



EUROPEAN COMMISSION
Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs

CALL FOR TENDERS

No GROW/2019/OP/0003

H2020: EGNOS SERVICE FOR PAYMENT/LIABILITY CRITICAL APPLICATIONS IN THE ROAD SECTOR

Open procedure

TENDER SPECIFICATIONS

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1. TECHNICAL SPECIFICATIONS

EGNOS (European Geostationary Navigation Overlay Service) currently provides augmentation to the Global Positioning System (GPS) Standard Positioning Service (SPS). EGNOS augments GPS using the L1 (1,575.42 MHz) Coarse/Acquisition (C/A) civilian signal function by broadcasting correction data and integrity information for positioning and navigation applications over Europe.

EGNOS provides three services:

- **Safety of Life (SoL) Service**, for safety-critical transport applications, including civil aviation, which require enhanced and guaranteed performance and an integrity warning system [RD.8];
- **Open Service (OS)**, free and open to the public, which provides positioning, navigation and timing services to be used by mass-market receivers and common user applications [RD.9];
- **EGNOS Data Access Service (EDAS)**, which is intended for users who require enhanced performance or products for commercial and professional use [RD.10].

The next generation of EGNOS, EGNOS V3, will augment GPS and Galileo constellations in the L1 and L5 bands and will extend the service area to the entire landmasses of EU member states. The European Commission (EC) is defining the roadmap for the long-term evolution of the EGNOS programme beyond EGNOS V3, including new services or uses of EGNOS.

Liability and payment-critical applications are defined as those applications for which undetected GNSS underperformance, non-availability or large errors can result into significant legal or economic consequences for the service or application provider.

Some applications in the road sector exploiting the position with a liability-sensitive function are emerging in Europe such as pay-as-you-drive (PAYD) insurances. In the near future, such applications may require a new service to generate tailored insurances for each road user. Unlike traditional insurance policies, the premiums to be paid by the policyholders are dependent on how much, where and when the road user drives. Another type of usage-based insurance is pay-how-you-drive (PHYD) insurance. Although similar to PAYD, PHYD makes use of additional sensors like accelerometer to monitor driving behaviour. In this case, the premiums to be paid by the policyholder depend on how the user drives: if the user has aggressive habits, respects the speed limits, etc.

Note that a mismatch of the vehicle's current speed together with erroneous position data may impact the driving data, skills and habits of the road user. Afterwards, it will be very difficult for end-users to claim that they are being overcharged and for service providers to see that they are undercharging their customers.

In the coming years new payment/liability critical applications will emerge, such as reconstruction of accidents, mobility as a service, road traffic infraction monitoring and fine management, road traffic congestion monitoring, automatic charging in car parks, etc. Those that involve a payment based on actual use or exploit the position with a regulated or liability sensitive function may have specific needs from E-GNSS and in particular from EGNOS.

The new EGNOS service for road may not only play a major role in the accurate position computation of the vehicle but shall also provide all the features necessary for users to trust their position.

The main objective of the project is to develop an appropriate integrity concept for payment/liability critical applications focused on the road sector. When defining the service, the Contractor shall consider to which extent the service requires evolutions of the SBAS infrastructure, user equipment

or of the service provision scheme to provide the required integrity assurance. The On-Board Unit (OBU) will have to allow all the features necessary to trust the position in situations where enforcement, payments and related claims are involved. Since the E-GNSS sensor may just be a component among other sensors, the project shall address what other technologies or components may be needed on top of the current GNSS signals, and what would be the contribution of each element to the overall integrity assurance.

To achieve this objective, the Contractor shall carry out at least the following activities:

- Analyse the current competitive landscape worldwide and its evolution until 2035.
- Identify user needs, service performance and operational requirements and analyse the possible evolutions in the 2025-2035 timeframe. The Contractor shall specifically analyse the user need for integrity for critical applications supporting legal procedures or financial operations.
- Identify the current legal requirements at European level and analyse the possible evolutions in the future.
- Define an integrity concept at user level for payment/liability critical applications including the contribution of EGNOS to the overall integrity; define the requirements of the multi-sensor OBU.
- Derive SBAS mission and operational requirements from the user requirements.
- Perform technical analyses to validate the integrity concept at user level and the corresponding user requirements.
- Analyse the potential service provision scheme, either via the EGNOS Service Provider (ESP) or via dedicated service providers, and determine the main service requirements.
- Analyse the Costs and Benefits of the new service focusing on the actions that shall be taken to influence the decision-making process of each stakeholder (i.e. device manufacturers, service providers, etc.).
- Perform a test campaign to validate the integrity concept proposed.
- Define the concrete implementation steps and a timeline for the operational introduction of the EGNOS service and its adoption by service providers and users.

The project shall be focused on how a dedicated EGNOS service shall be designed to fulfil the user requirements for PAYD/PHYD applications. Requirements from other payment/liability critical application can be considered if user requirements are similar and would be met by the new EGNOS service.

1.1. DESCRIPTION OF TASKS

The following subsections describe the list of tasks to be carried out under this contract. The Contractor is invited to critically review the tasks defined and might propose other specific activities that the Contractor may find useful to cover the main analysis' objectives defined.

The tender must comply with applicable environmental, social and labour law obligations established by Union law, national legislation, collective agreements or the international environmental, social and labour conventions listed in Annex X to the Directive 2014/24/EU.

1.1.1. Task 0 – Management

The main management activities to be performed during the contract are:

- Contractual management
- Organisation and coordination of internal communication flow
- Documentation management
- Project status management and reporting
- Establish and maintain the travel plan
- Review and verification of deliverables
- Organisation of progress and review meetings (calling notice, agenda and minutes)
- Identify needs for interfaces with external entities
- Ensure coordination between the different activities as necessary
- Quality Management

The deliverables for Task 0 shall be **at least**:

Ref.	Name	Issue	Delivery
D010	Project Management Plan (PMP)	draft	Proposal
		1.0	T0
		X.0	As needed
D021	Progress Report #1	1.0	T0+ 3m (RM1)
D022	Progress Report #2	1.0	T0+ 6m (RM2)
D023	Progress Report #3	1.0	T0+ 9m (MTR)
D024	Progress Report #4	1.0	T0+ 12m (RM3)
D025	Progress Report #5	1.0	T0+ 15m (RM4)
D030	Final Report (FR) - Executive summary of the project	1.0	T0+ 18m (FR)

The execution of the tasks begins at the Signature of the Contract (T0).

The Kick-off meeting will take place in Brussels, at the latest 15 days following the signature of the contract.

The Tenderers shall provide a **Project Management Plan** in the proposal and at T0 the Contractor shall provide an updated issue of the Plan which will be discussed during the Kick-off meeting.

1.1.2. Task 1 – Road domain analysis and User Needs

In most GNSS applications in the rail and road sectors, knowing the user's position with certainty is of great importance. In such applications, computed position, velocity and/or time (PVT) are the

basis for legal decisions or economic transactions, such as Pay As You Drive (PAYD), Pay How You Drive (PHYD) insurance or Electronic Toll Collection (ETC).

According to a case study conducted by Swiss Re [RD.2], the number of telematics-based motor policies is mainly driven by US (3.3 million policies) and Italy (4.8 million policies). Several examples of PAYD or PHYD insurance policies include:

- Distance-based charging: the driver pays a fee that is proportional to the distance driven (i.e. more or less than 1200 km per year).
- Time-based charging: the driver pays a fee that depends on the amount of time or the time of the day the user has driven (i.e. 2-3 hours per day, peak times/off-peak hours/night time).
- Area-based charging: the driver pays a fee that depends on where the user drives (i.e. residential, dangerous areas, car parks, charging zones, etc.).
- Behaviour-based charging: the driver pays a fee that depends on how the user drives (i.e. if the user has aggressive habits, respects the speed limits, etc.).

In such policies, large errors can lead to serious consequences such as incorrect legal decisions or unfair charge computation. Consequently, it is necessary to bound the errors and ensure that the probability of errors not properly bounded is below a certain limit to reduce the probability of harmful effects.

The performance of positioning systems for Safety-of-Life (SoL) or liability critical applications is generally assessed in terms of integrity, accuracy, availability and continuity. For the emerging road payment/liability critical applications, no regulatory body has set clear positioning performance requirements. However, in 2018 the Galileo User Assembly [RD.3] about the road sector concluded that main requirements for payment/liability critical applications in the road sector are high availability, high horizontal accuracy and a reliable position by means of a Protection Level (PL) for a defined Integrity Risk (IR). Continuity is not as relevant a feature for ITS as for other domains. Instead, users are interested in timing performance including time-stamp accuracy, output latency, update rate, jitter and Time to First Fix (TTFF). Main conclusions from the Galileo User Assembly about the road sector can be found in [RD.7]

Based on [RD.11] and [RD.7] the Contractor shall critically analyse:

- the competitive landscape worldwide nowadays for insurance companies and service providers that are already delivering solutions in the road domain for payment/liability critical applications (focusing on PAYD and PHYD), specifying who is using which technologies and who, in the value chain, selects which technology is used (i.e. device manufacturer, car manufacturer or others);
- Its likely evolution until 2035, providing an estimate of the evolution of the value chain and assessing which new technologies are likely to be used and why;
- the current legislation at European level and what is likely to drive its evolution in the next years [RD.6];
- the current standardization framework in ITS (Intelligent Transport Systems) and the new standards to be defined at international level, notably for equipment used on-board vehicles.

The Contractor shall then carry out the following activities:

- To identify the **key stakeholders** of the value chain involved in the provision of services in Europe and abroad for payment and liability critical applications;

1. Technical specifications

- Focusing on the OBU market, identify the main Industry players in Europe and assess their role in developing **standards** (if any);
- To identify the **key decision criteria** for the different stakeholders that will motivate their go/no-go decision to adopt an EGNOS-based service for payment/liability critical applications;
- To determine **legal** and **regulatory constraints** and **standards** (if any) for the service at European and international level and analyse their concrete impact on the development process and validation of the service (e.g. specific safety case required, specific process of certification required, etc.).
- To update the analysis of payment/liability critical applications in the road sector that will be provided as [RD.11] and [RD.7] and analyse the possible evolutions in the 2025-2035 timeframe. User needs shall be identified and fully quantified including anti-spoofing requirements and other security measures, if applicable. Requirements for other payment/liability critical applications in the road sector can be proposed in addition, if relevant.
- To create a **working group** including key experts (at least two receiver manufacturers and two providers of PAYD/PHYD applications) that will validate the most demanding user requirements that lead to the most stringent technical performance requirements. The group shall define the meaning of “integrity” for road users and specify other requirements notably convergence time, resilience to interference, technical service levels and how the service would need to guarantee compliance with legal requirements. To this end, the Contractor shall organize dedicated working sessions with the key experts.

The definition of the working group is a critical activity in this project since they shall contribute to:

- consolidate and validate the user requirements in Task 1;
- validate the integrity concept in Task 2;
- support the test campaign definition in Task 2;
- validate the service definition in Task 3;
- support to CBAs activity to be carried out and their validation in Task 4;
- support the definition of the roadmap in Task 5;

The bidder is invited to identify in its proposal suitable participants to the Working Group (e.g. letter of intent) and explain what specific task the experts will carry out within the Working Group.

The deliverable for Task 1 shall be **at least**:

Ref.	Name	Issue	Delivery
D110	Road Domain Analysis and User Needs for Payment/Liability Critical Applications.	1.0	T0+1m (PST1) T0+3m (RM1)
D120	Working Group Management Plan.	1.0 X.0	T0+1m (PST1) As needed

The Contractor shall provide a **Working Group Management Plan** (D120) at T0+1m (PST1) which will be discussed during the Kick-off meeting. The Contractor shall detail in D120 how the working group will be created, the tasks given to the different experts and how the working sessions will be organised with key experts.

1.1.3. Task 2 – User-level Integrity concept

Within the automotive industry, each manufacturer offers their proprietary solution for positioning. The on-board unit (OBU) is a black box in which several sensors are coupled according to different coupling schemes (see figure below). It mainly depends on GNSS for absolute positioning and LiDAR, cameras and other sensors for relative positioning. These sensors allow the vehicle to safely and reliably operate within the close proximity to other objects. Nevertheless, most of these sensors perform poorly in low-visibility conditions such as heavy rain, snow or dense fog. On the other hand, GNSS and EGNOS receivers provide a better accuracy in open sky conditions and operate well in all-weather conditions but their performances degrade in urban environments due to poor visibility of GNSS signals and multipath effects.

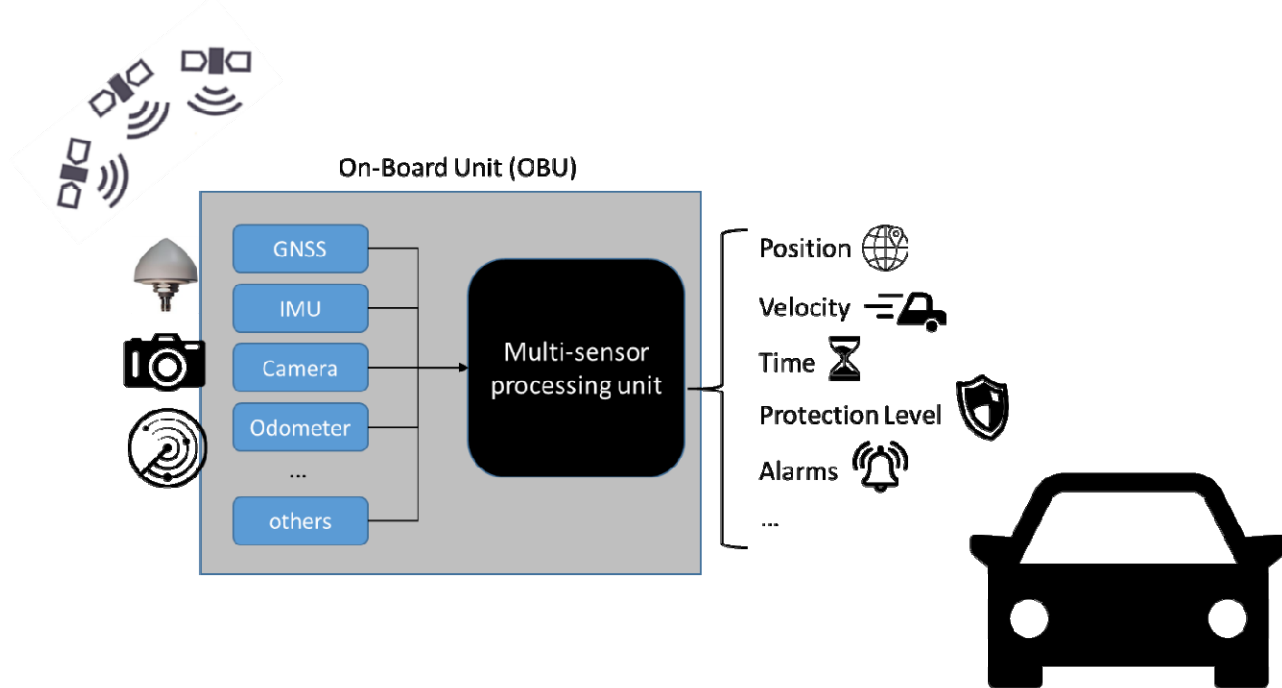


Figure 1-1 Multi-sensor concept within the On-board Unit (OBU)

Integrity can be defined as the measure of trust that can be placed in the correctness of the information supplied by the total system including the ability of the system to provide timely warnings to users when the system should not be used for navigation. This definition is supported by means of four main parameters: Alert Limit (AL), Integrity Risk (IR), Time to Alert (TTA) and Protection Level (PL).

The integrity concept was originally developed in SBAS for Safety-of-Life applications in the aviation sector. In recent years, it has attracted the attention of many GNSS-based applications such as payment/liability critical applications where the PVT solution is used as the basis for legal decisions or economic transactions, however the concrete meaning of “integrity” to each of those users might differ.

Concretely, SBAS integrity protects the user from both:

- 1) Failures of Galileo/GPS/GEO satellites by detecting and excluding faulty satellites through the measurement of Galileo and GPS signals with the network of reference ground stations.
- 2) Reception of erroneous or inaccurate differential corrections coming mainly from:

- a. processing of reference data at receiver level corrupted by the noise induced by the measurements and algorithmic process, known as fault free case.

However, the fault-free conditions defined in the SBAS algorithms developed for the aviation domain to determine the user integrity cannot be directly extrapolated to other sectors such as road where the environment is more challenging than the aviation environment. This is because, on the one hand, the integrity monitoring algorithms developed in the aviation context assume that more than 4 satellites are visible, and, on the other hand, the single-fault assumption cannot be applied for urban GNSS receivers, due to the potentially large and frequent errors caused by multipath interference and absence of line-of-sight to core constellation satellites [RD.5]. In the road domain, in dense urban areas, known as ‘urban canyons’, the poor performance of GNSS positioning is mainly caused by tall buildings that block, reflect and diffract signals in urban canyons. As a result, in some locations, there are insufficient signals for a navigation solution; while in other locations, a solution can only be obtained if Non-Line-Of-Sight (NLOS) signals are used (see figure below for the various environments in road).

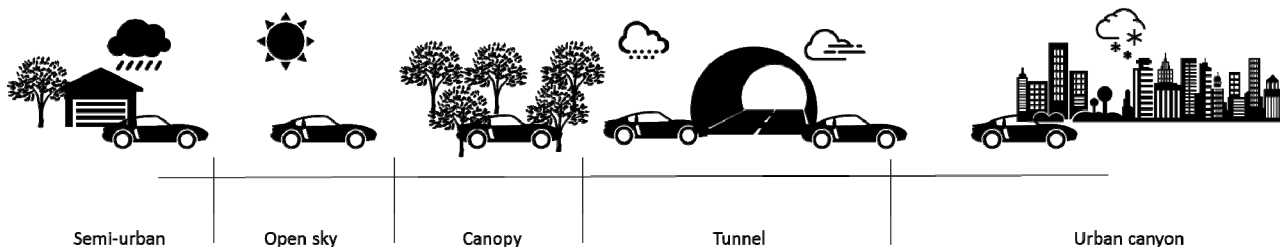


Figure 1-2 Different environments or scenarios in the road domain

Hybrid positioning systems merge satellite navigation data with data from other sensors with the aim of improving the performance of standalone GNSS, especially in environments of reduced satellite visibility. Different sensors such as inertial sensors, odometers, pressure sensors that estimate the altitude, laser, cameras, etc. can be included in a hybrid system although Inertial Measurement Units (IMU) composed of accelerometers and gyroscopes are one of the most common sensors used in civil aviation, road and urban applications.

Depending on the requirements, the EGNOS DFMC receiver may just be a part of the multi-sensor OBU. The other components/sensors shall be identified and characterised to ensure that the final performance of the OBU meet the user requirements. As depicted in the figure above, it is not expected that the same sensors will be necessary in open sky conditions or when the vehicle is driving into a tunnel.

There are several hybridization techniques for integrating GNSS with the external sensors, depending on the type of data used and the stage of the positioning process where the information is merged, such as:

- ☐ Loose coupling, which correct sensor measurements with user positions estimated using exclusively GNSS data; Note that this technique usually requires a sensor set capable of estimating the user position by itself, like an IMU;
- ☐ Tight coupling, which combine GNSS raw measurements and sensor measurements to estimate the position, and;
- ☐ Ultra-tight coupling, which uses more basic data from the GNSS receiver structure like the tracking loops, which may not be accessible today in commercial receivers

The project will assess the most beneficial technique or combination of them per scenario. Additionally, it might be required to identify specific requirements on the EGNOS system (e.g.

other dissemination means) or specific data (e.g. meteorological data) that could be provided by EGNOS in order to meet the needs of the road domain.

The Contractor shall develop in Task 2 a concept of integrity for payment/critical applications in the road sector. It shall identify the different scenarios, the requirements per scenario, other sensors needed (including the EGNOS receiver) and how they shall be combined to allow the OBU to achieve integrity and the performance needed.

To achieve this objective the Contractor shall carry out **at least** the following activities:

- To study and characterise the multipath, environmental conditions and interference in the road environment. The Contractor shall define a specific over-bounding error model per scenario or any proposed alternative and identify mitigation techniques for multipath and interference.
- To perform a test campaign to identify and characterise the receiver environment via experimental or real-time data. The Tenderer shall describe, in the proposal, an indicative test plan, the tools to be used to evaluate the performance, which performance shall be analysed and the high-level approach used to create the scenarios also in terms of source of data to be used (e.g. direct test campaign, data already collected in previous test campaigns conducted by the tenderers, critical analysis of previous results). The Contractor will include as part of the activities the execution of an additional scenario to be proposed by the EC to cover additional aspects not contemplated by the Tenderer in its proposal.
- To define the concept of integrity at user level for payment/liability critical applications in the road sector, defining a process to trade-off technical options with the involvement of service providers, insurance companies, receiver manufacturers (e.g. set-up a Delphi Panel). The concept of integrity at user level shall be derived from the requirements analysed and defined per scenario.

Typical Operation	Time To Alarm	Integrity	Horizontal Alert Limit	Vertical Alert Limit
Open sky	5 s	1-10 ⁻³ /h	2m	2m
Semi-urban / rural	5 s	1-10 ⁻³ /h	2m	2m
Canopy	10 s	1-10 ⁻⁵ /h	2m	2m
Urban canyon	10 s	1-10 ⁻⁷ /h	1m	1m
Tunnel	12 s	1-10 ⁻⁷ /h	1m	1m

Figure 1-3 Example of high Level Integrity Requirements per scenario

A guide to define the integrity concept is included in section 6.8.

The integrity concept and the user level algorithm developed as part of this task:

- ☐ shall be included in the deliverable D210.
- ☐ may be used by the EC/GSA to feed the standardisation process.

Please note that the draft contract has provisions regarding the intellectual rights regarding these results and pre-existing materials that may be incorporated therein.

- To define EGNOS mission requirements that would feed the assessment of the impact on the EGNOS system.

1. Technical specifications

- To define and validate a receiver model: the Contractor shall develop a receiver model of the OBU that is representative of its service performance and behaviour to comply with the needs defined. The receiver model will be used during the test campaign defined in the next subsection.
- To define the requirements of a receiver model of the OBU and the antenna model to comply with the needs defined. In addition to the OBU, in harsh environments like urban, an advanced antenna model could for instance help mitigate local errors.
- To perform a test campaign using real data to verify the user requirements of the OBU and to validate the integrity concept proposed. The Tenderer shall describe, in the proposal, the high-level approach used to create the scenarios also in terms of source of data to be used, length of data, etc. and the stakeholders to be involved.

The deliverables for Task 2 shall be **at least**:

Ref.	Name	Issue	Delivery
D210	User Integrity concept analysis	1.0	T0+3m (RM1)
		2.0	T0+6m (RM2)
		3.0	T0+9m (MTR)
D220	Receiver Model Requirements	1.0	T0+6m (RM2)
		2.0	T0+9m (MTR)
D230	Test campaign plan and results	1.0	T0+3m (RM1)
		2.0	T0+12m (RM3)
		3.0	T0+15m (RM4)

1.1.4. Task 3 – Service definition

The outcomes of Task 2 may conclude that the multi-sensor OBU will be working in different service levels of operations depending on the scenario and operational conditions. Each level of operation might lead to different integrity concepts.

The Contractor shall define in Task 3 the characteristics of the EGNOS service for Payment and Liability Critical Applications in the road sector highlighting the different performance to suitably equipped users.

To achieve these objectives the Contractor shall carry out **at least** the following activities:

- Define the service Concept of Operations, which specifies the different scenarios (e.g. semi-urban, urban, tunnel, canopy, etc.), service levels of operations and the integrity concept
- Define the service performance requirements per scenario and operation, what other sensors are needed as a minimum (besides the EGNOS receiver) and the hybridization technique that will allow the multi-sensor OBU achieve the performance needed for its operation;
- Define EGNOS SiS contribution to the service:
 - the data specification (e.g. data bits, correction refresh rate, message repetition rate, corrections latency), including data security (e.g. data authentication, keys management);
 - the data transmission means that could be used to provide the EGNOS service, defining requirements for transmission via satellite (e.g. EGNOS GEO E5b, other GEOs, MEOs, LEOs, etc.), via EDAS and terrestrial means or via other means if appropriate.

1. Technical specifications

- Define the legal, safety and regulatory requirements applicable (using outputs of Task 1);
- Define high-level service provision requirements for the service and have validated by the Working Group:
 - the service levels of operations and environmental scenarios;
 - the roles and responsibilities of each stakeholder;
- Select and validate with the Working Group which service provision scheme listed in CFI.1 can be set-up, and propose for the selected one, at least:
 - the Service Levels,
 - the service delivery chain;
 - the service validation process;
 - the role and responsibilities of each entity in the service validation process;
 - what service provider liability scheme would be in place between end users, PCA/LCA service provide and the EGNOS service provider (if any).

The deliverables related to Task 3 are:

Ref.	Name	Issue	Delivery
D310	EGNOS Service Definition for Payment/Liability Critical Applications in the Road Sector	1.0	T0+6m (RM2)
		2.0	T0+9m (MTR)
		3.0	T0+12m (RM3)

1.1.5. Task 4 – CBA for the new EGNOS Service

The Contractor shall carry out one **Cost-Benefit Analysis (CBA)**, for the development and implementation of this EGNOS service for payment/liability critical applications in the road-domain, for each of the different decision makers' point of view (i.e. Service Provider, authorities, device manufacturers and end users). Note that the main goal of the CBA is to identify the key decision criteria for each stakeholder that motivates their decision to provide or adopt the proposed service and to understand the implementation costs that could hinder the service adoption by users.

As a minimum, the following CBAs shall be performed:

- **CBA for device manufacturers:** in order to determine if, for the device manufacturers there is a concrete business opportunity from the use of EGNOS receivers in their devices.
- **CBA for users** (insurance companies and service provider): to determine the real benefit on embarking a user device based on SBAS DFMC receiver in terms of, for example, operational cost savings, improved operational capabilities and performance, additional operations/services enabled by the solution, etc.
- **CBA for the PCA/LCA Service Provider** taking into account:
 - costs of service implementation (e.g. set up of the operational introduction of the service such as user support function, processing function, monitoring and control of the service);
 - service operation and maintenance costs (i.e. recurring and non-recurring costs) in accordance with the service provision scheme;
 - the risk associated with performance commitment guarantees and the cost of mitigation actions (e.g. what will be required to ensure that the performance remain within the committed performance).
- **Other CBA:** if other key CBAs are identified during the project, the relevant deliverables shall be added and delivered with the same approach of those listed below. These may include, for

example, CBAs for authorities to decide to use EGNOS as part of the user device for payment/liability critical applications if relevant.

In order to grant the maximum reliability and representativeness of the CBAs, a process shall be defined by involving the relevant stakeholders, in sequential stages of progress, from the definition to the validation of the CBAs. This implies the involvement of receiver manufactures, insurance companies, law enforcement authorities in the frame of the project, both for the definition of the requirements and for the support to the CBA exercises.

The deliverables for Task 4 shall be **at least**:

Ref.	Name	Issue	Delivery
D410	CBA including detailed analysis for: <ul style="list-style-type: none"> • Device Manufacturers • Users • PCA/LCA Service Provider • Other (i.e. authorities). 	1.0	T0+9m (MTR)
		2.0	T0+15m (RM4)
		3.0	T0+18m (FR)

1.1.6. Task 5 – Roadmap for service implementation

The purpose of the task is to identify the next activities that shall be carried out to go ahead with the service implementation. This includes the definition of pre-requisites for a **service operational introduction** and the process required to implement the service including the key decision criteria for each stakeholder that motivates their decision to provide or adopt the proposed service and the stoppers that could hinder the service adoption by users.

The service roadmap shall contain, as a minimum:

- the activities to be performed by respective stakeholders, the estimated effort required, their responsibilities and the associated risks including possible mitigation actions from their perspective.
- the key decisions to be taken, when they have to be taken and who are the relevant decision makers
- the dependencies between steps of the implementation process
- the critical path and duration of the implementation process

The deliverables for Task 5 shall be **at least**:

Ref.	Name	Issue	Delivery
D410	Service roadmap	1.0	T0+9m (MTR)
		2.0	T0+18m (FR)

1.1.7. Task 6 – Dissemination activities

The activities and studies performed under this contract may need to be discussed or presented by the Commission in international conferences, congress or meetings decided by the EC. The Contractor may be requested to produce documents in advance and after such meetings and may be requested to attend and present them during the meeting. The effort reserved for this task must account for **20 person-days**. This effort is independent from the management effort under Task 0.

Such activities may include:

1. Technical specifications

- Elaboration of a dissemination plan.
- Produce technical documents and presentations summarising the Contractor's work in advance and after such meetings.
- Attendance to international conferences, congress or meetings (maximum 2 events) to present the Contractor's work.
- Organisation of workshops (maximum 2 events) inviting key stakeholders.

The deliverables for Task 6 shall be **at least**:

Ref.	Name	Issue	Delivery
D610	Dissemination Plan	1.0	Proposal
D61X		X.0	As needed
D62X	Documents/Presentations to support international conferences, congress or meetings.	X.0	As needed

The Tenderers shall provide a Dissemination Plan in the proposal.

1.2. INDICATIVE SCHEDULE

The following figure presents the project schedule according to the proposed tasks and milestones.

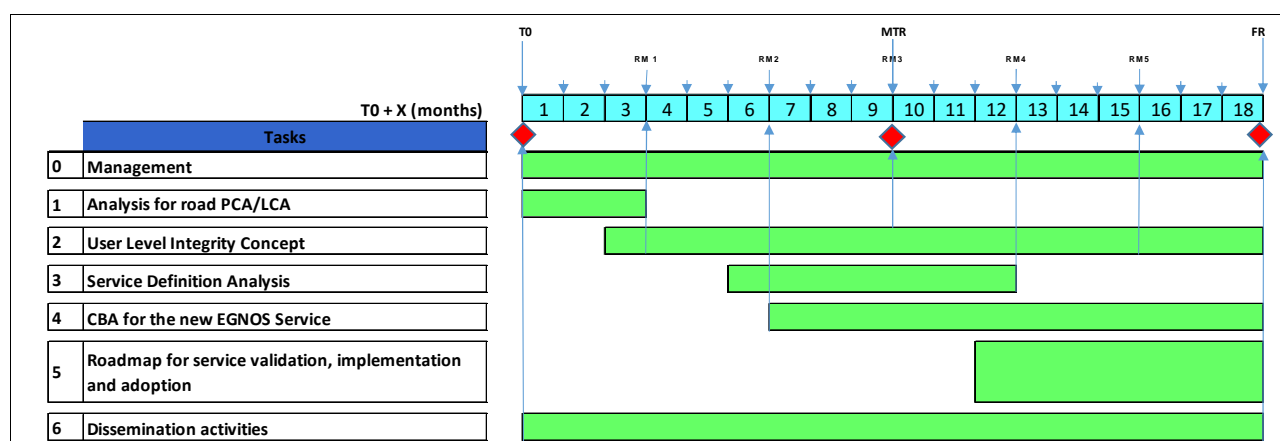


Figure 1-4: Indicative Schedule

The Tenderers are requested to provide, in their proposal, a critical analysis of the schedule above and a more detailed schedule of individual tasks.

1.3. APPLICABLE AND REFERENCE DOCUMENTS

1.3.1. Applicable Documents

#	Title
[AD.1]	Directive 95/46/EC of the European Parliament and of the Council of 24 October 1995 on the protection of individuals with regard to the processing of personal data and on the free movement of such data https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:31995L0046&from=en
[AD.2]	Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 concerning the processing of personal data and the protection of privacy in the electronic communications sector (Directive on privacy and electronic

#	Title
	communications) http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32002L0058&from=EN
[AD.3]	REGULATION (EU) 2016/679 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation) https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016R0679&from=ES

1.3.2. Reference Documents

#	Title
[RD.1]	Telematics: Poised for strong global growth - By Shafiq Dharani, Tom Isherwood, Diego Mattone, and Paolo Moretti. https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/telematics-poised-for-strong-global-growth
[RD.2]	Swiss Re – Report: “Unveiling the full potential of telematics: How connected insurance brings value to insurers and consumers: An Italian case study” – 2016. http://www.swissre.com/library/archive/unveiling_the_full_potential_of_telematics_how_connected_insurance_brings_value_to_insurers_and_consumers.html
[RD.3]	Galileo User Assembly https://www.gsa.europa.eu/newsroom/1st-galileo-user-assembly
[RD.4]	Horizon 2020 Work Programme 2018 – 2020 5iii. Leadership in Enabling and Industrial Technologies – Space (European Commission Decision C(2017)7124 of 27 October 2017). http://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-leit-space_en.pdf
[RD.5]	GNSS Position Integrity in Urban Environments: A Review of Literature IEEE TRANSACTIONS ON INTELLIGENT TRANSPORTATION SYSTEMS, VOL. 19, NO. 9, SEPTEMBER 2018 https://ieeexplore.ieee.org/document/8248655
[RD.6]	COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE, THE COMMITTEE OF THE REGIONS On the road to automated mobility: An EU strategy for mobility of the future Brussels, 17.5.2018; COM(2018) 283 final
[RD.7]	Report on Road User Needs and Requirements. Reference: GSA-MKD-RD-UREQ-233537. Issue/Version: 1.0. Date: 18/10/2018 https://www.gsc-europa.eu/system/files/galileo_documents/Road-Report-on-User-Needs-and-Requirements-v1.0.pdf
[RD.8]	EGNOS Safety-of-life Service Definition Document EGN-SDD SoL, Version: V3.2, Date: 28/09/2018 https://egnos-user-support.essp-sas.eu/new_egnos_ops/sites/default/files/documents/egnos_sol_sdd_in_force.pdf
[RD.9]	EGNOS Open Service Definition Document, EGN-SDD OS, Version: V2.3, Date:

#	Title
	03/10/2017 https://egnos-user-support.essp-sas.eu/new_egnos_ops/sites/default/files/documents/egnos_os_sdd_in_force.pdf
[RD.10]	EGNOS EDAS Service Definition Document, EGN-SDD EDAS, Version: V2.1, Date: 19/12/2014 https://egnos-user-support.essp-sas.eu/new_egnos_ops/sites/default/files/documents/egnos_edas_sdd_in_force.pdf
[RD.11]	Analysis of the most promising road payment/liability critical applications for EGNOS adoption in 2025-2035, GSALOT3-SC2-D4_1, Version: 1.0, Date: 17/05/2019

1.4. CUSTOMER FURNISHED ITEMS

The following Customer Furnished Items (CFI) will be provided to the Contractor in order to carry out the requested tasks.

#	Title	Delivery Date
CFI.1	Service Provision Scheme for Payment and Liability Critical Applications in the road sector. Issue/Version: 1.0	T0

1.5. LIST OF ACRONYMS

Acronym	Description
AD	Applicable Document
C/A	Coarse/Acquisition
CBA	Cost Benefit Analysis
CFI	Customer Furnished Item
DFMC	Dual Frequency and Multi-Constellation
E-GNSS	European GNSS
EC	European Commission
EDAS	EGNOS Data Access Service
EGNOS	European Geostationary Navigation Overlay Service
EU	European Union
ESP	EGNOS Service Provider
FR	Final Review
FRD	Final Report Document
GEO	Geostationary Earth Orbit
GNSS	Global Navigation Satellite System
GPS	Global Positioning System
H2020	Horizon 2020
IR	Integrity Risk
ITS	Intelligent Transport Systems
ITT	Invitation to Tender
KOM	Kick-Off Meeting

1. Technical specifications

Acronym	Description
LEO	Low-Earth Orbit
MEO	Medium-Earth Orbit
MS	Microsoft
MTR	Mid Term Review
NLOS	Non-Light Of Sight
OBU	On-Board Unit
OS	Open Service
PAYD	Pay-As-You-Drive
PDF	Portable Document File
PHYD	Pay-How-You-Drive
PL	Protection Level
PM	Progress Meeting
PMP	Project Management Plan
PR	Progress Report
PST	Progress Status Teleconference
PVT	Position Velocity and Timing
RD	Reference Document
RM	Review Meeting
SBAS	Satellite-Based Augmentation Systems
SOA	Start Of Activities
SoL	Safety of Life
SPS	Standard Positioning Service
SW	Software
TTA	Time To Alarm
TTFF	Time To First Fix
UBI	Usage-Based Insurance
UK	United Kingdom
US	United States
WBS	Work Breakdown Structure
WP	Work Package
WPD	WP Description

1.6. BACKGROUND

This section incorporates additional information that may be relevant for the preparation of tenders and the Contract execution.

This Action will be conducted under the EU Framework Programme for Research and Development Horizon 2020 (H2020). More specifically, the H2020 Work Programme [RD.4] contains a section (Other Actions (2018-2020), section 9) dedicated to GNSS Evolution, Mission and Services. This

action serves to assess the respective merits of various directions for the EGNOS services to evolve and to build roadmaps of the steps needed before operational introduction of such new services.

1.6.1. Technical Proposal Preparation

The tenderers shall explicitly incorporate in their proposals the following information:

- 1) Project management information:
 - a) Work Breakdown Structure (WBS)
 - b) Work Package Description (WPD), including the responsible of the WP, task (and/or sub-WPs) objective, start date and end date, inputs and outputs, people involved and efforts associated per WP and sub-WP.
 - c) Project Schedule
 - d) Preliminary project risk analysis, identifying project risks and mitigation actions prepared ad-hoc for the project, to be maintained during the project, updated and provided at each PM.
 - e) Stakeholder management plan
- 2) A first iteration of at least **Tasks 1, 2 and 3.**

1.7. MILESTONES, REPORTS AND DOCUMENTS

The progress and review meetings of the project are listed in the Table below.

Table 1: Milestones Plan

Project Review		Objective	Schedule
SOA	Start of Activities	Start of the performance of the contract (the day of entry into force of the contract)	T0
KOM	Kick-Off Meeting	Kick-off meeting Review the project management plan and dissemination plan.	T0+15d
RM1	Review Meeting 1	Final review of the road-domain analysis and user requirements. Start User-level Integrity Concept analysis.	T0+3m
RM2	Review Meeting 2	Initial Review of User Integrity Concept and Service definition analysis. Start Service definition and CBA activities.	T0+6m
MTR	Mid-Term Review Meeting	Final review of the User Integrity concept and the Receiver Model Requirements Initial review of CBA activities.	T0+9m
RM3	Review Meeting 3	Final Review of the Service definition analysis. Review of CBA activities.	T0+12m
RM4	Review Meeting 4	Review of CBA activities.	T0+15m

1. Technical specifications

Project Review		Objective	Schedule
FR	Final Review	Final Review of CBA activities. Final Review of the roadmap activities. Final Review of the project outcomes, conclusions and way forward.	T0+18m

The Progress Status Telco (PST) will be organised monthly by teleconference/videoconference or at the Contractor's premises if agreed between the Contractor and the Commission. As a result of the PST the Contractor will include in the Minutes of Meeting, information related to the status of the project, risk/difficulties found, any assigned tasks and decision agreed during the meeting.

The Kick-Off (KOM), Mid Term Review (MTR) and Final Review (FR) meetings will take place in Brussels or any other place to be agreed between the Contractor and the Commission.

The deliverables shall be provided at least 2 weeks before the Review Meetings, Mid Term Review (MTR) and Final Review (FR) meetings¹. They shall be written in English and supplied in electronic form, in MS Word and PDF. Up to three paper copies of the deliverables shall be delivered when requested by the European Commission. Any material to be presented or distributed to parties outside the Contract (slides, etc.) will have to be authorised by the Commission and considered part of the deliverables.

For all meetings, including the Working Group meetings, the Contractor shall provide:

- an Agenda of the meeting at least two days in advance of the meeting.
- the Minutes of the Meeting no later than two days after the meeting.

The Contractor will also maintain an Action Items List accessible by the Commission, which will be periodically updated and reviewed during each meeting.

¹ This does not apply to the D010 document that shall be delivered at the indicated milestone

2. CONTRACTUAL CONDITIONS

2.1. NATURE OF THE CONTRACT

Service contract - H2020: EGNOS Service for payment/liability critical applications in the road sector

2.2. STARTING DATE OF THE CONTRACT AND DURATION OF THE TASKS

The contract shall enter into force on the date on which it is signed by the last contracting party *if it has already been signed by both contracting parties*).

It is expected to be signed in 04/2020.

The duration of the tasks shall not exceed 18 months.

The execution of the tasks may not start before the contract has been signed. The period of execution of the tasks may be extended, only with the written agreement of the contracting parties, before the end of the period originally stated in the contract.

2.3. TERMS OF PAYMENT – IMPLEMENTATION OF THE CONTRACT

Payments shall be made in accordance with Articles I.4, I.5 & II.21 of the draft service contract.

The payment scheme will consist of

- one pre-financing of 30 %,
- 1 interim payment of 30 % at T0+9 (deliverable MTR)
- and the balance.

The schedule and the procedure for the approval of payments and the documents to be submitted are described in Articles I.5, II.21, II.22 and II.23 and in Annex I to the draft contract referred to above.

2.4. GUARANTEES

The Contractor may be required to provide a guarantee for pre-financing of 30% of the amount specified under I.4.1 of the contract, in compliance with article II.21.5 of the draft contract. The Commission reserves the right to cancel the pre-financing foreseen, according to its management

risk analysis or in the case the awarded tenderer refuses such pre-financing guarantee, and to modify the final version of the contract accordingly.

A model guarantee is provided in annex 6.2 of these tendering specifications.

2.5. PLACE OF PERFORMANCE

The place of performance of the tasks shall be the Contractor's premises or any other place indicated in the tender, with the exception of the Commission's premises.

2.6. SUBCONTRACTING

Subcontracting is defined as the situation where a contract has been or is to be established between the Commission and a contractor and where the contractor, in order to carry out that contract, enters into legal commitments with other legal entities for performing part of the service. However, the **Commission has no direct legal commitment with the subcontractor(s).**

At the level of the liability towards the Commission, tasks provided for in the contract may be entrusted to subcontractors, but **the contractor retains full liability towards the Commission for performance of the contract as a whole.**

Accordingly:

- The Commission will treat all contractual matters (e.g. payments) exclusively with the contractor, whether or not the tasks are performed by a subcontractor;
- The Commission will privilege direct contacts with the contractor, who is responsible for executing the contract;
- Under no circumstances can the contractor avoid liability towards the Commission on the grounds that the subcontractor is at fault. The contractor remains notably fully responsible for timely execution.

A contract which includes subcontracting is subject to certain general conditions in particular the provisions on subcontracting, checks and audits, and confidentiality. Where justified by the subject matter of the contract, a statement of confidentiality may be required to be submitted to the Commission. **The subcontracting arrangement between the contractor and his subcontractor is supposed to render directly applicable all those contractual obligations with regard to the Commission to the subcontractor.**

Consequently, the bid must clearly identify the subcontractor(s) and document their willingness to accept the tasks and their acceptance of the terms and conditions set out in paragraph 3.2, in particular article II.24 of the standard service contract by submitting the form in annex 6.4, filled in and signed.

Tenderers must inform the subcontractor(s) and include in their sub-contracting documents that Article II.24 of the standard service contract may be applied to sub-contractors.

Once the contract has been signed, Article II.10 of the above-mentioned service contract shall govern the subcontracting.

Special attention of tenderers is brought to Article II.10.4, according to which the contracting authority may request the contractor to replace a subcontractor found to be in a situation provided for in points (d) and (e) of Article II.18.1.

2.7. JOINT OFFERS

A joint offer is a situation where an offer is submitted by a group of tenderers. If awarded the contract, the tenderers of the group will have an equal standing towards the Commission in executing a supply, service or works contract.

The Commission will not request consortia to have a given legal form in order to be allowed to submit a tender, but reserves the right to require a grouping to adopt a given legal form **before the contract is signed** if this change is necessary for proper performance of the contract. This can take the form of an entity with or without legal personality but offering sufficient protection of the Commission's contractual interests (depending on the Member State concerned, this may be, for example, a consortium or a temporary association).

The documents required and listed in the present specifications must be supplied by every member of the grouping; the checklist in annex 6.6 will help verifying the level of information to be provided according to the role of each entity in the tender.

Each member of the grouping assumes a joint and several liability towards the Commission.

To this end all members of the grouping should sign a **power of attorney** (see models in annex 6.5). This document must be scanned and included in the offer. For groupings not having formed a common legal entity, model 1 should be used, and for groupings with a legal entity in place model 2.

The offer (Tender Preparation Report) has to be signed by the joint tender leader (hand or electronic signature, as explained in section 1 of the invitation to tender).

Partners in a joint offer assume joint and several liability towards the Commission for the performance of the contract as a whole.

Statements, saying for instance: “that one of the partners of the joint offer will be responsible for part of the contract and another one for the rest”, or “that more than one contract should be signed if the joint offer is successful”, are thus incompatible with the principle of joint and several liability. The Commission will disregard any such statement contained in a joint offer, and reserves the right to reject such offers without further evaluation, on the grounds that they do not comply with the tendering specifications.

An economic operator can only participate once as a tenderer, whether as sole tenderer, leader in a joint tender or partner in a joint tender. **The economic operator may however agree to act as a subcontractor in a distinct bid** from which it is participating as either of the aforementioned options. However, such a situation is not advisable for the high potential of conflicts of interest it may generate.

3. GENERAL TERMS AND CONDITIONS FOR THE SUBMISSION OF TENDERS

These specifications follow the publication of a contract notice in OJ S.

3.1. HOW TO SUBMIT A TENDER: REGISTRATION IN THE PARTICIPANT REGISTER AND VALIDATIONS BY THE EU VALIDATION SERVICES

In order to submit a tender using eSubmission, tenderers (each member of the group in the case of a joint tender) will need to register in the European Commission's Participant Register - an online register of organisations participating in EU calls for tenders or proposals. On registering, each organisation obtains a Participant Identification Code (PIC, 9-digit number) which acts as its unique identifier in the above register. Instructions on how to create a PIC can be found in the [PIC-management Quick Guide for Economic Operators](#). Tenderers already registered in the Participant Register shall reuse their existing PICs when preparing tenders in e-Submission.

In the course of the procedure the EU Validation Services (at Research Executive Agency) may contact tenderers (each member of the group in the case of a joint tender) via the Participant Register and ask for supporting documents with respect to the legal existence and status. The notifications concerning the legal status validation will be sent to the e-mail address of the contact person indicated in the Participant Register. It is the responsibility of the tenderer (each member of the group in the case of a joint tender) to provide a valid e-mail address and to check it. Please note that a request for supporting documents in no way implies that the tenderer has been successful.

The documents that may be requested by the EU Validation Services in the course of the procedure are listed in Annex 6.7

The documents that shall be submitted with the tender in eSubmission are listed in the checklist available in Annex 6.6.

3.2. ACCESS TO THE MARKET

The present procurement documents are drawn up in respect of the Financial Regulation applicable to the general budget of the European Union (Regulation (EU, Euratom) No 966/2012 of the European Parliament and the Council of 25 October 2012 on the financial rules applicable to the general budget of the Union, as amended by Regulation (EU, Euratom) No 2015/1929 of the European Parliament and the Council of 28 October 2015., as well as its Rules of Application (Commission Delegated Regulation (EU, Euratom) No 1268/2012 of 29 October 2012, amended by Commission Delegated Regulation (EU) C(2015)7555 of 30 October 2015.

Participation in procurement procedures is open on equal terms to all natural and legal persons from one of the EU Member States and to all natural and legal persons in a third country which has a special agreement with the European Union in the field of public procurement on the conditions laid down in that agreement. It is also open to international organisations.

Where the Plurilateral Agreement on Government Procurement (GPA) concluded within the WTO applies, the contracts are also open to nationals of the countries that have ratified this Agreement, on the conditions laid down therein.

The parties to the GPA can be consulted on the following web page:
https://www.wto.org/english/tratop_e/gproc_e/gp_gpa_e.htm.

3. General terms and conditions for the submission of tenders



For British tenderers:

Please be aware that after the UK's withdrawal from the EU, the rules of access to EU procurement procedures of economic operators established in third countries will apply to tenderers from the UK depending on the outcome of the negotiations. In case such access is not provided by legal provisions in force, tenderers from the UK could be rejected from the procurement procedure.

Operators in third countries which have signed a bilateral or multilateral agreement with the European Union in the field of public procurement must be allowed to take part in the tendering procedure on the conditions laid down in this agreement. The Commission refuses tenders submitted by operators in third countries which have not signed such agreements for the present call for tender.

The Protocol on the Privileges and Immunities or, where appropriate, the Vienna Convention of 24 April 1963 on Consular Relations shall apply to this invitation to tender.

Variants are not allowed.

3.3. OPPORTUNITIES FOR SMALL AND MEDIUM SIZED ENTERPRISES

The Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs has the task to promote opportunities for Small and Medium sized Enterprises (SMEs) and is aiming in its activities to facilitate the activities of SMEs. In this context, **SMEs are particularly encouraged to submit tenders** either on its own if feasible or by constituting a bid using either of the options mentioned in paragraphs 2.6 and 2.7.

The **Enterprise Europe Network** provides advice and support to **SMEs** to help them to innovate and grow internationally.

As part of this service package, EEN members also provide advice/information on tender opportunities.

Please contact an EEN member in your region for further details: <https://een.ec.europa.eu/>

The Commission has further published a brochure on "Doing business with the European Commission – Tips for potential contractors":

http://ec.europa.eu/budget/library/biblio/publications/business/doing_business_en.pdf

4. FORM AND CONTENT OF THE TENDER

4.1. STRUCTURE OF THE TENDER

- Tenders shall be perfectly legible so there can be no doubt as to words and figures.
- Tenders shall be clear and concise.
- Tenders shall be written in one of the official languages of the European Union.
- Tenders shall include the information and documents requested by the Commission in order to assess the tender. In order to help tenderers presenting a complete tender, a checklist of the documents to be submitted is provided in annex 6.6. This checklist does not need to be included in the tender, but it is encouraged to use it in order to ease the assessment of the tenders;
- Prices shall be established in euros.

All tenders must be submitted using the eSubmission application and shall contain all the following information:

4.1.1. Administrative information

Tenderers may choose between presenting a **joint tender** (see 2.7) and introducing a tender as a **sole economic operator**, in both cases with the possibility of having one or several subcontractors (see 2.6).

Whichever type of bid is chosen, the tender shall stipulate the legal status and role of each legal entity in the tender proposed and the monitoring arrangements that exist between them and, failing this, the arrangement they foresee to establish if they are awarded the contract (see 2.6 and 2.7).

In the e-Submission application the tenderers should fill out the required identification information in line with the instructions in the e-Submission Quick Guide available at: https://webgate.ec.europa.eu/esubmission/assets/documents/manual/quickGuide_en.pdf. The sole tenderer or all members of a joint tender must be identified with a PIC – Participant Identification Code. No PIC is needed for subcontractors.

It is not required at the level of the tender submission, to attach neither Legal Entity Form nor Financial Identification Form.

4.1.2. The Exclusion and Selection Criteria Form

Tenderers or their representatives shall provide a declaration on their honour, duly signed and dated in which they:

1. state whether or not they are in one or more of the situations referred to in Articles 136 to 140 and 141 of the Financial Regulation and detailed in the form;

2. state whether they fulfil the selection criteria
3. undertake to submit to the Commission any additional document relating to the exclusion/selection criteria, that the Commission considers necessary to perform its checks, within fifteen calendar days following the receipt of the Commission's request.

To this end, tenderers must fill in and sign the form in Annex 6.1 to these specifications.

The declaration(s) shall be signed by an authorised representative either with advanced electronic signature based on qualified certificates or by scanning and uploading a hand signed copy.

The hand-signed originals of the declaration on honour must be sent by letter to the contracting authority's postal address indicated under Heading I.1 of the contract notice at the latest on the first working day following the electronic submission of tender.

Where the bid involves more than one legal entity (including subcontractors), each entity must provide the form.

4.1.3. Evidence relating to the selection criteria

Tenderers shall provide proof of their economic and financial capacity by submitting the documents stated under paragraph 5.2.2 below. In case of a joint tender/tender with subcontractors, the documents concerning each economic operator shall be submitted under the respective party name.

Tenderers shall equally provide the proof of their professional and technical capacity by submitting the documents required under paragraph 5.2.3 below.

If evidence has already been provided for another procurement procedure and if the documents are up to date, reference can be made to the earlier procedure. The declaration on honour stating the reference of the procedure and the confirmation that there has been no change in the situation must be uploaded in the eSubmission application.

4.1.4. Technical proposal

The technical proposal needs to be uploaded in the step "Tender Data" of the wizard of the e-Submission application. The e-Submission application allows attachment of as many documents as necessary.

Tenderers shall include in their bids a **technical proposal addressing the aspects detailed in the technical specifications** in section 1.1

The technical proposal shall comply with the technical specifications and provide, as a minimum, the information specifically requested.

The following aspects should in particular be taken into consideration when drafting the tender:

4. Form and content of the tender

- (a) methodology for implementation;
- (b) reasons for the proposed methodology;
- (c) project management and procedures for internal evaluation;
- (d) level of involvement and activity of other stakeholders;
- (e) role of each partner in case of a joint bid and/or use of subcontractors, the role of each partner and subcontractor in the implementation of the contract;
- (f) team proposed for implementation of the contract. The composition of the team, which will be implementing the project must be properly described. Team staff should be singled out by function (E.g. project managers, administrator, secretary, expert, technical assistant);
- (g) a plan of action with description of activities and their timing.

Due consideration should be given to the award criteria and method as stipulated under section 5.3 in this document.

Please note that, to grant equal treatment of all tenders, **it is not possible to modify offers after their submission in relation to the technical and financial proposals.**

Please note that incomplete financial or technical proposals may have a considerable negative impact the evaluation on award criteria. Proposals deviating from the technical specifications risk to be considered as non-conform to the specifications.

The technical specifications and the tenderer's bid shall be integral parts of the contract and will constitute annexes to the contract.

4.1.5. Financial proposal

A complete financial proposal, including the breakdown of the price, to be provided per category, as indicated in the tender specifications needs to be uploaded in step "Tender Data" of the wizard of the e-Submission application.

The total price (including any options and renewals) needs also to be encoded directly in the e-Submission application (Total amount).

It is the responsibility of each tenderer to ensure that the total amount of the tender inserted in the relevant tab of the eSubmission application corresponds exactly to the value reflected in the uploaded financial proposal. In case of discrepancies, only the value reflected in the financial proposal will be taken into account.

Tenderers must use the following format to formulate their financial proposal.

<i>Price component</i>	<i>Unit price</i>	<i>Quantity</i>	<i>Total</i>
Human resources			
Person X (role)			

4. Form and content of the tender

Person Y (role)			
.....			
Subtotal (1)			
Other			
Item X			
Item Y			
.....			
Subtotal (2)			
TOTAL (1+2)			

The tenderer's attention is drawn to the following points:

- (1) prices must be expressed in euros;
- (2) **prices should be quoted free of all duties, taxes and other charges, i.e. also free of VAT.** The European Union Institutions are exempt from such charges in the EU under Articles 3 and 4 of the Protocol on the Privileges and Immunities of the European Union of 8 April 1965 (OJ 152 of 13 July 1967). Exemption is granted to the Commission by the governments of the Member States, either through refunds upon presentation of documentary evidence or by direct exemption.

For those countries where national legislation provides an exemption by means of a reimbursement, the amount of VAT is to be shown separately. In case of doubt about the applicable VAT system, it is the tenderer's responsibility to contact his or her national authorities to clarify the way in which the European Union is exempt from VAT;

- (3) Prices shall not be conditional and be directly applicable by following the technical specifications.
- (4) **Prices shall be fixed** and not subject to revision
- (5) The reference price for the award of the contract shall consist

a) the price payable, as stated in Article I.4.1 of the contract.

The quoted price must be a fixed amount which includes all charges (including travel and subsistence). Travel and subsistence expenses are not refundable separately.

For each category of staff to be involved in the project, the tenderer must specify:

- the total labour costs;
- the **daily rates** and **total number of days** (man-days) each member of staff will contribute to the project;
- other categories of costs, indicating the nature of the cost, the total amount, the unit price and the quantity. Flat-rate amounts should be avoided. If, exceptionally, they are used, specimen quotations for the flat-rate amounts must be provided;

b) the amount corresponding to the reimbursable expenses.

NOT APPLICABLE

- Meetings with the Commission:

See section 1.7

The Kick-Off Meeting, Mid Term Review and Final Review will take place in Brussels unless otherwise agreed by the European Commission.

Costs to participate in such meetings will not be reimbursed separately and shall be comprised in the financial proposal.

Bids involving more than one legal entity must specify the amounts under a) for each legal entity.

The Commission will reject tenders where no technical offers or financial offers are proposed. Non-compliance with the minimum requirements in section 1.1 will also result in rejection from award.

The Commission reserves the right, however, to request clarification of the tender after the opening. It may furthermore require (additional) evidence in relation to the administrative information, exclusion and selection criteria. The information required shall be provided within a time-limit stipulated in its request and under the conditions explained in section 3

5. ASSESSMENT AND AWARD OF CONTRACT

The assessment will be based on the information provided in the tender. The Commission reserves the right to use any other information from public or specialist sources. This assessment will be performed by applying the criteria set out in these specifications. To award the contract, the assessment of admissible bids (see paragraph 1 of the Invitation to tender) will be carried out under exclusion, selection and award criteria in no particular order.

The aim of this assessment is:

- (1) to verify compliance with the exclusion criteria as defined in articles 136 to 140 and 141 of the Financial Regulation, in order to determine whether the tenderer can take part in the procedure and, where applicable, be awarded the contract;
- (2) to verify compliance with the selection criteria, technical and professional capacity and economic and financial capacity required by these specifications;
- (3) to verify compliance with the minimum requirements specified in the tender documents and to assess the technical and financial offer in relation to the award criteria, including compliance with the quality thresholds set in these specifications.

5.1. APPLICATION OF EXCLUSION CRITERIA AND EXCLUSION OF TENDERERS

5.1.1. Declaration

As mentioned above under paragraph 4.1.2 tenderers or their representatives shall provide the form in Annex 6.1 duly signed and dated in which they declare:

1. not to be in one or more of the situations referred to in Articles 136 to 140 and 141 of the Financial Regulation and detailed in the form;
2. to undertake to submit to the Commission any additional document relating to the exclusion criteria, that the Commission considers necessary to perform its checks, within 15 days following the receipt of the Commission's request.

5.1.2. Grounds for disqualification

In accordance with Article 141 of the Financial Regulation, a contract for a given procedure may not be awarded to an economic operator who:

- is in an exclusion situation established in accordance with Article 136 to 140;
- has misrepresented the information required as a condition for participating in the procedure or has failed to supply that information;
- was previously involved in the preparation of procurement documents where this entails a distortion of competition that cannot be remedied otherwise.

5.1.3. Evidence

The tenderer to whom the contract is to be awarded shall provide, within the 15 days following the receipt of the letter informing him of the proposed award of the contract and preceding the signature of the contract, the evidence confirming the declaration referred to in paragraph 5.1.1, (for the details of requested documents please see directly the text of the declaration).

The Commission may waive the obligation of a tenderer to submit the documentary evidence referred to above if such evidence has already been submitted to it for the purposes of another procurement procedure and provided that the issuing date of the documents does not exceed one year and that they are still valid. In such a case, the tenderer shall declare on his honour that the documentary evidence has already been provided to the Commission in a previous procurement procedure and confirm that no changes in his situation have occurred. He shall indicate in its tender all the references necessary to allow the Commission services to check this evidence.

You may refer to the e-Certis web-site listing the certificates available in EU Member States:

<http://ec.europa.eu/markt/ecertis/login.do>

5.2. APPLICATION OF SELECTION CRITERIA (SELECTION OF TENDERERS)

This part of the tender concerns the criteria and evidence relating to the, technical and professional capacity and economic and financial capacity of the service provider(s) involved in the bid. It should also contain any other document that the tenderer(s) wish(es) to include by way of clarification.

An economic operator may rely on the capacities of other entities, regardless of the legal nature of the links which it has with them. In that case, evidence must be provided that it will have at its disposal the resources necessary for performance of the contract, for example by producing a clear undertaking on the part of those entities to place those resources at its disposal.

If the economic and financial selection criteria are fulfilled by relying on a third party, the contracting authority may demand, if that tender wins the contract, that this third party signs the contract (becomes a contractor) or, alternatively, provides a joint and several first-call guarantee.

If the third party chooses to sign the contract, the contracting authority should ensure that it is not in exclusion situation and it has access to the market.

If several service providers are involved in the bid, each of them must have the professional and technical capacity to perform the tasks assigned to them in the tender and have the necessary economic and financial capacity.

This rule applies to all legal entities once they have chosen to be tenderers. If the tender includes subcontractors, the Commission reserves the right to request evidence of their economic and financial capacity, where the tasks subcontracted represent a substantial part of the contract.

5.2.1. Selection criteria

<u>SELECTION CRITERIA</u>
1. FINANCIAL AND ECONOMIC CAPACITY
<p><i>1.1 Turnover of the last two financial years above EUR 400.000, this criterion applies to the tenderer as a whole, i.e. the combined capacity of all members of a group in case of a joint tender.</i></p> <p><i>1.2 Sufficient financial capacity in relation to the pre-financing foreseen under the contract (where relevant)</i></p> <p><i>1.3 Reliability of the mitigating measures presented to cover possible deficiencies in the evidence presented for the above criteria.</i></p>
2. TECHNICAL AND PROFESSIONAL CAPACITY
<p><i>2.1 Minimum 2 persons with proven experience of at least 5 years in the field of satellite navigation, including SBAS.</i></p> <p><i>2.2 Minimum 2 persons with proven experience of at least 2 years on provision of road services.</i></p> <p><i>2.3 Minimum 2 persons with proven experience of at least 5 years in market and cost benefit analysis.</i></p> <p><i>2.4 Minimum 2 persons with proven experience of at least five years on road safety assessment and risk analyses.</i></p> <p><i>2.5 Minimum 1 person with proven experience of at least five years on road legal and regulatory analyses.</i></p>

These criteria will be assessed on the basis of the documents referred to in 5.2.2 and 5.2.3.

5.2.2. Evidence of the economic and financial capacity of the service provider(s)

All tenderers shall provide proof of their economic and financial capacity by submitting the following documents:

- a) A full copy of the concerned legal entities' annual accounts (balance sheet, profit and loss account, notes on the accounts and auditors' remarks when applicable) of the last two years, as approved by the general assembly of the company and, where applicable, audited and/or published. These documents must be signed by the authorised representative of the tenderer;
- b) Alternatively to a), a filled out Annex 6.3. This document must be signed by an authorised representative of the tenderer.
- c) a statement of overall turnover and turnover concerning the tasks, supplies or services covered by this contract for the last three financial years;

5. Assessment and award of contract

d) Appropriate statements from banks or evidence of professional risk indemnity insurance, for legal entities facing the impossibility to fully present evidence a).

If, for some exceptional reason which the Commission considers justified, a tenderer is unable to provide one or other of the above documents, he or she may prove his or her economic and financial capacity by any other document which the Commission considers appropriate. In any case, the Commission must at least be notified of the exceptional reason and its justification in the tender. The Commission reserves the right to request any other document enabling it to verify the tenderer's economic and financial capacity.

The Commission may waive the obligation of a tenderer to submit the documentary evidence referred to in paragraph 1 if such evidence has already been submitted to it for the purposes of another procurement procedure and provided that it complies with the requirements of the present call for tenders. In such a case, the tenderer shall indicate in the tender reference to the contract and Commission service for which the evidence has been provided, in order to allow the Commission services to check this evidence.

5.2.3. *Evidence of the technical and professional capacity of the service provider(s)*

The ability of service providers to perform services will be assessed in particular with regard to their know-how, efficiency, experience and reliability as specified in paragraph 5.2.1.

Evidence of the technical and professional capacity of the providers involved in the tender may be furnished on the basis of the following documents:

a) the educational and professional qualifications of the service provider or contractor and/or those of the firm's managerial staff and, in particular, those of the person or persons responsible for providing the services or carrying out the tasks; The Europass curriculum vitae format (<http://europass.cedefop.europa.eu/en/documents/curriculum-vitae>) shall be filled in and signed, by each person involved in the execution of the tasks foreseen in the tender. The precise contractual link with the tenderer will also be described.

This evidence refers to selection criteria 2. 1 – 2.2 -2.3 – 2.4 -2.5.

b) an indication of the proportion of the contract which the service provider may intend to subcontract.

By submitting a tender, each legal entity involved therein accepts the possibility of a check being carried out by the Commission on its technical capacities and, if necessary, on its research facilities and quality control measures.

In addition, all tenderers are informed that they may be asked to prove that they are authorised to perform the contract under national law, as evidenced by inclusion in a professional or trade register, by a sworn declaration or certificate, by membership of a specific organisation, by express authorisation, or by entry in the VAT register.

5.3. APPLICATION OF AWARD CRITERIA (ASSESSMENT OF TENDERS)

The contract will be awarded to the **most cost-effective tender**. The following award criteria will be applied:

No	Qualitative award criteria	Weighting (maximum points)
A.1	Quality of methodology and approach proposed <ul style="list-style-type: none"> ➤ Clarity, relevance and completeness of the proposed methodology and approach to achieve the objectives and provide the services as requested. 	40
A.2	Quality and adequacy of the project management: <ul style="list-style-type: none"> ➤ Adequacy of the proposed management plan, including quality of the proposed planning, monitoring and evaluation, quality control process/mechanisms for ensuring a continuous service, product assurance, risk assessment, dissemination and stakeholder management plan. 	20
A.3	Adequacy of the proposed team, support and facilities allocated to each task <ul style="list-style-type: none"> ➤ Relevance of each team member's background for the duties allocated to him/her ➤ Allocation of personnel per task in the work package description ➤ Adequacy of the methodology proposed for the Working Group including the proposed participants and the tasks allocated to them ➤ Suitability of equipment, tools or facilities at the disposal of the tenderer for the execution of the tasks and justification of their contribution to the projects objectives. 	40
Total number of points		100

The selected tender is assessed according to the above qualitative award criteria and the weighting applicable to each criterion.

Tenders scoring

** less than 60 % in the overall points total or*

** less than 50% in the points awarded for a single criterion*

will be excluded from the rest of the assessment procedure.

Price Award criterion

Total price

Tenders presenting a total price superior to the maximum amount of 400.000€ will be excluded from the rest of the assessment procedure.

The contract will be awarded to the tender which is the most economically advantageous on the basis of the ratio between the total points scored and the price.

Final Evaluation
<p>Total Scoring based on Price:</p> $\left(0.3 \times \frac{Price_{cheapest}}{Price_n} \times 100\right) + (0.7 \times Points_n)$ <p>Where:</p> <p>$Price_{cheapest}$ is the lower price among all the tenderers having passed the quality threshold</p> <p>$Price_n$ is the price of the Tenderer under evaluation</p> <p>$Points_n$ is the scoring in points of the Tenderer under evaluation</p>

Tenders should elaborate on all points addressed by these specifications in order to score as many points as possible. The mere repetition of mandatory requirements set out in these specifications, without going into details or without giving any added value, may result in a significantly lower score. Where essential elements of these specifications are not expressively covered by the tender, the Commission may decide to give a zero mark for the relevant qualitative award criteria.

The tender may be rejected as non-compliant, when the minimum requirements set in the specifications are not met.

5.4. INFORMATION FOR TENDERERS

The Commission will notify all tenderers of decisions reached concerning the outcome of the procedure, indicating the grounds on which the decision was taken. This also applies to a decision not to award a contract or to cancel the procedure.

The Commission will inform the rejected tenderers of the reasons for their rejection. Each tenderer who is not in an exclusion situation and whose tender is compliant with the procurement documents and who makes a request in writing, shall be informed of the characteristics and relative advantages of the selected tender, of the name of the successful tenderer and of the price or contract value.

5. Assessment and award of contract

However, certain information may be withheld where its release would impede law enforcement or otherwise be contrary to the public interest, or would prejudice the legitimate commercial interests of economic operators, public or private, or might prejudice fair competition between them.

5.5. AWARD OF THE CONTRACT

The procurement procedure is concluded by a contract signed by the parties. In this case, the General Terms and Conditions applicable to service contracts referred to above shall apply.

After the period of validity of the tender has expired, conclusion of the contract shall be subject to the tenderer's agreement in writing.

The Commission shall not sign the contract or framework contract with the successful tenderer until a standstill period of 10 calendar days has elapsed, counting from the day after simultaneous dispatch of the notification by electronic means to all tenderers (successful and unsuccessful).

After the award, during standstill period, the Commission will request to the tenderer proposed for award the evidence on exclusion criteria defined in section 5.1.3. If this evidence was not provided or proved to be unsatisfactory the Commission reserves the right to cancel the award procedure or to change the award decision to the benefit of the next best ranked tenderer on condition that he satisfies with the provision of the evidence on exclusion.

6. ANNEXES

ANNEXES

6.1. EXCLUSION AND SELECTION CRITERIA FORM (INVITATION TO TENDER NO GROW/2019/OP/0003)

[This form is mandatory]

Comments *[in grey italics in square brackets]* are to be deleted and/or replaced by appropriate data.

Declaration on honour on exclusion criteria and selection criteria

The undersigned [*insert name of the signatory of this form*], representing:

<i>(only for natural persons)</i> himself or herself	<i>(only for legal persons)</i> the following legal person:
ID or passport number: (‘the person’)	Full official name: Official legal form: Statutory registration number: Full official address: VAT registration number: (‘the person’)

The person is not required to submit the declaration on exclusion criteria if the same declaration has already been submitted for the purposes of another award procedure of the same contracting authority², provided the situation has not changed, and that the time that has elapsed since the issuing date of the declaration does not exceed one year.

In this case, the signatory declares that the person has already provided the same declaration on exclusion criteria for a previous procedure and confirms that there has been no change in its situation:

Date of the declaration	Full reference to previous procedure

I – Situation of exclusion concerning the person

(1) declares that the above-mentioned person is in one of the following situations:	YES	NO
a) it is bankrupt, subject to insolvency or winding-up procedures, its assets are being administered by a liquidator or by a court, it is in an arrangement with creditors, its business activities are suspended or it is in any analogous situation arising from a similar procedure provided for under EU or national laws or regulations;	<input type="checkbox"/>	<input type="checkbox"/>
b) it has been established by a final judgement or a final administrative decision that the person is in breach of its obligations relating to the payment of taxes or social security contributions in accordance with the applicable law;	<input type="checkbox"/>	<input type="checkbox"/>

² The same EU institution, agency, body or office.

c) it has been established by a final judgement or a final administrative decision that the person is guilty of grave professional misconduct by having violated applicable laws or regulations or ethical standards of the profession to which the person belongs, or by having engaged in any wrongful conduct which has an impact on its professional credibility where such conduct denotes wrongful intent or gross negligence, including, in particular, any of the following:		
(i) fraudulently or negligently misrepresenting information required for the verification of the absence of grounds for exclusion or the fulfilment of selection criteria or in the performance of a contract or an agreement;	<input type="checkbox"/>	<input type="checkbox"/>
(ii) entering into agreement with other persons with the aim of distorting competition;	<input type="checkbox"/>	<input type="checkbox"/>
(iii) violating intellectual property rights;	<input type="checkbox"/>	<input type="checkbox"/>
(iv) attempting to influence the decision-making process of the contracting authority during the award procedure;	<input type="checkbox"/>	<input type="checkbox"/>
(v) attempting to obtain confidential information that may confer upon it undue advantages in the award procedure;	<input type="checkbox"/>	<input type="checkbox"/>
d) it has been established by a final judgement that the person is guilty of the following:		
(i) fraud, within the meaning of Article 3 of Directive (EU) 2017/1371 and Article 1 of the Convention on the protection of the European Communities' financial interests, drawn up by the Council Act of 26 July 1995;	<input type="checkbox"/>	<input type="checkbox"/>
(ii) corruption, as defined in Article 4(2) of Directive (EU) 2017/1371 and Article 3 of the Convention on the fight against corruption involving officials of the European Communities or officials of Member States of the European Union, drawn up by the Council Act of 26 May 1997, and conduct referred to in Article 2(1) of Council Framework Decision 2003/568/JHA, as well as corruption as defined in the applicable law;	<input type="checkbox"/>	<input type="checkbox"/>
(iii) conduct related to a criminal organisation, as referred to in Article 2 of Council Framework Decision 2008/841/JHA;	<input type="checkbox"/>	<input type="checkbox"/>
(iv) money laundering or terrorist financing, within the meaning of Article 1(3), (4) and (5) of Directive (EU) 2015/849 of the European Parliament and of the Council;	<input type="checkbox"/>	<input type="checkbox"/>
(v) terrorist-related offences or offences linked to terrorist activities, as defined in Articles 1 and 3 of Council Framework Decision 2002/475/JHA, respectively, or inciting, aiding, abetting or attempting to commit such offences, as referred to in Article 4 of that Decision;	<input type="checkbox"/>	<input type="checkbox"/>
(vi) child labour or other offences concerning trafficking in human beings as referred to in Article 2 of Directive 2011/36/EU of the European Parliament and of the Council;	<input type="checkbox"/>	<input type="checkbox"/>
e) it has shown significant deficiencies in complying with the main obligations in the performance of a contract or an agreement financed by the Union's budget, which has led to its early termination or to the application of liquidated damages or other contractual penalties, or which has been discovered following checks, audits or investigations by a contracting authority, the European Anti-Fraud Office (OLAF) or the Court of Auditors;	<input type="checkbox"/>	<input type="checkbox"/>

f) it has been established by a final judgment or final administrative decision that the person has committed an irregularity within the meaning of Article 1(2) of Council Regulation (EC, Euratom) No 2988/95;	<input type="checkbox"/>	<input type="checkbox"/>
g) it has been established by a final judgment or final administrative decision that the person has created an entity under a different jurisdiction with the intent to circumvent fiscal, social or any other legal obligations in the jurisdiction of its registered office, central administration or principal place of business.	<input type="checkbox"/>	<input type="checkbox"/>
h) (<i>only for legal persons</i>) it has been established by a final judgment or final administrative decision that the person has been created with the intent provided for in point (g).	<input type="checkbox"/>	<input type="checkbox"/>
i) for the situations referred to in points (c) to (h) above the person is subject to: <ul style="list-style-type: none"> i. facts established in the context of audits or investigations carried out by the European Public Prosecutor's Office after its establishment, the Court of Auditors, the European Anti-Fraud Office (OLAF) or the internal auditor, or any other check, audit or control performed under the responsibility of an authorising officer of an EU institution, of a European office or of an EU agency or body; ii. non-final administrative decisions which may include disciplinary measures taken by the competent supervisory body responsible for the verification of the application of standards of professional ethics; iii. facts referred to in decisions of entities or persons being entrusted with EU budget implementation tasks; iv. information transmitted by Member States implementing Union funds; v. decisions of the Commission relating to the infringement of Union competition law or of a national competent authority relating to the infringement of Union or national competition law; or vi. decisions of exclusion by an authorising officer of an EU institution, of a European office or of an EU agency or body. 	<input type="checkbox"/>	<input type="checkbox"/>

II – Situations of exclusion concerning natural or legal persons with power of representation, decision-making or control over the legal person and beneficial owners

Not applicable to natural persons, Member States and local authorities

(2) The signatory declares that a natural or legal person who is a member of the administrative, management or supervisory body of the above-mentioned legal person, or who has powers of representation, decision or control with regard to the above-mentioned legal person (this covers e.g. company directors, members of management or supervisory bodies, and cases where one natural or legal person holds a majority of shares), or a beneficial owner of the person (as referred to in point 6 of article 3 of Directive (EU) No 2015/849) is in one of the following situations:	YES	NO	N/A
Situation (c) above (grave professional misconduct)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Situation (d) above (fraud, corruption or other criminal offence)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Situation (e) above (significant deficiencies in performance of a contract)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Situation (f) above (irregularity)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Situation (g) above (creation of an entity with the intent to circumvent legal obligations)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Situation (h) above (person created with the intent to circumvent legal obligations)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

III – Situations of exclusion concerning natural or legal persons assuming unlimited liability for the debts of the legal person

(3) declares that a natural or legal person that assumes unlimited liability for the debts of the above-mentioned legal person is in one of the following situations:	YES	NO	N/A
Situation (a) above (bankruptcy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Situation (b) above (breach in payment of taxes or social security contributions)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

IV – Grounds for rejection from this procedure

(4) declares that the above-mentioned person:	YES	NO
Was previously involved in the preparation of the procurement documents used in this award procedure, where this entailed a breach of the principle of equality of treatment including distortion of competition that cannot be remedied otherwise.	<input type="checkbox"/>	<input type="checkbox"/>

V – Remedial measures

If the person declares one of the situations of exclusion listed above, it must indicate measures it has taken to remedy the exclusion situation, thus demonstrating its reliability. This may include e.g. technical, organisational and personnel measures to prevent further occurrence, compensation of damage or payment of fines or of any taxes or social security contributions. The relevant documentary evidence which illustrates the remedial measures taken must be provided in annex to this declaration. This does not apply for situations referred in point (d) of this declaration.

VI – Evidence upon request

Upon request and within the time limit set by the contracting authority the person must provide information on natural or legal persons that are members of the administrative, management or supervisory body or that have powers of representation, decision or control, including legal and natural persons within the ownership and control structure and beneficial owners.

It must also provide the following evidence concerning the person itself and the natural or legal persons on whose capacity the person intends to rely, or a subcontractor and concerning the natural or legal persons which assume unlimited liability for the debts of the person:

For situations described in (a), (c), (d), (f), (g) and (h), production of a recent extract from the judicial record is required or, failing that, an equivalent document recently issued by a judicial or administrative authority in the country of establishment of the person showing that those requirements are satisfied.

For the situation described in point (b), production of recent certificates issued by the competent authorities of the State concerned are required. These documents must provide evidence covering all taxes and social security contributions for which the person is liable, including for example, VAT, income tax (natural persons only), company tax (legal persons only) and social security contributions. Where any document described above is not issued in the country concerned, it may be replaced by a sworn statement made before a judicial authority or notary or, failing that, a solemn statement made before an administrative authority or a qualified professional body in its country of establishment.

The person is not required to submit the evidence if it has already been submitted for another award procedure of the same contracting authority³. The documents must have been issued no more than one year before the date of their request by the contracting authority and must still be valid at that date.

The signatory declares that the person has already provided the documentary evidence for a previous procedure and confirms that there has been no change in its situation:

Document	Full reference to previous procedure
<i>Insert as many lines as necessary.</i>	

VII – Selection criteria

(1) declares that the above-mentioned person complies with the selection criteria applicable to it individually as provided in the tender specifications:	YES	NO	N/A
(a) It fulfills the applicable economic and financial criteria indicated in section 5.2.1 of the tender specifications;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) It fulfills the applicable technical and professional criteria indicated in section 5.2.1 of the tender specifications.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(2) if the above-mentioned person is the sole tenderer or the leader in case of joint tender , declares that:	YES	NO	N/A
(c) the tenderer, including all members of the group in case of joint tender and including subcontractors if applicable, complies with all the selection criteria for which a consolidated assessment will be made as provided in the tender specifications.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

VIII – Evidence for selection

The signatory declares that the above-mentioned person is able to provide the necessary supporting documents listed in the relevant sections of the tender specifications and which are not available electronically upon request and without delay.

The person is not required to submit the evidence if it has already been submitted for another procurement procedure of the same contracting authority⁴. The documents must have been issued

³ The same institution or agency.

⁴ The same institution of agency.

no more than one year before the date of their request by the contracting authority and must still be valid at that date.

The signatory declares that the person has already provided the documentary evidence for a previous procedure and confirms that there has been no change in its situation:

Document	Full reference to previous procedure
<i>Insert as many lines as necessary.</i>	

The above-mentioned person may be subject to rejection from this procedure and to administrative sanctions (exclusion or financial penalty) if any of the declarations or information provided as a condition for participating in this procedure prove to be false.

Full name

Date

Signature

6.2. MODEL GUARANTEE

[MODEL] LETTER FOR PRE-FINANCING FIRST DEMAND GUARANTEE⁵

[Financial institution/Bank (Letterhead)]
[Place/Date]

European Community
Represented by the European Commission
Directorate-General for Internal Market, Industry,
Entrepreneurship and SMEs – [Unit]
B – 1049 Belgium

Reference: Contract [*Insert number and exact title*]

ARTICLE 1 – DECLARATION ON GUARANTEE, AMOUNT AND PURPOSE

We, the undersigned [*insert name and address of the financial institution or bank*] ('the Guarantor') hereby confirm that we give the European Union, represented by the European Commission ('the Commission'), an unconditional, irrevocable and independent first-demand guarantee consisting in the undertaking to pay to the Commission a sum equivalent to the amount of:

EUR [*insert amount in figures and in words*]

upon simple demand, for guarantee of the pre-financing(s) stipulated in the contract [*insert number and exact title*], [*Option 1:* ('the grant agreement') signed between the Commission and [*insert name and address*] ('the Beneficiary')] [*Option 2:* ('the grant decision') taken by the Commission and addressed to the [*insert name and address*] ('the Beneficiary')] [*Option 3:* ('the contract') concluded between the Commission and [*insert name and address*] ('the Contractor')].

ARTICLE 2 – EXECUTION OF GUARANTEE

If the Accounting Officer of the Commission gives notice that the Contractor has for any reason failed to reimburse pre-financings paid by the Commission, we, acting for account of the Contractor, shall pay immediately up to the above amount, in EUR, without exception or objection, into [a bank account designated by the Commission] [the following bank account: [*insert number*]], on receipt of the first written request from the Commission. We shall inform the Commission in writing as soon as the payment has been made.

ARTICLE 3 – OBLIGATIONS OF THE GUARANTOR

1. We waive the right to require exhaustion of remedies against the Contractor, any right to withhold performance, any right of retention, any right of avoidance, any right to offset, and the right to assert

⁵ The footnotes are internal instructions for the authorising officers only and must be deleted before the guarantee is signed. [Plain text]: items to be filled in. [*Text in italics*]: these items are optional and may be deleted depending on the context of the guarantee.

⁶ In case of multi-beneficiaries arrangements please refer to the name and address of the coordinator if the coordinator is solely responsible for repayment to the Commission at the time of payment of the balance (see e.g. article II.26.1 of the model grant agreement with multiple beneficiaries).

any other claims which the Contractor may have against the Commission under the contract or in connection with it or on any other grounds.

2. Our obligations under this guarantee shall not be affected by any arrangements or agreements made by the Commission with the Contractor which may concern its obligations under the contract.
3. We shall inform immediately the Commission in writing, by registered letter or by courier with written receipt or equivalent, in the event of a change of our legal status, ownership or address.

ARTICLE 4 – DATE OF ENTRY INTO FORCE

This guarantee shall come into force upon its signature. If, on the date of its signature, the [first] pre-financing has not been paid to the Contractor, this guarantee shall enter into force on the date on which the Contractor receives the [first] pre-financing.

ARTICLE 5 – END DATE AND CONDITIONS OF RELEASE

1. We may be released from this guarantee only with the Commission's written consent.
2. This guarantee shall expire on return of this original document by the Commission to our offices.
3. [\[Option 1:](#) This must occur at the latest 30 days after the payment of the balance under the contract or four months after the notification of the corresponding debit note.]

[\[Option 2:](#) This must occur at the latest 30 days after the pre-financing under contract has been cleared through interim payment[s].]

[\[Option 3 to be used only if the law applicable to the guarantee imposes a precise expiry date:](#) This must occur, in any case, at the latest, on [\[indicate a precise date\]](#).]

4. After expiry, this guarantee shall become automatically null and no claim relating thereto shall be receivable for any reason whatsoever.

ARTICLE 6 – APPLICABLE LAW AND COMPETENT JURISDICTION

[\[Option 1:](#) Any dispute concerning this guarantee shall be governed by and construed in accordance with the law of [\[insert law applicable to the contract\]](#) and shall fall within the sole competence of the Courts of [\[insert the corresponding national courts as indicated in the contract\]](#).]

[\[Option 2:](#) Any dispute concerning this guarantee shall be governed by and construed in accordance with the law of [\[insert country of establishment of the Contractor or Bank\]](#) and shall fall within the sole competence of the [\[insert the corresponding national\]](#) Courts.

ARTICLE 7 - ASSIGNMENT

The rights arising from this guarantee may not be assigned.

Done at [*insert place*], on [*insert date*]

[*Signature*]

[*Function at the Financial Institution/Bank*]

[*Signature*]

[*Function at the Financial Institution/Bank*]

6.3. FINANCIAL AND ECONOMIC CAPACITY OVERVIEW FORM (INVITATION TO TENDER NO GROW/2019/OP/0003)

Financial and Economic Capacity Overview			
Currency : EURO		Figures (000)	
	N* (* most recent figures available)	N-1	N-2
Total Balance Sheet			
TRADE DEBTORS <i>Amounts due by commercial customers</i>			
CAPITAL and RESERVES (Equity) <i>Amounts owned by the company</i>			
TRADE CREDITORS <i>Amounts due to commercial suppliers</i>			
SHORT TERM DEBT			
LONG TERM DEBT			
LIQUIDITY <i>Bank accounts, cash at hand</i>			
<u>About PROFIT & LOSS</u>			
TURNOVER			
ORDINARY RESULT			
EXTRAORDINARY RESULT			
INCOME TAX			
NET RESULT			

You may add any data that you would consider of vital relevance for your organisation and for the understanding of the above figures.

Comments: Please explain BRIEFLY important variations from one year to another if appropriate. In case of negative equity or repeated losses, please explain how the future of the organisation will be ensured.

6.4. SUBCONTRACTOR / LETTER OF INTENT GROW/2019/OP/0003

**H2020: EGNOS SERVICE FOR
PAYMENT/LIABILITY CRITICAL
APPLICATIONS IN THE ROAD SECTOR**

The undersigned:

Name of the company/organisation:

Address:

Declares hereby the intention to collaborate in the execution of the tasks subject to the above call for tender, in accordance with the terms of the offer to which the present form is annexed, if the contract is awarded to *(name of the tenderer)*.

Declares hereby accepting the general conditions attached to the tendering specifications for this call for tender, and in particular art. II.24 in relation with checks and audits.

Full name

Date

Signature

.....

6.5. POWER OF ATTORNEY

POWER OF ATTORNEY – MODEL 1

Agreement / Power of Attorney

(DESIGNATING ONE OF THE COMPANIES OF THE GROUP AS LEADER AND GIVING A MANDATE TO IT)

We the undersigned:

- Signatory 1 (Name, Function, Company, Registered address, VAT Number)
- Signatory 2 (Name, Function, Company, Registered address, VAT Number)
-
- Signatory N (Name, Function, Company, Registered address, VAT Number),

Each of them having the legal capacity required to act on behalf of his/her company, HEREBY AGREE AS FOLLOWS:

In case the European Commission awards Contract (« **the Contract** ») to Company 1, Company 2, ..., Company N (« **the Group Members** »), based on the joint offer submitted by them on for the supply of and/or the provision of services for ... (« **the Supplies and/or the Services** »).

(1) As co-signatories of the Contract, all the Group Members:

- (a) Shall be jointly and severally liable towards the European Commission for the performance of the Contract.
- (b) Shall comply with the terms and conditions of the Contract and ensure the proper execution of their respective share of the Supplies and/or the Services.

(2) To this effect, the Group Members designate Company X as **Group Leader**. [*N.B.: The Group Leader has to be one of the Group Members*]

(3) Payments by the European Commission related to the Supplies or the Services shall be made through the Group Leader's bank account .[*Provide details on bank, address, account number, etc.*].

(4) The Group Members grant to the Group Leader all the necessary powers to act on their behalf in connection with the Supplies and/or the Services. This mandate involves in particular the following tasks:

- (a) The Group Leader shall sign any contractual documents—including the Contract, and Amendments thereto—and issue any invoices related to the Supplies or the Services on behalf of the Group Members.
- (b) The Group Leader shall act as single point of contact for the European Commission in connection with the Supplies and/or the Services to be provided under the Contract. It shall co-ordinate the provision of the Supplies and/or the Services by the Group Members to the European Commission, and shall see to a proper administration of the Contract.

Any modification to the present agreement / power of attorney shall be subject to the European Commission's express approval.

This agreement / power of attorney shall expire when all the contractual obligations of the Group Members towards the European Commission in connection with the Supplies and/or the Services to be provided under the Contract have ceased to exist. The parties cannot terminate it before that date without the Commission's consent.

Signed in on

Name
Function
Company

Name
Function
Company

Name
Function
Company

Name
Function
Company

POWER OF ATTORNEY – MODEL 2

Agreement / Power of Attorney

(CREATING THE GROUP AS SEPARATE ENTITY, APPOINTING A GROUP MANAGER AND GIVING A MANDATE TO HIM/HER)

We the undersigned:

- Signatory 1 (Name, Function, Company, Registered address, VAT Number)
- Signatory 2 (Name, Function, Company, Registered address, VAT Number)
-
- Signatory N (Name, Function, Company, Registered address, VAT Number),

Each of them having the legal capacity required to act on behalf of his/her company, HEREBY AGREE AS FOLLOWS:

In case the European Commission awards Contract (« **the Contract** ») to Company 1, Company 2, ..., Company N (« **the Group Members** »), based on the joint offer submitted by them on for the supply of and/or the provision of services for ... (« **the Supplies and/or the Services** »).

(1) As co-signatories of the Contract, all the Group Members:

- (a) Shall be jointly and severally liable towards the European Commission for the performance of the Contract.
- (b) Shall comply with the terms and conditions of the Contract and ensure the proper execution of their respective share of the Supplies and/or the Services.

(2) To this effect, the Group Members have set up under the laws of the Group (« **the Group** »). The Group has the legal form of a [*Provide details on registration of the Group: VAT Number, Trade Register, etc.*].

(3) Payments by the European Commission related to the Supplies or the Services shall be made through the Group's bank account . [*Provide details on bank, address, account number, etc.*].

(4) The Group Members appoint Mr/Ms as **Group Manager**.

(5) The Group Members grant to the Group Manager all the necessary powers to act alone on their behalf in connection with the Supplies and/or the Services. This mandate involves in particular the following tasks :

- (a) The Group Manager shall sign any contractual documents—including the Contract, and Amendments thereto—and issue any invoices related to the Supplies or the Services on behalf of the Group Members.
- (b) The Group Manager shall act as single point of contact for the European Commission in connection with the Supplies and/or the Services to be provided under the Contract. He/she shall co-ordinate the provision of the Supplies and/or the Services by the Group Members to the European Commission, and shall see to a proper administration of the Contract.

Any modification to the present agreement / power of attorney shall be subject to the European Commission's express approval.

This agreement / power of attorney shall expire when all the contractual obligations of the Group Members towards the European Commission in connection with the Supplies and/or the Services to be provided under the Contract have ceased to exist. The parties cannot terminate it before that date without the Commission's consent.

Signed in on

Name
Function
Company

Name
Function
Company

Name
Function
Company

Name
Function
Company

6.6. CHECKLIST OF DOCUMENTS TO BE SUBMITTED IN THE E-SUBMISSION APPLICATION

The purpose of the table below is to facilitate the preparation of the tender by providing an overview of the documents that must be included (marked by ■) depending on the role of each economic operator in the tender (joint tender leader in joint bid, partner in joint bid, sole tenderer, subcontractor).

Some of the documents are only relevant in cases of joint bids or when subcontractors are involved. Additional documents might be necessary depending on the specific characteristics of each tender.

Description	Joint tender leader in joint bid	Partners in joint bid	Sole tenderer	Sub-contractor(s)
Power of attorney of partners in joint bid indicating the group leader (see annex 6.5)		■		
Evidence that the person signing the documents is an authorised representative of the tenderer	■	■	■	
Letter of intent of subcontractor (see annex 6.4)				■
Exclusion and selection Criteria form (see section 5.1.1 and annex 6.1)	■	■	■	■
Evidence of Economic and financial capacity (see section 5.2.2 and annex 6.3)	■	■	■	
Evidence of Technical and professional capacity (see section 5.2.3) Go to the following page to fill in the CV: http://europass.cedefop.europa.eu/en/documents/cv-urriculum-vitae	■	■	■	■

The following sections must be provided in the bid, their absence would mean rejection of the bid for incompleteness:

Description	Joint tender leader or sole tenderer
Technical Offer (see section 4.1.4 and 1.)	■

Financial Offer (see section 4.1.5)	■
-------------------------------------------------------	---

Once all information and documents have been encoded and uploaded in the e-Submission application and you consider that the tender is complete, the application will require you to download the Tender Report generated by the e-Submission application. It will have to be signed (hand signature or electronic signature) and uploaded, as explained in the [eSubmission Quick Guide for economic operators](#).

Description	Joint tender leader in joint bid	Partners in joint bid	Sole tenderer	Sub-contractor	Where to upload a document in e-Submission
Tender Report	■		■		In Step "Tender Report" of the e-Submission wizard

6.7. DOCUMENTS WHICH MAY BE REQUESTED BY THE EU VALIDATION SERVICES IN THE COURSE OF THE PROCEDURE

I. For the purposes of the **legal validation** of the entities:

- Signed **legal entity identification form**⁷ :

- Natural Person

- Private Law Body

- Public Law Body

- **Official VAT document** or — if the entity is not registered for VAT — the proof of VAT exemption, not older than 6 months.
- Signed **Financial Identification Form**, and
- the following additional documents, where relevant:

Private body	Registration extract (not older than 6 months).
Public body	Copy of the act, law, decree or decision that established the organisation as a public body (or, if this doesn't exist, any other official legal document that proves this).
Non-profit organisation	Copy of an official document attesting that the organisation has a legal or statutory obligation not to distribute profits to shareholders or individual members. The certificate of tax exemption may only constitute an indication of the non-profit status of the entity which has to be assessed together with other elements.
Research organisation	Copy of an official document attesting that one of the main objectives of the entity is carrying out research or technological development.
Secondary or higher education establishment	Copy of an official document attesting that the organisation is recognised such as 'secondary or higher education establishment' by the national education system and is entitled to

⁷ Available at http://ec.europa.eu/budget/contracts_grants/info_contracts/legal_entities/legal_entities_en.cfm

	deliver diplomas recognized by the State.
International organisation International organisation of European interest	Copy of the relevant international treaty creating the organisation under international public law.
Natural person	Copy (legible) of valid identity card or passport
Entities without legal personality	<p>- Copy of an official document attesting that the representatives of the entity have the capacity to undertake legal obligations on its behalf.</p> <p>- Copy of an official document attesting that the entity has the same operational and financial capacity as that of a legal entity: i.e.</p> <ul style="list-style-type: none"> • a document showing patrimony/asset/capital that is separated and different from those of the members/owners of the entity, and • a copy of the rules providing that creditors can rely on this patrimony/asset/capital and — in case of liquidation/insolvency — are reimbursed before the patrimony/asset/capital is divided between the owners/members.

II. For the purpose of the **LEAR** appointment:

- LEAR appointment letter — completed, dated and signed (handwritten blue-ink original signature) by the legal representative and the LEAR
- Declaration of Consent to the Participant Portal Terms & Conditions — completed, dated and signed (handwritten blue-ink original signature) by the legal representative of the organisation
- Copy of the official, valid proof of identity for the legal representative (identity document issued by the national authority containing the photo and signature of the holder, i.e. ID card, passport or driving license)

- Copy of the official, valid proof of identity for the LEAR (identity document issued by the national authority containing the photo and signature of the holder, i.e. ID card, passport or driving licence) and
- Valid official document to demonstrate that the legal representative has the authority to engage the organisation in its entirety.

6.8. INTEGRITY CONCEPT GUIDE

As a guide to define the integrity concept, the following steps are proposed:

- 1) The OBU will be responsible for monitoring the integrity through the application of a threat model.
- 2) Define a multipath model per scenario for the OBU or additional techniques to guarantee the integrity of the solution.
- 3) The multi-sensor OBU shall be developed using a safety apportionment model that allocates performance requirements to EGNOS and to the additional sensors integrated in the user device.

The Contractor shall also identify:

- ☐ all inputs for the model (including expected performance of non-GNSS sensors),
- ☐ the specific requirements and conditions to be provided by EGNOS SiS and the requirements to be provided by the different components of the OBU (in terms of required performance or additional data) that will need to complement EGNOS in areas where user requirements cannot be met by EGNOS alone.
- ☐ conditions and restrictions (e.g. what temporal restrictions exist to the available position bounded by integrity to an acceptable level);

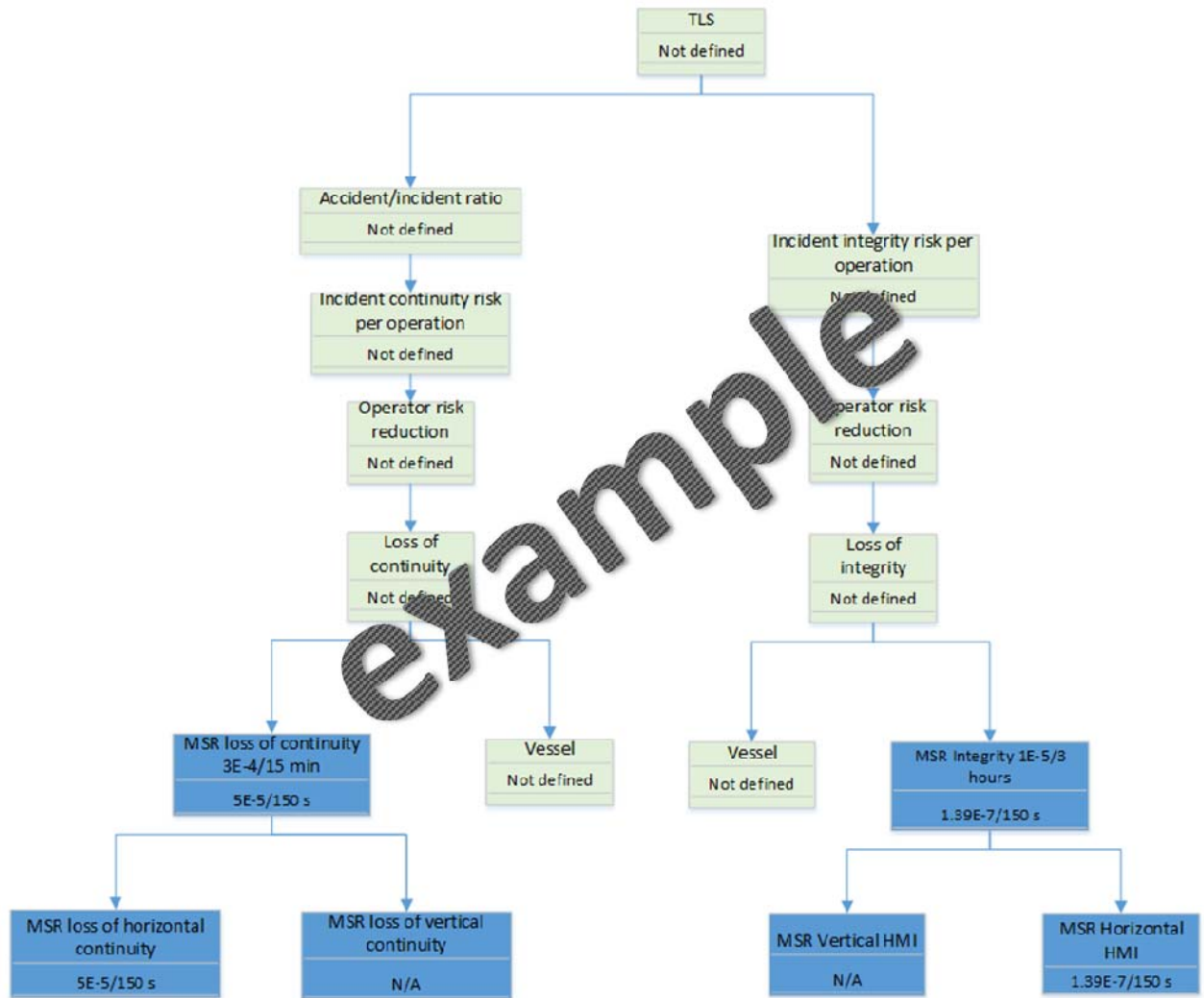


Figure 6-1 Example of safety apportionment model for the Multi Sensor Receiver (MSR) continuity and integrity

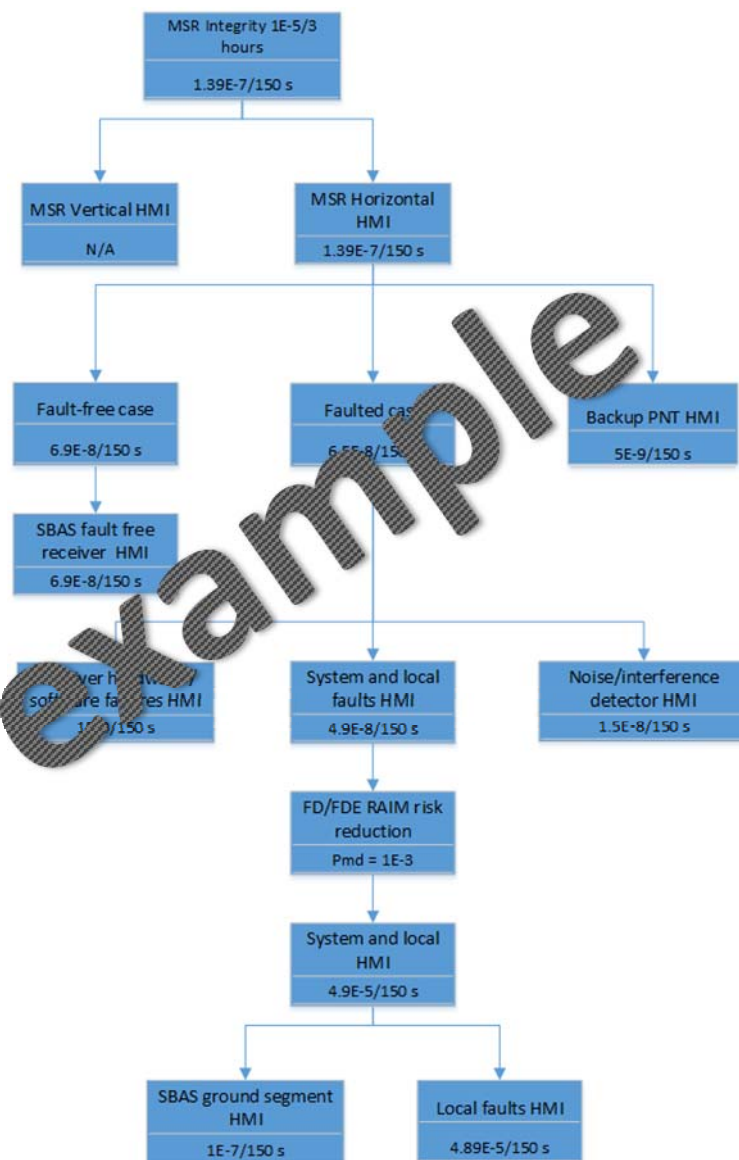


Figure 6-2 Example of apportionment of integrity to the receiver model

To perform a full safety tree analysis starting at a Target Level of Safety, and deriving from it the requirements for each subsystem. This process could potentially end up deriving very different integrity and continuity requirements for the OBU, but they would be fully justified and in line with the road segment user needs.