

ECOS COMMENTS

IMAGING EQUIPMENT AND ITS CONSUMABLES. PREPARATORY STUDY FOR ECODESIGN. TASKS 1 – 7 (DRAFT)

Contents

Imaging equipment and its consumables. Preparatory study for ecodesign. tasks 1 – 7 (draft) 1

General comments and scope	2
Energy label	2
Online platforms and fulfilment service providers	2
7.1 Ecodesign measures for devices	3
7.1.1 Reparability of devices	3
7.1.2 Durability of devices	3
7.1.3 Recyclability of devices	4
7.1.4 Reducing energy consumption of devices	5
7.1.5 Paper use optimization in devices	7
7.1.6 Post-consumer recycled plastic in devices	7
7.2 Ecodesign measures for cartridges	8
7.2.1 Capacity utilisation of cartridges	8
7.2.2 Material efficiency of cartridges	8
7.2.3 Remanufacturability of cartridges	9
Additional Requirements On Cartridges Needed	11
Consumers health	12
Transitional Methods and Standards	12
Standardization/ Common components	12
Common charging connection	12

Environmental NGOs, including ECOS and DUH, as well as the Coolproducts campaign, welcome the publication of the draft Ecodesign Task 1 to 7 report on imaging equipment. We support much of the report but have significant reservations about the draft Task 7 – Policy Options. We maintain that there is a need for an ambitious Ecodesign AND an Energy Labelling regulation to address the energy and material efficiency of imaging equipment and their associated consumables. Some of the Task 7 - Policy options need refinement to allow effective reduction of environmental impacts associated with imaging equipment and their consumables. The following sections explain where we observe there is potential for improvement in the Commission's Task reports and possible solutions.

GENERAL COMMENTS AND SCOPE

ENERGY LABEL

We regret the proposed rejection of an Energy Label for imaging equipment as this will result in significant lost savings. Not developing an Energy Label for imaging equipment will also result in consumers and institutional purchasers having less information about the environmental performances of imaging equipment they wish to procure.

More detailed will be provided in our comments to section 7.1.4 on how an Energy Label would be relevant for energy efficiency, but we would like to also point out to the Energy Label recently develop for phones and tablets that include many important information on resource efficiency. Such an approach should be adopted for imaging equipment too as consumers should have access to information on the most repairable and durable products. A repair index for imaging equipment should have also been considered.

ONLINE PLATFORMS AND FULFILMENT SERVICE PROVIDERS

A major concern regarding the effectiveness and compliance with the eco-design measures of imaging equipment and its consumables in the European market lies in the critical role of online platforms and fulfilment service providers, who must actively ensure adherence to environmental and consumer protection regulations. However, both the Digital Services Act (DSA) and the Ecodesign for Sustainable Products Regulation (ESPR), are currently deficient to tackle this issue. The DSA lacks clear liability allocation for online platforms without an economic operator in the EU, leaving a legal loophole despite the active role these platforms often play. The ESPR allows third-country businesses to place non-compliant products on the market, as the introduced measure to designate a responsible person in the EU comes with limited obligations and fails to establish a liable economic operator for non-compliant online sales on the EU market¹.

We therefore suggest that online platforms must check whether there is a liable actor in the EU who guarantees compliance with the eco-design measures on imaging equipment. Furthermore, online platforms must check whether the obligations of manufacturers and distributors are being met (e.g. energy label

¹ EEB (2023), Green Deal ambition for sustainable products threatened by gaping online sales loophole – available [here](#)

availability, comprehensive information for consumers, provision of spare parts, etc.) before a product is put online for sale. Fulfilment service providers must be subject to similar obligations. If no such checking obligations are set, massive amounts of illegal products will keep on being imported into the EU market.

7.1 ECODESIGN MEASURES FOR DEVICES

7.1.1 REPARABILITY OF DEVICES

We support the draft measures on the reparability of devices, but also want to see that part pairing is not allowed. Part pairing could create major barriers to independent and self-repair. This allows manufacturers to control revenues from spare parts and maintenance. Manufacturers often argue that this practice is justified by safety and security reasons, but no strong evidence supports this argument. Part pairing is an unacceptable practice that harms the independent repair ecosystem, hinders consumer choice, extends repair times, and can lead to product obsolescence and unnecessary waste². Such software techniques that prevent the replacement of spare parts or the usage of third-party spare parts or consumables must also be banned.

In addition, it is stated that “A minimum requirement on spare part pre-tax price (as a fraction of the product purchasing price) shall be considered”. We think that this should be a mandatory requirement as included in the Commission Regulation (EU) 2023/1670 (Annex II.B.1.1.(4)).

Finally, a repair index, as developed within the forthcoming Energy Label for mobile phones and tablets, should be considered more systematically when new material efficiency Ecodesign requirements are developed.

7.1.2 DURABILITY OF DEVICES

Upon sale, consumers should have access to reliable information on the longevity and reparability of the products they buy. This would allow them to compare and potentially go for the most reliable products. A horizontal standard now exists to inspire the development of durability testing methodologies for energy related products (EN45552:2020 - General method for the assessment of the durability of energy-related products). The Ecodesign requirements for printers must call for such a durability testing methodology to be developed by the European Standardisation Organisations. Once such a methodology developed, manufacturers could then be legally compelled to test the durability of their products and display the expected lifetime upon sale. Eventually, this methodology would also allow policy makers to set minimum lifetime requirements.

7.1.2.1 SOFTWARE AND FIRMWARE UPDATES

7.1.2.1 states that “Software and firmware updates shall not prevent the refilling and remanufacturing of cartridges or the use of third-party cartridges”. It is unclear if the intent is to ban any software (already installed or updated after the product is placed on the market) or firmware updates that make changes to the chip on a consumable preventing refilling/remanufacture or to ban any software/firmware that would stop refilled/remanufactured consumables from being used in the imaging equipment. We would support both approaches but suggest that the wording be changed to reflect this thinking. A suggested change could be:

² EEB, Coolproducts (2023), ICT: A top horizontal priority in sustainable product policy – available [here](#)

“No existing or updated software or firmware updates shall prevent the refilling and remanufacturing of cartridges by altering the cartridge chip, nor shall any software or firmware updates prevent the use of refilled or remanufactured cartridges in imaging equipment”.

7.1.2.4 DURABILITY OF KEY CONSUMABLES OF LASER DEVICES

7.1.2.4 states that waste toner units must last between 20,000 and 25,000 pages. These appear to be very small page volumes when compared to the required durability of other key consumables such as Drum units. Waste toner units are essentially a plastic hopper and a wiper blade. A basic search of waste toner units shows that some have capacities over 100,000 pages suggesting that the size of the hopper is the determining factor in page yield and not the wiper blade. To reduce the use of waste toner units, it would be preferable to link their minimum page capacities to the page yield of the other key consumables such as cartridges or drum units (or the duty cycle). That way, measures could be tailored to different types of imaging equipment and minimize the number of waste toner units used.

7.1.2.5 DURABILITY OF KEY CONSUMABLES OF INKJET DEVICES

7.1.2.5 states that ink collection units must last between 10,000 and 12,500 pages. As with the waste toner units, ink collection units are basic components that just collect waste ink. There are ink collection units available with capacities over 100,000 pages. Some ink collection units include chips that must be reset if the product is to be remanufactured. As such, it is important that ink collection units last as long as possible. It would be preferable to match the capacity of the ink collection unit to the page yields of the ink cartridges/containers designed for us in each model of imaging equipment. That way imaging equipment that is designed for heavy use would be required to have much larger ink collection units than small domestic inkjet printers.

7.1.3 RECYCLABILITY OF DEVICES

7.1.3.1 DESIGN FOR RECYCLABILITY OF DEVICES

Recyclability is an important sustainability criterion since it contributes to reduce the use of primary resources. Therefore, recyclability must be promoted, although durability, reparability and reusability should be prioritized. We broadly support the draft requirements on the design for recyclability of imaging equipment but think that the requirements need to be more robust. The wording from the Commission Regulation (EU) 2023/1670 should be adopted to increase robustness:

1.4. Recyclability requirements

From 20 June 2025:

(1) Manufacturers, importers or their authorised representatives shall, without prejudice to Article 15(1) of Directive 2012/19/EU of the European Parliament and of the Council (2), make available, on a free access website, the dismantling information needed to access any of the products components referred to in Annex VII, point 1, of Directive 2012/19/EU.

(2) The information referred to in point (1) shall include the sequence of dismantling steps, tools or technologies needed to access the targeted components.

(3) The information referred to in point (1) shall be available until at least 15 years after the placing on the market of the last unit of a product model

Also, thresholds on the proportions of pollutants and impurities are not suggested in that section. Taking this into account, as done under the Ecodesign regulation for electronic displays, is essential to ensure a healthy recycling ecosystem.

7.1.4 REDUCING ENERGY CONSUMPTION OF DEVICES

7.1.4 states that in use energy contributes a relatively small amount to the overall environmental impacts of imaging equipment. However, Table 49 suggests that the estimated energy use may be too low as it is based on ENERGY STAR data. ENERGY STAR has been effective in increasing the energy efficiency of imaging equipment over the years. However, not all imaging equipment meets the ENERGY STAR requirements. The lack of a comprehensive approach to energy use in Ecodesign may encourage more inefficient products to enter the EU market. We think that the ENERGY STAR requirements should be used as a basis for developing energy efficiency targets, especially for thermal products. The Commission also recommend addressing the internal power supply efficiency of imaging equipment. As this issue has not been addressed in the past, considerable differences in the true energy efficiency of products put on the market might occur.

7.1.4 states that “Energy labelling was not considered appropriate for imaging equipment devices either. An energy labelling scheme is meaningful if there are significant differences between devices in terms of energy use. This does not seem to be the case for imaging equipment”.

We believe this statement to be inaccurate. There is still considerable divergence between products employing the same functionality but even more divergence between products providing similar levels of functionality but via different technology solutions. For example, there are considerable differences in energy use between inkjet and laser-based products even where these products provide similar levels of functionality. It would be a simple process to estimate the time inkjets spend printing so that it is in line with the laser printers. This would allow easy comparisons between the different product types. Consumers and institutional purchasers need to be able to compare products to choose the most environmentally preferable option. An Ecodesign Regulation alone is unlikely to deliver the necessary information.

The table below shows the difference in TEC (kWh/week) for the most popular standard sized electrography printers and Multifunction Devices (MFDs) registered with the ENERGY STAR scheme as of 10th October 2023. The results clearly indicate that there can be a large divergence in TEC for products providing the same or similar functionality. The divergence between the minimum ENERGY STAR registered product and an inefficient ENERGY STAR product would be even greater.

Table 1

TEC variance in Energy Star Qualified Imaging Equipment

Print Speed (ipm)	Average of Typical Electricity Consumption (TEC) (kWh/wk)	Min of Typical Electricity Consumption (TEC) (kWh/wk)	Max of Typical Electricity Consumption (TEC) (kWh/wk)	Percentage Difference Highest Compared to Lowest TEC (kWh)	Count of Print Speed (ipm)
20	0.25	0.2	0.3	150%	13
22	0.24	0.21	0.32	152%	15
25	0.32	0.25	0.46	184%	57
26	0.31	0.21	0.41	195%	25
28	0.37	0.31	0.42	135%	17
30	0.37	0.22	0.51	232%	88
31	0.38	0.34	0.41	121%	21
32	0.42	0.34	0.46	135%	15

35	0.45	0.3	0.72	240%	86
36	0.45	0.32	0.54	169%	29
37	0.47	0.32	0.55	172%	20
40	0.51	0.33	0.74	224%	62
42	0.52	0.32	0.69	216%	57
45	0.55	0.42	0.71	169%	83
46	0.60	0.51	0.73	143%	14
47	0.63	0.59	0.64	108%	10
50	0.67	0.43	0.85	198%	62
52	0.69	0.61	0.79	130%	21
55	0.75	0.55	0.92	167%	45
57	0.80	0.76	0.84	111%	14
60	0.81	0.67	0.98	146%	63
62	0.86	0.83	0.88	106%	14
65	1.53	0.65	7.3	1123%	46
70	2.49	0.86	11	1279%	30
75	2.15	0.77	7.7	1000%	27
80	5.48	1.39	17.4	1252%	38
85	10.25	1.45	17.83	1230%	25
90	6.45	1.58	12.7	804%	12
95	10.75	1.96	12.5	638%	16
100	19.49	12.81	24.5	191%	13

The EU Energy Label, and the accompanying European Product Registry for Energy Labelling (EPREL) database is an important tool to facilitate environmental conscious purchasing of products but also to support market surveillance activities in the EU. The EU Energy label is being used to communicate a wide range of environmental information, beyond energy use. For example, the Energy label for Washing Machines communicates energy use, water use, noise emissions and technical features (load and duration). There is a wide range of environmental impacts associated with imaging equipment and its consumables that should be communicated via an energy label.

The proposed Ecodesign Regulation could result in manufacturers designing products solely for the EU market (given that they won't need to make all the other environmental improvements for all markets). Environmental initiatives, such as ENERGY STAR, have encouraged the shift to more efficient imaging equipment over many years. There is no guarantee that new imaging equipment models will be energy efficient without an environmental initiative dictating efficiency. This necessitates the development of either Ecodesign measures which focus on overall imaging equipment energy efficiency and/or the development of an Energy Label for this product group.

7.1.4.1 POWER CONSUMPTION OF NON-ACTIVE MODES

We fully support the intention to include requirements for low power mode demands that are more suitable for imaging equipment than those included in the horizontal Networked Standby Ecodesign Regulation (2023/826).

7.1.4.2 REDUCING THE TIME BETWEEN ACTIVE AND NON-ACTIVE MODES

We fully support the inclusion of power management enabling times that are more suitable for imaging equipment than those included in the horizontal Networked Standby Ecodesign Regulation (2023/826).

7.1.4.3 EFFICIENCY OF INTERNAL POWER SUPPLY UNITS

We welcome inclusion of draft requirements on the internal power supply efficiency of imaging equipment. Requirements on the internal power supply efficiency of imaging equipment has been missing in every major environmental initiative focusing on this product type. Given that internal power supply efficiency is addressed for most other types of information technology products, it is appropriate to now include IPS requirements for imaging equipment.

7.1.4.4 AVAILABILITY OF MANUAL SWITCH TO OFF-MODE

We fully support the requirement for imaging equipment to include a manual switch, allowing users to manually place a product in a lower power mode. However, we believe the naming of the requirement should be changed to “*Availability of manual switch to a low power mode*”.

7.1.5 PAPER USE OPTIMIZATION IN DEVICES

We fully support the intention to optimize the use of paper in imaging equipment. However, some requirements should be strengthened.

7.1.5.1 DUPLEXING CAPABILITY

The Commission’s analysis in 6.1.3 is only based on an inkjet printer and does not show the full potential of duplexing in higher speed electrography products. ENERGY STAR includes auto-duplexing requirements on standard sized laser printers and MFDs over certain speeds. This approach was chosen in ENERGY STAR because users who buy higher speed printers are likely to print more – and so the benefits of auto-duplexing become more relevant. As the Commission states in the Task 7 report (page 199), most imaging equipment products on the market are already compliant with the ENERGY STAR requirements and so most higher speed laser printers and MFD’s already have auto-duplexing functionality. The Ecodesign Regulation should ensure that 100% of the higher speed product types on the EU market have auto-duplexing.

7.1.6 POST-CONSUMER RECYCLED PLASTIC IN DEVICES

We welcome the inclusion of post-consumer recycled plastic requirements for imaging equipment. However, we reiterate from our previous comments that recycled content must be measured with robust methodologies, as suggested by ECOS in the context of the Single-Use Plastic Directive (SUPD)³. Techniques

³ ECOS feedback – The implementing decision of the Single-Use Plastic Directive (SUPD) defining the methodology for recycled content, available [here](#)

such as pyrolysis and gasification should not be accepted for calculation of recycled content. Additionally, recycled content must only come from post-consumer recycling.

7.2 ECODESIGN MEASURES FOR CARTRIDGES

As shown by the Commission's review, the inclusion of requirements on cartridges is essential in any future Ecodesign Regulation on imaging equipment. The criteria address all the main issue areas, but we are concerned that a significant amount of work is still required on the wording of some of the criteria. Many criteria, as currently worded, would be difficult to enforce and would therefore not bring about the necessary environmental improvements.

7.2.1 CAPACITY UTILISATION OF CARTRIDGES

7.2.1.1 PAGE YIELD OF INK CARTRIDGES

We support the inclusion of minimum page yields per ink cartridge. However, we think that additional material efficiency savings could be achieved by attaching the minimum page yield to the speed of the imaging equipment. That is, higher minimum page yields could be developed for higher speed products.

We would also like to point out that high yield cartridges are used by manufacturers to support their subscription inkjet printing services⁴. As such, this suggests that manufacturers are aware that high yield cartridges provide efficiency and cost savings.

7.2.1.2 PAGE YIELD OF TONER CARTRIDGES

We also support the inclusion of minimum page yields for toner cartridges but recognize (from Figure 127 in the Task 7 report) that very few cartridges currently on the market would be impacted by the proposed minimum yields. We propose that the minimum page yields are related to the speed of the imaging equipment. This will ensure that higher speed products have a high minimum page yield for their consumables and will therefore use less consumables.

7.2.2 MATERIAL EFFICIENCY OF CARTRIDGES

7.2.2.1 MATERIAL EFFICIENCY OF INK CARTRIDGES

We support the suggested use of material efficiency requirements for ink cartridges, but these should be linked to the speed of the imaging equipment. Higher speed imaging equipment generally uses higher yield cartridges. As Figure 128 shows, the material efficiency of products increases significantly as the page yield increases. The proposed cartridge material efficiency requirements only appear to impact a small number of relatively low yield cartridges. More ambitious criteria that consider the page yield should be used in the Ecodesign Regulation. EU GPP criteria TS16 contains cartridge material efficiency requirements that take the yield of the cartridges into account⁵. These EU GPP criteria should be modified for use in a future Ecodesign Regulation.

7.2.2.2 MATERIAL EFFICIENCY OF TONER CARTRIDGES

⁴ HP instant ink, Never run out and save up to 70% with HP Instant Ink (commercial) – available [here](#)

⁵ European Commission (2020), EU green public procurement criteria for imaging equipment, consumables and print services - available [here](#)

We also support the suggested use of material efficiency requirements for toner cartridges but, again, these should be linked to the speed of the imaging equipment. Figure 129 shows that the proposed requirements would have a very small impact on reducing material efficiency in toner cartridges. Again, the EU GPP criteria contain cartridge material efficiency requirements that take the yield of the cartridges into account. EU GPP criteria should be modified and transferred in the future Ecodesign Regulation.

7.2.3 REMANUFACTURABILITY OF CARTRIDGES

We fully support the inclusion of this criterion into a future Ecodesign regulation on Imaging Equipment. We have investigated the current end of life treatment options used by manufacturers in the USA (where the values are reported for compliance with the EPEAT label) and noted a disturbing lack of remanufacturing taking place. Data is not readily available for the European market. The results in Table 2 show that very little reuse of cartridges is taking place within US based cartridge takeback programmes that are operated by the main OEMs. We are concerned that similar low levels of reuse, and a high reliance on material recycling, storage of material and waste to energy, may be employed in EU based OEM cartridge return programmes. As such, Ecodesign measures on imaging equipment and its consumables should encourage remanufacturing, or at the very least ensure that remanufacturing of consumables is not blocked through design features.

Table 2

Cartridge Material End-of-Life Options Used in Industry Take-Back Programmes

Manufacturer	Reuse	Recycle	In Storage	Waste to Energy	Landfill
Canon ⁶	0.0%	96.9%	0.0%	3.2%	0.0%
HP – Toner ⁷	?	82.5%	?	?	0.0%
HP – Ink	?	79.9%	?	?	0.0%
Lexmark ⁸	37.0%	56.0%	3.0%	4.0%	0.0%
Epson ⁹	0.0%	0.0%	0.0%	100.0%	0.0%
Kyocera ¹⁰	0.0%	89.3%	0.0%	10.7%	0.0%
Ricoh ¹¹	55.2%		44.8%	0.02%	0.0%
Sharp ¹²	0.0%	57.1%	24.2%	18.7%	0.0%
Xerox ¹³	24.9%	37.7%	25.1%	12.3%	0.0%

7.2.3.1 CHIP RESETTING FUNCTIONALITY

Whilst we fully support the need to ensure that chips can either be reset or replaced to facilitate fully functional remanufactured consumables, we are concerned that the current proposal would not be workable in practice. We believe all Ecodesign requirements should be verifiable by market surveillance agencies in the EU. We don't believe that the current draft requirement on chip resetting would be verifiable. The draft requirement calls for chips to be resettable by “*registered professional remanufacturers*”. We are unclear where remanufacturers would be required to be “registered”. It is also unclear how “*reasonable and proportional cost*” would be defined.

It is also unclear why the chip on the cartridge needs to contain writable memory that needs to be reset. Cartridge chips essentially serve as information storage devices equipped with EEPROM memory, and do not

⁶ Canon, Canon offers products that are registered in accordance with EPEAT® for Imaging Equipment – available [here](#)

⁷ HP (2022), Sustainable Impact Report – available [here](#)

⁸ Lexmark sustainability, Return, Reuse & Recycle – available [here](#)

⁹ EPSON, EPEAT® Registered Products – available [here](#)

¹⁰ Kyocera Document Solutions, EPEAT® – available [here](#)

¹¹ Ricoh, Conservation Programs and Certifications – available [here](#)

¹² Sharp, Environmental programs EPEAT® - available [here](#)

¹³ Xerox (2022), Xerox Consumables Recycling Report – available [here](#)

possess the capability to make decisions regarding the data they hold; it's the printer firmware that undertakes decision-making tasks.

For cartridges equipped with a chip, OEMs preload (write) it with data including some form of identification (ID) to operate in a designated printer or set of printers. The chip usually houses a unique ID such as a serial number along with additional data related to cartridge/printer function for utilization by the printer firmware such as the yield of the cartridge. When the ink/toner is used, the printer calculates how much ink/toner is left in the cartridge from the original page yield.

When the chip is first read, the firmware checks the cartridge ID. Most modern printers now use encrypted codes. In the case of encrypted chip cartridges, encryption keys are generated utilizing data clusters in memory and are preloaded onto the chip to ensure secure data transmission between the printer and chip. The use of encrypted codes causes problems for remanufacturing because the encryption keys need to be copied (often taken from used OEM chips). This then allows OEMs to update the printer firmware to block any cartridge chips that have copied keys.

As such, we believe the key to encouraging more reuse of cartridges lies in the ability of users to reset the firmware in the printer and not just on the cartridge. An Ecodesign requirement could be written that allows users to “reset” the printer when a remanufactured cartridge is installed. The remanufactured cartridge would then appear to the printer as if it is an unused cartridge. This should be accompanied by a requirement that stops any code being written to the chip which limits the ability to refill or remanufacture the cartridge (i.e. as written in “7.1.2.1 Software and Firmware Updates”).

We suggest the following wording could be used:

“Imaging equipment must contain functionality that allows users to clear any stored data about a previously used cartridge. OEMs may provide a warning to users that resetting the firmware before a cartridge has been refilled or remanufactured may result in unreliable remaining ink/toner levels and could result in damage to the printer that would not be covered under warranty”.

The wording could be incorporated into the proposed 7.1.1.4 requirement.

ADDITIONAL REQUIREMENTS ON CARTRIDGES NEEDED

We think that there are some additional requirements that should be included to address the environmental impacts associated with consumables:

KNOWLEDGE OF HOW RETURNED CARTRIDGES ARE TREATED

Not all cartridge take-back programmes are equal in terms of their environmental performance. Some cartridge take-back schemes prioritise energy recovery of plastics rather than remanufacturing of the cartridges. Users of cartridge take-back schemes must be provided with information on the end-of-life process for their returned cartridges. This could encourage users of printer consumables to favour cartridge take-back schemes which prioritise remanufacturing over recycling or energy recovery.

TAKE BACK FOR OTHER CONSUMABLES IN ADDITION TO CARTRIDGES

The Preparatory Study on Imaging Equipment has shown that there are several other types of consumables used by printers beyond cartridges (e.g. Toner, waste toner cartridges, print heads, transfer belts, transfer roller, fusers, drum units and drum maintenance units). These other consumables must also be considered to reduce overall environmental impacts.

CONSUMERS HEALTH

The Blue Angel ecolabel already includes requirements addressing substance emissions from printers, including volatile organic compounds (VOCs), ozone, and fine and ultrafine particles. The Commission must address this issue as it is likely to be a concern for some users, especially where imaging equipment is used in poorly ventilated areas.

TRANSITIONAL METHODS AND STANDARDS

We recognise that many of the proposed criteria are innovative and so measurement or verification may not yet be supported by European or International Standards. We think that work should start on developing any required standards well in advance of the implementation of any Ecodesign requirements. We believe that these standards are essential to ensure verification that requirements are being met.

STANDARDIZATION/ COMMON COMPONENTS

A better development of standardized parts for devices is required to allow a more efficient use of resources. The PROMPT project suggests that “Standardisation of parts and/or their interfaces might improve the access to spare parts and thus enhance reparability. Also, when a part is standardized, the costs per part are likely to decrease through economies of scale. In general, it is recommended to standardize parts which have the same function across all manufacturers, however, don't have a significant distinguishing performance and don't have an aesthetic need”¹⁴.

A standardisation of parts such as cartridges, external power supplies and power cables, paper cassettes, and ink collection tanks and excess ink reservoirs (including sponges) could increase their robustness and ensure that they can be used in several devices. The use of standardised wear/spare parts in different devices also supports the long-term availability of these parts, so that replacement is ensured in the event of a defect. In addition, the subsequent upgradeability of devices with newly developed wear parts would be supported. Standardisation should be developed as far as possible within manufacturers product lines, but also cross-manufacturers.

COMMON CHARGING CONNECTION

The USB Power Deliver (PD) Revision 3.1 specification enables up to 240W of power to be delivered over full featured USB Type-C cables and connectors. Most inkjet printers will not use more than 240W of power even during active printing. As such, the Commission could consider applying the common charger specification to inkjet printers. This could reduce the need for additional cables and power supplies.

For more information, contact mathieu.rama@ecostandard.org

¹⁴ PROMPT (2022), D.4.3: Design for physical durability, diagnosis, maintenance, and repair – available [here](#)