EU co-funding for maritime sector

6.11.2019 Mariehamn
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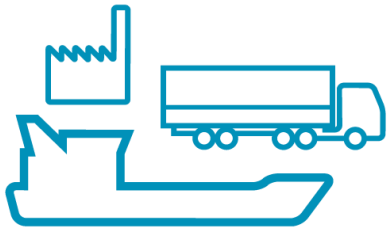
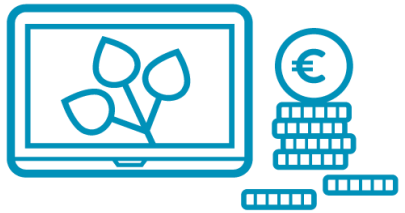
Energy, maritime and environmental professionals



Industrial fuels

Bioenergy



Advising

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1. EU co-funding instruments overview

- EU has a long-term budget (7 years)
- Next multiannual financial framework (MFF) is for 2021-2027
  - Horizon Europe and CEF2

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2. Horizon 2020 - the research and innovation framework programme 2014-2020

Horizon 2020

Project consortium requirements

- At least three legal entities, each established in a different EU Member State or Horizon 2020 associated country
- All three legal entities must be independent of each other
- In addition, some third countries may participate
- **In practice, a larger consortium will be needed**

Schedule

- Information on the outcome of evaluation: max 5 months from the deadline for submission
- Signature of grant agreements: max 8 months from the deadline for submission
- Costs eligible from signature of grant agreement

Further information

- H2020 Online Manual
- Business Finland
- H2020 Work Programme

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Call: Decarbonising long distance shipping

- LC-MG-1-13-2020
- RIA - Research and Innovation action
- Call opening date 03 September 2019
- Two-stage proposal
  - 1st stage deadline 09 January 2020
  - 2nd stage deadline 08 September 2020
- Funding rate 100 %
- Call budget EUR 20 million
- Expected project budget EUR 5-10 million
  - ➢~ 2-4 proposals will be funded

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Decarbonising long distance shipping: Scope

- **All following aspects should be addressed**:
  - Working together with e.g. operators, ship builders, marine equipment manufacturers, fuel and energy suppliers and others, research will address the **development of technologies combined with operational practices** to substantially reduce GHG emissions from long distance shipping in line with the IMO target and without increasing other forms of pollution
  - **Excluding fuel development**, a wide range of potential solutions can be proposed including the use of wind and solar assistance combined with efficiency improvements and other alternate energies. Solutions can be proposed in combination and should take into account the likely availability of infrastructure (including bunkering) on long distance routes.
  - Solutions should also take into account the CO_2 equivalent from any **reduction of black carbon emissions**
  - Costs, GHG reductions and any other potential waste streams shall be convincingly analysed using real data and testing programmes in addition to theoretical analysis
  - Implications for the provision of new infrastructures shall be quantified and assessed
  - To at least TRL5, technologies, systems and practices shall be **tested at full scale on operational shipping**. The differences between predicted and measured data should be identified.
  - Any reduction in GHG emissions that are founded upon innovative operational practices must be robustly benchmarked against the current state of the art, for example concerning ship routings and speeds through the use of “big” AIS “data“ and/or other satellite data
  - A robust communication strategy should be developed and implemented so as to ensure wider public engagement as well as a strong engagement with the global shipping sector and its customers
  - Cooperation with IMO and EU activities and fora concerning the decarbonisation of shipping is encouraged. Build upon and cooperate with any related activities and research.

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Decarbonising long distance shipping: Expected impacts

- Development of innovative solutions to decarbonise shipping which
  - exceed the IMO's 2050 target to decarbonise by 50 %
  - are applicable to ship types that are the largest emitters of GHGs such as:
    - bulk carriers
    - tankers
    - container ships
    - cruise ships
    - passenger liners
- Establishment of robust benchmarks and methods which will provide wide confidence of the "real world" impacts from any specific GHG reduction measure including potential scalability and any secondary environmental impacts
- Improve the competitiveness of European maritime industries and shipping companies within the field of green shipping
- Increase the awareness and take up by end users
- Provide evidence to policy makers within EU and globally concerning infrastructure requirements necessary to meet the 2050 decarbonisation target

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Call: Reducing the cost of large batteries for waterborne transport

- LC-BAT-11-2020
- RIA - Research and Innovation action
- Call opening date 03 December 2019
- Deadline 21 April 2020
- Single-stage proposal
- Funding rate 100 %
- Call budget EUR 20 million
- Expected project budget EUR 8-12 million
  - ~ 2 proposals will be funded
- The challenge is to **substantially reduce the cost of large waterborne transport battery systems** and cells for both marine and inland waterway transport applications

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Reducing the cost of large batteries for waterborne transport: Scope

- Proposals can address **either the battery cell or the battery system** (racks, battery management system, fault detection and any integrated fire suppression) **or both** the cell and battery system
- **All of the following aspects should be addressed:**
  - With respect to waterborne transport, research and develop a large battery system and/or specific battery cells that are substantially cheaper on a total cost basis with respect to existing system
  - Work should be applicable to battery systems of at least 1 MWh capacity
  - Prove the technology and manufacturing processes through system trials and testing
  - Address production process efficiency
  - Address the requirements for type approval from relevant authorities including a comprehensive risk-based safety assessment
  - Development of a marine battery certification methodology with the objective of validating and verifying safety (with consideration of air, liquid or passive cooling), including the standardization of test methods and tools for certification cost reduction
  - Considering of different vessel types, address the integration of battery systems into Energy/Power management system of vessel
  - Undertake a cost benefit analysis to convincingly demonstrate the cost savings in comparison to current state of the art waterborne battery technology
  - Assess end of life and disposal strategies
  - Develop a convincing business case and consider potential financing models

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Reducing the cost of large batteries for waterborne transport: Expected impacts

- Substantially reduce the lifetime cost of large waterborne battery systems
- Enhance the competitiveness of European industry within the waterborne battery market
- Cut greenhouse gas emissions from waterborne transport
- Increase the European skills base in large battery technology and manufacturing processes
- Support European jobs and growth
- Increase confidence in waterborne battery technology investment
- Speed up the transition of most short-range freight and ferry services towards zero emission

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Business Finland seminar on EU co-funding for Smart Mobility

- Time: 12.11.2019 at 12:30-16:00
- Place: Messukeskus – Expo and Convention Centre, Helsinki
- More information
- Register to the waiting list (fully booked)

3. Horizon Europe 2021-2027

Horizon Europe - the next research and innovation framework programme 2021-2027

- The European Parliament and the Council of the EU reached in March and April 2019 a provisional agreement on Horizon Europe
- The European Parliament endorsed the provisional agreement on 17 April 2019
- Proposed budget EUR 100 billion
- Following the political agreement, the Commission has begun a strategic planning process:
  - multiannual Strategic Plan to prepare the content in the work programmes and calls for proposal for the first 4 years of Horizon Europe
  - will focus in particular on the Global Challenges and European Industrial Competitiveness pillar of Horizon Europe
  - will also cover the Widening Participation and Strengthening the European Research Area part of the programme as well as relevant activities in other pillars

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Preliminary structure of Horizon Europe

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Waterborne transport in Horizon Europe

- European Commission and Member States have on 24 October 2019 approved in principle the establishment of a **co-programmed partnership for zero-emission waterborne transport** in the framework of Horizon Europe
- This partnership will allow the European waterborne transport sector to develop knowledge, technologies and solutions that will enable zero-emission shipping for all ship types and ship services
- European Partnerships under Horizon Europe (27 June 2019)

- Waterborne Technology Platform
  - European research and innovation platform for waterborne industries
  - establishing continuous dialogue between all waterborne stakeholders, such as classification societies, shipbuilders, shipowners, maritime equipment manufacturers, infrastructure and service providers, universities or research institutes, and with the EU Institutions, including Member States

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Webinar by Business Finland: Horisontti Eurooppa, mitä nyt kuuluu?

- Webinar on topical issues of Horizon Europe programme preparation
- in Finnish
- 25.11.2019 10.00-11.30
- Registration will open in November


4. Trans-European Transport Network TEN-T and Connecting Europe Facility CEF
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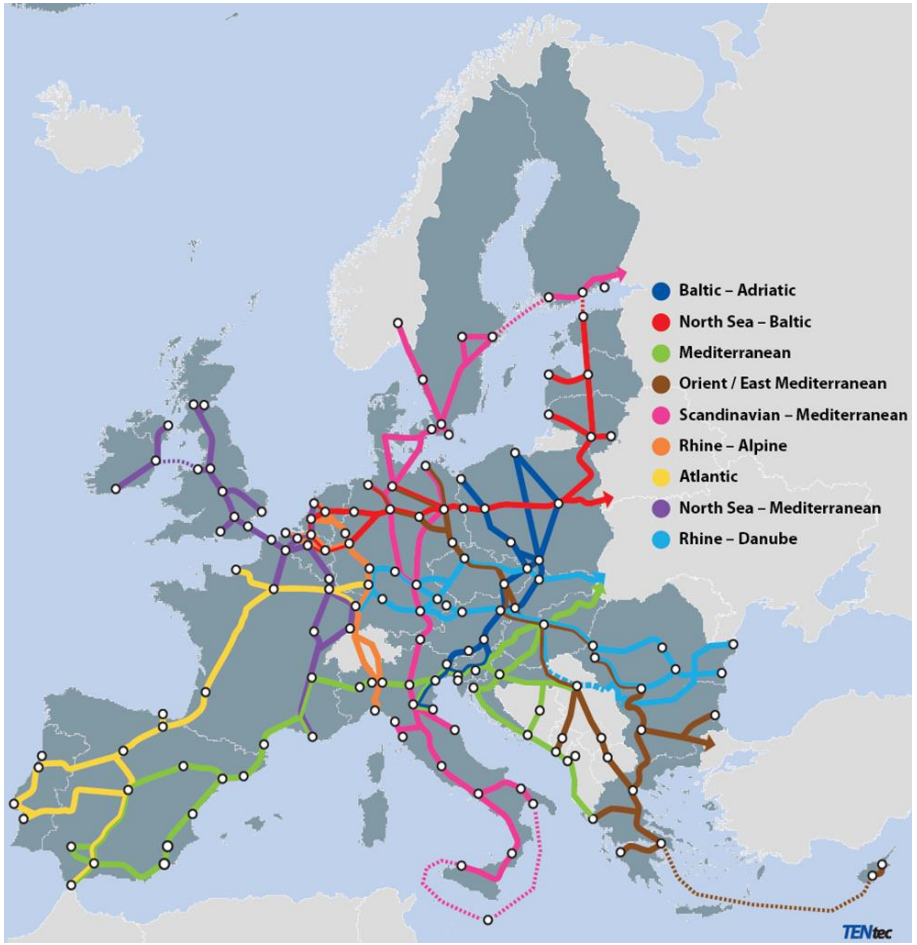
Policy framework:
Trans-European Transport Network TEN-T

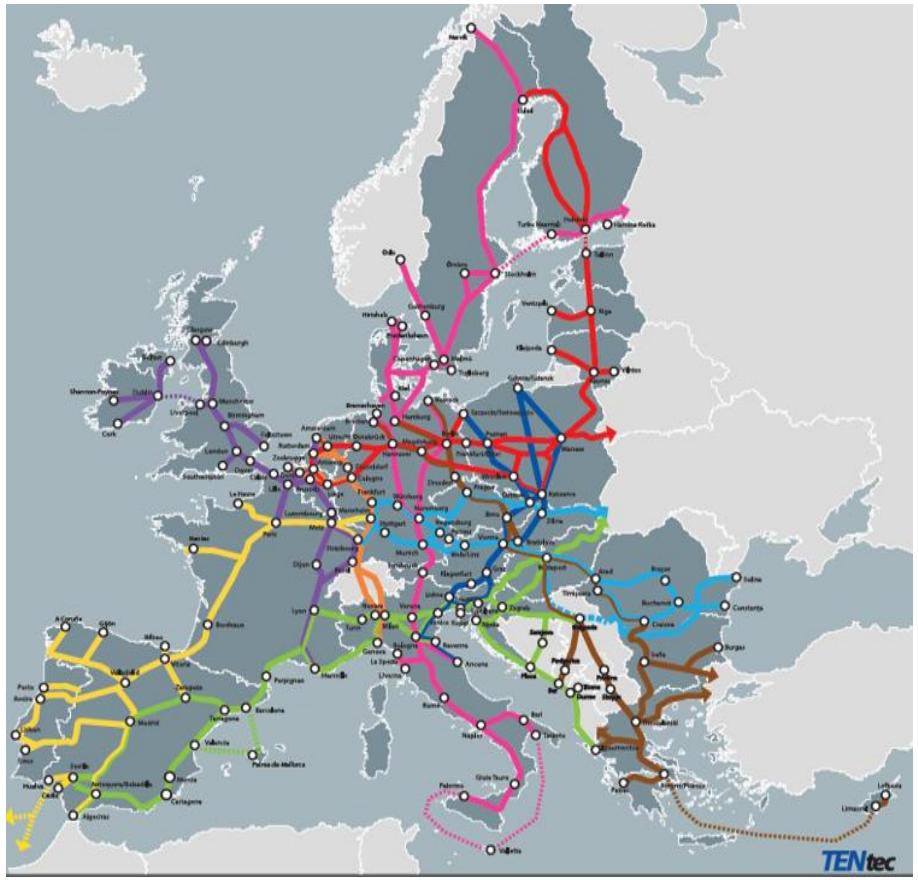
- Trans- European Transport Network, TEN-T, is a network which comprises roads, railway lines, inland waterways, inland and maritime ports, airports and rail-road terminals throughout MSs
- TEN-T policy aims to close the gaps between Member States' transport networks and remove bottlenecks
- It promotes and strengthens seamless transport chains for passenger and freight, while keeping up with future technological trends.
- This policy is vital for Europe to re-boost its economy and to generate new jobs
- The TEN-T consists of two planning layers: comprehensive network to be ready in 2050 and core network to be ready in 2030
- The core network includes nine corridors

TEN-T Comprehensive and Core Networks

TEN-T Core Network Corridors



Proposed extension (6.6.2018)



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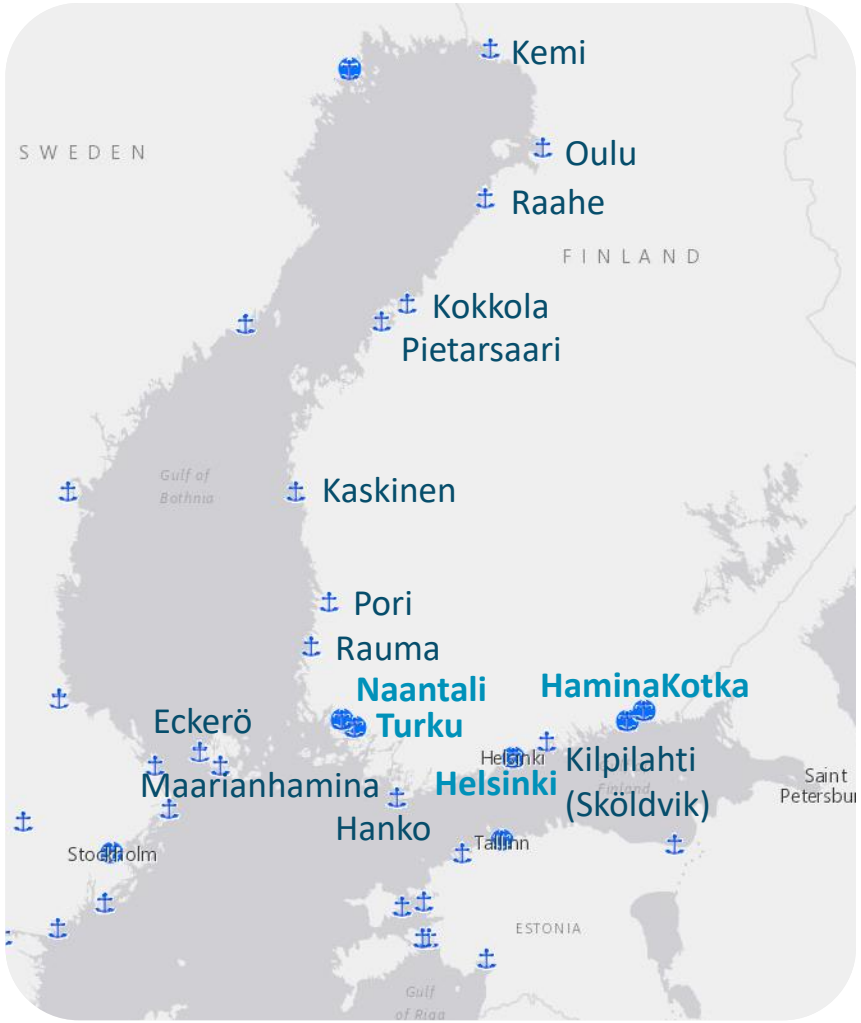
Core and Comprehensive maritime ports and the Motorways of the Sea

- The Motorways of the Sea is representing the maritime dimension of the Trans-European Transport Network
- Maritime extension and the horizontal priority of the land corridors
- Promoting green, viable, attractive and efficient sea-based transport links integrated in the entire transport chain (goods and passengers)
- The EU's goal of achieving a clean, safe and efficient transport system by transforming shipping into a genuine alternative to overcrowded land transport



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Funding programme:
Connecting Europe Facility CEF

- EU financing framework for the years 2014 – 2020
- Finances projects which fill the missing links in Europe's energy, **transport** and digital sectors
- Promotes cleaner transport modes, high speed broadband connections and facilitating the use of renewable energy in line with the Europe 2020 Strategy
- Helps to complete the European single market
- The CEF is divided into three sectors: CEF Energy, **CEF Transport** and CEF Telecom
- Budget of 33.2 billion € (with 26.2 billion for transport) in 2014-2020

- CEF2 in 2021-2027 towards safe and secure, clean and connected mobility. To decarbonise transport by prioritising environmentally friendly modes and the development of alternative fuels.
- The proposed budget of CEF2 is 30,6 billion € (tbc)
- CEF2 includes Military Mobility priority for civilian and military dual-use of the transport network with an additional proposed budget of 6.5 billion € (tbc)

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5. 2019 CEF Transport MAP call

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2019 CEF Transport Multi-Annual Work Programme (MAP) Call for Proposals

Total budget **of €1.4 billion**, managed by INEA

Priorities (relevant sections of the work Programme)	Indicative available funding
Pre-identified projects on the Core Network	€500 million €610 million (Cohesion)
European Rail Traffic Management Systems (ERTMS): on-board deployment	€50 million
Safe and secure infrastructure, including safe and secure parking on the road core network	€20 million €40 million (Cohesion)
Intelligent Transport Services for road (ITS)	€20 million
Single European Sky - SESAR	€20 million
Actions implementing transport infrastructure in nodes of the core network, including urban nodes (passengers transport)	€110 million
Motorways of the Sea	€30 million

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Timetable for the call

Call publication	16 October 2019
Deadline for submission of proposals	26 February 2020 (17:00:00 Brussels time)
Costs eligible earliest	from the submission (tbc)
Action must be started at the latest	26.8.2020 (within 6 months after the closure)
Action should be completed at the latest	31.12.2023
Evaluation of proposals	February - June 2020 (indicative)
Consultation of the CEF Coordination Committee / Information to the European Parliament	July 2020 (indicative)
Adoption of the Selection Decision	July 2020 (indicative)
Preparation and signature of individual grant agreements	As of July 2020 (indicative)

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Co-funding rates

- Studies: 50% of the eligible costs
- Works
  - **for inland waterways 20 %** of the eligible costs (may be increased to a maximum **of 40 % for Actions addressing bottlenecks** and to a maximum of 40 % for Actions concerning cross-border sections)
  - for inland transport, including **connections to inland and maritime ports** and airports, safe and secure infrastructure as well as the **development of ports and of urban nodes 20 %** of the eligible costs
  - **for Motorways of the Sea 30 %** of the eligible costs

These co-funding rates may be increased by up to 10 percentage points for actions with synergies between transport and at least one other sector covered by the CEF Regulation (Article 4)

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Type and size of the project

- Proposals must address **studies or works,** not combine studies and works
- Applicants are strongly encouraged to submit applications with a total requested EU contribution of **no less than € 500 000 for studies** and no less than **€ 1 000 000 for works**
- In addition to specific objectives, **priority will also be given to projects that include the use of private finance**, in particular the financial instruments available through the European Fund for Strategic Investments (EIB)

- Actions/projects should be ready to start, at the latest, within six months after the closure of the call
- Actions/projects shall be completed at the latest on **31 December 2023**

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Pre-identified projects on the Core Network, Maritime Ports

Maritime Ports

Priority shall be given to eligible Actions addressing

- Hinterland connections to the TEN-T Network (rail, inland waterway or road if other hinterland connections are not an option) with adequate capacity and efficiency
- Port access aiming at providing safe maritime access in the form of breakwaters, access channels, fairways, locks and navigational aids
- Basic infrastructure in the form of internal basins, quay walls, berths, jetties, backfills and land reclamation
- Reception facilities for oil and other waste, including residues from exhaust gas cleaning systems, to meet environmental requirements
- (continues next page)

Pre-identified projects on the Core Network, Maritime Ports

Maritime Ports, continues

- Ensuring year-round navigability by means of capital dredging
- Implementation of new facilities and technologies regarding provision and use of alternative fuels or energy, e.g. LNG bunkering and shoreside electricity, in line with Directive 2014/94/EU7
- Actions adapting the transport infrastructure for purposes of security and checks on external borders, including parking areas, in accordance with Regulation (EU) 2019/4958, provided this Regulation has entered into force before closure of the call
- Co-funding rates: studies 50 % and works 20 %

NOTE: Support is not given to maintenance, to construction, expansion and development of cargo and passenger terminals, and to superstructure. Support is also not given to dedicated infrastructure and facilities for cruise ships, except as regards the provision and use of alternative fuels or energy as indicated above.

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Motorways of the Sea

Priority to Actions addressing one or combination of the following

- Measures concerning the **provision of alternative fuels or energy in ports**, e.g. LNG bunkering and shoreside electricity (in line with Directive 2014/94/EU)
  - Actions must involve coordinated investments in at least two EU core or comprehensive ports and benefit the maritime industry widely at either a regional or EU level.
- The **establishment of a new maritime link** (i.e. an alternative short sea shipping route) or the upgrade of an existing maritime link (alleviation of congestion and/or reduction of the environmental impact of land transport through the creation of alternative short sea shipping routes)
  - Actions related to the upgrade or establishment of maritime links must involve at least two EU ports (two core ports or one core and one comprehensive port) from at least two EU Member States connected by a regular short sea shipping service
  - The application must include a letter of support from a maritime operator attesting the (intended) usage of the maritime route

Motorways of the Sea

The **maritime link** related investments in ports must focus on the alleviation of congestion and/or reduction of the environmental impact of land transport, by

- Improving the connectivity with the ports' hinterland
- Reducing the bottlenecks within the maritime ports, including basic maritime infrastructure
- Development of infrastructure for direct land and sea access including capital dredging
- Construction of port reception facilities for oil and other waste, including residues from exhaust gas cleaning systems
- Improvement of port handling capacity, e.g. through the construction or upgrade of freight and passenger terminals, investments in customs, phytosanitary, immigration or security measures but excluding mobile superstructures, car parks and warehouses
- Improvement of the logistics chain processes, with seamless connectivity of the door-to-door chain

NOTE: Maritime vessels are not eligible under this priority.

6. 2019 CEF Transport Blending Facility call

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2019 CEF Transport Blending Facility call

EU co-funding for deployment of alternative fuels

- Blending = investments combining the use of grants from the EU budget and financing from the Implementing Partners (via a loan, debt, equity or any other repayable form of support)
- Implementing Partner = European Investment Bank (EIB)
  - Other entities, such as national promotional banks, may be entrusted in the future
- Grant component EUR 198 million
  - Managed by INEA
- Promoters can only apply for the CEF TBF grants with the support of the EIB or other implementing partners
- The involvement of the same Implementing Partners in financial close is not a requirement for grant disbursement. A project may initially be supported by one Implementing Partner, but subsequently close with other Implementing Partners or other development or other public finance institutions, as well as from private-sector finance institutions and private-sector investors other than the beneficiary itself.

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Size of the project

- CEF grant per project: > EUR 1 million
- Implementing Partners financing to a project: > EUR 5 million
  - EIB project loan size is typically > EUR 12.5 million
  - For small projects, the use of intermediation and aggregation vehicles, notably EFSI Investment Platforms and the involvement of national promotional banks is recommended, where appropriate

Schedule of the call and projects

- A dedicated rolling call for proposals will be published in autumn 2019 (mid-November 2019, indicative) with quarterly cut-off dates until March 2021, unless the budget is exhausted earlier
- Project costs are eligible for funding as of the date of submission of the grant Application File and until 31 December 2023

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Acquisition or retrofitting of **vessels** running exclusively on alternative fuels and deployment of electric and hydrogen powered vessels for waterborne transport

- Private fleets of ships and vessels, excluding cruises, on the condition that the vessels are operating under the law of a Member State of the EU and serving EU passenger and cargo destinations and/or other EU services (e.g. tugboat) predominantly for at least 5 years from the date they are put in operation
- For maritime vessels, the eligible works shall consist of the following:
  - Fitting of new built vessels with LNG / electric / hydrogen propulsion systems, including, if necessary, dual-fuel systems operating with conventional fuel as secondary element
  - Retrofitting by conversion and replacement, of conventional fuel engines, by LNG / electric / hydrogen propulsion systems, including if necessary dual-fuel systems
  - This can cover the main propulsion system and/or auxiliary system

Type of alternative fuel technology	Co-funding rate for vessels
LNG	15 % (20 %*)
Electricity	20 %
Hydrogen	20 %

The co-funding rate will apply to the eligible costs understood as the difference between the costs of a conventional solution and the costs of the innovative technology solution. The applicant will submit evidence of conventional solution costs and new technology costs.

*For the deployment of LNG vessels in inland navigation

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Deployment of **refuelling and recharging points** for electricity, hydrogen and CNG/LNG supply

- Including fixed and mobile storage and bunkering solutions as well as installation of refuelling and recharging points for electricity and hydrogen supply for waterborne transport, for use of:
  - private operators on the conditions that the refuelling and recharging points are accessible to the public without any limitation on a 24/7 basis
  - public authorities or of operators for the discharge of public service obligations under a public service contract

Type of alternative fuel technology	Co-funding rate for refuelling and recharging points
CNG	10 %
LNG	10 %
Electricity	15 % (20 %*)
Hydrogen	20 %

*For the deployment of dedicated electric charging infrastructure for the use of battery-electric buses in public transport

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European Investment Advisory Hub

- Provides tailored advisory support to identify, prepare and develop investment projects
- A partnership between the European Investment Bank and the European Commission
- The Hub’s services to public entities are free of charge, while a contribution may be requested from private sector beneficiaries to align interests and ensure ownership of results

7. Structure and requirements of the CEF Transport application

4 application forms
+ 1 additional form Part E in the blending call

Part A	• Main characteristics of the proposal • *To be signed and approved by the Member State*
Part B	• Administrative information
Part C	• Information on compliance with the EU law • *To be signed on relevant topics by the national environmental authority (in Finland, Ministry of the Environment)*
Part D	• Technical and financial information
Part E	• Financial readiness including a letter of support from the financial institution

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Part A

Essential information on the applicants and on the proposal

Identifies the main characteristics of the proposal (e.g. the global project it relates to, applicants, proposal type, amount of CEF Transport funding requested, description of the proposed Action).	
General information on the proposal	• Title, priority, short description • Core/Comprehensive Network, Corridor, section • Transport mode/Traffic management system
Applicants	• Legal entity, contact, and authorised representative (A2.2) • EU Member State approval (A2.3) • Implementing bodies/Affiliated entities (A2.4 if applicable)
Location of the Action	• Member State(s), region(s), neighbouring/third country(ies) • Interactive map editor
Activities and milestones	• List of activities (name, implementing applicant(s), description, start/end dates) • List of milestones (description, summary, completion date, verification means) • EU financial instruments
Costs	• Sources of financing • Breakdown of eligible costs per activity per applicant • Related actions previously supported

- Must be completed in the **TENtec eSubmission module** – PDF automatically generated; Word version provided for reference on call webpage
- To be uploaded separately:
  - Forms that require **signatures** of applicants (A2.2) and concerned Member State(s) (A2.3)
  - **Cost-benefit / Cost-effectiveness analysis** (works and mixed proposals)

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Part B

Further administrative information depending on the nature of the applicants

Requests additional administrative information about the applicants and their designated affiliated entities.

- Legal entity form (LEF)
- Grounds for exclusion (part B1 and B2)
- Financial identification form
- Requirements on the financial and operational capacity of the applicants
- Requirements for neighbouring/third countries (B3)
- Requirements for entities established in neighbouring/third countries (B4)

Consult the **Guide for Applicants** for more information on requirements and supporting documents depending on type of applicants

Part C

Information on compliance with EU law

The purpose of Part C is to present information regarding the compliance of the proposal with EU policies and law, in particular on environmental protection, interoperability, road charging, road and tunnel safety, competition (state aid), public procurement, and accumulation of EU funding sources

All proposals for works	• **Section I. Compliance with EU environmental policy** • Section V. Compatibility with EU law on state aids • Section VI. Compatibility with EU law on public procurement • Section VII. Other sources of EU financing
Depending on the content of the proposal	• Section II. Compliance with EU policy on interoperability (*railway actions only*) • Section III. Compliance with EU law on road charging (*road actions only*) • Section IV. Compliance with road safety and tunnel safety Directives (*road actions only*)

Action category	**Section of the application form C to be filled in**					
	I	**II**	**III**	**IV**	**V**	**VI**
Studies without physical interventions	No	Yes	Yes	Yes	Yes	Yes
Works and studies with physical interventions	Yes	Yes	Yes	Yes	Yes	Yes

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Part D

Core part for the technical evaluation of the proposal

• Information about the Action
• Detailed, technical information about the proposed Action and its activities
• You demonstrate how your proposal addresses the four blocks of award criteria
ANNEXES: may be provided as additional evidence or illustration of statements included in the application but they are not part of the application
Relevance: Motivate your replies and, where possible, support your statements with qualitative/quantitative data
Maturity: Consider applying in future calls if your proposal is not mature enough
Impact: Prove that CEF Transport funding will make a difference
Quality: Demonstrate that the proposed Action is sound and the check that the proposal is complete, clear and easy to follow

- Applicants are strongly encouraged to be concise and to keep Application Form Part D within the **limit of 40 pages**

Part E

Financial readiness

- 2 different forms:
  - Forms E.1 for all entities
  - Form E.2 for Public-Private Partnerships/Concession
- 3 Sections:
  - Information on the Project/Action
  - Information on the Borrowing Entity
  - Financial Readiness
- Examples of information required (E.1)
  1. Business plan (sector, commercial proposition)
  2. Governance
  3. Financial strategy, capital structure, operating costs, financing plan
  4. Risks assessment
  5. Financial Models (scenarios…)
  6. Timetable/milestones to Financial Close
- Letter of Support
  - from one (or several) financial institution(s) following the template provided

Cost-benefit analysis

- The CBA needs to comply with a methodology recognised by the concerned Member State(s). By signing Application Form Part A2.3, Member States confirm that a methodology recognised in the respective national context has been used.
- It is strongly recommended to follow the Cohesion Policy CBA methodology for Major Projects
- The CBA should contain both a **financial analysis** and an **economic analysis** of the project
  - Supported by results of feasibility studies with demand and option analyses, sensitivity analysis and risk assessment → the CBA should be at least 20 pages long
- The scope of the CBA should cover the proposed Action and should be a self-sufficient unit of analysis
- Use the CBA cash flow template provided on the call page
- Study and pilot projects (that do not contain any works) do not require a CBA

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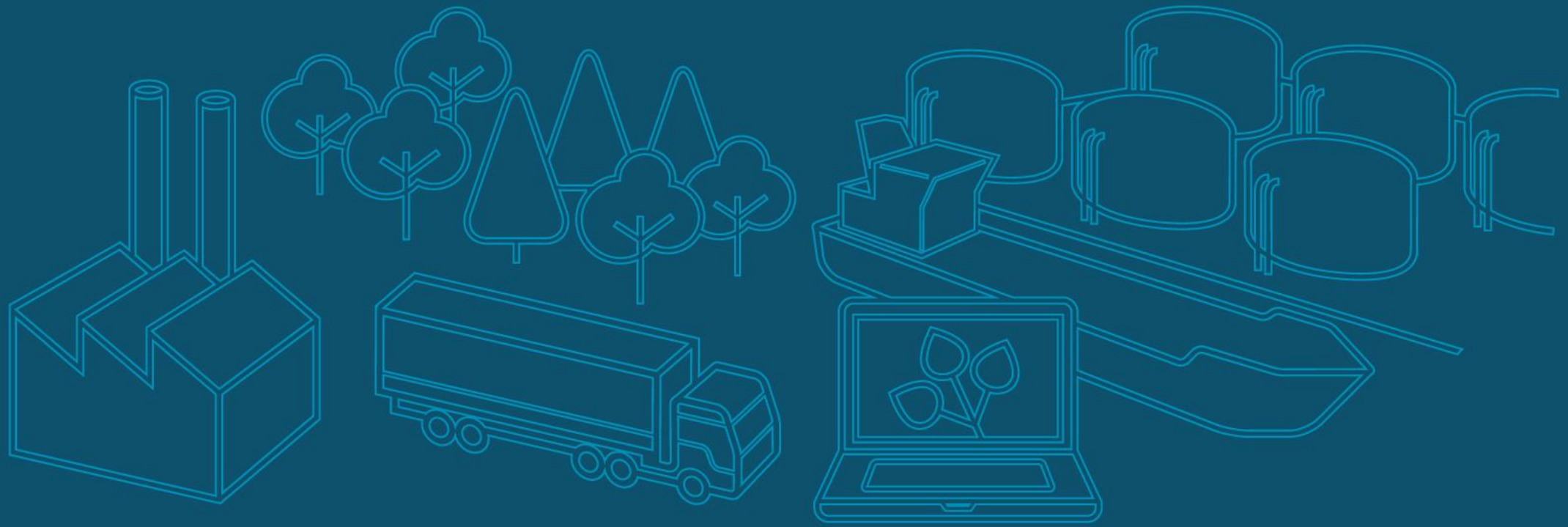
More information of CEF/TEN-T co-funding

- Innovation and Networks Executive Agency INEA
- Finnish Transport Infrastructure Agency – TEN-T
- Swedish Transport Administration – CEF sekretariatet

Thank you!



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