

Clarification Note #3
EGNSS Service Demonstrator (ESD)
EUSPA/OP/17/24
(EUSPA internal reference: 313902)

Question #14:

Table 1.2 of the SoW for SC2, SC3, and SC4 lists the Customer Furnished Items (CFIs) to be provided by the Contracting Authority. In all cases, CFI.01 refers only to the “ESD centralized facility module #1 and its corresponding ICDs,” with no mention of the ESD uplink infrastructure.

However, several requirements and use cases in these SCs imply the need to broadcast signals via SIS, potentially involving the update of the uplink infrastructure established under SC1. This would not be possible without the appropriate CFI.

Could the Contracting Authority clarify whether the ESD uplink infrastructure developed in SC1 is considered a Customer Furnished Item for SC2, SC3, and SC4?)

Answer: The initial list of CFIs in SC2, SC3 and SC4 SoW (Annexes I.I.c, I.I.d and I.I.e of the ITT respectively) mentions indeed the “ESD centralized facility module #1” since it is expected that as part of the SC1, the Uplink Infrastructure shall be ready to disseminate other messages as part of SC2, SC3, SC4. However, if the tenderer identifies additional needs in terms of CFI for the execution of the activities and tasks as part of SC2, SC3 and SC4 contracts, they should be identified in their proposal.

Question #15:

Table 4.1 of the SoW for the Specific Contracts (SC1 to SC4) includes two milestone achievement dates for each milestone: one relative to the Kick-Off (KO) date and the other relative to the preceding milestone. This dual reference could lead to ambiguity if a milestone is delayed. Could the Contracting Authority clarify which date takes precedence in the event of a discrepancy?

Answer: The correct version of the schedule is now corrected in FWC, SC1, SC2, SC3 and SC4 SoWs (Annexes I.I.a, I.I.b, I.I.c, I.I.d and I.I.e of the ITT respectively) as per Corrigendum n° 3.

Question #16:

In document EUSPA-ENG-SE-SOW-A31543 (FWC SoW) "Table 7-1: Use cases per specific contract" it appears three use cases associated to SC#4. It is understood that either the IoT and the SAS use cases (UC-EGNSS-ST-0011 and UC-EGNSS-ST-0012 respectively) are a typo and should not be considered in the frame of SC#4. Please note that IoT and the SAS use cases are not listed in the SC#4 SoW Appendix A. Please, could it be confirmed that the IoT and the SAS use cases should not be considered in the frame of SC#4?

Answer: The use cases per specific contract related to IoT and SAS have been corrected in FWC SoW (Annex I.I.a of the ITT) as per Corrigendum n° 3.

Question #17:

In relation with the activities specified in document SC#2 SoW (EUSPA-ENG-SE-SOWA31551) and in order to understand the expected integration SW/HW level of mentioned HAS generator CFI (CFI.02). Please, could EUSPA provide additional details on the form and expected integration to be considered for it?

Answer: The HAS generator CFI shall be integrated in such a way that it fulfills the specifications of the SC2 SoW (Annex I.I.c of the ITT) and Framework SoW (Annex I.I.a of the ITT). Moreover, when integrated into the ESD infrastructure, it shall not degrade the performances or KPIs achieved by the infrastructure qualified as part of SC1 or other Specific Contracts that may conclude before SC2.

Question #18:

In relation with the activities specified SC#2 SoW appendix A (EUSPA-ENG-SE-SOWA31551):

- Section A.1, use case UC-EGNSS-ST-0006: Could you please confirm whether the receiver prototype required for the execution of the use case is to be provided as part for the SC#2?
- Section A.2, use case UC-EGNSS-ST-0001, there are references to OSNMA KPIs which are not within the target of the SC#2. Could you please confirm whether this is a typo or the OSNMA KPIs are required in the frame of SC2?

Answer: As specified in the framework contract SOW and SC2 SOW (Annexes I.I.a and I.I.c of the ITT respectively), the Contractor shall provide all the infrastructure, necessary equipment and deliverables requested as part of each specific contract to be able to fulfil the objectives pre-conditions and post-conditions of each use case, therefore with respect to:

- Section A.1: a prototype of a user module or receiver is expected to be delivered as part of the SC to be able to perform the necessary close loop checks and to be able to demonstrate the requested performances and KPIs.
- Section A.2: The OSNMA references have been corrected in SC2 SoW (see Corrigendum n° 3).

Question #19:

In relation with the activities specified SC#4 SoW (EUSPA-ENG-SE-SOW-A31553):

- In order to understand the expected integration SW/HW level of the mentioned EWSS generator CFI (CFI.02 for which it is only provided a link to a EC procurement). Could EUSPA provide additional details on the form and expected integration to be considered for it?
- In appendix A, use case UC-EGNSS-ST-0010: Could you please confirm whether the receiver prototype required for the execution of the use case is to be provided as part for the SC#4?

Answer:

- The EWSS generator CFI shall be integrated in such a way that it fulfills the specifications of the Framework SOW and SC4 SOW (Annexes I.I.a and I.I.e of the ITT respectively). Moreover, when integrated into the ESD infrastructure, it shall not degrade the performances or KPIs achieved by the infrastructure qualified as part of SC1 or other Specific Contracts that may conclude before SC4.

- With respect to the Use Case UC-EGNSS-ST-0010 in Appendix A of the SC#4 SoW (Annex I.I.e of the ITT), as specified in the framework contract SOW and SC4 SOW (Annexes I.I.a and I.I.e of the ITT respectively), the Contractor shall provide all the infrastructure, necessary equipment and deliverables requested as part of each specific contract to be able to fulfil the objectives pre-conditions and post-conditions of each use case, therefore, a prototype of a user module or receiver is expected to be delivered as part of the SC to be able to perform the necessary close loop checks and to be able to demonstrate the requested performances and KPIs.

Question #20:

In IRD (doc with reference EUSPA-ENG-SE-IRD-A31556) the requirement [ESD-EGNS-IRDFUNC-0080] “*ESD to GEO Operator Uplink Message Uplink*” refers to SBAS DFMC and SBAS DFSC messages, SBAS SF messages, and other messages as specified in the FOC SOW. The note in the requirement states that the messages will not be uplinked in parallel.

Does this note mean that it is not expected for the ESD to transmit SBAS messages for L1 and L5 simultaneously—or, in a future upgrade, for L1, L5, and E5b simultaneously?

Please, can the Contractor assume that only one downlink band, L1, L5 or E5b, will be served by ESD at any given time, or should the Contractor assume that the services are to be provided simultaneously from a given ESD uplink site through the same GEO Operator uplink antenna input port?

Answer: The requirement in the IRD [AD.221] of the CISL (Annex I.I.f of the ITT) states that the different messages (e.g. SBAS DFMC, SBAS SF, other messages) will not be broadcast in parallel. However, the requirement does not state that the same message can/cannot be broadcast using different bands simultaneously. Note also that in EGNSS Service Demonstrator System Requirements Document [AD.201] of the CISL (Annex I.I.f of the ITT) in requirement [ESD-SRD-FUNC-04190] the Contractor is invited to present additional architectures to optimize the use of bandwidth and GEOs without impacting the EGNOS Safety of Life service.

Question #21:

In IRD (doc with reference EUSPA-ENG-SE-IRD-A31556) Requirement [ESD-EGNS-IRDFUNC-0060] “*ESD – EGNOS GEO Operator Uplink Antenna Interface Direction*” states that the flow between the ESD and the uplink antenna is unidirectional. However, the “*NLES - Hosting Site Interface Control Document*” [AD.221] refers to some interfaces from the Hosting Site into the NLES, such as the “*Serial interfaces to NLES*” (Section 4.4 of [AD.221]) and certain ports from the G/S patch panel to the NLES (Section 5.1 of [AD.221]).

Please, could you confirm which interfaces with the uplink site the ESD is expected to implement?

Answer: Indeed, the IRD document [AD.221] of the CISL (Annex I.I.f of the ITT) specifies a unidirectional workflow between the ESD and the uplink antenna to ensure no impact on the EGNOS operational system and EGNOS NLES. The Contractor shall present a credible solution where the ESD infrastructure to be deployed at the ESD Uplink hosting sites shall comply with the requirements in

section 7 of the IRD [AD.221] of the CISL (Annex I.I.f) ensuring no impact on the EGNOS operational system.

Question #22:

The SRD (doc with reference EUSPA-ENG-SE-REQ-A30129) refers to RF amplifiers and signal amplification in [ESD-SRD-FUNC-04150] "*ESD Uplink Infrastructure Frequencies*," [ESD-SRD-FUNC-04130] "*ESD Uplink Infrastructure Architecture*," and [ESD-SRD-FUNC-04180] "*ESD Uplink Infrastructure Frequencies – Signal Amplification*." RF amplifiers are also mentioned in Annex I.L (the Financial Proposal and Cost Sheet excel file – in particular in row 46/45 in sheets I.L.1-Specific Contract #1, I.L.1-Specific Contract #2, I.L.1-Specific Contract #3, I.L.1-Specific Contract #4

[AD.221] states that the transmit interface of the ESD with the NLES site should have a power level of -5 dBm per carrier, which indicates that the HPA is located on the EGNOS GEO Operator side.

Please, could you confirm that the ESD uplink infrastructure is NOT expected to include any HPAs?

Answer: As stated in the IRD document [AD.221] of the CISL (Annex I.I.f of the ITT), AD.250, AD.251 and AD.221 have been provided as the preliminary Uplink hosting site but the final location will be provided to the contractor at the ESD FWC KO. That means that the final configuration of the EGNOS GEO Operator side may vary. Therefore, the Contractor shall present a solution including all the infrastructure needed that may be necessary to procure along the FWC.

Question #23:

Examples of Price Breakdown Forms in Annex I.L refer to the unit price of UPS equipment. However, the SRD for SC1 does not mention explicitly the need to include UPS units in either the centralized or the uplink cabinets.

Could you please clarify whether it is expected that the ESD cabinets incorporate UPS units?

Answer: The SRD for SC1 [AD.201] of the CISL (Annex I.I.f of the ITT) does not request the Contractor a solution including final architecture or infrastructure but a set of requirements that the infrastructure shall fulfill. Therefore, based on several requirements (in particular some of them in section 4 of the SRD), the Contractor shall estimate the infrastructure needed to fulfill the requirements.

Question #24

The SRD (doc with reference EUSPA-ENG-SE-REQ-A30129) refers to the uplink bands C1, C5, C5a, and C5b.

Could you please inform us of the output frequency range limits of the Uplink Infrastructure? This would help in selecting suitable upgradable RF equipment

Answer: As stated in the IRD document [AD.221] of the CISL (Annex I.I.f of the ITT), AD.250, AD.251 and AD.221 have been provided as the preliminary Uplink hosting site but the final location will be provided to the contractor at the ESD FWC KO. That means that the final configuration of the EGNOS GEO Operator side may vary and therefore the output frequency range limits of the Uplink Infrastructure. The Contractor shall select the suitable and configurable equipment that will allow using different Uplink infrastructure.

Question #25

Mismatch in RUE documentation provided by EUSPA wrt to applicable documentation in CISL v 1.1.

We have identified that two of the 4 RUE documents received from EUSPA do not correspond to the applicable version as per CISL v1.1.

The RUE annex for AD301 should be 3.0 : it was received version 2.0

AD307 should be 1.1: it was received version 1.0

Answer: The Security related document references have been corrected in the CISL v1.2 as per Corrigendum n° 3. It is confirmed that the correct versions of the documents have been provided to the tenderers having successfully submitted the NDU as per section 1.4 of the Tender Specifications.

Question #26: Topic: Use case A11 on Authentication SAS

There is a use case A11 on Authentication SAS in the FWC SoW that is supposed to be part of SC4, but it is not presented in SC4 SOW use cases. Could you please confirm whether the capability to generate SAS shall be included in SC4 ?

Answer: It is clarified that Use case A11 on Authentication SAS is not to be considered for evaluation Scenario 4.

The allocation of use cases related to IoT and SAS to evaluation scenarios has been modified in FWC SoW (Annexes I.I.a of the ITT) as per Corrigendum n° 3.

Question #27: Topic: ESD uplink station design

Some requirements from the SRD refer to low level design of the uplink station, namely the need to generate a signal at IF [ESD-SRD-FUNC-04160] and then convert it to C band (This intermediate step can be dropped for new generation of uplink stations design, for performance and MTBF optimisation purposes). Can you please clarify the ESD use case for this functionality?

Answer: The requirements in the EGNSS Service Demonstrator System Requirements Document [AD.201] of the CISL (Annex I.I.f of the ITT) section 4.1.6 are specified in such a way that it is ensured the compatibility with different EGNOS RF Uplink stations while ensuring no-interference with EGNOS SoL operational service. In particular, commercial receivers can be connected directly to signal generators that generate signals in IF band as short-loop receiver safety check.

Question #28: Topic: WP7 for SC2, SC3, SC4

We understand that 500 man-days of effort are requested within the SC1 activities for WP7 engineering support. Can you please indicate the support effort envelop to be considered for WP7 in SC2, 3 and 4 ?

Answer: No engineering support is requested to be quoted as part of WP7 in the Statement of work of: Envisaged Specific Contract #2 Scenario, Envisaged Specific Contract #3 Scenario and Envisaged Specific Contract #4 Scenario (Annexes I.I.c, I.I.d and I.I.e of the ITT respectively).

Question #29: Topic : Content of Technical Offer

The following documents requested for the Technical offer in the “Tender Specifications” document :

- *Product Assurance Plan
- * PA and Safety Requirements for Subcontractors
- * Audit Preparation and Implementation Plan;

are not listed in ITT Annex I.I.g "DRL", neither in ITT Annex I.I.a "FWC SOW". They are not described in ITT Annex I.I.h "DCG". Can you please provide guidelines for these documents contents ?

Answer: The elements have been added in the DCG (Annex I.I.h of the ITT) and CISL (Annex I.I.f of the ITT) as per Corrigendum n° 3.

Question #30: Topic WBS and financial proposal 1/3

In the Annex I.L (EUSPA-OP-17-24 - Annex I.L - Financial Proposal and Cost Sheets ESD), the activities "Operations concept and procedures and Integrated Logistic Support activities" (FUP#21) are described as related to WP#4 and WP#6.

It could have been expected that this FUP#21 be described as applicable to WP#5 and WP#6, as "Operations concept and procedures activities" are described as related to WP#5 in requirement [ESD-FWC-SOW-1690] from section "Task 5 - Deployment" of the FWC SOW. Can you please confirm that FUP#21 are rather related to WP#5 and WP#6 instead of WP#4 and WP#6?

Answer: As described in the Framework Statement of Work and ES-SC1 Statement of Work (Annexes I.I.a and I.I.b of the ITT respectively), the Contractor shall provide the necessary documentation before starting the deployment phase, therefore element FUP#21 is correctly allocated to WP#4 and WP#6.

Question #31: Topic WBS and financial proposal 2/3

In the Annex I.L (EUSPA-OP-17-24 - Annex I.L - Financial Proposal and Cost Sheets ESD), the FUP#34 to 45 (Boards, servers, firewalls, receivers, ...) are described as related to WP#3, 4 and 5. It could have been expected that they are applicable only to WP#3 where the procurement of these items is performed. Can you please confirm this understanding ?

Answer: As described in the Framework Statement of Work and ES-SC1 Statement of Work (Annex I.I.a of the ITT) and as baseline of the Contract, the Contractor is expected to either procure (WP#3 and WP#5 are involved) or develop these elements (WP#3, WP#4 and WP#5 are involved). Therefore,

elements FUP#34 to FUP#45 are correctly allocated to WP#3, WP#4 and WP#5 depending on the choice of the contractor.

Question #32: Topic WBS and financial proposal 3/3

In the Annex I.L (EUSPA-OP-17-24 - Annex I.L - Financial Proposal and Cost Sheets ESD), the FUP#22 "Training activities" and 24 "Service Monitoring" are described as related to WP#5 (and one of them also to WP#7). It could have been expected that these FUP are applicable only to WP#7 as they correspond to activities that are described as part of WP#7 in requirement [ESD-FWC-SOW-2122] form section "6.7 Task 7 - Ad-hoc support" of the FWC SOW (namely : "Training for using the EGNSS service demonstrator" and "Support to data post-processing"). Can you please confirm this understanding?

Answer: As described in the Framework Statement of Work and ES-SC1 Statement of Work (Annex I.I.a of the ITT) after succesful AR1 (and AR2) the Contractor shall hand over the infrastructure to the operator to run the validation of the platform and shall support the operations of the infrastructure for a period of up to 3 months. On the other hand, WP#7 describes a generic list of activities the Contractor may need to additionally support ad-hoc as part of the contract. Among them, it is listed additional training to the ESD operator and additional service monitoring. Therefore, elements FUP#22 and FUP#24 are correctly allocated to WP#5.

Question #33: Document Precedence

It has been identified that the applicable document,"EUSPA-OP-17-24 - Annex I.I.g - EUSPA-ENG-SE-DRL-A31250_ESD DRL", is not aligned with applicable document [AD.301]:

- in relation with cyber security activities (section 6.4)
- in relation with hardening (section 4.5)
- in relation with lockdown activities (section 4.6)
- in relation with security audits

We kindly request that, please, it is specified what is the document precedence order for the mentioned applicable documents.

Answer: Section 1 of the Statement of Work for the Framework Contract (Annex I.I.a of the ITT) specifies the order of precedence between its 8 main annexes. In particular, the CISL (annex I.I.f of the ITT) and the documents included therein takes precedence over the DRL (Annex I.I.g of the ITT).

End of document