**CORRIGENDUM no.1**

**To Tender Dossier**

**II.1.1) Contract Notice Title: Procurement, installation,** including all necessary works **and commissioning of urban equipment, the so-called "smart" elements**  
**II.1.1) Contract Notice Reference Number:** 05-2056/1

**VII. 1.1) Reason for change**

Deficiencies and ambiguities in the technical specification and technical offer have been identified. Therefore, corrections have been made in ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER. Modification of original information submitted by the contracting authority.

**VII.1.2) Text to be corrected in the original notice**

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

Instead of:

| **1.**  **Item number** | **2.**  **Specifications required** | **3.**  **Specifications offered** | **4.**  **Notes, remarks,  ref to documentation** | **5.**  **Evaluation committee’s notes** |
| --- | --- | --- | --- | --- |
| **1** | **Smart bus stations (4)**  Smart bus stations should have desks and smart information panels. They will be placed in locations throughout the city of Veles, where there are none or the old stops are destroyed and dilapidated. The Smart Bus Stop is an innovative public transport system that serves as a shelter for public transport passengers from different weather conditions that includes digital screens to enhance the travel experience.  Required dimensions:  Length: 5040 mm; +/- 20%  Width: 2050 mm; +/- 20%  Height: 3070 mm; +/- 20%  Material: stainless steel or aluminium |  |  |  |
| **2** | **Info display (4)**  **Specification:**   * Operating voltage 230V +/- 10%; * Protection standards: minimum IK10, IP55 * Outer case for protection * Corrosion protection * Operating temperature: -20°C to +55°C * Humidity: 5% to 95% * LCD screen with a minimum size of 55” (inches) in vertical setting and have a protective glass or suitable material to protect against vandalism * Communication through the GSM network (LTE, 4G, 5G) for changing and supplementing content * Vandalism alarm, if it is vandalized (tilt sensor) * Sensor for temperature, humidity and air quality capability   **Software Features:**  WEB-based software as a service for the control and management of smart bus stops (SaaS)   * Management and control of content for events and advertisements from interested legal and natural persons * Ability to display content at a preset time and stop it * View a list of sessions for displayed content and ads |  |  |  |
| **3** | **Smart benches (4)**  Smart Benches should, in addition to their basic function, provide additional services to citizens, such as the possibility to charge mobile phones, free wireless internet, etc. The purpose of the cloud-based software solution is to facilitate the management and control of the desks, offering the municipality the necessary information for planning and developing policies for this type of service.  **Specifications:**   * Length: 2000 mm; +/- 20% * Width: 500 mm; +/- 20% * Seat height: 450 mm; +/- 20% * Photovoltaic modules: Monocrystalline / Total power: min. 110W * Battery capacity: minimum 70Ah * Broadband Internet access via LTE for system communication and Internet sharing via Wi-Fi * Wireless charging / Power: minimum 10W / Efficiency: minimum 65% * USB ports for charging mobile devices: minimum 2. Power (per port): 5W (1A). * Short circuit protection, LED light * Enables Wi-Fi wireless internet. Coverage: minimum 20 meters * Counter for device chargers (wired and wireless) * Temperature sensor (-45°C, + 60°C) * Humidity sensor (0% - 100%) * Internet connection counter and data traffic usage * Energy production and consumption counter * System sensor for analyzes of each device inside the bench * Battery status * Rain sensor - turns off the bench in case of heavy rain * Air cooling system of electrical components with fans/coolers. Activation temperature: above 35°C * Ambient light * The indicator light during wireless charging * Materials resistant to external influences and vandalism * ISO 9001: 2015 Quality Management System * ISO / IEC 14001: 2015 Environmental Management Standard |  |  |  |
| **3-continue** | **Software Features:**  WEB based software as a service for smart control and management desktops (SaaS)   * Web based login portal with username and password * Overview of the entire infrastructure of smart desks * Display of a map with the exact location of the smart desks * Information on the operation of smart desks with the possibility of adjustment of a given period * Information about the operation of the smart desks displayed with graphs * Possibility to change the settings (SSID of the wireless network radiating the bench, redirection link when connecting the user, limiting the number of users on a daily basis who can connect to the wireless network, limiting the amount of data traffic per user on a daily basis, the possibility of setting a video recording/campaign on the display from the bench, adjustable period when the campaign is active, switching on/off the ambient light depending on the period of the year, changing the indicator light during wireless charging). |  |  |  |
| **4** | **Smart chargers for electric cars (4)**  **Smart chargers for electric cars should be installed as a charging station for electric vehicles.**  Specification:   * The EV charging station should be freestanding for public use * At least two three-phase plugs with the possibility of simultaneous charging of two vehicles * Output maximum power per three-phase plug 22KW, for fast charging (44 kW total power) * At least one single-phase plug for slow charging according to the Mode 3 standard * Operating voltage 230/400 V +/- 10 % * Frequency 50 Hz * Three-phase sockets should provide charging according to the Mode 3 standard |  |  |  |
| **4 - continue** | * The connectors must be Type 2 according to the IEC 62196-2 standard * All connections should be lockable for controlled public use * Protection standards: min. IK10, IP54 * Communication with the electric vehicle according to IEC 61851 or equivalent * Counter for recording the delivered energy in the vehicle * Connection reservation management via WEB/SMS (implemented in the station itself) * Communication for management and monitoring of chargers from a control center * RJ45 port according to ISO/IEC 8877 standard or equivalent for management and monitoring of chargers * RFID reader for user identification and for unlocking the port * Compliant with ISO 14443 or equivalent * LCD screen with at least two lines for charger control, protective glass, backlight * Charger flammability: UL 94 V-0, EH( IEC) DIN EN 60695-11-10B or equivalent * Corrosion protection * Operating temperature: -20°C to +50°C * Humidity: 5% to 95% * Guarantee minimum 24 months * Compliance norms: * 89/336/EEC – Electromagnetic Compatibility Directive * 93/465/EEC – Use of the charger according to the CE mark of conformity * EU ROHS (2002/95SEC) – Directive on the restriction of the use of certain hazardous substances in the electrical industry and electronic equipment * IEC 61851-1 Ed. 2.0 – EV charging system – General requirements * IEC 61851-22 Ed 1.0 – EV charging system - AC chargers for EVs * IEC 62196-1 Edition 2 – EV plugs, sockets, couplers * IEC 62196-2 Edition 1 - EV plugs, sockets, couplers * IEC 14443 – ID cards, contactless cards |  |  |  |
| **4-continue** | **Software Features:**  WEB-based software as a service for charging station control and management (SaaS)   * Dock management and control (charging stations) and support for newly developed charging station communication protocols with additional integration * Real-time user authorization supporting payment with payment cards and RFID, ISO / IEC or PIN capability and remote authorization/manipulation (mobile application, SMS, API interface) * Real-time charging infrastructure information * View lists of authorized charging users, where detailed authorization results are available in real-time and can be further analyzed * View a list of recharge sessions, where session details are available in real-time and can be further analyzed * Detailed overview of the charging operation through the event list * Possibility of remote firmware/software updates * The administrator can assign operator roles and privileges that can be assigned to specific charging stations. Multi-level monitoring: general view of infrastructure; display of charging stations; detailed analytics of charging stations |  |  |  |
| **5** | **Bike station and electrical bicycles (10)**  Bike stations with smart locks. The bicycles should be payable through a mobile application (renting).  The goal of the cloud-based software solution is to facilitate the management and control of bicycles, offering the municipality the necessary information for planning and developing policies for this type of service.  **Specification:**  **Bicycles**   * Bicycle: Electric Mount Bike 26"-28", aluminum frame, with min. 5 speeds * Distance with one charge minimum 45km * Maximum speed 32km/h * Front and rear light for visual identification in night conditions |  |  |  |
| **5-continue** | * Smart door locks * Smart lock with GPS, GPRS and Bluetooth * Minimum IP56 weather protection * Operating temperature: from –30°C to +60°C * Anti-theft device tested (triple-axis accelerometer for motion detection) * Temperature sensor: detection attempt of freezing and thawing * LED indicator * Minimum 100dB siren for alarm * Bluetooth 4.0 technology with a range of up to 10 meters * AES encrypted security protection * Remote management via GSM * Solid steel shackle * Customizable battery settings * Charger/adapter included and all additional mounting elements * Keyless entry, via Bluetooth * Unlimited number of users * GPS tracking (accuracy: maximum deviation 3m) * Certification: CE, IC, FCC * Compatibility with mobile application offered   **Software Features:**  WEB-based software as a service (SaaS) for the control and management of bicycle locks   * Real-time tracking of bicycles * Advanced geofencing technology that allows control where users can park their bikes * Overview of the user's behavior in terms of cycling * Overview of ways to use a bicycle * Sorting data by time period * Adding and deleting users |  |  |  |
| **6** | **Smart underground containers (2) for communal solid waste (including software)**  Smart underground containers for collection of solid communal waste should provide control of the containers by monitoring the fullness of the container, which will reduce the cost of emptying them. These containers should be able to be used for any type of waste - mixed, plastic, paper, metal or glass. They should have remote access control through RFID cards. The internal waste container should be free of plastic bags and allow for quick and easy transfer to the truck.  Container specification:   * Length: 1250 mm; +/- 20% * Width: 530 mm; +/- 20% * Height: 5300 mm; +/- 20% * Weight: 75 kg, +/- 20% * Materials: Aluzinc, aluminum, zinc coated steel [EN10346], galvanized low carbon steel [ISO 2081] * Operating voltage: 100-240V ~ 50/60Hz 2.7-1.1A * Operating temperature: from -20 ⁰C to +50 ⁰C * Degree of humidity: (RH) 0-100% * At least IP45 degree of protection * Noise level: <30dBA * Volume of the inner container: 120L (according to EN840) * Total energy: 320 Wh * Nominal voltage: 11.1V * Max. Voltage: 12.6V * Maximum power: 400 W * Continuous power: 300 W * Over current protection: 40 A * Over discharge protection: <3 V per cell * Short circuit protection: <100μs * State of charge indicator * RFID reader range: 40 mm * Key type: RFID tag card, NFC phone tag * Pressure sensor: 700 ~ 1100 hPa * Humidity sensor: 0~99%RH ±2.0%RH (20~80%RH) * Temperature sensor: -40°C to 85°C ±2°C * Fire sensor wavelength: 760 nm - 1100 nm * Viewing angle of the fire sensor: 60° * Waste level sensor * Compacting depth: 400 mm * Actuator power: 300 W * Compaction force: 3000 N |  |  |  |
| **6– continue** | **Smart underground containers for communal solid waste (including software)**  Software Features:  WEB-based software as a service for control and management of smart containers (SaaS)   * Display and administration of waste collection data in real time * Automatic optimization of waste collection routes * Automatic fleet optimization (number and type of waste collection vehicles needed for collection routes) * Communicating with drivers while they are in the collection process * Real-time tracking of waste collection vehicles (information on the vehicle's current location, engine status and speed), including tracking history |  |  |  |

Read:

| **1.**  **Item number** | **2.**  **Specifications required** | **3.**  **Specifications offered** | **4.**  **Notes, remarks,  ref to documentation** | **5.**  **Evaluation committee’s notes** |
| --- | --- | --- | --- | --- |
| **1** | **Smart Info display (4)**  Smart information displays at bus stations aim to show the order of buses and their arrival times. The main purpose of these displays is to inform passengers about the schedule of buses and other important information related to public transport. Passengers can see when the next bus will arrive, which buses operate on a given route, and what other public transport options are available at that location. Hardware Element Specifications:   * Housing dimensions not smaller than 1000 x 300 x 50 mm * Dot Matrix LED multi-segment display or equivalent * Minimum pixels 32x128 • Control via GPRS / GSM networks * Equipment for buses to connect to the display * Degree of protection: minimum IP55 * API for integration with management platforms from other manufacturers   Software Specifications:   * WEB-based software as a service for control and management of information displays (SaaS) * Management and control of information displays * Automatic display of bus schedule information and their arrival at a specific bus station * Overview of the next bus number and the time it will arrive in minutes * Bus information enabling their current location to be displayed on the information displays |  |  |  |
| **2** | **Smart bus stations**  Smart bus stations should have desks and smart information panels. They will be placed in locations throughout the city of Veles, where there are none or the old stops are destroyed and dilapidated. The Smart Bus Stop is an innovative public transport system that serves as a shelter for public transport passengers from different weather conditions that includes digital screens to enhance the travel experience.  Required dimensions:  Length: 5040 mm; +/- 20%  Width: 2050 mm; +/- 20%  Height: 3070 mm; +/- 20%  Material: stainless steel or aluminium  **Specification:**   * Operating voltage 230V +/- 10%; * Protection standards: minimum IK10, IP55 * Outer case for protection * Corrosion protection * Operating temperature: -20°C to +55°C * Humidity: 5% to 95% * LCD screen with a minimum size of 55” (inches) in vertical setting and have a protective glass or suitable material to protect against vandalism * Communication through the GSM network (LTE, 4G, 5G) for changing and supplementing content * Vandalism alarm, if it is vandalized (tilt sensor) * Sensor for temperature, humidity and air quality capability   **Software Features:**  WEB-based software as a service for the control and management of smart bus stops (SaaS)   * Management and control of content for events and advertisements from interested legal and natural persons * Ability to display content at a present time and stop it * View a list of sessions for displayed content and ads |  |  |  |
| **3** | **Smart benches (4)**  Smart Benches should, in addition to their basic function, provide additional services to citizens, such as the possibility to charge mobile phones, free wireless internet, etc. The purpose of the cloud-based software solution is to facilitate the management and control of the desks, offering the municipality the necessary information for planning and developing policies for this type of service.  **Specifications:**   * Length: 2000 mm; +/- 20% * Width: 500 mm; +/- 20% * Seat height: 450 mm; +/- 20% * Photovoltaic modules: Monocrystalline / Total power: min. 110W * Battery capacity: minimum 70Ah * Broadband Internet access via LTE for system communication and Internet sharing via Wi-Fi * Wireless charging / Power: minimum 10W / Efficiency: minimum 65% * USB ports for charging mobile devices: minimum 2. Power (per port): 5W (1A). * Short circuit protection, LED light * Enables Wi-Fi wireless internet. Coverage: minimum 20 meters * Counter for device chargers (wired and wireless) * Temperature sensor (-45°C, + 60°C) * Humidity sensor (0% - 100%) * Internet connection counter and data traffic usage * Energy production and consumption counter * System sensor for analyzes of each device inside the bench * Battery status * Rain sensor - turns off the bench in case of heavy rain * Air cooling system of electrical components with fans/coolers. Activation temperature: above 35°C * Ambient light * The indicator light during wireless charging * Materials resistant to external influences and vandalism * ISO 9001: 2015 Quality Management System * ISO / IEC 14001: 2015 Environmental Management Standard |  |  |  |
| **3-continue** | **Software Features:**  WEB based software as a service for smart control and management desktops (SaaS)   * Web based login portal with username and password * Overview of the entire infrastructure of smart desks * Display of a map with the exact location of the smart desks * Information on the operation of smart desks with the possibility of adjustment of a given period * Information about the operation of the smart desks displayed with graphs * Possibility to change the settings (SSID of the wireless network radiating the bench, redirection link when connecting the user, limiting the number of users on a daily basis who can connect to the wireless network, limiting the amount of data traffic per user on a daily basis, the possibility of setting a video recording/campaign on the display from the bench, adjustable period when the campaign is active, switching on/off the ambient light depending on the period of the year, changing the indicator light during wireless charging). |  |  |  |
| **4** | **Smart chargers for electric cars (4)**  **Smart chargers for electric cars should be installed as a charging station for electric vehicles.**  Specification:   * The EV charging station should be freestanding for public use * At least two three-phase plugs with the possibility of simultaneous charging of two vehicles * Output maximum power per three-phase plug 22KW, for fast charging (44 kW total power) * At least one single-phase plug for slow charging according to the Mode 3 standard * Operating voltage 230/400 V +/- 10 % * Frequency 50 Hz * Three-phase sockets should provide charging according to the Mode 3 standard |  |  |  |
| **4 - continue** | * The connectors must be Type 2 according to the IEC 62196-2 standard * All connections should be lockable for controlled public use * Protection standards: min. IK10, IP54 * Communication with the electric vehicle according to IEC 61851 or equivalent * Counter for recording the delivered energy in the vehicle * Connection reservation management via WEB/SMS (implemented in the station itself) * Communication for management and monitoring of chargers from a control center * RJ45 port according to ISO/IEC 8877 standard or equivalent for management and monitoring of chargers * RFID reader for user identification and for unlocking the port * Compliant with ISO 14443 or equivalent * LCD screen with at least two lines for charger control, protective glass, backlight * Charger flammability: UL 94 V-0, EH( IEC) DIN EN 60695-11-10B or equivalent * Corrosion protection * Operating temperature: -20°C to +50°C * Humidity: 5% to 95% * Guarantee minimum 24 months * Compliance norms: * 89/336/EEC – Electromagnetic Compatibility Directive * 93/465/EEC – Use of the charger according to the CE mark of conformity * EU ROHS (2002/95SEC) – Directive on the restriction of the use of certain hazardous substances in the electrical industry and electronic equipment * IEC 61851-1 Ed. 2.0 – EV charging system – General requirements * IEC 61851-22 Ed 1.0 – EV charging system - AC chargers for EVs * IEC 62196-1 Edition 2 – EV plugs, sockets, couplers * IEC 62196-2 Edition 1 - EV plugs, sockets, couplers * IEC 14443 – ID cards, contactless cards |  |  |  |
| **4-continue** | **Software Features:**  WEB-based software as a service for charging station control and management (SaaS)   * Dock management and control (charging stations) and support for newly developed charging station communication protocols with additional integration * Real-time user authorization supporting payment with payment cards and RFID, ISO / IEC or PIN capability and remote authorization/manipulation (mobile application, SMS, API interface) * Real-time charging infrastructure information * View lists of authorized charging users, where detailed authorization results are available in real-time and can be further analyzed * View a list of recharge sessions, where session details are available in real-time and can be further analyzed * Detailed overview of the charging operation through the event list * Possibility of remote firmware/software updates * The administrator can assign operator roles and privileges that can be assigned to specific charging stations. Multi-level monitoring: general view of infrastructure; display of charging stations; detailed analytics of charging stations |  |  |  |
| **5** | **Bike station and electrical bicycles (10)**  Bike station and electrical bicycles with smart locks. The bicycles should be payable through a mobile application (renting).  The goal of the cloud-based software solution is to facilitate the management and control of bicycles, offering the municipality the necessary information for planning and developing policies for this type of service.  **Specification:**  **Bicycles**   * Bicycle: Electric Mount Bike 26"-28", aluminum frame, with min. 5 speeds * Distance with one charge minimum 45km * Maximum speed 32km/h * Front and rear light for visual identification in night conditions |  |  |  |
| **5-continue** | * Smart lock with GPS, GPRS and Bluetooth * Minimum IP56 weather protection * Operating temperature: from –30°C to +60°C * Anti-theft device tested (triple-axis accelerometer for motion detection) * Temperature sensor: detection attempt of freezing and thawing * LED indicator * Minimum 100dB siren for alarm * Bluetooth 4.0 technology with a range of up to 10 meters * AES encrypted security protection * Remote management via GSM * Solid steel shackle * Customizable battery settings * Charger/adapter included and all additional mounting elements * Keyless entry, via Bluetooth * Unlimited number of users * GPS tracking (accuracy: maximum deviation 3m) * Certification: CE, IC, FCC * Compatibility with mobile application offered   **Bike station**   * High-quality steel with anti-corrosive protection * Galvanized or powder-coated for additional rust and weather resistance * Length: Approximately 200 cm (customizable based on client requirements) * Width: Approximately 30 cm * Height: Approximately 50 cm * Accommodates minimum 10 bicycles * Easy to install with pre-drilled holes for ground anchoring   **Software Features:**  WEB-based software as a service (SaaS) for the control and management of bicycle locks   * Real-time tracking of bicycles * Advanced geofencing technology that allows control where users can park their bikes * Overview of the user's behavior in terms of cycling * Overview of ways to use a bicycle * Sorting data by time period * Adding and deleting users |  |  |  |
| **6** | **Smart underground containers (2) for communal solid waste (including software)**  Smart underground containers for collection of solid communal waste should provide control of the containers by monitoring the fullness of the container, which will reduce the cost of emptying them. Emptying time of one underground container is up to 3 minutes. The truck driver does it himself. Emptying requires no direct vehicle access to the container, and parked cars do not hinder because the reach of the crane enables emptying of containers. Significantly cheaper maintaining for longer life makes this product even more economical.   * Diameter d [cm]; Ø120 +/- 20% * Depth: 200 cm; +/- 20% * Container width: 160cm +/- 20% * Capacity Q [m³]; 3 +/- 20% * Quick and easy to install and use * Built-in protection system to prevent ignition of container contents * Natural compression of waste increases capacity by up to 30% due to increased height * Waste is stored in impermeable, non-combustible bags that can withstand temperatures up to 800°C * Pedal command * No water ingress into the container. * No odor or wind dispersal of waste (e.g., paper, plastic bags). * Materials: Aluzinc, aluminum, zinc coated steel [EN10346], galvanized low carbon steel [ISO 2081] * Ultrasonic sensor for measuring the level of filling * Degree of protection: IP67, IK10 * Detection range – 4 meters * Motion detection sensor (Tilt sensor) * Temperature module for fire detection * Battery with a minimum durability of 5 years * Durable for outdoor use, resistant to vandalism * Operating temperature: -30°C to 85°C * Connection via NB-IoT * Various mounting options in the waste bin/container * Noise level: <30dBA * Volume of the inner container:3 m³ ) * Viewing angle of the fire sensor: 60° |  |  |  |
| **6– continue** | **Smart underground containers for communal solid waste (including software)**  Software Features:  WEB-based software as a service for control and management of smart containers (SaaS)   * Display and administration of waste collection data in real time * Automatic optimization of waste collection routes * Automatic fleet optimization (number and type of waste collection vehicles needed for collection routes) * Communicating with drivers while they are in the collection process * Real-time tracking of waste collection vehicles (information on the vehicle's current location, engine status and speed), including tracking history |  |  |  |

Section No: D

Drawings : Proekt\_VELES\_Kontejneri\_O.G.N.E is replaced with the following revised Drawings that are attached to this Corrigendum

**VII.2) Other additional information:**

All other terms and conditions of the tender dossier remain unchanged. The above alterations and/or corrections to the tender dossier are integral part of the tender dossier.