**ANNEX II**

**TECHNICAL SPECIFICATIONS AND MAX AVAILABLE PRICE PER ITEM**

**ANNEX 2: Technical specifications**

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| **Item** | **Technical specification** | **Quantity** | MaxUnit price **(€)** | MaxTotal price **(€)** |
| **Weather station** | | **1** | **7000** | **7000** |
| * Air Temperature sensor | Measuring range - 20 to 60 °C  Accuracy: < 0.5 °C | 1 |  |  |
| * Air Relative Humidity sensor | Measuring range  Accuracy : 5% | 1 |  |  |
| * Solar radiation sensor | Measuring range 0 .to 1500 W/m²  spectral range 350 to 2 500 nm  Accuracy : 5% | 1 |  |  |
| * Wind speed sensor | Measuring range 0 .to 40 m/s  Accuracy : 5% | 1 |  |  |
| * Rainfall sensor | Funnel Area : ≥ 200 cm2  Accuracy : 5%  With protection from bird | 1 |  |  |
| * Accessories | This station must be equipped with mat(s), anchoring system and all accessories for fixing the various sensors and the power system. | 1 |  |  |
| **Soil moisture and temperature multilayers probe** | | **24** | **1035** | **24840** |
|  | Measuring range : 0 – 0.80 Vwater/Vsoil  Minimum 6 depth : 0 to 60 cm  Accuracy : 0.03 | 19 |  |  |
|  | Measuring range : 0 – 0.80 Vwater/Vsoil  Minimum 6 depth : 0 to 80 cm  Accuracy : 0.03 | 5 |  |  |
| **Pulse water flowmeter** | | **12** | **500** | **6000** |
|  | Diameter range : DN40 to DN 50  Measuring range 0 to 25 m3/h (nominal)  Operating Pressure: 0.5 - 15 Bar  Accuracy : 5% | 12 |  |  |
| **Solenoid valve for irrigation water** | | **12** | **175** | **2100** |
|  | Diameter range: DN40 to DN 50  Operating Pressure: 0.5 - 10 Bar | 12 |  |  |
| **Gateways** | | **15** |  | **8800** |
| * Indoor Gateways | 1 gateway on-site  1 gateway can support 4-8 sensors  Compliance to LoRaWAN | 13 | 400 |  |
| * Outdoor Gateways |  | 2 | 1800 |  |
| **IoT Platform (for reading, viewing, downloading, configuring data upload, etc.)** | | **1** | **1660** | **1660** |
|  | All fields Sensor data (sensors Network) to be synchronized with [the](https://ng.fieldclimate.com/) IoT platform  Fields station/Sensors configuration  Maps & Geolocation Services  Data Processing & Alerting  Dashboards & Reports  Open API for Easy Integration | 1 |  |  |

**Additional Specifications:**

1. All sensors must have an operating temperature range between -20 ºC and +60 ºC.
2. Energy supply for each equipment must be done by battery or solar panel
3. The sensors / devices must be equipped with all necessary accessories for installation and operation: protective case, mat(s), support(s), an anchoring system, etc.
4. All sensor/device enclosures and accessories must be resistant to water, dust and radiations.
5. Alert system regarding sensor/devices malfunction is required.
6. Access to raw sensor data (in direct or indirect form) is required for validation of field data.
7. All sensors have to be connected and operate on LoRaWAN® platform with a connectivity of 1 year.
8. Within the 1 year following the contract signature, the connection of all sensors will be transferred to a Local LoRaWAN®. To this end, the company is requested to provide technical support to facilitate the transfer.
9. In each plot, a flowmeter and two multi-depth soil water content sensors will be installed.
10. Documentation of the Technical specifications of all the proposed material is required.
11. Adequacy of the proposed material to the requested technical specifications is required.
12. If the addition of an equipment or an accessory is deemed necessary for the correct functioning of the system, the price must be indicated with the mention EXTRA.