

**EXPLANATORY NOTE  
ON THE INDUSTRY VOLUNTARY AGREEMENT  
TO IMPROVE THE ENVIRONMENTAL PERFORMANCE OF  
IMAGING EQUIPMENT PLACED ON THE EUROPEAN MARKET**

**Draft FY19**

13 September 2019

### **Introduction**

This Explanatory Note sets out the background and key features of the second revision of the Industry Voluntary Agreement to Improve Environmental Performance of Imaging Equipment Placed on the European Market (“Voluntary Agreement” Version 4). This Explanatory Note has been produced and agreed by the Signatories to the Voluntary Agreement.

Since the launch of the Voluntary Agreement in 2011, the Signatories remain committed to achieving ever-higher standards of environmental performance in Europe and believe that the Voluntary Agreement is central to this objective. The energy efficiency, resource efficiency, design and information requirements of the Voluntary Agreement contribute significantly to the **EU Energy efficiency agenda**, promote the **circular economy**, address **climate change**, and meet **better regulation goals**.

Based on the outcome of the EuP “*Lot 4 — Imaging equipment, copiers, faxes, printers, scanners, MFD*” preparatory studies (2007-2008), the number of companies involved that reached over 80% of the hardware market share and the European Commission’s “*impact assessment on the voluntary ecodesign scheme for imaging equipment*” (2013)<sup>1</sup>, the European Commission (DG Energy) asked industry to propose a Voluntary Agreement on Imaging Equipment. Indeed, a Voluntary Agreement (self-regulation measure) was considered the best way forward for the imaging equipment industry, given the already low energy consumption of its products and the broad diversity of products in scope. The first version of the Voluntary Agreement was endorsed by the European Commission in 2013, with a first revision completed in 2015 and a second in 2019.

### **Advantages of the Voluntary Agreement**

This Voluntary Agreement represents a pioneering model of industry self-regulation. The commitments are aimed at reducing the environmental footprint of imaging equipment for home and office use - copiers, printers, fax machines and multifunction devices using laser, inkjet and solid ink technologies. While linked to the ENERGY STAR® programme, the purpose and function of the ENERGY STAR programme and the Voluntary Agreement are substantially different. ENERGY STAR is a label that signals products with superior energy efficiency as of the date of manufacture, while the Voluntary Agreement represents the Signatories’ commitment that a certain percentage of products placed on the European market meet the requirements of ENERGY STAR. The percentage increases every year and is based on a tiered system.

---

<sup>1</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52013SC0014&from=EN>

The European Commission’s impact assessment found that, when compared to a regulation scenario for the period 2011-2020, the Voluntary Agreement would:

- Achieve twice the energy savings and three times the CO<sub>2</sub> emission savings**

To date, the Signatories of the Voluntary Agreement have achieved major results with regards to **energy efficiency savings**, including **energy consumption reductions of 46.2%** for Operational Mode products and **26.5%** for Typical Electricity Consumption products since 2011<sup>2</sup>.
- Contribute to the EU Circular Economy objectives**

It is estimated that the Voluntary Agreement will help further **resource efficiency in the EU** by saving **1 million tons of office paper by 2020** in the EU<sup>1</sup>. This is achieved by putting on the market products where the duplex feature (ability to print on both sides of a sheet of paper) is configured by default, which results in direct CO<sub>2</sub> reductions (less paper consumption) and indirect energy savings (less paper production)<sup>1</sup>. All of this is achieved much faster than in a regulation scenario.

In addition, the Voluntary Agreement contributes substantially to the **circular economy** by supporting requirements **such as design for recycling, dismantling, repair, reuse, polymer composition, recycled plastics content, availability of spare parts and repair information**. It also includes **information requirements for end-users** to make more sustainable purchasing decisions by providing them with accurate information on the environmental performance of products, and on paper (recyclability and improvements). The latter is the biggest contributor to the energy consumption, as shown by the latest Original Equipment Manufacturer (OEM) peer-reviewed and ISO compliant Life Cycle Assessment (LCA) studies<sup>3</sup>.

Indeed, the Signatories of the Voluntary Agreement are working towards circular business models using peer reviewed and ISO compliant LCA studies as a robust and evidence-based tool to achieve this objective and to significantly reduce waste through careful design, use and end-of-life treatment. When it comes to cartridges, the LCA studies mentioned above and referenced in the EuroVApriint position paper on “The environmental impact of reuse vs. recycling of toner and ink cartridges”<sup>4</sup> show that superior print quality, dependable page yield and overall reliability combined with material recycling are key criteria in a toner cartridge’s carbon footprint because consistent prints mean less wasted paper and the need for fewer cartridges, thus yielding the best overall environmental outcome for print cartridges.

Also, as technology evolves rapidly, OEM LCA studies are reviewed frequently in order to take these improvements into account.

OEMs invest heavily in R&D to align with the circular economy objectives to (1) **improve design** with a view to including new business models or systems that produce less cartridges and containers and better value for the end user, reducing waste

**Commented [GP1]:** This is an overstatement. Please quote the correct figures in the IA. These are considerably different than the statement here (i.e. the savings are inferior with only 30% on both energy and CO<sub>2</sub> emissions).

Versus Baseline RAU	RAU (level)		Voluntary		Ecodesign	
	2020	2030	2020	2030	2020	2030
<b>Energy consumption (TWh)</b>						
Direct	9.13	10.40	7.92	9.07	5.56	6.31
Indirect	42.75	49.99	7.12	7.83	6.54	7.83
Total	51.88	57.39	15.04	16.91	12.10	14.15
<b>CO<sub>2</sub> emissions (Mt)</b>						
Direct	3.47	3.54	2.99	3.09	2.10	2.15
Indirect	6.41	7.05	1.07	1.17	0.98	1.17
Total	9.88	10.59	4.06	4.26	3.08	3.32

**Commented [FS2R1]:** The figures stated do accurately reflect the IA. The table referred to in the Commission’s comment is from the executive summary which shows data only for the single year 2020 and the single year 2030. The statement in this document is drawn from the accumulated data for the time period 2011 – 2020 (the statement refers to this time period). The data is set out in Table 6 (page 42) for the impact assessment.

<sup>2</sup> Independent Inspector’s [compliance reports](#)

<sup>3</sup> <http://h20195.www2.hp.com/V2/GetDocument.aspx?docname=c05165504> and <http://www.spencerlab.com/reports/HPReliability-EMEA-RM2016.pdf>

<sup>4</sup> [http://www.eurovapriint.eu/fileadmin/eurovapriint\\_files/pdfs/2017/LCA\\_position\\_paper.pdf](http://www.eurovapriint.eu/fileadmin/eurovapriint_files/pdfs/2017/LCA_position_paper.pdf)

through the use of recycled plastics, reducing the complexity of the consumables and incorporating design criteria from recognised environmental labels (Blue Angel, EPEAT) (2) to **understand use** and the impact of consistent print quality in saving paper, of cartridge reliability to avoid premature replacement and reduce use-phase energy consumption and finally to (3) **provide programmes** for take-back, recycling and/or reuse of tens of millions of kilograms of ink and toner cartridge material annually<sup>5</sup>.

- **Deliver the policy objectives of the EU Eco-Design Directive faster and in a less costly manner, in alignment with the EU Better Regulation Agenda**

The implementation cost of a regulation designed for the same purpose as the VA is **estimated at €2-2.5 million per year**, and would require involvement of Member State authorities<sup>5</sup>. These figures include the assumption that market surveillance authorities would test 50 – 100 models per year. The administrative cost of a Voluntary Agreement is much lower – the EuroVAprint<sup>6</sup> budget is less than **€200,000** for 11 of the largest OEMs, a **cost borne by manufacturers**, rather than Member States and taxpayers. The Voluntary Agreement involves a process of disclosure by OEMs of information on the compliance status of their products in scope of the Voluntary Agreement which is assessed by the Independent Inspector. This approach focuses on declaration and assessment rather than product testing and is one of the key ways in which the Voluntary Agreement achieves its objects faster and at lower cost than a regulation.

In addition, the Voluntary Agreement is also more **dynamic** than a regulation. The Voluntary Agreement can respond more quickly to market, business model, and technological developments, with more frequent and less costly updates compared to regulation; allowing industry to continue to innovate and improve its environmental performance using the latest technology. In a regulation scenario, measures would take much more time to have a critical impact on the environment and on the development of new environmental technologies.

#### Key Developments in Version 4 of the Voluntary Agreement

The latest version of the Voluntary Agreement (Version 4) includes further ambitious goals and is expected to continue the success of delivering ecodesign improvements.

The types of product subject to the Voluntary Agreement remains the same but a previous limitation on speed thresholds has been removed so that many higher speed models are now included in the scope of the agreement.

The primary energy efficiency commitments have been updated to align with the new ENERGY STAR Version 3.0 which was published in January 2019. Signatories are committing

<sup>5</sup> See for e.g. Canon Sustainability report 2019 (page 80 and 81); Epson Sustainability report 2018 [https://global.epson.com/SR/report/2018/pdf/epson\\_sr2018\\_all\\_e.pdf](https://global.epson.com/SR/report/2018/pdf/epson_sr2018_all_e.pdf); HP 2018 Sustainable Impact Report (launched in 2019) <https://www8.hp.com/uk/en/hp-information/global-citizenship/index.html>; Lexmark 2018 [Global Citizenship website](#); Xerox 2015 Global Citizenship Report; Brother Group's environmental activity report 2018" [http://download.brother.com/pub/com/en/csr/pdf/eco\\_2018\\_all.pdf](http://download.brother.com/pub/com/en/csr/pdf/eco_2018_all.pdf).

<sup>6</sup> The association facilitating the implementation of the VA ([www.eurovaprint.eu](http://www.eurovaprint.eu)).

**Commented [GP3]:** My previous comment was not addressed. The comparability of figures need to be ensured, or qualifiers included. To quote the correct figures from the IA. The 2-2.5 million euros/year are estimated to cover the testing of 50-100 models/year. On the other hand, the VA draft provides for only few tests/year, i.e. one or two orders of magnitude less!

**Commented [FS4R3]:** We have reworded the paragraph in order to make our point clearer. Signatories are providing yearly disclosure on which products comply and which do not. Therefore, there is no need to do 50-100 tests per year, and that is one of the savings achieved by the Voluntary Agreement.

to increase the percentage of products meeting the ENERGY 3.0 requirements in line with three tiers of one calendar year commencing January 2020, 2021 and 2022.

Commitments on design for dismantling for recycling and recovery have been added which are based on similar provisions in recent revisions of Ecodesign regulations but tailored to the characteristics of imaging equipment.

The commitments on Spare Parts and repair information have been significantly updated to include a commitment to make available Spare Parts, repair information, software and firmware updates for extended periods.

The list of Spare Parts has been designed to reflect the range of Spare Parts for which there is real demand in order to enable the lifetime of imaging equipment to be extended. The Signatories have committed to make the Spare Parts available for five years from manufacturing the last product of a model. The Spare Parts supply chain operates by making “lifetime buys” of Spare Parts while the products are still being manufactured. This involves forecasting and the uncertainty involved in forecasting over longer periods significantly increases the risk of over production and scrapping of surplus parts. A minimum five-year commitment is considered to ensure availability of parts for the likely duration of demand without excessively increasing the risk of waste.

The commitments also allow Signatories to continue with existing whole unit exchange solutions. Below a certain price-point the prevailing service model is whole unit exchange, as opposed to the provision of Spare Parts. The exchange model is not ‘replace by new’ it is **‘replace by refurbished’**. Returned products are refurbished and used as replacements for future returned products. The objective is to refurbish and re-use as many printers as possible. This simply makes good business sense and is also an important element of a circular economy. Note that high product quality combined with low print volumes in these product categories result in exceptionally low failure rates. Replacing returned units with refurbished units makes the most sense financially and environmentally. Forcing industry to move from a refurbished unit replacement model to a parts supply chain model would nearly double the cost of servicing products in these categories. Also note the refurbishment reverse supply chain exists and operates within the European Union (creating employment).

Signatories have committed to provide information on the EuroVAprint website in an easily searchable format enabling a single source to identify product models of the different Signatories that fulfil the requirements of the Voluntary Agreement.

### Cartridges and Containers

One important question needs to be addressed: cartridges and containers. Significant differences have remained in opinions over the cartridge and container related provisions of the current Voluntary Agreement and how those provisions should be amended. No solution acceptable to both OEMs and stakeholders has been found yet. Throughout the revision of the existing Voluntary Agreement, which started in 2017, cartridges and containers have been under discussion. The scope of issues discussed included, amongst others, market share, Signatories, membership fee, trade secrets, cartridge authentication, Intellectual Property Rights (IPRs) protection and the issue of clone cartridges and containers that infringe OEMs’

IPRs. During the drafting period, OEMs made important concessions and amended the wording of the draft Voluntary Agreement to take stakeholder comments on board as much as possible. However, the remanufacturers and other stakeholders continue to demand significant new obligations for the OEMs.

Those differences remained clear at and following the stakeholder meeting on 25 April 2019. In the latest round of stakeholder's comments, two Member States proposed a concept of "Supporting Signatories" to allow remanufacturers to join the Voluntary Agreement. They also appear to envisage that remanufacturers would take on some obligations and floated some limited initial ideas. OEMs welcome the acknowledgement that all Signatories to the Voluntary Agreement must be subject to substantive obligations and are prepared to consider an approach with wider membership that is designed to address cartridges and containers. However, for three key reasons, current Signatories of the Voluntary Agreement consider that this cannot be achieved by expanding the existing Voluntary Agreement and that a separate process to develop a separate Voluntary Agreement for cartridges is required. These reasons are explained below.

#### Timeline of the current revision

- It is impossible to address the proposals made by the various stakeholders within the agreed timeline of the current Voluntary Agreement revision i.e. before the Consultation Forum in November 2019.
- To expand the Voluntary Agreement in a fair way will take a significant amount of time.
  - An organizational process to enable potential Signatories to communicate and cooperate will need to be established and cater for potentially large numbers of third-party aftermarket players to become parties. Our assumption, based on current active stakeholders, is that it would include mainly remanufacturer SMEs.
  - In addition, potential Signatories have very different and strong opinions. Therefore, it is likely to take time for potential Signatories to build an agreement that we all will find acceptable.
- Signatories think that 12–18 months would be an aggressive schedule requiring many face-to-face meetings with tele-conferences in between.
- Expanding the timeline of the revision of the Voluntary Agreement in order to include cartridges and containers, would have a negative impact as the hardware requirements of the Voluntary Agreement require updating in 2019, and there would not be a new Voluntary Agreement for a while, thereby creating a grey area.

#### Obligations

- It is important that a set of provisions on cartridges and containers set out substantive obligations for all Signatories. It is not reasonable to impose obligations on one set of suppliers in the market for the benefit of another set of suppliers with which they compete. The requirements of a Voluntary Agreement relating to cartridges and containers should maintain a level playing field, and not be contrary to existing Internal Market and Competition laws.

- OEMs represent a partial share of the market of printer cartridges and containers. Obligations relating to cartridges and containers in any Voluntary Agreement must not negatively affect competition in general and product innovation, a key factor in maintaining a competitive market. If the requirements on cartridges and containers are not carefully considered they could encourage OEMs to leave any Voluntary Agreement and potentially become free riders with a competitive advantage over Signatories and similarly new built original/clone suppliers could gain a competitive advantage.

#### Market share

- Market share is an important consideration. The cartridges and containers OEMs do not represent 80% of the cartridge and container market – as foreseen in provision 3.3 of the Annex to the Commission’s guidelines for self-regulation measures<sup>7</sup>.
- The market for hardware (printers) is clearly different from the market for cartridges and containers. The cartridge and container market include remanufacturers, refillers, new built compatibles/clones and counterfeits. Objective and reliable data on market share in the current cartridge and container market which includes all actors and the OEMs and other stakeholder have not been able to agree on data that represents the current market.
- It is not logical to assess the cartridge and container market based on market share data for printers. Without assessing market share it is not possible to make an objective judgement on which remanufacturers or other players in the market should be part of a wider voluntary agreement and risks creating obligations that only partially address the cartridge market and/or have negative impacts leaving other parts of the market with an unfair advantage.

**Therefore, the Signatories suggest splitting the current Voluntary Agreement between a Voluntary Agreement on hardware, and a separate Voluntary Agreement to address cartridges and containers. This option will enable us to reach an agreement and, hopefully, endorsement on the Voluntary Agreement on hardware from the Commission and Member States in the agreed timeline, without further delay. In parallel, Signatories are open to constructively discuss a Voluntary Agreement specifically for cartridges and containers that:**

- Includes substantive obligations for parties representing over 80% of the EU market share for cartridges and containers (i.e. that is not designed to simply benefit one part of the market over another).
- Is based on a fair and objective assessment and will prevent distortion of competition by setting commitments that equally apply to all relevant parties in the cartridges and containers market.
- Considers the environmental impacts of all Signatories – it is not appropriate to dismiss OEM LCA studies (ISO-compliant, peer reviewed and up to date) and just assume that third party remanufacturing has environmental advantages and no material impacts.

<sup>7</sup> 2016 European Commission [recommendation](#) on guidelines for self-regulation measures concluded by industry under Directive 2009/125/EC of the European Parliament and of the Council; and [Annex](#).

- In order to make this happen, the Signatories of the Voluntary Agreement propose, among other actions, the following:
  - To address the issue of market share: prospective parties to a new Voluntary Agreement on cartridges and containers will need to agree on new market data analysis of the current cartridge and container market in the EU 28 (OEMs, remanufacturers, new build compatibles/clones, refillers, counterfeiting) from a reputable and independent expert source to collect the data.
  - Identify and get engagement from potential Signatories – Signatories should be individual companies as only companies can fulfil the obligations and take responsibilities for the agreements.
  - Set up an organizational process for communications and cooperation that enables each industry group interested to become a signatory to be equally represented. Discuss and consider a timeline, steps, stakeholders' meetings, dates for deliverables, etc.
  - Timeline should be agreed with the Commission and all parties to avoid unnecessary delays.
  - Each party will need to come to the table with proposals for obligations for all actors that properly address the realities of the market and technologies. Current Voluntary Agreement wording is proving unacceptable to both parties.
  - OEMs, remanufacturers and new built compatibles should have same obligations where relevant.
  - Mechanisms for complaint management and the independent inspector will need to be reviewed.

If the Consultation Forum accepts the Signatories' proposal, EuroVAprint would finalise the Voluntary Agreement on hardware and work to develop a separate Voluntary Agreement on cartridges and containers in line with the framework outlined above. EuroVAprint will start the process by contacting representatives of key potential Signatories and facilitating the procurement of market share data in a way designed to be acceptable to potential Signatories. Based on this data EuroVAprint will work with representatives of the potential Signatories, in particular from the remanufacturing industry in the European Union, to develop the appropriate organizational structures (such as an equivalent for EuroVAprint for cartridges and containers) and the substantive content of the Voluntary Agreement.