

PUBLIC INTERNATIONAL TENDER LAPTOPS

TECHNICAL SPECIFICATIONS

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June 2025

1. Call Aim

Centro Ceibal calls for a public international tender for the acquisition of up to 150.000 laptops for delivery to beneficiaries of the Plan. The tender document is divided into two categories, the bidder may quote in a single category or in both:

1. Laptops with an Intel Celeron N4500 or Celeron N5100 processor.
2. Laptops with an Intel N100 or N150 processor.

The devices offered must be manageable with the Microsoft Intune tool.

The final product will include a software image based on the Windows Pro Education operating system developed by the successful bidder according to Ceibal's requirements. In addition, the bidder must separately quote the development of an additional software image. Ceibal may request the development of one or more of these additional images if needed.

The bidder must quote the equipment on a sea shipment basis (CIF MVD) and the spare parts on a FOB Origin basis.

The offer must be submitted in accordance with the specifications in Section 2. OFFER.

All products purchased from the Offeror and/or all services provided by the Bidder are governed by the confidentiality and data protection considerations specified in *Annex III: Confidentiality and Data Protection*.

2. Offer

A maximum of two models may be offered per category. All documentation submitted must be segmented, identifying each product by its corresponding model in the technical and financial offers.

2.1 Presentation and method of quoting

The technical offer will be presented according to the following segmentation:

1. Folder with factory background information. The following must be detailed:
 - Factory that will produce the offered devices, and provide the complete Factory Data table (see *Annex II: Factory Data*).
 - Overall factory production volume over the past 12 months.
 - Factory laptop production volume over the past 12 months.
2. Bidder's background information folder. The following must be detailed:
 - History of supplying similar consumer electronic devices in the last 12 months.
 - History of educational projects in which you have participated.
 - List of clients and their contacts
3. Folder with all the tables in section 6. REQUIREMENTS, complete, for each product offered.
4. Folder with the documentation requested in section 2.2. DOCUMENTATION, complete for each laptop model offered.
5. Folder with warranty specifications as requested in section 3. WARRANTY.
6. Folder with delivery time specifications as requested in section 4. DELIVERY TIME AND CONDITIONS.
7. (Optional) Folder with any additional technical information the bidder deems relevant.

The economic offer must include a folder containing the tables in *Annex I: Price Tables* completed for the corresponding device category.

For the methodology for submitting bids, please refer to the ***General Terms and Conditions Document***.

22 Documentation

The documentation that must be included in the technical offer documentation folder, for each model offered, is the following:

DOCUMENTATION		
MANDATORY WITH THE OFFER		
2.2.1	TECHNICAL SPECIFICATIONS	Technical specifications of each model offered.
2.2.2	MOTHERBOARDS COMPONENT SUPPLY	Indicate if the bidder can provide the motherboard components that will be detailed in the BAI (see documentation requirement 2.2.12).
2.2.3	SERIAL NUMBER CONFIGURATION	Serial number configuration tool and procedure.
2.2.4	HARDWARE TEST (Only if the bidder meets the desirable requirement 6.1.17)	Document with a functional description of the tool and an indication of how to access it from the system.
OPTIONAL WITH THE OFFER		
2.2.5	WIFI ALLIANCE CERTIFICATIONS	WiFi Alliance certifications of the network card offered.

The following documentation is required with each shipment of equipment, or with each hardware change, as applicable:

DOCUMENTATION		
MANDATORY WITH EACH SHIPMENT and / or HARDWARE CHANGE, as applicable		
2.2.6	RoHS CERTIFICATE	RoHS standard compliance certificate. (It is NOT required to present the detailed documents with the test protocols applied).
2.2.7	FCC CERTIFICATE	Certificate of compliance with FCC standard. (It is NOT required to present the detailed documents with the test protocols applied).
2.2.8	ENERGY STAR (or equivalent)	Energy Star certificate (or equivalent) of the equipment (laptop/charger) (It is NOT required to present the detailed documents with test protocols).
2.2.9	BILL OF MATERIALS (BOM)	Worksheet with all the hardware components that make up the device, each with a code that identifies it, including the case and any other individual component that can be replaced in case of failure.
2.2.10	SCHEMATICS, LAYOUT and BAI	Schematics, layout and board assembly information (BAI) of the motherboard in digital format. This information will be delivered once production has started (or at the latest prior to the first shipment) and each time the successful bidder notifies a hardware change.
2.2.11	EXPLODED VIEW DRAWING	Technical drawing of the assembly and relationship between all the atomized parts of the equipment, each one identified with a code. This information will be delivered once production has started (or at the latest prior to the first shipment) and each time the successful bidder notifies a hardware change.
2.2.12	DATA SHEETS	Data sheets of main components of the device such as battery, screen, camera, etc., and of main components of the motherboard such as integrated circuits and connectors.

2.2.13	BATTERIES MSDS	Battery Material Safety Data Sheet (MSDS).
2.2.14	CHARGER: RoHS CERTIFICATE	Certificate of compliance with the RoHS standard of the charger, in case it is not included in the RoHS certificate of the device. (It is NOT required to present the detailed documents with the test protocols applied).
2.2.15	CERTIFICATES EN60950 (or its updates IEC 62368-1)	Certificate of compliance with standard EN60950 (or IEC 62368-1), Information technology equipment - Safety, laptop and charger. (It is NOT required to present the detailed documents with the test protocols applied).
2.2.16	CERTIFICATES IEC61000 (or its updates)	Certificate of compliance with standard IEC 61000 (or its updates), Electromagnetic compatibility (EMC), laptop and charger. (It is NOT required to present the detailed documents with the test protocols applied).
2.2.17	CERTIFICATES EN55022 (or its updates)	Certificate of compliance with standard EN55022 (or its updates), Information technology equipment Radio disturbance characteristics, laptop and charger. (It is NOT required to present the detailed documents with the test protocols applied).
2.2.18	DEVICE SHEET	Device information sheet (see description in this section).
2.2.19	LOGISTICS SHEET	Logistics information sheet (see description in this section).

The information sheets required with each shipment are described below:

- DEVICE SHEET (Requirements 2.2.18)
 - Part number.
 - Serial number.
 - Pallet number / master box number in which the device is shipped.
 - MAC addresses of all network cards the device has (for example, WLAN, Ethernet, Bluetooth).
 - Part number and serial number of the main components (minimum: motherboard, display and battery).
 - HARDWARE HASH of the equipment obtained at the factory. The hash is an alphanumeric code associated with the hardware, necessary for the equipment to be managed by Intune. The procedure in force at the date of publication of this document can be found in the following link to the Microsoft documentation:
<https://learn.microsoft.com/es-es/mem/autopilot/add-devices%23collect-the-hardware-hash?Gsa=D&source=docs&Gust=1684950648623353&Gusg=AOvVaw1OR86SKS7b7LnvdM8RDIG5>
- LOGISTICS SHEET (Requirement 2.2.19)
 - Individual box dimensions. (In case Ceibal awards the box packaging option. See section 8 of the specifications for a description of the alternative individual packaging option)
 - Individual box weight. (Same as above)
 - Master box measurements.
 - Master box weight.
 - Number of master boxes per pallet.

- Pallet height.

23 Samples

At the time of bid submission, six identical samples of each laptop model offered in each category must be submitted, along with their chargers and running Windows 11. All laptop and charger samples must be properly identified according to the following guidelines:

LPI_Laptops_2026

3 letters to identify the bidder.

Model offered.

Technical category of the specification in which the device is offered.

Sample No.

As an example, sample 1 of model XYZ offered by bidder ABC in category I of the specifications must be labeled:

LPI_Laptops_2026-ABC-XYZ-I-1

Ceibal reserves the right not to accept samples that are not properly identified.

The bidder **must provide the software image included in the sample, along with the tools and procedures necessary for its installation and corresponding documentation**, in a downloadable file that must be available from the bid opening. This allows Ceibal to restore the devices to their initial state as many times as necessary during the evaluation process.

Samples must be delivered to the reception desk at Centro Ceibal (Av. Italia 6201, Los Ceibos Building, Monday through Friday, 9 a.m. to 5 p.m.). Ceibal will provide a receipt, which will be signed by Ceibal and the person delivering the samples.

In exceptional cases, and when Ceibal deems justified reasons, the bidder may defer the delivery of samples for a reasonable period of time, which Ceibal will evaluate.

A fundamental part of the technical evaluation will be performed on these samples (see section 7. TECHNICAL EVALUATION CRITERIA). **The specifications and performance of the final product cannot be less than those of the sample. This aspect will be verified in the quality controls that determine product acceptance.**

Destructive testing will be performed on some of the delivered samples.

Unsuccessful bidders will have four weeks from the date of the award to collect their submitted samples. If the aforementioned deadline expires without collecting them, Centro Ceibal may freely dispose of them, without the bidder having the right to claim them.

Samples submitted by successful bidders will remain the property of Ceibal.

3. Warranty

The following warranty conditions are mandatory:

3.1 Dead on Arrival

Warranty for replacement of defective devices due to DOA for a period of 90 days from arrival: 5 laptops per 1000.

3.2 Systemic failures

Ceibal may request the successful bidder to provide the necessary spare parts or replace equipment if a systemic failure attributable to the design or manufacture of the equipment is detected. The costs arising from the execution of this guarantee are the sole responsibility of the supplier. **This section includes systemic software failures not attributable to Ceibal.**

If the Bidder provides **additional** warranties, they must be detailed in their technical proposal. If the additional warranty conditions proposed by the Bidder entail additional costs, these must be presented in the financial proposal and quoted separately; otherwise, they will be considered included in the price.

The Bidder shall guarantee that the products supplied under the contract are new, complete, unused, and free from defects attributable to the design, materials, manufacturing, storage conditions (packaging, appropriate temperature and humidity), transportation, or any act or omission of the Bidder that may arise during normal use of the products under the conditions prevailing in the country.

4. Delivery time period and conditions

4.1 Delivery time period

Twenty identical samples of the awarded model must be delivered for repair training before February 1, 2026. **These 20 samples are not part of the awarded batch and are at the supplier's cost.**

The following delivery times are desirable:

- ETA of 50% of the awarded lot: 120 calendar days after the adjudication resolution is communicated.
- ETA of the remaining 50% of the awarded lot: within 30 calendar days after delivery of the first 50%, or April 15, 2026, whichever occurs before.

These deadlines include all product development, production, and shipping.

In case of not being able to comply with these maximum deadlines, the bidder must specify the delivery time period in his offer. **The same delivery time period applies for both laptops and spare parts.**

4.2 Delivery conditions

All devices sent to Ceibal must be made up of the same components. In the event that this cannot be fulfilled, the successful bidder must notify Ceibal in writing within a period of no less than 60 days and Ceibal must validate the new BOM.

The successful tenderer must deliver the devices in compliance with the following specifications:

- Each pallet must be labeled with the following information:
 - Device model / lot / batch (**pallets containing more than one device model will not be accepted**).
 - Pallet number / total pallets in the lot.
 - Number of master boxes on pallet.
 - List of master boxes that make up the pallet.
- Each master box must be labeled with the following information:
 - Device model / lot / batch.
 - Number of master boxes / total of master boxes in the batch.
 - Serial number (barcode and alphanumeric) of each device in the master box.
 - Product description
- Each individual packaging should be labeled with the following information:
 - Device model.
 - Serial number (barcode and alphanumeric) of the device.

The design of each individual box and each master box must be customized according to specifications that will be agreed between Centro Ceibal and the successful bidder.

Centro Ceibal may request the inclusion of a printed brochure with recommendations for use and care of the equipment in each individual box.

5. Quality controls

Centro Ceibal will carry out three quality controls on the awarded products that may partially or totally reject the inspected lots. These three inspections are:

1. Inspection at origin prior to shipment
2. Validation of *golden samples* that the successful bidder will send to be evaluated at Centro Ceibal (10 pieces of equipment from each batch produced, sent by air freight at the bidder's expense).
3. Final inspection in Ceibal after receiving the shipment.

Centro Ceibal, or a representative that it designates, may visit the factory before and / or during the production of the batches for Ceibal, prior coordination between the parties and independent of quality controls. Centro Ceibal may also request a visit to the manufacturer to work together during the software image development process.

6. Requirements

HARDWARE						
MANDATORY REQUIREMENTS				COMPLIES		SPECIFICATIONS AND OBSERVATIONS
				YES	NO	
6.1.1	PROCESSOR	Brand: Intel.				
		Category I	Celeron N4500 or Celeron N5100. No other processors are accepted in this category.			
		Category II	N100 or N150. No other processors are accepted in this category.			
6.1.2	SCREEN	Size: 11.6 ". Specify whether the screen has a matte or glossy surface.				
		Minimum Resolution: 1366×768.				
6.1.3	RAM MEMORY	Minimum: 8GB DDR4. Specify if the component is onboard or removable.				
6.1.4	INTERNAL STORAGE	Category I	128GB SSD.			
		Category II	128GB (eMMC o SSD) Specify the connection interface of the card to the motherboard (mPCIe, M.2, SATA) and indicate if the component is onboard or removable.			
6.1.5	MULTIMEDIA	Headphone output and external microphone input through the same connector (TRRS 3.5mm).				
		Built-in microphone and speakers.				
		Category I	Minimum: UXGA or Full HD. 1.9MP.			
		Category II	Minimum: HD 1MP.			
6.1.6	INPUT METHODS	QWERTY keyboard with distribution in Spanish language.				
		Touchpad.				
6.1.7	PORTS	USB	Minimum: 2 USB ports (1 USB-A 3.0 and 1 USB-C, which can be the charging port)			
			Charging port: 1 USB port with PD and data transmission.			
		HDMI video output.				
6.1.8	CONNECTIVITY	Minimum: 2x2 dual-band network card: 802.11n (2.4 GHz) and 802.11ac (5 GHz). WPA2 Personal/Enterprise security. Specify the interface for connecting the card to the motherboard.				
		Minimum: Bluetooth 4.0				

FIRMWARE					
MANDATORY REQUIREMENTS			COMPLIES		SPECIFICATIONS AND OBSERVATIONS
			YES	NO	
6.1.9	SECURE BOOT	The UEFI firmware must have the Secure Boot module disabled and editable.			

6.1.10	FIRMWARE CONFIGURATION	The firmware must be configurable. In particular, it is of interest to disable the possibility of setting any boot password and the possibility of setting any password for access to the mass storage media. The final configurations of the FW parameters will be defined by Ceibal prior to production.			
6.1.11	SERIAL NUMBER RECORDING SOLUTION	The bidder must provide a solution that allows a specific serial number to be recorded in a motherboard repair process.			

SOFTWARE					
MANDATORY REQUIREMENTS			COMPLIES		SPECIFICATIONS AND OBSERVATIONS
			YES	NO	
6.1.12	OPERATING SYSTEM	Windows 11 Pro Education			
6.1.13	MICROSOFT INTUNE COMPATIBILITY	The equipment must meet the necessary firmware, software or hardware requirements, so that the Windows partition is managed through the Microsoft Intune tool of the Ceibal tenant			
6.1.14	LANGUAGE	Operating system and all its interfaces and configuration options in Spanish.			
6.1.15	CUSTOMIZATION AND INSTALLATION TOOLS	The bidder must provide the tools and procedures for customizing the firmware and operating system, and for installing the operating system on multiple computers.			
6.1.16	SOFTWARE IMAGE DEVELOPMENT	The bidder must develop the software image for Ceibal according to the requirements shared by Ceibal. These requirements involve initial startup configuration, inclusion of programs and features, customizations (wallpaper, desktop icons, etc.)			
DESIRABLE REQUIREMENTS			COMPLIES		SPECIFICATIONS AND OBSERVATIONS
			YES	NO	
6.1.17	HARDWARE TEST	Software or firmware tool that allows verification of the device's integrated peripherals and ports. This tool must be available in Spanish and / or English. For details of the characteristics sought, see section 7: Technical evaluation criteria.			

LOGISTICS					
MANDATORY REQUIREMENTS			COMPLIES		SPECIFICATIONS AND OBSERVATIONS
			YES	NO	
6.1.18	CEIBAL LOGO AND FANTASY NAME OF THE MODEL	Ceibal will specify the logo and fantasy name of the model, which must be printed on the housing by laser, silkscreen or another printing method, labels will NOT be accepted. This print must meet the following durability criteria:			
		Clearly visible on housing.			
		Indelible before the application of alcohol.			

		Not removable when sticking and peeling packing tapes.			
6.1.19	SERIAL NUMBER and BARCODE	Unique serial number (SN) and corresponding barcode printed on the casing using a laser, silkscreen, or other printing method. The same considerations apply as for requirement 6.1.18 CEIBAL LOGO AND CUSTOM MODEL NAME. The barcode must have sufficient contrast to be read by barcode readers. Labels will NOT be accepted.			
		The serial number must be obtainable by software through a procedure that the bidder will indicate.			
		The software-derived serial number must be configurable using a tool and procedure specified by the offeror. This requirement is necessary so that the serial number printed on the case and the software-derived serial number match on a machine after a repair involving a replacement motherboard (See requirement 2.2.4 SERIAL NUMBER CONFIGURATION).			
6.1.20	PARTS IDENTIFICATION	The following components, whether included in the equipment or individual spare parts, must have: <ul style="list-style-type: none">• A barcode or QR code that allows scanning of the part number and serial number.• A label, laser engraving, silkscreen, or similar, with the part number and serial number information. Battery, motherboard, and display.			
6.1.21	PACKING	Individual box with a customized design according to Ceibal's requirements. The packaging must be eco-friendly, made of cardboard and biodegradable nylon.			
		The minimum number of laptops per master box must be 6 units, with a maximum weight of 25 kg per master box			
OPTIONAL REQUIREMENTS					
6.1.22	RFID labels	RFID labels in the interior of Cover D			
6.1.23	Alternative Packaging	Without individual box, with solution described in section 8. The packaging design must be eco-friendly.			

CHARGERS					
MANDATORY REQUIREMENTS			COMPLIES		SPECIFICATIONS AND OBSERVATIONS
			YES	NO	
6,1,24	HOUSING	Material: ABS plastic or similar with good impact resistance. It shall withstand a fall from a height of 1 meter onto a surface covered with wood.			
		The charger can only be opened by a destructive process. It must be sealed and must not have screws that allow it to be opened by the user.			
6.1.25	PLUG 220VAC	Type C (Europlug CEE 7/16 220VAC 2.5A) 2 legs. In case the adapter is WALL type, it must have the orientation of pins as the image 1.			
		Insulation on 220VAC plug contacts. Reference image 1.			
6.1.26	PINS REMOVAL FORCE	The pins can only be removed from the body of the charger if a force greater than 40kgf is exerted.			
		Force on housing surfaces: The external housing must withstand a force of 25Kg on a 30mm circular surface for 5 sec without causing damage.			

6.1.27	DC CABLE	The cable is attached to the adapter and is not detachable. Length 200 cm \pm 50 cm.			
		Reinforced: Internal cables encapsulated in plastic sheathing. Reference image 2.			
		Strain Relief: Presence of a strain relief at both ends of the cable (charger input and DC connector). Reference image 3			
6.1.28	ELECTRIC CHARACTERISTICS	Input: 100 - 240 VAC			
		A tolerance of 5% should be maintained for the specified nominal conditions.			
6.1.29	DC CONNECTOR	The connector shall ensure correct and firm coupling with the equipment.			
6.1.30	CEIBAL LOGO	Ceibal will specify the model's logo and fantasy name. In addition to this information, the production lot and charger electrical specifications must be printed on the housing by laser, silkscreen or other printing method, labels will NOT be accepted. The same considerations apply as for requirement 6.1.18 CEIBAL LOGO AND FANTASY NAME OF THE MODEL.			

Illustrative images, as examples only, for requirements 6.1.25 and 6.1.27.

Image 1:



Image 2:

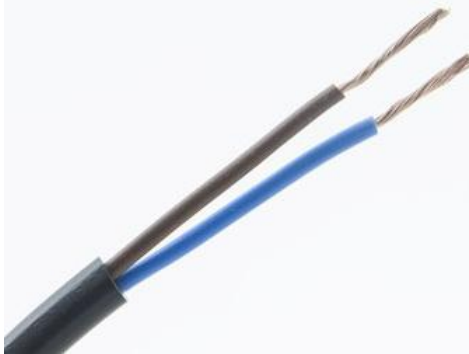

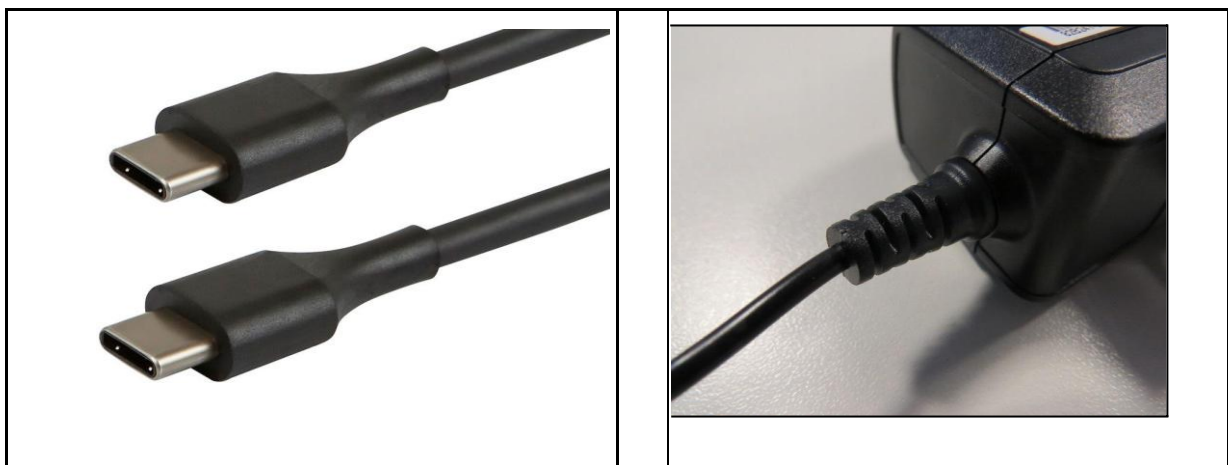
Reinforced cable (complies with mandatory requirement)	Cable NOT reinforced (DOES NOT comply with the mandatory requirement)
	

Image 3:



Chargers are ordered in individual boxes and must feature a specific single-color artwork. Reference images are shown below:



LAPTOP CERTIFICATIONS					
MANDATORY REQUIREMENTS			COMPLIES		SPECIFICATIONS AND OBSERVATIONS
			YES	NO	
6.1.31	Restriction of Hazardous Substances	Documentation proving the RoHS certification of the device or all its components will be required as a requirement for acceptance of production batches.			
6.1.32	Federal Communications Commission Declaration of Conformity	Documentation supporting FCC certification will be required as a requirement for acceptance of production batches.			
6.1.33	Information technology equipment - Safety	Documentation proving compliance with the EN60950 standard (or its updates) will be required as a requirement for acceptance of production batches.			
6.1.34	Electromagnetic compatibility (EMC)	Documentation proving compliance with the IEC61000 standard (or its updates) will be required as a requirement for acceptance of production batches.			
6.1.35	Information technology equipment. Radio disturbance characteristics.	Documentation proving compliance with the EN55022 standard (or its updates) will be required as a requirement for acceptance of production batches.			
6.1.36	Energy Star (or equivalent)	Documentation of Energy Star (or equivalent) compliance will be required.			

CHARGER CERTIFICATIONS					
MANDATORY REQUIREMENTS			COMPLIES		SPECIFICATIONS AND OBSERVATIONS
			YES	NO	
6.1.37	Restriction of Hazardous Substances	Documentation proving the RoHS certification of the charger will be required, in case the charger is not included in the RoHS certification of the device, as a requirement for acceptance of production batches.			
6.1.38	Information technology equipment - Safety	Documentation proving compliance with the EN60950 standard (or its updates) will be required as a requirement for acceptance of production batches.			
6.1.39	Electromagnetic compatibility (EMC)	Documentation proving compliance with the IEC61000 standard (or its updates) will be required as a requirement for acceptance of production batches.			
6.1.40	Information technology equipment. Radio disturbance characteristics.	Documentation proving compliance with the EN55022 standard (or its updates) will be required as a requirement for acceptance of production batches.			

The successful bidder must guarantee the availability of spare parts for a period of no less than 1 year.

SPARE PARTS		
AVAILABILITY	COMPLIES	
	YES	NO
Minimum: 1 year		
Spare Part	Estimated percentage of factory failures	Observations (*)
Barebone device (**)		
Keyboard		
Screen		
Battery		
Motherboard.		
Charger		
RAM Memory		
Internal Storage		
...		
...		

(*) Specify whether the original spare part includes other device parts. For example, a motherboard with/without integrated peripherals, etc. In the case of motherboards, indicate whether the spare parts include accessories such as heatsinks, pads, insulating sheets, or similar.

(**) A barebones computer is an assembled computer with an injected Windows license and only the following components: motherboard, keyboard, display, charger, battery, RAM, SSD, and touchpad.

7. Device technical evaluation criteria

The evaluation of the technical offer includes the following device evaluation criteria:

- Background evaluation.
- Evaluation of compliance with requirements.
- Evaluation of samples:
 - Performance, Wi-Fi and multimedia evaluation
 - Maintenance evaluation

All offers that obtain less than 60/100 technical points will be eliminated.

7.1 Background Evaluation

The evaluation of the technical offer includes the following device evaluation criteria:

- Background evaluation. It will be evaluated:
 - The Factory background
 - The Background of the bidder
- Factory visit. Centro Ceibal may request a visit to the factory that the bidder specifies in his offer. The objective of this visit is to check the capacity of the factory to meet the volume of production in quality and deadlines. **When presenting itself, the bidder guarantees that the factory will allow access to Ceibal, or to a representative designated by it, so that the corresponding evaluation can be carried out**, if Ceibal requests it. For this evaluation it will be needed:
 - Free access to the company's manufacturing facilities and offices.
 - Free access to take photographic and videographic records of the facilities, both inside and outside the factory buildings.
 - Free access to documentation linked to current quality and management certificates.
 - Free access to documentation related to legal records of the company.

7.2 Compliance with mandatory requirements

Any offer that does not meet any of the mandatory requirements requested in the corresponding category of section 6. REQUIREMENTS will be discarded.

73 Sample Evaluation

7.3.1 Performance, Wi-Fi and multimedia evaluation

The device's hardware and overall user experience will be evaluated. The aspects evaluated include: camera, display, audio, video, Wi-Fi, battery life, disk read/write, CPU performance, and more.

7.3.2 Maintenance

The maintenance evaluation analyzes the suitability of the device for the user and the characteristics of the support service provided by Ceibal, and the quality of the documentation associated with maintenance requested in section 2.2 DOCUMENTATION, such as, for example, a description of the maintenance procedures, disassembly and procedures for installation and configuration of firmware and operating system. In addition, the maintenance of the equipment also requires the delivery of additional documentation that will be requested at the time of the production of the devices (BOM, Exploded-view drawing, schematics, etc.)

As general characteristics, a robust and easy-to-repair device is sought, both in terms of the time it takes to repair and its technical complexity.

Among the aspects to be evaluated, the following stand out:

Fragile module assembly

Easy to disassemble fragile modules, for example screen, internal battery, keyboard, antennas, etc., in order to minimize the risk of breakage. It is desirable that the assembly of these modules is not done with adhesive materials.

Disassembly and assembly complexity

Design that allows a simple assembly and disassembly process, with minimal risks on the components that are removed and replaced. For example, the following considerations contribute to the ease of the process:

- Presence of guides for the conduction of internal cables that avoid the use of adhesive tapes.
- Low diversity of screws and easily identifiable, for example, by color coding and / or printing the screw size on PCB.
- Modularity: design that allows removal and replacement of modules without the need to remove other modules.

Screw anchors

Robust screw anchors to withstand wear and tear from multiple removals.

Safety

Design that prioritizes the safety of the user. For example, safety mechanisms due to excess battery temperature. Protections to avoid splinter dispersion when the screen is broken, the possibility of accessing the battery cells, etc.

Length of internal cables

Appropriate length of internal cables in order to avoid unnecessary tension in the connection to the motherboard or excessive dispersion of the cables inside the equipment.

Internal Connectors

Connecting peripherals to the motherboard is done using removable connectors, NOT soldering, as this complicates the repair process. Devices with soldered peripherals can only be repaired centrally, making the distributed repair method implemented by Ceibal impossible.

External connectors

The external connectors are accessible to the user so it is important that they are robust to withstand external pressure. Some aspects to consider are:

- Connectors with correct coupling to avoid unnecessary pressure being exerted on them, and even reinforced by the plastic of the housing or supports for this purpose.
- Connectors in independent modules that connect to the motherboard, so that in the event of a connector breakage, it is not necessary to remove and replace the entire motherboard.
- Small SMD connectors such as micro USB, audio connectors, micro HDMI, etc, with at least four anchor points to the motherboard.
- Connectors assembled in a board-cut configuration that make contact with the motherboard at the rear of the connector, providing an additional point of support for the connector.
- Reinforced structure of the metal body of micro USB connectors, for example, by spot welding or by its constructive design.
- Reversible connectors, such as micro USB type C.

Battery

External laptop batteries so that they are replaced without the need to disassemble the equipment. At the same time, the module is fixed to the outer housing of the device in such a way that it is difficult to remove by the user. For this, screw connections are preferable rather than mechanical solutions.

Hardware Test

Requirement 6.1.17 is a desirable requirement that adds value to the repair process. An application or functionality is sought, at the software or firmware level, that allows to facilitate the diagnosis of the device's peripherals in a simple and controlled way. Here are some of the features sought in this tool:

- Features:
 - Sequential mode where all the tests are executed.
 - Manual mode where it is allowed to run a specific test.
 - At the end of each test, it must allow the technician to decide if the result is acceptable or not.
 - Allows you to skip Test or go back to the previous one manually.
 - Have a LOG with the results of all the tests.
- Tests:
 - Keyboard Test: It allows the functional verification of the activation of all the keyboard keys.
 - Bluetooth Test: It Activates Bluetooth and recognize nearby devices.
 - WiFi test: It Activates WiFi, recognize nearby access points and connect.
 - Display Test: It Shows sequence of colors and patterns in full screen, to detect defects in the image.
 - Audio Test: It Allows verification of the following components:
 - Speakers
 - Headsets
 - Microphone.
 - Backlight Test: It Shows variation in screen brightness.
 - Touchpad and button test: It Allows you to verify operation, range of action and sensitivity of the touchpad, as well as the activation of both mouse buttons.
 - Camera Test: It Activates the camera (s) allowing you to take and save a photo.
 - Battery Test: It Displays the relevant information to know the health of the Battery. Some parameters are:
 - Tension
 - Level and state of charge or discharge
 - Current capacity and design capacity
 - Current flow to or from the battery.
 - SD card and USB ports test: It Checks the correct reading and writing on removable media.

- Suspension test: It Verifies activation of the equipment's closed detection sensors.
- Storage Test: It Checks the correct reading and writing on the internal disk.
- Device Information: It Displays device manufacturing information, such as:
 - Name of the device
 - Firmware version
 - Serial number
- Flash Test (if applicable to the model): It Allows turning on the LED used as the camera's flash

8. Individual Packaging - Alternative

Ceibal may opt for an individual box or a similar option to the one indicated in this section. The bidder must indicate in the bid whether they can provide the equipment under this modality.

The devices must come packaged in bulk, maximizing the number of devices per box (secondary packaging) to reduce maritime and land logistics costs.

The minimum number of laptops per box must be 10 units, with a maximum weight of 25 kg per bulk box. It is desirable to maximize the number of devices per box without exceeding the maximum weight per box.

Each device and charger must also come with primary packaging inside the box.

General characteristics of the primary packaging:

- The primary packaging's purpose is to allow the user to carry the device and its charger safely and comfortably. Therefore, we understand that it should have handles for easy transport.
- The primary packaging must be of a size and material that allows it to be stored alongside the laptop and charger in the user's backpack.
- The primary packaging will be used for the life of the device.
- The charger must have a dedicated location in the primary packaging, such as an internal pocket. It is desirable that the material be sustainable, i.e., biodegradable or recycled fabric and naturally dyed. For example: organic cotton, hemp, linen, wool felt, or RPET.
- The exterior of the primary packaging must have an area or card with a label with the serial number and barcode. It must also include a space to attach another label with the user's information. The area or card where the label is attached must be accessible so that it can be attached without having to remove the device from the secondary packaging. To reduce operating time (see image 2)
- They will feature a two-color design provided by Ceibal. (See examples in image 1)

The examples shared are references; each supplier may submit alternative designs that will be evaluated.

Image 1:



Image 2



5,5 cm x 8 cm

9. ANNEX I: Price Tables

Laptops (*). Individual box. Sea shipment (US\$ CIF MVD) Incoterm 2010 - Mandatory quote.				
CATEGORY	MODEL	VOLUME	UNIT PRICE	OBSERVATIONS
I: LAPTOPS WITH CELERON N4500 or Celeron N5100		Up to 10.000		
		between 10.001 and 50.000		
		between 50.001 and 80.000		
		between 80.000 and 120.000		
		More than 120.000		
II: LAPTOPS WITH CPU N100 or N150.		Up to 10.000		
		between 10.001 and 50.000		
		between 50.001 and 80.000		
		between 80.000 and 120.000		
		More than 120.000		

(*) For the quotation of this equipment, take into account the Letter of Eligibility from Microsoft's Shape the future program.

LAPTOPS (*) - ALTERNATIVE INDIVIDUAL PACKAGING. SEA SHIPMENT (US\$ CIF MVD) INCOTERM 2010 - OPTIONAL QUOTE				
CATEGORY	MODEL	VOLUME	UNIT PRICE	OBSERVATIONS
I: LAPTOPS WITH CPU Celeron N4500 or Celeron N5100		Up to 10.000		
		between 10.001 and 50.000		
		between 50.001 and 80.000		
		between 80.000 and 120.000		
		More than 120.000		
II: LAPTOPS WITH CPU N100 or N150.		Up to 10.000		
		between 10.001 and 50.000		
		between 50.001 and 80.000		
		between 80.000 and 120.000		
		More than 120.000		

(*) For the quotation of this equipment, take into account the Letter of Eligibility from Microsoft's Shape the future program.

DEVELOPMENT AND CERTIFICATION OF MAINTENANCE SOFTWARE IMAGE- MANDATORY QUOTATION	
PRICE US\$	

RFID READER - IF OPTIONAL REQUIREMENT 6.1.22 IS MET. OPTIONAL QUOTE.	
RFID READER (US\$)	

SPARE PARTS - MANDATORY QUOTATION	
SPARE PART	UNIT PRICE, US \$ FOB ORIGIN
Barebone device (**)	
Keyboard	
Screen	
Battery	
Motherboard.	
Charger	
RAM Memory	
Internal Storage	
...	

10. Annex II: Factory Data

The offer must include the following information (see Section 2.1):

FACTORY DATA										
Model (name as shown in the offer)	Name in English	Name in Mandarin Chinese	Address in English	Address in Mandari n Chinese	Factory name of the model offered, in English	Factory name of the offered model, in Mandarin Chinese	landline telephon e	Contact Person Name	Contact person's email	Cell phone number of contact person

11. Annex III: Confidentiality and data protection

The Company that is awarded the contract expressly agrees to maintain the strictest confidentiality of all information it processes or uses during its relationship with Centro Ceibal. Confidential Information includes, but is not limited to, the following information: all commercial strategies, plans and procedures, proprietary information, software, tools, processes, images, personal data, methodology, information and trade secrets, and other information and materials pertaining to Ceibal, as well as its students, beneficiaries, teachers, and educational centers, which may be obtained by the Company from any source or developed as a result of this contract.

If the Bidder accesses personal data, they must state in their offer where the data is stored, as well as their privacy and data security policy. In this case, they are required to process the personal data to which they have access in accordance with Law No. 18,331 of August 11, 2008, and Decree No. 414/2009 of August 31, 2009, solely for the provision and within the framework of the contracted service. They may not use the data for any other purpose, nor for their own benefit, whether free of charge or for a fee, nor may they assign, communicate, or transfer it to third parties, except with prior authorization from Centro Ceibal.

Under no circumstances may access to personal data be construed as a transfer or permission for its free use by the selected bidders.

They are also obligated to adopt the necessary security measures to guarantee the security and confidentiality of personal data and prevent its alteration, loss, unauthorized access, or processing, as well as to detect information breaches.

If personal data is stored, even temporarily, outside the country, national regulations must be complied with. These regulations require international data transfers to member countries of the European Union and the European Economic Area, or to countries with a declaration of compliance with European data protection standards by the European Commission, or to organizations included in the "Data Privacy Framework" published by the United States Department of Commerce. In the case of international transfers to non-compliant territories or organizations, the following are required: a) to have the data subject's consent; b) to have signed Standard Contractual Clauses with the exporter; or c) to have a registered Code of Conduct, with the corresponding authorization for the international data transfer processed before the Personal Data Regulatory and Control Unit, in the latter two cases.

Upon termination of the contract, or at any time upon request by Ceibal and/or the data subject, they agree to return or delete from all their physical and logical systems and files, whether their own or contracted to third parties, the personal data accessed, obtained, or processed under this contract, as well as the associated metadata, if applicable.

Personal data is considered to be any type of information relating to specific or determinable natural or legal persons, including, but not limited to, any numerical, alphabetical, graphic, photographic, acoustic or any other type of information that refers to them directly or indirectly, in accordance with the provisions of Article 4 of Law No. 18,331 and Articles 1 and 4 of Decree No. 414/009.