

# High-level summary of changes between Draft 1 and Draft 2

This document provides a high-level summary of the main changes made in TCO Certified, generation 11 between Draft 1 and Draft 2. It is intended to help brands understand where requirements have been changed, clarified, added or removed.

The summary focuses on changes to the mandate and clarifications for each criterion. It does not replace the criteria document and should not be used as the basis for demonstrating compliance. If there is any contradiction, ambiguity or difference in wording between this summary and the criteria document, the criteria document takes precedence.

Draft 2 is a working document. All criteria, definitions, mandate text, clarifications, verification requirements and supporting documents remain subject to change before the final release of TCO Certified, generation 11.

For more detailed information, please refer to the Draft 2 criteria document.

## Product and sustainability information

### Information to end users

#### Mandate change

Removed the requirement to prove distribution of the “information document to end users”.  
Updated the required public-statement list for the brand owner’s TCO Certified page.

#### Clarification change

Clarified logo color, contrast and quality requirements. Removed the preinstalled-link labeling alternative. Added specific labeling clarifications for headsets, the general product category and smartphones.

## **Product specification**

### **Mandate change**

Added requirement that the product specification must include product attributes and product images.

### **Clarification change**

Clarified GTIN submission and clarified when a physical sample is required for verification.

## **Digital Product Passport**

### **Mandate change**

Added requirements that the data carrier, URL-based product identifier and data exchange method follow EN18220, EN18219 and EN18216. Added certification status from the TCO Certified API and take-back information. Removed the tiered data access requirement.

### **Clarification change**

Clarified product information page content, API-based certificate status, data carrier placement, level of identification, duration of availability, language selection and use of linked resources.

# Climate

## Renewable energy

### Mandate change

Renewable electricity requirement remains 30%. Draft 2 clarifies that compliance must be demonstrated through valid REC cancellation statements and a defined renewable electricity share.

### Clarification change

Clarified reporting entity, reporting boundary, REC beneficiary requirements, broader-entity claims, factory-level claims, brand-owner share of production, proof of electricity consumption and verification.

## Annualized PCF

### Mandate change

Notebook requirement changed from at least 33% below market average to lower than 45 kg CO<sub>2</sub>e/year ( equivalent to. Added display requirement: lower than 72 kg CO<sub>2</sub>e/year.

### Clarification change

Clarified formula, supported product life calculation and use of product category average Scope 2 and Scope 3. Supported product life is now based on software updates, critical spare parts, repair manuals and spare battery availability.

## Energy efficiency

### Mandate change

PSU efficiency requirement changed from internal power supplies above 200 W to internal and external power supplies above 240 W for products requiring a non-USB-C power supply.

### **Clarification change**

Added detailed Ecodesign references, measurement methods, PSU scope, tested configuration reporting, low-idle notebook handling and non-EU market exception using ENERGY STAR.

## **Energy management system**

### **Mandate change**

ISO 50001 and SEU reporting requirement remains. Draft 2 adds clearer evidence language for factories with approved extensions.

### **Clarification change**

Extension period changed from up to 24 months to up to 18 months. SEU reporting process and annual reporting expectations clarified.

## **Carbon offsets**

### **Mandate change**

Offset requirement changed from 30% to 10% of product category average Scope 3. Basis changed from certified products sold to certified products manufactured. Notebook offset amount changed from 71 kg CO<sub>2</sub>e to 24 kg CO<sub>2</sub>e per certified notebook.

### **Clarification change**

Added accepted-credit routes: ICVCM CCP-labelled credits or credits from projects rated BBB or above by Sylvera. Clarified retirement evidence, public statement restrictions, annual reporting and claim allocation.

# Substances

## Process chemicals management

### Mandate change

Factory scope changed from final assembly factories and next-tier key component factories to final assembly factories, display panel assembly factories over 10 inches and PCB mainboard fabricators. Adhesives on the Accepted Substance List are now required for final assembly factories only.

### Clarification change

Removed SCIT-based next-tier factory explanation from this criterion. Extension period changed from 12 months to 18 months. Clarified PCT submission, Accepted Substance List use, chemical inventory scope and PPE responsibility.

## Restricted product substances

### Mandate change

Removed the requirement in this chapter that non-halogenated substitutes must be listed on the Accepted Substance List; this is handled in Accepted product substances.

### Clarification change

Added PVC cable exception handling, transitional extension process and clearer maximum concentration values by restriction.

## Accepted product substances

### Mandate change

Clarified that listed parts above 0.5 g must only contain intentionally added non-halogenated flame retardants, plasticizers and stabilizers on the Accepted Substance List. Added explicit 0.1% formulation limit for non-listed substances.

### **Clarification change**

Clarified accepted assessment routes, including GreenScreen and ChemFORWARD. Improved conformity procedure, reassessment language and extension process.

# Circularity

## Product warranty

### Mandate change

Available warranty changed from 6 years to 5 years. Added separate peripheral level: 3 years. Free battery replacement changed from notebooks/tablets/smartphones at  $\leq 80\%$  SoH to notebooks at  $\leq 60\%$  SoH where the battery is not easily replaceable.

### Clarification change

Added peripheral explanation. Clarified public warranty statement, extended warranty cost calculation and relationship to battery information software.

## Security and functionality software updates

### Mandate change

General support period remains 6 years. Added separate peripheral level: 5 years. Added requirement for notebooks, desktops and all-in-one PCs to install and boot at least one alternative locally installed Linux-based or equivalent OS, with firmware and drivers available for 6 years.

### Clarification change

Clarified third-party OS handling, alternative OS requirements, Secure Boot handling, core functionality, firmware update methods and public statement requirements.

## Post-consumer recycled content

### Mandate change

PCR content requirement changed from at least 10% to at least 5% by product weight. Added requirement to report the total weight of the heaviest product configuration.

## **Clarification change**

Clarified that PCR content applies to all material types. Added clearer rules for traceability, documented proof, lowest-PCR configuration, optional best-case reporting and excluded components in the template.

## **Product packaging**

### **Mandate change**

Mandate unchanged.

### **Clarification change**

Clarified supporting evidence, independent proof for PCR packaging content and use of the restricted substance template.

## **E-waste management**

### **Mandate change**

Mandate unchanged.

### **Clarification change**

Clarified evidence for take-back systems, reporting, non-EPR systems and use of the accepted e-waste management list.

## **Product durability**

### **Mandate change**

Mandate unchanged.

### **Clarification change**

Clarification text updated for readability and consistency.

## **Electrical safety**

### **Mandate change**

IEC 62368-1 requirement changed from Edition 4 or newer to Edition 3 or later.

### **Clarification change**

Added clarification that IEC 60601-1 Edition 3.2 or later may be used for medical equipment.

Added generation 10 upgrade exception allowing IEC 62368-1 Edition 2.

## **Replaceable components**

### **Mandate change**

Added explicit requirement that repair manuals and spare parts must be available for at least 6 years after end of placement on the market. Added separate peripheral level: 5 years. Added public commitment requirement.

### **Clarification change**

Clarified critical components, repair manual access, spare part purchase access and public commitment.

## **Standardized connectors**

### **Mandate change**

For notebooks, desktops and all-in-one PCs, accepted connector compatibility changed from Thunderbolt 4 or later to Thunderbolt 4, USB4 or later.

### **Clarification change**

Clarified product-category-specific USB-C requirements, accepted documentation and display transition date.

## **Battery replaceability**

### **Mandate change**

Added separate peripheral level: 5 years. Clarified that an equivalent compatible battery must be available for purchase.

### **Clarification change**

Added definition of “easily replaceable battery”. Clarified earphone/earbud exemption, adhesive requirements, battery replacement instruction evidence and easy-replaceable battery reporting.

## **Battery longevity**

### **Mandate change**

Mandate unchanged.

### **Clarification change**

Clarification text updated for readability and consistency.

## **Battery information and protection**

### **Mandate change**

Removed requirements to show State of Charge, full charge cycle count and replacement notification at  $\leq 80\%$  SoH. Retained requirements to lower maximum charge level to 80% or less and show battery State of Health.

### **Clarification change**

Clarified State of Health display as actual capacity versus rated capacity.

## **Secure data removal**

### **Mandate change**

Mandate unchanged.

### **Clarification change**

Clarification text updated for readability and consistency.

## **Standardized external power supply compatibility**

### **Mandate change**

Replaced the Draft 1 USB-C PD or Qi structure with separate requirements for low-power wired charging  $\leq 15$  W, USB-PD wired charging  $> 15$  W to 240 W, and wireless charging.

### **Clarification change**

Clarified charging interoperability, USB-PD requirements, EN/IEC 63002 use and charging case applicability.

## **Repairability index**

### **Mandate change**

Minimum repairability class changed from C to D.

### **Clarification change**

Clarified use of the TCO Development generation 11 repairability index calculator, component-level scoring and rugged device exemption.

## **Color uniformity**

Unchanged.

## **Color gamut**

Unchanged.

## **Color uniformity – angular dependence**

Unchanged.

## **Correlated color temperature**

Unchanged.

## **Luminance contrast – characters**

Unchanged.

## **Color grayscale linearity**

Unchanged.

## **Luminance uniformity - angular-dependence**

Unchanged.

## **Luminance uniformity**

Unchanged.

## **Luminance contrast - angular dependence**

Unchanged.

## **Display resolution**

Unchanged.

## **Luminance level**

Unchanged.

## **Supply chain**

### **Supply chain responsibility**

#### **Mandate change**

Factory registration scope clarified to final assembly factories, display panel assembly factories over 10 inches and PCB mainboard fabricators. Added requirement that registered factories identify and communicate the code of conduct to next-tier suppliers of parts for certified products.

#### **Clarification change**

Clarified CB certificate factory list checks, factory registration, audit and corrective action plan uploads, SCIT timing, worker committee requirements and spot-check rights.

### **Supply chain transparency**

#### **Mandate change**

Reordered and clarified mandate around senior management representative, annual review SAQ, public final assembly factory disclosure and public smelter/refiner disclosure.

## **Clarification change**

Clarified annual review SAQ process, SMR contact information and public-list reporting.

## **Anti-bribery management system**

### **Mandate change**

Changed from mandatory independent ISO 37001 certification to either ISO 37001 certification or verification through the ABMS annual review against ISO 37001-aligned requirements.

### **Clarification change**

Clarified bribery prevention scope, business partner risk management and ABMS annual review evidence.

## **Responsible mineral sourcing**

### **Mandate change**

**Integrated the 80% smelter/refiner conformance demonstration into the annual RMST submission requirement. Clarified that accepted programs must be independent third-party due diligence programs.**

### **Clarification change**

Clarified annual review submission, policy communication to registered factories and supporting evidence for due diligence.

## **Environmental management system**

### **Mandate change**

Factory scope changed from final assembly factories and next-tier key component factories to final assembly factories, display panel assembly factories over 10 inches and PCB mainboard fabricators.

### **Clarification change**

Clarified ISO 14001 certificate and accredited certification body requirements.

## **Water management**

### **Mandate change**

Mandate simplified to maintaining a public responsible water management policy and a due diligence process for water management.

### **Clarification change**

Clarified annual review submission, supplier communication, policy content and water-management due diligence expectations.