



CLARIFICATION NO. 1

INTERNAL GSA REFERENCE: WF 246858

Related to GSA/GRANT/01/2018 – "Multi-frequency Multipurpose Antenna for Galileo"

Question no. 1: In the specification on page 7 of the Call for Proposals (Section 2.2, Task 2), the two following points are mentioned amongst others:

- **"The antenna shall be able to process the GNSS signals in order to mitigate GNSS interferences;**
- **The antenna shall be universally defined, i.e. not designed for a specific GNSS receiver";**

It is not clear if the antenna should include a processing part of the GNSS signal. Indeed, in order to mitigate multipath, various technics can be used at receiver level (so it will be function of a specific receiver) but also at navigation system level (e.g., controlled reception pattern antenna or other technics including multi sensors). From one's understanding, the antenna should include the RF chain (antenna, filters, LNA...) but need to be able to work with various GNSS receiver. Could the GSA clarify the processing technics that need to be implemented in the foreseen product?

Answer: The processing techniques to be implemented in the product are not defined in the Call for Proposals because they shall be part of the proposal to be submitted by the applicant.

There are no limitations about the number and type of elements to be developed in the frame of the project, as long as the antenna(s) is (are) able to work with various GNSS receivers and provide(s) RF data.

Question no.2: Will the slides of the webinar be available online?

Answer: Yes, the slides are available on the GSA website.

Question no.3: Would it be possible to have an estimation on when the results of the Fundamental Elements Development of GNSS mass market are expected?

Answer: Information on other grant procedures currently under evaluation cannot be shared.

Question no.4: Is the scope of this activity related to the passive element only or passive and active element of the antenna or antenna + front-end + PVT engine?

Answer: There are no limitations about the number and type of elements to be developed in the frame of the project, as long as the antenna(s) is (are) able to work with various GNSS receivers and provide(s) RF data.



Question no.5: Should all the patents generated by the project be showed to the GSA, or be accept by the GSA?

Answer: As defined in Article II.9 of the grant agreements, the beneficiary owns the results. Therefore, no prior agreement (or other type of acceptance) from the GSA is necessary before filing the patent application(s).

Question no.6: Can special antenna measurements (i.e.not the core of the antenna design) be done on external labs?

Answer:

As specified in Section 1.2 and 2.2-Task 3 description, the beneficiary has the option to test the antenna(s) performance in the JRC laboratory. Alternatively and/or complementary, the consortium may use its own testing facilities or partners having facilities that can be made available to the project.

Question no.7: Should antenna design also support E6 band, as a mass-market solution?

Answer: No, for mass-market solutions only L1/E1 and L5/E5a shall be used. For professional applications, the solution shall be capable of working with, at least, the frequencies L1/E1, L5/E5 and E6.

Question no.8: In the Call for Proposals at p.7 (Section 2.2, Task 2) it reads: "The antenna shall be able to process the GNSS signals in order to mitigate GNSS interferences", normally the mitigations are implemented through powerful algorithms. Could you please clarify the expectations from GSA?

Answer: The applicants are free to propose any techniques to mitigate the interferences (including but not necessarily algorithms).

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