3. OBJECTIVES AND PRIORITIES:

3.2. 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

3.2.2. Deployment of innovation and new technology actions, including a focus on safety

General Objective:

The general objective is to support innovative technological developments and deployments for all modes of transport on the Core Network, according to Article 33 a) to d) of the TEN-T Guidelines.

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-oriented 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).

Actions to be selected under this priority shall demonstrate their added value for the Core Network.

Proposed Actions under this priority shall address either works or studies.

In addition, proposed Actions shall address one or more of the following specific objectives.

Specific Objectives:

Specific objective 6: improve multimodality through innovative digital and space-data based solutions

Actions addressing this specific objective shall aim at one or more of the following goals:

- Contributing to ensure safe and smooth transfer of goods in Core Network ports, airports and urban nodes including rail-road freight terminals and solutions based on the track & tracing of goods;
- Contributing to the deployment of cross-border multimodal mobility services such as "mobility as a service";
- Addressing remaining barriers to EU-wide multimodal booking and ticketing services, including multi-use ticketing and payment terminals for the Core Network;
- Supporting the integration of zero and low emission road/non road transport modes (including evessels, ebikes, electromobility and other alternatively fuelled vehicles/ vessels) into a multimodal transport system;
- Supporting the implementation of last-mile connections.

Detailed Topical Specifications and Restrictions:

- All research, demos and real-life trials are excluded;

- Where applicable, actions must be in line with the ITS Directive and its Delegated regulations.

Specific objective 7: Support infrastructure to enhance multi-modal transport for passengers through innovative solutions

Multi-modality for passengers in urban nodes of the core network can be strengthened through measures to enhance passenger transfers within long-distance destinations (e.g. in rail-rail, rail-air, rail-bus) as well as between long-distance and local/regional transport. Actions under this priority address the nodes of the core network, which are set out in annex II.1 and II.2 of the TEN-T Guidelines and which are in line with article 30 of the TEN-T Guidelines. Where necessary for this purpose, they should also refer to telematics applications in line with Article 31, and they should contribute to ensuring accessibility for passengers with reduced mobility in accordance with Article 37 of the TEN-T Guidelines.

Action types:

- Developing or improving, in passenger transport terminals (such as main railway stations) of urban nodes, the transfer functions for long-distance journeys;
- Developing or improving the connection between passenger terminals in urban nodes (e.g. air – rail connections);
- Developing or improving, in passenger transport terminals and in main railway stations, the transfer between long-distance and local/regional transport;
- Developing or improving safety and security in passenger transport terminals or main railway stations;
- Where appropriate, measures to enhance independent accessibility for passengers with reduced mobility should be addressed in this context.

In addition, priority will be given to:

- Combined and coordinated action along TEN-T core network corridors.

Specific objective 8: digital information systems

Under this specific objective, actions shall aim at supporting the development, validation and deployment of the digital information systems along the EU transport Core Network and notably corridors.

The corridor information systems were recommended by the Digital Transport and Logistics Forum (DTLF)[1] as a federative network of information exchange platforms (hereafter: federative platform) interconnecting stakeholders across the supply chains[2].

Actions addressing this specific objective shall aim at the implementation of "corridor information systems": upon the DTLF achievements built as a federative network of information exchange platforms, involving both public authorities and business stakeholders.

Proposed Actions shall address the following areas:

- Definition of organisational, functional and technical specifications and the validation of a federative platform for the entire Core Network in real life operational conditions;

[1] Established by the Commission Decision C(2015) 2259
[2] More information under http://www.dtlf.eu/

- Deployment of the agreed model (comprising elements such as interoperability rules, access principles, governance and business models, data protection, cyber-security, trust and legacy issues);
- Implementation of the solutions offered by the federative platform to facilitate and enhance supply chain management, visibility and resilience, including the improvement of the border inspection processes (e.g. exchange of data from operators', drivers' or vehicles' registers, processing of data from transport documents, tracking and tracing of shipments/vehicles, billing of transport and logistics services, integration of information of modal traffic management systems and of/with nodes, dynamic multimodal route planning integrating smart IoT and sensor technology for loading units, etc).

The proposed actions shall aim to facilitate data sharing between actors, enable large scale collaboration, simplify administrative procedures and optimise cargo flows along a corridor, and shall be based on the following set of prerequisites:

- Open digital infrastructure with a solution of choice;
- Register and connect once;
- Re-use of existing (open or de-facto) standards;
- Re-use of available platforms and their functionality;
- Technology neutrality;
- Trusted environment (i.e. ensuring cyber-security, management of access rights, ...);
- Use of at least EGNOS/Galileo, whenever satellite positioning and navigation services are used.

In addition, priority will be given to:

- Actions offering transnational and multimodal solutions, covering logistics operations and related exchanges of information of all types (B2B, B2A and A2B) spanning at least two EU countries and using a combination of minimum two modes (amongst maritime, inland waterway, rail, road and air transport) over multiple multimodal transport nodes (such as ports, airports and rail-road terminals);

- The most comprehensive actions in terms of the diversity of stakeholders, number of represented transport modes, number of EU Member States participating, and number of interconnected data exchange platforms.

Specific objective 9: support, through digitalisation, for maritime and inland port operations

Under this specific objective, actions shall aim at the integrated and connected information management in maritime and inland Core network ports operation, including regulatory compliance and corporate requirements.

In particular, Actions addressing this specific objective shall aim through digitalisation at one or more of the following goals:

- Improve the safety and security of port operations;
- Increase the efficiency of port operations;

- Implement automation processes to further increase capacity and efficiency of port operations including in the context of maritime clusters;
- Promote the environmental sustainability of the port and environmental performance of operations including land side vehicle and equipment;
- Increase the connectivity of ports with the port city and reduce the impacts of port operations to it;
- Improvement of information systems and their interoperability, including as regards sea traffic management systems.

In addition, priority will be given to:

- Actions implementing harmonised and/or interoperable solutions, rather than Actions limited to a single port level.

Detailed topical specifications and restrictions:

- Actions aimed at the establishment of "single windows" (national or European) related to the Reporting Formalities Directive shall not be supported under this call.
- Infrastructure (neither basic nor superstructure) and mobile assets shall not be supported. However, costs of ICT/digital equipment, adaptation or upgrade of equipment (e.g. sensors, on-board units, etc.) may be eligible when necessary to achieve the objectives of the proposed action.