



# CONSUMER INTERESTS IN ECO-DESIGN OF IMAGING EQUIPMENT

- COMMENTS ON THE PROPOSAL FOR A VOLUNATRY INDUSTRY AGREEMENT

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## Summary

In the context of the implementation of the Eco-design of Energy-using Products Directive, several manufacturers for Imaging equipment products such as printers proposed to increase the energy efficiency of these products with a voluntary self agreement (VA).

 In this paper we question the suitability of a voluntary agreement to improve the environmental performance of Imaging equipment over the full life cycle and at the least life cycle costs for consumers.

As the VA falls currently short to meet the requirements of Annex VIII of the Ecodesign Directive on VAs, we call on the Commission to establish mandatory Eco-design requirements for Imaging equipment.

- As we have been consulted on the draft Voluntary Agreement, we make proposals for - changing the text. In particular we address shortcomings on reporting and monitoring - and the composition of the Steering Committee. We also call for sanction procedures to - be set up.

We also propose improvements on the technical design of Imaging equipment products in order to decrease negative environmental impacts. In this respect we ask for instance to equip all devices with automatic duplexing functions, to introduce requirements to limit noise, to limit emissions from particulate matter and to support the use of environmentally friendly paper.





#### Introduction

In September 2009, the European Commission consulted stakeholders on a proposal for a Voluntary Industry Agreement (VA) on Imaging equipment. With this initiative, manufacturers seek to contribute to more energy efficient appliances without being subject to an EU Regulation setting mandatory Eco-design requirements for placing Imaging equipment products on the market.

In this paper, we have outlined our main concerns related to the proposal of the VA. As the minimum requirements for a Voluntary Agreement based on the Eco-design Directive are not met, we call on the European Commission to establish binding legal minimum criteria for Imaging equipment. As we have been consulted on the draft text for a Voluntary Agreement, we give also detailed recommendations how the current wording of the VA should be improved in order to make the monitoring, reporting and verification procedures more transparent. In addition, we ask for technical changes in the design of Imaging equipment, e.g. to improve resource efficiency and recycling, to limit noise, to limit emissions from particulate matter and to support the use of environmentally friendly paper.

#### Commission should work out Eco-design Regulation

Although the Eco-design Framework Directive (2005/32/EC) gives preference to self-regulatory approaches by industry<sup>1</sup>, consumer organisations have not been supportive of this approach as voluntary environmental agreements often lack transparency, ambition, legitimacy and efficacy<sup>2</sup>.

The text for a VA on Imaging equipment falls short to meet the minimum requirements which are required according to Annex VIII of the Eco-design Regulation, in particular on added value, quantified and staged objectives, involvement of civil society, monitoring and reporting, sustainability and incentive compatibility.

We therefore have severe doubts that the text of the VA can be improved as much as needed in order to become acceptable for consumers. We therefore call on the European Commission to develop mandatory Eco-design requirements for Imaging equipment instead of accepting a VA that will not bring an added value for consumers and the environment.

The background document explains that Imaging equipment is a difficult product group and that it therefore would be a complex task to draft an Implementing Measure. However, this is not seen as a valid argument as Eco-label criteria and Energy Star criteria for Imaging equipment already exist. In addition, binding Eco-design requirements for other complicated product groups such as boilers and water heaters are currently under preparation.

In this paper, we follow a two staged approach. We make recommendations which substantial improvements would have to be made in order to make the VA acceptable.

<sup>&</sup>lt;sup>1</sup> See Recital 16-19, Article 17 and Annex VIII of the Eco-design of energy-using products Directive (2005/32/EC).

<sup>&</sup>lt;sup>2</sup> See ANEC/BEUC joint position on Voluntary environmental agreements, 24 October 2006, ANEC-ENV-2006-G-048, BEUC/X/060/2006, <a href="http://www.anec.eu/attachments/ANEC-ENV-2006-G-048.pdf">http://www.anec.eu/attachments/ANEC-ENV-2006-G-048.pdf</a>.





However, as a Regulation would be our preferred option, the paper also explains which requirements should be part of an EU Regulation on eco-design requirements for Imaging equipment.

#### Background text is misleading about the overall environmental impact

The background text of the working document emphasizes the appropriateness of the self-regulation in comparison to a mandatory legislation. One of the reasons given is the limited environmental impact of Imaging equipments and their low priority in realizing substantial environmental savings. However, we consider that such a statement gives a wrong impression on the real environmental burden of Imaging equipments. Although the energy consumption of printers is relatively low (e.g. 30-40 kWh per year), more efficient printers would lead to considerable savings. In addition, a calculation of the environmental impact has to take into account that the negative environmental impact of the production phase is almost double than the environmental burden of the use phase. The VA therefore neglects the improvement potential related to material and resource efficiency which could be achieved by miniaturisation, recycling, reuse and extending the life-time of products.

Moreover, the VA neglects the environmental improvement potential related to paper consumption and the need to investigate potential negative health impacts of fine particle emissions.

We therefore ask to correct the background text on the environmental impact and to underpin the statement with scientific data and results from independent studies.

#### No benefits for Green Public Procurement based on this VA

The draft VA demands preference for the signatories in Green Public Procurement tenders. Considering the insufficient quality of the VA, we reject this proposal.

Green Public Procurement criteria for Imaging equipment currently refer to the latest Energy Star criteria. Only if the VA would define stricter requirements than the current Green Public Procurement criteria for Imaging equipment, signatories of the voluntary agreement could avail the benefit of being preferred in a public procurement tender.

### Scope of the VA needs to be clarified

Based on the findings of the Preparatory Study, the scope of the VA should be defined more precisely. We suggest limiting the scope clearly to "office Imaging equipment" as these appliances have high annual unit sales and are primarily used by consumers and in offices for reproducing and printing hardcopy images. We suggest leaving out special media Imaging equipment, integrated secondary imaging modules and production Imaging equipments.

We question the feasibility of including stand alone fax machines into the scope of the VA. The relevance of stand-alone fax machines will decrease in the coming years for consumers due to the increasing use of multifunctional devices. As the proposed energy efficiency requirements are not ambitious and would only cover a fraction of the product group, we do not see an added value in including these stand-alone fax machines into the measure.





We question why solid ink marking technology has been included in the scope, and other competing technologies such as dye sublimation, are left out of the scope of the VA. Inkjet, solid ink and dye sublimation technologies stand in competition with each other due to the market development towards photo capability and compact photo printers. In particular in the area of small digital photo printers - a fast growing market segment - dye sublimation and solid ink technology are also applied due to their good properties. Therefore compact photo printers need to be included in the VA.

The VA is limited in scope as it is proposed to cover only standard black-white format products with a maximum speed of less than 66 images (A4) per minute, and standard colour format products with maximum speed of less 51 images (A4) per minute. However, we suggest deleting this specification as the scope has to be extended to high speed devices. In addition, speed limits are not foreseen e.g. in the Energy Star 1.1 for Imaging equipment and national Eco-labels such as the German Blue Angel and the Nordic Swan.

#### Requirements have to apply to the overall number of devices on the market

The VA needs to clarify that the requirements apply to the overall number of appliances on the market, not the number of *models*. In case the specification would only refer to the number of models, it could lead to widely ineffective measure, as the mass market could theoretically still be served with inefficient appliances.

#### Compliance rate of 50% is too low

The Eco-design Regulation requires that VAs will have an added value compared to a business as usual scenario. Therefore including only 50% of devices into the scope of the VA would be unacceptable. The proposed commitments are based on Energy Star V1.1 criteria. However, estimates on future compliance suggest that by January 2011 most types of imaging products would have reached the 50% target already<sup>3</sup>.

#### Ambition level needs to be considerably raised

The explanatory notes on the working document state as an alternative regulatory option the introduction of mandatory requirements in two stages which are based on Energy Star criteria V1.0 and v.1.1. These requirements would become mandatory six month after the measures entered into force and in mid-2012. While we would like to encourage the Commission to develop a Regulation instead of accepting a VA, the Energy Star V1.0 seems to be already outdated.

Based on Energy Star v1.1 we would like to propose a two-stage approach:

- o As of 1 January 2011, 50% of all units placed on the market should comply with Tier 2 requirements of ENERGY STAR V1.1 on Imaging equipments.
- As of 1 January 2011, all other units placed on the market should comply with Tier 1 requirements of ENERGY STAR V1.1 on Imaging equipments.

<sup>&</sup>lt;sup>3</sup> This assumption is based on observed trends in the past: the previous Energy Star v1.0 which applied from April 2007 onwards had a market penetration of about 50% one year later.





o As of 1 January 2012, all units placed on the market should comply with Tier 2 requirements of ENERGY STAR V1.1 on Imaging equipments.

#### All Energy Star requirements should be covered

The draft VA does not include all Energy Star requirements, e.g. on delay time to sleep. However, as Eco-design should go beyond requirements on energy efficiency and duplex printing, we recommend referring to the complete version of Energy Star V1.1 criteria as this would also cover requirements on default delay time.

#### Requirements on automatic double-side printing are needed

The draft VA aims at increasing the positive impact of duplexing to reduce the amount of paper used. However, the VA leaves three different options to manufacturers, i.e. to set duplex printing as default, to remind users for duplex default setting during software set up or to remind users about duplex default settings in the user manual. We ask that all devices should have the duplex printing turned on as a default as all other measures are considered to have no impact in practice.

In addition, requirements on automatic duplexing are needed which means that the all devices should be able to turn the page automatically while finishing the printouts.

The VA should also set requirements on improving settings which allow printing several pages on one sheet.

#### Noise should be addressed

We noted that the document does not contain any proposal of how to lower noise levels of Imaging equipment. However, the sound pressure levels and frequency range deriving from scanners and printers can be very disturbing. Therefore, setting mandatory requirements on noise levels, which would bring a considerable improvement compared to the current situation, are a very important point for consumers.

#### Eco-design should address resource efficiency

The preparatory study on Imaging equipments proposed several possible solutions to enhance the material efficiency of Imaging equipments. The draft VA does however not include any steps to enhance material efficiency. Based on the preparatory study the following options for improving resource efficiency should be considered:

- Miniaturization of main boards through adoption of finer structured multilayer boards, high density electronics and chip packaging technology
- Smaller power supply units (e.g. circuitry design and choice of electronic components)
- Smaller motors and paper transport mechanics
- Smaller scanner unit through miniaturized scanner head and lamp system as this will reduce weight and volume of the scanner head will also reduce the requirements for electromechanics such as motors.

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 Smaller laser unit through high density MOEMS (Micro-Opto-Electro-Mechanical-System) packaging

It has however to be ensured that miniaturization will not have negative impacts on consumers with disabilities as small components are often difficult to operate for consumers with e.g. dexterity or vision disorders.

#### Eco-design should address environmentally friendly design of appliances

The draft VA does not mention concrete steps for the environmentally friendly construction of Imaging equipment in addition to energy efficiency. However, as there are many improvement options available to lower the negative environmental impact through better technical design, a reasonable set of concrete measures should be developed. The improvement options should include:

- A reduction of the multitude of plastics
- Use of recycled plastics if technically possible
- Separation of plastics for better recycling based on ISO 11469<sup>4</sup>
- Reduction or avoiding coatings of plastics
- · Reducing use of hazardous chemicals

## Eco-design should consider possible negative health effects of particulate matters

We regret that the VA does not contain any proposals aiming at reducing emissions (particle and fine particles) from Imaging equipment products. As particle emissions might affect the breathing organs of highly susceptible people, e.g. persons suffering from allergies or asthma, we consider it important to set requirements on a maximum emission rate of particles.

#### All appliances should support the use of environmentally friendly paper

The draft VA foresees a generic statement of manufacturers to encourage the use of environmentally friendly paper, such as eco-labelled paper, recycled paper, FSC paper etc. However, this vague specification leaves room for interpretation.

We therefore propose that all Imaging equipment devices which will be placed on the market from 1 January 2011 onwards should support the use of and should be compatible with environmentally friendly and/or recycled paper that meet the criteria of the European Ecolabel or the German Blue Angel.

Furthermore, all Imaging equipments placed on the market from 1 January 2011 onwards should support the use of and should be compatible with 4 gram paper.

As recycling paper already today allows for a high print quality, we ask deleting the following wording from the draft VA: "Printers can print on recycled paper although the quality of print may decrease".

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<sup>&</sup>lt;sup>4</sup> ISO 11469: 2000 Plastics - Generic identification and marking of plastics products





#### Reference to international standards should be made

The VA should ensure that the following international standards will be applied on cartridge yield:

ISO/IEC 19752 Toner cartridge yield for monochrome EP printers

ISO/IEC 19798 Toner cartridge yield for color EP printers

ISO/IEC 24711 Ink cartridge yield for colour IJ printers

ISO/IEC 24712 Colour test pages for measurement of office equipment

#### Representation of participating companies needs to be clarified

The draft VA specifies that the agreement could be terminated in case the signatories no longer represent a vast majority of the market (over 80%). This wording does not clarify if the 80% refer to the total number of participating manufacturers or the sales figures. We consider it important to clarify that over 80% of all manufacturers of Imaging equipments should participate and should represent together a total market share of above 80% in order in order to meet the requirement on "representativeness" according to ANNEX VIII of the Eco-design Directive.

#### Transparency on achievements of single companies has to be increased

The draft VA foresees in chapter 6, paragraph 4 that the annual progress report which will be prepared by the Joint Research Centre of the European Commission will only show anonymous results without naming the achievements of individual companies.

These provisions do not meet the requirements on reporting in Annex VIII of the Ecodesign Directive 2005/32/EC which states that "the plan for monitoring and reporting shall be detailed, transparent and objective (...)".

In addition, such weak provisions on reporting would not allow for involving civil society adequately as the results cannot be properly assessed.

To allow for a reliable monitoring of (non-) compliance, the progress reports have to give details on unit sales per model. As a minimum requirement all companies need to indicate the company name, information on unit sales per model and on the compliance rate.

We ask to delete the second paragraph of section 6 in the draft VA which states that:

"Companies do not need to provide details on unit sales per model; only total sales volume would be required as this is required to calculate market coverage of the signatories".

We ask to introduce the following wording into the reporting requirements instead:

"Stakeholders including member States, environmental NGOs and consumers' associations shall be granted access to all monitoring information and detailed results of the annual progress report. The annual progress report shall contain data on individual company performance and compliance rate to ensure transparency in the process, to allow implementing effective sanction mechanisms for non-compliant companies and to encourage a race to the top among manufacturers. The monitoring information and data in the annual





progress report shall be provided next to the names of individual companies, and shall not be anonymous".

#### Composition and voting rules of the Steering Committee must be democratic

The draft VA mentions only participating companies, the European Commission and Member States Representatives as possible members of the Steering Committee.

However, we ask for a formal seat for the European Parliament including voting rights as an Eco-design Implementing Measure for Imaging equipment would follow the procedure with scrutiny.

In addition, we ask for formalised seats including voting rights for all stakeholders which are a member in the Eco-design Consultation Forum such as consumer organisations.

As the EU institutions will be outnumbered by industry representatives, they should have the opportunity to veto certain decisions of the Steering Committee to ensure that the aims of the Eco-design Directive will be met.

#### Revision date should be based on technological progress

The draft VA foresees that no revision could take place before 1 January 2012. However, we propose deleting a concrete date as updates should always be possible in case technology evolves and more stringent criteria would be more applicable.

# No termination of VA without legal obligations to fulfil energy efficiency requirements

We are not supportive of a provision in the draft VA which allows signatories to unilaterally terminate all obligations of the VA by simply sending a letter to the chair of the Steering Committee. First, by just sending a letter to the chair of the Steering Committee (in which stakeholders do not have a seat) it would be easy for laggards to hide this unilateral withdrawal from the public. Second, a resignation of one or more signatories would severely undermine the possible positive impact of the VA.

We therefore call on the Commission to observe any withdrawals closely, to publish this information and to implement legal minimum Eco-design requirements as soon as the market share of the remaining companies is lower than required based on the Eco-design Framework Directive.

#### Procedures on penalties and expulsion have to be set up

The VA needs to specify strict sanction procedures which will apply to signatory companies which do not comply with the requirements of the VA. We see a need to introduce provisions on monetary sanctions and procedures for expulsing members into the VA before it enters into force.

End.