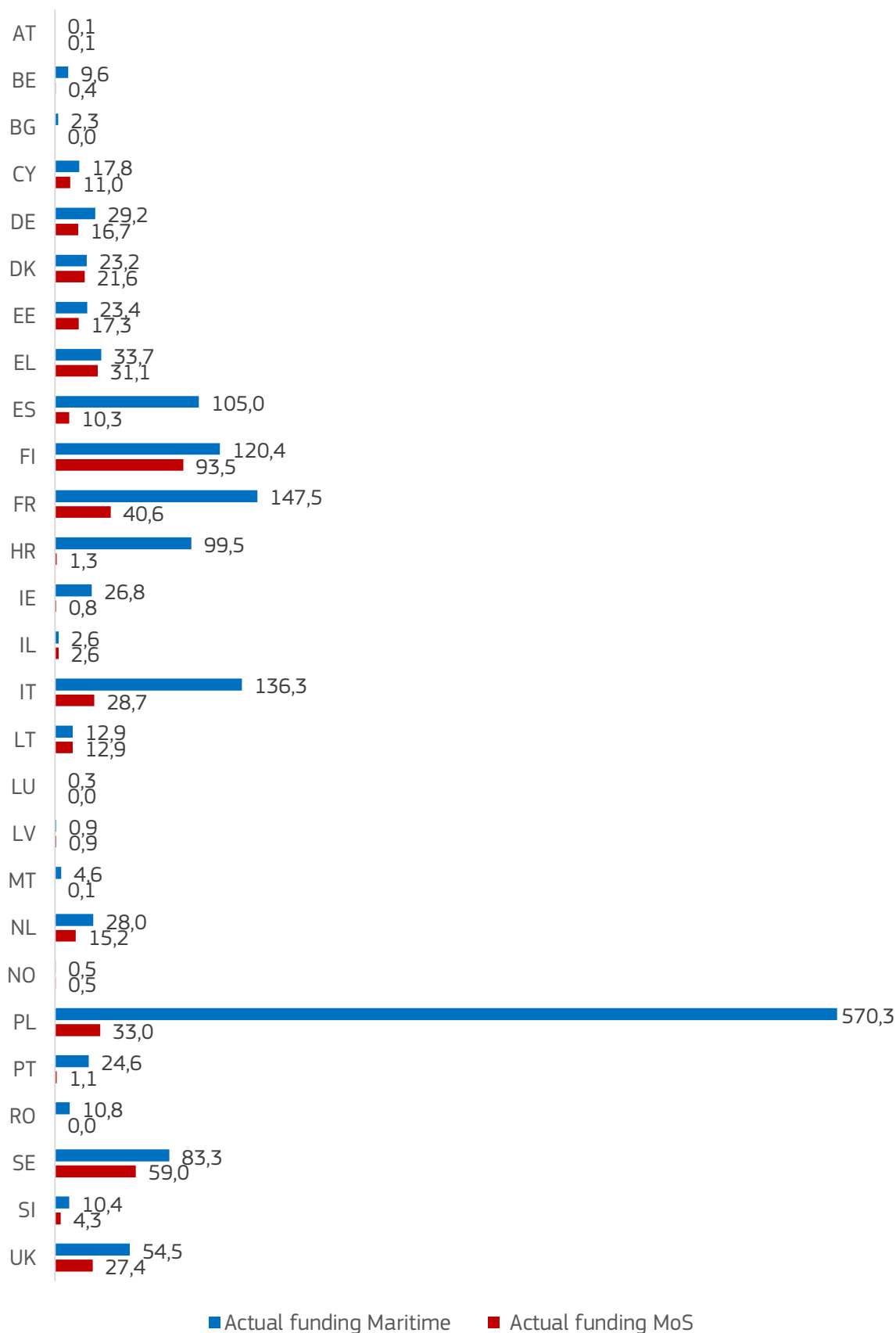


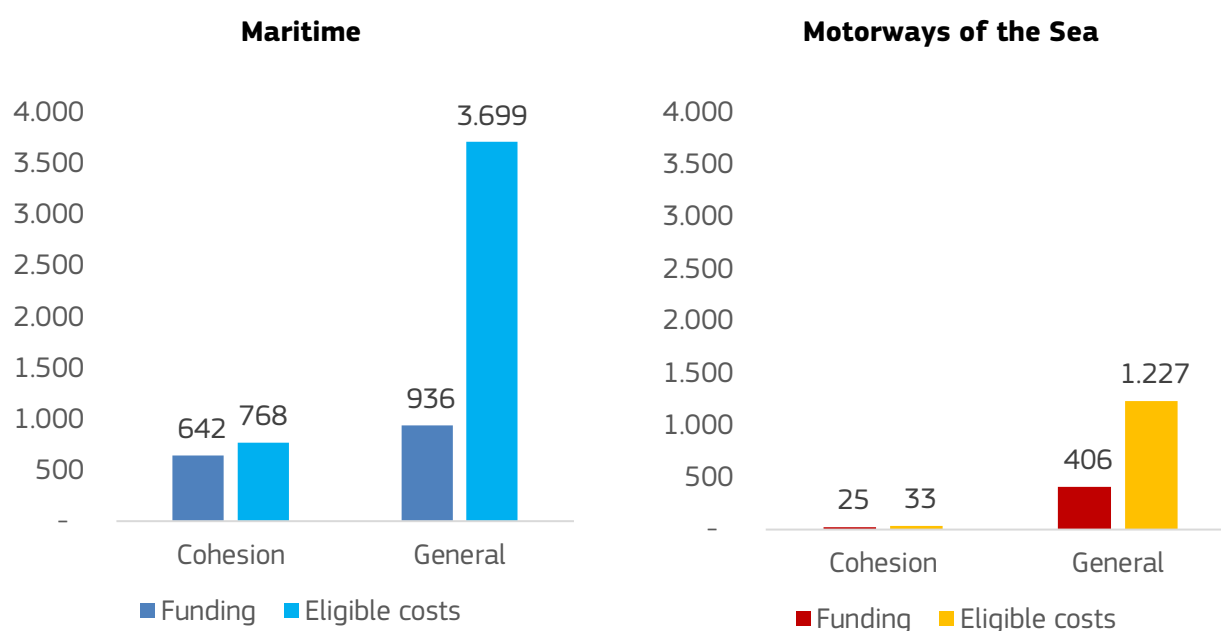
Figure 4: Actual CEF T funding for maritime Actions per Country, € million



2.3. Per Country

The distribution of EU contribution of the maritime portfolio per country is illustrated in the preceding figure 4. Cohesion member states benefit from higher co-financing rates as shown in the charts below. As a result of this, Poland is the country to whom most of the EU funding in this transport mode has been allocated, largely due to the 3 Actions aimed at improving the hinterland connectivity of its Core network ports. Otherwise within the General Envelope, France and Italy have been allocated €147.5 and €136.3 million of CEF Grants.

Figure 5: Actual CEF T funding and Costs for maritime Actions per envelope, € million (number of actions)

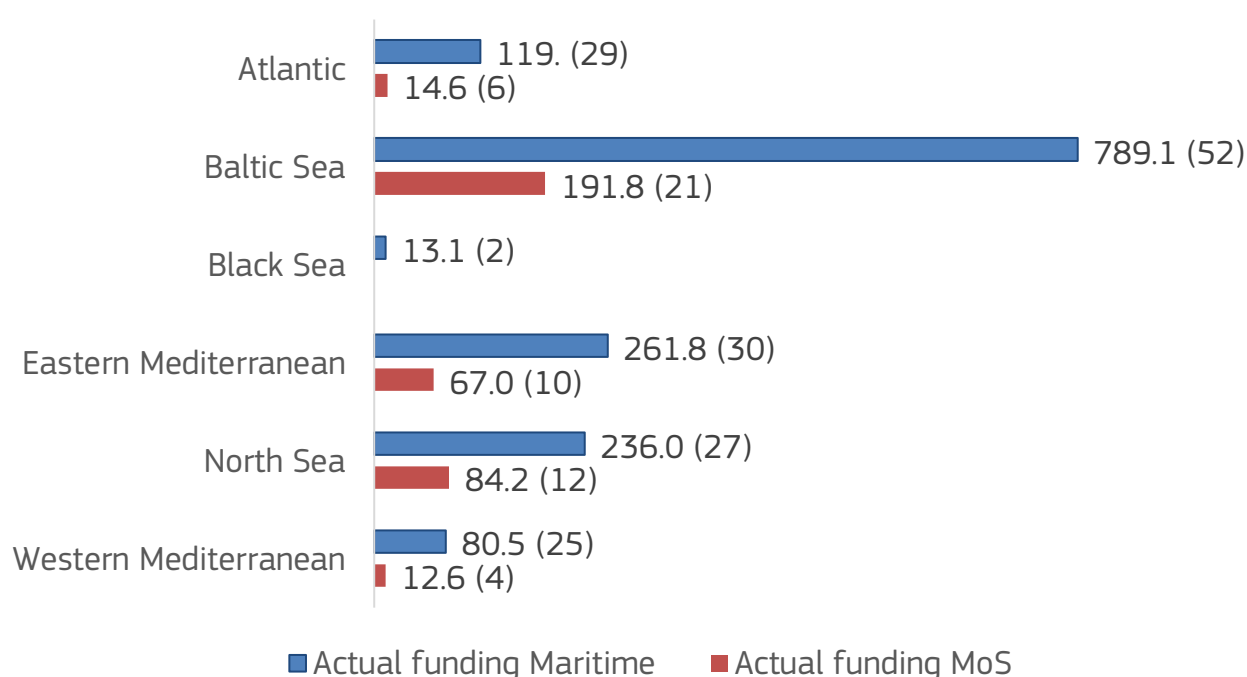


Within the motorways of the Sea priority, most of the CEF transport funding was allocated to Actions taking place in in particular Finland and Sweden; with €93.5 and €59 million of CEF Transports grants respectively. An overview of the ports and interventions financed is examined in section 3.1.

2.4. Per Maritime Sea Basin

Finally, it is possible to aggregate the funding allocated to maritime ports per sea basin, which categorises the ports according to their geographical location employing the methodology of the Detailed Implementation Plan. In both Motorways of the Sea as well as the maritime portfolio, the Baltic Sea ports have received the highest share of CEF Transport funding, with €789.1 million. There are 36 maritime ports funded in the Baltic sea basin, especially in Poland, but also in Estonia, Germany, Latvia, Lithuania, Sweden, Finland and Denmark.

Figure 6: Actual CEF T funding for maritime Actions per basin, € million (number of actions)



3. Operational implementation in the Maritime Sea Basins

3.1. Baltic Sea Basin

The Baltic Sea basin includes ports located in the Baltic countries (Estonia, Latvia, Lithuania), Sweden, Finland as well as Poland and parts of Germany and Denmark. There are a total of 89 Core and comprehensive maritime ports within this basin, of which 36 have been financed with €789.1 million through 52 CEF Transport Actions. A distribution of the funded ports as well as the CEF funding allocated is shown in the map below.

Of the 52 Actions taking place in the Baltic Sea basin, 21 are funded through the Motorways of the Sea program and consequently include investments foreseeing the upgrading of short sea shipping links, the environmental upgrades of the maritime vessels as well as Actions with wider benefits. 17 Actions have financed the upgrade of 14 maritime links (19 connections), with 2 maritime links connecting the Baltic Sea to the North Sea Basins. All countries in this basin have improved their short sea shipping links under the MoS program, but it is in particular Sweden & Finland who have held a connecting role: with 8 and 7 maritime links upgraded respectively.

Maritime operators have also been well supported. 14 Actions have also foreseen environmental upgrades for vessels sailing the maritime routes. This has resulted in the study and piloting of both closed and open loop exhaust gas clearing systems (scrubbers) on 13 vessels². Moreover, the Motorways of the Sea programme has played an important role in developing an alternative fuel network by funding pilots and works on the implementation of On Shore Power Supply (OPS) and energy efficiency measures on vessels³ as well as the construction or retrofitting of 6 vessels to Liquid Natural Gas (LNG)⁴ and of 5 vessels to (auxiliary) electric propulsion⁵.

The majority of funding within this maritime basin, with €570 million, has gone to 16 Actions upgrading the Core maritime ports in Poland. Of these, it is particularly important to note three Actions selected within the Cohesion envelope aiming at improving the access and trans-loading capacity of the key maritime Polish ports of Gdańsk⁶, Gdynia⁷ and Szczecin and Świnoujście⁸. These Actions are a great example of creating rail hinterland connections in line with the TEN-T requirements: namely to the velocity of 60 km/h on the main route & station tracks, a permissible axle load of 221 kN (245 kN in engineering structures) and adjustment of the stations in order to service 740 metre long trains. These Actions have all experienced significant delays, particularly due to the cancellation of tenders in 2018, following the substantial cost increases in labour and material costs in Poland. Following amendments increasing the Action duration by 2 years, the works are now preceding on-schedule with most of the building permits received and all of the procurements completed. As such, all works are expected to be fully implemented by December 2022. Improving the Rail Hinterland connections has also been an aim included in Actions financed⁹ in Gothenburg, Trelleborg and Kotka.

² 2014-EU-TM-0391-M, 2014-EU-TM-0507-M, 2014-EU-TM-0520-M & 2014-EU-TM-0437-M

³ 2017-EU-TM-0135-W, 2016-EU-TM-0290-M, 2014-EU-TM-0087-M, 2014-EU-TM-0066-M & 2015-EU-TM-0178-M

⁴ 2015-EU-TM-0098-M, 2016-EU-TM-0092-W & 2017-EU-TM-0166-W

⁵ 2014-EU-TM-0489-S, 2016-EU-TM-0256-W & 2014-EU-TM-0520-M

⁶ 2015-PL-TM-0006-W

⁷ 2015-PL-TM-0034-W

⁸ 2015-PL-TM-0125-W

⁹ 2016-EU-TM-0256-W, 2016-EU-TM-0290-M, 2017-FI-TM-0123-W

Whereas the maritime portfolio in this maritime basin does not include interventions aimed at upgrading inland waterway connections, 11 Actions including the Ports of Helsinki, Gdańsk, Trelleborg, Gothenburg, Świnoujście, Västerås, Köping and Lübeck have as objective the upgrading of the hinterland road connections. A relevant example of such studies is shown in Trelleborg¹⁰, where in the context of the Trelleborg – Świnoujście maritime link, studies related to the extension and alignment of the city ring road which will connect to a new port entrance on the East have been financed. Road hinterland works are financed in Helsinki¹¹, where one of the objectives in the Action linked to the Helsinki-Tallinn route is the upgrade of the last mile connection of the Helsinki West Harbour.

A wide array of infrastructure works are financed. 21 Actions concern the development of basic port infrastructure (e.g. upgrade and construction¹² of quays and berths in Gdańsk, Trelleborg, Świnoujście, Rostock) whereas maritime access is pursued in 14 Actions with in particular breakwaters constructed¹³ in Ystad, Gdańsk, Kotka and Karlshamn and capital dredging¹⁴ pursued with in Trelleborg, Helsinki, Raahen, Rauma, Frederikshavn, Ystad and Paldiski South Harbour.

The development of an alternative fuel network is an important objective described within the Detailed Implementation Plan. Other than the investments stimulating the demand side, numerous studies have also been undertaken in view of creating the designs for LNG bunkering investments. LNG bunkering solutions are being constructed across the basin¹⁵ for example in the Ports of Frederikshavn, Lübeck, Świnoujście, Tallinn, Nynäshamn, Ystad & Pärnu. 3 LNG bunkering vessels are also being constructed¹⁶ which will enable the serving of a larger range of ports in this basin.

Finally, and in particular during the past couple of years, digitalisation has featured in the investments within this basin, for instance in the upgrade of port community systems, handling processes as well as through innovative pilots. Notable are 4 particularly innovative Actions selected in the 2018 Digitalisation Call: smart navigational aids using alternative energy sources as well as marine ‘sniffers’ to detect non-compliance with the sulphur emission restrictions are implemented¹⁷ in the ports of Stockholm and Naantali. The digital registration of passengers for security purposes is being studied¹⁸ for the maritime link between the Ports of Turku and Stockholm. Finally, an intelligent cargo road traffic management system is pursued in the Port of Gdynia¹⁹ and in the Port of Gothenburg²⁰ an autonomous vehicle solution transporting trailers to the port is being trialled.



Figure 7: Autonomous Electric Vehicles in the Port of Gothenburg (Source: Volvo)

¹⁰ 2014-EU-TM-0640-M & 2014-EU-TMC-0641-M

¹¹ 2017-EU-TM-0135-W

¹² 2015-PL-TM-0413-W, 2017-SE-TM-0061-W, 2017-FI-TM-0123-W, 2016-EU-TM-0341-W

¹³ 2017-EU-TM-0166-W, 2017-FI-TM-0123-W, 2017-PL-TM-0038-W & 2019-SE-TA-0039-W

¹⁴ 2016-EU-TM-0256-W, 2015-EU-TM-0178-M, 2017-FI-TM-0027-W, 2017-SE-TM-0061-W, 2019-EE-TA-0057-M, 2019-FI-TA-0015-W, 2019-SE-TA-0023-M

¹⁵ 2014-EU-TA-0314-W, 2014-EU-TM-0095-W, 2014-EU-TM-0120-W & 2015-EU-TM-0179-W

¹⁶ 2017-EE-TM-0079-W, 2017-EU-TM-0166-W & 2015-EU-TM-0179-W

¹⁷ 2018-EU-TM-0051-S

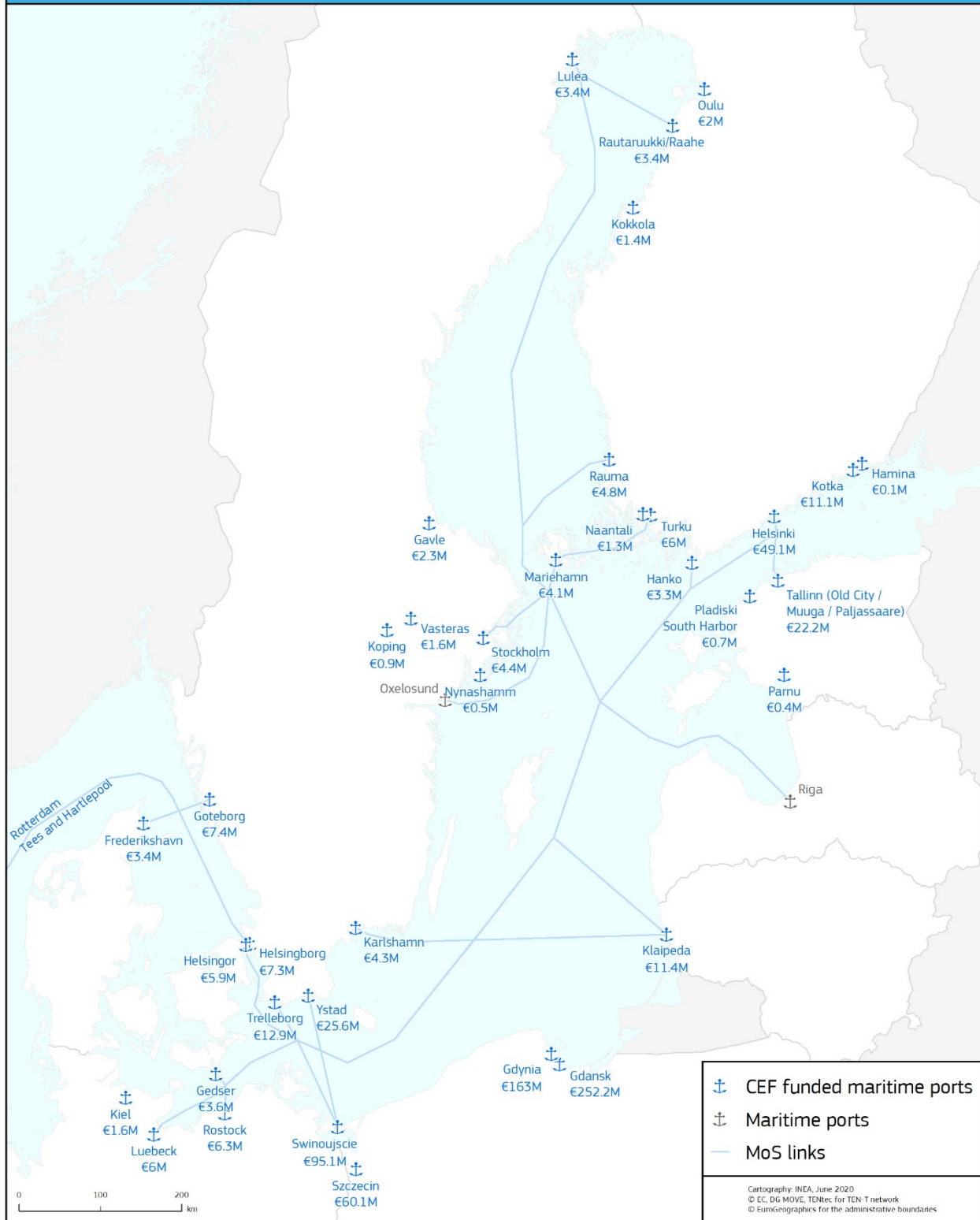
¹⁸ 2018-FI-TM-0050-S

¹⁹ 2018-PL-TM-0023-S

²⁰ 2018-SE-TM-0102-S

BALTIC SEA

CEF FUNDED MARITIME PORTS & MOS LINKS



3.2. North Sea Basin

The North Sea maritime basin includes the Ports located in Belgium and the Netherlands as well as parts of Germany, Denmark the United Kingdom and France. There are a total of 66 Core and Comprehensive maritime ports in this basin, of which 24 have been supported with €236 million CEF grant funding through 27 CEF Transport Actions. A distribution of the funded ports as well as the CEF funding allocated is shown in the map below.

Of the 28 Actions, 12 are funded through the Motorways of the Sea programme, corresponding to €84.2 million CEF grant funding. 9 Actions foresee the upgrading of 10 maritime links (17 connections), with 2 links connecting to the Baltic Sea and 2 links connecting to the Atlantic Sea basin. The majority of these links reflect upgraded connections between all of the CEF supported United Kingdom ports and its European counterparts: towards France (Calais, Caen/Ouistreham, Le Havre, Roscoff), the Netherlands (Vlaardingen, Rotterdam), Denmark (Esbjerg) and in the Baltic Sea Basin to Finland (Helsinki). Otherwise, maritime links between Ireland (Cork) through the UK (Plymouth) to France (Roscoff) and between Belgium (Antwerpen) and Spain (Bilbao) have been supported.

Most of the funding to maritime vessels within this basin went to the upgrade of maritime links through the piloting and implementation of scrubbers²¹ in Actions awarded within the 2014 CEF transport call. In addition to the 2 vessels connecting to the Baltic Sea Basin, scrubbers were piloted on 6 mid/large RoRo (roll-on/roll-off) vessels whereas a novel biofuel and NOx Tier III standard installation was fitted on the fast catamaran passenger ferry “Normandie Express”. Scrubbers were also piloted on 5 vessels connecting this basin to the Atlantic Sea basin. Finally, the “Scrubber Observatory Platform” was created which enabled the exchange of knowledge and best practices amongst stakeholders.

Moreover, two MoS Actions have supported the uptake of LNG on vessels within this maritime basin. Firstly, the RealLNG Action²² resulted in the construction of specialised LNG bunkering vessel with a 6,500 m³ capacity. It is capable of serving a wide range of vessel sizes and is presently operating in the Antwerp – Rotterdam – Amsterdam area. Secondly, in 2019 Dragages Ports²³ performed the first ever conversion of a dredger vessel “Samuel de Champlain” to a dual LNG fuel source. The conversion was a success and the vessel is presently operating in the Loire and Seine estuaries.



Figure 8: Samuel de Champlain (source: Dragages-Ports)

²¹ 2014-EU-TM-0723-M, 2014-EU-TM-0385-M, 2014-EU-TM-0396-M, 2014-EU-TM-0451-M, 2014-EU-TM-0724-W, 2014-EU-TM-0487-M

²² 2014-EU-TM-0095-W

²³ 2015-EU-TM-0307-M



Figure 9: Infrastructure Development Works at Calais (source: Port of Calais)

With €98 million in CEF financing, most of the CEF support within this maritime basin has gone to the Port of Calais²⁴, who operates one of the busiest Ro-Ro ferry terminals in Europe with a MoS maritime link to the Port of Dover in order to increase the capacity and efficiency of this cross-channel link. In Calais, support is envisioned for a large infrastructure development works program, including the construction of 4 ferry berths, capital dredging culminating in the creation of a 110 ha deep water basin and 44 ha of quay, the construction of a 3 km breakwater, the construction of a 65 ha cross-channel platform as well as land reclamation. Finally, the improvement of

the hinterland connection through the construction of a rail junction is foreseen. In the Port of Dover²⁵ in particular the construction of a refrigerated cargo terminal as well as 2 quay walls with capital dredging and land reclamation are foreseen. The Actions are progressing well, though a minor extension will be needed to finalise all of the investments.

Otherwise the investments within this maritime basin have included multiple interventions. Maritime access²⁶ including capital dredging, the upgrade of berths and a Ro-Ro dock is implemented in the Ports of Claardingen, Esbjerg, Gent and Caen-Ouistreham. In terms of terminal infrastructure, the Port of Rotterdam²⁷ is modernising its terminal operating system as well as upgrading the Rotterdam World Gateway terminal, terminal gate facilities were constructed in Gent²⁸ and a new terminal layout was established in Esbjerg port²⁹. Finally, Rail Hinterland connections³⁰ are being upgraded in the Ports of Zeebrugge, Bremerhaven, Gent, Rotterdam and Moerdijk.

Finally, it is worth noting two Actions which will have an important impact on the provision of alternative fuels in this basin. In the Port of Dunkerque³¹ an LNG dedicated jetty as well as an LNG bunkering vessel with a capacity of 18,600 cubic meters are being constructed. These investments are progressing well, with sea trials for the bunkering vessel in January 2020. In the Ouistreham ferry terminal³², a 4,000 m² storage area is being created for LNG containers brought from Dunkirk in order to refuel LNG vessels. Otherwise, in the Port of Bremen a full-scale deployment of a 10,000-12,000 tonnes liquefaction plant and supply facility for Liquid Biogas was envisioned, however it is noted that this investment is impacted by significant delays.

²⁴ 2014-EU-TM-0333-W & 2014-FR-TM-0395-W

²⁵ 2014-EU-TM-0333-W & 2014-UK-TM-0405-W

²⁶ 2014-EU-TM-0385-M, 2014-EU-TM-0396-M, 2018-BE-TM-0146-W & 2019-FR-TA-0066-W

²⁷ 2018-NL-TM-0007-W & 2019-NL-TM-0144-W

²⁸ 2018-BE-TM-0146-W

²⁹ 2014-EU-TM-0396-M

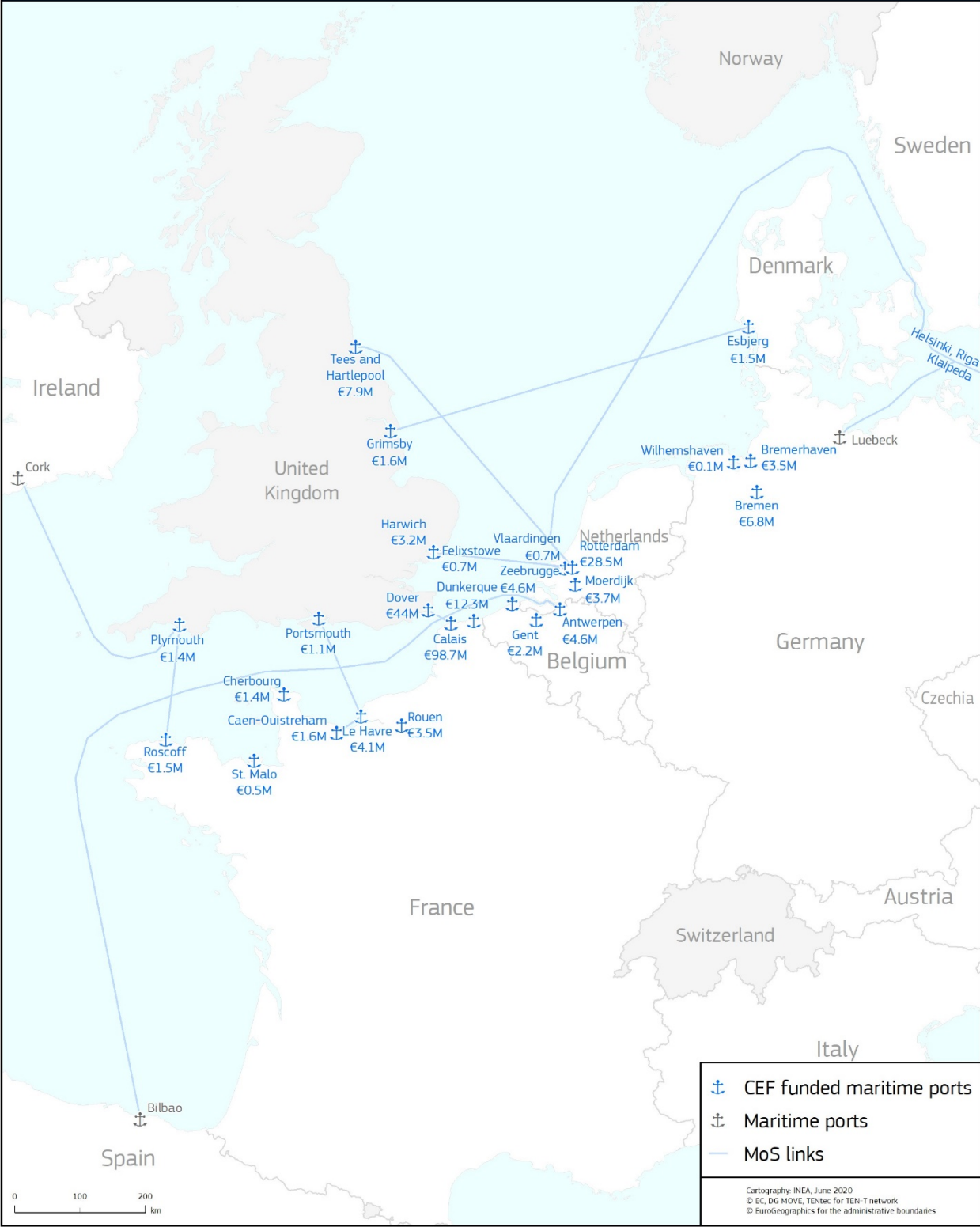
³⁰ 2015-BE-M-0248-W, 2015-DE-TM-0050-W, 2018-BE-TM-0146-W, 2018-NL-TM-0007-W & 2018-NL-TM-0096-W

³¹ 2017-EU-TM-0169-W

³² 2019-FR-TA-0066-W

NORTH SEA

CEF FUNDED MARITIME PORTS & MOS LINKS



3.3. Atlantic Sea Basin

The Atlantic basin includes Ports in Ireland and Portugal, as well as parts of the United Kingdom and the western parts of France and Spain. There are a total of 65 Core and Comprehensive maritime ports in this basin, 21 of which have been supported with €119 million through 29 CEF Transport Actions. A distribution of the funded ports as well as the CEF funding allocated is shown in the map below.

Of the 26 Actions, 6 are funded through the Motorways of the Sea programme, corresponding to €14.6 million in CEF grant funding. This includes the 2 aforementioned maritime links with the North Sea Basin, namely between Antwerpen – Bilbao and between Cork – Plymouth – Roscoff. 2 Actions foresaw LNG pilots³³, notably in Nantes-Saint Nazaire, Gijón and Vigo. Studies³⁴ were also undertaken in view of implementing a short sea shipping service between Leixoes, Brest and Liverpool. Otherwise an Action³⁵ foreseeing the re-establishment of a MoS link between Nantes-Saint Nazaire and Gijón was terminated in 2019 following failure in acquiring a vessel intending to serve the route.

Most of the funding within this basin, with 3 Actions and €26.1 million in CEF funding, has gone to the Port of Bilbao³⁶. Significant infrastructure works, including the construction of a new Quay A6, and parts of Quay A5 (1,081 metres in total new quay length) as well as the creation of an additional 330,000 m² of port operations area for cargo handling operations are foreseen. These infrastructure works are progressing well and an amendment for an extension is currently being processed to enable the full implementation of works.

The development of basic port infrastructure is also a key objective in all of the Irish³⁷ CEF supported ports. In Dublin Port, the Alexandra Basin is being upgraded through the construction of new and upgraded berths at Cross-Berth Quay, Alexandra Quay and Ocean Pier, as well as in the adjacent Pier 49. In Shannon-Foynes an open-piled jetty structure is being built connecting the Eastern and Western jetties, with land reclamation of 1.3 ha foreseen. The East Jetty was also successfully expanded. Finally, the Port of Cork is being upgraded with an additional 110,000 TEU capacity through the construction of a container quay capable of berthing two ships and a RoRo/multipurpose freight handling facility. These Actions are all progressing well, and the completed investments may therefore play a role in addressing the challenges faced with Brexit.



Figure 10: Expansion of the East Jetty in the Shannon-Foynes (source: Port Shannon Foynes)

³³ 2015-EU-TM-0307-W & 2014-EU-TM-0698-M

³⁴ 2014-EU-TM-0671-S

³⁵ 2015-EU-TM-0375-M

³⁶ 2014-ES-TM-0433-W, 2014-EU-TM-0487-M & 2014-EU-TM-0732-S

³⁷ 2014-IE-TM-0091-W, 2014-IE-TM-0222-W, 2014-IE-TM-0355-W & 2017-IE-TM-0014-W

The lengthening of an internal basin as well as a berth coupled with capital dredging is foreseen in the Ports³⁸ of Avilés and Nantes-St Nazaire. Multimodal logistics platform/terminals are being constructed in the Ports³⁹ of Leixoes and Huelva. The Port of Ferrol⁴⁰ will construct an internal port rail network and prepare for the upgrade of its rail hinterland connections and an extensive capital dredging programme is successfully being implemented in the Port of Bordeaux⁴¹.

Finally, nine Actions⁴² include as objective the provision of alternative fuels within this maritime basin. The Spanish islands Santa Cruz de Tenerife and Las Palmas have participated three of these: which included OPS connections being installed in Santa Cruz de Tenerife, the study of indicators for LNG retrofits and finally the retrofit of five LNG vessels. One of these will operate the route Huelva – Santa Cruz de Tenerife and Las Palmas. A second vessel will operate in this basin between Gijón and Nantes-Saint Nazaire whereas the remaining three vessels will operate in the Eastern Mediterranean basin. All of these retrofits are progressing well in line with current planning. With regard to infrastructure, an LNG Break Bulking Station was successfully built in Nantes-St Nazaire. The LNG regasification plant will be adapted and truck-to-ship bunkering will be created in the Port of Huelva. Finally, an LNG bunker supply terminal with the necessary infrastructure to allow the berthing of the LNG fuelled vessels is envisioned in the Ports of Santander and Gijón.

³⁸ 2019-ES-TA-0022-M & 2014-FR-TM-0135-W

³⁹ 2014-PT-TM-0601-M & 2015-ES-TM-0061-W

⁴⁰ 2019-ES-TA-0032-M

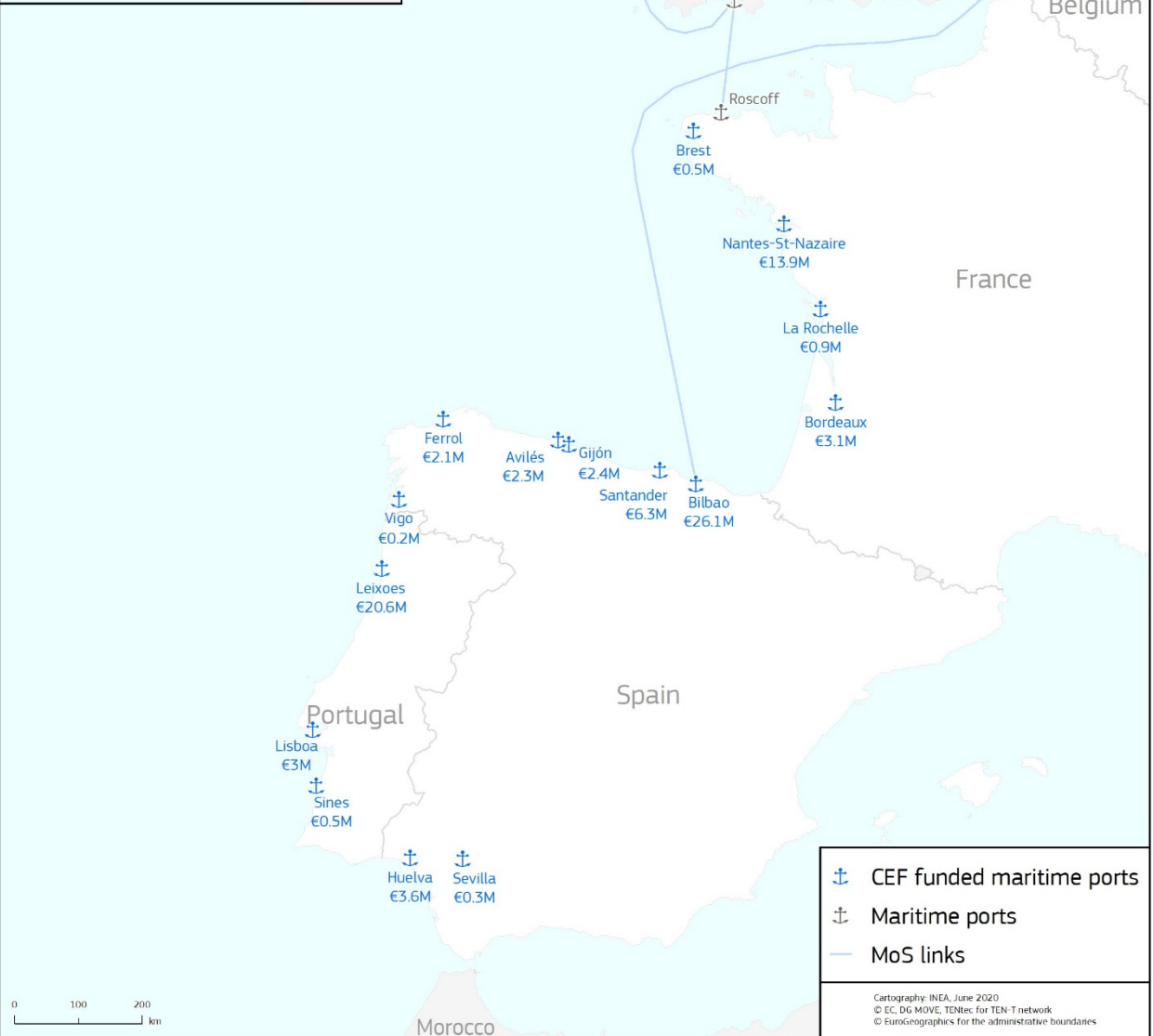
⁴¹ 2014-FR-TM-0007-M

⁴² 2019-ES-TA-0021-W, 2014-EU-TM-0698-M, 2014-ES-TM-0593-S, 2014-EU-TM-0732-S, 2015-EU-TM-0307-M, 2017-EU-TM-0147-W, 2017-EU-TM-0156-W, 2017-ES-TM-0147-W & 2015-EU-TM-0417-S

ATLANTIC

CEF FUNDED MARITIME PORTS & MOS LINKS

Canary Islands



3.4. Western Mediterranean Sea Basin

The Western Mediterranean maritime basin includes ports in Malta, as well as the western part of Italy, the eastern part of Spain and southern France. There are a total of 59 core and comprehensive maritime ports in this basin, 16 of which have been supported with €80.5 million through 25 CEF Transport Actions. A distribution of the funded ports as well as the CEF funding allocated is shown in the map below.

Four⁴³ of these 16 Actions are funded through the Motorways of the Sea programme, two of which foresee the upgrading of maritime links. Firstly, within the basin, the capacity of the Barcelona – Civitavecchia freight link is being upgraded through the construction of pier II in Civitavecchia. In the Port of Barcelona, the upgrade of the Contradique Norte pier and enlargement of its Ro-Ro Ramp as well as the conversion of the rail terminal on Contradique wharf to short sea shipping traffic is foreseen. Secondly and connecting to the East-Mediterranean Basin, the construction works for the maritime link between Barcelona and Koper are nearly finalised, with the upgrade of the Príncipe de España rail terminal in Barcelona. Moreover, a pilot for charging electric vehicles at the ports, and on board of the 2 Neptune line vessels, was successfully concluded. While fully implemented, some minor delays have occurred due to CoVid-19 restrictions.

The other two Motorways of the Sea Actions consisted of projects with wider benefits, and brought together a larger consortium of ports and other stakeholders (including from, the Atlantic & West-Mediterranean maritime basins). Focussing on alternative fuels, an LNG break-bulking station was built in Fos-Marseille, the first dual-fuel LNG RoPax vessel in the Mediterranean (Messina) commenced operations in 2018 and other LNG design studies were completed. Secondly, the supply chains for refrigerated fresh cargo from Israel through Koper/Venice/Marseille Fos to Central Europe was piloted.

Most of the funding within this basin, with €16.1 million, was allocated to the Port of Valencia⁴⁴. The Port has played an important role in several larger Actions aimed at the development of an alternative fuels network in Spain. Nevertheless, the majority of the funding was dedicated to tackling the lacking interoperability of the rail infrastructure in the port with the Mediterranean Corridor. Whereas some delays occurred due to the port needing to revalidate the effects of the Action on the urban environment following a newly elected regional and local government, the Action is expected to successfully conclude in December 2020. It will upgrade the internal rail network in the port, enabling the reception of 750 metre long trains and incorporate the UIC gauge. Other important rail hinterland construction works⁴⁵ are being undertaken in the Ports of Castellón, Sagunto, Marina di Carrara, Civitavecchia, and as aforementioned, Barcelona. Moreover, the Ports⁴⁶ of Cartagena and Marseille are also upgrading the Cartagena Intermodal Terminal and the Med



Figure 11: Upgraded Rail infrastructure at the public container terminal of Levante Quay, Port of Valencia (source: Fundación Valenciaport)

⁴³ 2017-EU-TM-0037-W, 2015-EU-TM-0250-M, 2014-EU-TM-0698-M & 2014-EU-TM-0531-S

⁴⁴ 2014-ES-TM-0277-M, 2014-EU-TM-0732-S, 2017-EU-TM-0147-W, 2018-EU-TM-0117-S & 2017-ES-TM-0156-W

⁴⁵ 2019-ES-TA-0036-W, 2019-ES-TA-0047-M, 2019-IT-TA-0034-M & 2019-IT-TA-0069-W

⁴⁶ 2016-ES-TM-0063-S, 2018-FR-TM-0014-W & 2018-FR-TM-0128-W

Europe Combined Transport terminals respectively, which are expected to positively impact their rail connectivity.

Another important priority within this maritime basin has been the creation of an alternative fuel network. Two Actions in particular focussed on OPS⁴⁷ culminating in a Masterplan for OPS in Spanish Ports, namely a series of design studies as well as the implementation of OPS connections in Palma de Majorca. An OPS facility in the Voltri port basin was further constructed capable of providing simultaneous electrical power supply to two container ships. Finally, OPS equipment was installed on five Ro-Ro vessels.

With regard to the LNG investments⁴⁸ numerous studies and engineering designs were undertaken preparing for LNG infrastructure investments and also contributing to the Italian, Spanish and Portuguese National Policy Frameworks. In Livorno an LNG multi-modal terminal with storage capacity of 9,000 m³ is foreseen though it is noted that this investment still needs to obtain the final permit issued by the Economic Development Ministry to commence the works in line with the AFI Directive. Jetties are being adapted in Barcelona and Cartagena to enable bunkering services. In the Port of Valencia a regasification plant is being adapted and moreover an LNG / CNG (Compressed Natural Gas) mixed station is expected to be operational as of July 2020. Support has also been provided for the retrofit of four ferry vessels operating between either Barcelona and Valencia to Palma de Majorca and Ibiza.

Finally, funding within this basin has also gone into the participation in several consortia aimed at digital solutions⁴⁹ including the development of a port environmental performance platform and the digitalisation of smart port operations.

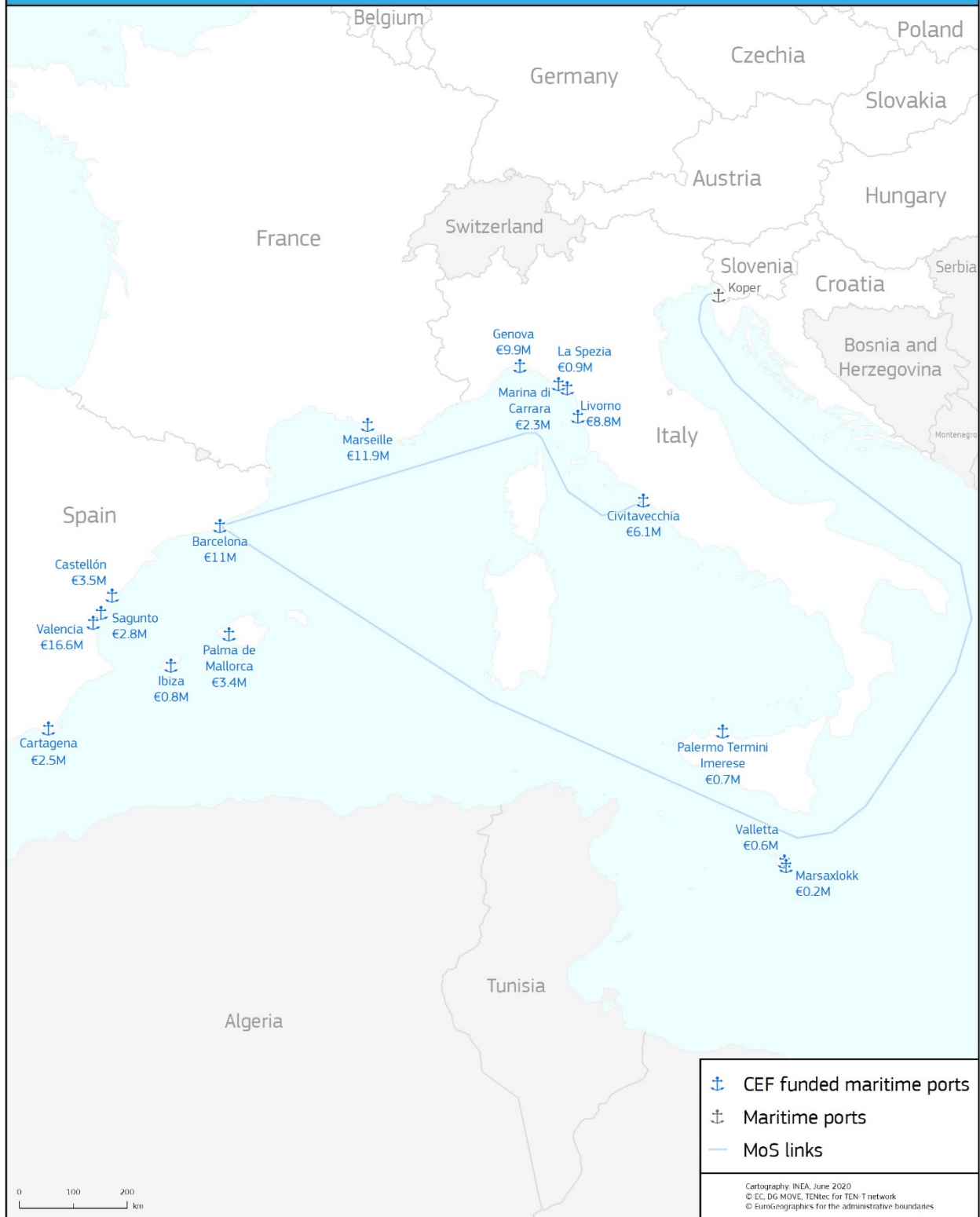
⁴⁷ 2015-EU-TM-0417-S

⁴⁸ 2014-ES-TM-0711-S, 2014-EU-TM-0698-M, 2014-EU-TM-0732-S, 2014-IT-TM-0450-S, 2016-MT-SA-0005, 2017-ES-TM-0156-W, 2017-EU-TM-0147-W & 2017-IT-TM-0066-W

⁴⁹ 2018-EU-TM-0117-S, 2018-EU-TM-0135-S & 2018-IT-TM-0134-S

WESTERN MEDITERRANEAN

CEF FUNDED MARITIME PORTS & MOS LINKS



3.5. Eastern Mediterranean Sea Basin

The Eastern Mediterranean basin includes Ports in Greece, Cyprus, Croatia, Slovenia and the Adriatic coast of Italy. There are a total of 45 core and comprehensive maritime ports in this basin, 14 of which have been supported with €261.8 million through 30 CEF Transport Actions. A distribution of the funded ports as well as the CEF funding allocated is shown in the map below.

10 out of these 30 Actions were selected under the Motorways of the Sea programme, corresponding to €66.9 million in CEF funding. Three⁵⁰ of these Actions foresee the upgrade of maritime links: between Ancona – Igoumenitsa – Trieste, Patras – Venice and the aforementioned link to the Western Mediterranean basin between Barcelona – Koper.

The other 7 Actions foresee studies & investments in an alternative fuel network with LNG and OPS investments. With €19.7 million CEF grant the largest of these, and a good example of an ambitious Action with wider benefits, is “Poseidon-Med II”⁵¹ which brings together the Ports of Patras, Venice, Igoumenitsa, Heraklion, Piraeus and Limassol, the Revithoussa LNG Terminal as well as numerous operators and maritime stakeholders. The Action, while requiring a year extension, is expected to be fully implemented and will culminate in the basic and detailed designs for the extension of the LNG terminal, the construction of an LNG fuelled feeder vessel, the retrofit to LNG of five vessels and the provision of LNG bunkering infrastructure at 5 aforementioned ports. Moreover, a semi-ballastable bunkering barge for LNG transportation is being constructed and will operate from the Port of Venice.

With €99.5 million CEF grants distributed through 8 Actions, the Port of Rijeka⁵² has received most of the CEF funding within this maritime basin. A wide variety of basic infrastructure and rail hinterland works are foreseen including in particular the construction a new intermodal container terminal Brajdica and the upgrade of the Zagreb intermodal terminal. Extensive rail hinterland investments are foreseen including the reconstruction of railway tracks in the port area including the reconstruction of the railway station Rijeka-Bajdica, the cargo section of the Rijeka Railway station and Podbok terminal. Rail infrastructure⁵³ investments are also foreseen in the Ports of Trieste and Koper.



Figure 12: Brajdica terminal, Port of Rijeka
(source: HŽ Infrastruktura d.o.o)

Significant infrastructure in this maritime basin are also foreseen in the Port of Ravenna⁵⁴ where 3,500 linear meters of existing operational quays will be upgraded and a new container quay of 1,000 linear metres will be constructed in Penisola Trattaroli, coupled with extensive capital dredging works. The improvement of maritime infrastructure⁵⁵ through the construction of breakwaters, quays and berths is also an objective pursued in the Ports of Trieste, Koper and Limassol. Moreover, works are progressing with a new RoRo

⁵⁰ 2015-EU-TM-0250-M, 2015-EU-TM-0310-M & 2016-EU-TM-0342-M

⁵¹ 2014-EU-TM-0673-S

⁵² 2014-HR-TMC-0144-W, 2015-HR-TM-0032-W, 2015-HR-TM-0399-W, 2016-HR-TMC-0067-W, 2016-HR-TMC-0082-S, 2016-HR-TMC-0171-W, 2017-HR-TM-0139-W & 2014-EU-TMC-0700-S

⁵³ 2015-EU-TM-0250-M, 2017-IT-TM-0092-W & 2014-EU-TM-0343-M

⁵⁴ 2017-IT-TM-0044-W

⁵⁵ 2014-EU-TM-0343-M, 2015-EU-TM-0310-M, 2016-CY-TMC-0330-M

terminal in the Port of Venice⁵⁶ and a confined disposal facility for dredging sediments will be built in the Port of Trieste⁵⁷. The foreseen Igoumenitsa Freight Village⁵⁸ is nevertheless facing implementation delays.

Finally, many Actions within this basin include as objective the provision of an alternative fuel network. With regard to OPS installations⁵⁹, an extensive study regarding the current legal framework, covering the class rules for OPS installation and their alignment with international and EU directives was conducted. Moreover, the preparatory studies for OPS installations in the Ports of Limassol, Kilini, Piraeus and Koper were conducted. OPS installations were piloted in the Port of Killini.

With regards to LNG it is worth noting that in Venice support is provided for the construction of a multi-modal LNG terminal⁶⁰ with 32,000 cubic metre capacity. The competent regional and national authorities have requested additional adjustments to the initial planning, and the revised project was presented to the Italian Ministry of Economic Development in January 2020 for approval. Otherwise LNG pilot bunkering infrastructure⁶¹ was also installed in the Port of Venice.

Two LNG Bunkering Vessels⁶² (3,000 m³ capacity) registered in Piraeus and Limassol enabling bunkering of LNG fuelled vessels and the small-scale mobile LCNG stations in the respective ports is also foreseen. Moreover, a hybrid LNG/Electric Catamaran Vessel⁶³ connecting Piraeus to the wider Aegean archipelago for 600 passengers will be built. Two LNG Bunkering Tanker Trucks for the supply of this vessel is also foreseen.

⁵⁶ 2016-EU-TM-0342-M

⁵⁷ 2014-EU-TM-0343-M

⁵⁸ 2015-EU-TM-0310-M

⁵⁹ 2015-EU-TM-0235-S & 2015-EU-TM-0236-S

⁶⁰ 2017-IT-TM-0066-W & 2017-IT-TM-0154-W

⁶¹ 2014-EU-TM-0698-M

⁶² 2017-EU-TM-0149-W

⁶³ 2017-EL-TM-0048-W

EASTERN MEDITERRANEAN

CEF FUNDED MARITIME PORTS & MOS LINKS



3.6. The Black Sea Basin

The Black Sea maritime basin costs of the Ports in Bulgaria and Romania. There are a total of 7 Core and Comprehensive maritime ports, of which Constanța and Burgas have been financed with €13.1 million through 2 CEF Transport actions. A distribution of the funded ports as well as the CEF funding allocated is shown in the map below.

The Port of Constanța is Romania's most important maritime Core port and the largest Union port in the Black Sea. Various works⁶⁴ are foreseen herein, including constructing an on-shore ship waste collection and treatment facility, upgrading the signalling system in the port basins and fairway as well as the deployment of a 500 DWT self-propelled tanker vessel for ship waste collection which will be taken over in July 2020. While there is a currently a minor delay, full implementation of these works is expected.

In the Port of Burgas⁶⁵ the technical designs to carry out the basic infrastructure works on the quay wall and hinterland connections with the rail network are being conducted. These designs were completed in 2019 and will enable the subsequent works.



Figure 13: Construction works on berth DA2 in Port of Constanța (source: Port of Constanța)

⁶⁴ 2015-RO-TM-0046-M

⁶⁵ 2016-BG-TMC-0083-S



3.7. Other Actions impacting the maritime portfolio

Finally, it is worth noting several Actions which have otherwise impacted the wider maritime portfolio. CEF Support is provided to one Actions in overseas territories. Moreover, there are several Actions which could not be attributed to individual ports but will widely benefit the maritime community as well some Actions allocated to other transport modes but will indirectly benefit the maritime portfolio.

One Action within the CEF transport portfolio has provided support to the overseas territories of France with €2.2 million. Le Grand Port Maritime de La Réunion⁶⁶ prepares the preliminary, detailed and technical designs as well as the legal and environmental studies coupled with public participation for relevant works to increase the container storage capacity at the port.

13 Actions, corresponding to €76.7 million in CEF Transport funding will benefit the maritime community widely beyond individual ports. 8 of these Actions were wider benefit actions selected under the Motorways of the Sea priority.

Examples of these Actions⁶⁷ include pilots in Sea Traffic Management Validation aiming at testing a digital communication system to improve information sharing between port authorities operators, hydrographic surveying, securing winter navigation, incentive schemes for intermodal freight transportation, the testing of compliance monitoring methods of vessels.

In the Baltic Sea, a large consortium of beneficiaries has just finalised the 'Famos Odin' Action, which throughout 2016 to 2019 completed the second stage of a large-scale hydrographic surveying exercise in Sweden, Finland, Estonia, Lithuania and Latvia for a surveyed area in excess of 26,000 km². The resulting upgraded charts, incorporated into the corresponding databases, will significantly increase the safety of maritime operations.

In the Atlantic & West-Mediterranean basins, in cooperation with the Ministries of Transport of Spain, France, Italy and Portugal the 'MED-ATLANTIC ECOBONUS' Action aimed at creating an effective and sustainable eco-incentive scheme to support intermodal freight transportation through MoS links.

Finally, there are six⁶⁸ Actions which affect maritime ports, but where the majority of these interventions take place outside the maritime ports on the road, rail or inland waterway network and are accordingly categorised as such. These Actions receive a total of €48.7 million in CEF Transport funding, of which €7.1 million is allocated to the maritime ports of Rouen, Barcelona, Rotterdam & Marseille.

⁶⁶ 2019-FR-TA-0024-S

⁶⁷ 2014-EU-TM-0206-S, 2014-EU-TM-0152-M, 2015-EU-TM-0014-M, 2015-EU-TM-0132-M & 2014-EU-TM-0544-S

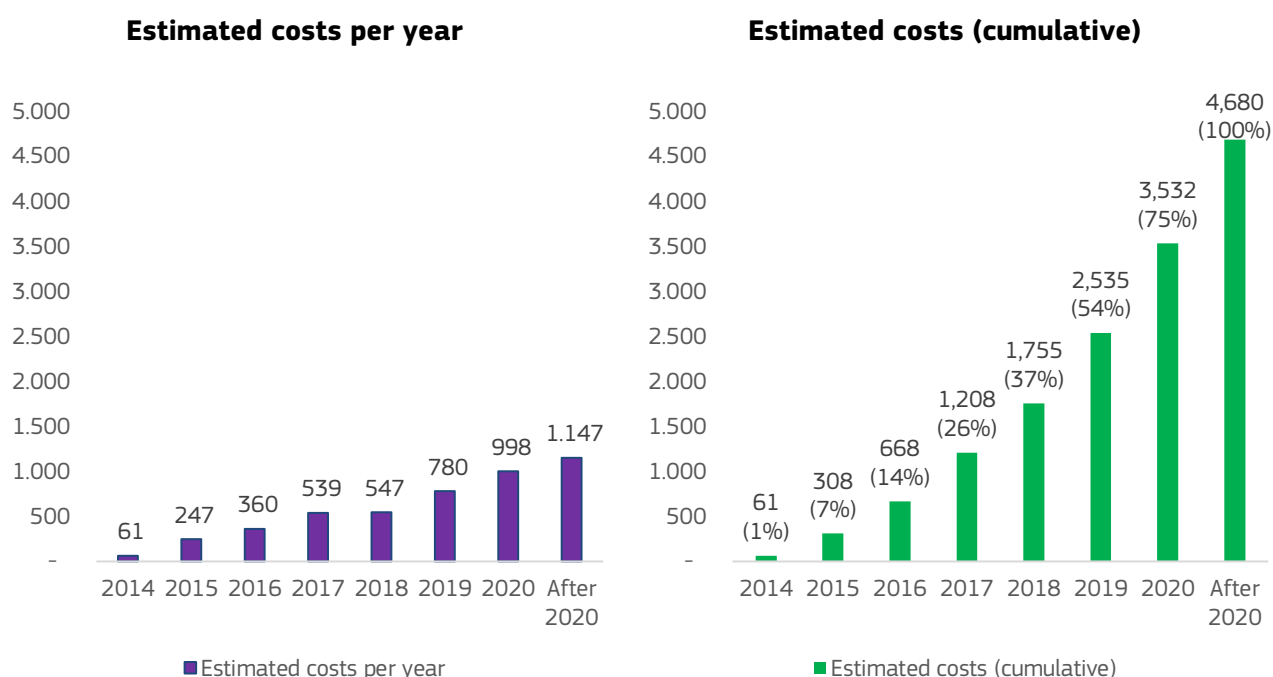
⁶⁸ 2014-FR-TM-0323-W, 2015-EU-TM-0404-S, 2015-PT-TM-0385-S, 2016-FR-TA-0312-S, 2018-BE-TM-0139-M & 2018-NL-TM-0091-W

4. Financial Progress

CEF Transport funding for Actions in the maritime portfolio was initially⁶⁹ €1.7 billion, corresponding to €4.8 billion in eligible costs. Following amendments and closures, the funding going to this portfolio is still €1.58 billion, corresponding to €4.5 billion in eligible costs. It is important to note that the major part of the reductions were re-injected in the 2019 CEF Transport calls.

When taking into account the latest information available⁷⁰, the costs necessary to implement CEF Transport actions are estimated at €4.7 billion⁷¹. The below figures give an overview of the respective financial progress (in terms of estimated costs) of the overall maritime portfolio. By the end of 2019 the financial progress reached was 54.2%.

Figure 14: Estimated budget implementation (€ million)



Whilst the above financial progress charts are based on cost estimates provided by the beneficiaries (updated annually in Action status reports), the budgetary absorption progress of the allocated funding can also be analysed by assessing the payments made and interim/final costs claims processed. In fact, out of the €1.58 billion of CEF Transport funding:

- 47% or €741.1 million has already been paid (including pre-financing payments)
- 23% or €361.8 million of contribution has already been accepted (following the introduction of interim/final cost claims by beneficiaries).

⁶⁹ i.e. grant agreement signature stage

⁷⁰ i.e. action status reports and received but not yet approved final payment claims.

⁷¹ Higher estimated costs with respect to the initial or actual eligible costs are typically due to cost overruns reported in the ASRs.

5. Recent issues affecting the implementation of maritime Actions

Some challenges to the full implementation of the maritime portfolio remain. These are often recurring issues faced by multiple Actions, and are not linked to any specific country or maritime basin.

An often cited example is the effect of changing market conditions, where for example the changing price of LNG impacted the investment decisions of the corresponding port/operator. Following a re-evaluation procedure, a port decided that there was no longer a market case for the investments which led to amendments for their removal from Grant Agreements.

Moreover, and in particular for the 2014 – 2016 portfolio, not all of the investments selected were fully mature, and CEF support was consequently expected to accelerate the proposed investments. Nevertheless, also after the CEF Mid-term Review in 2018, this has resulted in the extension of some Actions and the discontinuation of certain investments as they were awaiting far too long the obtainment of missing designs or authorisations.

This has however been remedied in subsequent calls, with a decoupling of study & works proposals and a greater emphasis being placed on the availability of the needed permits, designs and authorisations in order to guarantee an immediate start of works.

Several Actions were extended following delays incurred as beneficiaries awaited the transposition into national law of the 2014 public procurement directive and as they assessed the additional requirements this imposed. This EU directive was transposed into national legislation during 2016.

Administrative challenges, in particular when managing large consortia of beneficiaries can impact the ability to successfully deliver on the larger studies and works. To this effect, INEA has organised in November 2019 a Motorways of the Sea Project Management seminar⁷², to exchange best practices amongst stakeholders.

Otherwise, and in particular for investments selected under the Motorways of the Sea priority, operators can receive EU financing for vessel investments when upgrading a maritime link. It is a condition that this vessel subsequently continues to serve the applicable maritime link throughout the full duration of the Action. Changing market conditions however do not always guarantee that fact, and this has led to the termination of grant agreements, as well as numerous amendments, where the vessel operator could no longer satisfy this condition.

Finally, the resolution of the uncertainties following the on-going post-Brexit negotiations as well as the impact CoVid-19 crisis may have a significant and lingering influence on the maritime portfolio as ports, operators and the wider maritime stakeholders adjust to the passenger and cargo transport flows following the new situation. INEA will remain flexible, supporting our current beneficiaries to fully implement their investments where possible.

Such collaboration is particularly needed as we approach the final years of implementation of the CEF programme, and INEA will continue to follow-up on the implementation of this portfolio to ensure that available funds under this Programme are fully and efficiently used.

⁷² <https://ec.europa.eu/inea/en/news-events/events/motorways-sea-mos-workshop>

6. Conclusion and outlook

The Motorways of the Sea priority and the wider maritime portfolio have well contributed to the development of the maritime short sea shipping sector in Europe and to the objectives and priorities identified in the Detailed Implementation Plan of the European Coordinator Prof. Kurt Bodewig.

The CEF maritime portfolio reflects the significance of the current environmental challenges. Following the Green Deal and the European ambition to create a sustainable transport network, investments are needed to strengthen and decarbonise shipping operations. As shown in this report, CEF Transport funding has well contributed towards this objective.

Within all maritime basins, investments have foreseen works and/or design studies with the objective of deploying an alternative fuel network: particularly in relation to OPS and LNG. This has also included support to operators for the design and retrofit of a variety of vessel types. Nevertheless, further investments in the deployment of an alternative fuel network are needed.

Moreover, LNG remains a fossil fuel contributing to GHG emissions. It is therefore key, in order to meet a future GHG reduction strategy, to also focus on (pilot) actions which support the introduction of non-fossil fuels (e.g. ammonia or hydrogen) and other fuel reducing technologies, such as wind propulsion or solar energy.

Synergies with the Horizon 2020 programme and its Actions with a high technology readiness level (TRL) can contribute to this objective and result in a better use of EU funding. Some initial experiences with electric ferries exist, where technologies initially developed under H2020 Programme are further tested in larger operational conditions under CEF. This paves the way for its market roll-out at a much larger scale, with a continuous EU financial support at all technological levels.

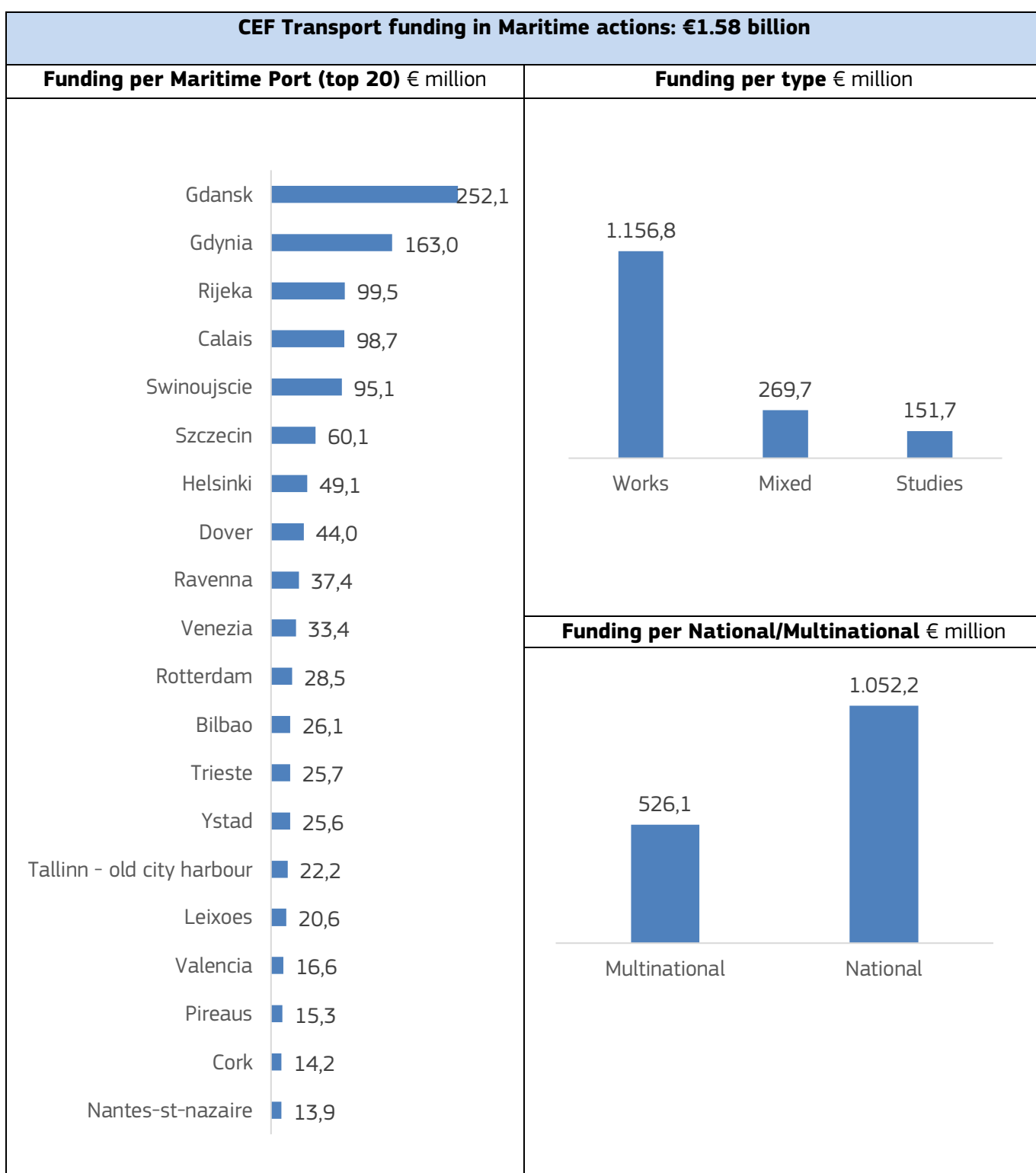
The focus on digitalisation, in line with the European Digital Strategy, is also a key instrument which can increase the sustainability of the transport sector. Digital technologies will play a key role in increasing the handling capacity of ports, simplify administrative requirements and facilitate the communication between the different maritime stakeholders through the development of maritime ICT services including Sea Traffic Management solutions.

The upgrade of short sea shipping links and the support of port basic infrastructure investments will maintain its importance. The Motorways of the Sea programme has contributed to this objective, in particular by upgrading 26 maritime links. The further removal of port bottlenecks remain essential to connect the European core network corridors through sea and thus integrate TEN-T sections with both core and comprehensive ports.

This is particularly the case due to the withdrawal of the United Kingdom from the European Union, which took place on 31 January 2020. While negotiations as to a future trading relationship are still ongoing, a seamless connectivity with Ireland must be maintained.

Finally, the CoVid-19 crisis is expected to have a heavy impact on port and maritime operations, even if it is too early to assess at this stage how precisely this will affect maritime transport. This underlines the necessity for continued investments within the maritime portfolio in order to help recover, strengthen and create a more resilient European short sea shipping sector serving the transportation of cargo and passengers.

7. Statistical Annex



8. List of Maritime Actions

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2014-ES-TM-0272-M	Improvement of the hinterland rail connection to the Port of Valencia (CONNECT VALENCIAPORT)	Ongoing	Mixed	General	Pre-identified projects on the other sections of the Core Network	Maritime Ports (Valencia)	31/12/2020	11,615,075	55,906,000
2014-ES-TM-0433-W	FUTURE PROOFING BILBAO – CORE PORT OF THE ATLANTIC CORRIDOR	Ongoing	Works	General	Pre-identified projects on the other sections of the Core Network	Maritime Ports (Bilbao)	31/12/2019	23,248,284	116,241,420
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)	Terminated	Studies	General	New technologies and innovation	Maritime Ports (Santa Cruz de Tenerife)	31/12/2018	3,095,166	6,190,332
2014-ES-TM-0711-S	CLEANPORT - Alternative Fuels and Solutions for Port's Cold-Ironing: Standardisation of Regulatory Framework and Demonstration of Feasible Exploitation	Ongoing	Studies	General	New technologies and innovation	Maritime Ports (Barcelona)	31/12/2018	3,174,529	6,349,058
2014-EU-TA-0314-W	Nordic Maritime Hub - Linking Northern Denmark to Core Network Corridors and Motorways of the Sea	Ongoing	Works	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Frederikshavn)	31/08/2019	1,551,860	7,759,300

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2014-EU-TM-0066-M	The Northern ScanMed Ports - Sustainable Maritime Links	Closed	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Hamina) Maritime Ports (Naantali) Maritime Ports (Stockholm) Maritime Ports (Turku)	31/12/2016	1,853,415	5,665,156
2014-EU-TM-0087-M	TWIN-PORT 2	Ongoing	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Helsinki) Maritime Ports (Tallinn - old city harbour)	31/12/2020	29,300,000	97,600,000
2014-EU-TM-0095-W	ReaLNG: Turning LNG as marine fuel into reality in the North Sea-Baltic region	Closed	Works	General	Motorways of the Sea (MoS)	Maritime Ports (Luebeck) Maritime Ports (Rotterdam)	30/09/2017	12,581,818	38,531,679
2014-EU-TM-0120-W	HEKLA – Helsingborg & Klaipeda LNG Infrastructure Facility Deployment	Closed	Works	General	Motorways of the Sea (MoS)	Maritime Ports (Helsingborg) Maritime Ports (Klaipeda)	30/06/2018	4,704,263	15,408,527
2014-EU-TM-0152-M	FAMOS Freja: Finalising Surveys for the Baltic Motorways of the Sea	Closed	Mixed	General	Motorways of the Sea (MoS)	(blank)	31/12/2016	10,033,480	28,543,427
2014-EU-TM-0206-S	STM Validation Project	Ongoing	Studies	General	Motorways of the Sea (MoS)	(blank)	30/06/2019	21,488,717	42,977,434
2014-EU-TM-0333-W	BRIDGE (Building the Resilience of International and Dependent Gateways in Europe) - Motorways of the Sea II	Ongoing	Works	General	Motorways of the Sea (MoS)	Maritime Ports (Calais) Maritime Ports (Dover)	31/12/2020	33,493,500	111,645,000
2014-EU-TM-0343-M	Improving North Adriatic ports' maritime accessibility and hinterland connections to the Core Network (NAPA4CORE)	Ongoing	Mixed	General	Pre-identified projects on the Core Network corridors	Maritime Ports (Koper) Maritime Ports (Trieste)	31/12/2020	21,959,999	109,799,996

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2014-EU-TM-0379-M	Back from Black -Study and deployment of the affordable scrubber retrofitting technology for SME shipowners	Closed	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Helsinki) Maritime Ports (Luebeck) Maritime Ports (Tees and hartlepool)	30/06/2017	5,582,008	14,854,826
2014-EU-TM-0383-S	Pilot LNG-powered multipurpose RoRo ship	Terminated	Studies	General	New technologies and innovation	(blank)	31/12/2017	-	-
2014-EU-TM-0385-M	Environmental compliance and upgrade of the North Sea MoS Felixstowe-Vlaardingen	Closed	Works	General	Motorways of the Sea (MoS)	Maritime Ports (Felixstowe) Maritime Ports (Vlaardingen)	31/12/2016	1,302,000	4,340,000
2014-EU-TM-0391-M	Upgrading and sustaining the competitive core Baltic MoS link Helsinki-Lübeck	Closed	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Helsinki) Maritime Ports (Luebeck)	31/03/2017	7,781,805	25,939,350
2014-EU-TM-0396-M	Environmental compliance and upgrade of the North Sea MoS Esbjerg-Immingham	Closed	Works	General	Motorways of the Sea (MoS)	Maritime Ports (Esbjerg) Maritime Ports (Grimsby)	31/12/2016	3,060,988	10,203,292
2014-EU-TM-0428-M	Environmental compliance and service upgrade of the North Sea MoS Cuxhaven-Immingham	Terminated	Works	General	Motorways of the Sea (MoS)	Maritime Ports (Cuxhaven) Maritime Ports (Grimsby)	31/12/2016	-	-
2014-EU-TM-0437-M	Upgrading and sustaining competitive sea-based transport service on Baltic MoS Klaipeda-Karlshamn	Closed	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Karlshamn) Maritime Ports (Klaipeda)	31/12/2017	2,925,350	9,642,293
2014-EU-TM-0451-M	Scrubbers: Closing the loop	Ongoing	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Harwich) Maritime Ports (Rotterdam)	31/12/2018	6,344,400	20,083,000

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2014-EU-TM-0487-M	Biscay Line - Multiple port Finland-Estonia-Belgium-Spain long distance MoS, relevant to many core network corridors	Closed	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Antwerpen) Maritime Ports (Bilbao)	31/12/2016	4,331,722	14,439,073
2014-EU-TM-0489-S	Zero Emission Ferries - a green link across the Öresund	Closed	Studies	General	Motorways of the Sea (MoS)	Maritime Ports (Helsingborg) Maritime Ports (Helsingor)	31/12/2017	13,150,000	26,300,000
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	Ongoing	Studies	General	New technologies and innovation	Maritime Ports (Bremen)	30/06/2019	6,836,750	13,673,500
2014-EU-TM-0507-M	Upgrading and sustaining the competitive Baltic MoS link Germany-Finland (RoRo multiple ports loop)	Closed	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Rauma) Maritime Ports (Rostock)	31/12/2016	4,939,846	16,466,154
2014-EU-TM-0520-M	Motorway of the Sea Rostock-Gedser - Part 2	Closed	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Gedser) Maritime Ports (Rostock)	31/12/2017	6,178,855	20,596,184
2014-EU-TM-0531-S	FRESH FOOD CORRIDORS	Closed	Studies	General	Motorways of the Sea (MoS)	Maritime Ports (Koper) Maritime Ports (Marseille) Maritime Ports (Venezia)	31/07/2018	5,596,923	11,193,846
2014-EU-TM-0544-S	MED-ATLANTIC ECOBONUS	Ongoing	Studies	General	Motorways of the Sea (MoS)	(blank)	31/12/2018	771,919	1,543,838
2014-EU-TM-0546-S	Compliance monitoring pilot for Marpol Annex VI (CompMon)	Closed	Studies	General	Motorways of the Sea (MoS)	(blank)	31/12/2016	1,469,616	2,939,231

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2014-EU-TM-0640-M	Sweden-Poland Sustainable Sea-Hinterland Services “Sustainable Świnoujście-Trelleborg MoS based on upgrading port infrastructure, developing intermodal transport and integrating hinterland corridors.”	Ongoing	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Trelleborg)	31/12/2021	2,350,400	4,925,500
2014-EU-TM-0671-S	Atlantic Interoperable Services (ATLANTIS)	Closed	Studies	General	Motorways of the Sea (MoS)	Maritime Ports (Brest) Maritime Ports (Leixoes) Maritime Ports (Liverpool)	30/04/2017	1,291,184	2,582,367
2014-EU-TM-0673-S	Poseidon Med II	Ongoing	Studies	General	Motorways of the Sea (MoS)	Maritime Ports (Igoumenitsa) Maritime Ports (Iraklion) Maritime Ports (Limassol) Maritime Ports (Patra) Maritime Ports (Pireaus) Maritime Ports (Venezia)	31/12/2020	26,639,703	53,279,405
2014-EU-TM-0686-S	e-Freight Implementation Action (e-Impact)	Closed	Studies	General	New technologies and innovation	Maritime Ports (Gdansk) Maritime Ports (Gdynia) Maritime Ports (Leixoes) Maritime Ports (Lisboa) Maritime Ports (Swinoujście) Maritime Ports (Szczecin) Maritime Ports (Trieste)	30/06/2018	1,591,487	3,182,974

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2014-EU-TM-0698-M	Sustainable LNG Operations for Ports and Shipping - Innovative Pilot Actions (GAINN4MOS)	Ongoing	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (La spezia) Maritime Ports (Marseille) Maritime Ports (Nantes-st-nazaire) Maritime Ports (Venezia)	30/09/2019	11,668,113	28,634,024
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	Closed	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Caen-ouistreham) Maritime Ports (Le havre) Maritime Ports (Portsmouth)	20/12/2017	3,187,500	6,585,000
2014-EU-TM-0724-W	Installation of gas and water cleaning system for the upgrade of the Atlantic Arch	Closed	Works	General	Motorways of the Sea (MoS)	Maritime Ports (Cork) Maritime Ports (Plymouth) Maritime Ports (Roscoff)	20/12/2017	4,322,500	14,375,000
2014-EU-TM-0732-S	CORE LNGas hive - Core Network Corridors and Liquefied Natural Gas	Ongoing	Studies	General	New technologies and innovation	Maritime Ports (Barcelona) Maritime Ports (Bilbao) Maritime Ports (Cartagena) Maritime Ports (Ferrol) Maritime Ports (Valencia)	31/12/2020	16,647,880	33,295,760
2014-EU-TMC-0641-M	Sweden-Poland Sustainable Sea-Hinterland Services "Sustainable Świnoujście-Trelleborg MoS based on upgrading port infrastructure, developing intermodal transport and integrating hinterland corridors."	Ongoing	Mixed	Cohesion	Motorways of the Sea (MoS)	Maritime Ports (Swinoujście)	31/12/2021	22,437,167	29,812,872

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2014-EU-TMC-0700-S	Sustainable LNG Operations for Ports and Shipping - Innovative Pilot Actions (GAINN4MOS)	Ongoing	Studies	Cohesion	Motorways of the Sea (MoS)	Maritime Ports (Rijeka)	30/09/2019	1,307,725	1,538,500
2014-FR-TM-0007-M	GIRONDE XL - Dredging and innovative navigation	Ongoing	Mixed	General	Pre-identified projects on the other sections of the Core Network	Maritime Ports (Bordeaux)	31/12/2019	3,120,000	15,600,000
2014-FR-TM-0135-W	Atlantic Container Centre: Efficient Terminal in Nantes Saint-Nazaire Core Port	Closed	Works	General	Pre-identified projects on the other sections of the Core Network	Maritime Ports (Nantes-st-nazaire)	31/12/2017	3,196,305	15,981,525
2014-FR-TM-0395-W	Calais Port 2015	Ongoing	Works	General	Pre-identified projects on the other sections of the Core Network	Maritime Ports (Calais)	31/12/2019	82,315,200	411,576,000
2014-HR-TMC-0144-W	Port of Rijeka multimodal platform development and interconnection to Adriatic Gate container terminal (POR2CORE-AGCT)	Ongoing	Works	Cohesion	Pre-identified projects on the Core Network corridors	Maritime Ports (Rijeka)	31/12/2020	30,222,600	35,556,000
2014-IE-TM-0091-W	Port of Cork Ringaskiddy Project	Ongoing	Works	General	Pre-identified projects on the Core Network corridors	Maritime Ports (Cork)	31/12/2020	12,736,001	72,902,124
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-Mediterranean Corridor	Ongoing	Works	General	Pre-identified projects on the Core Network corridors	Maritime Ports (Dublin)	31/12/2021	6,090,331	59,129,431

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2014-IE-TM-0355-W	Jetty Enhancement for Sea Port Infrastructure Connectivity (JESPIC)	Closed	Works	General	Pre-identified projects on the other sections of the Core Network	Maritime Ports (Shannon-Foynes)	28/02/2017	2,189,132	10,945,661
2014-IE-TM-0370-S	Connecting International Sea Cargo to the Irish Rail Network (CISCIRN)	Closed	Studies	General	Pre-identified projects on the other sections of the Core Network	Maritime Ports (Shannon-Foynes)	31/12/2017	563,826	1,127,653
2014-IT-TM-0276-W	INES - Implementing New Environmental Solutions in the Port of Genoa	Ongoing	Works	General	Pre-identified projects on the Core Network corridors	Maritime Ports (Genova)	30/06/2021	2,433,500	12,100,000
2014-IT-TM-0450-S	GAINN4CORE	Ongoing	Mixed	General	Pre-identified projects on the Core Network corridors	Maritime Ports (Genova) Maritime Ports (La spezia) Maritime Ports (Livorno) Maritime Ports (Venezia)	31/03/2019	3,553,429	7,106,858
2014-PT-TM-0601-M	Multimodal Logistics Platform of the Port of Leixões (Phase 2)	Ongoing	Mixed	General	Multimodal logistics platforms	Maritime Ports (Leixoes)	31/12/2019	2,651,104	20,750,209
2014-PT-TM-0666-S	Designing the Port of Lisbon's Multimodal Platform as a key tool for the effective integration into the multimodal Atlantic Core Network Corridor	Ongoing	Studies	General	Multimodal logistics platforms	Maritime Ports (Lisboa)	31/03/2020	2,746,478	5,492,955
2014-SE-TA-0081-S	Development of the Inland Ports of Mälaren	Closed	Studies	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Koping) Maritime Ports (Vasteras)	30/06/2018	2,540,536	5,081,073
2014-UK-TM-0405-W	BRIDGE (Building the Resilience of International and Dependent Gateways in	Ongoing	Works	General	Pre-identified projects on the other sections	Maritime Ports (Dover)	31/12/2019	26,937,200	134,686,000

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
	Europe) - Funding Objective 1				of the Core Network				
2015-BE-TM-0248-W	Improving of the multimodal logistic platform of the port of Zeebrugge, in order to accommodate long freight trains	Closed	Works	General	Multimodal logistics platforms	Maritime Ports (Zeebrugge)	31/01/2019	1,598,000	7,990,000
2015-DE-TM-0050-W	Quality and capacity upgrade of the railway system in the seaport of Bremerhaven (Imsumer Deich Plus)	Ongoing	Works	General	Multimodal logistics platforms	Maritime Ports (Bremerhaven)	31/12/2019	3,307,620	16,538,100
2015-ES-TM-0061-W	Plataforma Intermodal Puerto de Huelva - Intermodal Platform of Port of Huelva	Ongoing	Works	General	Multimodal logistics platforms	Maritime Ports (Huelva)	31/12/2020	2,460,308	12,301,539
2015-EU-TM-0014-M	Winter Navigation Motorways of the Sea II, WINMOS II	Ongoing	Mixed	General	Motorways of the Sea (MoS)	(blank)	31/10/2019	6,641,500	18,967,000
2015-EU-TM-0098-M	DOOR2LNG -Upgrade of the maritime link integrated in the multimodal container transport routes	Ongoing	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Helsinki) Maritime Ports (Rotterdam) Maritime Ports (Tees and hartlepool)	30/06/2020	16,862,636	55,742,120
2015-EU-TM-0108-S	Preventing Incident and Accident by Safer Ships on the Oceans	Closed	Studies	General	Motorways of the Sea (MoS)	(blank)	30/06/2018	1,579,155	3,158,310
2015-EU-TM-0132-M	FAMOS Odin: Finalising Surveys for the Baltic Motorways of the Sea	Ongoing	Mixed	General	Motorways of the Sea (MoS)	(blank)	30/06/2019	10,789,590	28,947,500
2015-EU-TM-0178-M	Bothnia Bulk - Environmental upgrade of year-round supply in the northern Baltic Sea	Ongoing	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Lulea) Maritime Ports (Rautaruukki/Raahe)	30/06/2020	6,800,000	22,536,000

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2015-EU-TM-0179-W	Blue Baltics – LNG infrastructure facility deployment in the Baltic Sea Region	Ongoing	Works	General	Motorways of the Sea (MoS)	Maritime Ports (Klaipeda) Maritime Ports (Nynashamm) Maritime Ports (Parnu)	31/12/2020	13,473,938	42,423,128
2015-EU-TM-0235-S	ELEMED – ELectrification of the Eastern MEDiterranean area (use of Cold Ironing and electricity as a propulsion alternative)	Closed	Studies	Cohesion	Motorways of the Sea (MoS)	Maritime Ports (Kyllini) Maritime Ports (Limassol) Maritime Ports (Pireaus)	31/03/2018	818,649	1,190,989
2015-EU-TM-0236-S	ELEMED – ELectrification of the Eastern MEDiterranean area (use of Cold Ironing and electricity as a propulsion alternative)	Closed	Studies	General	Motorways of the Sea (MoS)	Maritime Ports (Koper) Maritime Ports (Pireaus)	31/03/2018	75,772	151,545
2015-EU-TM-0250-M	CarEsmatic – Supporting cars and electric cars distribution using Motorways of Sea's solutions and promoting sustainable shipping concepts	Ongoing	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Barcelona) Maritime Ports (Koper)	30/03/2020	5,230,280	17,142,880
2015-EU-TM-0307-M	S/F Samuel LNG for a blue Atlantic Arch	Ongoing	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Gijón) Maritime Ports (Le havre) Maritime Ports (Nantes-st-nazaire) Maritime Ports (Rouen) Maritime Ports (Vigo)	30/06/2019	9,862,060	19,724,119
2015-EU-TM-0310-M	Adriatic MoS Upgraded Services - Adri-Up	Ongoing	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Ancona) Maritime Ports (Igoumenitsa) Maritime Ports (Trieste)	20/12/2020	7,130,500	22,725,000

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2015-EU-TM-0375-M	Motorway of the Sea Nantes Saint Nazaire - Gijón	Terminated	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Gijón) Maritime Ports (Nantes-st- nazaire)	31/12/2018	-	-
2015-EU-TM-0417-S	Masterplan for OPS in Spanish ports	Ongoing	Studies	General	New technologies and innovation	Maritime Ports (Las Palmas) Maritime Ports (Palma de Mallorca) Maritime Ports (Santa Cruz de Tenerife)	30/06/2021	1,280,413	4,399,564
2015-HR-TM-0032-W	Upgrade of the Rijeka Port infrastructure - Zagreb Pier container terminal (POR2CORE-ZCT)	Ongoing	Works	Cohesion	Pre-identified projects on the Core Network corridors	Maritime Ports (Rijeka)	31/12/2020	26,849,056	31,587,125
2015-HR-TM-0399-W	Upgrade of the Rijeka Port infrastructure - General cargo terminal (POR2CORE-GCT)	Ongoing	Works	Cohesion	Pre-identified projects on the Core Network corridors	Maritime Ports (Rijeka)	31/12/2020	3,132,042	6,914,000
2015-PL-TM-0006-W	Improving rail access to the Gdansk port	Ongoing	Works	Cohesion	Pre-identified projects on the Core Network corridors	Maritime Ports (Gdansk)	31/12/2022	108,543,272	132,774,644
2015-PL-TM-0034-W	Improving rail access to the Gdynia port	Ongoing	Works	Cohesion	Pre-identified projects on the Core Network corridors	Maritime Ports (Gdynia)	31/12/2022	162,235,595	190,865,406
2015-PL-TM-0125-W	Improving rail access to the Szczecin and Świnoujście seaports.	Ongoing	Works	Cohesion	Pre-identified projects on the Core Network corridors	Maritime Ports (Swinoujście) Maritime Ports (Szczecin)	31/12/2022	119,897,528	141,055,915
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	Closed	Studies	General	Nodes of the Core Network	Maritime Ports (Gdansk)	30/11/2018	371,175	742,350

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2015-PL-TM-0372-M	Extension and modernisation of road and railway network in the Gdansk outer port	Ongoing	Mixed	Cohesion	Multimodal logistics platforms	Maritime Ports (Gdansk)	31/12/2020	24,450,726	28,765,560
2015-PL-TM-0413-W	Modernisation of the fairway, expansion of the quays and improvement of navigation in the Internal Port in Gdansk	Ongoing	Works	Cohesion	Pre-identified projects on the Core Network corridors	Maritime Ports (Gdansk)	31/12/2020	93,735,340	110,276,871
2015-RO-TM-0046-M	Upgrade of infrastructure and environmental protection in Constanța Port - PROTECT	Ongoing	Works	Cohesion	Pre-identified projects on the Core Network corridors	Maritime Ports (Constanța)	31/12/2020	10,791,706	12,696,125
2016-BG-TMC-0083-S	From East 2 West. Access to the OEM Corridor through the Core port of Burgas	Ongoing	Studies	Cohesion	Pre-identified projects on the Core Network corridors	Maritime Ports (Burgas)	30/09/2019	2,269,500	2,670,000
2016-CY-TMC-0330-M	Design study of the improvement of Lemesos Port- Vasiliko Terminal	Ongoing	Studies	Cohesion	Pre-identified projects on the Core Network corridors	Maritime Ports (Limassol)	29/03/2019	441,920	625,240
2016-ES-TM-0063-S	Removal of bottlenecks that prevents Cartagena's Port to connect core network and improvement of urban traffic (studies)	Ongoing	Studies	General	Nodes of the Core Network	Maritime Ports (Cartagena)	31/12/2021	647,500	1,295,000
2016-EU-SA-0009	CYnergy	Ongoing	Studies	General	(blank)	Maritime Ports (Larnaka) Maritime Ports (Limassol)	31/03/2020	4,482,000	7,470,000
2016-EU-SA-0010	Go4Synergy in LNG	Ongoing	Studies	General	(blank)	Maritime Ports (Goteborg) Maritime Ports (Zeebrugge)	31/08/2019	2,629,500	4,382,500

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2016-EU-TM-0092-W	NextGen Link -Upgrade of the maritime link with the port interconnection in the ScanMed Corridor	Ongoing	Works	General	Motorways of the Sea (MoS)	Maritime Ports (Mariehamn) Maritime Ports (Stockholm) Maritime Ports (Turku)	31/12/2020	11,778,630	39,262,100
2016-EU-TM-0256-W	Nordic Maritime Link - Connecting the ScanMed Corridor via Integrated MoS	Ongoing	Works	General	Motorways of the Sea (MoS)	Maritime Ports (Frederikshavn) Maritime Ports (Goteborg)	31/12/2018	3,780,000	12,600,000
2016-EU-TM-0290-M	Sweden-Poland Sustainable Sea-Hinterland Services III	Ongoing	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Swinoujscie) Maritime Ports (Trelleborg)	31/12/2019	955,740	3,245,800
2016-EU-TM-0341-W	Development of port capacity for integrated Baltic MoS link(s) on Rostock – Hanko	Ongoing	Works	General	Motorways of the Sea (MoS)	Maritime Ports (Hanko) Maritime Ports (Rostock)	30/06/2020	4,408,870	19,569,901
2016-EU-TM-0342-M	MoS Venice–Patras. Developing and upgrading of the East-Mediterranean MoS link Italy-Greece	Ongoing	Mixed	General	Motorways of the Sea (MoS)	Maritime Ports (Patra) Maritime Ports (Venezia)	31/03/2021	2,831,300	10,046,667
2016-HR-TMC-0067-W	Upgrade of the Rijeka Port infrastructure - Rijeka Basin (POR2CORE-Rijeka Basin)	Ongoing	Works	Cohesion	Pre-identified projects on the Core Network corridors	Maritime Ports (Rijeka)	31/12/2020	28,614,466	33,664,078
2016-HR-TMC-0082-S	Upgrade of the Rijeka Port infrastructure - Port Community System (POR2CORE-PCS)	Ongoing	Studies	Cohesion	Multimodal logistics platforms	Maritime Ports (Rijeka)	31/12/2020	1,411,000	1,660,000
2016-HR-TMC-0171-W	Upgrade of the Rijeka Port infrastructure - Bakar bulk cargo terminal (POR2CORE-BCTB)	Ongoing	Works	Cohesion	Pre-identified projects on the Core Network corridors	Maritime Ports (Rijeka)	31/07/2021	5,180,464	6,094,664

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2016-MT-SA-0005	Technical Study and Cost-Benefit Analysis for the Development of LNG as a Marine Fuel in Malta	Closed	Studies	General	(blank)	Maritime Ports (Marsaxlokk) Maritime Ports (Valletta)	30/04/2019	350,122	583,537
2016-PL-SA-0011	The small-scale LNG Reloading Terminal in Gdańsk and bunkering services	Ongoing	Studies	General	(blank)	Maritime Ports (Gdansk)	30/06/2020	1,048,450	1,747,417
2017-EE-TM-0079-W	EG LNG bunker vessel	Ongoing	Works	General	New technologies and innovation	Maritime Ports (Tallinn - old city harbour)	30/09/2020	5,423,000	27,115,000
2017-EL-TM-0048-W	SuperGreen (SG)	Ongoing	Works	General	New technologies and innovation	Maritime Ports (Pireaus)	30/04/2021	3,938,981	19,694,903
2017-ES-TM-0156-W	LNGHIVE2 Infrastructure and logistics solutions	Ongoing	Works	General	New technologies and innovation	Inland Ports (Sevilla) Maritime Ports (Huelva) Maritime Ports (Valencia)	28/02/2022	1,332,344	6,661,719
2017-EU-TM-0037-W	BCLink: MoS for the future	Ongoing	Works	General	Motorways of the Sea (MoS)	Maritime Ports (Barcelona) Maritime Ports (Civitavecchia)	31/12/2021	4,338,865	21,542,962
2017-EU-TM-0062-W	GAINN4MID -GAINN for Mobile Infrastructure Deployment	Ongoing	Works	General	New technologies and innovation	(blank)	31/08/2020	6,165,304	31,870,000
2017-EU-TM-0135-W	TWIN-PORT 3	Ongoing	Works	General	Motorways of the Sea (MoS)	Maritime Ports (Helsinki) Maritime Ports (Tallinn - old city harbour)	31/12/2023	18,357,255	61,190,850

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2017-EU-TM-0147-W	LNGHIVE2 vessels demand: green and smart links - LNG solutions for smart maritime links in Spanish Core ports	Ongoing	Works	General	New technologies and innovation	Maritime Ports (Barcelona) Maritime Ports (Gijón) Maritime Ports (Huelva) Maritime Ports (Ibiza) Maritime Ports (Las Palmas) Maritime Ports (Nantes-st-nazaire) Maritime Ports (Palma de Mallorca) Maritime Ports (Santa Cruz de Tenerife) Maritime Ports (Valencia)	31/07/2021	11,797,424	58,987,122
2017-EU-TM-0149-W	BlueHUBS: LNG and CNG Supply Chains Upgrading Core TEN-T Ports in Eastern Mediterranean	Ongoing	Works	General	Motorways of the Sea (MoS)	Maritime Ports (Iraklion) Maritime Ports (Limassol) Maritime Ports (Pireaus)	31/12/2022	19,789,020	65,963,400
2017-EU-TM-0166-W	Cargo capacity upgrade and LNG bunkering. Świnoujście – Ystad maritime link	Ongoing	Works	General	Motorways of the Sea (MoS)	Maritime Ports (Swinoujście) Maritime Ports (Ystad)	31/08/2022	34,853,564	132,391,879
2017-EU-TM-0169-W	EU Green Loop	Ongoing	Works	General	New technologies and innovation	Maritime Ports (Dunkerque)	30/06/2022	11,866,000	59,330,000
2017-FI-TM-0027-W	Vuosaari Fairway - Improvement of the maritime access of the Port of Helsinki, Vuosaari Harbour	Ongoing	Works	General	Pre-identified projects on the Core Network corridors	Maritime Ports (Helsinki)	31/12/2021	6,720,000	33,600,000
2017-FI-TM-0123-W	Eastern Baltic Hub - Improving port access and hinterland connection of the Port of	Ongoing	Works	General	Pre-identified projects on the Core Network corridors	Maritime Ports (Kotka)	31/12/2021	11,129,000	55,570,000

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
	HaminaKotka in the ScanMed Corridor								
2017-HR-TM-0139-W	Upgrade of the Rijeka Port infrastructure - AGCT dredging (POR2CORE-AGCT dredging)	Ongoing	Works	General	Pre-identified projects on the Core Network corridors	Maritime Ports (Rijeka)	30/06/2020	2,782,310	13,911,549
2017-IE-TM-0014-W	Capacity Extension of Shannon Foynes (CESF)	Ongoing	Works	General	Pre-identified projects on the other sections of the Core Network	Maritime Ports (Shannon-Foynes)	31/12/2023	4,477,600	22,388,000
2017-IT-TM-0044-W	Ravenna Port Hub: infrastructural works	Ongoing	Works	General	Pre-identified projects on the Core Network corridors	Maritime Ports (Ravenna)	31/12/2023	37,377,000	186,885,000
2017-IT-TM-0066-W	GAINN4SEA - GAINN for South Europe maritime LNG roll-out	Ongoing	Works	General	Pre-identified projects on the Core Network corridors	Maritime Ports (Livorno) Maritime Ports (Venezia)	30/04/2022	14,330,725	77,728,720
2017-IT-TM-0092-W	TriesteRailPort - Upgrade of the railway infrastructures of the Port of Trieste	Ongoing	Works	General	Pre-identified projects on the Core Network corridors	Maritime Ports (Trieste)	31/12/2023	6,540,000	32,700,000
2017-IT-TM-0154-W	LNG facility in the port of Venice	Ongoing	Works	General	Pre-identified projects on the Core Network corridors	Maritime Ports (Venezia)	30/09/2022	12,143,607	60,718,036
2017-PL-TM-0038-W	Expansion of the Northern quay at the peninsular breakwater in the Port of Gdańsk	Ongoing	Works	General	Pre-identified projects on the Core Network corridors	Maritime Ports (Gdansk)	31/12/2021	19,914,950	99,574,749
2017-PT-TM-0134-W	Improvement of the Maritime Accessibilities to the Port of Leixões	Ongoing	Works	General	Pre-identified projects on the Core Network corridors	Maritime Ports (Leixoes)	31/08/2022	17,412,000	87,060,000

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2017-SE-TM-0061-W	Long-term achievements - ready for a sustainable core port in Trelleborg (LARS)	Ongoing	Works	General	Pre-identified projects on the Core Network corridors	Maritime Ports (Trelleborg)	31/12/2021	9,659,167	48,295,833
2018-BE-TM-0139-M	Secure Parking Opportunities for Trucks (SPOT) in Flanders	Ongoing	Mixed	General	Safe and secure infrastructure	Maritime Ports (Antwerpen) Maritime Ports (Zeebrugge)	30/05/2021	4,188,172	20,295,860
2018-BE-TM-0146-W	Extension and upgrade of combined transport Mercatordok Multimodal Terminal	Ongoing	Works	General	Multimodal logistics platforms	Maritime Ports (Gent)	31/12/2020	2,155,400	10,777,000
2018-DE-TM-0071-S	Development study for the combined transport terminal Lehmannkai 1Plus	Ongoing	Studies	General	Multimodal logistics platforms	Maritime Ports (Luebeck)	31/12/2022	522,500	1,045,000
2018-EU-TM-0051-S	Intelligent Sea - Integrated digital services for efficient and safe maritime navigation	Ongoing	Studies	General	New technologies and innovation	Maritime Ports (Naantali) Maritime Ports (Stockholm)	31/12/2021	1,542,225	3,084,450
2018-EU-TM-0117-S	Green and Connected Ports (GREEN C PORTS)	Ongoing	Studies	General	New technologies and innovation	Maritime Ports (Barcelona) Maritime Ports (Bremerhaven) Maritime Ports (Palma de Mallorca) Maritime Ports (Pireaus) Maritime Ports (Valencia) Maritime Ports (Venezia) Maritime Ports (Wilhemshaven)	31/03/2023	3,577,854	7,155,708

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2018-EU-TM-0135-S	Application of Industry 4.0 Technologies towards Digital Port Container Terminals – iTerminals 4.0	Ongoing	Studies	General	New technologies and innovation	Maritime Ports (Antwerpen) Maritime Ports (Dunkerque) Maritime Ports (Genova) Maritime Ports (Nantes-st-nazaire) Maritime Ports (Rouen) Maritime Ports (Sines) Maritime Ports (Thessaloniki) Maritime Ports (Valletta)	31/12/2021	3,700,250	7,400,500
2018-FI-TM-0050-S	SecurePax -Improving security of passenger transport in maritime ports	Ongoing	Studies	General	New technologies and innovation	Maritime Ports (Stockholm) Maritime Ports (Turku)	31/12/2021	763,000	1,526,000
2018-FR-TM-0014-W	Modernisation of Med Europe combined transport terminal	Ongoing	Works	General	Multimodal logistics platforms	Maritime Ports (Marseille)	31/03/2023	2,733,800	13,669,000
2018-FR-TM-0128-W	Improvement of multimodal logistics platforms at the port of Marseille for sustainable combined transport in Europe	Ongoing	Works	General	Multimodal logistics platforms	Maritime Ports (Marseille)	30/06/2022	1,204,000	15,050,000
2018-IT-TM-0045-S	INTERFACE: Renovating the access to the core port of Palermo and its interactions with the urban environment	Ongoing	Studies	General	Multimodal logistics platforms	Maritime Ports (Palermo Termini Imerese)	31/12/2020	742,450	1,484,900
2018-IT-TM-0106-S	SMART-C - Scalo MArotti viRTual Corridor	Ongoing	Studies	General	New technologies and innovation	Maritime Ports (Ancona)	31/01/2021	541,781	1,083,561

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2018-IT-TM-0134-S	E-BRIDGE. Emergency and BRoad Information Development for the ports of GEnoa	Ongoing	Studies	General	New technologies and innovation	Maritime Ports (Genova)	31/10/2021	6,092,525	12,185,050
2018-NL-TM-0007-W	Upgrade of the combined transport RSC terminal Rotterdam	Ongoing	Works	General	Multimodal logistics platforms	Maritime Ports (Rotterdam)	31/12/2022	1,759,550	8,797,750
2018-NL-TM-0144-W	Upgrade of combined transport Rotterdam World Gateway terminal	Ongoing	Works	General	Multimodal logistics platforms	Maritime Ports (Rotterdam)	31/12/2022	5,589,000	27,945,000
2018-PL-TM-0023-S	Feasibility study and technical documentation of the intelligent cargo road traffic management system in Port of Gdynia	Ongoing	Studies	General	New technologies and innovation	Maritime Ports (Gdynia)	30/04/2022	672,500	1,345,000
2018-PL-TM-0028-W	Eliminating 'last mile' bottlenecks – construction of the overflow car park for lorries at the ferry terminal in Swinoujscie	Ongoing	Works	General	Multimodal logistics platforms	Maritime Ports (Swinoujscie)	30/09/2021	2,077,868	10,389,341
2018-PL-TM-0093-W	Expansion and modernization of core network node in the sea Port concerning road and rail access infrastructure	Ongoing	Works	General	Multimodal logistics platforms	Maritime Ports (Gdansk)	31/12/2023	3,871,782	19,358,909
2018-SE-TM-0102-S	Smart, Electronic and Autonomous Multimodal Transportation System and Port Operations	Ongoing	Studies	General	New technologies and innovation	Maritime Ports (Goteborg)	31/12/2020	3,645,000	7,290,000
2019-DE-TA-0041-W	Blue Port Kiel – realisation of efficiency, quality and sustainability upgrades in the seaport of Kiel	Ongoing	Works	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Kiel)	30/06/2021	1,620,889	8,104,443

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2019-EE-TA-0057-M	Dredging of Paldiski South Harbour fairway	Ongoing	Mixed	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Paldiski South Harbor)	31/12/2020	726,445	3,121,850
2019-ES-TA-0021-W	[LNGHIVE2 Santander] - Development of LNG bunkering infrastructure in Santander, a strategic port in the North of Spain	Ongoing	Works	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Santander)	30/06/2023	6,315,407	31,577,035
2019-ES-TA-0022-M	Adaptation of Raíces Quay to new traffics	Ongoing	Mixed	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Avilés)	31/10/2022	2,345,000	11,350,000
2019-ES-TA-0032-M	Rail connection to the outer port of the Port of Ferrol	Ongoing	Mixed	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Ferrol)	30/06/2022	1,279,565	5,181,790
2019-ES-TA-0036-W	Improvement of the railway connectivity in the port of Castellón	Ongoing	Works	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Castellón)	31/05/2022	3,542,029	17,710,145
2019-ES-TA-0047-M	Improvement of rail connectivity, safety and security of the port of Sagunto (CONNECTING SAGUNTO)	Ongoing	Mixed	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Sagunto)	31/12/2023	2,786,300	13,624,000
2019-FI-TA-0015-W	MultiPort – Improving port infrastructure for cargo handling in the Port of Rauma	Ongoing	Works	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Rauma)	31/12/2021	2,383,693	11,843,466
2019-FI-TA-0018-W	Northern Gateway – improving intermodal connections in the Port of Oulu	Ongoing	Works	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Oulu)	30/06/2022	2,018,400	10,017,000
2019-FI-TA-0019-W	Panamax Bulk – removing a bottleneck in the Deep Port of Kokkola	Ongoing	Works	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Kokkola)	31/12/2022	1,444,000	7,145,000

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2019-FR-TA-0017-S	Technical and environmental studies for the upgrade of the maritime access of Port Atlantique La Rochelle	Ongoing	Studies	General	Projects on the Core and Comprehensive Networks	Maritime Ports (La rochelle)	31/12/2020	865,850	1,731,700
2019-FR-TA-0024-S	Land Reclamation at Grand Port Maritime de La Réunion, Adapting to climate resilience and container traffic development	Ongoing	Studies	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Port Reunion)	31/12/2023	2,175,000	4,350,000
2019-FR-TA-0028-S	Upgrading the port of St Malo for a safe, secure and sustainable RoPax traffic development	Ongoing	Studies	General	Projects on the Core and Comprehensive Networks	Maritime Ports (St. Malo)	31/12/2022	549,035	1,098,070
2019-FR-TA-0066-W	Upgrading works for a sustainable growth	Ongoing	Works	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Caen-ouistreham) Maritime Ports (Cherbourg)	30/06/2021	1,989,800	9,949,000
2019-IT-TA-0034-M	Fast Track to the Sea. Implementing the upgrade of the last mile rail connections port of Civitavecchia	Ongoing	Mixed	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Civitavecchia)	30/06/2023	3,867,644	18,460,720
2019-IT-TA-0069-W	MARBLE project - MARitime port Bridging Landside infrastructure	Ongoing	Works	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Marina di Carrara)	31/03/2022	2,262,553	11,312,763
2019-SE-TA-0004-W	Gävle Port – Electrified railway connection	Ongoing	Works	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Gavle)	31/12/2021	2,346,800	11,734,000
2019-SE-TA-0023-M	“YES” – Ystad upgrading Efficiency and Safety of port logistic	Ongoing	Mixed	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Ystad)	31/12/2022	1,184,739	4,918,696

Project Code	Title	Status	Type	Envelope	Priority	Node name	Actual end date	Actual funding	Actual costs
2019-SE-TA-0039-W	Preparing the port of Karlshamn for the next generation of large Ro-Pax vessels and provision of onshore power supply	Ongoing	Works	General	Projects on the Core and Comprehensive Networks	Maritime Ports (Karlshamn)	31/03/2022	3,000,000	15,000,000
Grand Total								1,578,288,832	4,466,903,927

9. List of other Maritime Ports actions outside the Maritime portfolio

Project Code	Title	Status	Type	Envelope	Priority	Node Name ⁷³	Actual end date	Actual funding	Actual costs
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	Ongoing	Works	General	Pre-identified projects on the other sections of the Core Network	Maritime Ports (Rouen)	26/03/2019	30,480,000	76,200,000
2015-EU-TM-0404-S	LNG Logistics	Ongoing	Studies	General	New technologies and innovation	Inland Ports (Villefranche-sur-Saone) Maritime Ports (Marseille)	02/10/2018	878,543	1,757,085
2016-EU-TM-0126-S	ECO-GATE: European COrridors for natural GAs Transport Efficiency	Ongoing	Studies	General	New technologies and innovation	Maritime Ports (Barcelona)	31/12/2020	9,528,196	19,056,391

⁷³ A Node can be a Maritime Port, an Inland Port, an Airport or a Rail Road Terminal. Even though Maritime actions generally concentrate on Maritime Ports, some of them additionally take place in other types of Nodes.

2016-FR-TA-0312-S	MiRO – Multimodal ROute connecting Barcelone to Paris	Ongoing	Studies	General	Freight Transport Services	Maritime Ports (Barcelona) Rail-Road Terminals/Platforms (Paris)	31/12/2020	4,062,398	8,124,796
2018-NL-TM-0091-W	Secure Truck Parking on the Topcorridors in the Netherlands (SecureNL)	Ongoing	Works	General	Safe and secure infrastructure	Maritime Ports (Rotterdam)	31/12/2022	3,769,055	18,930,460

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