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IPA Greece – Albania

DIVE IN ART

ANNEX II + III: TECHNICAL SPECIFICATIONS + TECHNICAL OFFER

Contract title: "Supply of Electronic Equipment for the Interactive Exhibition in Saranda" **p 1 /29**

Publication reference: Nr. 8152

Columns 1-2 should be completed by the contracting authority
Columns 3-4 should be completed by the tenderer
Column 5 is reserved for the evaluation committee

Annex III – the contractor's technical offer

The tenderers are requested to complete the template on the next pages:

- Column 2 is completed by the contracting authority shows the required specifications (not to be modified by the tenderer),
- Column 3 is to be filled in by the tenderer and must detail what is offered (for example the words 'compliant' or 'yes' are not sufficient)
- Column 4 allows the tenderer to make comments on its proposed supply and to make eventual references to the documentation

The eventual documentation supplied should clearly indicate (highlight, mark) the models offered and the options included, if any, so that the evaluators can see the exact configuration. Offers that do not permit to identify precisely the models and the specifications may be rejected by the evaluation committee.

The offer must be clear enough to allow the evaluators to make an easy comparison between the requested specifications and the offered specifications.

General technical requirements applicable to all Lots

The offered supplies must be new, unused, of recent manufacture and suitable for professional use in a digital and interactive exhibition environment.

All equipment must comply with the technical specifications and must be accompanied by the necessary technical documentation, including datasheets, brochures or official manufacturer documentation clearly identifying the offered brand, model and technical characteristics.

Where applicable, the offered equipment must bear CE marking or be accompanied by equivalent conformity documentation required under the applicable legislation and relevant standards.

The tenderer must clearly indicate the brand, model, manufacturer and country of origin of each offered item, where applicable.

The tenderer must provide a warranty of at least twelve (12) months from the date of provisional acceptance, unless a longer warranty is offered by the manufacturer or the tenderer.

The supplies must be provided together with all cables, accessories, connectors, power supplies, mounting elements, software licences, drivers and any other components necessary for their proper installation, commissioning and operation, where applicable.

All offered items must be fully compatible with each other where interoperability is required for the proper operation of the Interactive Exhibition.

The unit price of each equipment item shall include all standard manufacturer-supplied accessories, cables, connectors, power supplies, mounting accessories and other components normally supplied with and necessary for the proper operation of that specific item. Items 2.5 and 3.6 shall cover only site-specific interconnection cabling, cable-management materials, additional mounting and minor installation materials, installation labour, configuration, testing and commissioning not already included in the unit price of the relevant equipment.

For Lots 2 and 3, and wherever installation is required, the contractor must ensure the delivery, siting, installation, configuration, commissioning and functional testing of the equipment at the Municipal Gallery of Saranda, Albania.

The place of delivery and installation shall be the Municipal Gallery of Saranda, Albania.

For Lot 1, delivery of all supplies and documentation shall be completed **within thirty (30) calendar days** from the date the contract enters into force. For Lots 2 and 3, delivery and, where applicable, siting, installation, cabling, configuration, system integration, testing and commissioning shall be completed **within ninety (90) calendar days** from the date the contract enters into force.

All estimated costs indicated in this Annex are expressed in EUR and exclude VAT. They are provided solely for budget-planning and reference purposes and do not constitute fixed prices to be quoted by tenderers. Tenderers shall state their financial offer exclusively in Annex IV – Budget Breakdown, in accordance with the Instructions to Tenderers.

Lot 1 — Electronic Equipment

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
1.1 Desktop PC with 27'' monitor	**Quantity:** 1 desktop computer with one 27'' monitor. **Estimated unit cost (exc. VAT):** 1,800.00 EUR — **Estimated total cost (exc. VAT):** 1,800.00 EUR. **Use:** suitable for management, preparation, storage, review and testing of digital / multimedia exhibition content. **Processor:** Intel Core i5 / i7 or AMD Ryzen 5 / 7 or equivalent recent generation multi-core processor, suitable for office, multimedia and content management use. **Memory:** minimum 32 GB DDR5 RAM. **Storage:** minimum 1 TB SSD. **Graphics:** integrated or dedicated graphics suitable for multimedia display, video playback and connection to external display equipment. **Monitor:** minimum 27'' monitor, Full HD resolution or higher, suitable for office and multimedia preview use. **Connectivity:** minimum HDMI or DisplayPort output, USB ports, Ethernet and/or Wi-Fi connectivity. **Operating system:** licensed operating system suitable for professional use. **Accessories:** keyboard, mouse, power cables and all necessary accessories included. **Warranty:** minimum 12 months.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
1.2 Laptop	**Quantity:** 1 laptop. **Estimated unit cost (exc. VAT):** 550.00 EUR — **Estimated total cost (exc. VAT):** 550.00 EUR. **Use:** suitable for mobile project work, meetings, content review, presentation and testing of digital exhibition material. **Processor:** Intel Core i5 or equivalent recent generation processor. **Memory:** minimum 16 GB RAM installed, using DDR4 or newer equivalent memory technology. **Storage:** minimum 512 GB M.2 SSD. **Display:** minimum 15.6'' display, Full HD resolution or higher. **Connectivity:** Wi-Fi, Bluetooth, USB ports, HDMI or equivalent display output. **Camera / audio:** integrated webcam, microphone and speakers. **Operating system:** licensed operating system suitable for professional use. **Accessories:** charger and all necessary accessories included. **Warranty:** minimum 12 months.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
1.3 Tablets	**Quantity:** 2 tablets. **Estimated unit cost (exc. VAT):** 550.00 EUR — **Estimated total cost (exc. VAT):** 1,100.00 EUR. **Use:** suitable for digital exhibition preview, visitor interaction, testing of digital content, QR-based or web-based access to exhibition material. **Processor:** Octa-core processor or equivalent. **Memory:** minimum 6 GB RAM. **Storage:** minimum 64 GB internal storage. **Display:** minimum 10.9'' touchscreen display. **Connectivity:** Wi-Fi and Bluetooth. **Battery:** minimum 8,000 mAh battery capacity or equivalent battery capacity suitable for normal daily use in an exhibition / demonstration environment. **Operating system:** Android, iPadOS or equivalent current tablet operating system. **Accessories:** charger and protective case for each tablet included. **Warranty:** minimum 12 months.			

Lot 2 — Lighting Equipment

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
2.1 Smart LED Track Lights	**Quantity:** 8 pieces. **Estimated unit cost (exc. VAT):** 250.00 EUR — **Estimated total cost (exc. VAT):** 2,000.00 EUR. **Use:** suitable for flexible and focused lighting of exhibition areas, artworks, digital installations and visitor circulation zones within an indoor gallery environment. **Technology:** professional LED track lights suitable for exhibition and gallery use. **Light output:** minimum 2,000 lumens per luminaire. **Colour rendering:** Colour Rendering Index (CRI) of at least 90. **Colour temperature:** between 3,000 K and 4,000 K. The tenderer must state the offered colour temperature, which must be consistent for all luminaires supplied under this item. **Beam:** medium or adjustable beam, approximately within the range of 20°–40°, or equivalent interchangeable optical solution suitable for focused exhibition lighting. **Adjustability:** adjustable orientation and direction of the light beam. **Control:** dimmable and controllable through the lighting control system supplied under Item 2.4, either directly or through compatible drivers or interfaces included in the offer. **Operation:** no visible flicker during normal operation and dimming.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	Mounting: compatible with track mounting or an equivalent professional mounting system suitable for the exhibition space. **Energy efficiency:** energy-efficient LED technology. **Accessories:** all necessary mounting accessories, connectors, drivers, power supplies, control interfaces and cables required for proper operation included. **Documentation:** technical datasheet / manufacturer documentation required. **Warranty:** minimum 12 months.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
2.2 LED Wash Lights	**Quantity:** 6 pieces. **Estimated unit cost (exc. VAT):** 250.00 EUR — **Estimated total cost (exc. VAT):** 1,500.00 EUR. **Use:** suitable for ambient lighting, uniform wall washing, background lighting and enhancement of the exhibition atmosphere in an indoor cultural venue. **Technology:** professional LED wash lights suitable for indoor exhibition use. **Colour capability:** RGBW or equivalent colour-capable technology incorporating a dedicated white-light component. **Light output:** minimum 1,500 lumens in white-light operation per luminaire. **Colour rendering:** Colour Rendering Index (CRI) of at least 90 in white-light operation. **White-light colour temperature:** between 3,000 K and 4,000 K. **Beam:** wide or wall-wash beam suitable for uniform illumination of walls, surfaces or exhibition zones without visually disturbing hotspots. **Control:** continuous dimming and colour control through DMX or an equivalent professional control protocol, fully compatible with the lighting control system supplied under Item 2.4. **Operation:** no visible flicker during normal operation and dimming. **Mounting:** suitable for safe indoor installation on walls, ceiling, track or another appropriate mounting structure, depending on the final layout.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	Accessories: all necessary mounting accessories, connectors, drivers, power supplies, control interfaces and cables required for proper operation included. **Documentation:** technical datasheet / manufacturer documentation required. **Warranty:** minimum 12 months.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
2.3 Projection-compatible spotlights	**Quantity:** 2 pieces. **Estimated unit cost (exc. VAT):** 1,250.00 EUR — **Estimated total cost (exc. VAT):** 2,500.00 EUR. **Use:** suitable for precise and controlled lighting in exhibition areas where projection, digital display or multimedia content will also be used, without causing excessive glare, spill light or loss of visibility of the projected or displayed content. **Technology:** professional LED spotlights suitable for exhibition and gallery use. **Light output:** minimum 2,500 lumens per luminaire. **Colour rendering:** Colour Rendering Index (CRI) of at least 90. **Colour temperature:** between 3,000 K and 4,000 K. The tenderer must state the offered colour temperature. **Beam:** adjustable beam, approximately within the range of 15°–40°, or an equivalent optical range suitable for precise exhibition lighting. **Optical control:** framing shutters, beam-shaping accessories or an equivalent optical system allowing accurate control of the illuminated area and minimisation of unwanted light on projection or display surfaces. **Adjustability:** adjustable beam direction and focus or beam angle, suitable for precise lighting of selected objects, surfaces or zones.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	Control: continuously dimmable and controllable through the lighting control system supplied under Item 2.4, either directly or through compatible drivers or interfaces included in the offer. **Operation:** no visible flicker during normal operation and dimming. **Mounting:** suitable for safe indoor installation and compatible with the proposed lighting layout. **Accessories:** all necessary optical, mounting and control accessories, connectors, drivers, power supplies and cables required for proper operation included. **Documentation:** technical datasheet / manufacturer documentation required. **Warranty:** minimum 12 months.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
2.4 Smart lighting control system — DMX Controller + Wireless Light Control Panel	**Quantity:** 1 system. **Estimated unit cost (exc. VAT):** 1,200.00 EUR — **Estimated total cost (exc. VAT):** 1,200.00 EUR. **Use:** suitable for the integrated control, configuration and day-to-day operation of all lighting equipment supplied under Lot 2. **Control protocol:** DMX512 or an equivalent open professional lighting control protocol suitable for exhibition and event lighting environments. **Capacity:** sufficient to control all sixteen (16) lighting fixtures supplied under Items 2.1, 2.2 and 2.3. **Functionality:** control of switching, dimming, lighting zones, RGBW colour functions and programmable lighting scenes, according to the capabilities of the supplied luminaires. **Scenes and zones:** capable of storing and recalling multiple lighting scenes and independently controlling the lighting zones established during installation. **Wireless control:** wireless wall-mounted or portable light control panel, or equivalent user-friendly wireless control interface, included. **Standalone operation:** normal recall and operation of the programmed lighting scenes must not require the permanent connection of an external computer. **Compatibility:** fully compatible with all lighting fixtures supplied under Lot 2. Compatibility may be achieved directly or through gateways, drivers, receivers or other interfaces included in the offer.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	Coverage: the wireless control solution must operate reliably throughout the installed exhibition areas and must be verified during commissioning. **Accessories:** all required controllers, interfaces, gateways, receivers, transmitters, power supplies, cables, connectors, software or licences necessary for proper operation included. **Documentation:** user manual, system configuration information and technical documentation required. **Warranty:** minimum 12 months.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
2.5 Installation costs	**Quantity:** 1 lump sum. **Estimated lump-sum cost (exc. VAT):** 1,000.00 EUR — **Estimated total cost (exc. VAT):** 1,000.00 EUR. **Scope:** delivery, unloading, siting, installation, connection, configuration, aiming, focusing, commissioning and functional testing of all lighting equipment supplied under Lot 2. **Installation location:** Municipal Gallery of Saranda, Albania. **Lighting adjustment:** the contractor must adjust the orientation, beam and dimming level of the luminaires during commissioning in order to provide balanced exhibition lighting and avoid unwanted light on projection and display surfaces. **Control configuration:** the contractor must configure the lighting zones and programme the basic lighting scenes agreed with the Contracting Authority. **Safety:** installation must be carried out safely and without damaging the venue, existing infrastructure, artworks, exhibits or other equipment. **Cabling and installation materials:** all site-specific interconnection cabling, cable-management materials, additional mounting elements and minor installation materials required for the installation and integration of the supplied equipment, and not already included in the unit price of the relevant equipment items, shall be included. **Existing infrastructure:** the contractor must verify the compatibility of the proposed equipment with the existing mounting and electrical infrastructure before installation. The supply and installation of new lighting tracks or major building and electrical works are not included unless expressly required			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	elsewhere in the procurement documents. **Compatibility:** the installed lighting equipment must operate as a complete and integrated lighting system. **Testing:** the contractor must perform functional testing of all luminaires, controls, lighting zones, wireless operation and programmed scenes. **Handover:** the contractor must demonstrate the operation of the system and provide basic operating instructions to the staff designated by the Contracting Authority. **Documentation:** technical documentation and brief installation / configuration notes for the installed equipment must be provided.			

Lot 3 — Projection, Audio and Display Equipment

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
3.1 High-lumen projector	**Quantity:** 1 projector. **Estimated unit cost (exc. VAT):** 5,000.00 EUR — **Estimated total cost (exc. VAT):** 5,000.00 EUR. **Use:** suitable for the high-quality projection of digital exhibition content, animations, graphics, video material and projection-mapping applications in an indoor gallery environment. **Projection technology:** professional laser or equivalent solid-state light-source projector suitable for exhibition use. **Brightness:** minimum 6,000 ANSI lumens, ISO lumens or equivalent brightness measured according to a recognized international standard. **Native resolution:** minimum WUXGA (1920 × 1,200 pixels) or equivalent resolution higher than Full HD. **Input signal:** capable of accepting and displaying 4K UHD video signals, with internal scaling where required. **Light-source life:** minimum 20,000 operating hours under normal operating conditions. **Image adjustment:** optical zoom and lens-shift and/or professional geometric correction functions suitable for accurate alignment with the designated projection surface. **Projection-mapping compatibility:** compatible with the media server and projection-mapping software supplied under Item 3.2 and capable of stable reproduction of mapped video and graphical content.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	Operation: suitable for stable daily operation in an exhibition environment and capable of automatic recovery or restart following normal power restoration, where supported by the offered equipment. **Connectivity:** minimum HDMI input and network connectivity for configuration or control. Any adapters or interfaces required for connection to the media server must be included. **Mounting / positioning:** suitable for safe ceiling, wall, platform or equivalent professional installation according to the final layout. The offered lens and mounting solution must be appropriate for the final projection distance and required image size. **Accessories:** remote control, mounting system, safety accessories, power cable, signal cables, adapters and all components required for proper installation and operation included. **Documentation:** technical datasheet / official manufacturer documentation required. **Warranty:** minimum 12 months.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
3.2 Media server for Projection Mapping	**Quantity:** 1 media server. **Estimated unit cost (exc. VAT):** 3,600.00 EUR — **Estimated total cost (exc. VAT):** 3,600.00 EUR. **Use:** suitable for projection mapping, real-time visuals, multimedia playback, video mapping and synchronised reproduction of digital exhibition content. **Processor:** recent-generation multi-core processor with a minimum of eight (8) processing cores, or an equivalent processing platform demonstrating comparable performance. **Memory:** minimum 32 GB RAM. **Storage:** minimum 1 TB NVMe SSD or equivalent high-speed solid-state storage. **Graphics:** dedicated or equivalent hardware-accelerated graphics processing solution with at least 8 GB graphics memory available for multimedia processing, projection mapping and stable 4K playback. **Video outputs:** minimum two (2) independent digital video outputs capable of supporting 4K UHD resolution at 60 Hz, using HDMI, DisplayPort or equivalent professional interfaces. **Playback performance:** capable of stable playback of high-resolution video, animations and graphics and of simultaneously feeding the projector and screen display supplied under Lot 3, where required by the final configuration. **Projection-mapping functions:** software must support, as a minimum, surface mapping, warping, masking, scaling, positioning, layering and playback of multimedia content. **Content operation:** capable of creating and recalling playback sequences, scenes, playlists or equivalent			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	programmed exhibition content. **Audio:** suitable audio output or professional audio interface for connection to the audio equipment supplied under Item 3.3. **Network connectivity:** minimum Gigabit Ethernet or equivalent network connection suitable for system configuration, content transfer and control. **Operating system:** licensed operating system suitable for professional multimedia and exhibition use. **Software:** projection-mapping and playback software, together with all licences necessary for the proper operation of the supplied system, included. The tenderer must clearly state the licence type, duration and any future recurring costs. The required basic functionality must not depend on an undisclosed or unpriced subscription. **System operation:** the configured system must be capable of automatically launching the approved exhibition playback configuration following normal start-up, where technically supported. **Compatibility:** fully compatible with the projector, screen display and audio equipment supplied under Lot 3. **Accessories:** keyboard and mouse or equivalent control devices, power cables, video and audio adapters and all accessories necessary for proper operation included. **Documentation:** technical documentation, software licence information, system configuration information and basic operating instructions required. **Warranty:** minimum 12 months.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
3.3 Audio equipment for interactive storytelling	**Quantity:** 1 audio equipment system. **Estimated unit cost (exc. VAT):** 4,000.00 EUR — **Estimated total cost (exc. VAT):** 4,000.00 EUR. **Use:** suitable for the reproduction and control of narration, speech, soundscapes, sound effects and interactive storytelling material within the exhibition space. **System scope:** professional audio interface, digital signal processor and/or audio mixer, playback and control interfaces, amplification equipment and any other components necessary for the proper operation of the three directional speakers supplied under Item 3.5. **Audio zones:** capable of providing at least three (3) independently controllable audio output zones, corresponding to the three directional speakers supplied under Item 3.5. **Signal processing:** must provide independent level control and appropriate equalisation, delay and limiting or equivalent signal-processing functions for the individual audio zones. **Amplification:** suitable amplifier channels must be included where required by the offered directional speakers. Where active directional speakers are proposed, all required professional line-level interfaces and control equipment must be included instead. **Audio quality:** suitable for clear and intelligible reproduction of speech, narration, music and ambient sound in an indoor gallery / museum environment.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	Connectivity: compatible with the media server and other playback equipment supplied under Lot 3, using balanced analogue, digital, USB, HDMI audio extraction or equivalent professional connections, as appropriate to the proposed system. **Zone operation:** each directional speaker must be capable of receiving and reproducing a separate audio signal or independently controlled audio programme. **Protection:** the system must allow appropriate control of maximum output level in order to prevent excessive sound levels and interference between adjacent exhibition zones. **Installation:** suitable for safe and secure installation or positioning according to the final layout. **Exclusion of duplicate speakers:** the three directional speakers are supplied exclusively under Item 3.5. No additional undefined quantity of speakers is required under Item 3.3. **Accessories:** all necessary audio interfaces, amplifiers, processors, power supplies, connectors, adapters, mounting accessories and other components required for proper operation included. **Documentation:** technical datasheets, manufacturer documentation, connection information and basic operating instructions required. **Warranty:** minimum 12 months. **Shared system components:** All amplifiers, DSP units, shared audio interfaces, control equipment and shared power-supply equipment required for the complete three-zone audio system shall be included under Item 3.3.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
3.4 High-Quality Screen Display	**Quantity:** 1 large professional screen display. **Estimated unit cost (exc. VAT):** 6,500.00 EUR — **Estimated total cost (exc. VAT):** 6,500.00 EUR. **Use:** suitable for the professional presentation of animations, graphics, video content and digital exhibition material in an indoor museum / gallery environment. **Display type:** professional digital-signage or equivalent commercial-grade display suitable for prolonged daily exhibition operation. **Screen size:** minimum 85-inch diagonal. Professional 85-inch or 86-inch commercial display formats are acceptable. **Native resolution:** minimum 4K UHD (3,840 × 2,160 pixels). **Brightness:** minimum 500 nits. **Surface:** anti-glare coating or equivalent anti-reflection treatment suitable for operation under gallery lighting conditions. **Viewing characteristics:** suitable for clear viewing by visitors from different positions within the exhibition space, with wide viewing angles and consistent image reproduction. **Operation:** rated for professional operation of at least 16 hours per day, 7 days per week, or higher. **Connectivity:** minimum two HDMI inputs or equivalent professional digital video inputs, together with network connectivity for configuration or control.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	Media-server compatibility: fully compatible with the media server supplied under Item 3.2 and capable of receiving 4K UHD digital video signals. **Control:** remote control and/or network-based configuration and control functions included. **Mounting / positioning:** suitable for safe wall mounting, stand mounting or an equivalent professional installation solution according to the final layout. **Accessories:** professional wall mount or stand, safety accessories, remote control, power cable, signal cables, adapters and all components necessary for installation and operation included. **Documentation:** technical datasheet / official manufacturer documentation required. **Warranty:** minimum 12 months.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
3.5 Directional Speakers for localized audio zones	**Quantity:** 3 directional speakers. **Estimated unit cost (exc. VAT):** 800.00 EUR — **Estimated total cost (exc. VAT):** 2,400.00 EUR. **Use:** suitable for the creation of three localised audio zones within the exhibition space and for reducing unwanted sound transmission between adjacent exhibition areas. **Technology:** directional, focused-audio, beam-steering or equivalent professional sound technology capable of concentrating the reproduced sound within a defined listening area. **Directivity:** nominal horizontal sound coverage not exceeding approximately 30°, or an equivalent documented directional performance demonstrating effective localisation of audio within the intended listening zone. **Audio application:** suitable for clear reproduction of narration, storytelling, speech, ambient audio and sound effects associated with the Interactive Exhibition. **Independent operation:** each speaker must be independently addressable and controllable through the audio equipment supplied under Item 3.3. **Compatibility:** fully compatible with the audio processing, amplification, media-server and playback equipment supplied under Lot 3. **Amplification:** speakers may be active or passive. Shared amplification, processing, audio interfaces and control equipment required for the complete three-zone audio system shall be included under Item 3.3. Any manufacturer-supplied speaker-specific power supply or integral amplification forming part of			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	the offered directional speaker shall be included under Item 3.5. **Adjustment:** capable of being positioned and aimed towards the intended listening area. **Mounting:** suitable for safe wall, ceiling or equivalent professional installation according to the final layout. **Accessories:** all necessary mounting brackets, safety accessories, power supplies, cables, connectors and interfaces required for proper operation included. **Documentation:** technical datasheet / official manufacturer documentation, including information demonstrating the directional performance of the offered speaker, required. **Warranty:** minimum 12 months. **Speaker-specific components:** The unit price under Item 3.5 shall include each directional speaker together with its manufacturer-supplied speaker-specific power supply, mounting brackets and integral accessories. Shared amplification, processing, audio interfaces and control equipment shall be priced exclusively under Item 3.3.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
3.6 Cabling, installation, system integration and related guarantee obligations	**Quantity:** 1 lump sum. **Estimated lump-sum cost (exc. VAT):** 3,500.00 EUR — **Estimated total cost (exc. VAT):** 3,500.00 EUR. **Scope:** delivery, unloading, siting, installation, mounting, cabling, connection, configuration, calibration, commissioning, testing and handover of all equipment supplied under Lot 3. **Installation location:** Municipal Gallery of Saranda, Albania. **Cabling and installation materials:** all site-specific video, audio, network, control and power interconnection cabling, connectors, adapters, cable-management materials and minor installation materials required for the installation and integration of Lot 3, and not already included in the unit price of the relevant equipment items, shall be included. **Projector installation:** installation and alignment of the projector, including image positioning, focus, geometric correction and connection to the media server. **Projection surface:** the projector must be aligned with the projection surface designated by the Contracting Authority. The supply of a separate projection screen is not included unless expressly required elsewhere in the procurement documents. **Media-server configuration:** installation and activation of the operating system, drivers, projection-mapping software and licences, together with configuration of the required video and audio outputs. **Content configuration:** loading and configuration of sample, test or final exhibition content provided by the Contracting Authority, where required for functional testing and commissioning.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	Display installation: safe installation, configuration and connection of the professional screen display. **Audio installation:** installation, connection, aiming and adjustment of the three directional speakers and configuration of the corresponding independent audio zones. **System integration:** the projector, media server, professional display, audio equipment and directional speakers must be configured and tested as a complete and integrated projection, display and audio system. **Testing:** functional testing must include video playback, projection-mapping functions, 4K display operation, audio reproduction, independent audio-zone control and stable integrated system operation. **Safety:** installation must be carried out safely and without damaging the venue, existing infrastructure, artworks, exhibits or other equipment. **Existing infrastructure:** the contractor must verify the suitability and compatibility of the existing mounting points, power supply, network facilities and installation routes before final installation. **Excluded works:** major building works, structural reinforcement, new electrical distribution boards and extensive fixed electrical works are not included unless expressly required elsewhere in the procurement documents. **Handover and instruction:** the contractor must demonstrate the complete system and provide basic operational instruction to the staff designated by the Contracting Authority. **Documentation:** technical documentation, software and licence information, cable and connection schedule, basic system diagram, installation / configuration notes and operating instructions must be provided.			

1. Item number	2. Specifications required	3. Specifications offered	4. Notes, remarks, ref to documentation	5. Evaluation committee's notes
	Guarantee / warranty: The product warranty for each equipment item shall be included in the unit price of that item and shall comply with the minimum warranty period specified in the General Technical Requirements. Item 3.6 shall cover the guarantee of the installation, configuration, system integration and proper operation of the complete installed system and shall not constitute a separate charge for product warranties already included under Items 3.1–3.5.			