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**Appendix No. 3 to the ToR**

**Description of the subject matter of the order - Technical specification - Minimum requirements**

**Concerning the procedure entitled:** "Supply of an automatic bioaerosol detector with an atomiser and management and data visualisation software".

**Place of the contract delivery:** Department of Climatology and Atmospheric Protection, University of Wrocław, ul. Kosiby 8, 51-621 Wrocław.

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| --- | --- | --- |
|  | **Detailed range of minimum technical parameters required by the Contracting Authority** | **Conformity of the features required with the features offered by the Contractor (To be filled in by the Contractor, by indicating YES or NO** as appropriate, e.g. for the answer YES: YES/~~NO~~ or YES/NO**, and in the blank space the Contractor shall clearly specify the parameters of the equipment/device/subassembly offered by him/her** |
| **General requirements** | * The device must use at least 3 pollen detection methods:
	+ **digital holography**
	+ **fluorescence spectroscopy (280 nm, 365 nm, 405 nm)**
	+ **polarisation measurements (405 nm)**
 | The device uses methods:………………………………………………………………………………………………………………………………………………………………………………………………………………….. |
|  | * The instrument must be equipped with an atomiser for expanding the database and teaching the recognition of new taxons
 | YES/NO\* |
|  | * The instrument must use a particle recognition algorithm based on artificial intelligence methods **(VGG 16)**
 | Recognition algorithm:……………………………………………………………………………………………………………………………………………………………… |
| **Time resolution of detection** | * At least 1 hour
 | Detection time resolution ...................h  |
| **Minimum range of recognised particles** | * alnus, betula, carpinus, corylus, fagus, fraxinus, pinaceae, platanus, poaceae, populus, quercus, taxus, ulmus
 | Recognised particles:………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………………. |
| **Functionality** | * Initial data, enabling monitoring to begin once the instrument is installed;
* Access to the software code, allowing extension of the algorithms towards recognition of other taxa;
* Software for management and visualisation of measurement data;
 | YES/NO\*YES/NO\*YES/NO\* |
| **Meteorological shield** | * Detector installed in a weatherproof enclosure.
 | YES/NO\* |