SUSTAINABLE PROCUREMENT FACTSHEET – LAPTOP



This factsheet provides practical guidance for humanitarian procurement and programme teams to source laptops more sustainably and from local suppliers. It highlights key considerations throughout the product lifecycle:



1. Before buying

Sustainable procurement starts with a clear assessment of needs. The following questions can guide procurement policies and decisions.

Do we need to buy new laptops?	Can we repair it?	Can we buy refurbished?
• What is the actual operational need? • Can existing devices be shared, reassigned, or used more efficiently? • Is a replacement necessary now, or can the purchase be postponed? • What specifications are truly required for the user's tasks?	• What is the nature and extent of the damage? • Is repair technically feasible and cost-effective? • Are spare parts and repair services available locally? • Can repairing extend the laptop's useful lifespan?	• Is a certified refurbished laptop available that meets our needs? • Has the device been professionally tested and restored? • What is the expected remaining lifespan? • Are warranty and after-sales support provided? *If no local supplier meets these criteria, consider regional suppliers for alternative sourcing options.*

2. Choosing the right laptop

These tables help integrate sustainability into your laptop procurement. **Table 1** includes ready-to-use technical specifications for BOQs, and **Table 2** provides supplier evaluation criteria for procurement assessment. The "Impact" column reflects each criterion's importance to the environmental footprint (climate, water, waste).

Table 1. Criteria for sustainable laptop procurement

Criteria	Impact	Sustainability guidance
Repairability & product lifespan	High	**Repairability score ≥8/10** where available; modular design with accessible, replaceable components (battery, SSD, RAM); spare parts available for a **minimum of 5 years (ideally 5–10)**; no glued batteries, storage, or chassis components.
Display, weight & portability	High	Choose screen size according to operational needs. Prefer **13–14 inch displays** for mobile office use to reduce material consumption, weight and energy impact. Prioritize lightweight devices **(≤1.3 kg where possible)** for field mobility.
Battery performance & replaceability	High	Prefer devices with **replaceable batteries or accessible battery modules**. Select batteries maintaining **≥80% capacity after 500 charging cycles**. Prioritize battery health management software and energy optimisation features.
Right-sized performance specifications	Medium	Avoid over-specification while ensuring longevity. Recommended minimum: **Intel Core i5 / AMD Ryzen 5 or equivalent**, **8 GB RAM minimum** for standard office use, **16–32 GB RAM** for intensive applications, and SSD storage (preferably upgradeable M.2 SSD).
Energy efficiency & power management	Medium	**ENERGY STAR® certification** (or equivalent), efficient processors with low power consumption during idle and active use, and availability of advanced power-management settings.
Firmware & software sustainability	Medium	Select manufacturers providing **long-term firmware updates**, BIOS/UEFI security patches and operating system compatibility. Verify the manufacturer's support lifecycle to ensure security updates remain available throughout the expected operational lifetime.
Sustainable materials & circular design	Medium	Prefer **aluminum or magnesium alloy chassis with recycled/post-consumer recycled (PCR) content**. Choose devices designed for easy disassembly, repair and recycling. Avoid PVC and halogenated materials where possible.
Durability & environmental resistance	Medium	For field deployments, choose devices **designed for harsh environments**: resistance to shocks, vibration, dust and humidity. Prefer devices with **IP44 minimum protection** (higher for extreme environments), MIL-STD tested devices where relevant, reinforced chassis and spill-resistant keyboards.

Table 2. Supplier criteria

Criteria	Impact	Sustainability guidance
Repair, warranty & support services	High	Provide extended warranty (**minimum 3 years, preferably ≥4 years**), accessible after-sales support, local/regional repair options and guaranteed availability of spare parts.
Environmental certifications & transparency	Medium	Independently verified environmental certifications such as **TCO Certified, EPEAT Gold/Silver, Blue Angel or EU Ecolabel**. Product environmental information should be available (materials, energy consumption, lifecycle).
Circularity & end-of-life management	Medium	**Take-back programmes**, refurbishment options or certified recycling pathways. Prefer suppliers linked to **WEEE-compliant**, **R2v3** or **e-Stewards** certified processes.
Compliance with hazardous substances regulations		Compliance with **RoHS Directive 2011/65/EU** and **REACH SVHC requirements**. Prefer PVC-free and halogen-free components and cabling.

3. During use

- **Battery optimisation**: enable manufacturer battery management tools, avoid unnecessary full charging cycles, avoid prolonged exposure to extreme temperatures, and keep charge within recommended operating limits.
- **Hardware protection**: use protective sleeves or rugged cases during transport, avoid exposure to dust/humidity/direct sunlight, clean ventilation openings regularly, and keep liquids away from keyboards and ports.
- **Software maintenance**: install OS, firmware, BIOS and security updates regularly, maintain antivirus/firewall/endpoint security tools, remove unnecessary applications, and optimise power settings (sleep mode, reduced screen timeout).

4. End of life

- Perform secure **data wiping** according to organizational information-security requirements.
- Assess whether the device can be **reused** internally, **transferred** to another programme/location, or **refurbished**.
- Return equipment through supplier **take-back programmes** whenever available.
- Use **certified e-waste recycling channels** compliant with WEEE requirements: For local solutions, contact the **WREC** or **hulo** in the country.

Key principle: Reuse → Refurbish → Recycle → Dispose as last resort.

5. Alternatives: cost and environmental analysis

Table 3. All contexts: environmental benefits of recommended alternatives

Availability of these alternatives must be verified with local suppliers.

Alternatives	Key benefits
Certified refurbished laptop (Grade A)	Lower environmental impact by extending product lifetime. Suitable for most offices, administrative and field-support functions when certified and warranty-backed.
Refurbished leasing	Combines refurbished equipment with predictable monthly costs, maintenance services and easier fleet renewal. Reduces upfront investment and supports circular economy models.
New leasing	Preserves cash flow, includes maintenance/support depending on contract, simplifies asset management and ensures return/reuse/recycling at end of contract.

Table 4. Lebanon: cost and environmental analysis of available alternatives

Refurbished laptop is 24% cheaper per year than a new laptop of same brand/model - while considering more maintenance time for a refurbished laptop, and a shorter lifespan of 3 years instead of 5.

Conventional technical specification	Sustainable technical specification
New laptop. Typical warranty 1 year, can be extended to 2-3 years for business class models.	Refurbished laptop. Warranty from 3-month or 1 year, that can be extended to 2 years (extra fee)

6. References and resources

This factsheet is based on a project's market assessment in Lebanon, drawing on supplier questionnaire responses, technical observations from site visits, and available guidance on sustainable products and services relevant to the Lebanese context in 2026. For more information, as well as the methodology used for price comparison, total cost of ownership, and the simplified LCA, please refer to the following document: *Appendix 1 - Price comparison & environmental analysis methodologies.*