**ANNEX NO. 4a OF DOCUMENTATION OF THE PROCUREMENT PROCEDURE**

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**SPECIFICATION OF THE PUBLIC CONTRACT SUBJECT for lot 1 of the public contract**

The subject of the public contract shall meet the following requirements for technical parameters and equipment:

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| **Technical specification – Digitizer** | | |
| **Designation of the delivery (min. brand and type)** | |  |
| **Individual technical parameters of the performance** | | **Data about the offered performance** |
| 1 | number of channels  16  single or multiple units which together provide at least 16 independent channels working at the same clock | ***and will enter the actual value*** |
| 2 | sampling rate for each channel  10 GS/s | ***and will enter the actual value*** |
| 3 | analogue bandwidth for each channel 50  (-3 dB)  2.5 GHz |  |
| 4 | effective number of bits for each channel  8.2bit | ***and will enter the actual value*** |
| 5 | vertical resolution for each channel  12 bit | ***and will enter the actual value*** |
| 6 | input impedance for each channel: 50  |  |
| 7 | programmable DC offset for each channel |  |
| 8 | internal and external clock reference, including synchronization of all digitizers to 10MHz clock reference, the 10 MHz clock generator unit must be supplied |  |
| 9 | clock reference output |  |
| 10 | internal and external trigger for each channel |  |
| 11 | pre-trigger at least 16 000 samples | ***and will enter the actual value*** |
| 12 | trigger delay at least 16 000 samples | ***and will enter the actual value*** |
| 13 | If the digitizer consists of individual units a crate for housing of the individual units and allowing their simultaneous operation must be provided. |  |
| 14 | interface unit for streaming of sampled data to PC must be provided. |  |
| 15 | data streaming rate to PC for each channel  10 GB/s | ***and will enter the actual value*** |
| 16 | combined data streaming for all channels  20 GB/s | ***and will enter the actual value*** |
| 17 | The digitizer system must allow for the selection of coincidence events in flight.  Coincidence events are defined as events where the signals in at least two channels exceed a pre-selected threshold level within a time window of 200 ns. The system should operate in coincidence mode, meaning that only coincidence events are stored in the PC (200ns record), while single events where the threshold was exceeded in only one channel are not recorded. | ***and will enter the actual value*** |
| 18 | A PC capable of operating the digitizer system and recording sampled waveforms must be provided. |  |