

EN
ANNEX
PART I
ANNEX II bis

Referring to objectives and priorities of the CEF - Transport sector to be implemented by calls for proposals under the Multi-Annual Work Programme 2014-2020 in 2017 and by one Programme Support Action (described in section 4)

1. BUDGET

1.1. Budget heading

- 06020101 - Removing bottlenecks and bridging missing links;
- 06020102 - Ensuring sustainable and efficient transport in the long run;
- 06020103 - Optimising the integration and interconnection of transport modes and enhancing interoperability, safety and security of transport;

1.2. Budget resources

The **additional** amount in the field of the Connecting Europe Facility (CEF) - transport sector to be allocated in 2014 - 2020 to the calls for proposals to be launched in 2017 shall be:

- EUR 700 000 000 under the budget line 06020101 for the calls 2017
- EUR 150 000 000 under the budget line 06020102 for the calls 2017
- EUR 150 000 000 under the budget line 06020103 for the calls 2017

The indicative breakdown of annual instalments of the Union financial support including the global overview of budgetary implementation is provided for in Annex.

The Work Programme defines the means of implementation of the Union financial support.

2. FUNDING OBJECTIVES

This Work Programme establishes the basis for the allocation of the Union financial assistance to projects of common interest and to the Programme Support Actions in the field of Connecting Europe Facility (CEF) - transport sector.

This Work Programme is organised according to the following funding priorities in line with the CEF Regulation as supplemented by the Delegated Act of 8 July 2016 concerning the CEF transport funding priorities:

- 2.1 Funding priorities for the objective of bridging missing links, removing bottlenecks, enhancing rail interoperability, and, in particular, improving cross-border sections
- 2.2 Funding priorities for the objective of ensuring sustainable and efficient transport systems in the long run, with a view to preparing for expected future transport flows, as well as enabling all modes of transport to be decarbonised through transition to innovative low-carbon and energy-efficient transport technologies, while optimising safety

- 2.3 Funding priorities for the objective of optimising the integration and interconnection of transport modes and enhancing the interoperability of transport services, while ensuring the accessibility of transport infrastructures

This Work Programme aims at enabling a coordinated selection and award process for projects of common interest receiving EU grants from the Connecting Europe Facility – Transport Sector (General envelope) combined with financing from the European Fund for Strategic Investments, or the European Investment Bank, or National Promotional Banks, or private sector investors, in order to maximise the leverage of private sector involvement and capital in the delivery of projects, while respecting the principle of non-cumulative award.

Part of the financial support under this action is aimed at capacity building (technical and financial engineering advice) to improve the planning capacity and quality of transport projects, whenever necessary, thereby ensuring the sustainability of the transport project pipeline and enhance interest from private sector, in particular in cohesion Member States.

3. OBJECTIVES AND PRIORITIES:

The general objectives are as follows:

- to implement transport infrastructure projects on the core network corridors, to support the deployment of a sustainable and efficient transport system and to promote the decarbonisation of all transport modes along the core network corridors and nodes,
- to increase, through blending, the participation of private sector investment in trans-European transport infrastructure financing as an alternative or complement to the traditional grant funding, and
- promoting geographical balance of the take-up of EFSI across the Union, by paying particular attention to Cohesion Member States

Only works may be supported. Studies will not be funded under this work programme.

To support such objectives CEF grant disbursement for selected projects will be conditional on the conditions laid down in section 10.

3.1 Priorities related to bridging missing links, removing bottlenecks, enhancing rail interoperability, and, in particular, improving cross-border sections

- The general objective is to implement transport infrastructure projects (works only) on the core network corridors, this objective shall be pursued by means of cross-border projects for railways, inland waterways and roads.

Actions involving a cross-border section or a part of such a section shall be eligible to receive Union financial assistance only if there is a written agreement between the Member States concerned or between the Member States and third countries concerned relating to the completion of the cross-border section.

- Projects aiming at the removal of bottlenecks for railways, inland waterways, maritime and inland ports, as well as for roads in the case of Member States with no railway

network established in their territory or in the case of a Member States, or part thereof, with an isolated network without long-distance rail freight transport.

- Other infrastructure projects for railways, inland waterways, maritime and inland ports, as well as for roads in the case of Member States with no railway network established in their territory or in the case of a Member States, or part thereof, with an isolated network without long-distance rail freight transport.

3.1.1. Pre-identified projects on the core network corridors, Annex I, part I point 2 of the CEF Regulation for the following transports modes: railways, inland waterways, roads, maritime and inland ports

3.1.2. Pre-identified projects on the other sections of the core network, Annex I, part I point 3 of the CEF Regulation for the following transports modes: railways, inland waterways, roads, maritime and inland ports

a) Railways (under funding priorities 3.1.1 and 3.1.2)

Under this priority, only works Actions related to the following sections may be funded:

- Pre-identified Core Network Corridor sections, as stipulated in Annex I, part I point 2 of the CEF Regulation; and
- Other sections of the Core Network, as defined in Annex I, part I point 3 of the CEF Regulation.

Actions shall be in line with Chapter III (Core Network) of the TEN-T Guidelines.

Priority shall be given to eligible Actions addressing:

- Cross-border pre-identified projects of the Core Network Corridors or other sections of Core Network Corridors;
- Cross-border pre-identified projects of the Core Network Corridors or other sections of the Core Network that ensure connection between two Member States via a third country;
- Projects aiming at accelerating the removal of bottlenecks (in terms of capacity and service quality) which hinder the traffic flows on the pre-identified sections or other sections as defined above, of the Core Network;
- Projects improving railway safety, including the deployment of the railway radio communication system (GSM-R) for safety-related voice communication, notably for emergency calls, compliant with the technical specifications laid out in Commission Regulation (EU) 2016/919¹;
- Where relevant, interconnections between rail and other modes of transport, in particular inland waterway and maritime transport.

¹ Commission Regulation 2016/99 of 27 May 2016 on the technical specification for interoperability relating to the ‘control-command and signalling’ subsystems of the rail system in the European Union (OJ L 158, 15.6.2016, p. 1–79).

The "project pipeline" resulting from the corridor analysis shall be given due consideration.

Applicants are reminded to take due account of the provisions of Directive 2008/57/EC of the European Parliament and of the Council².

Proposed Actions covering stations, and in particular the station buildings, are of lower priority unless they concern the railway infrastructure component. If included in the application, they shall be clearly described, quantified and priced separately.

Support is not given for maintenance.

b) Specific conditions for combined projects referring to the pre-identified railway sections on the Core Network Corridors and track-side ERTMS works projects

Under this priority projects addressing both following elements may be funded:

- pre-identified railway sections on the Core Network Corridors for railway implementation including interoperability elements (works only); and
- ERTMS implementation (track-side works only along the same sections of the railway implementation)

These project proposals shall be submitted as 'combined pre-identified railway and track-side ERTMS works projects' and present:

- railway works, and
- track-side ERTMS deployment activities

and specify, for each component, a cost estimation.

These projects shall contribute to the objectives for Railway as stipulated in 3.1.1 a) and to the ERTMS track-side deployment as stipulated in point 3.1.4.1.

The applicants of the 'combined pre-identified railway implementation – track side ERTMS works projects' proposals are requested to include in the application forms the information required for ERTMS track-side deployment relating to works specified in section 3.1.4.1.c, addressing at least:

- Identification of the specific line and its main characteristics, including location, length, single/double track, type of traffic i.e. freight, passenger, mixed, etc.;
- Characteristics and description of the ERTMS track-side subsystem to be installed including details of the CCS TSI, baseline, level, interoperability constituents and optional functions as for example the use of Euroloop;
- Expected date when the ERTMS track-side subsystem equipped section will be authorised to be placed in service.

c) Inland Waterways and inland ports (under priorities 3.1.1 and 3.1.2)

The specific objective is to reinforce the contribution of inland waterways and ports to a sustainable European freight transport network, in particular to core network corridors, in line with the Naiades II policy framework adopted by the Commission on 10 September 2013³.

² Directive 2008/57/EC of the European Parliament and of the Council of 17 June 2008 on the interoperability of the rail system within the Community (OJ L 191, 18.7.2008, p. 1).

Under this priority, only Actions (works) related to the following sections may be funded:

- pre-identified Core Network Corridors sections, as stipulated in Annex I, part I point 2 of the CEF Regulation, including water-side infrastructure development; or
- other sections of the Core Network defined in Annex I, part I point 3 of the CEF Regulation, including water-side infrastructure development; or
- core inland ports as identified in Annex II point 2 of the TEN-T Guidelines.

Only Actions in line with Chapter III (Core Network) of the TEN-T Guidelines and the specific requirements of Chapter II, section 2 (Articles 14, 15 and 16) of the TEN-T Guidelines on transport infrastructure requirements for inland waterways may be funded.

Inland waterways and inland ports facilities and water-side infrastructure supported under the CEF must be accessible for use by all operators on a non-discriminatory basis.

For Inland Waterways, priority shall be given to the following:

- Upgrade of waterways in order to achieve stable or improved navigation conditions and/or more capacity for the passage of vessels in the meaning of Articles 15 and 16 of the TEN-T Union Guidelines;
- Creation of new waterways;
- Construction/upgrading/modernisation of locks (including the deployment of remote control systems), to improve the passage of vessels and pushed convoys;
- Increasing of under-bridge clearance;
- Facilities for ice-breaking, hydrological services and dredging to ensure year-round navigability;
- Creation and/or upgrade of infrastructure for mooring and waterborne operations along a waterway for use and access to all on a non-discriminatory basis;
- Where relevant, proposed Actions shall provide for interconnection between inland waterways and other modes of transport, in particular rail and maritime transport.

For Inland ports, priority shall be given to providing or improving the following:

- Access to inland ports and connections between inland ports and rail and road sections of the Core Network;
- Access, including safe access through navigational aids, of inland ports to inland waterways;
- Basic infrastructure in inland ports in accordance with point (g) of Article 16 of the TEN-T Guidelines;
- Water-side terminals/platforms infrastructure such as storage and stacking areas in accordance with point (g) of Article 16 of the TEN-T Guidelines;

³ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee of the Regions, Towards quality inland waterway transport NAIADES II (COM/2013/0623 final).

- Reception facilities for oil and other waste, to support the sustainability of waterborne transport services;
- ICT applications, in particular pilot Single Window applications, as well as applications to streamline administrative formalities through a better use of information, communication and positioning technologies;
- Providing or improving road/rail access and connections within inland ports;
- Facilities for loading/transshipment as well as for ice-breaking, hydrological services and dredging of the port and port approaches to ensure year-round navigability (facilities must be accessible for use by all operators on a non-discriminatory basis);
- Introduction or implementation of fixed infrastructure regarding alternative energy, e.g. LNG bunkering and shore-side electricity.

Support for water-side terminals/platforms superstructure, for ICT applications and facilities, in particular pilot Single Window applications, applications to streamline administrative formalities through a better use of information, communication and positioning technologies, for facilities for ice-breaking, hydrological services and dredging and for facilities to improve the digital accessibility of inland waterways and inland ports is eligible.

Water-side infrastructure development projects shall mean infrastructure that enhance the navigability capacity in the meaning of Articles 15 and 16 of the TEN-T Guidelines or improves the multimodal connection of waterborne transport operations. This excludes infrastructure that does not directly benefit waterborne transport operations.

As regards support to dredging activities and facilities for both inland waterways and inland ports, routine maintenance dredging shall not be funded; only capital dredging and rehabilitation dredging activities may be funded under this priority. Rehabilitation dredging may only be funded in connection with global actions that provide for year-round good navigation status for a given section of the waterway.

d) Roads (under priorities 3.1.1 and 3.1.2)

Under this priority, only Actions (works for cross-border sections) related to the following sections may be funded:

- pre-identified Core Network sections, as stipulated in Annex I, part I point 2 of the CEF Regulation; and
- other pre-identified sections of the Core Network, as defined in Annex I, part I point 3 of the CEF Regulation.

Actions shall be in line with Chapter III (Core Network) of the TEN-T Guidelines and the specific requirements of Chapter II, section 3 (roads) of the TEN-T Guidelines.

Priority shall be given to actions addressing cross-border projects on the sections of the Core Network.

In addition, in the case of Member States with no railway network established in their territory or in the case of a Member State, or part thereof, with an isolated network without long-distance rail freight transport and maritime infrastructure on the Core Network Corridors, priority shall be given to actions addressing:

- Removal of bottlenecks;
- Other infrastructure projects.

Applicants are also reminded of the fact that funds shall only be granted to Actions compliant with the road safety⁴ and tunnel safety⁵ Directives.

Support is not given for maintenance.

e) Maritime Ports (under 3.1.1 and 3.1.2)

Under this priority, only Actions (works) related to the following sections may be funded:

- pre-identified Core Network Corridors sections, as stipulated in Annex I, part I point 2 of the CEF Regulation; and
- other pre-identified sections of the Core Network, as defined in Annex I, part I point 3 of the CEF Regulation;

Actions shall be in line with Chapter III (Core Network) of the TEN-T Guidelines and the specific requirements of Chapter II, section 4 (maritime transport and motorways of the sea) of the TEN-T Guidelines.

All core network maritime ports in Member States are covered by Annex I, Part I of the CEF Regulation.

Specific objectives are to support the development of ports as efficient and sustainable entry and exit points fully integrated with the land infrastructure in line with the Communication "Ports: an engine for growth".⁶

Priority shall be given to eligible actions addressing the:

- Hinterland connections to the Core 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, locks and navigational aids;
- Basic infrastructure in the form of internal basins, quay walls, jetties, backfills and land reclamation;
- Reception facilities for oil and other waste, including residues from exhaust gas cleaning systems, to meet environmental requirements;
- Implementation of new facilities and technologies regarding provision and use of alternative fuels or energy, e.g. LNG bunkering, shoreside electricity, etc., in line with the Directive 2014/94/EU⁷, excluding any pilot actions.

⁴ Directive 2008/96/EC of the European Parliament and of the Council of 19 November 2008 on road infrastructure safety management (OJ L 319, 29.11.2008, p. 59).

⁵ Directive 2004/54/EC of the European Parliament and of the Council of 29 April 2004 on minimum safety requirements for tunnels in the trans-European road network (OJ L 167, 30.4.2004, p. 39).

⁶ COM(2013)295

⁷ [Directive 2014/94/EU of the European Parliament and of the Council of 22 October 2014 on the deployment of alternative fuels infrastructure](#) (OJ L 307, 28.10.2014)

Support to the Actions related to construction and expansion of terminals and to superstructure can be envisaged by means of financial instruments only.

Union financial support shall not be given to:

- Any maintenance;
- Dedicated infrastructure and facilities for cruise ships;

Projects shall be planned and built based on a proper needs assessment, including if relevant an analysis of the market and of the possible impact at regional/basin level on competing ports. It is advised to demonstrate that the project is part of a long-term port strategy ensuring adequate links with the hinterland.

3.1.3. Rail interoperability

General objectives

The general objective is to achieve interoperability within the European Union's rail system by meeting the provisions set out in Directive 2008/57/EC and, based on that Directive, notably those of the Technical Specifications for Interoperability (TSI) concerning Telematics Applications for Passengers (TAP) and Telematics Applications for Freight (TAF). Thereby, for the railway lines forming part of the TEN-T, compliance with the infrastructure requirements set out in the TEN-T Guidelines shall be ensured.

Specific objectives

Interoperability shall be promoted via the following specific objectives:

- Ensuring easy access for users to information about itinerary, time and availability, including consultation and dissemination activities for the promotion of TAP and TAF;
- Ensuring compliance of the rail system and its subsystems with the TSI, notably on infrastructure, energy, rolling stock for passengers and freight transport, operation, telematics applications, control command and signalling, safety in railway tunnels;
- Simplifying procedures for the authorisation, placing in service and use of rolling stock on the Union's railway network;
- Ensuring compliance with other relevant requirements of the TEN-T Guidelines.

Proposals under this priority:

- may address elements of more than one of the fields below;
- may be implemented in one or more Member States;
- may address only works;
- may not address ERTMS-related activities.

a. Interoperability of the rail system with Technical Specifications for Interoperability concerning Telematics Applications for Passengers (TAP) and Freight (TAF)

Technical Specifications for Interoperability (TSI) concerning Telematics Applications for Passengers (TAP) and Telematics Applications for Freight (TAF).

Proposals shall aim at ensuring easy access for users to information about itinerary, time and availability, including consultation and dissemination activities for the promotion of TAP and TAF. In particular, an application shall demonstrate its contribution to:

- Ensuring quality management of data for TAP TSI (timetable data availability in B4 format, tariff data availability in B1 – B3 format);
- Support small and medium size Railway Undertakings in TAP implementation (timetable data exchange according to B4, tariff data exchange according to B1-B3, reservations in B5 format, home print tickets in B7 format, PRM assistance in B10 format);
- Support rail stakeholders to develop a common Telematics Reference Files merging the existing TAF and TAP Reference Files sets to be used in the Telematics framework and by other registers managed by ERA or the rail sector;
- Support Infrastructure Managers and Railway Undertakings to implement and ensure the compliance of the rail system and its subsystems with the TAP and TAF TSI developing and implementing the unique Train ID in line with the commitment expressed in the TSI TAP and TAF master plans to replace Operation Train Number already in use;
- Support rail actors (Infrastructure Managers, Wagon keepers, Railway Undertakings or other rail related organizations/companies) to implement TAP and TAF TSI compliant databases and/or tools (such as for assessment of the compatibility of the rolling stock with the infrastructure, infrastructure restriction notices, rolling stock data, freight operational data for tracking wagon/ intermodal unit movements tariff data, timetable data, TAP registry and other TAP related registers);
- Support Infrastructure Managers and Railway Undertakings to implement and ensure the compliance of the rail system and its subsystem with the TAP and TAF TSI. For example, a subset of function like Train Running Information, Path Request, Service Disruption, Train Preparation and Reference Files for European Infrastructure Managers and Railway Undertakings or pre-arranged train paths and reserve capacity, traffic Management by Rail Freight Corridors;
- Support Railway Undertakings to implement and ensure the compliance of the rail system and its subsystem with the TAF TSI through the implementation of the Electronic Consignment Note in line with TAF requirements and including intermodal information, in order to remove missing links between different modes of transport.

b. Railway system compliance with Interoperability⁸ and Safety Directives⁹ (including TSIs other than TAF/TAP) and TEN-T Guidelines

Under this specific objective, proposals shall aim at reducing network diversity if possible by ensuring compliance of railway subsystems with Safety and Interoperability Directives

⁸ Directive 2008/57/EC.

⁹ Directive 2004/49/EC of the European Parliament and of the Council of 29 April 2004 on safety on the Community's railways and amending Council Directive 95/18/EC on the licensing of railway undertakings and Directive 2001/14/EC on the allocation of railway infrastructure capacity and the levying of charges for the use of railway infrastructure and safety certification (OJ L 164, 30.4.2004, p. 44).

(including TSIs other than TAF/TAP, and notably Infrastructure, Energy, Rolling Stock (including Noise), Operation, Safety in railway tunnels), and/or with infrastructure requirements, covering either comprehensive or core network, set-up in the TEN-T Guidelines.

In particular, proposals shall aim at one or more of the following goals:

- Contributing, by means of works actions, to the reduction in diversity of railway fixed equipment and therefore opening of supply markets including, wherever possible, ensuring TSI compliance of fixed railway installation, primarily in the area of infrastructure and energy subsystems;
- Contributing to the development of a location-specific risk model for the European Railway System to draw a clear link between risk levels measured at a European level and changes to railway infrastructure. As a result, it shall be possible to quantify the safety benefit from investments made in upgrading railway infrastructure or target investment where it will deliver the greatest benefits. This could support the convergence of risk levels across Europe and support the development of the Single European Railway Area;
- Supporting Railway Undertakings to implement and ensure compliance of the rail system and its subsystems with the Interoperability and Safety Directives including technical specifications for interoperability concerning the subsystems operation and traffic management, rolling stock and wagons;
- Supporting the development and establishment of interoperability registers, in particular the register of infrastructure for all existing infrastructure. This shall ensure consistency between interoperability registers and other existing registers. For more details, please refer to the European Railway Agency study on Coherence and Consistency of Registers¹⁰.

3.1.4. European Rail Traffic Management Systems (ERTMS)

General objectives:

The general objective is to deploy ERTMS on the trans-European transport core network, including track-side and on-board components.

All actions supported by CEF shall contribute to the objectives of bridging missing links, removing bottlenecks, enhancing rail interoperability, and, in particular, improving cross-border sections. They shall be compliant with Commission Regulation (EU) 2016/919 or subsequent versions, and with Directive 2008/57/EC and Directive 2004/49/EC, or Directive (EU) 2016/797 and Directive (EU) 2016/798.

ETCS Baseline 3 (B3) means the set of specifications #2 or #3 in table A2.2 or A2.3 of the Annex A of the Commission Regulation (EU) 2016/919.

On-board and track-side ERTMS deployment may not be submitted together in one application.

Specific objectives:

¹⁰ <http://www.era.europa.eu/Document-Register/Documents/ERA-REP-15-2012%20on%20Study%20on%20Coherence%20and%20Consistency%20of%20Registers.pdf>

Under the call the following eligibility conditions shall apply:

- Trackside projects, should be B3 compliant, and located on the Core Network, with priority on cross-border sections in the Core Network Corridors (CNC).

On-board projects:

- ERTMS retrofitting and/or upgrading (works) of B3-complaint on-board components with priority for international traffic.

3.1.4.1. ERTMS track-side deployment

a) Description

Proposals addressing ERTMS track-side deployment compliant with B3, or upgrade of lines to B3 compliant version

Deployment means:

- equipment with ERTMS of a railway line section (already in operation or in construction) and not equipped with this system before.

Upgrade means:

- equipment with B3 of a line section already in operation and equipped with a version of ERTMS/ETCS not compatible with the sets of specifications laid down in the Commission Regulation (EU) 2016/919
- equipment with B3 of a line section already in operation and equipped with B2.

b) Essential conditions

Are excluded from the scope of this specific objective:

- Studies;
- Applications covering solely GSM-R component of ERTMS;
- Works related to Class B system(s) and/or Specific Transmission Module (STM).

c) Information to be included in a proposal:

For proposals related to a deployment of ERTMS (works):

- Identification of a specific line and its main characteristics, incl. location, length, single/double track, type of traffic i.e. freight, passenger, mixed, etc.;
- Characteristics and description of the ERTMS track-side subsystem to be installed including details of the CCS TSI, baseline, level, interoperability constituents and optional functions as for example the use of Euroloop;
- A description of tests strategy in line with applicable technical specification for interoperability, to be performed with on-board units provided by at least one different supplier to the one in charge of the equipment of the line. The on-board units used for tests shall be compliant with applicable technical specification for interoperability;
- Expected date when the ETCS track-side subsystem equipped section will be authorised to be placed in service;

- Evidence of the activities completed/ planned in order to obtain the authorisation to place the line in service;
- Identification and justification for infrastructure eligible works for track-side equipment (falling under the definition in Article 2(5) of the CEF Regulation) which are necessary for the implementation of ETCS level 2 (e. g. upgrade or renewal of interlockings);
- Description of the provisions of the envisaged ERTMS technical solution in line with article 19 of Directive (EU) 2016/797:
 - providing access to details of the technical solutions,
- In the case of applications covering a GSM-R component, information regarding interferences, e.g. identification of the problem, mitigation measure(s) undertaken/planned, etc.;
- Information on contractual arrangements with a supplier(s), e.g. offer, contract, provision(s) for future software upgrade, error(s) corrections, maintenance, etc.

For proposals related to an **upgrade of ERTMS**:

- Identification of a specific line and its main characteristics, incl. location, length, single/double track, type of traffic i.e. freight, passenger, mixed, etc.;
- Comprehensive description of the ETCS track-side subsystem already installed, including details of the CCS TSI, baseline, level and optional functions as for example the use of Euroloop;
- A copy of the authorization placing the ETCS-equipped line in service issued by the competent National Safety Authority;
- Existing certificates and declarations of the subsystem and certificates and declarations of conformity of the interoperable constituents shall be provided. A detailed description of all deviations, its restrictions and its conditions of use following the template developed by the European Union Agency for Railways¹¹;
- Comprehensive description of the envisaged work and necessary changes to reach interoperability with B3-compliant on-board units;
- A description of the test strategy, in line with the applicable technical specification for interoperability, to be performed with on-board units provided by at least one different supplier to the one in charge of the equipment of the line. The on-board units used for tests shall be compliant with the technical specification for interoperability;
- Identification and justification for infrastructure eligible works for track-side equipment (falling under the definition in Article 2(5) of the CEF Regulation) which are necessary for the upgrade to ETCS level 2 (e. g. upgrade or renewal of interlockings);
- Expected date when the line will allow ETCS B3 equipped vehicles to run for commercial services;

¹¹ <http://www.era.europa.eu/Core-Activities/ERTMS/Pages/Certification-issues.aspx>

- Evidence of the activities completed/ planned in order to obtain the authorisation to place the line in service following its upgrade, including information/evidence on involvement of national safety authorities and conformity assessment bodies;
- Description of the provisions of the envisaged ERTMS technical solution in line with article 19 of Directive (EU) 2016/797:
 - providing access to details of the technical solutions,
 - forecast of technical meetings and possible audits from the European Union Agency for Railways
- In the case of applications covering a GSM-R component, if applicable, information regarding interferences, e.g. identification of the problem, mitigation measure(s) undertaken/planned, etc.;
- Information on contractual arrangements with a supplier(s), e.g. provision(s) for software upgrade, error(s) corrections, maintenance, etc.
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d) Funding conditions

In addition to the general funding principles established in this Work Programme, the following shall apply.

For deployment:

Eligible costs for the deployment of the lines shall be limited to a ceiling of EUR 260 000 per kilometre of double-track line equipped with ERTMS.

Infrastructure works for trackside equipment (falling under the definition in Article 2(5) of the CEF Regulation) which are necessary for the implementation of ETCS level 2 (e.g. upgrade or renewal of interlockings, equipment of Radio Block Centres directly related with ERTMS functioning, etc.) may also be funded and are not covered by the ceiling. In such cases the applicant(s) shall provide thorough technical and financial information substantiating the costs and respective CEF requested support. The applicants shall present the infrastructure works in (a) separate activity(ies) to facilitate their technical and financial distinction from ERTMS upgrade and subsequent assessment.

For upgrade:

Eligible costs are not subject to a ceiling and will be evaluated individually. In such cases an applicant(s) is invited to provide thorough financial information substantiating total costs and respective CEF requested support. The tasks not covered by the ceiling shall be presented in a separate activity(ies) to facilitate their technical and financial differentiation and subsequent assessment.

e) Deliverables (which shall be requested in the grant agreements for projects selected for Union funding):

Assessment of the final outcome of the CEF supported actions shall be based on the completeness and the demonstration of compliance with the technical specification for interoperability of the deliverables listed below.

Deliverables of a proposal selected and implemented within this specific objective shall cover:

- Engineering rules and operational test scenarios in line with the definition set out in chapter 6 of Commission Regulation (EU) 2016/919;
- List of interoperability risks and respective evidence that ensures that the risks are mitigated. This list shall be updated during the implementation of the action based on the milestones of the project and will be used for monitoring possible deviations from Commission Regulation (EU) 2016/919;
- Information regarding tests results (test report including operational scenarios) in line with the latest applicable technical specification for interoperability, performed with on-board units provided by at least one different supplier to the one in charge of the equipment of the line. The on-board units used for tests shall be compliant with the applicable technical specification for interoperability;
- EC declaration of conformity for each interoperability constituent relevant for ERTMS issued by the supplier or the supplier's authorised representative established within the Union, including the certificate of conformity from a notified conformity assessment body; the EC declaration of conformity shall be fully in line with Directive 2008/57/EC;
- EC declaration of verification of the subsystem issued by the applicant for each Control Command Signalling subsystem installed including the EC certificate of verification of subsystem from a Notified Body and the safety assessment report following section 3.2.1 of Commission Regulation (EU) 2016/919; the EC declaration of verification shall be fully in line with Directive 2008/57/EC. The technical compatibility details of the certificates shall be provided using the specific template developed by the European Union Agency for Railways¹²;
- Copy of an application for an authorisation for placing the Control Command Signalling trackside subsystem in service or the authorisation in case available by the time the final payment claim is due.

All deliverables shall be sent, ideally according to the milestones' dates included in the grant agreement, and shall be assessed in close cooperation with the European Union Agency for Railways.

3.1.4.2. ERTMS on-board deployment

a) Description

Proposals addressing the retrofitting or upgrade (works) with B3 compliant of vehicles already operating on the Union railway network ERTMS may be funded under this specific objective with priority for international traffic.

Retrofitting means

- the installation of the ERTMS B3-compliant equipment (hardware, software, GSM-R in the case of Level 2) on an existing vehicle(s) already in operation and not equipped with this system before.

Upgrade means

- deployment of ERTMS B3 equipment on existing vehicle already in operation

¹² <http://www.era.europa.eu/Core-Activities/ERTMS/Pages/Certification-issues.aspx>

(authorised by NSA by the time the application is submitted) and equipped with pre-B2 compliant ERTMS or with B2.

b) Essential conditions

Only works proposals may be funded.

Works related to Class B system(s) are excluded from the scope of the specific objective.

Works related to a combination of ETCS and a specific transmission module (STM) may also be funded. However, the costs related to the STM equipment itself may not be funded.

Vehicles must be authorised for operation on the Union railway network (in at least one Member State) prior to submission of the application. For upgrade proposals, the authorisation documentation must identify the ERTMS version already installed, together with information on options, level, software version, hardware, etc.

c) Information to be included in a proposal

To facilitate the evaluation, applicants are requested to provide information related to:

i. for proposal related to the retrofitting of vehicles (works)

- Identification of the vehicle(s) type(s), including its basic characteristics, supplier, serial numbers of vehicles to be retrofitted, etc.;
- Comprehensive description of the current on-board subsystem, including details of the TSI CCS, baseline, optional functions and a copy of the authorisation to place them into service;
- Description of the authorisation procedure, including evidence of the activities completed/ planned in order to obtain the authorisation;
- Identification of a line(s) on which vehicles operate today and/or on which they might operate in the near future;
- A description of tests that will be carried out following technical specification for interoperability to ensure that ETCS B3 vehicles can run on the ETCS equipped line(s), once retrofitted. The description shall include the testing strategy for proving conformity of the on-board equipment (e.g. accredited laboratory, on-site testing, etc.), scenarios requested (e.g. suppliers scenarios, railway scenarios) and a role of a Notified Body(ies);
- In the case of applications covering a GSM-R component, information regarding interferences, e.g. identification of the problem, mitigation measure(s) undertaken/planned, etc.;
- Information on contractual arrangements with a supplier(s), e.g. offer, contract, provision(s) for future software upgrade, error(s) corrections, maintenance, etc.;
- In the case of applications including prototype(s), a detailed costs structure and description of the tasks foreseen for the elaboration of a prototype(s) (development, including interoperability constituents, certification or upgrade of certification, authorisation, etc.);

ii. for proposal related to the upgrade of ERTMS (works)

- Identification of the vehicle(s) type(s), including its basic characteristics,

supplier, serial numbers of vehicles to be upgraded, etc.;

- Identification of a line(s) on which they operate today and/or on which they might operate in the near future;
- Definition of the ERTMS on-board subsystem already in service, including details of the TSI CCS, baseline, optional functions and a copy of the authorisation to place in service the ERTMS on-board issued by the competent NSA;
- Current certificates of conformity of the constituents and certificates of verification of the subsystem. A detailed description of all incompatibilities between the version(s) of ETCS currently installed on the vehicle(s) concerned by the proposal and ETCS B3-equipped lines. The detailed information concerning the deviations and/or restrictions derived from existing certificates and conformity declarations shall be provided;
- A description of tests that will be carried out following technical specification for interoperability to ensure that ETCS B3 vehicles can run on the ETCS equipped line(s), once upgraded. The description shall include the testing strategy for proving conformity of the on-board equipment (e.g. accredited laboratory, on-site testing, etc.), scenarios requested (e.g. suppliers scenarios, railway scenarios) and a role of a Notified Body(ies);
- Evidence of the activities completed/ planned in order to obtain the authorisation to place the vehicle(s) in service following the upgrade;
- In the case of applications covering a GSM-R component, if applicable, information regarding interferences, e.g. identification of a problem, mitigation measure(s) undertaken/planned, etc.;
- Information on contractual arrangements with a supplier(s), e.g. provision(s) for future software upgrade, error(s) corrections, maintenance, etc.
- In the case of prototype upgrade applications information on the results sharing and dissemination with the railway sector and the European Union Agency for Railways.
- In the case of applications including prototype(s), a detailed costs structure and description of the tasks foreseen for the elaboration of a prototype(s) (development, including interoperability constituents, certification or upgrade of certification, authorisation, etc.);

d) Funding conditions

For prototypes:

Eligible costs are not subject to a ceiling and will be evaluated individually. In the cases of prototypes an applicant(s) is invited to provide thorough financial information justifying total costs and respective EU contribution. These tasks shall be presented in a separate activity(ies) to facilitate a better assessment of their technical and financial details.

For retrofit:

Eligible costs shall be limited to a ceiling of EUR 250 000 per ERTMS on-board subsystem to be deployed (hardware and software including GSM-R) on an already existing vehicle. In

case a vehicle is already equipped with ETCS-compliant hardware, the ceiling may be decreased in the call for proposals. The applicant(s) shall provide thorough and detailed financial information substantiating total costs and respective CEF requested support.

For upgrade:

Eligible costs are not subject to a ceiling and will be evaluated individually. In such cases an applicant(s) is invited to provide thorough financial information substantiating total costs and respective CEF requested support. The tasks not covered by the ceiling shall be presented in a separate activity(ies) to facilitate their technical and financial differentiation and subsequent assessment.

e) Deliverables (which shall be requested in the grant agreements for projects selected for Union funding):

Deliverables shall demonstrate completeness and compliance with applicable technical specification for interoperability. Assessment of the final outcome of the CEF supported actions shall be based on the completeness and TSI-compliance of the deliverables listed below. Deliverables of a project selected and implemented within this specific objective shall cover:

- Information regarding tests results (test report) in line with the applicable technical specification for interoperability;
- Declaration signed by a laboratory accredited according to ISO 17025 that it has performed the tests in accordance with the applicable technical specification for interoperability;
- EC declaration of conformity for each interoperability constituent relevant for ERTMS issued by the supplier or the supplier's authorised representative established within the Union, including the certificate of conformity from a Notified Body; the EC declaration of conformity shall be fully in line with Directive 2008/57/EC;
- EC declaration of verification of the subsystem issued by the applicant for each Control Command Signalling subsystem installed on a vehicle and including the EC certificate of verification of subsystem from a Notified Body and the safety assessment report following section 3.2.1 of Commission Regulation (EU) 2016/919; the EC declaration of verification shall be fully in line with Directive 2008/57/EC. The technical compatibility details of the certificates should be provided using the template developed by the European Union Agency for Railways¹³. A copy of a complete application for authorisation of the vehicle(s) or the authorisation itself, in the event it is available by the time the final payment claim is due.
- Copy of an application for an authorisation for placing the vehicle prototype on the market or the authorisation in case available by the time the final payment claim is due.

These deliverables shall be ideally sent following the milestones dates and shall be assessed in

¹³ <http://www.era.europa.eu/Core-Activities/ERTMS/Pages/Certification-issues.aspx>

cooperation with European Union Agency for Railways.

3.2. Priorities for the objectives of ensuring sustainable and efficient transport systems in the long run, with a view to preparing for expected future transport flows, by supporting innovation and new technologies for all modes of transport

3.2.1. Deployment of innovation and new technology actions in all transport modes, according to points (a) to (d) of Article 33 of the TEN-T Guidelines.

General Objective

The general objective is to support the deployment of a sustainable and efficient transport system and to promote the decarbonisation of all transport modes along the core network. New technologies and innovative solutions shall be deployed on the core network with particular emphasis along the core network corridors, including the integration of its urban nodes.

Specific Objectives

In order for the core network¹⁴ to keep up with innovative technological developments and deployments, the aim shall be in particular to:

- (a) support and promote the decarbonisation of transport through transition to innovative and sustainable transport technologies;
- (b) make possible the decarbonisation of all transport modes by stimulating energy efficiency introduce alternative propulsion systems, including electricity supply systems, and provide corresponding infrastructure. Such infrastructure may include equipment and tools necessary for intelligent and sustainable integration with electricity grids and other facilities necessary for the energy supply, may take account of the infrastructure-vehicle interface, may include intelligent platforms needed for interoperability and may encompass telematic applications;
- (c) improve the safety and sustainability of the movement of persons and of the transport of goods;
- (d) improve the operation, management, accessibility, interoperability, multimodality and efficiency of the network, including through multimodal ticketing, coordination of travel timetables;

I) Overview

The general objective may be achieved through the implementation of new technologies and innovative technological and organisational systems, based on a market-oriented approach. Supporting the innovation pipeline, this objective may increase the successful deployment of upstream Research and Innovation. More precisely, in this call all research, demos and even real-life trials are excluded. Only works are eligible.

Transport infrastructure and related infrastructure, facilities, vehicles and services as described in points (a) to (d) of Article 33 of the TEN-T Guidelines (specific objectives above) may be supported. Each innovation topic must be in-line with the policy framework established by the Commission for example for actions on alternative fuels the "Clean Power

¹⁴ Regulation (EU) No 1316/2013, Annex I, Part I.1. "CEF, Horizontal Priorities"

for Transport: a European alternative fuels strategy¹⁵ and the European Strategy for Low-Emission Mobility¹⁶ and the recent initiative on alternative fuelled buses in EU cities.

In the context of this priority, innovation means the implementation of a new or significantly improved product (goods and/or service), which is ready for deployment, while a market-orientated solution has been developed and tested earlier in a real-life trial, so that an optimised technical solution and optimised business-client relation is available for the roll-out into the (mass) market (concept of market-sided innovation). The earlier development and demonstration phases of this product are considered as research activities, the then following real-life trial is considered as study with integrated deployment activity, which are all three not covered by this call.

Innovation of operational processes may be funded under this call, including fleet management, marketing and consumer's management, load and fuel management, multimodality and interoperability with respect to all travel phases.

Union support is also available for the improvement and deployment of telematics applications, coming to support decarbonisation of transport, however telematics shall be only a secondary element within the transport solution, with a view for example to enable roaming functionality, interoperability, multimodality and compatible ticketing systems.

Priority shall be given to projects of high European added value, which can for instance be demonstrated by including results from projects funded under the Commission's Research and Innovation Framework Programmes as well as results from studies, ie real-life trials, funded by CEF. In such cases the project's title and Commission reference code shall be inserted in the proposal.

This part of the call is only open to actions (works) located on the core network as specified in the maps of the TEN-T Guidelines. Based on the business case a relatively small deviation from the core network shall be eligible. This should be justified location by location.

II) Action Types

Only works are eligible under this call. Works shall address the roll-out of the innovative solution onto at least a significant part the core network, with emphasis on the core network corridors. Roll-outs into the (mass) market are being sought here, in order to have a significant impact on the core network/corridor(s). For this reason it is advisable that the innovative solution (technology and business case) is sufficiently developed and trialled so that it is already close to financial break-even.

III) Individual Budgets

For mobile equipment, i.e. vehicles, the grant component only covers the innovative parts, whereas for the loan component there is no such restriction. Furthermore for the grant component, the eligible costs of mobile equipment must only relate to the financial difference between a conventional solution and the use of a new technology (e.g. the additional financial effort between diesel propulsion and a fuel-cell hydrogen propulsion). The mobile equipment supported by the grant component must remain for at least 5 years registered and operated in a Member State.

The capping for mobile equipment is waived for this call to facilitate/accelerate (mass) market roll-out. However, applicants should always describe in detail which infrastructure will be

¹⁵ COM(2013)17 of 24 January 2013

¹⁶ http://ec.europa.eu/epsc/pdf/publications/strategic_note_issue_17.pdf

used to support the roll-out, regardless whether support is requested, or not, in their proposal to this call.

IV) Delimitation to other Priorities of the Work Programme

In general innovation on transport infrastructure for the long distance is a primary element. In view of the dominant loan component under this call, there is more flexibility for vehicles. Telematics, logistics, urban nodes, etc, covered by other TEN-T/CEF priorities as their main subject, may only be secondary elements of an innovation action. As a further example, in case an alternative fuel is introduced for 2 ports together with taking up a shipping service between the ports, this application should be submitted to Motorways-of-the-Sea calls, as the primary element is normally the logistics chain. All telematics actions having the telematics component as their primary element should refer to the appropriate telematics calls for the mode of transport concerned (eg RIS, ITS, ERTMS); for example a pure road ITS application should be submitted to a road ITS call. Under the innovation calls, single ticketing would only be eligible if being part of an innovative solution encompassing more elements, for instance alternative fuels.

V) Detailed Topical Specifications and Restrictions

The following detailed topical specifications and restrictions are done to focus the available resources on a subset of the very wide range of legally allowed innovation and new technology topics for transport, thereby setting temporary political priorities to address the present innovation requirements of the Union. **In case there are no specifications or restrictions mentioned for a topic, the full legally possible range of Article 33 (a-d) of Regulation (EU) 1315/2013 applies.**

All specifications and restrictions only apply to the current work programme and call, as follows:

Actions (works) supporting the decarbonisation of transport by the roll-out of alternative fuels distribution infrastructure, in particular related to heavy-duty transport such as buses, coaches and freight. This encompasses the use of electricity, hydrogen, compressed or liquefied natural gas (CNG and LNG), preferably pure bio-methane or blended with bio-methane), or other innovative systems. Infrastructure may also include emission reduction, smart metering and energy storage equipment. Scrubbers are excluded. Actions may include transportation of alternative fuel units, such as fuel-containers, to hinterland locations, e.g. to supply satellite terminals or to be placed directly at the end-consumer, to enable cost-efficient, multi-modal alternative fuel supply chains. Such units would be regarded as mobile infrastructure. The same logic applies to the maritime and inland navigation sector, so that also here alternative fuel transport from central fuel stations via bunkering ships to ships using alternative fuels are eligible as mobile infrastructure.

As always only the innovative part of such fuel transport vehicles (tankers, ships, etc) is eligible under the innovation priority.

- All types of gas refuelling terminals (natural gas, hydrogen, etc), with preference to multi-modal terminals, are eligible for all modes of transport.
- Actions (works) for the improvement and deployment of interoperable infrastructure/vehicle interfaces that will support the use of alternative fuels, including telematics applications or energy demand management systems when required. Such applications shall demonstrate their potential or actual contribution to interoperability, multimodality and overall efficiency of the network. The roaming/cross-border

functionality and interoperability of solutions (especially for electro-mobility), including cross-borders, shall be addressed and effectively implemented in order to allow public accessibility of the infrastructure, on a non-discriminatory basis. The infrastructure shall use commonly agreed IT protocols and data formats, interoperable Radio Frequency Identification cards, and shall provide static and dynamic data and identifiers to users.

- Works to facilitate for small operators, e.g. as with inland navigation, the deployment of innovation, for example low emission solutions or a European network of alternative fuels deployment may be implemented in the form of a grant scheme by public operators only, or by consortia led by public operator(s). The installation of refuelling/charging stations accessible to public or private economic operators may be supported via joint grant schemes or joint procurement. Such activities may be divided in several phases to address the needs progressively over a time period and/or by location. This shall aim at stimulating the deployment of interoperable infrastructures within the network. Such a progressive approach shall enable action owners to size the financial support to market price developments in a timely manner. For such actions, the planned number of refuelling/charging stations accessible to the public, of users and of emission savings in particular, shall be concretely planned and implemented. Also, such actions should use a previously optimised technology and business-client relation addressing the client's needs as integral parts of a clear business plan. This plan may include targeted marketing and corporate communication actions.
- To improve the operation, management, accessibility, sustainability, interoperability, multimodality and efficiency of the network, including through multimodal travel planning and ticketing, payment systems, coordination and integration of travel timetables.

In addition, any combination of the above specific subjects may be addressed in an innovative action.

3.2.2. Safe and Secure infrastructure, including safe and secure parking on the road core network

Actions to be selected under this specific objective shall concern works and shall be in line with Chapter II, Section 3 of the TEN-T Guidelines.

Under this Priority, only actions related to safe and secure infrastructure, including safe and secure parking areas on the road Core Network may be funded.

Priority shall be given to Actions addressing the following areas:

- Works for correcting serious road safety shortcomings (for instance changing the curvature of a road);
- Works aiming at the removal of level crossings between core network rail sections and any road;
- Works aiming at the development of new safe and secure parking areas on motorways for trucks and commercial vehicles (including Information and Communication Technologies) approximately every 100 km;
- Works aiming at upgrading the safety and security of existing rest areas (including parking for trucks and commercial vehicles and safety and security Information and

Communication Technologies);

- Works optimising the use of existing safe and secure parking areas for trucks and commercial vehicles through dynamic information (to be tested and demonstrated through the project) including the collection, processing and dissemination of parking information (static and dynamic). These interventions shall comply with Commission Delegated Regulation No (EU) 885/2013¹⁷ and apply Union standards (e.g. DATEX2) and Guidelines (Easyway Deployment Guidelines), set up methods for measuring accurate and reliable data from sensors/cameras/or other monitoring devices and analyse priority zones needs, as defined in Delegated Regulation No (EU) 885/2013, taking into account traffic conditions, infrastructure shortages or weaknesses and driving regulations.

Support is not given to maintenance under this Priority.

3.3. Priorities for the objective of optimising the integration and interconnection of transport modes and enhancing the interoperability of transport services, while ensuring the accessibility of transport infrastructures

3.3.1. *Single European Sky – SESAR*

The objective in the area is to support the timely and efficient implementation of the Single European Sky (SES), in particular the deployment of SESAR (Single European Sky ATM Research and Development).

The achievement of this objective requires improving the performance of air traffic management (ATM) in Europe by modernising and harmonising ATM systems, synchronising the deployment of essential ATM functionalities, enhancing civil-military interoperability, reducing fragmentation and consolidating the provision of air navigation services.

The SESAR project represents the technological pillar of the Single European Sky. It aims to modernise ATM in Europe and to provide the Union with a high performing ATM infrastructure that will enable the safe, efficient and environmentally friendly operation and development of air transport.

The proposed Actions under this objective shall include works under one of the following 2 categories:

1. Common Projects

This category includes civil and military Implementation projects deploying ATM functionalities¹⁸ identified in Common Projects¹⁹, in accordance with the Deployment Programme²⁰.

¹⁷ Commission Delegated Regulation No (EU) 885/2013 of 15 May 2013 supplementing ITS Directive 2010/40/EU of the European Parliament and of the Council with regard to the provision of information services for safe and secure parking places for trucks and commercial vehicles (OJ L 247, 18.9.2013, p. 1).

¹⁸ Commission Implementing Regulation (EU) No 409/2013 of 3 May 2013 on the definition of common projects, the establishment of governance and the identification of incentives supporting the implementation of the European Air Traffic Management Master Plan (OJ L 123, 4.5.2013, p. 1).

¹⁹ The first Common project is defined in Commission Implementing Regulation (EU) No 716/2014 of 27 June 2014 on the establishment of the Pilot Common Project supporting the implementation of the European Air Traffic Management Master Plan (OJ L 190, 28.6.2014, p. 19).

²⁰ Section 2 of Implementing Regulation (EU) No 409/2013; the Deployment Programme as approved and published by the Commission. The Deployment Programme can be found at:

In order to optimise the impact of Union funding on the implementation of the Deployment Programme, the Commission may focus on specific ATM functionalities or parts of them, in particular:

- (a) Implementation projects that support the implementation of the following families identified in the deployment programme²¹:
- 1.1.2: AMAN (Arrival Manager) upgrade to include extended Horizon function;
 - 1.2.3: RNP1 (Required Navigation Performance) operations in high density TMAs (Terminal Control Areas) ground capabilities;
 - 2.2.1: A-SMGCS Levels 1 and 2 (Advanced Surface Movement Guidance and Control System);
 - 2.4.1: A-SMGCS routing and planning functions;
 - 2.5.1: Airport safety nets associated with A-SMGCS (Level 2);
 - 2.5.2: Aircraft and vehicle systems contributing to airport safety nets;
 - 3.2.1: Upgrade of AATM systems (NM, ANSPs, AUs) to support Direct Routings (DCTs) and Free Routing Airspace (FRA);
 - 3.2.4: Implement free route airspace;
 - 4.2.2: Interactive rolling Network Operations Plan (NOP)
 - 5.1.2: New PENS – Future Pan-European Network Service;
 - 5.1.3: Common SWIM (System Wide Information Management) infrastructure components.
- (b) Implementation projects aiming to implement datalink capability in support to AF6-Initial Trajectory Information Sharing. These projects shall be implemented in accordance with the recovery plan²² developed by the SESAR Deployment Manager and shall respect the regulatory deadlines prescribed by the Commission Implementing Regulation (EU) No 2015/310. Costs incurred after the deadlines for the implementation of these projects will not be funded.

Implementation projects presented under the above-mentioned recovery plan must follow the planning proposed in the applications. The specific grant agreements awarded for the implementation projects under the recovery plan must include milestones for the assessment of the projects' progress. Major deviations from the approved planning or poor progress of a project will trigger the relevant provisions on suspension and termination applicable to the specific grant agreements.

The indicative financial envelope that is made available for the implementation of the recovery plan cannot exceed 30% of the budget allocated to the Common Projects under this call.

Grants for projects in this category shall be awarded through Specific Grant Agreements established under the SESAR Deployment Framework Partnership Agreement concluded

<http://www.sesardeploymentmanager.eu/sesar-deployment-manager-delivered-first-atm-infrastructure-deployment-programme/>

²¹ The Deployment Programme can be found at:

http://ec.europa.eu/transport/modes/air/sesar/deployment_en

²² http://ec.europa.eu/transport/modes/air/sesar/deployment_en

between the Deployment Manager²³ and the implementing partners, on the one hand, and the Commission on the other hand²⁴. The Deployment Manager is to act as coordinator in each of these projects. Applicants who are awarded a grant under this call and are not partners in the SESAR Deployment Framework Partnership shall be required to join the SESAR Deployment Framework Partnership, as partners, by signing the Framework Partnership Agreement before being able to sign the Specific Grant Agreements covering their projects.

Applicants under this category must coordinate their applications with the Deployment Manager who shall perform a screening of these applications to assess their relevance to this category. For this purpose the above mentioned applicants shall provide the Deployment Manager with all the necessary information that it requires to ensure coherence and effective coordination of the projects in accordance with the Deployment Programme. Based on this assessment, the Deployment Manager may advise the applicants to revise their applications or to submit them under the "Other projects" category (See section 2 below).

The amount of financial assistance to be granted to the actions selected may be modulated on the basis of a cost benefit analysis of the Common projects or the cost-effectiveness analysis of the project proposals.

The model Specific Grant Agreement for SESAR Implementation projects and the model SESAR Framework Partnership Agreement shall be published with the call for proposals.

Applicants for Actions under this category shall provide evidence that national civil-military coordination has taken place. This has to be validated by the Member States, which need also to provide their agreement on the proposals in accordance with Article 9(1) of Regulation (EU) No 1316/2013.

Furthermore, Member States shall verify that the works projects proposed under this category are consistent with their adopted performance plans referred to in Commission Implementing Regulation (EU) 390/2013.

2. Other projects

This category comprises other projects not included in Common Projects and not falling under the competence of the Deployment Manager that contribute to the implementation of the SES by promoting the optimal provision of air navigation services and seamless functioning of the European ATM system.

In this category, priority shall be given, to proposals for works Actions that:

- (a) deploy new technologies and best practices²⁵ aiming to implement or support interoperable and harmonised ATM systems and equipment (e.g. primarily focusing on meeting the requirements of existing implementing rules and/or their related means of compliance under Regulation (EC) No 552/2004 of the European Parliament and of the Council²⁶);
- (b) aim to specify and deploy new generation of flight and radar data processing systems

²³ <http://www.sesardeploymentmanager.eu/contact/>

²⁴ More information about the SESAR deployment set-up is available at http://ec.europa.eu/transport/modes/air/sesar/deployment_en.htm.

²⁵ Best in class technologies and practices: technologies and operational practices that are demonstrated to be best in class from cost-efficiency and performance perspective when compared with other technologies and practices applied in similar environments.

²⁶ Regulation (EC) No 552/2004 of the European Parliament and of the Council of 10 March 2004 on the interoperability of the European Air Traffic Management network (the interoperability Regulation) (OJ L 96, 31.3.2004, p. 26).

based on European standards, open source and modular systems;

- (c) address the optimal provision of air navigation services, mainly in the context of the functional airspace blocks (FAB) and in particular to those Actions concerning:
- commonality of technical systems or at least of subsystems and tools;
 - infrastructure rationalisation such as replacement of legacy or overlapping secondary surveillance radars with lower cost technology solutions;
 - Introduction of Performance Base Navigation (PBN) procedures and ground and airborne equipment, in particular those related to the use of satellite technologies, together with a planned reduction in legacy infrastructure;
 - airspace projects culminating in the cross-border implementation of Free Routeing across the FAB;
 - common Air Traffic Flow Management (ATFM) Flow Management Position (FMP), starting with joint operation of FMPs, joint ATFM;
 - cross-border operation of Air Traffic Control (ATC) within a FAB;
 - optimal vertical profiles (climb as well as descent) at airports and in TMAs (Terminal Control Areas);
 - airspace planning carried out (cooperatively) for the whole FAB region;
 - removal of national boundaries in upper airspace for air traffic control purposes;
 - dynamic sectors spanning across national borders;
 - sector boundaries put in low-interaction areas;
 - cross-border sectorisation.
- (d) aim to deploy or support the deployment of ATM functionalities defined in the European ATM Master Plan and the deployment baseline that are not included in Common Projects. Priority shall be given to projects addressing those ATM functionalities that are defined as “essential” in the European ATM Master Plan or that constitute SESAR solutions²⁷.

In order to optimise the impact of Union funding on the implementation of other projects, the Commission may focus on some of the above-mentioned priorities or parts thereof, in particular:

- (a) Actions that support early implementation of instrument approaches utilising Performance Based Navigation (PBN), with a corresponding commitment to phase-out legacy navigation infrastructure, as well as airborne infrastructure that support the use of satellite based augmentation system (SBAS), in particular the European Geostationary Navigation Overlay Service (EGNOS). With regard to the ground infrastructure, all airports that do not fall under Part 1.2 of the Annex to Commission Implementing Regulation (EU) No 716/2014 can be funded under this call. The proposed projects must achieve at least LPV-200 approach minima by the end of 2019 and include a plan through which existing legacy equipment – if any - used for approaches to those runways is decommissioned. The grant will be limited to a maximum of €25,000 per approach. Applications covering

²⁷ SESAR Solutions are operational and technological improvements developed by SESAR Joint Undertaking members and partners which aim to contribute to the modernisation of the European and global ATM system (<http://www.sesarju.eu/solutions>).

several runways and/or airports will be given priority.

- (b) Actions that support equipage with 8.33 KHz radios in existing aircraft fleet. Regulations (EC) No 1265/2007 and (EU) No 1079/2012 require the conversion of at least one radio per aircraft to have to be capable of operating on the 8.33 KHz channel spacing. An amount of €10 million is targeted at proposals for conversions of existing aircraft fleet that currently do not have radios with 8.33 KHz channel spacing. The grant will be limited to 20% of the total cost of radio conversion, including both equipment procurement and installation costs.

The Actions proposed under this category must not duplicate or oppose the implementation of Common Projects or the activities of the SESAR Joint Undertaking and must contribute to meet the performance targets in the context of the performance scheme.

For both categories mentioned above:

- Priority shall be given to proposals for Actions or parts of Actions that: most contribute to ATM performance; or are organised at FAB level or promoting Union-wide, inter-FAB or civil-military coordination, or address effective change management; or that create new employment opportunities.
- Indicatively, 80% of the funding available under Priority "Single European Sky - SESAR" shall be dedicated to projects selected under the Common Projects category (Category 1). However, the final allocation of funding may be adjusted between Common Projects and Other Projects (Category 2) depending on the actual funding needs of the selected proposals, while giving priority to the implementation of Common Projects.
- Funding under this call shall not be granted for Actions or parts of Actions addressing obligations under Union Law, in particular relating to the SES, whose deadline for implementation has expired by the date on which this call is published. In any case, costs for such actions shall not be eligible after the above-mentioned deadline for implementation.

3.3.2. *Intelligent Transport Services for road (ITS)*

General objectives

Intelligent Transport Systems (ITS) for roads of the trans-European transport network as "intelligent" interface between roads and other transport infrastructure vitally contribute to enhancing road safety and reducing carbon emissions of the transport system by boosting the efficiency of infrastructure use and traffic operations for both passengers and freight. They also open up new perspectives for user services. TEN-T infrastructure shall be equipped with the relevant components in compliance with the Union transport policy in the field of intelligent transport systems, notably the Directive 2010/40/EU of the European Parliament and of the Council²⁸ to support the deployment of systems which are interoperable and provide for continuity of services across Member States and operators.

These measures contribute to a sustainable transport system (in terms of economic, environmental and social impacts) and connected mobility.

In the framework of the development and deployment of intelligent and increasingly automated transport systems, actions contributing to the deployment of Cooperative ITS (C-

²⁸ Directive 2010/40/EU of the European Parliament and of the Council of 7 July 2010 on the framework for the deployment of Intelligent Transport Systems in the field of road transport and for interfaces with other modes of transport (OJ L 207, 6.8.2010, p. 1).

ITS), according to Union Regulations and standards and in line with the recommendations/outputs of the "C-ITS platform"²⁹, shall be promoted for all Member States.

C-ITS improve existing ITS services and create new ones, paving the road for automated vehicles, with high potential for all road users and operators while offering significant socio-economic benefits. Research projects on C-ITS have delivered promising results which have been consolidated by pilots and are increasingly considered mature for deployment.

When relevant for the development and/or deployment of ITS and C-ITS services and with a view to ensure reliable positioning services, actions to ensure compatibility of information and value added ITS services with the systems established under the Galileo and EGNOS programmes (set out in Regulation (EU) 1285/2013 of the European Parliament and of the Council³⁰) may also be addressed.

Also actions must comply with legislation, in particular to the ITS Directive 2010/40/EU and its Delegated Regulations.

Sub-priority "Cooperative ITS (C-ITS) services and automation"

Actions shall support rapid deployment of C-ITS and automation across the TEN-T network and urban nodes; thereby overcoming possible barriers (whether technical, financial, legal or organisational), achieving relevant maturity and creating the necessary critical mass for scalable roll out.

Actions that include higher levels of road transport automation shall demonstrate the integration of C-ITS with automation in relevant sections of the network overcoming fragmented approaches at national levels.

Submitted proposals are expected to clearly demonstrate their Union-added value, and provide:

- A precise description of the proposed service(s) and application(s), including associated implemented technologies, equipment, software and facilities in the area of C-ITS and automation;
- A clear description of the project management planned for the effective delivery of the proposed Action, including internal cooperation and external interactions. Cost breakdowns aligned with level of efforts (i.e. by sub-activities and partners) shall be provided and risk management measures shall be anticipated;
- A precise description of (direct and indirect) partners' roles and responsibilities.

Proposed Actions are expected to:

- Demonstrate the long term viability and scalability of C-ITS (in terms of technology, financial sustainability, governance) also in conjunction with legacy systems.
- Prepare the convergence of cooperative and automated driving, by for instance:
 - Equipping sections of the core and comprehensive networks with the necessary physical as well as digital infrastructure, including the availability of the minimum relevant datasets essential for automation

²⁹ http://ec.europa.eu/transport/themes/its/news/c-its-deployment-platform_en.htm

³⁰ Regulation (EU) No 1285/2013 of the European Parliament and of the Council of 11 December 2013 on the implementation and exploitation of European satellite navigation systems and repealing Council Regulation (EC) No 876/2002 and Regulation (EC) No 683/2008 of the European Parliament and of the Council (OJ L 347, 20.12.2013, p. 1).

- Demonstrating hybrid communication (use of both Wi-Fi and cellular based communications) for both C-ITS and automation
- Demonstrating the integration of C-ITS and automation in relevant sections of the network to overcome fragmented approaches

Furthermore, proposed Actions must:

- Deploy works in the Core Network, including along Core Network corridors and urban nodes.
- Demonstrate the application of C-ITS for traffic information, traffic management, energy efficiency, road safety. Priority shall be given to proposals addressing the "Day-1" and "Day 1'5" C-ITS services³¹ recommended by the "C-ITS platform". Approaches on higher levels of automation can also be addressed.
- Demonstrate commitment and buy-in from all concerned stakeholders (at political and operational levels), including concerned road operators, that will contribute to the successful delivery of the Actions.
- Address an evaluation activity, i.e.: assessment of the achieved results. Indicators shall be used to monitor and demonstrate progress, and to evaluate impacts and performance. These indicators shall be comparable at European level³². Also assessment methodologies shall be aligned with other ongoing initiatives in the Union.
- Cooperate with and build upon the C-Roads platform, and provide feedback on the results of the proposed Actions (including best practices, recommendations on policy making) to the "C-ITS platform" and the "EU ITS Committee".
- Be based on hybrid communication (use of both Wi-Fi and cellular based communications).
- Be submitted by one or more Member States, preferably along a continuous trajectory and/or within several inter-related cross-border priority zones/regions. Priority shall be given to proposals engaging multiple Member States and/or covering corridors and geographical areas that close the gaps between existing C-ITS pilots and activities.
- Comply with legislation, in particular to the ITS Directive 2010/40/EU and its Delegated Regulations.

³¹ "Day-1" C-ITS services recommended by the "C-ITS platform":
Hazardous location notifications: Slow or stationary vehicle(s) & Traffic ahead warning, Road works warning, Weather conditions, Emergency brake light, Emergency vehicle approaching, Other hazardous notifications
Signage applications: In-vehicle signage, In-vehicle speed limits, Signal violation / Intersection Safety, Traffic signal priority request by designated vehicles, Green Light Optimal Speed Advisory (GLOSA), Probe vehicle data: CAM Aggregation, Shockwave Damping (falls under ETSI Category "local hazard warning")

"Day-1.5" C-ITS services recommended by the "C-ITS platform":
 Information on fuelling & charging stations for alternative fuel vehicles, Vulnerable Road user protection, On street parking management & information, Off street parking information, Park & Ride information, Connected & Cooperative navigation into and out of the city (1st and last mile, parking, route advice, coordinated traffic lights), Traffic information & Smart routing

³² i.e. in line with Commission's common indicators stemming from the study "Key Performance Indicators (KPIs) for road transport Intelligent Transport Systems (ITS)"

- Comply with applicable standards. Proposals addressing areas where common standards or specifications are not yet defined, they shall make provision for timely compliance with such standards or specifications as and when they become available and/or contribute to the development of such standards or specifications.

Specific objectives

The multi-annual programme addresses the following areas:

- C-ITS, especially on vehicle-infrastructure communication
- Interoperability and continuity in the area of C-ITS and automation
- Enhance road safety, security and energy efficiency in the area of C-ITS and automation
- Applications for traffic information and traffic management in the area of C-ITS and automation
- Develop a digital road infrastructure to facilitate higher levels of automation
- Convergence of C-ITS and increasing levels of automation, based on a hybrid communication approach enabling the use of both Wi-Fi and cellular based communications.

Sub-priority "intelligent transport services for road (ITS)"

Actions to be supported under this priority shall consist of implementation of works for the deployment of ITS for road.

The proposed Actions shall aim at:

- Improving the interoperability, continuity and seamless mobility in the Union, with a particular attention to cross border sections, urban nodes and urban-interurban interfaces.
- Improving the harmonisation of ITS services across Europe from an end user perspective.
- Improving the operational excellence and cost-efficiency from a road operator/traffic manager perspective.

Submitted proposals are expected to clearly demonstrate their Union-added value, and in particular provide all the following:

- A precise description of the ITS service(s) and application(s), including associated equipment or facilities, proposed for interoperable and/or scalable roll out across Europe.
- A geo-localised description of the baseline situation (i.e. situation prior to deployment of the proposed Action). The proposals shall provide the consolidated outcomes of any ex-ante study, cost-benefit analysis and state of the art already carried out when available.
- A precise description (geo-localised and when possible quantified) of the problem(s) to be addressed by the proposed Actions (e.g. bottlenecks, gaps, poor quality of services).

- Explicit targets (quantitative and/or qualitative), in terms of contribution to Union policies (i.e. ITS Directive) and level of services for ends users (i.e. quality and harmonisation of services).
- A clear description of the project management planned for the effective delivery of the proposed Action, including internal cooperation and external interactions. Cost breakdowns aligned with level of efforts (i.e. by sub-activities and partners) shall be provided and risk management measures shall be anticipated.

Proposed Actions must:

- Deploy works along the Core Network including on the Core Network corridors and/or urban nodes. Other geographical sections linked to the Core Network shall be specified in the call text.
- Address an evaluation activity, i.e.: assessment of the achieved results. Indicators shall be used to monitor and demonstrate progress, and to evaluate impacts and performance. These indicators shall be comparable at European level³³. Also assessment methodologies shall be aligned with other ongoing initiatives in the Union.
- Report to the "EU ITS Committee" and/or another relevant coordination group/platform. In particular, proposed Actions have the responsibility to effectively contribute to pan-European harmonisation and interoperability of services, as well as to contribute to the monitoring and evaluation of impacts supporting the consolidation of results of ITS deployment at European level.
- Be submitted by applicants from one or more Member States, preferably along a continuous axis and/or within several inter-related cross-border priority zones/regions. Priority shall be given to proposals engaging multiple Member States and/or covering corridors/geographical areas not covered yet by the "ITS corridors"³⁴.
- Comply with legislations, in particular the ITS Directive 2010/40/EU and its delegated Regulations.
- Comply with applicable standards. Proposals addressing areas where common Union standards or specifications are not yet defined, they shall make provision for timely compliance with such standards or specifications as and when they become available and/or contribute to the development of such standards or specifications.

Specific objectives

The multi-annual programme addresses the following areas:

- Europe-wide traffic and travel information services, including inter alia cross border services for seamless door-to-door mobility
- Europe-wide traffic management systems to optimise traffic operations and enhance energy efficiency
- Systems to enhance road safety and security

³³ i.e. in line with Commission's common indicators stemming from the study "Key Performance Indicators (KPIs) for road transport Intelligent Transport Systems (ITS)" & the guidance of the EU ITS Platform

³⁴ The details of "ITS Corridors" (2014-EU-TM-0310-W, 2014-EU-TM-0365-W, 2014-EU-TM-0563-W, 2014-EU-TM-0588-W and 2014-EU-TM-0597-W) are available at: <https://ec.europa.eu/inea/en/connecting-europe-facility/cef-transport/projects-by-transport-mode/its-for-road>

- Expansion of "ITS corridors", or new ITS corridors coordinated with the existing ITS corridors, to cover the Core Network Corridors or the core network
- infrastructure communication.

3.3.3. *Motorways of the Sea (MoS)*

General objectives:

Motorways of the Sea (MoS) are considered the maritime pillar of the Trans-European Transport Network. They consist of short-sea routes, ports, associated maritime infrastructure and equipment, facilities as well as simplified administrative formalities enabling Short Sea Shipping or sea-river services between at least two maritime ports (core/comprehensive), including hinterland connections. They shall contribute towards the achievement of a European Maritime Transport Space without Barriers, connect Core Network Corridors by integrating the maritime leg and also facilitate maritime freight transport with neighbouring countries. In this context, they shall also promote sustainable shipping concepts which contribute to reducing negative impacts of heavy fuel oil powering in support of the implementation of the requirements of Annex VI of the IMO MARPOL Convention and of Directive 2012/33/EU³⁵ of the European Parliament and of the Council, the Directive 2014/94/EU³⁶, as well as reduction of CO₂, NO_x and PM in maritime transport.

The general objectives of the present work programme for MoS are consistent with the Detailed Implementation Plan (DIP) of the European Coordinator for MoS. More specifically the DIP identifies three pillars of action in view of developing further the MoS priority:

- 1) Environment. This pillar aims to reduce the overall environmental impact from maritime transportation.
- 2) Logistics and integration. This pillar aims to integrate MoS better in the trade and logistical chains.
- 3) Safety, human element and traffic management. This pillar aims to promote seamless and safe movement of people and goods.

Specific objectives:

I) To support Motorways of the Sea, the following measures shall be promoted:

- Development of emission abatement methods³⁷ contributing to environmentally sustainable maritime transport, covering batteries, innovative propulsion such as wind assistance and hydrodynamic improvements, new clean fuels facilities and related on-board installations (LNG, methanol and other), contributing to the reduction of air

³⁵ Directive (EU) 2016/802 of the European Parliament and of the Council of 11 May 2016 relating to a reduction in the sulphur content of certain liquid fuels (OJ L 132, 21.5.2016, p. 58–78)

³⁶ Directive 2014/94/EU of the European Parliament and of the Council of 22 October 2014 on the deployment of alternative fuels infrastructure (OJ L 307, 28.10.2014)

³⁷ Art. 2 (o) of the Directive (EU) 2016/802 (*'emission abatement method' means any fitting, material, appliance or apparatus to be fitted in a ship or other procedure, alternative fuel, or compliance method, used as an alternative to low sulphur marine fuel meeting the requirements set out in this Directive, that is verifiable, quantifiable and enforceable;*)

emissions such as CO₂, SO_x, NO_x and PM. Innovative technologies shall be admitted provided that they allow reducing emissions beyond requirements of current legislation. Early adoption of technologies intended to meet future, more stringent requirements of legislation can also be considered³⁸, Use of shore side electricity, and energy efficiency measures fall under this category. Exhaust gas cleaning systems shall only be admitted on ships operating on short sea shipping routes outside the SECA.

- Infrastructure development in ports and upgrade of existing or establishment of new sea-based transport services integrated in logistics chain.
- Development of infrastructure for sea access, hinterland connections and freight terminals, in the effort to increase collaboration and efficiency in shipping and port operations. Moreover, actions aiming at reducing bottlenecks in maritime transport and multimodal routes, providing safer, more secure and more environmentally-friendly maritime transport services will be promoted. This may include improvements in quality and capacity handling of ro-ro or ro-pax services and transfer of cargo to inland waterway and rail freight.
- Development of sea-based transport services, in combination with port investments, which are open, integrated in door-to-door logistic chains and concentrate flows of freight on viable, regular, frequent, high-quality and reliable Short Sea Shipping links connecting the Core Network Corridors.
- Development of maritime ICT systems and services addressing logistics management systems in ports, safety and security for port handling operations as well as administrative and customs procedures. The developed systems shall fully comply with the regulatory and technical specifications established under the relevant EU legal acts (Directives 2010/65/EU³⁹ and 2002/59/EC⁴⁰, Regulation (EU) No 952/2013⁴¹).
- Promotion of "wider benefits" of the MoS development, not linked to specific geographic areas or ports but benefiting the industry widely, such as services and actions to support the mobility of persons and goods, improvement of environmental performance (clean fuel provisions in ports including either a fixed or mobile LNG refuelling equipment⁴² and/or infrastructure, waste reception facilities etc.), icebreaking and year round navigability, geographical surveying, infrastructure development in ports, notably including alternative fuelling facilities.

³⁸ For example in accordance with art. 6 p. 1(b) of the Directive (EU) 2016/802, outside SO_x Emission Control Areas, 0,50 % sulphur limit in marine fuels will enter into force as of 1 January 2020.

³⁹ Directive 2010/65/EU of the European Parliament and of the Council of 20 October 2010 on reporting formalities for ships arriving in and/or departing from ports of the Member States and repealing Directive 2002/6/EC (OJ L 283, 29.10.2010, p. 1)

⁴⁰ Directive 2002/59/EC of the European Parliament and of the Council of 27 June 2002 establishing a Community vessel traffic monitoring and information system and repealing Council Directive 93/75/EEC (OJ L 208, 5.8.2002, p. 10)

⁴¹ Regulation (EU) No 952/2013 of the European Parliament and of the Council of 9 October 2013 laying down the Union Customs Code (OJ, L 269, 10.10. 2013, p. 1)

⁴² Art. 2 (8) and (9) Directive 2014/94/EU ('(8) *'refuelling point'* means a refuelling facility for the provision of any fuel with the exception of LNG, through a fixed or a mobile installation; (9) *'refuelling point for LNG'* means a refuelling facility for the provision of LNG, consisting of either a fixed or mobile facility, offshore facility, or other system.')

II) Priority will be given to funding the following areas:

- Implementation of actions focusing on upgrading or establishing new MoS links with a considerable port investment component (expected port involvement representing minimum 50% of the project budget); especially when clearly demonstrating synergies between MoS service and other transport sectors, especially in the context of assuring a connection with the Core Network Corridors.
- Actions supporting the development of port reception facilities for oil and other waste, including residues from exhaust gas cleaning systems.

III) One type of action will be promoted for the purpose of Motorways of the Sea: MoS works considered either as wider benefit implementation measures (e.g. construction of LNG bunkering infrastructure for ships serving a group of ports, coordinated enhancement of maritime security or safety systems both on board at sea as well as in ports, in several countries) at regional or EU level, or as implementation measures for the purpose of upgrading an existing or setting up a new maritime link with a possibility of its further intermodal extension i.e. integration with other modes of transport on the TEN-T network. The wider benefit actions may include, but not limited to, a group of EU ports, infrastructure managers, ship owners or consortia bringing together different maritime entities. The proposed Actions related to the upgrade or establishment of a maritime link, must involve at least two EU ports (two core ports or one core and one comprehensive), which is demonstrated by considerable port investments, corresponding at least to 50% of the total investment costs, and a maritime operator. The involvement of the operator may be direct as a beneficiary or indirect as an associated entity participating in a project without receiving a grant.

IV) The eligible costs of upgrading MoS links may involve, among others, costs borne by ship owners in order to comply with the provisions of the MARPOL Convention Annex VI and Sulphur Emission Control Area requirements, or costs contributing to better environmental performance of a maritime service, including installations related to on-shore power supply or deployment of alternative clean fuels in ports and on-board. These kinds of actions should be promoted by ship owners operating strictly on a particular maritime link together with the EU ports the link relates to. Upgrades on vessels are limited to the additional efforts for environmental purposes and cannot cover the full costs of acquiring or constructing a vessel. Projects purely involving the retrofitting of fleets/larger number of vessels under one proposal or an aggregated number of proposals and non-related to the specific maritime link upgrade are not supported.

Should the upgrade of the existing link or establishment of a new MoS service not be implemented by the end of a co-funded project, the European Commission reserves the right to revoke, reduce or recover part of the grant accordingly.

Ships receiving support through the MoS Programme will be required to serve the co-funded actions within the EU area for at least 5 years after the project end date.

Support to superstructure such as warehouses and movable assets can be envisaged by means of financial instruments only.

For large multi-beneficiary actions, project proponents should exploit the possibility of establishing European Economic Interest Grouping (EEIG) for the purpose of project implementations in line with Council Regulation (EEC) N° 2137/85 of 25 July 1985.

3.3.4. *Actions implementing transport infrastructure in nodes of the core network, including urban nodes*

General objectives

In the TEN-T context, urban nodes often are the starting point or the final destination ("first mile" or "last mile") for passengers and freight moving on the network. On urban nodes, changes within or between different transport modes occur. Urban nodes are a priority as:

- they may impact the effectiveness of the network, especially when characterized by bottlenecks or missing links for integrated transport connections;
- high potential impact on life quality, including negative externalities of the trans-European traffic flows (emissions, noise, congestion, safety) and opportunities (quality public space and behaviour change).

This priority aims to address actions consistent with Article 30 of the TEN-T Guidelines, in order to better integrate long-distance transport with the urban traffic system. Such actions should ideally build on the EU policy on sustainable urban mobility and especially the Urban Mobility Package.

The policy focuses on: increasing multi-modality (use of a mix of transport modes for one journey), including urban-regional linkages, sustainably shifting from cars to softer modes (public transport, cycling, walking) for freight and/or passengers, shifting from fossil to alternative fuels and improving road safety.

Actions aiming at designing and/or implementing replicable good practices to contribute to such policy may be given priority, with particular focus on relevant infrastructures.

Only actions located in urban nodes listed in Annex II part 1 of the TEN-T Guidelines and those listed in Annex II part 2 of the TEN-T Guidelines which are located on a Core Network Corridor may be funded

Specific objectives

Proposed actions may include works to address the following issues:

- The identification of missing links and/or bottlenecks within and between transport modes of the TEN-T in urban nodes, with consequent proposal of viable solutions addressing the issue in the short, medium and long term. Urban bypasses are included as long as associated to transport aspects such as multimodal and enhanced public transport services;
- The identification of missing links and/or bottlenecks in the connection between the trans-European and the urban parts of journeys, with consequent proposal of viable solutions addressing the issue in the short, medium and long term.

- Concepts increasing multi-modality, enhancing multi-modal transport solutions and seamless connection (including particularly public transport, integration of terminals into wider urban logistic chains, active modes) for freight and/or passengers, shifting from fossil to alternative fuels and/or improving road safety.

This includes (not exhaustive): alternative fuels infrastructure and/or wider system solutions and services, hubs for (alternatively fuelled) public transport and their integration into wider multi-modal transport solutions, public transport optimisation (for example through segregated lanes), development of bikes and cargo-bikes transport patterns, low-noise and low-carbon urban freight delivery (including through transshipment facilities between long-distance and urban transport), car-sharing and ride-sharing schemes, better use of public space, etc.

Where relevant, integration with Sustainable Urban Mobility Plans, including aspects of their development and implementation, should be part of the proposed actions.

Identification of sustainable business models and enhanced financing solutions, involving different stakeholders where viable, are welcome.

A combination of proposed actions is welcomed, leading to projects seeking to advance large-scale and integrated solutions for multi-modal transport solutions and seamless connection.

Road bypasses are not in the scope of this priority unless they are associated to transport aspects such as multimodal and enhanced public transport services.

Furthermore, the eligible costs of mobile equipment must only relate to the financial difference between a conventional solution and the use of a new technology (e.g. the additional financial effort between diesel propulsion and a fuel-cell hydrogen propulsion). It shall be evaluated individually and applicant(s) shall provide thorough financial information substantiating the unit costs presented.

The mobile equipment supported by the grant component must remain for at least 5 years registered and operated in a Member State.

The capping for mobile equipment is waived for this call to facilitate/accelerate (mass) market roll-out. However, applicants should always describe in detail which infrastructure will be used to support the roll-out, regardless whether support is requested, or not, in their proposal to this call.

3.3.5. *Connections to and development of multimodal logistics platforms*

General objectives:

Multimodal logistics platforms cover maritime ports, inland ports, airports and rail-road terminals for the transshipment of freight between two or more modes of transport. Multimodal logistics platforms shall contribute to optimising the performance of multimodal logistics chains, which is key to the achievement of a competitive and resource efficient transport system, and shifting freight transport from road to other more sustainable modes.

Actions addressed with this programme shall be related to freight terminals, as defined in Article 3(s) of Regulation (EU) No 1315/2013, which form part of multimodal logistics platforms, as defined in Article 3(r) of Regulation (EU) No 1315/2013. Freight terminals shall

comply with Chapter II, Section 6 of Regulation (EU) No 1315/2013. Only freight terminals such as core maritime ports, core inland ports, core airports or core rail-road terminals listed in part 2 of Annex II to Regulation (EU) No 1315/2013 may be funded.

Specific objectives:

To support the general objectives of multimodal logistics platforms, the following measures shall be promoted:

- Connections to existing freight terminals including access infrastructure and “last mile” connections, which contribute to the effective interconnection and integration of these terminals to the core network.
- Where relevant, Actions shall provide for interconnection between the existing freight terminals and other modes of transport, particularly rail, inland waterways and short sea shipping.
- Further development of existing freight terminals through small-scale ancillary infrastructure (e.g. connecting or siding tracks, power connections, adaptations for 740 m train length etc), ICT equipment and applications for the provision or improvement of information flows within the terminal and along the logistic chain.

Buildings, storage and warehouse facilities, cranes, conveyors and other devices for moving freight, and mobile assets such as locomotives shall not be supported.

Actions shall not provide selective advantage to a particular operator or group of operators and shall be accessible on a non-discriminatory basis.

Actions aiming at increasing the capacity of freight terminals shall not be supported.

Connections to and development of new freight terminals shall not be supported.

4. PROGRAMME SUPPORT ACTIONS 2016 ONWARDS

Support Actions can be used to enhance the quality and bankability of TEN-T projects, to attract private sector financing, and reinforcing the take-up of innovative financial instruments in cohesion Member States, notably through:

- Supporting promoters (public or private) on project preparation, including: technical/financial capacity of the applicant, the financial structuring of the project to attract private sector funds, the economic viability of the project based on the Cost Benefit Analysis (CBA), the viability of any PPP/Concession arrangement and the technical aspects of the project.
- Providing budget for targeted capacity building in Member States for the private financing of transport infrastructure.

In this respect, technical support will be set up under the coordination of the European Investment Advisory Hub (EIAH) and supplementing EIAH support in particular for cohesion Member States. Support can be requested from the EIAH up to September 2020.

The budget for such Support Actions is EUR 4 000 000 (EUR 1 000 000 per year for the years 2017, 2018, 2019 and 2020).

5. RESULTS EXPECTED

The implementation of the 2014-2020 Multi-annual Work Programme aims at contributing at the realisation of the transport core network by 2030, thereby further enhancing the effectiveness and visibility of the trans-European transport network, while promoting growth and job creation, in line with Europe 2020 strategy. It is expected that the granting of support on the basis of this programme will contribute to the timely and efficient development of a number of core network corridors in their entirety or in significant parts, will support the realisation of a robust and resource efficient European transport system and will contribute to addressing climate change.

The actions which will be completed with financial assistance allocated under the 2017 calls implementing the 2014-2020 Multi-annual Work Programme will directly contribute, *inter alia*, to the achievement of important transport policy objectives, such as: the establishment of major interoperable transport axes interconnecting national networks and facilitating the functioning of the internal market; the optimal use of existing infrastructure capacities; improving the safety and reliability of the network; enhancing accessibility of peripheral areas of the Union; facilitating congestion relief on rail infrastructure and more balanced modal distribution; and savings in terms of the environmental effects of transport, in particular contributing to addressing climate change.

Granting of financial assistance to these actions shall help to reach important milestones marking the way towards the completion of the trans-European transport network, as approved by the European Parliament and the Council. Union funding shall help to mobilise as much public and private financing as needed to meet the challenging timetables.

Consistent with the recent Commission communication⁴³ and EFSI Regulation⁴⁴, the Commission proposes to support transport projects which maximise where possible the mobilisation of private sector capital and focus on the EU political priorities as defined in Connecting Europe Facility (CEF) and trans-European transport network TEN-T guidelines. Additionally the Communication encourages enhanced geographical coverage.

Therefore, the Commission recognises the importance of using part of the EU budget, such as the one available under the CEF, in the form of investment grants, to cover capital expenditures, and support from the EFSI whenever possible in order to maximise leverage of private sector involvement and capital. The use of grants to maximise private sector involvement and capital and the use of EFSI support, will help projects become economically and financially viable, thus enhancing the value added of Union spending by attracting additional resources from the private sector.

While ownership of the application remains with the applicants, the involvement of the EIAH, and, where appropriate, of National Promotional Banks, is advised as early as possible in the process is recommended.

The Commission and the EIB will coordinate to ensure a clear view on the pipeline of projects which may benefit from various type of financial support from the Union, and ensure

⁴³ COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN CENTRAL BANK, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE, THE COMMITTEE OF THE REGIONS AND THE EUROPEAN INVESTMENT BANK COM(2016) 581

⁴⁴ REGULATION (EU) 2015/1017 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 June 2015 on the European Fund for Strategic Investments, the European Investment Advisory Hub and the European Investment Project Portal and amending Regulations (EU) No 1291/2013 and (EU) No 1316/2013 — the European Fund for Strategic Investments

complementarity, maximise impact and offer an integrated package (including capacity building) and a streamlined process to the beneficiaries.

6. INDICATIVE TIMETABLE AND AMOUNTS AVAILABLE FOR THE MULTI-ANNUAL CALLS FOR PROPOSALS 2017

The call will be open for one year with two cut-off dates: the first one with a deadline for submission of June 15 2017, and the second one with a deadline of November 30 2017⁴⁵.

Objective	Priority	Calls under general envelope (indicative date of publication)	Indicative amounts under general envelope (in € million)
Bridging missing links, removing bottlenecks, enhancing rail interoperability, and, in particular, improving cross-border sections	Projects on the Corridors of the Core Network	January 2017	450
	Projects on the other sections of the Core Network	January 2017	100
	Rail interoperability	January 2017	50
	European Rail Traffic Management Systems (ERTMS)	January 2017	100
Sub-total			700
Ensuring sustainable and efficient transport systems in the long run, as well as enabling all modes of transport to be decarbonised	New technologies and innovation in all transport modes	January 2017	140
	Safe and Secure infrastructure	January 2017	10
Sub-total			150
Optimising the integration and interconnection of transport modes and enhancing the interoperability of transport services, while ensuring the accessibility of transport infrastructures	Single European Sky – SESAR	January 2017	40
	Intelligent Transport Services for road (ITS)	January 2017	40
	Motorways of the Sea (MoS)	January 2017	40
	Actions implementing transport infrastructure in nodes of the Core Network, including urban nodes	January 2017	10
	Connections to and development of multimodal logistics platforms	January 2017	20
Sub-total			150
TOTAL			1 000

⁴⁵ The applicants' attention is drawn to the fact that due to its complexity and the time needed to comply with specific procedures of the call, the indicative timetable might exceptionally not be met. Consequently, the time to inform the applicants on the outcome of the evaluation may exceed six months and the time to grant may exceed nine months.

The available budget for the call is EUR 1 000 000 000. Of each budget line an amount up to 0.125% and no more than EUR 1 250 000 is earmarked for evaluation expenses and translation costs involved in the evaluation of proposals (Article 204 FR).

The availability of budget for the second cut-off date will depend on the allocation of funds in the evaluation of the first cut-off date.

7. ELIGIBILITY CRITERIA

7.1. Eligible applicants

Applications must be presented by:

- one or more Member States, or
- by international organisations, joint undertakings, or public or private undertakings or bodies or entities established in Member States, with the agreement of the Member States concerned.

In addition to the above all proposals in the areas of Motorways of the Sea (MoS) priority must include applicants from (and be supported by) a minimum of two different Member States.

Project proposals submitted by natural persons are not eligible.

Third Countries and entities established in third countries may participate in actions contributing to projects of common interest where necessary in order to achieve the objectives of a given project of common interest. They may not receive financial assistance except where it is indispensable to the achievement of the objectives of a given project of common interest. EFSI support to projects in third countries is limited to projects that involve entities located or established in one or more Member States and extend to one or more third countries (ref. Article 8b) of the EFSI Regulation.

In such cases and pursuant to Article 8(1) of the TEN-T guidelines, applications may be presented by neighbouring countries or entities established in neighbouring countries, with the agreement of a Member State concerned.

Actions involving a cross-border section or a part of such a section shall be eligible to receive Union financial assistance only if there is a written agreement between the Member States concerned, or between the Member States and third countries concerned relating to the completion of the cross-border section.

Grounds for Exclusion

In the call for proposals the Commission shall draw applicants' attention to Articles 106 and Article 131 of the Financial Regulation, as well as to Article 141 of the Rules of Application.

7.2. Eligible projects

7.2.1. Common interest

Only projects which can be qualified as projects of common interest identified in the TEN-T Guidelines may receive Union financial assistance. Projects have to comply with the following provisions of Article 7 of the TEN-T guidelines:

- (1) contribute to the objectives falling within at least two of the four categories set out in Article 4 of the TEN-T guidelines;
- (2) comply with Chapter II and, for core networks, Chapter III of the TEN-T guidelines;
- (3) be economically viable on the basis of a socio-economic cost-benefit analysis,
- (4) demonstrate European added value.

Only projects and horizontal priorities listed in Part I of Annex I of the CEF Regulation are eligible for the purpose of this work programme.

Cost Benefit Analysis

Pursuant to Article 10 of the CEF Regulation and in view of assessing (3) above, and in line with the requirements of Section 11.1 all proposals must be accompanied by a cost-benefit analysis (CBA). A project which concerns a part or section of a larger project of common interest may be covered by a socio-economic cost-benefit analysis for this larger project of common interest. It is recommended that the CBA is consistent with the principles of the European Commission Guide to Cost-Benefit Analysis of Investment Projects⁴⁶.

7.2.2. Financial readiness

The project financial and legal structure should allow for private sector involvement whenever possible and to maximise the mobilisation of private capital.

The applicant shall submit a letter of support from one or several public or private financing institutions evidencing the financial readiness of the project.

For all transactions with the exception of PPP/concessions, the letter of support should provide evidence, through the information referred to in Section 11.2.a, that the financing institution(s) has(have) carried out a financial and project assessment and should indicate the level of finance that it/they could provide.

The above assessment should:

- Identify the public or private entity established or to be established and which will raise the financing (e.g. equity, loans and/or guarantees) for the project (hereinafter referred to as "borrowing entity");
- Cover the financial capacity and business plan of the grant applicant, grant beneficiary and borrowing entity as appropriate given the relevant responsibilities of the different parties;
- Evidence that the stage of preparation of the project is consistent with a financial close by 12 months from grant agreement signature⁴⁷, including the expected timetable to financial closure.

Only for PPPs/concessions, the letter of support should provide evidence on financial readiness, through the information referred to in Section 11.2.b (which includes the expected timetable to financial closure).

⁴⁶ http://ec.europa.eu/regional_policy/sources/docgener/studies/pdf/cba_guide.pdf

⁴⁷ Accordingly with the EU regulation 966/2012 art 128.2 the calls for proposals will specify the planned date by which all applicants shall have been informed of the outcome of the evaluation of their application and the indicative date for the signature of grant agreements or notification of grant decisions.

7.2.3. *Compliance with the Union Law*

The granting of Union financial assistance to projects of common interest is conditional upon compliance of the project with relevant Union law⁴⁸ inter alia concerning interoperability, environmental protection⁴⁹, competition and public procurement.

7.2.4. *Other sources of financing*

No Union financial assistance through grants shall be awarded for actions receiving funds from other sources of Union funding through grants, without prejudice of the Article 15(4) of the CEF Regulation.

It is possible to combine CEF financial assistance in the forms of grants or financial instruments with EFSI supported financing. As indicated in Article 9(7) of the EFSI Regulation, it is possible to use any source of Union funding, including instruments under the European Structural and Investment Funds and the Trans-European Networks and industry policies, to contribute to the financing of eligible projects in which the EIB itself is investing with the support of the EU EFSI guarantee, provided that those projects comply with the eligibility criteria and the objectives and principles applicable under the legal framework of the relevant instruments and of the EFSI.

7.2.5. *Type of actions*

A proposal must address works, within the meaning of Article 2(5) of the CEF Regulation. Studies shall not be supported under this work programme.

7.2.6. *Eligibility of costs*

A grant may be awarded for an action which has already begun provided that the applicant can demonstrate the need for starting the action prior to signature of the grant agreement or notification of the grant decision.

In accordance with Article 130(1) of the Financial Regulation, costs incurred prior to the date of submission of the grant application shall not be eligible for financing.

Costs incurred as of the date of submission of the grant application and until 31 December 2023 are considered eligible for financing.

No grant may be awarded retroactively for actions already completed.

7.2.7. *Size*

The project total cost should be in excess of EUR 10 m.

Projects seeking complementary EIB/EFSI support should typically have a project total cost in excess of EUR 25m⁵⁰ for an individual loan. A lower project investment cost may be eligible for EIB/EFSI finance depending on the structure of the project and the type of

⁴⁸ According to Article 23 of the CEF Regulation

⁴⁹ In particular, but not limited to: the EIA (Directive 2011/92/EU), SEA (Directive 2001/42/EC), Habitats (Directive 92/43/EEC) and Birds Directives (Directive 2009/147/EC), as well as the Water Framework Directive (Directive 2000/60/EC) (these exact references – number and title - of these legislations should be given)

⁵⁰ http://www.eib.org/projects/cycle/applying_loan/index.htm

financing product requested. For small projects the use of intermediation and aggregation vehicles, notably EFSI Investment Platforms, and the involvement of NPBs or private sector investors is recommended.

8. SELECTION CRITERIA

The applicant(s), beneficiary, and borrowing entity as appropriate in respect of the relevant responsibilities of the different parties must have access to solid and adequate funding sources, so as to be able to maintain activities for the period of the project funded and to co-finance the project.

The applicant(s), beneficiary, and borrowing entity as appropriate in respect of the relevant responsibilities of the different parties must have the professional skills and qualifications required to complete the proposed Action. The applicant(s) must demonstrate that they have the appropriate legal powers, corporate structures, human and financial resources to undertake the action. Those selection criteria also apply to applicants for programme support actions supported by grants.

The verification of the financial and operational capacity does not apply to applicants which are a Member State, neighbouring/third country, a public sector body established in a Member State (i.e. regional or local authority, body governed by public law or association formed by one or several such authorities or one or several such bodies governed by public law, in particular Joint Undertaking in line with eligibility criteria established under Article 187 of the Treaty on the Functioning of the European Union (ex Article 171 TCE), international organisation⁵¹.

8.1. Financial capacity

The applicant(s) or beneficiary or borrowing entity, as the case may be, must evidence that they have the financial capacity to complete, the action for which the grant, together with other financing resources, is requested.

The applicant(s), beneficiary, and borrowing entity as appropriate in respect of the relevant responsibilities of the different parties will provide their financial statements certified by an external auditor for the last financial year for which the accounts have been closed with the application. In the event that the applicant is a newly created company (and therefore does not have certified financial data available for the last financial year), a business plan must be provided together with a letter of support from another company (parent company for instance) or from another applicant in the same proposal.

8.2. Operational capacity

⁵¹ According to Article 43(2) of the Rules of Application, international organisations are:
(a) international public sector organisations set up by intergovernmental agreements, and specialised agencies set up by such organisations;
(b) the International Committee of the Red Cross (ICRC);
(c) the International Federation of National Red Cross and Red Crescent Societies;
(d) other non-profit organisations assimilated to international organisations by a Commission decision.

The applicant(s), beneficiary, and borrowing entity as appropriate in respect of the relevant responsibilities of the different parties must have the operational and technical capacity to complete the project for which the grant is sought and must provide appropriate documents attesting to that capacity: (e.g. organisations activity report, proof of experience in carrying out infrastructure projects).

Information submitted by applicants who benefited from TEN-T support as from 2004 may be taken into account in the evaluation of these applicants' operational capacity.

9. AWARD CRITERIA

A decision by the Commission to grant Union financial assistance shall take into account, inter alia, the following general award criteria:

- **Relevance**
 - the European added value as defined in point (d) of Article 3 of the TEN-T Guidelines
 - the cross-border impact, when where applicable;
 - removal of bottlenecks, enhancing rail interoperability, bridging missing links and improving cross-border sections as stipulated in the CEF Regulation;
 - contribution to innovation, sustainable transport and decarbonisation.
- **Maturity**
 - the maturity of the project in the level of project development;
 - the financial readiness of the project based on evidence provided accordingly to the assessment provided by public or private financial institutions referred to in section 7.2.2;
 - proposed projects should be expecting to reach full financial close with a private sector financiers, or the EIB, or a National Promotional Bank within 12 months from the date of the signature of the grant agreement;
- **Impact**
 - stimulating effect of the Union support on public and private investment;
 - the need of the grant to overcome financial obstacles, such as the lack of risk appetite in the market;
 - economic, social, climate and environmental impact, and accessibility;
- **Quality**
 - soundness of the financial, technical and operational plan proposed;
 - soundness of control, monitoring and audit procedures

Within the scope of the global objectives herewith established, additional non-essential specific criteria may be set out in the text of the call for proposals.

Upper and / or lower thresholds of Union financing may be recommended in the calls for proposals or accompanying documents.

During the final selection process, the Commission shall in particular take into account the following aspects, as appropriate:

- The contribution of the proposed Action to the balanced development of the network,
- The complementarity of the proposed Action with other Union funded projects, in view of optimising the impact of investments already made in the region/country/global project,
- The comparative Union added value (high, medium, low) of the proposed Action in relation to other proposed Actions, taking into account the respective Cost Benefit Analysis where appropriate,
- Any identified/identifiable risks of double-funding from other Union sources,
- Potential synergies across the different CEF sectors and/or other Union Programmes, notably Horizon 2020, where particular consideration shall be given to Actions involving the deployment of innovation and technology developed under the Union's research programmes,
- Budgetary constraints,
- The leverage impact of Union funds and EFSI maximising the crowding in of private sector investors,
- The likelihood of reaching financial close with a private sector financiers, or the EIB, or a National Promotional Bank in a reasonable timeframe,
- The promotion of geographical balance between Cohesion and non-Cohesion Member States in the use of private sector investors.

When it is considered that a proposal is more relevant to a funding priority other than that under which it was submitted, the Commission services may propose to transfer the proposal to the priority in question. Such transfer is only carried out during the phase of evaluation of the proposals and provided that: (i) the proposal is eligible under the conditions of the funding priority to which it is proposed to be transferred; and (ii) there is written agreement of the applicant(s). In such case, the funding conditions of the funding priority to which a proposal has been transferred shall apply.

10. FINALIZATION OF GRANT AGREEMENT

Grant disbursement for selected Actions will be conditional:

- on approval for financing by the EFSI Investment Committee and European Investment Bank (EIB) Board of Directors and, subsequently, full financial close for the entire financing requirement within 12 months of signature of the grant agreement⁵².

⁵² For clarity EIB involvement in financial close is not a requirement for grant disbursement (i.e. a project may receive EFSI Investment Committee EIB Board of Director approval, but then subsequently choose to close with other providers of finance than the EIB)

OR only for projects aiming at removing bottlenecks, projects with cross-border impact, or projects in cohesion Member States⁵³:

- on signature of a finance agreement by a National Promotional Bank⁵⁴, the European Investment Bank (EIB), or at least one private sector investor for at least the value of the CEF grant awarded and a full financial close for the entire financing requirement within 12 months of signature of the grant agreement.

11. INFORMATION TO BE PROVIDED WITH THE APPLICATION SPECIFIC TO THIS WORK PROGRAMME

The project must be at an advanced stage of preparation. This should be evidenced through information provided with the application which shall include information on the studies or project preparation documents describing the status and technical specification of the project, cost estimate and programme for implementation.

The project preparation documents shall include information on the social, environmental and economic impacts of the project, details on the project operation, and stage of procurement of any associated works, service or supply contract, as follows:

- General purpose, justification and location (rated and forecast capacity).
- Status of the project in terms of obtaining necessary statutory requirements
- Technical description: technology, site development, buildings, production and storage plant, general services, transport systems and equipment.
- Environmental impact assessment, where relevant and appropriate, including reference to relevant laws, mitigating measures to protect the environment, specific studies.
- Engineering studies and implementation plan: consultants (if any), procedures for tendering and awarding contracts, supervision, works schedule and implementation timetable.
- Detailed cost estimate, itemising site and plant expenditure, provision for physical and price contingencies, interest during construction, initial and start-up expenses, together with a breakdown in foreign and local currencies.

Operation: raw materials and products, flowcharts, consumption and output levels, managerial staff and workers, management organisation, technical assistance where applicable. Project promoters shall provide the Commission with the relevant information to assess progress toward the relevant CEF General and Specific Objectives referred to in Section 3 and Section 4 and the indicators referred to in Art 4 of the CEF Regulation.

⁵³ Bulgaria, Croatia, Cyprus, the Czech Republic, Estonia, Greece, Hungary, Latvia, Lithuania, Malta, Poland, Portugal, Romania, Slovakia and Slovenia

⁵⁴ NPBs as referred to in the Regulation (EU) 2015/1017 of the European Parliament and of the Council of 25 June 2015 on the European Fund for Strategic Investments, the European Investment Advisory Hub and the European Investment Project Portal and amending Regulations (EU) No 1291/2013 and (EU) No 1316/2013 — the European Fund for Strategic Investments

If the EIB, or the National Promotion Banks, or other financial institutions are performing (or have already completed) the due diligence on the project, including consideration of the information listed in sections 11.1, 11.2, a summary statement of this analysis should be provided.

11.1. Cost Benefit Analysis (CBA)

Pursuant to Article 10 of the CEF Regulation and light of the requirements of 7.2.1 (3), all proposals must be accompanied by a cost-benefit analysis (CBA).

For projects generating net revenue, the CBA must be accompanied by a calculation of the "funding gap" i.e. the share of the project's cost that is not covered by net revenues. Availability payments are not assumed to be revenue. Nevertheless, for projects attracting availability payments, the level of grant requested should also be justified through an "affordability" analysis.

The CBA shall include sensitivity testing against key assumptions, and projects shall demonstrate that their economic case is robust to downside scenarios. As a minimum, the following sensitivity tests shall be performed in the analysis:

- Increases of 25% on construction costs
- Delays to project completion of 6, 12 and 24 months
- Increases of 25% on annual operating costs over the reference period

The project for which the grant is requested, shall demonstrate robust forecast economic returns, as determined from a CBA.

11.2. Readiness of the borrower and business plan

For the purposes of blending, the applicant(s) or beneficiary or borrowing entity⁵⁵, as the case may be, must evidence that they have or will have the financial capacity to complete, the action for which the grant, together with other financing resources, is requested. The applicant(s) or beneficiary or borrowing entity, as the case may be, must demonstrate that they have the appropriate legal powers, corporate structures, human and financial resources to undertake the action and they are ready to apply for funding.

General information on the borrower, if not the same, shall include information on the enterprise (or institution), its legal status, principal partners, suppliers and shareholders and organisational and governance structure. Legal documents should include incorporation, statutes, activities, accounting policies, management, and ownership.

a) Existing corporate operating entities should submit summary and key elements of a business plan, except to the extent that certain financial and legal information only is regarded as confidential, including:

Sector

- Description of business model
- Characteristics of target market sectors
- Traffic demand forecasts, anticipated growth and long term trends

⁵⁵ For certain projects, e.g .PPPs, the borrower may be the entity that will at a later stage be selected following completion of a procurement process.

Competitive position

- Size and diversification
- Position in market and growth potential
- Commercial proposition

Management and corporate governance

- Structure / management organisation / governance
- Strategy and operating policies
- Proposed borrowing entity

Financial aspects

- Financial strategy and policies
- Capital structure
- Breakdown of project operating and maintenance costs, depreciation and overheads
- Financing plan for the project and schedule of projected expenditure including sources of funding and financing (e.g. CEF grant, EIB finance with EFSI guarantee, corporate debt, equity)
- Cash generation, earnings and profit
- Cashflow projections under different scenarios, profit and loss accounts, and balance sheets, until the project is expected to come fully on stream.

Supporting documentation

- Financial model demonstrating impact of grant requested on the affordability of the project and/or the improvement of the credit profile of the transaction for private sector financiers.
- Audited financial statements for the last 3 years (balance sheets, profit and loss and cashflow statements).
- Certified rating agency reports (where available)

b) For PPP/concessions, the following information, except to the extent that certain financial and legal information only is regarded as confidential, should be provided:

- Evidence that the technical and legal aspects of the project have been demonstrated to be suitable to PPP/concession,
- Evidence of approval of the project and the PPP/concession option by the granting authority and other parts of government as required,
- Evidence of stakeholders support for the project as a PPP/concession,
- Legal powers of the authority to enter into a PPP/concession contract,
- The affordability analysis,
- The preliminary value for money analysis,
- The preliminary risk analysis (identification, mitigation, allocation)
- Evidence of market appetite for the proposed PPP/concession (market sounding exercise with contractors, advisers, lenders, etc),
- Evidence that the authority has put together a suitable project team and budget to prepare and procure and subsequently manage the contract,
- Evidence of a suitable governance structure for the project preparation and procurement and contact management,

- Details on the scope and capabilities of the team of advisers,
- The assessment of the required permits and authorisations for the project
- Details of the plan of activities/timetable for preparing and procuring the contract,
- Analysis underpinning the choice of the procurement procedure, tender evaluation criteria, tender evaluation team,
- The draft of the PPP/concession contract,
- The draft payment mechanism
- The preliminary financial model,
- Plans for contract management by the granting authority

12. MAXIMUM POSSIBLE RATE OF CO-FUNDING FOR GRANTS (EXCLUDING PROGRAMME SUPPORT ACTIONS)

12.1 From the General envelope of the CEF⁵⁶

The amount of Union financial assistance shall not exceed the following rates:

(a) with regard to grants for works:

- (i) for railway networks, and road networks in the case of Member States with no railway network established in their territory or in the case of a Member State, or part thereof, with an isolated network without long-distance rail freight transport: 20 % of the eligible costs; the funding rate may be increased to a maximum of 30 % for actions addressing bottlenecks and to 40 % for actions concerning cross-border sections and actions enhancing rail interoperability;
- (ii) for inland waterways: 20 % of the eligible costs; the funding rate may be increased to a maximum of 40 % for actions addressing bottlenecks and to a maximum of 40 % for actions concerning cross- border sections;
- (iii) for inland transport, connections to and the development of multimodal logistics platforms including connections to inland and maritime ports and airports, as well as the development of ports: 20% of the eligible costs;
- (iv) for actions supporting new technologies and innovation for all modes of transport: 20% of the eligible costs;

(b) with regard to grants for telematic applications systems and services:

- (i) for land-based components of the ERTMS, of the SESAR system: 50% of the eligible costs;
- (ii) for land-based components of ITS for the road sector: 20% of the eligible costs;
- (iii) for on-board components of ERTMS: 50% of the eligible costs;
- (iv) for on-board components of the SESAR system, and of ITS for the road sector: 20% of the eligible costs, up to a combined ceiling of 5% of the budgetary resources referred to in point (a) of Article 5(1) of the CEF Regulation;
- (v) for actions to support the development of motorways of the sea: 30% of the eligible costs;

⁵⁶ According to Article 10(2) of the CEF Regulation

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

12.2 No profit principle

For projects generating income, the no-profit principle applies, as defined in Article 125(4) and (5) of the Financial Regulation."

PART II

ANNEX III: Breakdown of annual instalments version of December 2016

Budget lines		2014-2020 commitments	2014 commitments	2015 commitments	2016 commitments	2017 commitments	2018 commitments	2019 commitments	2020 commitments	TOTAL
06.020101	MAWP (Grants) 2014-2020	7,114,195,877	958,609,301	598,682,336	554,172,084	1,132,396,261	1,282,682,193	2,200,851,382	386,802,321	7,114,195,877
	MAWP (Grants) 2015-2020	199,999,926	0	0	40,165,731	0	35,632,025	53,407,037	70,795,133	199,999,926
	MAWP (Grants) 2016-2020	70,000,000	0	0	0	7,700,000	14,000,000	17,500,000	30,800,000	70,000,000
	MAWP (Grants blending) 2017-2020	696,000,000	0	0	0	42,476,300	53,258,021	69,000,000	531,265,679	696,000,000
	PSA	83,765,579	35,550,579	0	1,615,000	29,400,000	12,400,000	2,400,000	2,400,000	83,765,579
	Costs for the experts	679,601	0	579,041	100,560	0	0	0	0	679,601
	AWP (Grants) 2014	127,686,432	127,686,432	0	0	0	0	0	0	127,686,432
	AWP (Grants) 2016	150,000,000	0	0	150,000,000	0	0	0	0	150,000,000
Total reserved by the CEF Transport Work Programmes			1,121,846,311	599,261,378	746,053,375	1,211,972,561	1,397,972,239	2,343,158,419	1,022,063,133	8,442,327,416
CEF commitment appropriations (MFF 2014-2020) including the EFSI contribution and transfers between the CEF lines			1,118,525,421	591,973,905	746,053,375	1,214,126,017	1,405,567,853	2,352,658,419	1,712,124,323	9,141,029,313
Internal assigned revenue and additional revenue			4,262,311	7,287,472	0	-2,153,456	0	0	0	9,396,327
CEF Total commitment appropriations			1,122,787,732	599,261,377	746,053,375	1,211,972,561	1,405,567,853	2,352,658,419	1,712,124,323	9,150,425,640
06.020102	MAWP (Grants) 2014-2020	135,886,461	51,120,003	18,689,857	0	50,574,302	9,882,341	4,824,005	795,953	135,886,461
	MAWP (Grants) 2015-2020	73,846,107	0	21,255,700	22,424,802	0	19,035,452	6,019,037	5,111,116	73,846,107
	MAWP (Grants) 2016-2020	80,000,000	0	0	0	12,000,000	28,000,000	20,000,000	20,000,000	80,000,000
	MAWP (Grants Blending) 2017-2020	150,000,000	0	0	0	9,316,350	11,626,719	15,000,000	114,056,931	150,000,000
	PSA	12,070,000	1,000,000	5,790,000	2,280,000	3,000,000	0	0	0	12,070,000
	Costs for the experts	131,400	0	56,400	75,000	0	0	0	0	131,400
	AWP (Grants) 2014	17,739,997	17,739,997	0	0	0	0	0	0	17,739,997
	AWP (Grants) 2016	60,000,000	0	0	60,000,000	0	0	0	0	60,000,000
Total reserved by the CEF Transport Work Programmes			69,860,000	45,791,957	84,779,802	74,890,652	68,544,512	45,843,042	139,964,000	529,673,965
CEF commitment appropriations (MFF 2014-2020) including the EFSI contribution and transfers between the CEF lines			69,864,350	43,000,681	84,779,802	74,890,652	68,544,512	45,843,042	316,686,401	703,609,440
Internal assigned revenue and additional revenue			0	2,791,276	0	0	0	0	0	2,791,276
CEF Total commitment appropriations			69,864,350	45,791,957	84,779,802	74,890,652	68,544,512	45,843,042	316,686,401	706,400,716

PART II

06.020103	MAWP (Grants) 2014-2020	782,498,447	158,231,888	277,011,554	50,939,459	190,761,638	73,613,718	19,538,358	12,401,832	782,498,447
	MAWP (Grants) 2015-2020	799,028,147	0	0	516,649,293	35,809,855	139,809,746	63,362,947	43,396,306	799,028,147
	MAWP (Grants) 2016-2020	500,000,000	0	0	0	111,800,000	158,000,000	119,200,000	111,000,000	500,000,000
	MAWP (Grants Blending) 2017-2020	150,000,000	0	0	0	9,316,350	11,626,719	15,000,000	114,056,931	150,000,000
	PSA	123,966,150	17,416,150	18,700,000	28,450,000	21,950,000	24,550,000	6,550,000	6,350,000	123,966,150
	expert costs	720,859	0	318,639	402,220	0	0	0	0	720,859
	AWP (Grants) 2014	33,941,962	33,941,962	0	0	0	0	0	0	33,941,962
Total reserved by the CEF Transport Work Programmes			209,590,000	296,030,194	596,440,972	369,637,843	407,600,183	223,651,305	287,205,069	2,390,155,566
CEF commitment appropriations (MFF 2014-2020) including the EFSI contribution and transfers between the CEF lines			209,593,050	223,550,414	533,359,706	368,565,843	406,466,183	222,955,305	286,445,069	2,250,935,570
Internal assigned revenue and additional revenue			0	72,479,779	63,081,266	0	0	0	0	135,561,046
CEF Total commitment appropriations			209,593,050	296,030,193	596,440,972	369,637,843	407,600,183	223,651,305	287,205,069	2,390,158,616
06.020104	MAWP (Grants) 2014-2020	4,551,406,957	967,080,000	846,132	0	767,534,737	969,073,838	884,861,125	962,011,125	4,551,406,957
	MAWP (Grants) 2015-2020	5,609,533,017	0	1,214,667,889	1,863,128,475	660,096,929	487,970,570	701,235,715	682,433,439	5,609,533,017
	MAWP (Grants) 2016-2020	849,554,916	0	0	258,394,562	160,562,415	192,342,224	108,293,654	129,962,061	849,554,916
	PSA	16,416,970	15,916,970	0	500,000	0	0	0	0	16,416,970
	Costs for the experts	608,177	0	250,757	357,420	0	0	0	0	608,177
	AWP (Grants) 2016	250,000,000	0	0	250,000,000	0	0	0	0	250,000,000
Total reserved by the CEF Transport Work Programmes			982,996,970	1,215,764,778	2,372,380,457	1,588,194,081	1,649,386,632	1,694,390,494	1,774,406,625	11,277,520,037
CEF commitment appropriations (MFF 2014-2020)			982,996,970	1,215,582,454	2,372,380,457	1,588,194,081	1,649,386,632	1,694,390,494	1,774,406,625	11,277,337,713
Internal assigned revenue and additional revenue			0	182,324	0	0	0	0	0	182,324
CEF Total commitment appropriations			982,996,970	1,215,764,778	2,372,380,457	1,588,194,081	1,649,386,632	1,694,390,494	1,774,406,625	11,277,520,037
TOTAL UNDER the amended 2014-2020 MAP (GRANTS)		21,761,949,855	2,135,041,192	2,131,153,468	3,305,874,406	3,190,345,137	3,486,553,567	4,298,093,259	3,214,888,827	21,761,949,856
<i>AWP pour mémoire (GRANTS)</i>		639,368,391	179,368,391	0	460,000,000	0	0	0	0	639,368,391
<i>PSA and experts</i>		238,358,736	69,883,699	25,694,837	33,780,200	54,350,000	36,950,000	8,950,000	8,750,000	238,358,736
CEF total commitments appropriations			2,385,242,102	2,156,848,305	3,799,654,606	3,244,695,137	3,531,099,180	4,316,543,260	4,090,422,418	23,524,505,009

PART II

ANNEX IV: Breakdown of the Programme Support Actions covered by the Multi-Annual Work Programme version of December 2016

Budget line	Form of Programme Support Action	2014 commitments	2015 commitments	2016 commitments	2017 commitments(2)	2018 commitments(2)	2019 commitments(2)	2020 commitments(2)
6.020101	Grants	12,000,000	0	0	28,000,000	1,000,000	1,000,000	1,000,000
	Procurement	27,320,000	0	1,365,000	1,150,000	11,150,000	1,150,000	1,150,000
	Other: Reimbursement of travel and subsistence costs to the European Coordinators	5,894,000	0	0	0	0	0	0
	Other: transfer of appropriations to INEA for the front office tasks of TENTEC			250,000	250,000	250,000	250,000	250,000
	Total	45,214,000	0	1,615,000	29,400,000	12,400,000	2,400,000	2,400,000
	Unused commitments, to be added to the budget of the call (1)	(9,663,421)	0	0	0	0	0	0
Total		35,550,579	0	1,615,000	29,400,000	12,400,000	2,400,000	2,400,000
6.020102	Grants	0	490,000	2,280,000	3,000,000	0	0	0
	Procurement	1,000,000	5,300,000	500,000	0	0	0	0
	Other expenditures	0	0	0	0	0	0	0
	Total	1,000,000	5,790,000	2,780,000	0	0	0	0
	Unused commitments, to be added to the budget of the call (1)	0	0	(500,000)	0	0	0	0
Total		1,000,000	5,790,000	2,280,000	3,000,000	0	0	0
6.020103	Grants	6,500,000	8,000,000	11,700,000	19,000,000	6,500,000	4,000,000	4,000,000
	Procurement	12,900,000	11,200,000	16,750,000	2,950,000	18,050,000	2,550,000	2,350,000
	Other expenditures:	0	0	0	0	0	0	0
	Total	19,400,000	19,200,000	28,450,000	21,950,000	24,550,000	6,550,000	0
	Unused commitments, to be added to the budget of the call (1)	(1,983,850)	(500,000)	0	0	0	0	0
Total		17,416,150	18,700,000	28,450,000	21,950,000	24,550,000	6,550,000	6,350,000
6.020104	Grants	15,916,970	0	1,000,000	0	0	0	0
	Procurement	0	0	0	0	0	0	0
	Other expenditures	0	0	0	0	0	0	0
	Total	15,916,970	0	1,000,000	0	0	0	0
	Unused commitments, to be added to the budget of the call (1)			(500,000)	0	0	0	0
Total		15,916,970		500,000	0	0	0	0
GRAND TOTAL		69,883,699	24,490,000	32,845,000	54,350,000	36,950,000	8,950,000	8,750,000