EU Ecolabel personal, notebook and tablet computers

User Manual

European Commission

EU Ecolabel personal, notebook and tablet computers

Commission Decision 2016/1371/EU

Contents

Using this manual

This manual guides you through the process of applying for an EU Ecolabel licence, in accordance with the applicable criteria requirements. The following symbols are used throughout:

⚠ = Notable or important information.

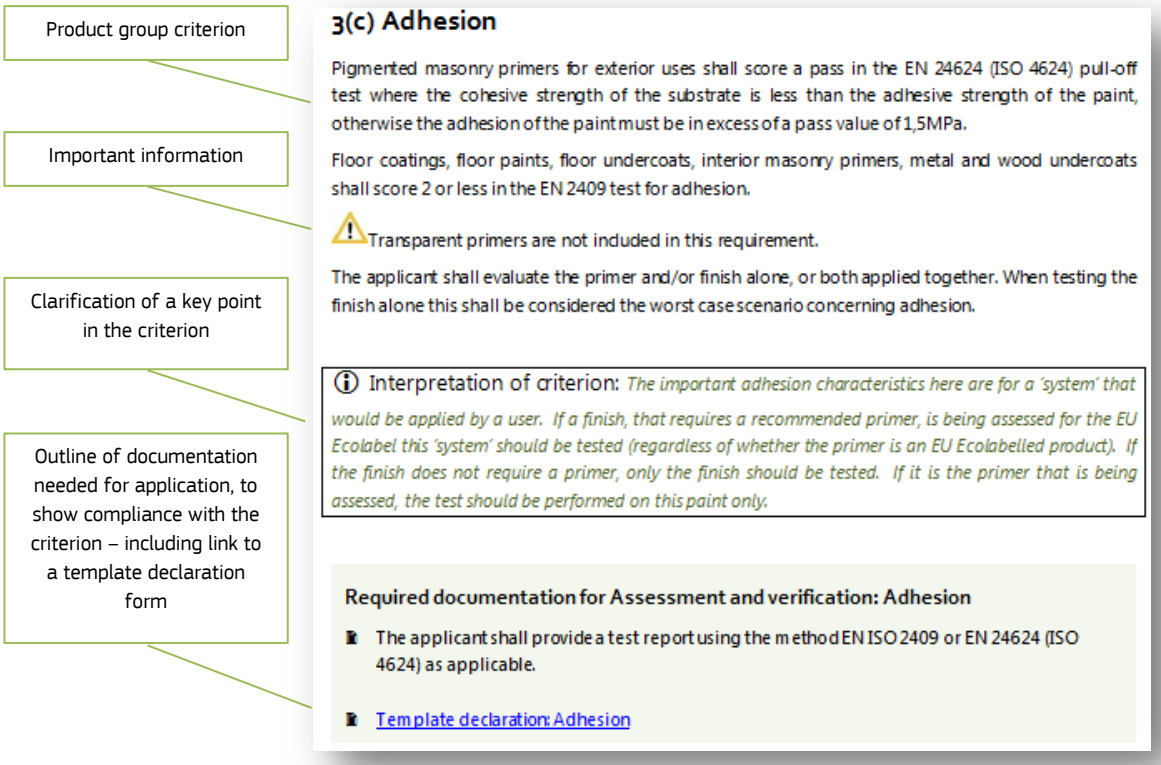
ⓘ = Clarification of a key point.

= Required documentation to verify compliance with criteria, including links to declarations where needed.

The manual is structured as follows:

Part A: General Information – Provides information about the EU Ecolabel (including a summary of the criteria), details of the application process, and answers to frequently asked questions about applying.

Part B: Product Assessment and Verification – Outlines the criteria for a specific product group set out in the Commission Decision. An example from this section is shown below:



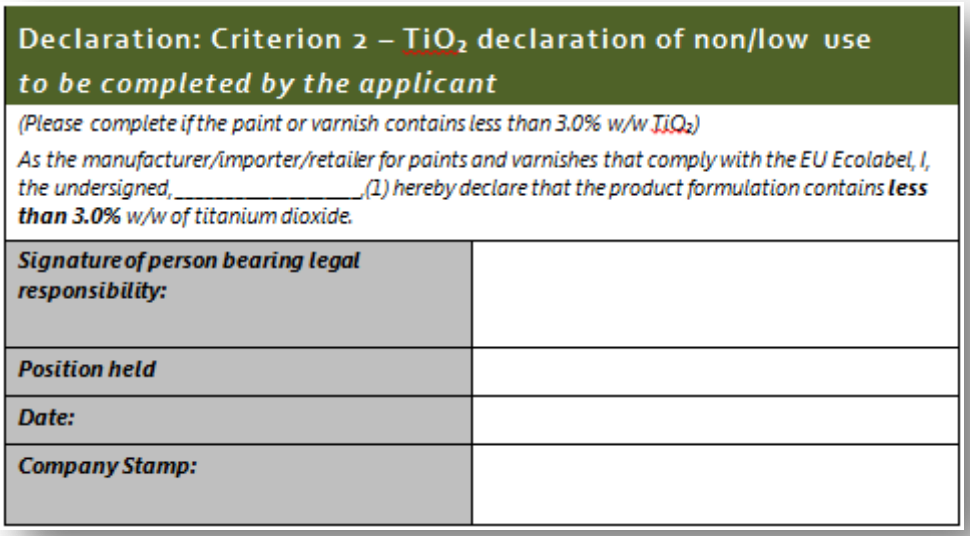
Part C: Application Form – This application form should be completed by all applicants.

Part D: Declarations – These declarations are to be completed as part of the application process. The relevant sections of Part B (Product Assessment and Verification) should be referred to when completing these declarations. An example declaration is shown below:

Title and reference to relevant criterion

Declaration, including sections to be completed by the applicant and/or supplier(s)

Information to be completed by the person responsible for this declaration



Declaration: Criterion 2 – TiO_2 declaration of non/low use
to be completed by the applicant

(Please complete if the paint or varnish contains less than 3.0% w/w TiO_2)

As the manufacturer/importer/retailer for paints and varnishes that comply with the EU Ecolabel, I, the undersigned, _____(1) hereby declare that the product formulation contains ***less than 3.0%*** *w/w of titanium dioxide.*

Signature of person bearing legal responsibility:	
Position held	
Date:	
Company Stamp:	

Please read this manual all the way through before completing and submitting the application form or any other documentation. EU Ecolabel Competent Bodies can help licence holders understand the EU Ecolabel criteria and can provide guidance on how to assemble an application dossier.

Part A: General Information

1 Introduction

This User Manual[1] is designed to help you apply for the EU Ecolabel. It includes an outline of all data, tests and documentation that are required to demonstrate compliance.

The basis for the manual is a Commission Decision establishing the ecological criteria for the award of the EU Ecolabel for a specific product group. A copy of the criteria can be found at:

http://ec.europa.eu/environment/ecolabel/products-groups-and-criteria.html

Please read the criteria document carefully before filling in the application form!

1.1 Is my product eligible for the EU Ecolabel?

Information on which type of products are included in the scope of the product group can be found in Article 1 of the Commission Decision establishing the ecological criteria, as well as which products are not eligible for the EU Ecolabel.

1.2 Aims of the criteria

The EU Ecolabel seeks to minimise the various environmental impacts at each stage of a product's life. The criteria are set at levels that promote products which have a lower overall environmental impact.

The validity of the EU Ecolabel criteria can be found at:

http://ec.europa.eu/environment/ecolabel/products-groups-and-criteria.html

1.3 Who can apply for the EU Ecolabel?

Manufacturers, importers and service providers may submit applications for the award of the EU Ecolabel. Traders and retailers may also apply, but may only submit applications for products marketed under their own brand names.

[1] This User Manual is for guidance only; it does not have any legal standing and does not, in any way, replace the Commission Decision or any relevant legislation. In case of doubt on specific points in the Manual, please refer directly to the national Competent Body.

1.4 Where do I apply?

EU Ecolabel applications are made via a single application that covers all of the European Economic Area (EEA).

Every country has a representative, known as a Competent Body, which assesses the applications. The choice of which country you should apply to is determined by the EEA Member State in which the product originates. If your product originates from outside the EEA, you should apply to the EEA Member State in which the product is (or is about to be) placed on sale.

All EEA Member States assess applications against the same criteria, but individual States have slightly different procedures and fee levels for handling applications. For contact details for each Member State's Competent Body, please visit:

http://ec.europa.eu/environment/ecolabel/competent-bodies.html

1.5 What does an application/contract cover?

An application for an EU Ecolabel can cover a single product or a range of products, regardless of how many different names or brands are used for that product(s). Therefore, the applicant must report all the trade names or manufacturer's internal reference numbers of the product(s) in question during the process of application. In the case of a formulation, all chemical substances and mixtures used in the product must be submitted as part of the application.

1.6 How do I extend or make changes to my EU Ecolabel licence?

Once the EU Ecolabel has been awarded, if the licence holder wants to extend the range of products covered by the licence, the following conditions apply:

- Extension with new manufacturer's internal reference numbers/trade names, which do not affect compliance with the criteria: In this case, the relevant information should be sent to the Competent Body. After scrutiny, and if approved, the Competent Body will issue a revised licence with the new/additional manufacturer's internal reference numbers/trade names added.
- Extension or modification with new technical characteristics which affect compliance with the criteria (for example new materials): These must be approved by the Competent Body before use. A request for extension must be sent to the Competent Body together with all the necessary supporting documentation as required in the *Assessment and verification* section(s) of the relevant affected criterion/criteria.
- Addition or substitution of new suppliers: Any new supplier(s) must be approved by the Competent Body. The Competent Body shall be provided with appropriate documentation proving the suppliers' compliance with the criteria. In addition, an updated list of suppliers

must be provided to the Competent Body.

- Any other changes which do not affect compliance with the criteria shall also be reported to the Competent Body.

1.7 Continuous control – the responsibility of the applicant

The applicant is responsible for ensuring that the product(s) or service(s) once awarded the EU Ecolabel, always remain in compliance with the EU Ecolabel criteria.

After an EU Ecolabel licence has been granted, the licence holder must keep the application dossier up to date. In cases where continued tests or measurements are required, the licence holder is responsible for keeping a record of the test results and other relevant documentation. This documentation may not need to be sent to the Competent Body, unless there is a specific requirement to do so (which will be set out in the relevant criterion), but must be available at any time if requested.

If at any time during the validity period of the EU Ecolabel licence the product is no longer in compliance with the criteria, this must be reported to the Competent Body immediately, together with a statement of the reasons for non-compliance. The Competent Body will decide what action to take, e.g. a demand for additional measurements, suspension of the licence, etc.

1.8 Assessment of compliance with the criteria

The Competent Body may undertake any necessary investigations to monitor the licence holder's ongoing compliance with the EU Ecolabel criteria and the terms of use and provisions of the contract. To this end, the Competent Body may request, and the licence holder shall provide, any relevant documentation to prove such compliance.

Furthermore, the Competent Body may, at any reasonable time and without notice, request, and the licence holder shall grant, access to the premises.

1.9 Costs

The applicant is responsible for compiling the application and obtaining all the necessary supporting evidence, which may include tests, etc.

In addition, the applicant must pay an application fee[2], and an annual licence fee where this is asked for by the Competent Body. In some cases, applicants may be charged for an on-site verification, which may include travel and accommodation costs. Subsequent to the award of the EU Ecolabel licence, Competent Bodies may also charge for extension/modification fees and on-site inspections. Further information can be found at:

[2] According to the Commission Regulation (EU) No 782/2013 of 14 August 2013 amending Annex III to the Regulation (EC) No 66/2010 of the European Parliament and of the Council on the EU Ecolabel (OJ L 219, 15.8.2013, p. 26).

http://ec.europa.eu/environment/ecolabel/documents/eu-ecolabel_fees.pdf

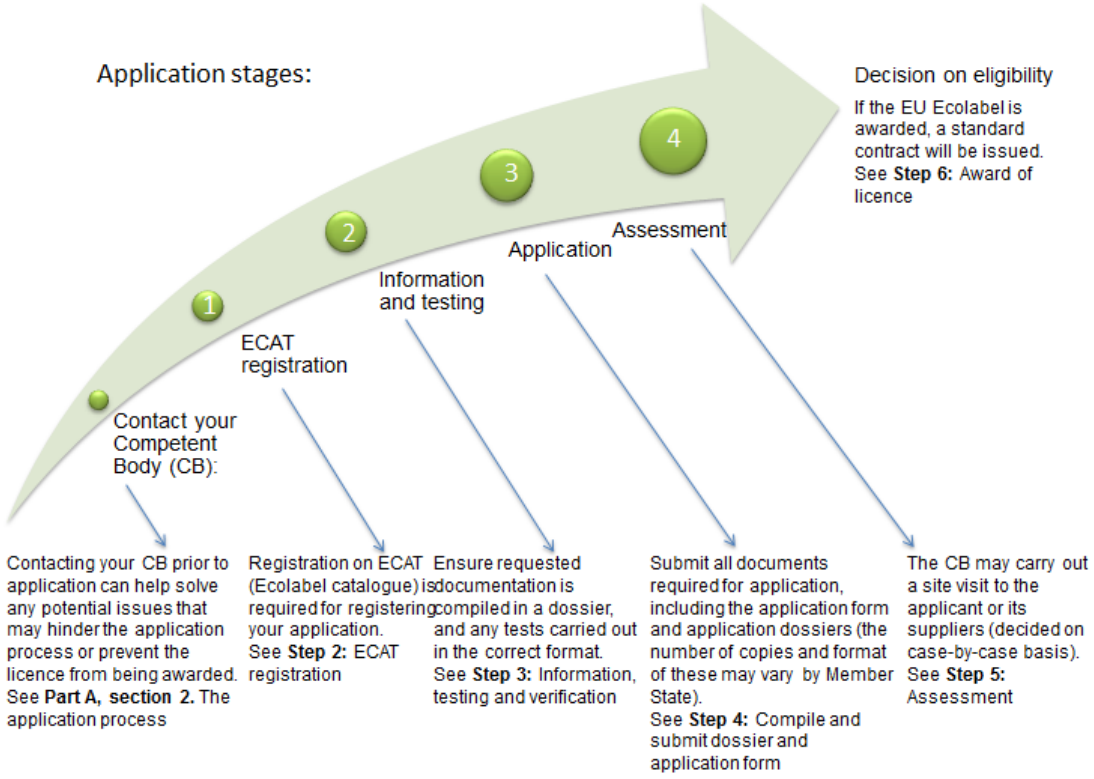
2 The application process

The first step in starting the application process is to contact your Competent Body, as they can help you compile your application. See section above 'Where do I apply?' to find out which Competent Body(ies) you should apply to.

The contact details of all the EU Ecolabel Competent Bodies are available at:

http://ec.europa.eu/environment/ecolabel/competent-bodies.html

The figure below outlines the stages involved in applying for the EU Ecolabel[3]. Further detail is given in the explanations that follow.



Step 1: Contact your Competent Body (CB)

The EU Ecolabel Competent Bodies can help potential licence holders to understand the EU Ecolabel criteria and can provide guidance on how to assemble an application dossier.

[3] Since the structure of EU Ecolabel Competent Body varies across Member States, application fee deadlines are not outlined within this diagram. Applicants should contact their Competent Body directly for fee deadlines.

Step 2: ECAT registration

The online tool **ECAT** (the online EU Ecolabel E-Catalogue), must be used to initially register your application for an EU Ecolabel licence.


Follow the instructions on the E-Catalogue User Manual which you can download from http://ec.europa.eu/environment/ecolabel/ecolabelled_products/pdf/user_manual/Ecat_admin%20user%20manual%20for%20Applicants.pdf. This user manual outlines the process for registration, which includes registering products and services under the European Commission Authentication Service (ECAS) system. If you encounter problems with the ECAT system, contact the EU Ecolabel Helpdesk.

Step 3: Information, testing and verification requirements

Use the criteria document, and the information and checklists in this User Manual, to assemble a dossier containing all the information and test results needed to show how the product has met each criterion. Each criterion will include a section setting out the *assessment and verification* requirements which may include product tests, declarations of compliance, or independent verification. It is essential that data is accurate and substantiated; further checks may be carried out by the Competent Body if deemed appropriate.

Whenever the assessment and verification of EU Ecolabel criteria requires product tests, those tests should be preferably performed by laboratories that meet the general requirements of EN ISO 17025 or equivalent, for that specific test. More information can be found in the "Guidelines for a procedure for checking the criteria in respect of applications: use of test laboratories". Contact your Competent Body if you need any additional information concerning which laboratory to use.


All test and independent verification costs must be met by the applicant. You should factor in these costs before you decide to apply.

Step 4: Compile and submit dossier and application form

Please note that a dossier, comprising an application form with all the above supporting documentation, will need to be submitted to the relevant Competent Body. If your application is successful, you will be expected to retain a copy of the dossier and keep it up to date for the duration of your licence.


For information on the specific format and additional guidance documents, please contact your Competent Body.

Step 5: Assessment

After receiving an application, the Competent Body examines the documentation including any material sent directly by suppliers and respond to the applicant within two months of receipt of an application. The Competent Body may make a list of any additional documentation required in order to comply with the EU Ecolabel product group criteria. This list will be forwarded to the applicant who must ensure that the relevant documentation is provided.

It should also be noted that a Competent Body can reject an application if sufficient documentation is not received within six months of any request for further information.

After all the documentation has been approved, the Competent Body may carry out an on-site visit to the applicant and/or its suppliers. The Competent Body makes this judgement on a case-by-case basis and may charge a fee for it. Again, please contact your Competent Body for details.

Step 6: Award of licence

When the application has been assessed and is approved by the Competent Body, a contract is issued, which sets out the range of products covered, including any trade names or manufacturer's internal reference numbers. This contract sets out the terms of use of the EU Ecolabel, following the standard contract in Annex IV of the Regulation (EC) No 66/2010 of 25 November 2009.

Once the contract is signed by the applicant, a certificate can be asked for/will be sent, depending on the Competent Body. This certificate will detail:

- the licence number that can be used with the EU Ecolabel logo;
- the legal name of the applicant;
- the range of products awarded the EU Ecolabel;
- all relevant trade names under which the product is sold.

The Competent Body will advise on when the EU Ecolabel logo and licence number can be used on the relevant products.

The logo must be used in accordance with the EU Ecolabel Logo guidelines, which can be found at:

http://ec.europa.eu/environment/ecolabel/documents/logo_guidelines.pdf

2.1 Revision of criteria

The criteria for each product group are revised every three/four years, and existing EU Ecolabel holders have to re-apply when these new, revised criteria come into force. Therefore, it is advisable to consider the timing of your application to avoid consecutive application and then re-application against new criteria. A transition period for adjusting the product(s) and applying for re-assessment is usually allowed for and is set out in the new criteria document.

 For more information about the application process visit the EU Ecolabel website at:

http://ec.europa.eu/environment/ecolabel/how-to-apply-for-eu-ecolabel.html

2.2 Checklist: How to apply

Reference	Requirement	Tick when complete
1.1	Ensure product is eligible for the EU Ecolabel	☐
Web link	Download the relevant product group criteria	☐
1.4	Identify the Competent Body in the relevant Member State you can apply to	☐
1.4	Contact the relevant Competent Body and notify them of your intention to apply for an EU Ecolabel licence	☐
2.1	Check if the criteria relating to your product(s) or service are due to be revised or updated in the near future[4]	☐
2. Step 1	Request information on application forms from your Competent Body	☐
2. Step 1	Register on ECAT	☐
1.6	If only submitting a change to products or suppliers, identify the nature of the change and submit supporting documentation	☐

[4] For information about the criteria revision, please visit http://ec.europa.eu/environment/ecolabel/products-groups-and-criteria.html

Part B: Product Assessment and Verification

1 Scope

The scope is reproduced below:

- *The product group of 'personal, notebook and tablet computers' shall comprise desktop computers, integrated desktop computers, portable all-in-one computers, notebook computers, two-in-one notebook computers, tablet computers, thin clients, workstations, and small-scale servers.*
- *Gaming consoles and digital picture frames shall not be considered computers for the purpose of this Decision.*

2 Definitions

The following definitions shall apply throughout this User Manual:

1. '**Computer**' means a device which performs logical operations and processes data and normally includes a central processing unit (CPU) to perform operations or, where no CPU is present, it must function as a client gateway to a server which acts as a computational processing unit. Although computers are capable of using input devices such as a keyboard, mouse, or touchpad, and outputting information to displays, such devices are not required to be included with the computer upon shipment.
2. '**Desktop Computer**' means a computer whose main unit is designed to be located in a permanent location and is not designed for portability and which is designed for use with an external display, keyboard, and mouse. Desktop computers are intended for a broad range of home and office applications.
    (a) 'Integrated Desktop Computer' means a Desktop Computer in which the computer and display are integrated into a single housing, function as a single unit, and are connected to AC mains power through a single cable. Integrated Desktop Computers come in one of two possible forms:
        (i) a system where the display and computer are physically combined into a single unit; or
        (ii) a system packaged as a single system where the display is separate but is connected to the main chassis by a DC power cord and both the computer and display are powered from a single power supply.
3. '**Portable All-In-One Computer**' means a computing device designed for limited portability that meets all of the following criteria:
    (a) It includes an integrated display with a diagonal size greater than or equal to 17.4 inches;
    (b) It lacks a keyboard integrated into the physical housing of the product in its as-shipped configuration;
    (c) It includes and primarily relies on touchscreen input (with optional keyboard);
    (d) It includes wireless network connection;
    (e) It includes an internal battery, but is intended primarily to be powered by

connection to the AC mains.

4. '**Notebook Computer**' means a computer designed specifically for portability and to be operated for extended periods of time both with and without a direct connection to an AC mains power source. Notebook Computers utilise an Integrated Display, a non-detachable mechanical keyboard (using physical, moveable keys) and pointing device, and are capable of being powered by an integrated rechargeable battery or other portable power source. Notebook computers are typically designed to provide similar functionality to desktops, including operation of software similar in functionality to that used in desktops.

   A portable computer with a reversible, but non-detachable, touch-sensitive screen and an integrated physical keyboard is considered to be a Notebook Computer.

   (a) 'Mobile Thin Client' means a computer meeting the definition of a Thin Client, but is designed specifically for portability and also meets the definition of a Notebook Computer. These products are considered to be Notebook Computers for the purposes of this Decision.
   (b) 'Two-In-One Notebook' means a computer which resembles a Notebook Computer with a clam shell form factor and physical keyboard, but has a detachable touch-sensitive display which can act as an independent tablet computer upon detachment, where the keyboard and display portions of the product must be shipped as an integrated unit. Two-In-One Notebooks are considered Notebooks for the purpose of this Decision.

5. '**Tablet Computer**' (also referred to as a 'slate computer') means a computing device designed for portability that meets all of the following criteria:

   (a) It includes an integrated display with a diagonal size greater than 6.5 inches and less than 17.4 inches;

   (b) It lacks an integrated, physical attached keyboard in its as-shipped configuration;

   (c) It includes and primarily relies on touchscreen input (with optional keyboard);

   (d) It includes and primarily relies on a wireless network connection (e.g., Wi-Fi, 3G, etc.);

   (e) It includes and is primarily powered by an internal rechargeable battery (with connection to the AC mains for battery charging, not primary powering of the device).

6. '**Small-scale Server**' means a computer that typically uses desktop components in a desktop form factor, but is designed primarily to be a storage host for other computers. Small-scale Servers are designed to perform functions such as providing network infrastructure services and hosting data and media. These products are not designed to process information for other systems or run web servers as a primary function. A Small-scale Server has the following characteristics:

   (a) It is designed in a pedestal, tower, or other form factor similar to those of desktop computers such that all data processing, storage, and network interfacing is contained within one box or product;

   (b) It is designed to operate 24 hours/day, 7 days/week, with minimal unscheduled downtime (in the 65 order of hours/year);

   (c) It is capable of operating in a simultaneous multi-user environment serving several users through networked client units; and

(d) The operating system is designed for home or low-end server applications including Windows Home Server, Mac OS X Server, Linux, UNIX, Solaris.

7. '**Thin Client**' means an independently-powered computer that relies on a connection to remote computing resources to obtain primary functionality. Its main computing functions are provided by the remote computing resources. Thin clients covered by this specification are limited to devices with no rotational storage media integral to the computer and are designed for use in a permanent location and not for portability.

   (a) 'Integrated Thin Client' means a Thin Client in which computing hardware and display are connected to AC mains power through a single cable. Integrated Thin Client computers can be either a system where the display and computer are physically combined into a single unit or a system packaged as a single system where the display is separate but is connected to the main chassis by a DC power cord and both the computer and display are powered from a single power supply. As a subset of Thin Clients, Integrated Thin Clients are typically designed to provide similar functionality to Thin Client systems.

   (b) 'Ultra-thin Client' means a computer with less local resources than a standard Thin Client that sends raw mouse and keyboard inputs to a remote computing resource and receives back raw video from the remote computing resource. Ultra-thin clients cannot interface with multiple devices simultaneously nor run windowed remote applications due to the lack of a user-discernible client operating system on the device (i.e. they operate at a level which is beneath firmware and therefore user inaccessible).

8. '**Workstation**' means a high-performance, single-user computer typically used for graphics, Computer Aided Design (CAD), software development, financial and scientific applications, amongst other computer intensive tasks. Workstations covered by this specification are marketed as a workstation; provide Mean Time Between Failures (MTBF) of at least 15,000 hours (based on either Bellcore TR-NWT-000332, issue 6, 12/97 or field collected data); and support Error-Correcting Code (ECC) and/or buffered memory. In addition, a workstation shall meet three or more of the following criteria:

   (a) It provides supplementary power support for high-end graphics (e.g., PCI-E 6-pin 12V supplemental power feed);

   (b) It is wired for greater than x4 PCI-E (Peripheral Component Interconnect Express) serial connections on the motherboard in addition to the graphics slot(s) and/or PCI-X support;

   (c) It does not provide support for Uniform Memory Access (UMA) graphics;

   (d) It includes 5 or more PCI, PCI-E, or PCI-X slots;

   (e) It is capable of multi-processor support for 2 or more processors, supporting physically separate processor packages/sockets, i.e. this requirement cannot be met with support for a single multicore processor; and/or

   (f) Qualification by 2 or more Independent Software Vendor's (ISV) product certifications.

9. The following additional definition shall apply for the purpose of defining a sub-product within the definitions of 'Notebook Computer' and 'Two-in-one Notebooks':

   (a) 'Subnotebook' means a form of notebook that is less than 21mm thick and that

weighs less than 1.8kg. Two-in-one notebooks (see the separate definition in Article 2(4)) with a subnotebook form are less than 23mm thick. Subnotebooks incorporate low power processors and solid state drives. Optical disk drives are generally not incorporated. Subnotebooks provide longer rechargeable battery life than notebooks, usually more than 8 hours.

3 Product group criteria

Criteria for awarding the EU Ecolabel to personal, notebook and tablet computers:

Criterion 1 Energy consumption
- Criterion 1(a) Total energy consumption of the computer
- Criterion 1(b) Power management
- Criterion 1(c) Graphics capabilities
- Criterion 1(d) Internal power supplies
- Criterion 1(e) Enhanced performance displays

Criterion 2 Hazardous substances and mixtures in the product, sub-assemblies and component parts
- Criterion 2(a) Restrictions on Substances of Very High Concern (SVHCs)
- Criterion 2(b) Restrictions on the presence of specific hazardous substances
- Criterion 2(c) Restrictions based on CLP hazard classifications

Criterion 3 Lifetime extension
- Criterion 3(a) Durability testing for portable computers
- Criterion 3(b) Rechargeable battery quality and lifetime
- Criterion 3(c) Data storage drive reliability and protection
- Criterion 3(d) Upgradeability and Repairability

Criterion 4 Design, material selection and end-of-life management
- Criterion 4(a) Material selection and compatibility with recycling
- Criterion 4(b) Design for disassembly and recycling

Criterion 5 Corporate Social Responsibility
- Criterion 5(a) Sourcing of 'conflict-free' minerals
- Criterion 5(b) Labour conditions and human rights during manufacturing

Criterion 6 User information
- Criterion 6(a) User instructions
- Criterion 6(b) Information appearing on the EU Ecolabel

4 Assessment and verification

The specific assessment and verification requirements are indicated within each criterion.

Where the applicant is required to provide declarations, documentation, analyses, test reports, or other evidence to show compliance with the criteria, these may originate from the applicant and/or his supplier(s) and/or their supplier(s), and/or third party certification and testing bodies, as appropriate.

Where possible, verification should be performed by conformity assessment bodies that have been accredited by a national accreditation body according to Regulation (EC) No. 765/2008 [5] setting out the requirements for accreditation and market surveillance. Competent Bodies shall preferentially recognise:

- test reports which are issued by conformity assessment bodies accredited according to the relevant harmonised standard for testing and calibration laboratories,
- verifications by conformity assessment bodies that are accredited according to the relevant harmonised standard for bodies certifying products, processes and services.
- verifications by conformity assessment bodies that are accredited according to the relevant harmonised standard for bodies carrying out inspections.

Where appropriate, test methods other than those indicated for each criterion may be used if these are described in the user manual of the Ecolabel criteria application and the Competent Body assessing the application accepts their equivalence.

Where appropriate, competent bodies may require supporting documentation and may carry out independent verifications or site visits.

Changes in suppliers and production sites pertaining to products to which the ecolabel has been granted shall be notified to Competent Bodies, together with supporting information to enable verification of continued compliance with the criteria.

.

[5] Regulation (EC) No 765/2008 of the European Parliament and of the Council of 9 July 2008 setting out the requirements for accreditation and market surveillance relating to the marketing of products and repealing Regulation (EEC) No 339/93

Criterion 1. Energy consumption

Criterion 1(a) Total energy consumption of the computer

The total energy consumption of the computer shall meet the energy-efficiency requirements set out in Regulation (EC) No 106/2008 [6] and as amended by Energy Star v6.1 [7].

Capability adjustments specified under the Agreement as amended by Energy Star v6.1 may be applied, with the exception of:

- Discrete Graphics Processing Units (GPUs): See sub-criterion 1(c);
- Internal power supplies: See sub-criterion 1(d)

A specific additional requirement shall apply to enhanced-performance integrated displays, which can be found in sub-criterion 1(e).

Required documentation for Assessment and verification: Total energy consumption of the computer

The applicant shall submit a test report for the computer model carried out according to the Energy Star v6.1 test methods for computers. Energy Star v6.1 registrations in the USA shall be accepted provided that testing according to European input power requirements has been carried out.

Declaration template

This can be a test report provided for Energy Star registrations in the EU or the USA. Tests that have been carried out according to EN 62623:2013 in combination with the Energy Star v6.1 specifications, or that have already been successfully used for registration in the USA, shall be accepted provided that European input power requirements have been used. These requirements can be found in Section 4, page 31 of the EU Energy Star v6.1 specifications [8].

Criterion 1(b) Power management

Power management functions shall be provided as a default setting. Whenever the user or a software attempts to deactivate the default power management functions, a warning message shall

[6] Regulation (EC) No 106/2008 of the European Parliament and of the Council of 15 January 2008 on a Union energy-efficiency labelling programme for office equipment (recast version) (OJ L 39, 13.2.2008, p. 1–7)

[7] Commission Decision (EU) 2015/1402 of 15 July 2015 determining the European Union position with regard to a decision of the management entities under the Agreement between the Government of the United States of America and the European Union on the coordination of energy-efficiency labelling programmes for office equipment on the revision of specifications for computers included in Annex C to the Agreement (OJ L 217, 18.8.2015, p.9)

[8] See footnote 7

be displayed communicating to the user that an energy saving function will be disabled and giving the option to retain the default function.

Required documentation for Assessment and verification: Power management

The applicant shall provide the description of the power management settings that appears in the model's user manual, accompanied by screen shots of examples when warning messages are displayed.

Declaration template

This criterion is intended to address the user's interaction with default power management software. It is recommended to focus on examples of common actions that may lead to such a function being disabled.

Criterion 1(c) Graphics capabilities

The Functional Adder $TEC_{graphics}$ allowances for discrete graphics cards (dGfx) in desktop, integrated desktop and notebook computers in Table 1 shall apply in place of those in the Energy Star v6.1 eligibility criteria. dGfx shall have power management that shuts down the Graphics Processor (GPU) in the long idle state.

Table 1. Functional Adder allowances for discrete graphics cards (dGfx) in desktop, and integrated desktop and notebook computers

dGfx category (Gigabytes/second) [1]	TEC Allowance (kWh/year)	
	Desktop and integrated desktops	Notebooks
G1 (≤16 FB_BW)	30	9
G2 (16<FB_BW≤32)	37	12
G3 (32<FB_BW≤64)	47	20
G4 (64<FB_BW≤96)	62	25
G5 (96<FB_BW≤128)	76	38
G6 (FB_BW>128 with data width <192 bit)	76	38
G7 (FB_BW>128) with data width ≥192 bit)	90	48
*Notes:*1. Categories are defined according to the frame buffer bandwidth in gigabytes per second (GB/s).		

Required documentation for Assessment and verification: Graphics capabilities

The applicant shall declare Energy Star v6.1 compliance based on the stricter allowances and provide the supporting E_{TEC_MAX} calculation and performance data from the model's test report.

Declaration template

ⓘ *As verification is not possible at a component level, the verification relies on showing that, where relevant for the computer model, the stricter allowances in table 1 have been used in the E_{TEC_MAX} calculation.*

The additional power management requirement could be verified based on a declared specification provided by the graphics card supplier.

Criterion 1(d) Internal Power Supplies

Internal power supplies in desktop and integrated desktop computers shall meet the requirements for the TEC_{PSU} allowances of Energy Star v6.1 and shall achieve minimum efficiencies as a proportion of the rated output current of 0.84 at 10%, 0.87 at 20%, 0.90 at 50% and 0.87 at 100%.

Required documentation for Assessment and verification: Internal power supplies

The applicant shall declare compliance of the model's internal power supply supported by the products Energy Star v6.1 E_{TEC_MAX} calculation and either performance data from the model's test report or independent power supply performance certifications.

Declaration template

ⓘ *Verification could take the form of a supplier's declared performance for the power supply at the specified rated output levels, a 'gold' certification awarded by the 80Plus labelling scheme, or an equivalent third party certification of performance.*

Criterion 1(e) Enhanced-performance displays

Integrated desktop and notebook computers that have Enhanced Performance Displays as defined by Energy Star v6.1 and thereby qualify for the $TEC_{INT\_DISPLAY}$ allowance shall automatically adjust the picture brightness to the ambient light conditions. This Automatic Brightness Control (ABC) function shall be installed as a default setting and it shall be possible for the user to adjust and calibrate. The ABC default setting shall be validated according to the following test procedure:

Test (i) $\left(\frac{P_{50}-P_{10}}{P_{10}}\right) \geq 5$ Test (ii) $\left(\frac{P_{100}-P_{50}}{P_{50}}\right) \geq 5$ Test (iii) $P_{300} \geq P_{100}$

Where P_n is the Power consumed for On Mode with ABC enabled at *n* lux with a direct light source.

Required documentation for Assessment and verification: Enhanced-performance displays

The applicant shall submit a test report for the computer model showing compliance with the specified test procedure.

Declaration template

Energy Star v6.1 defines an ''Enhanced Performance Display' as follows:

An integrated Computer Display that has all of the following features and functionalities:
(1) A contrast ratio of at least 60:1 at a horizontal viewing angle of at least 85°, with or without a screen cover glass;
(2) A native resolution greater than or equal to 2,3 megapixels (MP); and
(3) A colour gamut of at least sRGB as defined by European Standard EN 61966-2-1 (identical with IEC 61966-2-1). Shifts in colour space are allowable as long as 99 % or more of defined sRGB colours are supported.
Guidance on luminance testing is provided in Section 6.2 of the EU Energy Star specification for displays [9].

[9] Commission Decision (EU) 2015/1402 of 15 July 2015 determining the European Union position with regard to a decision of the management entities under the Agreement between the Government of the United States of America and the European Union on the coordination of energy-efficiency labelling programmes for office equipment on the revision of specifications for computers included in Annex C to the Agreement (OJ L 217, 18.8.2015, p.9)

Criterion 2. Hazardous substances and mixtures in the product, sub-assemblies and component parts

The presence in the product, or defined sub-assemblies and component parts, of substances that are identified according to Article 59 (1) of Regulation (EC) No 1907/2006 [10] (the 'REACH Regulation') or substances and mixtures that meet the criteria for classification according to Regulation (EC) No 1272/2008 [11] (the 'CLP Regulation') for the hazards listed in Table 2, shall be restricted in accordance with sub-criterion 2(a), (b) and (c). For the purpose of this criterion Candidate List Substances of Very High Concern (SVHCs) and CLP hazard classifications are grouped in Table 2 according to their hazardous properties.

Table 2. Grouping of Candidate List SVHC's and CLP hazards

Group 1 hazards
Hazards that identify a substance or mixture as being within Group 1: • Substances that appear on the Candidate List for Substances of Very High Concern (SVHC) • Carcinogenic, Mutagenic and/or Toxic for Reproduction (CMR) Category 1A or 1B CMR: H340, H350, H350i, H360, H360F, H360D, H360FD, H360Fd, H360Df

Group 2 hazards
Hazards that identify a substance or mixture as being within Group 2: • Category 2 CMR: H341, H351, H361f, H361d, H361fd, H362 • Category 1 aquatic toxicity: H400, H410 • Category 1 and 2 acute toxicity: H300, H310, H330 • Category 1 aspiration toxicity: H304 • Category 1 Specific Target Organ Toxicity (STOT): H370, H372

Group 3 hazards

[10] Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (OJ L 396, 30.12.2006, p.1).

[11] Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ L 353, 31.12.2008, p. 1).

Hazards that identify a substance or mixture as being within Group 3:

- Category 2, 3 and 4 aquatic toxicity: H411, H412, H413
- Category 3 acute toxicity: H301, H311, H331, EUH070
- Category 2 STOT: H371, H373

ⓘ *The hazard groups are based on the Global Hazard System. This means that they can be read across to the benchmark levels used in the Green Screen assessment method, with Group 1 equating to benchmark level 1, Group 2 to level 2 and Group 3 to levels 3 and 4.*

Criterion 2(a) Restriction of Substances of Very High Concern (SVHCs)

The product shall not contain substances that have been identified according to the procedure described in Article 59(1) of the 'REACH Regulation' and are included in the Candidate List of SVHCs, at concentrations of greater than 0.10% (weight by weight). The same restriction shall apply to the sub-assemblies forming part of the product that are listed in Table 3.

No derogation from this requirement shall be given to Candidate List SVHCs present in the product or in its sub-assemblies in concentrations greater than 0.10 % (weight by weight).

Table 3. Sub-assemblies and component parts to which Criterion 2(a) shall apply

- Populated motherboard (including CPU, RAM, graphics units)
- Data storage devices (HDD and SSD)
- Optical Drive (CD and DVD)
- Display unit (including backlighting)
- Chassis and fixings
- Casings and bezels
- External keyboard, mouse and/or trackpad
- Internal and external Power Supply Units
- External AC and DC power cords
- Rechargeable batteries packs

In communicating this requirement to suppliers of the listed sub-assemblies applicants may pre-screen the REACH Candidate List using the IEC 62474 declarable substance list[12]. The screening shall be based on identification of the potential for presence of substances in the product.

[12] International Electrotechnical Commission (IEC), IEC 62474: Material declaration for products of and for the electrotechnical industry, http://std.iec.ch/iec62474

Required documentation for Assessment and verification: Restriction of Substances of Very High Concern (SVHCs)

The applicant shall compile declarations of the non-presence of SVHCs at or above the specified concentration limit for the product and the sub-assemblies identified in Table 3. Declarations shall be with reference to the latest version of the Candidate List published by ECHA [13]. Where declarations are made based on a pre-screening of the Candidate List using IEC 62474 the screened list given to sub-assembly suppliers shall also be provided by the applicant. The version of the IEC 62474 declarable substance list used shall reflect the latest version of the Candidate List.

Declaration template

For sub-criterion 2(a):

Notifications made in order to meet obligations under Article 33 of the REACH Regulation can be provided as verification. This can include notifications for the whole product and also for sub-assemblies and component parts.

The IEC 62474 declarable substance list can be used to identify and communicate SVHCs that are relevant to the computer supply chain.

SVHCs are equivalent under the Green Screen assessment method to a Benchmark 1 level.

Criterion 2(b) Restrictions on the presence of specific hazardous substances

The sub-assemblies and component parts identified in Table 4 shall not contain the specified hazardous substances at or above the stipulated concentration limits.

Table 4. Substance restrictions that shall apply to sub-assemblies and component parts

Substance group	Scope of restriction	Concentration limits (where applicable)	Assessment and verification
i) Metal solder and contacts	Exemption 7b in accordance with Directive 2011/65/EU [14] relating to the use of lead solder in *small-scale servers* shall not be permitted.	0.1% w/w	Declaration to be provided by the manufacturer or final assembler supported by a valid test result. *Test method:* IEC
	Exemption 8b in accordance with Directive 2011/65/EU [9] relating to the use of *cadmium in electrical contacts* shall not be permitted.	0.01% w/w	

[13] ECHA, *Candidate List of substances of very high concern for Authorisation*, http://www.echa.europa.eu/candidate-list-table

[14] Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011on the restriction of the use of certain hazardous substances in electrical and electronic equipment (recast) (OJ L 174, 1.7.2011, p.88)

			62321-5
ii) Polymer stabilisers, colourants and contaminants	The following organotin stabiliser compounds classified with Group 1 and 2 hazards shall not be present in *external AC and DC power cords and power packs*: • Dibutyltin oxide • Dibutyltin diacetate • Dibutyltin dilaurate • Dibutyltin maleate • Dioctyl tin oxide • Dioctyl tin dilaurate	n/a	Declaration to be provided by the sub-assembly supplier.
	Plastic casings and bezels shall not contain the following colourants: • Azo dyes that may cleave to the carcinogenic aryl amines listed in Appendix 8 of the REACH Regulation, and/or • Colourant compounds included in the IEC 62474 declarable substances list.	n/a	Declaration to be provided by the sub-assembly supplier.

	Polycyclic Aromatic Hydrocarbons (PAHs) classified with Group 1 and 2 hazards shall not be present at concentrations greater than or equal to individual and sum total concentration limits in any external plastic or man-made rubber surfaces of: • Notebooks and tablets; • Peripheral keyboards, • Mice, • Stylus and/or trackpads; • External power cables. The presence and concentration of the following PAHs shall be verified: *PAH's restricted by the REACH Regulation:* • Benzo[a]pyrene, • Benzo[e]pyrene, • Benzo[a]anthracene, • Chrysen, • Benzo[b]fluoranthene, • Benzo[j]fluoranthene, • Benzo[k]fluoranthene • Dibenzo[a,h]anthracene, *Additional PAH's subject to restriction:* • Acenaphthene • Acenaphthylene • Anthracene • Benzo[ghi]perylene • Fluoranthene • Fluorene • Indeno[1,2,3-cd]pyrene • Naphthalene • Phenanthrene • Pyrene	The individual concentration limits for PAHs restricted under REACH shall be 1 mg/kg The sum total concentration limit for the 18 listed PAHs shall not be greater than 10 mg/kg	Test report to be provided by the applicant for relevant parts of the identified parts of the product. *Test method*: AfPS GS 2014:01 PAK.
iii) Biocidal products	Biocidal products intended to provide an anti-bacterial function shall not be incorporated into plastic or rubber parts of keyboards and peripherals.	n/a	Declaration to be provided by the sub-assembly supplier.
iv) Mercury in backlights	Exemption 3 in accordance with Directive 2011/65/EU [9] relating to the use of mercury in *cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL)* shall not be permitted.	n/a	Declaration to be provided by the sub-assembly supplier.

v) Glass fining agents	Arsenic and its compounds shall not be used in the manufacturing of LCD display unit glass, screen cover glass and glass used in track pad surfaces.	0.0050% w/w	Declaration to be provided by the screen glass supplier(s) supported by an analytical testing report.

Required documentation for Assessment and verification: Restrictions on the presence of specific hazardous substances

The applicant shall provide declarations of compliance and test reports according to the requirements in Table 4. Test reports, where required, shall be valid at the time of application for the relevant production model and all associated suppliers. Where sub-assemblies or component parts with the same technical specification originate from a number of different suppliers, tests where applicable shall be carried out on parts from each supplier.

Declaration templates

For sub-criterion 2(b):

Reporting on compliance with an existing Restricted Substance Control system as defined in IEC 62476, or an equivalent chemical management system, can be used to provide verification where such a system contains the same restrictions and associated forms of verification. This may include compliance documentation associated with obligations under the RoHS Directive 2011/65/EU.

Note: A guide defining the declaration requirements for individual components can be found here.

Criterion 2(c) Restrictions based on CLP hazard classifications

Flame retardants, plasticisers, steel additives and coatings, cathode materials, solvents and salts that meet the criteria for classification with the CLP hazards in Table 2 shall not be present in the sub-assemblies and component parts in Table 5 at or above a concentration limit of 0.10% (weight by weight).

Table 5. Sub-assemblies and component parts to which Criterion 2(c) shall apply

Parts containing flame retardants - Main Printed Circuit Boards - Central Processing Units (CPU's) - Connectors and sockets - Data storage devices (HDD and SSD) - Plastic casings and bezels - Internal and external Power Supply Units - External AC and DC power cords
Parts containing plasticisers - Internal cables and cords - External AC and DC power cords - External Power Supply Units - Plastic casings and bezels
Parts with stainless steel alloys and nickel coatings - Chassis, casings, bolts, nuts, screws and brackets
Rechargeable battery packs - Rechargeable battery cells

(i) Derogations for the use of hazardous flame retardants and plasticisers

The use of flame retardants and plasticisers meeting the criteria for classification with CLP hazards listed in Table 2 are derogated from the requirements of criterion 2(c) provided that they meet the conditions specified in Table 6. Inherently flame retardant external AC and DC power cord materials shall also meet the conditions in Table 6(ii)(b).

Table 6. Derogations conditions that shall apply to the use of flame retardants and plasticisers

Sub-assembly or component part	Scope of derogation	Assessment and verification
Flame Retardants		
i) Main Printed Circuit Board.	The use of flame retardants in motherboard laminates is derogated under either of the following conditions: (a) The flame retardant is classified with a Group 3 hazard. Where a claim is made in conformance with IEC 61249-2-21[15] a fire test of the PCB simulating improper WEEE disposal shall show carcinogenic polycyclic aromatic hydrocarbon (PAHs) emissions to be ≤ 0.1 mg TEQ /g. (b) The flame retardant is reacted into the polymer resin and a fire test of the PCB simulating improper WEEE disposal shall show polybrominated dibenzo-p-dioxin and polybrominated dibenzofuran (PBDD/DF) emissions to be ≤ 0.4 ng TEQ/g and carcinogenic PAHs emissions to be ≤ 0.1 mg TEQ/g. .	Declaration to be provided by the sub-assembly supplier supported by documentation to verify hazard classifications. *and where required:* A third party test report for the combination of board material, components and flame retardant. *Test method:* ISO 5660 in oxidative pyrolysis conditions (IEC 60695-7-1 fire type 1b with a heat flux of 50 kW/m^2). Quantification shall be made according to EN 1948 (PBDD/DF) and/or ISO 11338 (PAHs).
ii) External AC and DC power cords.	The use of flame retardants and their synergists is derogated under either of the following conditions: (a) The flame retardant and its synergist are classified with a Group 3 hazard. Where a claim is made in conformance with IEC 62821[16] a fire test of the power cord polymer shall show halogen acid gas emissions of less than 5.0	Declaration to be provided by the sub-assembly supplier supported by documentation to verify hazard classifications. *and where required:* A third party test report for the power cord. *Test method:* IEC 60754-1 or ISO 19700 in under-ventilated conditions (IEC 60695-7-1 fire type 3a with a heat flux of 50 kW/m^2) PCDD/DF quantification shall be made

[15] According to IEC 61249-2-21 claims can be made for the 'halogen free' composition of a printed circuit board material

Sub-assembly or component part	Scope of derogation	Assessment and verification
	mg/g. (b) Fire test results for the power cord simulating improper WEEE disposal shall show polychlorinated dibenzo-p-dioxin and polychlorinated dibenzofuran (PCDD/DF) emissions to be ≤ 0.3 ng TEQ/g Power cords insulated with inherently flame retardant materials shall be subject to the part ii)(b) fire testing requirement.	according to EN 1948.
iii) External plastic casings and bezels.	Flame retardants and their synergists classified with Group 2 and 3 hazards are derogated for use.	Declaration to be provided by the sub-assembly supplier supported by documentation to verify hazard classifications.
iv) Miscellaneous subassemblies and parts: - CPU solder resist, build-up and core - Internal and external power supply units - Data storage drives - Internal connectors and sockets - Power supply units.	Flame retardants classified with Group 3 hazards are derogated for use.	Declaration to be provided by the sub-assembly supplier supported by documentation to verify hazard classifications.
Plasticisers		
i) External power cords and power packs, external casings and internal cables	Plasticisers classified with Group 3 hazards are derogated for use.	Declaration to be provided by the sub-assembly supplier supported by documentation to verify hazard classifications.

(ii) Derogations for the use of additives, coatings, materials, solvents and salts

The use of metal additives and coatings, cathode materials, solvents and salts meeting the criteria for classification with CLP hazards listed in Table 2 are derogated from the requirements of criterion 2(c) provided that they meet the conditions specified in Table 7.

[16] According to IEC 62821 claims can be made for the 'halogen free low smoke' cables

Table 7. Components and subassemblies that are specifically derogated

Substances and mixtures	Sub-assembly or component part	Scope of the derogation	Assessment and verification
Metal additives and coatings	i) Metal components	Stainless steel alloys and scratch resistant coatings containing nickel metal classified with H351, H372 and H412. *Derogation condition:* The release rate of metallic nickel from scratch resistance coatings on parts of a casing where they may in direct and prolonged contact with skin shall not exceed >0.5 μg/cm^2/week.	Identification of relevant parts by weight and location in the product. Where external casing parts come into direct and prolonged skin contact a test report shall be provided. *Test method:* EN 1811
Cathode materials	ii) Lithium ion and polymer batteries	Battery cell cathode materials classified with group 2 and 3 hazards. These shall include: • Lithium cobalt oxide • Lithium manganese dioxide • Lithium iron phosphate • Lithium cobalt nickel manganese oxide	Declaration to be provided by the battery or cell supplier supported by documentation to verify hazard classifications.
Solvents and salts		Electrolyte solvents and salts classified with group 2 and 3 hazards. These shall include: • Propylene carbonate • Ethylene carbonate • Diethyl carbonate • Di-Methyl Carbonate • Ethyl methyl carbonate • Lithium Hexafluorophosphate	

Required documentation for Assessment and verification: Restrictions based on CLP hazard classifications

The applicant shall provide a declaration of compliance with criterion 2(c). The declaration shall be supported by the list of flame retardants, plasticisers, steel additives and coatings, cathode materials, solvents and salts used in the sub-assemblies and component parts listed in Table 5 together with declarations about their hazard classification or non-classification.

The following information shall be provided to support declarations of the hazard classification or non-classification for each substance or mixture:

- The CAS, EC or list number (where available for mixtures);
- The physical form and state in which the substance is used;
- Harmonised CLP hazard classifications for substances;
- Self-classification entries in ECHA's REACH registered substance database[17] (if no harmonised classification is available)
- Mixture classifications according to the criteria laid down in the CLP Regulation.

When considering self-classification entries in the REACH registered substance database, priority shall be given to entries from joint submissions.

Where a classification is recorded as 'data lacking' or 'inconclusive' according to the REACH registered substance database, or where a substance has not yet been registered under the REACH system, toxicological data meeting the requirements in Annex VII to the REACH Regulation shall be provided that is sufficient to support conclusive self-classifications in accordance with Annex I of the CLP Regulation and ECHA's supporting guidance. In the case of 'data lacking' or 'inconclusive' database entries, self-classifications shall be verified, with the following information sources being accepted:

- Toxicological studies and hazard assessments by ECHA peer regulatory agencies[18], Member State regulatory bodies or Intergovernmental bodies;
- A Safety Data Sheet fully completed in accordance with Annex II to the REACH Regulation;
- A documented expert judgement provided by a professional toxicologist. This shall be based on a review of scientific literature and existing testing data, where necessary supported by results from new testing carried out by independent laboratories using methods recognised by ECHA;
- An attestation, where appropriate based on expert judgement, issued by an accredited conformity assessment body that carries out hazard assessments according to the GHS or CLP hazard classification systems.

Information on the hazardous properties of substances or mixtures may, in accordance with Annex XI to the REACH Regulation, be generated by means other than tests, for instance through the use of alternative methods such as in vitro methods, by quantitative structure activity models or by the use of grouping or read-across.

For the derogated substances and mixtures listed in Table 6 and Table 7, the applicant shall provide proof that all the derogation conditions are met, as described in Table 6 and Table 7. Where test reports are required, they shall be valid at the time of application for a production model.

Declaration templates

[17] ECHA, *REACH registered substances database*, http://www.echa.europa.eu/information-on-chemicals/registered-substances

[18] ECHA, *Co-operation with peer regulatory agencies*, http://echa.europa.eu/en/about-us/partners-and-networks/international-cooperation/cooperation-with-peer-regulatory-agencies

ⓘ *For sub-criterion 2(c)(i):*

Where flame retardants or plasticisers are used in the sub-assemblies listed in table 5 the results of alternatives assessments can be used to verify sub-criterion 2(c)(i).

If a hazard assessment system has been used either the GHS hazard profile of the substances used can be checked, or the hazard groups in table 2 can be read across to specific benchmark levels such as those used in the Green Screen assessment method.

If such an assessment has not been carried out then the flame retardants and plasticisers used in the identified sub-components and parts can be checked against the following list of substances that, as of November 2015, have been pre-identified by the JRC as meeting the requirements:

Flame retardants identified as meeting the derogation requirements in table 6

Flame retardant	**CAS No**
The following substances meet the derogation conditions for use in **main printed circuit board, CPU assembly, Data storage drives, Internal connectors and sockets, power supply units**.	
Dihydrooxaphosphaphenanthrene (DOPO) CAS No	35948-25-5
Fyrol PMP (Aryl Alkylphosphinate)	63747-58-0
Magnesium hydroxide (MDH) *with zinc synergist*	1309-42-8
Ammonium polyphosphate	68333-79-9
Aluminium hydroxide (ATH) *with zinc synergist*	21645-51-2
Bisphenol A Bis (diphenyl Phosphate)	5945-33-5
The following substances meet the derogation conditions for use in **external power cables and power packs**	
Magnesium hydroxide (MDH) *with zinc synergist*	1309-42-8
Ammonium polyphosphate	68333-79-9
Aluminium hydroxide (ATH) *with zinc synergist*	21645-51-2
Bisphenol A Bis (diphenyl Phosphate)	5945-33-5
The following substances meet the derogation conditions for use in **plastic casings and bezels**	
Triphenyl phosphate	115-86-6
Resorcinol Bis (Diphenyl Phosphate)	125997-21-9
Phosphoric acid, mixed esters with [1,1"-bisphenol-4,4"-diol] and phenol	1003300-73-9
Polyphosphonate	68664-06-2

Ethane bis (pentabromophenyl) (EBP)	84852-53-9
Antimony Trioxide synergist (with EBP)	1309-64-4
Poly[phosphonate-co-carbonate]	77226-90-5
Bisphenol A Bis (diphenyl Phosphate)	5945-33-5

Plasticiers identified as meeting the derogation requirements in table 6

Plasticiser	**CAS No**
The following substances meet the derogation conditions for use in **external power cords and power packs, external casings and internal cables**	
Trioctyl trimetallate (TOM/TOTM)	3319-31-1
Dioctyl terephthalate (DOTP)	6422-86-2
Hexamoll DINCH	166412-78-8
DIDP	68515-49-1
DINP	28553-12-0

Where flame retardants or plasticisers are used in the sub-assemblies listed in table 5 a fire test report for PAHs, PBDD/DF and/or PCDD/DF emissions may additionally required if:

- *a 'halogen free' claim is made for the main printed circuit board in accordance with IEC 61249-2-21*
- *a 'halogen free low smoke' claim is made for the external power supply cable polymer in accordance with IEC 62821*

Test reports obtained from suppliers of circuit boards and cables may be used for verification,. Such reports may already be available upon request as part of compliance documentation. Alternatively, research reports that show compliance of a specific circuit board or cable material may also be used for verification.

ⓘ *For sub-criterion 2(c)(ii):*

Where scratch resistant coatings are applied to external parts of the computer that may be in 'direct and prolonged contact' with the skin, these shall be identified. A test report is then required to demonstrate compliance with the release rate for metallic nickel.

Where lithium ion and polymer rechargeable batteries are incorporated within the product verification is required for the battery cell cathode material and the electrolyte solvents and salts used. If necessary, this information can be verified on a confidential basis by the battery manufacturer. Documentation may consist of an SDS for the battery as a whole or for the individual cells.

⚠ *Note: A guide defining the declaration requirements for individual components can be found here.*

Criterion 3. Product lifetime extension

Criterion 3(a) Durability testing of portable computers

(i) Tests that shall apply to notebook computers

The notebook computer model shall pass durability tests. Each model shall be verified to function as specified and meet the stipulated performance benchmarks after performing the mandatory tests in Table 8 and a minimum of one additional test selected from Table 9.

Table 8. Mandatory durability test specification for notebook computers

Test	Test conditions and performance benchmarks	Test method
Resistance to shock	*Specification:* A minimum of a 40G peak half-sine wave pulse shall be applied three times for a duration of a minimum of 6 ms to the top, bottom, right, left, front and rear side. *Functional requirement:* The notebook shall be switched on and running a software application during the test. It shall continue to function following the test.	IEC 60068 Part 2-27: Ea Part 2-47
Resistance to vibration	*Specification:* Randomised sinusoidal vibrations in the frequency 5-250 Hz shall be applied for a minimum of 1 sweep cycle per axis to the top, bottom, right, left, front and back side of the product. *Functional requirement:* The notebook shall be switched on and running a software application during the test. It shall continue to function following the test.	IEC 60068 Part 2-6: Fc Part 2-47

Accidential drop	*Specification:* The notebook shall be dropped from 76 cm of height onto a surface consisting of a minimum of 30 mm of wood over a non-yielding surface. One drop shall be made on the top, bottom, right, left, front and rear side, as well as each corner. *Functional requirement:* The notebook shall be switched off during the test but shall successfully boot up following each test. The casing shall remain integral and the screen undamaged following each test.	IEC 60068 Part 2-31: Ec (Freefall, procedure 1)

Table 9. Additional durability test specifications for notebook computers

Test	Test conditions and performance benchmarks	Test method
Temperature stress	*Specification:* The notebook shall be subjected to a minimum of four 24 hour exposure cycles in a test chamber. The notebook shall be operational during a cold cycle at -25°C and a dry heat cycle at +40°C. The notebook shall be non-operational during a cold cycle at -50°C and dry heat cycling between +35 and +60°C. *Functional requirement:* The notebook shall be checked that it functions following each of the four exposure cycles.	IEC 60068 Part 2-1: Ab/e Part 2-2: B
Screen resilience	*Specification:* Two loading tests shall be carried out. A load of 50 kg shall be evenly applied to the screen lid over a minimum area of 176 cm. A minimum load of 25 kg shall be applied to an area with a diameter of 3 cm. The notebook shall be placed on a flat surface during each test. *Functional requirement:* The screen surface and pixels shall be inspected for the absence of lines, spots and cracks after application of each loading.	The test equipment and setup used shall be confirmed by the applicant.
Water spill ingress	*Specification:* Two tests shall be carried out. A minimum of ~~200~~ 30 ml of liquid shall be poured evenly over the keyboard of the notebook *or* onto three specific, separated locations, drained away after a maximum of 5 seconds, and the computer then tested for functionality after 3 minutes. The test shall be carried for a hot and a cold liquid. *Functional requirement:* The notebook shall remain operational during and after the test. The notebook shall then be dismantled and visually inspected so as to pass the IEC 60529 acceptance conditions for water ingress.	Acceptance conditions: IEC 60529 (water ingress)

Keyboard lifespan	*Specification:* 10 million random keystrokes shall be applied to the keyboard. The number of keystrokes per key shall be weighted to reflect the most commonly used keys. *Functional requirement:* The keys shall then be inspected for their integrity and functionality.	The test equipment and setup used shall be confirmed by the applicant.
Screen hinge lifespan	*Specification:* The screen shall be fully opened and then closed 20,000 times. *Functional requirement:* The screen shall then be inspected for any loss of stability and hinge integrity.	The test equipment and setup used shall be confirmed by the applicant.

(ii) Tests that shall apply to tablet and two-in-one computers

The tablet computer model or the tablet component of a two-in-one computer model shall pass durability tests. Each model shall be verified to function as specified and meet the stipulated performance benchmarks for each test as specified in Table 10.

Table 10. Mandatory durability test specification for tablet and two-in-one notebook computers

Test	Test conditions and performance benchmarks	Test method
Accidental drop	*Specification:* The tablet shall be dropped from 76 cm of height onto a surface consisting of a minimum of 30 mm of wood over a non-yielding surface. One drop shall be made on the top, bottom, right, left, front and rear side, as well as each corner. *Functional requirement:* The tablet shall be switched off during the test but shall successfully boot up following each test. The casing shall remain integral and the screen undamaged following each test.	IEC 60068 Part 2-31: Ec (Freefall, procedure 1)
Screen resilience	*Specification:* Two loading tests shall be carried out. A load of 50 kg shall be evenly applied to the screen lid over a minimum area of 176 cm. A minimum load of 25 kg shall be applied to an area with a diameter of 3 cm. The notebook shall be placed on a flat surface during each test. *Functional requirement:* The screen surface and pixels shall be inspected for the absence of lines, spots and cracks after application of each loading.	The test equipment and setup used shall be confirmed by the applicant.

Required documentation for Assessment and verification Durability testing of portable computers

The applicant shall provide test reports showing that the model has been tested and has met the functional performance requirements for durability. Testing shall be verified by a third party. Existing tests for the same model, carried out to the same or a stricter specification, shall be accepted without the need to retest.

Declaration template

Three mandatory notebook tests are required – shock, vibration and accidental drop (see table 8). Two mandatory tests are required for tablets (see table 10). For notebooks, applicants must also then choose at least one additional test from table 9.

This approach is intended to give notebook manufacturers the flexibility to select the additional test(s) based on their priorities for the model, their target market segments and feedback from warranty returns,

For each test a short specification is provided describing the main conditions and parameters for carrying out the test, together with the basic functional requirement(s) that shall be checked following the test. Provision of these specifications and functional requirements is intended to ensure that all applicants follow the same basic test specifications.

The main standardisation reference for detailed design and specification of the test apparatus are IEC test methods. However, some of the tests have no standardised reference and in these cases the test equipment and setup are required to be confirmed by the applicant. Moreover, for all the tests, and recognising that in practice notebook and tablet manufacturers refer to a combination of IEC standards, other national/international standards and/or their own test specifications, durability tests may also be accepted in the following cases:

- *Where the tests are carried out in accordance with, or have been designed with reference to, the United States military testing standard MIL810G*
- *Where in-house tests have been carried out to the same or a stricter specification*

In all cases the test setup and the results are required to be third party verified.

For testing of 'water spill ingress':

The IEC 60529 acceptance conditions for water ingress form the standardised test reference. The acceptance conditions are laid down in Section 14.3 and state that 'if any water has entered [the enclosure of the product], it shall not:
- *be sufficient to interfere with the correct operation of the equipment or impair safety;*
- *deposit on insulation parts where it could lead to tracking along the creepage distances;*
- *reach live parts or windings not designed to operate when wet;*
- *accumulate near the cable end or enter the cable if any.*

Additionally it is also noted that 'if the enclosure is provided with drain holes, it should be proved by inspection that any water which enters does not accumulate and that it drains away without doing harm to the equipment.'

Criterion 3(b) Rechargeable battery quality and lifetime

(i) Minimum battery life: Notebooks, tablets and two-in-one computers shall provide the user with a minimum of 7 hours of rechargeable battery life after the first full charge. For notebooks this shall be benchmarked using either:

- For home and consumer products the Futuremark PCMark 'Home' scenario
- For business or enterprise products the BAPCo Mobilemark 'Office productivity' scenario For models which qualify for Energy Star TECgraphics allowances, the 'Media creation & consumption' scenario shall be used instead.

(ii) Charging cycle performance: Notebook, tablet and two-in-one computer rechargeable batteries shall meet the following performance requirements, dependant on whether the rechargeable battery can be changed without tools (as specified in criterion 3(d)):

- Models in which rechargeable batteries can be changed without tools shall maintain 80% of their declared minimum initial capacity after 750 charging cycles;
- Models in which rechargeable batteries cannot be changed without tools shall maintain 80% of their declared minimum initial capacity after 1000 charging cycles.

This performance shall be verified for rechargeable battery packs or their individual cells according to the IEC EN 61960 'endurance in cycles' test, to be carried out at 25oC and at a rate of either 0.2 It A or 0.5 It A (accelerated test procedure). Partial charging may be used to comply with this requirement (as specified in sub-criterion 3(c)(iii)).

(iii) Partial charging option for achieving cycle performance: The performance requirements described in 3(b)(ii) may be achieved using factory installed software and firmware which partially charges the battery up to 80% of its capacity. In this case partial charging shall be set as the default charging routine and the battery performance shall then be verified at up to 80% charging according to the requirements in 3(b)(ii). The maximum partial charge shall provide a battery life that complies with sub-criterion 3(b)(i).

(iv) Minimum guarantee: The applicant shall provide a minimum two year commercial guarantee for defective batteries[19].

(v) User information: Information about known factors influencing the lifetime of rechargeable batteries, as well as instructions on how the user can prolong battery life, shall be included in factory installed energy management software, written user instructions and posted on the manufacturer's website.

Required documentation for Assessment and verification: Restrictions based on CLP hazard classifications

The applicant shall provide a third party test report showing that the rechargeable battery pack or cell types making up the pack used in the product meet the specified rechargeable battery life and charging cycle capacity. Partial charging and the accelerated test method specified by IEC EN 61960 may be used to demonstrate compliance. The applicant shall also provide a demonstration version of the energy management software and the text content of user instructions and website postings.

Declaration template

[19] Defects shall be considered to include failure to charge and to detect the battery's connection. A progressive reduction in the battery's capacity due to usage shall not be considered to be a defect unless it is covered by a specific warranty provision.

ⓘ *For sub-criterion (i) Minimum battery life:* *The benchmark tool to use shall be based on the target market for the computer model. This should be verified by providing web links for the relevant pages of the applicant's EU web page.* *Benchmark software tools are now available for tablet computers. The following software provides an extension to the tools referred to in the sub-criterion* - *For home and consumer products the Futuremark tablet 'work benchmark'* - *For business or enterprise products the BAPCo Tabletmark 'battery life rating'.*
ⓘ *For sub-criterion (ii) Charging cycle performance and (iii) Partial charging option:* *The sub-criterion may be verified for either the whole battery pack or the individual cell types used. Declarations of compliance based on third party testing may already form part of an applicant's qualifying requirements for suppliers of rechargeable batteries used in the product(s).* *Where compliance is based on partial charging the test report shall clearly confirm the use of this setting in the test routine. Screen captures of the battery management software may be used to show the partial charging software and default mode.*
ⓘ *For sub-criterion (iv) Minimum guarantee:* *A copy of the guarantee and associated conditions shall be provided.*
ⓘ *For sub-criterion (v) User information:* *Screen captures of the energy management software may be used to show the features that are relevant to battery management.*

Criterion 3(c) Data storage drive reliability and protection

(i) Stationary computers

The data storage drive or drives used in desktops, workstations and thin clients marketed for business use shall have a projected Annualised Failure Rate (AFR)[20] of less than 0.25%.

Small-scale servers shall have a projected AFR of less than 0.44% and a Bit Error Rate for non-recoverable data of >1 in 10^{16} bits.

(ii) Portable computers

The primary data storage drive used in notebooks shall be specified to protect both the drive and data from shock and vibration. The drive shall comply with one of the following options:

[20] The AFR shall be calculated based on the Mean Time Between Failure (MTBF). The MTBF shall be determined based on Bellcore TR-NWT-000332, issue 6, 12/97 or field collected data.

- The HDD drive shall be designed to withstand a half sine wave shock of 400 G (operating) and 900 G (non-operating) for 2 ms without damage to data or operation of the drive.
- The HDD drive head should retract from the disc surface in less than or equal to 300 milliseconds upon detection of the notebook having been dropped.
- A solid state storage drive technology such as SSD or (Solid State Drive) or eMMC (embedded Multi Media Card) is used.

Required documentation for Assessment and verification: Restrictions based on CLP hazard classifications

The applicant shall provide a specification for the drive or drives integrated into the product. This shall be obtained from the drive manufacturer and for shock resistance and drive head retraction shall be supported by an independently certified technical report verifying that the drive complies with the specified performance requirements.

Declaration template

Declarations of compliance based on in-house or third party testing may already form part of an applicant's qualifying requirements for suppliers of data storage media used in the product(s).

Criterion 3(d) Upgradeability and Reparability

For the purpose of upgrading older components or undertaking repairs and replacements of worn out components or parts, the following criteria shall be fulfilled:

(i) Design for upgrade and repair: The following components of computers shall be easily accessible and exchangeable by the use of universal tools (i.e. widely used commercially available tools such as a screwdriver, spatula, plier, or tweezers):
  - Data storage (HDD, SSD or eMMC)
  - Memory (RAM)
  - Screen assembly and LCD backlight units (where integrated)
  - Keyboard and track pad (where used)
  - Cooling fan assemblies (in desktops, workstations and small-scale servers).

(ii) Rechargeable battery replacement: The rechargeable battery pack shall be easy to extract by one person (either a non-professional user or a professional repair service provider) according to the steps defined below [21]. Rechargeable batteries shall not be glued or soldered into a product and there shall be no metal tapes, adhesive strips or cables that prevent access in order to extract the battery. In addition, the following requirements and definitions of the ease of extraction shall apply:
  - For notebooks and portable all-in-one computers it shall be possible to extract the rechargeable battery manually without tools;
  - For sub-notebooks it shall be possible to extract the rechargeable battery in a maximum of three steps using a screwdriver;

[21] A step consists of an operation that finishes with the removal of a part or with a change of tool.

- For tablets and two-in-one notebooks it shall be possible to extract the rechargeable battery in a maximum of four steps using a screwdriver and spudger.

Simple instructions on how the rechargeable battery packs are to be removed shall be provided in a repair manual or via the manufacturer's website.

(iii) Repair manual: The applicant shall provide clear disassembly and repair instructions (e.g. hard or electronic copy, video) to enable a non-destructive disassembly of products for the purpose of replacing key components or parts for upgrades or repairs. This shall be made publicly available or by entering the product's unique serial number on a webpage. Additionally, a diagram shall be provided on the inside of the casing of stationary computers showing the location of the components listed in point (i) and how they can be accessed and exchanged. For portable computers a diagram showing the location of the battery, data storage drives and memory shall be made available in pre-installed user instructions and via the manufacturers website for a period of at least five years.

(iv) Repair Service / Information: Information should be included in the user instructions or on the manufacturer's website to let the user know where to go to obtain professional repairs and servicing of the computer, including contact details. During the guarantee period referred to in (vi) this may be limited to the applicant's Authorised Service Providers.

(v) Availability of spare parts: The applicant shall ensure that original or backwardly compatible spare parts, including rechargeable batteries (*if applicable*), are publicly available for at least five years following the end of production for the model.

(vi) Commercial Guarantee: The applicant shall provide at no additional cost a minimum of a three year guarantee effective from purchase of the product. This guarantee shall include a service agreement with a pick-up and return option for the consumer. This guarantee shall be provided without prejudice to the legal obligations of the manufacturer and seller under national law.

Required documentation for Assessment and verification: **Restrictions based on CLP hazard classifications**

The applicant shall declare the compliance of the product with these requirements to the competent body. Additionally, the applicant shall provide:

- A copy of the user instructions
- A copy of the repair manual and supporting diagrams
- A description supported by photographs showing compliance for battery extraction
- A copy of the guarantee and service agreement
- Pictures of any diagrams, markings and instructions on the computer casing

Declaration template

Video recordings or step-by-step sequences of photographs in either electronic or printed form can be used to show compliance with sub-criterion (i) and (ii). These could be obtained from third parties sources, such as repair guides (for example, ifixit[22]) or dismantling studies (for example, Fraunhofer IZm[23]), as long as the computer model can be clearly identified.

[22] ifixtit, accessed December 2016, www.ifixit.com

Criterion 4. Design, material selection and end-of-life management

Criterion 4(a) Material selection and recyclability

Applicants shall comply with, as a minimum, criterion part (i) together with either part (ii) or part (iii). *Tablets, subnotebooks, two-in-one notebooks and products with metal casings and enclosures are exempt from sub-criteria (ii) and (iii).*

(i) Material information to facilitate recycling: Plastic parts with a weight greater than 25 grams for tablet computers and 100 grams for all other computers shall be marked in accordance with ISO 11469 and ISO 1043, sections 1-4. The markings shall be large enough and located in a visible position in order to be easily identified. Exemptions are made in the following cases:

- *Printed circuit boards, Polymethyl Methacrylate Board (PMMA) and display optical plastics forming part of display units;*
- *Where the marking would impact on the performance or functionality of the plastic part;*
- *Where the marking is technically not possible due to the production method;*
- *Where the marking causes higher defect rates under quality inspection, leading to an avoidable wastage of materials;*
- *Where parts cannot be marked because there is not enough appropriate surface area available for the marking to be of a legible size to be identified by a recycling operator.*

(ii) Improving the recyclability of plastic casings, enclosures and bezels:

Parts shall not contain molded-in or glued-on metal inserts unless they can be removed with commonly available tools. Disassembly instructions shall show how to remove them (see sub-criterion 3(d)).

For parts with a weight greater than 25 grams for tablet computers and 100 grams for all other computers, the following treatments and additives shall not result in recycled resin with a >25% reduction in the notched izod impact when tested according to ISO 180:

- Paints and coatings
- Flame retardants and their synergists

Existing test results for recycled resin shall be accepted provided that the recycled resin is derived from the same input material that the plastic parts of the product are composed of.

(iii) Minimum recycled plastic content: The product shall contain on average a minimum 10% content post-consumer recycled plastic measured as a percentage of the total plastic (by weight) in the product excluding Printed Circuit Boards and display optical plastics. Where the recycled content is greater than 25% a declaration may be made in the text box accompanying the Ecolabel (see criterion 6(b)).

Note: Tablets, subnotebooks, two-in-one notebooks and products with a metal casing are exempt from this sub-criterion.

Required documentation for Assessment and verification: Material selection and recyclability

[23] Fraunhofer IZM, *Disassembly analysis of slates: Design for repair and recycling evaluation*, Final report, August 2013.

The applicant shall verify recyclability by providing valid mechanical/physical test reports according to ISO 180 and disassembly instructions. Valid test reports obtained from plastics recyclers, resin manufacturers or independent pilot tests shall be accepted.

The applicant shall provide the Competent Body with an exploded diagram of the computer or a parts listing in written or audio-visual format. This shall identify the plastic parts by their weight, their polymer composition, and their ISO 11469 and ISO 1043 markings. The dimension and position of the marking shall be visually illustrated and, where exemptions apply, technical justifications shall be provided.

The applicant shall provide third party verification and traceability back to plastic component suppliers for post-consumer recycled content claims. Average content claims may be calculated on a periodic or annual basis for the model.

Declaration template

Compliance documentation from other Type I Ecolabels with the same requirements can be accepted for all three sub-criteria. This includes EPEAT, TCO and the Blue Angel.

For sub-criterion (ii) pre-existing test results may be obtainable from resin and polymer suppliers.

Criterion 4(b) Design for disassembly and recycling

For recycling purposes computers shall be designed so that target components and parts can be easily extracted from the product. A disassembly test shall be carried out according to the test procedure in **Appendix 1**. The test shall record the number of steps required and the associated tools and actions required to extract the target components and parts identified under points (i) and (ii).

i. The following target components and parts, as applicable to the product, shall be extracted during the disassembly test:

All products

- Printed Circuit Boards relating to computing functions >10 cm^2

Stationary computer products

- Internal Power Supply Unit
- HDD drives.

Portable computer products

- Rechargeable battery

Displays (where integrated into the product enclosure)

- Printed Circuit Boards >10 cm^2
- Thin Film Transistor unit and film conductors in display units >100 cm^2
- LED backlight units.

ii. At least *two* of the following target components and parts, selected as applicable to the product, shall also be extracted during the test, following-on in the test from those in (i):

- HDD drive (portable products)
- Optical drives (where included)
- Printed circuit boards ≤ 10 cm^2 and > 5 cm^2
- Speaker units (notebooks, integrated desktops and portable all-in-one computers)
- Polymethyl Methacrylate (PMMA) film light guide (where the screen size is >100 cm^2).

Required documentation for Assessment and verification: Design for disassembly and recycling

The applicant shall provide a 'disassembly test report' to the competent body detailing the adopted disassembly sequence, including a detailed description of the specific steps and procedures, for the target parts and components listed under (i) and (ii),

The disassembly test may be carried out by:

- The applicant, or a nominated supplier, in their own laboratory, or;

- An independent third party testing body, or;

- A recycling firm that is a permitted electrical waste treatment operation in accordance with Article 23 of Directive 2008/98/EC [24] or certified under national regulations.

Declaration template

The recommended protocol for carrying out the product disassembly test is as follows:

(a) Terms and definitions

(i) Target parts and components: Parts and/or components that are targeted for the extraction process.

(ii) Disassembly step: An operation that finishes with the removal of a part or with a change of tool.

(b) Operating conditions for the test

(i) Personnel: The test shall be carried out by one person.

(ii) Test sample: The sample product to be used for the test shall be undamaged.

(iii) Tools for extraction: The extraction operations shall be performed using manual or power-driven standard commercially available tools (i.e. pliers, screw-drivers, cutters and hammers as defined by ISO 5742, ISO 1174, ISO 15601).

(iv) Extraction sequence: The extraction sequence shall be documented and, where the test is to be carried out by a third party, information provided to those carrying out the extraction.

[24] Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (OJ L 312, 22.11.2008, p. 3–30)

(c) Documentation and recording of the test conditions and steps

(i) Documentation of steps: The individual steps in the extraction sequence shall be documented and the tools associated with each step shall be specified.

(ii) Recording media: Photos shall be taken and a video recorded of the extraction of the components. The video and photos shall enable clear identification of the steps in the extraction sequence.

Criterion 5. Corporate Social Responsibility

Criterion 5(a) Sourcing of 'conflict-free' minerals

The applicant shall support the responsible sourcing of tin, tantalum, tungsten and their ores and gold from conflict-affected and high-risk areas by:

i. Conducting due diligence in line with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, and
ii. Promoting responsible mineral production and trade for the identified minerals used in components of the product in accordance with OECD guidance within conflict-affected and high-risk areas.

Note: The guidance, here: http://www.oecd.org/daf/inv/mne/GuidanceEdition2.pdf, concerns tantalum, tin, tungsten and gold.

Required documentation for Assessment and verification: Sourcing of 'conflict-free' minerals

The applicant shall provide a declaration of compliance with these requirements together with the following supporting information:

- A report describing their due diligence activities along the supply chain for the four minerals identified. Supporting documents such as certifications of conformity issued by the European Union's scheme shall also be accepted.

- Identification of component(s), which contain the identified minerals, and their supplier(s), as well as the supply chain system or project used for responsible sourcing.

Declaration template

ⓘ *The criterion is intended to reflect a pro-active approach to the sourcing of tin, tantalum, tungsten and their ores and gold from conflict-affected and high-risk areas. So, rather than boycotting such areas, applicants should seek to support an improvement in working conditions in such areas.*

The requirements and verification have been aligned with the OECD's guidance on due diligence, with anticipation of the EU's certification scheme for conflict-free smelters which will introduce a third party verified supply chain conformity scheme.

Applicants shall additionally demonstrate how they promote the sourcing of conflict-free minerals by providing verification of action for at least one mineral related to at least one component. This does not require applicants to join traceability projects. Compliance can therefore be verified in a number of different ways:

- at final product level, as members of traceability projects (e.g. Apple, HP, Toshiba), or;

- by contracting final assemblers that are members of traceability projects (e.g. Foxconn), or;

- by using sub-assemblies or components manufactured by suppliers who are members of traceability projects (e.g. Intel, NVIDIA, AVX)

Criterion 5(b) Labour conditions and human rights during manufacturing

Having regard to the International Labour Organisation's (ILO) Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy, the UN Global Compact (Pillar 2), the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multi-National Enterprises, the applicant shall obtain third party verification supported by site audits that the applicable principles included in the ILO fundamental conventions and in the instruments identified in the supplementary provisions below have been respected at final assembly plant for the product.

Fundamental conventions of the ILO:

i. Child Labour:
   - Minimum Age Convention, 1973 (No. 138)
   - Worst Forms of Child Labour Convention, 1999 (No. 182)

ii. Forced and Compulsory Labour:
   - Forced Labour Convention, 1930 (No. 29) and 2014 Protocol to the Forced labour Convention
   - Abolition of Forced Labour Convention, 1957 (No. 105)

iii. Freedom of Association and Right to Collective Bargaining:
   - Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)
   - Right to Organise and Collective Bargaining Convention, 1949 (No. 98)

iv. Discrimination:
   - Equal Remuneration Convention, 1951 (No. 100)

- Discrimination (Employment and Occupation) Convention, 1958 (No. 111)

Supplementary provisions:

v. Working Hours:
- ILO Hours of Work (Industry) Convention, 1919 (No. 1)

vi. Remuneration:
- ILO Minimum Wage Fixing Convention, 1970 (No. 131)
- Living wage: The applicant shall ensure that wages paid for a normal work week shall always meet at least legal or industry minimum standards, are sufficient to meet the basic needs of personnel and provide some discretionary income. Implementation shall be audited with reference to the SA8000 [25] guidance on "Remuneration";

vii. Health & Safety
- ILO Occupational Safety and Health Convention, 1981 (No.155)
- ILO Safety in the use of chemicals at work Convention, 1990 (No.170)

In locations where the right to freedom of association and collective bargaining are restricted under law, the company shall recognise legitimate employee associations with whom it can enter into dialogue about workplace issues.

The audit process shall include consultation with external stakeholders in local areas around sites, including trade unions, community organisations, NGOs and labour experts. The applicant shall publish aggregated results and key findings from the audits online in order to provide evidence of their supplier's performance to interested consumers.

Required documentation for Assessment and verification: Labour conditions and human rights during manufacturing

The applicant shall show compliance with these requirements by providing copies of certificates of compliance and supporting audit reports for each final product assembly plant for the model(s) to be ecolabelled, together with a weblink to where online publication of the results and findings can be found.

Third party site audits shall be carried out by auditors qualified to assess the compliance of the electronics industry supply chain with social standards or codes of conduct or, in countries where ILO Labour Inspection Convention, 1947 (No 81) has been ratified and ILO supervision indicates that the national labour inspection system is effective and the scope of the inspection system covers the areas listed above [26], by labour inspector(s) appointed by a public authority.

Valid certifications shall be accepted that are not older than 12 months prior to the application, that are provided by schemes or processes that, together or in part, audit compliance with the applicable principles of the listed fundamental ILO Conventions and the supplementary provisions on working hours, remuneration and health & safety,.

[25] Social Accountability International, *Social Accountability 8000 International Standard*, http://www.sa-intl.org

[26] See ILO NORMLEX (http://www.ilo.org/dyn/normlex/en) and supporting guidance in the User Manual

Declaration template

The criterion is intended to provide a minimum acceptable level of assurance based on third party auditing of final assembly sites for the computer models to be awarded the Ecolabel..

Although the criterion is largely based on the ILO fundamental conventions, it is important to note that it also includes additional ILO conventions and points for verification relating to working hours, remuneration and health & safety. So whilst audits carried out to demonstrate compliance with the Electronics Industry Code of Conduct (EICC) may be used as proof, their scope will need to be extended to ensure they cover these additional areas. These additional areas are, however, already covered within the scope of SA8000, so valid existing SA8000 certifications can be used as proof of compliance.

A clause has been specifically included that recognises that in some countries such as China, some flexibility is required because of laws restricting union representation in the workplace.

Auditors qualified to assess compliance of the electronics supply chain can include those accredited by SAAS (the accreditation body for SA8000) and by the EICC as VAP auditors.

The potential to use existing, valid inspection reports by public labour inspectors is also recognised, so as to provide flexibility and to potentially reduce auditing costs. This option is subject to the country where the assembly plant is located having ratified ILO Convention No.81 and the inspection system being considered by ILO to be effective. These two points can be checked by consulting the ILO NORMLEX resource where a listing of countries that have ratified ILO Convention No.81 and separate country reports can be found.

Criterion 6. User information

Criterion 6(a) User instructions

The computer shall be sold with relevant user information that provides advice on the environmental performance of the product. The information shall be located in a single, easy-to-find place in the user instructions as well as on the manufacturer's website. The information shall include, as minimum:

i. Energy consumption: TEC value in accordance with Energy Star v6.1, as well as the maximum power demand in each operating mode. In addition, instructions shall be provided on how to use the device's energy-saving mode and information that energy efficiency cuts energy consumption and thus saves money by reducing electricity bills.

ii. The following indications on how to reduce power consumption when the computer is not being used:
- Putting the computer into off mode will reduce energy consumption but will still draw some power;
- Reducing the brightness of the screen will reduce energy use;
- Screen savers can stop computer displays from powering down into a lower power mode when not in use. Ensuring that screen savers are not activated on computer displays can therefore reduce energy use;
- Charging tablet computers via a USB-interface from another desktop or notebook computer may increase the energy consumption in case of leaving the desktop or notebook computer in an energy-consuming idle-mode for the sole reason of charging the tablet computer.

iii. For notebooks, tablets and two-in-one computers information that extension of the computer's lifetime reduces the product's overall environmental impacts.

iv. The following indications on how to prolong the lifetime of the computer:
- Information to let the user know the factors influencing the lifetime of rechargeable batteries as well as instructions for the user facilitating prolongation of their life (only applicable to mobile computers powered with rechargeable batteries).
- Clear disassembly and repair instructions to enable a non-destructive disassembly of products for the purpose of replacing key components or parts for upgrades or repairs.
- Information to let the user know where to go to obtain professional repairs and servicing of the computer, including contact details. Servicing should not be limited exclusively to the applicant's Authorised Service Providers.

v. End-of-life instructions for the proper disposal of computers, including separate instructions for the proper disposal of rechargeable batteries, at civic amenity sites or through retailer take-back schemes as applicable, which shall comply with Directive 2012/19/EU of the European Parliament and of the Council ('the WEEE Directive').

vi. Information that the product has been awarded the EU Ecolabel together with a brief explanation as to what this means together with an indication that more information on the EU Ecolabel can be found at the website address http://www.ecolabel.eu

vii. Instruction and repair manual(s) shall be provided in print version, and also online in electronic form for a period of at least five years.

Required documentation for Assessment and verification: **User instructions**

The applicants shall declare the compliance of the product with these requirements to the competent body and shall provide a link to the online-version or a copy of the user instructions and repair manual to the Competent Body.

Declaration template

Criterion 6(b) Information appearing on the EU Ecolabel

The optional label with text box shall contain three out of the following texts:

- High energy efficiency
- Designed to be more durable *(applicable to notebooks, two-in-one notebooks and tablets only)*
- Restriction of hazardous substances
- Designed to be easy to repair, upgrade and recycle
- Audited factory working conditions.

The following texts may be displayed if the plastic recycled content is greater than 25% as a percentage of the total plastic (by weight):

- *Contains xy% post-consumer recycled plastic*

The guidelines for the use of the optional label with text box can be found in the "Guidelines for use of the Ecolabel logo" on the website:

http://ec.europa.eu/environment/ecolabel/documents/logo_guidelines.pdf

Required documentation for Assessment and verification: Information appearing on the EU Ecolabel

The applicant shall provide a sample of the product label or an artwork of the packaging where the EU Ecolabel is placed, together with a declaration of compliance with this criterion.

Declaration template

Note: The guidelines for the use of the optional label with text box can be found in the "Guidelines for use of the Ecolabel logo" on the website: http://ec.europa.eu/environment/ecolabel/documents/logo_guidelines.pdf

Note that the Competent Body will ask for sample of packaging to check these requirements are being fulfilled.

Part C: Application Form

Please contact your Competent Body to find out how your completed application form should be submitted. See section 1.4 Where do I apply? for further details of where to send your application once completed.

*Applicants should also provide a technical dossier of laboratory test reports and send this **in duplicate** to the Competent Body, and keep an up-to-date file on their premises showing continuing compliance with the criteria. Equivalent test methods, others than the ones indicated by the formal Commission Decision may be used provided the test methods have been approved by the awarding Competent Body.*

Applicant information	
Applicant's full company name and address:	
Contact person:	
Position:	
Phone:	
Fax:	
Email:	
Website:	
VAT number or equivalent if relevant:	
If relevant, existing licence number: XX/YYY	
In what capacity are you applying for the EU Ecolabel (tick as appropriate):	Manufacturer....☐ Importer....☐ Service provider....☐ Wholesaler....☐ Retailer....☐
Product Information	
What product group are you applying for?	
Please give general specification of the product(s), including registered name(s) i.e. Trade name, trademarks, paint type/description	
Name and address of manufacturing site(s) (if different from above)	
In case the product is made outside the European Economic Area market (European Union plus Iceland, Lichtenstein and Norway), please confirm the country where it has been or will be placed on the market.	
Please state other EU countries in which this product is sold in the same form (if sold under different names, please state names to be registered)	
Information on the application	

Is this the first application for the EU Ecolabel for the product(s) specified above	Yes....☐ No....☐
If no, please state when and where the first application was made, and with what outcome	
Is this an application to add a new product (i.e. with a technical formulation not covered by an existing Ecolabel that you hold) to a licence for a product range already covered by an Ecolabel? (if so, please give details of the existing Ecolabel)	Yes....☐ No....☐ Details:
Please indicate if an application for the same product has been successful under other environment label schemes (e.g. the Nordic Ecolabel or Blue Angel)	Yes....☐ No....☐
Does the laboratory where the tests were conducted meet the general requirements expressed in standard EN ISO 17025	Yes....☐ No....☐

Application fees:

An invoice will be sent when the application and the attached declarations are received. Before the application can be processed, the applicant must pay the application fee relevant for the company. Please refer to your Competent Body for fees.

This declaration to be used so that the Competent Body can set the appropriate application and annual licence fees for the EU Ecolabel cf. Regulation (EC) No 66/2010 of The European Parliament and of The Council of 25 November 2009 on the EU Ecolabel Appendix III.

All questions below have to be answered before handling of the application can begin.

Declaration: Type of Company *to be completed by the applicant*	
Is the company a micro sized company as defined in the Commission's Recommendation 2003/361/EC - i.e. under 10 employees and an annual turnover or total annual balance not exceeding 2 million euro?	Yes... ☐ No.... ☐
Is the company a small or medium sized company as defined in the Commission's Recommendation 2003/361/EC – i.e. under 250 employees and an annual turnover not exceeding 50 million Euro or total annual balance not exceeding 43 million euro?	Yes... ☐ No.... ☐
Is the company situated in a developing country (as defined in the OECD's Development Assistance Committee's list of countries receiving development aid)?	Yes... ☐ No.... ☐
Is the company registered under EMAS and/or certified under ISO 14001 and has the company in its environmental policy committed to maintain compliance of its EU Ecolabel products with the EU Ecolabel product group criteria throughout the contract's period of validity?[27]	Yes... ☐ No.... ☐
Date:	
Company Name:	
Company Stamp:	
Responsible person's signature	
Print in capitals the name of above signatory	

[27] If confirmed the company must send a copy of the annual affirmative environmental statement (EMAS) or valid ISO 14001 certificate and copy of the companies environmental policy and objectives (ISO 14001) in connection with the application and information on the annual turnover.

Applicant's undertaking
to be completed by the applicant

As the applicant for an EU Ecolabel, I hereby declare that:

I understand and accept the provisions of Regulation EC No. 66 / 2010 on the EU Ecolabel scheme, and in particular Article 6, paragraph 6, which states that the EU Ecolabel may not be awarded to goods containing substances or preparations/ mixtures meeting the criteria for classification as toxic, hazardous to the environment, carcinogenic, mutagenic or toxic for reproduction (CMR), in accordance with Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures [11], nor to goods containing substances referred to in Article 57 of Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency. (Note that Article 7 enables the Commission to adopt measures to grant derogations from paragraph 6 under certain conditions);

*I undertake to ensure that the product compiles with the EU Ecolabel criteria at all times and to notify [*_____] immediately of any significant modification to it or to the production processes.*

I take responsibility for the correct and proper use of the EU Ecolabel logo.

Signed:

Name in capitals:

Position in company:

Date:

Company stamp:

* Insert name of Competent Body

Part D: Declarations

Summary of declarations:

Click to view

Declaration: Criterion 1 Energy consumption:

a) Total energy consumption of the computer
b) Power management
c) Graphics capabilities
d) Internal power supplies

to be completed by the Applicant

Please provide the following information together with the appropriate test reports and calculations based on Energy Star Criteria version 6.1:

E_{TEC}	$dGfx$[28]	TEC Allowance for dGFX	E_{TEC_MAX}[1]

Note: this calculation shall use the modified dGfx provided within criterion 1.c of the EU Ecolabel criteria. If a discrete graphics card has not been used, this figure shall match the standard ETEC_MAX from the Energy star criteria (version 6.1).

Please also provide the power management settings that appear in the model's user manual, accompanied by screen shots of examples when warning messages are displayed.

I, the undersigned, declare that our product meets the requirements of TECPSU allowances of Energy Star v6.1.

Please provide data in the table below along with relevant test reports.

Output (%)	Minimum efficiency threshold	Result
10	*0.84*	
20	*0.87*	
50	*0.90*	
100	*0.87*	

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	

[28] Discrete Graphics Card

Declaration: Criterion 1 Energy consumption:

a) Total energy consumption of the computer
b) Power management
c) Graphics capabilities
d) Internal power supplies

to be completed by the Applicant

Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 1a / Criterion 1b / Criterion 1c / Criterion 1d

Declaration: Criterion 1 Energy consumption: e) Enhanced-performance displays

to be completed by the applicant for products that have Enhanced Performance Displays

Integrated desktop and notebook computers that have Enhanced Performance Displays, that is an integrated computer display that has all of the following features and functionalities which automatically adjust the picture brightness to the ambient light conditions:

(1) A contrast ratio of at least 60:1 at a horizontal viewing angle of at least 85°, with or without a screen cover glass;
(2) A native resolution greater than or equal to 2.3 megapixels (MP); and
(3) A colour gamut of at least sRGB as defined by IEC 61966-2-1. Shifts in colour space are allowable as long as 99% or more of defined sRGB colours are supported.

I, the undersigned, declare that the automatic brightness control (ABC) function is installed as a default setting and have attached a test report showing compliance with the criterion. The results are shown below.

(Where Pn is the Power consumed for On Mode with ABC enabled at n lux with a direct light source.)

	$\left(\frac{P_{50}-P_{10}}{P_{10}}\right)$	$\left(\frac{P_{100}-P_{50}}{P_{50}}\right)$	P_{300}	P_{100}
Result:				

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declaration List
Back to Criterion 1e

Please use the guide below for filling in the appropriate declarations and providing the appropriate evidence.

Table 11: Details of the requirements for declarations and compliance with criterion 2.

Component	Criterion								
	2.a. SVHCs	2.b.i. Metal solder and contacts	2.b.ii. Polymer stabilisers, colourants and contaminants	2.b.iii. Biocides	2.b.iv. Glass fining agents	2.c. CLP hazard classifications	2.c.i. Flame retardants	2.c.i. plasticiser	2.c.ii. Derogations for the use of additives, coatings, materials, solvents and salts
Populated motherboard (including CPU, RAM, graphics units)	1	2				7	8		
Data storage devices (HDD and SSD)	1	2				7	8		
Optical Drive (CD and DVD)	1	2							
Display unit (including backlighting)	1	2			6				
Chassis and fixings	1					7		8	9
Casings and bezels	1		4			7	8	8	9
External keyboard, mouse and/or trackpad & peripherals	1	2	4	5	6				
Internal and external Power Supply Units	1	2				7			
External AC and DC power cords	1		3			7	8	8	
Battery packs						7			8

Requirements:

1: Provide a declaration of the non-presence of SVHCs at or above the specified concentration limit for the sub-assemblies.

2: Declaration to be provided by the manufacturer or final assembler supported by a valid test result detailing the appropriate used of metals in solder

3: Declaration non-use of tin products in external power supply and cords

4: Declaration non-use of prohibited colourants in these subassemblies. And test report on rubber products that shows restriction on used of PAH.

5 Declaration to be provided by the sub-assembly supplier.

6: Declaration to be provided by the screen glass supplier(s) supported by an analytical testing report.

7: The declaration shall be supported by the list of flame retardants, plasticisers, steel additives and coatings, cathode materials, solvents and salts used in the sub-assemblies and component parts listed in Table 5 together with declarations about their hazard classification or non-classification.

8: Declaration to be provided by the sub-assembly supplier supported by documentation to verify hazard classifications. Or a third party test report.

9: Identification of relevant parts by weight and location in the product. Where external casing parts come into direct and prolonged skin contact a test report shall be provided.

Declaration: Criterion 2(a). Restriction of Substances of Very High Concern (SVHCs) (Requirement 1)

to be completed by the Applicant

I, the undersigned, declare that our product does not contain SVHCs[29] at or above the specified concentration limit of 0.01% w/w per component:

- *Populated motherboard (including CPU, RAM, graphics units)*
- *Data storage devices (HDD and SSD)*
- *Optical Drive (CD and DVD)*
- *Display unit (including backlighting)*
- *Chassis and fixings*
- *Casings and bezels*
- *External keyboard, mouse and/or trackpad*
- *Internal and external Power Supply Units*
- *External AC and DC power cords*
- *Rechargeable batteries packs*

(Where appropriate, please provide the screened list given to sub-assembly suppliers where declarations are made based on a pre-screening of the Candidate List using IEC 62474[30]).

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 2a

[29] ECHA, Candidate List of substances of very high concern for Authorisation, http://echa.europa.eu/candidate-list-table

[30] International Electrotechnical Commission (IEC), IEC 62474: Material declaration for products of and for the electrotechnical industry, http://std.iec.ch/iec62474

Declaration: Criterion 2(a). Restriction of Substances of Very High Concern (SVHCs) (requirement 1)

to be completed by each Component supplier (specified in Table 11)

*As the supplier of*_____ ***(please insert name of component – if more than one attach list)*** *to* _____***(please insert name of applicant**). I the undersigned, declare that our product does not contain SVHCs[31] at or above the specified concentration limit of 0.10% w/w.*

- *Populated motherboard (including CPU, RAM, graphics units)*
- *Data storage devices (HDD and SSD)*
- *Optical Drive (CD and DVD)*
- *Display unit (including backlighting)*
- *Chassis and fixings*
- *Casings and bezels*
- *External keyboard, mouse and/or trackpad*
- *Internal and external Power Supply Units*
- *External AC and DC power cords*
- *Rechargeable batteries packs*

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 2a

[31] ECHA, Candidate List of substances of very high concern for Authorisation, http://www.echa.europa.eu/candidate-list-table

Declaration: Criterion 2(b)(i) Metal solder and contacts (Requirement 2)

to be completed by the Applicant / Supplier

I, the undersigned, ***[(please delete if you are the applicant)*** *supplier to* _____***(please insert name of applicant)]***, *declare that our product does not contain lead solder.*

(please delete the following sentence if the computer is not a small scale server)

I, the undersigned, ***[(please delete if you are the applicant)*** *supplier to* _____***(please insert name of applicant)]***, *declare that our product does not contain lead solder.*

I attach a test result using method: IEC 62321-5.

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 2b

Declaration: Criterion 2(b)(i) Metal solder and contacts (Requirement 2)

to be completed by each Component supplier (specified in Table 11)

As the supplier of _____ ***(please insert name of component - if more than one attach a list)*** *to* _____***(please insert name of applicant)****, I the undersigned, declare that electrical contacts do not contain cadmium.*

As the supplier of _____ ***(please insert name of the component - if more than one, please attach a list)****, I the undersigned, declare that the electrical contacts do not contain cadmium.*

I attach a test result using method: IEC 62321-5.

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 2b

Declaration: Criterion 2(b)(ii) Polymer stabilisers, colourants and contaminants (Requirement 3)

to be completed by supplier of external AC and DC power cords and power packs

*As the supplier of external AC and DC power cords and power packs to _____ **(please insert name of applicant)** I, the undersigned, declare that our product(s) does not contain the following organotin stabiliser compounds:*

- *Dibutyltin oxide*
- *Dibutyltin diacetate*
- *Dibutyltin dilaurate*
- *Dibutyltin maleate*
- *Dioctyl tin oxide*
- *Dioctyl dilaurate*

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 2b

Declaration: Criterion 2(b)(ii) Polymer stabilisers, colourants and contaminants (Requirement 4)

to be completed by the Supplier of casings and bezels

As the supplier of plastic casings and bezels to _____ ***(please insert the name of the applicant)*** *I, the undersigned, declare that our products do not contain the following colourants:*

- *Azo dyes that may cleave to the carcinogenic aryl amines listed in Appendix 8 of the REACH Regulation, and/or*
- *Colourant compounds included in the IEC 62474 declarable substances list*[32].

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 2b

[32] http://std.iec.ch/iec62474

Declaration: Criterion 2(b)(ii) Polymer stabilisers, colourants and contaminants (Requirement 4)

to be completed by the Applicant for all the components specified in Table 11

I, the undersigned, declare that the external plastic and rubber in all of our components do not contain Polycyclic Aromatic Hydrocarbons (PAHs) classified with hazards that identify a substance as being within Group 1:

- *Substances that appear on the Candidate List for Substances of Very High Concern (SVHC)*[33]
- *Substances classified as Carcinogenic, Mutagenic and/or Toxic for Reproduction (CMR) Category 1A or 1B CMR: H340, H350, H350i, H360F, H360D, H360FD, H360Fd, H360Df*

Or Hazards that identify a substance as being within Group 2:

- *Category 2 CMR: H341, H351, H361f, H361d, H361fd , H362*
- *Category 1 aquatic toxins: H400, H410*
- *Category 1 and 2 acute toxins: H300, H310, H330, H304*
- *Category 1 STOT: H370, H372 Group 1 and 2 in quantities greater than that specified in the criterion.*

I attach a test report for the relevant parts of the identified components in the product using test method: ZEK 01.4-08.

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 2b

[33] ECHA, Candidate List of substances of very high concern for Authorisation, http://www.echa.europa.eu/candidate-list-table

Declaration: Criterion 2(b)(iii) Biocides (Requirement 5) *to be completed by the Supplier of keyboards and peripherals*	
As the supplier of keyboards and peripherals to _____***(please insert name of applicant)*** *I, the undersigned, declare that biocides intended to provide an anti-bacterial function are not incorporated into the plastic or rubber parts.*	
Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declaration List
Back to Criterion 2b

Declaration: Criterion 2(b)(iv) Mercury in backlights (Requirement 6)

to be completed by the Supplier of keyboards and peripherals

As the supplier of backlights and/or display units to _____***(please insert name of applicant)*** *I, the undersigned, declare that the subassemblies supplied do not contain mercury.*

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declaration List
Back to Criterion 2b

Declaration: Criterion 2(b)(v) Glass fining agents (Requirement 7)

to be completed by the Supplier of the LCD display unit glass, screen cover glass and glass used in track pad surfaces

As the supplier of LCD display unit glass, screen cover glass and glass used in the track pad(s) to _____***(please insert name of applicant)*** *I, the undersigned, declare that arsenic and its compounds were not used in their manufacture.*

(Please provide a test report to support this claim).

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declaration List
Back to Criterion 2b

Declaration: Criterion 2(c) Restrictions based on CLP hazard classifications (Requirement 7)

to be completed by the Applicant for the components specified in Table 11

(i) ***Please complete the table below detailing the materials and substances (flame retardants, plasticisers, steel additives and coatings, cathode materials, solvents and salts), their location and their associated classification. Use additional sheets as necessary.***

Material/Substance	***Location (name of part)***	***Hazard Classification***

(ii) I, the undersigned, declare that the materials/substances shown in the above table and that have the following hazard classifications or that appear on the Candidate List for Substances of Very High Concern (SVHC), were not present in the relevant component parts at or above a concentration limit of 0.10% (weight by weight):

List of Hazard classifications						
H300	H301	H304	H310	H311	H330	H331
H340	H341	H350	H350i	H351	H360D	H360Df
H360F	H360FD	H360Fd	H361f	H361d	H361fd	H362
H370	H371	H372	H373	H400	H410	H411
H412	H413	EUH070				

Declaration: Criterion 2(c) Restrictions based on CLP hazard classifications (Requirement 7)

to be completed by the Applicant for the components specified in Table 11

(iii) I attach information to support the declarations of the hazard classification or non-classification for each substance and material as follows:

- *The substance's CAS, EC or list number;*
- *The physical form and state in which the substance is used;*
- *Harmonised CLP hazard classifications;*
- *Self-classification entries in ECHA's REACH registered substance database supported by:*
  - *Toxicological studies and hazard assessments by ECHA peer regulatory agencies , Member State regulatory bodies or Intergovernmental bodies;*
  - *A Safety Data Sheet fully completed in accordance with Annex II of the REACH Regulation;*
  - *A documented expert judgement provided by a professional toxicologist. This shall be based on a review of scientific literature and existing testing data, where necessary supported by results from new testing carried out by independent laboratories using methods recognised by ECHA;*
  - *An attestation, where appropriate based on expert judgement, issued by an accredited conformity assessment body that carries out hazard assessments according to the GHS or CLP hazard classification systems.*

NB. Please note that where a classification is recorded as 'data lacking' or 'inconclusive' according to the REACH registered substance database, or where the substance has not yet been registered under the REACH system, you must provide the toxicological data meeting the requirements in Annex VII to the REACH Regulation sufficient to support conclusive self-classifications in accordance with Annex I of the CLP Regulation and ECHA's supporting guidance. Also note that information on the hazardous properties of substances may, in accordance with Annex XI to the REACH Regulation, be generated by means other than tests, for instance through the use of alternative methods such as in vitro methods, by quantitative structure activity models or by the use of grouping or read-across.

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 2c

Declaration: Criterion 2(c) Restrictions based on CLP hazard classifications

(i) Derogations for the use of hazardous flame retardants and plasticisers (Flame Retardants)
i. Motherboards (inclusive of RAM and graphics printed wiring boards) (Requirement 8)

to be completed by the Motherboard supplier

As the supplier of the motherboard to _____ ***(please insert name of applicant)*** *I, the undersigned, declare that either:*

(a) The flame retardant used is classified with one or more of the following hazard statements

a. Category 2, 3 and 4 aquatic toxins: H411, H412, H413

b. Category 3 acute toxins: H301, H311, H331, EUH070z

c. Category 2 STOT: H371, H373

or

(b) The flame retardant used is reacted into the polymer resin and fire test results for the base board simulating improper WEEE disposal demonstrate total dioxin and furan emissions of less than 0.1 ng TEQ/m³.

I attach documentation to verify hazard classifications e.g. safety data sheets or a third party test report for the combination of base board material and flame retardant Test method: ISO 19700 with ISO 5660 in oxidative pyrolysis conditions (IEC 60695-7-50 fire type 1b with a heat flux of 50 kW/m²). Quantification shall be according to EN 1948.

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 2c

Declaration: Criterion 2(c) Restrictions based on CLP hazard classifications

(i) Derogations for the use of hazardous flame retardants and plasticisers (Flame Retardants)
ii. External AC and DC power cords (Requirement 8)

to be completed by the External AC and DC power cords supplier

As the supplier of the external AC and DC power cords to _____ ***(please insert name of applicant)*** *I, the undersigned, declare that, either:*

(a) The flame retardant and its synergist are classified as:
- *a. Category 2, 3 and 4 aquatic toxins: H411, H412, H413*
- *b. Category 3 acute toxins: H301, H311, H331, EUH070*
- *c. Category 2 STOT: H371, H373*

or

(b) Fire test results for the power cord incorporating the flame retardant simulating improper WEEE disposal demonstrate total dioxin and furan emissions of less than 0.1 ng TEQ/m³.

Note: Power cords insulated with inherently flame retardant materials shall be subject to the same fire testing requirement.

I attach documentation to verify hazard classifications e.g. safety data sheets or a third party test report for the power cord. Test method: ISO 19700 with ISO 5660 in under-ventilated conditions (IEC 60695-7-50 fire type 3a). Quantification shall be according to EN 1948.

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 2c

Declaration: Criterion 2(c) Restrictions based on CLP hazard classifications

(i) Derogations for the use of hazardous flame retardants and plasticisers (Flame Retardants)
iii. External plastic casings and bezels (Requirement 8)

to be completed by the External plastic casings and bezels supplier

As the supplier of the external plastic casings and bezels to _____ ***(please insert name of applicant)*** *I, the undersigned, declare that the following flame retardants and their synergists are used:*

Name	***Hazard Classification***

I attach supporting documentation e.g. Safety Data Sheets.

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 2c

Declaration: Criterion 2(c) Restrictions based on CLP hazard classifications

(i) Derogations for the use of hazardous flame retardants
iv. Miscellaneous sub-assemblies and parts (Requirement 8)

to be completed by Suppliers of CPU solder resist (build-up and core) used in the internal and external power supply units, data storage drives, Internal connectors and sockets and power supply units

As the supplier of _____ ***(please insert the name of the sub-assembly/part – if more than one attach a list)*** *to* _____ ***(please insert name of applicant)*** *I, the undersigned, declare that only the following flame retardants are used:*

Name	***Hazard Classification***

I attach supporting documentation e.g. Safety Data Sheets.

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 2c

Declaration: Criterion 2(c) Restrictions based on CLP hazard classifications

(i) Derogations for the use of plasticisers
i. External power cords and power packs, external casings and internal cables (Requirement 8)

to be completed by the Suppliers of CPU solder resist (build-up and core) used in the internal and external power supply units, data storage drives, Internal connectors and sockets and power supply units

As the supplier of _____ ***(please insert the name of the component – if more than one, attach a list)*** *to* _____ ***(please insert name of applicant)*** *I, the undersigned, declare that only the following flame retardants are used:*

Name	***Hazard Classification***

I attach supporting documentation e.g. Safety Data Sheets.

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 2c

Declaration: Criterion 2(c) Restrictions based on CLP hazard classifications

(ii) Derogations for the use of additives, coatings, materials, solvents and salts

i. External power cords and power packs, external casings and internal cables (Requirement 9)

to be completed by the Applicant

I, the undersigned, confirm that the following table shows a complete list of those components containing stainless steel alloys and scratch resistant coatings containing nickel metal classified with H351, H373 and H412.

Where they come into contact with skin, I attach test results showing that the leaching of the metallic metal does not exceed >0.5 ug/cm^2/week.

I also attach supporting documentation e.g. Safety Data Sheets.

Part and classification	***Location***	***In contact with the skin – Y(yes) or N(no)***	***Test result if Y in previous column***
Responsible person's signature:			
Position held			
Company Name in CAPITALS:			
Date:			
Company Stamp:			

Back to Declarations List
Back to Criterion 2c

Declaration: Criterion 2(c) Restrictions based on CLP hazard classifications

(ii) Derogations for the use of additives, coatings, materials, solvents and salts

ii. Lithium ion and polymer batteries (Requirement 8)

to be completed by Suppliers of CPU solder resist (batteries)

As the supplier of batteries to _____***(please insert name of applicant)*** *I, the undersigned, declare that all the battery cell cathode materials and electrolyte solvents and salts used have the following classifications:*

Name	***Hazard Classification***

I attach supporting documentation e.g. Safety Data Sheets.

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 2c

Declaration: Criterion 3. Product lifetime extension
3(a) Durability testing of portable computers
to be completed by the Applicant

*Product type (**please tick one):***

Laptop ☐

Tablet or two in one computer ☐

***For laptops - please input the following test results and attach supporting test reports**:*

Test	***Method***	***Result***
Resistance to shock	*IEC 60068 Part 2-27: Ea Part 2-47*	
Resistance to vibration	*IEC 60068 Part 2-6: Fc Part 2-47*	
Accidental drop	*IEC 60068 Part 2-31: Ec (Freefall, procedure 1)*	

Please provide details of the at least the results of one additional test from those described below:

Test	***Method***	***Result***
Temperature stress	*IEC 60068 Part 2-1: Ab/e Part 2-2: B*	
Screen resilience	*Provide details of your test*	
Water spill ingress	*Acceptance conditions: IEC 60529 (water ingress)*	
Keyboard lifespan	*Provide details of your test*	
Screen hinge lifespan	*Provide details of your test*	

For tablets and two in one computers- please attach the following test results and attach supporting test reports:

Test	***Method***	***Result***
Accidental drop	*IEC 60068 Part 2-31: Ec (Freefall, procedure 1)*	
Screen resilience	*The test equipment and setup used shall be confirmed by the applicant.*	

Back to Declarations List / Back to Criterion 3a

Declaration: Criterion 3. Product lifetime extension

3(b) Rechargeable battery quality and lifetime

to be completed by the Applicant (for laptops, tablets and two-in-one computers only)

***Please provide test reports showing**:*

- *The rechargeable battery pack capacity (7 hours using Futuremark PCMark 8 'Home' scenario or for business or enterprise products the BAPCo Mobilemark 2012 'Office productivity' scenario. For models which qualify for Energy Star TECgraphics allowances, the 'Media creation & consumption' scenario)*
- *The battery life (80% capacity after 750 charging cycles for removable batteries without tools and 80% capacity after 1000 charging cycles where the removable battery requires tools).*

Please also provide a demonstration version of the energy management software and the text content of user instructions and website postings.

(Partial charging and the accelerated test method specified by IEC EN 61960 may be used to demonstrate compliance.)

Back to Declarations List
Back to Criterion 3b

Declaration: Criterion 3. Product lifetime extension
3(c) Data storage drive reliability and protection
to be completed by the applicant

For stationary computers e.g. Desktops

Computer type ***(please tick)****:*

desktops, workstations and thin clients	☐
Small-scale servers	☐

Please provide a specification for the drive or drives integrated into the product detailing the Annualised Failure Rate of the drive*.*

For portable computers

I attach copies of the following tests:

Shock of 400 G (operating) and 900 G (non-operating) for 2 ms	☐
Drive head retraction	☐
A solid state storage	☐

Please provide a test report detailing the shock resistance and head retraction details of the drive as appropriate.

Back to Declarations List
Back to Criterion 3c

Declaration: Criterion 3. Product lifetime extension
3(d) Upgradeability and reparability
to be completed by the Applicant

I, the undersigned, declare that:

(i) The following components are easily accessible and exchangeable by the use of universal tools (i.e. widely used commercially available tools such as a screwdriver, spatula, plier, or tweezers):
- *Data storage (HDD, SSD or eMMC),*
- *Memory (RAM),*
- *Screen assembly and LCD backlight units (where integrated),*
- *Keyboard and track pad (where used)*

(ii) The rechargeable battery pack is easy to extract by one person (either a non-professional user or a professional repair service provider) according to the steps defined below. Rechargeable batteries are not be glued or soldered into a product and there shall be no metal tapes, adhesive strips or cables that prevent access in order to extract the battery. In addition, the following requirements and definitions of the ease of extraction apply:
- *For notebooks and portable all-in-one computers it is possible to extract the rechargeable battery manually without tools;*
- *For sub-notebooks it is possible to extract the rechargeable battery in a maximum of three steps using a screwdriver;*
- *For tablets and two-in-one notebooks it is possible to extract the rechargeable battery in a maximum of four steps using a screwdriver and spudger.*

Simple instructions on how the rechargeable battery packs are to be removed are marked on the base cover of the product or provided in the user instructions.

(iii) Clear disassembly and repair instructions are provided to the user (e.g. hard or electronic copy, video) to enable a non-destructive disassembly of products for the purpose of replacing key components or parts for upgrades or repairs. It is also publicly available.

(iv) A diagram is provided on the inside of the casing of stationary computers showing the location of the components listed in (i) can be accessed and exchanged. For portable computers a diagram showing the location of the battery, data storage drives and memory are made available in pre-installed user instructions and via the manufacturer's website for a period of at least five years.

(v) Information is included in the user instructions/on the manufacturer's website to let the user know where to go to obtain professional repairs and servicing of the computer, including contact details. During the guarantee period referred to in (vii) below this is limited to Authorised Service Providers.

(vi) Original or backwardly compatible spare parts, including rechargeable batteries (if applicable), are publicly available for at least five years following the end of production for the model.

(vii) A minimum of a three year guarantee effective from purchase of the product is provided at no additional cost. This guarantee includes a service agreement with a pick-up and return option for the consumer. This guarantee provides without prejudice to the legal obligations of the manufacturer and seller under national law.

Declaration: Criterion 3. Product lifetime extension
3(d) Upgradeability and reparability
to be completed by the Applicant

Please attach a copy of the user instructions, a copy of the repair manual and supporting diagrams, a description supported by photographs showing compliance for battery extraction, a copy of the guarantee and service agreement, and a picture of the battery, drive and memory replacement instructions.

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 3d

Criterion 4. Design, material selection and end-of-life management

4(a) Material selection and recyclability

4(b) Design for dismantling and recycling

to be completed by the Applicant

Please provide the following:

1. *a valid mechanical/physical test reports according to ISO 180 and disassembly instructions. Valid test reports obtained from plastics recyclers, resin manufacturers or independent pilot tests shall be accepted.*
2. *an exploded diagram of the computer or a parts listing in written or audio-visual format. This must identify the plastic parts by their weight, their polymer composition, and their ISO 11469 and ISO 1043 markings. Please also provide pictures. Where exemptions apply, please provide technical justifications for these.*
3. *third party verification and details of traceability back to plastic component suppliers for any post-consumer recycled content claims you make.*

Please provide a 'disassembly test report' detailing the disassembly sequence. In particular, include a detailed description for the removal of the following subassemblies:

All computers

- *Printed Wiring Boards relating to computing functions >10 cm²*
- *Stationary computer products*
- *Internal Power Supply Unit*
- *HDD drives*

Portable computer products:

- *Rechargeable battery*

Displays (where integrated into the product enclosure):

- *Printed Circuit Boards >10 cm2*
- *Thin Film Transistor unit and film conductors in display units >100 cm2*
- *LED backlight units.*

***And for** 2 of the following components (please tick as appropriate):*

HDD drive (portable products) ☒

Optical drives (where included) ☒

Printed circuit boards ≤ 10 cm2 and > 5 cm2 ☒

Speaker units (notebooks, integrated desktops and portable all-in-one computers) ☒

Polymethyl Methacrylate (PMMA) film light guide (where the screen size is >100 cm2) ☒

Back to Declarations List
Back to Criterion 4a

Back to Criterion 4b

Declaration: 5. Corporate social responsibility
5(a) Sourcing of 'conflict-free' minerals
to be completed by the Applicant

I, the undersigned, declare that we support the responsible sourcing of tin, tantalum, tungsten and their ores and gold from conflict-affected and high-risk areas. In particular, we:

- *conduct due diligence in line with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas , and*
- *promote responsible mineral production and trade for the identified minerals used in components of the product in accordance with OECD guidance within conflict-affected and high-risk areas.*

The table below provide details of the component(s), which contain the identified minerals, and their supplier(s), as well as the supply chain system or project used for responsible sourcing.)

Component	***Material***	***Supplier***	***Scheme***

I also attach a report describing our due diligence activities along the supply chain for tin, tantalum, tungsten and their ores and gold and supporting documentation e.g. certifications of conformity issued by the European Union's scheme.

Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 5a

Criterion 5. Corporate Social Responsibility
5(b) Labour conditions and human rights during manufacturing
to be completed by the Applicant

Please provide copies of certificates of compliance and supporting audit reports for each final product assembly plant for the model(s) which are the subject of this application.

NB. Valid certifications from schemes or processes that audit compliance with the applicable principles of the listed fundamental ILO Conventions, together with the supplementary provisions on working hours, remuneration and health & safety, are acceptable.

Component/Model Number	***Facility/Assembly plant - names and addresses***	***Certificate Numbers and Name of Auditor***

Back to Declarations List
Back to Criterion 5b

Declaration: Criterion 6. User information
6(a) User instructions
to be completed by the Applicant

I, the undersigned, declare that our user instructions contain, as a minimum:

i. *Energy consumption: TEC value in accordance with Energy Star v6.1, as well as the maximum power demand in each operating mode. In addition, instructions on how to use the device's energy-saving mode and information that energy efficiency cuts energy consumption and thus saves money by reducing electricity bills is provided.*

ii. *The following indication on how to reduce power consumption when the computer is not being used:*
- *Putting the computer into off mode will reduce energy consumption but will still draw some power;*
- *Reducing the brightness of the screen will reduce energy use;*
- *Screen savers can stop computer displays from powering down into a lower power mode when not in use. Ensuring that screen savers are not activated on computer displays can therefore reduce energy use;*
- *Charging tablet computers via a USB-interface from another desktop or notebook computer may increase the energy consumption in case of leaving the desktop or notebook computer in an energy-consuming idle-mode for the sole reason of charging the tablet computer.*

iii. *For notebooks, tablets and two-in-one computers information that extension of the computer's lifetime reduces the product's overall environmental impacts.*

iv. *The following indications on how to prolong the lifetime of the computer:*
- *Information to let the user know the factors influencing the lifetime of rechargeable batteries as well as instructions for the user facilitating prolongation of their life (only applicable to mobile computers powered with rechargeable batteries).*
- *Clear disassembly and repair instructions to enable a non-destructive disassembly of products for the purpose of replacing key components or parts for upgrades or repairs.*
- *Information to let the user know where to go to obtain professional repairs and servicing of the computer, including contact details. Servicing should not be limited exclusively to the applicant's Authorised Service Providers.*

v. *End-of-life instructions for the proper disposal of computers, including separate instructions for the proper disposal of rechargeable batteries, at civic amenity sites or through retailer take-back schemes as applicable, which shall comply with Directive 2012/19/EU of the European Parliament and of the Council ('the WEEE Directive').*

vi. *Information that the product has been awarded the EU Ecolabel together with a brief explanation as to what this means together with an indication that more information on the EU Ecolabel can be found at the website address http://www.ecolabel.eu*

vii. *Instruction and repair manual(s) are provided in print version, and also online in electronic form for a period of at least five years.*

Declaration: Criterion 6. User information
6(a) User instructions
to be completed by the Applicant

Please provide a link or attach the user instructions and repair manual.	
Responsible person's signature:	
Position held	
Company Name in CAPITALS:	
Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 6a

Declaration: Criterion 6. User information
6(b) Information appearing on the EU Ecolabel
to be completed by the Applicant

I, the undersigned, declare that the packaging for these products:

_____*(**please insert model names)** includes the optional label with, where relevant, the following texts:*

- *High energy efficiency*
- *Designed to be more durable (applicable to portable devices only)*
- *Restriction of hazardous substances*
- *Designed to be easy to repair, upgrade and recycle*
- *Audited factory working conditions*

The following text is displayed if the plastic recycled content is greater than 25% as a percentage of the total plastic (by weight):

- *Contains xy% post-consumer recycled plastic*

Please provide the artwork and samples of the packaging.

Responsible person's signature:	
Position held	
Date:	
Company Stamp:	

Back to Declarations List
Back to Criterion 6b

Part E: Checklist

Applicant's Checklist

This checklist summarises the documentation to be provided for each criterion. This checklist must be completed by the applicant.

	Mark when done	
Documents to be submitted to the Competent Body:	Included	Does not apply
Part C: Application form		
Criterion 1: Energy consumption		
Documents to be submitted to the Competent Body:	Included	Does not apply
Criterion 1(a) Total energy consumption - completed table Supporting test reports and calculations (Energy Star Version 6.1)		
Criterion 1(b) Power management - completed table Screen shots of warning messages and user manual		
Criterion 1(c) Graphics capabilities - completed table Supporting test reports and calculations (Energy Star Version 6.1)		
Criterion 1(d) Internal Power Supplies - completed table Supporting test reports and calculations (Energy Star Version 6.1)		
Criterion 1(e) Enhanced-performance displays - declaration Supporting test reports and calculations		
Criterion 2: Hazardous substances in the product, sub-assemblies and component parts		
Documents to be submitted to the Competent Body:	Included	Does not apply
Criterion 2(a) Restrictions on the presence of specific hazardous substances - declaration		

Criterion 2(b)i Metal solder and contacts - declaration A valid test result (Test method: IEC 62321-5)		
Criterion 2(b)ii Polymer stabilisers, colourants and contaminants (organotin stabiliser compounds) - declaration		
Criterion 2(b)ii Polymer stabilisers, colourants and contaminants (Polycyclic Aromatic Hydrocarbons) - declaration Test report for the relevant parts of the identified components in the product using test method: ZEK 01.4-08s		
Criterion 2(b)iii Biocides – declaration		
Criterion 2(b)(iv) Mercury in backlights		
Criterion 2(b)(v) Glass fining agents - declaration Supporting test report		
Criterion 2(c) Restrictions based on CLP hazard classifications - declaration and completed table Supporting data including safety data sheets (SDS)		
Criterion 2(c)i Derogations for the use of hazardous flame retardants and plasticisers (flame retardant), as follows:		
Criterion 2(c)i.i Main Printed Circuit Board - declaration Supporting test reports (ISO 19700 with ISO 5660 in oxidative pyrolysis conditions (IEC 60695-7-50 fire type 1b with a heat flux of 50 kW/m^2). Quantification shall be according to EN 1948) and other documentation (e.g. safety data sheets)		
Criterion 2(c)i.ii External AC and DC power cords - declaration Supporting documents e.g. safety data sheets or test report using ISO 19700 with ISO 5660 in oxidative pyrolysis conditions (IEC 60695-7-50 fire type 1b with a heat flux of 50 kW/m^2). Quantification shall be according to EN 1948.		
Criterion 2(c)i.iii External plastic casings and bezels - declaration		

Supporting documents e.g. safety data sheets		
Criterion 2(c)i.iv Miscellaneous sub-assemblies and parts - declaration Supporting documents e.g. safety data sheets		
Criterion 2(c)i.i External power cords and power packs, external casings and internal cables - declaration Supporting documents e.g. safety data sheets		
Criterion 2(c)ii.i External power cords and power packs, external casings and internal cables - declaration Supporting documents e.g. safety data sheets and test results		
Criterion 2(c)ii.ii Lithium ion and polymer batteries - declaration Supporting documents e.g. safety data sheets		
Criterion 3 Product lifetime extension		
Documents to be submitted to the Competent Body:	Included	Does not apply
Criterion 3(a) Durability testing of portable computers - completed table Supporting test reports and calculations		
Criterion 3(b) Rechargeable battery quality and lifetime - test reports and demonstration version of the energy management software and the text content of user instructions and website postings (only for portable computers e.g. two in ones, tablets and laptops)		
Criterion 3(c) Data storage drive reliability and protection - completed table For stationary computers e.g. desktops: drive(s) specification including the Annualised Failure Rate of the drive For portable computers e.g. laptops: test report detailing the shock resistance and head retraction details of the drive(s)		

Criterion 3(d) Upgradeability and reparability - declaration Copies of the user instructions, repair manual and supporting diagrams, a description supported by photographs showing compliance for battery extraction, a copy of the guarantee and service agreement, a picture of the battery, drive and memory replacement instructions		
Criterion 4: Design, material selection and end-of-life management		
Documents to be submitted to the Competent Body:	Included	Does not apply
Criterion 4(a) Material selection and recyclability - completed table Disassembly instructions (including diagrams), plastic part identification and traceability information for plastic components		
Criterion 4(b) Design for disassembly and recycling - completed table Disassembly reports		
Criterion 5: Corporate Social Responsibility		
Documents to be submitted to the Competent Body:	Included	Does not apply
Criterion 5(a) Sourcing of 'conflict-free' minerals - Declaration Supply chain due diligence documentation		
Criterion 5(b) Labour conditions and human rights during manufacturing - completed table Certificates that demonstrate compliance with the fundamental ILO Conventions and working hours, remuneration and health & safety.		
Criterion 6: User information		
Documents to be submitted to the Competent Body:	Included	Does not apply
Criterion 6(a) User instructions - declaration User instructions and repair manuals		

Criterion 6(b) Information appearing on the EU Ecolabel - declaration Artwork sample		