

# Minutes of the AHWG meeting for the revision of the EU Green Public Procurement criteria for Computers

11th December 2019, Seville, Joint Research Centre, Directorate B – Growth and Innovation

## Organizations attending the meeting

Apple
Bechtle
Berliner Energieagentur
Dell Inc
European Commission - Directorate-General Environment (DG ENV)
European Commission - Directorate-General Informatics (DG DIGIT)
European Commission - - DG for Internal Market, Industry, Entrepreneurship and SMEs (DG GROW)
The European Environmental Bureau: (EEB)
Government of Flanders - Environment and Spatial Development Department
Fraunhofer IZM
German Environmental Agency
Green Electronics Council/EPEAT
HP
Materion
Ministry of Infrastructure and Water management, Netherland
Norwegian Agency for Public Management and eGovernment
Oreo Municipality
Responsible Business Alliance
TCO Development
University of Lund
VDE Testing and Certification Institute

## **Introduction, background and preliminary findings**

One Stakeholder remarked the lack of social criteria and asked the Commission for inclusion into the criteria document. Also another stakeholder would like to see social criteria added with regard to e.g. working conditions or extraction of minerals.

*DG ENV: not to be included in the work we are now doing; more investigation needed focus on green part; Trying to work with colleagues in other units trying to align the work in parallel Buying social guide (2011) currently revised, to be published in 2020*

One stakeholder proposed as underlying approach not only taking into account 'being equipped' with computer products but also the 'needs to be fulfilled' for procuring authorities which might have implications on the design of the GPP criteria. For example, as criteria or guideline could serve that the tenderer should be able to provide the competence to assess also the needs of the company with regard to ICT-fittings.

One stakeholder asked if the feedback provided in the initial consultation revealed any differences between countries, e.g. higher focus on energy criteria under GPP due to high energy prices in certain countries.

*JRC: not relevant differences between countries regarding the focus of criteria; it is quite clear that the focus of GPP Criteria should move more toward the impacts related to the manufacturing than the impacts related to the use phase.*

Extending the scope of the current GPP criteria to the product group smartphones was not questioned by stakeholders, as many issues and components are the same for the different product types. Existing labelling or certification schemes also try to harmonise criteria as much as possible. Nevertheless, it was pointed out that there are still differences between product types which should be taken into account when developing the criteria.

DG JRC pointed out on the general focus on extending the usage time of computer products, e.g. by prolonging the time until replacement and asked stakeholders for more information on specific data or experiences with regard to replacement needs and cycles of computers and smartphones in GPP. Another approach introduced by DG JRC was to avoid overprovisioning of the procured computer products; one stakeholder asked for the possibility to include this aspect also into the criteria.

### **Criteria area 1: Energy consumption**

DG JRC informed that no energy consumption criteria are proposed for smartphones. The main standardized metric available is the Total Energy Consumption (TEC)', based on the IEC/EN 62623 standard. TEC metric does not cover 'active mode' measurement so far. However, the metric, which includes 'short idle', still seems to be quite representative of normal profile of use in office environment and in the absence of new standardized metrics covering also active state it will be used as the main reference for the criteria on energy consumption of computers. With regard to notebooks' battery life duration, JRC points out that the performance is a combination of battery capacity and device efficiency, i.e. testing only the battery capacity would not be sufficient; however, standardisation is needed on this issue.

One stakeholder welcomes using the underlying IEC/EN 62623 standard as reference after termination of the EU-US Energy Star agreement. With regard to 'active state', a stakeholder recommended the development of criteria only after a standard is developed, as the current IEC standard does not include a definition or measurement procedure for active state so far. Another stakeholder recommends

harmonizing requirements globally, e.g. to align GPP also to the revision of EU Ecodesign for computers which might also not include an active state efficiency metric.

One stakeholder pointed out that too strict requirements on the energy consumption might result in worse performance (e.g. due to reduced luminance) which might lead to early replacement of the devices in the end. Also, the stakeholder does not expect relevant efficiency gains of processors in the coming years. Taking these two aspects into account, a rather conservative approach might be chosen for the energy criteria. Another stakeholder agrees that the use phase of computer products is rather exhausted in terms of energy efficiency and taking too much pressure might affect negatively the other categories.

Regarding the question of including criteria on the energy consumption in the manufacturing phase, two stakeholders deemed it being too early. In this context, another stakeholder proposed not taking the manufacturing phase at all, but rather the kind of energy (renewable / fossil) used for the manufacturing processes. Another stakeholder proposed to check TCO or EPEAT criteria with regard to criteria on manufacturing (e.g. energy management) and to consider these aspects for example for the next revision only.

One stakeholder appreciates the possibility of using labels like TCO, Energy Star etc. for verification as procurers cannot study metrics like TECs in detail. Further, the guidance that it is not necessary to apply all criteria is welcomed (e.g. criteria AC1 only for graphics intensive usage). In total, the stakeholder sees the risk of cherry picking as there are too many criteria on energy consumption. Thus, it is recommended reducing the number of criteria and selecting the most important ones, as well as focussing rather on durability than on less important energy criteria.

A stakeholder also stated that for the TS1 Core / Comprehensive: either using the one or the other, a proof of compliance / verification based on EPEAT Certification should be considered acceptable.

DG JRC highlighted the positive feedbacks received on the use of the IEC/EN 62623 metrics and on the use of Type I ecolabels as possible proof of compliance.

## **Criteria area 2: Hazardous substances**

Stakeholders expressed the concern that the criteria area in hazardous substances would be too difficult for procurers to understand the verification.

Some stakeholders stated that they do not see the sense in setting award criteria but proposed to include them as TS criteria. The adoption of award criteria was doubted by several stakeholders.

There was also the view expressed that two criteria on SVHC are confusing; this should be reduced also against the light of a too high number of criteria in total.

One stakeholder suggested to take up the full material declaration as one possibility for documentation of substance control in SC1. A stakeholder also suggested alternative reference standards for material declaration.(e.g. IPC1752)

One stakeholder asked about the RoHS exemptions that allow the use of hazardous substances; another stakeholder mentioned that some RoHS exemptions have already expired. It was explained that the RoHS Directive is considered as legal basis therefore the RoHS exemptions are valid of course.

The background to the award criterion on the avoidance of phthalates was explained. Some stakeholders gave the feedback that basically the approach of using a white list instead of black list was welcomed. However another stakeholder still noted that procurers do not have the chemical knowledge

and that the criteria on hazardous substances risk being resource-intensive; the stakeholder also stated that lists of substances are difficult to be managed. Still another stakeholder supported this by suggesting to simplify the verification as much as possible.

One stakeholder suggested to add the labels that fulfill the criteria in the verification and another one suggested to insert an example on how a verification could look like maybe for every criterion.

In the context of the hazardous substances, the suggestion of a database for the different criteria came up because stakeholders felt that additional information can easily be made accessible and is only retrieved by demand.

### **Criteria area 3: Product lifetime extension – Extended services agreement / warranty**

One stakeholder asked for clarification if the criteria 6a (extended services agreement) and 6b (manufacturer's warranty) are to be understood as either-or criteria or if a combination of both would be applicable.

Another stakeholder suggested that also batteries should be covered by warranties (e.g. that batteries have the ability to maintain capacity over a certain time frame (not only a cycle based indication)).

### **Criteria area 3: Product lifetime extension – Availability of spare parts / design for reparability**

Several stakeholders agreed with the proposed list of parts to be easily accessible and replaceable (criterion 7b). One stakeholder guessed that the list is aligned to the TCO Certified 8 criteria, however asking why the rest of this specific TCO Certified 8 criteria (such as service level part) is missing and if this could be added.

One stakeholder pointed out that the assembly, which is included for displays, might also be relevant for batteries.

Another stakeholder asked for clarification if the charger itself should be included as spare part or rather the charging port.

One stakeholder asked to clarify who the addressee of the repair is (users, technicians only?).

One stakeholder pointed out that the RAM is often soldered on board and asked for clarification if this would be allowed by being easily accessible and replaceable by commonly available tools, or if an option could be to upgrade it within a certain time frame.

Another stakeholder indicated that storage is often not replaced because it is broken but exhausted, which then needs rather an upgrade instead of repair. Further, more often 'centralised storage' is used in business processes, which might be handled differently in the public procurement process and GPP criteria. In this context, one stakeholder generally asked to include 'upgradeability' for improving performance / extending lifetime as well. Further, for some customers instead of availability of spare parts (TS7a) rather a replacement / repair service (TS6a) might be relevant so one stakeholder proposed to mark these as either/or criteria.

Finally, one stakeholder deemed software / software support as most important part of ICT and proposed to introduce another criterion on continued software support at least for a certain period.

JRC clarified that different criteria can be more or less relevant based on the procurement route. In case of extended service agreements and warranties criteria on reparability / upgradability could be less relevant. JRC confirmed that the list of parts is aligned with TCO Certified and it will be crossche-

ked if inconsistency are present. Upgradeability: partly included by reparability criteria (some components as memory etc.) can be exchanged. JRC also clarified that the issue of software support is considered relevant and it will be further investigated.

### **Criteria area 3: Product lifetime extension – Refurbished products**

One stakeholder proposed to include the issue of refurbished products also as Award Criteria.

One stakeholder sees the proposed criteria on refurbished products challenging; it should not be seen as share of the total amount of procured products only, but in combination with the assessment of performance needs of the procuring authority, as refurbished products might provide different specifications (processing power etc.) compared to new products.

According to one stakeholder, there is no standard on the quality of refurbished products, a common procedure for the remanufacturing process or a company label available so far; organisations sometimes label the quality of refurbished products with A, B, C etc. One stakeholder informs about a Dutch certification scheme on refurbished products which can be shared with JRC. Another stakeholder informs about the recent e-Waste conference in Frankfurt where a standard on refurbished products has been introduced. Another stakeholder points out that refurbished products usually come out with a warranty which might be complementary to a quality scheme. In this context, DG Grow referred to the "Blue Guide on the implementation of EU product rules"<sup>1</sup> which sets at least clear conditions how a product can be assigned as "new product", and to the EU Ecodesign activities at standardisation level (standardisation mandate on Circular Economy aspects) which might also provide potential definitions.

One stakeholder pointed out on the importance to set criteria on the basic quality of products to be initially procured; in case of bad performance, then products would not be used longer in the end.

Another stakeholder referred to the explanatory note given with the criteria, where the battery state of refurbished products is recommended as 'new and compatible', pointing out that it is not always necessary to have a new battery. Another stakeholder commented that the provision of a warranty could be already a way to ensure sufficient quality of the product.

Stakeholders also asked for clarification if any of the criteria (at least the core, the content of hazardous substances, or even some comprehensive criteria) shall also apply on refurbished products.

Further, one stakeholder pointed out that refurbished products are often offered by specialised companies, rather not usual ICT providers; thus, the procurement of refurbished products in some municipalities is done under a normal procurement process instead of GPP. If – as proposed – the procurement of new and refurbished products are covered by the same tender, only some OEMs / larger manufacturers would be able to fulfill, not small companies which specified on refurbished products and do not have new products in their portfolio. Moreover it is pointed out that refurbished products could be not able to meet all the criteria set for new products and a more limited set of criteria should be associated to refurbished products. Thus, a guidance for procurers is asked for.

Finally, one stakeholder remarked that high quality products are not per se the best environmental solution if short replacement cycles are kept.

JRC answers: We would limiting the option of refurbished products if they also would have to fulfill the core criteria. JRC is going to revise the proposal based on the comments received.

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<sup>1</sup> See [https://ec.europa.eu/growth/content/%E2%80%98blue-guide%E2%80%99-implementation-eu-product-rules-0\\_en](https://ec.europa.eu/growth/content/%E2%80%98blue-guide%E2%80%99-implementation-eu-product-rules-0_en)

### **Criteria area 3: Product lifetime extension – Secure data deletion**

DG JRC / DG GROW informed that the referred Guidelines for Media Sanitization 800-88 by NIST (2014) were also used as reference in the development of Ecodesign regulation on servers, where data deletion is a compulsory requirement. As different quality standards for secure data deletion are available, there is an ongoing process of releasing a standardisation request with regard to data deletion quality.

JRC answers: separate document with some specifications for refurbished products being more feasible; Software support relevant, should be included; Reparability: different scenarios; sometimes procurers working with Service, some requirements are then not relevant for GPP => include comments in some of the criteria (this criterion is not relevant in case DaaS);

### **Criteria area 3: Product lifetime extension – Battery endurance**

Rechargeable battery endurance (TS10/AC5): One stakeholder informed that according to his experience, most manufacturers usually test against 300 cycles only, some for 400 cycles, none for 1000 cycles; thus, for the proposed comprehensive criteria (500 cycles), manufacturers would have to make two tests to comply with that criteria, which seems rather unlikely. Another stakeholder agreed to this, stating that testing performed by suppliers of batteries use today's standards, thus additional testing would be needed if higher requirements are applied.

One stakeholder informed on the contrary that for example in Italy 700 cycles with at least 70% capacity are requested and therefore considered it possible that the GPP criteria are more ambitious with regard to the cycles. On the other hand, one stakeholder proposed to require 300 cycles at 90% capacity in order to make the criteria stricter for the comprehensive level.

Also, another stakeholder pointed out that for the comprehensive criteria the Blue Angel serves as verification, which however has no certified products so far. With regard to verification, one stakeholder further recommended that the underlying reports should include a requirement that products have been tested, i.e. the data should not only be based on calculations.

According to feedback of one stakeholder, using an accelerated test procedure for battery endurance beyond 500 cycles makes sense.

One stakeholder informed that the IEC standard requires testing the battery solely, not the battery usage in the product. More realistic would be testing the number of cycles on the products as each product has different underlying software / usage profiles; however, there is no standard available so far.

One stakeholder found the information on state of health (TS12) to be a good idea, however rather showing the rest of capacity in % than the number of full charge cycles already performed as proposed in the revised criteria.

Further, some stakeholders also deemed the criterion on battery protection software (TS13) as good. A stakeholder reported examples of batteries with high level of battery degradation due to the permanent use of the battery in plugged-in mode. It was also highlighted that according to the ISO 61690 the charging profiles can be set according to manufacturers specifications.

About limiting the charging to a value smaller than the maximum amount of usable electricity (e.g. 80% of full charge capacity), as proposed in the criteria, it was commented that might not always be feasible to the customer, e.g. in case of travelling.

One stakeholder shared his experience that for refurbished products sometimes low quality replacement batteries are used, thus the GPP criteria should include a requirement on certain battery quality for refurbished products as well. In this context, a grading system (A-E) for refurbished products is reported and it should be checked if the A-E rating of refurbished products also includes the battery quality.

Further, a stakeholder informed that the future market of batteries will probably change fundamentally, e.g. with introduction of solid state batteries, which would then also affect the GPP criteria.

Finally, one stakeholder asked to consider the limited technical experience of public procurement authorities (might not take care about 'cycles') and better take into account their needs as otherwise these GPP criteria might not be applied.

JRC answers: 300 cycles - keep that and play with rest capacity (80/90%); Battery durability (h): how to formulate such a criterion: help of stakeholders needed

### **Criteria area 3: Product lifetime extension – Durability testing**

One stakeholder appreciated the inclusion of robustness tests in the GPP criteria, another stakeholder further appreciated that the criterion refers to industry standards.

Upon the question of JRC with regard to the necessity of the definition of different thresholds for different product groups, a stakeholder repeated the general approach to harmonise as much as possible, i.e. trying to avoid different levels for different product groups would be more beneficial.

Upon the question of a stakeholder why drop testing was chosen as core and temperature testing as comprehensive criteria, and not all issues for example at comprehensive level, JRC answered that according to research results drops are the most relevant 'accidents' and thus were taken in focus.

One stakeholder informed about the experience that a lot of notebooks are tested against the MIL-standard, but not so much tablets. On the other hand, for tablets separate covers can be purchased which are tested against MIL standard. This aspect might be taken into account in the criteria formulation.

One stakeholder asked to check if the surface for the drops is specified in the standard.

Another stakeholder asked for the possibility to also provide other types of documents than test reports for verification as test reports are complex documents often cover further products as well.

### **Criteria area 3: Product lifetime extension – Interoperability and reusability of components**

According to some stakeholders' feedback, the possibility to procure ICT equipment without accessories (TS21) is a very good proposal. According to one stakeholder, this requirement was specifically driven by procurers as accessories are often reused and not needed when procuring large bulks.

One stakeholder finds the requirement of a price list for adapters as verification for criterion TS20 (backward compatibility of adapters) tricky as this might only be an indicative list, validity might change etc., which would make the verification rather difficult.

### **Criteria area 3: Product lifetime extension – recycled content**

Proposed is that the tenderer must provide equipment with minimum 10% of post-consumer recycled plastic by weight of total weight of plastic parts included in the ICT equipment provided.

One stakeholder provided the feedback that the proposed criterion seems to be formulated rather simplistic and might need more details: is a minimum hard weight or total weight meant? Are there any thresholds or exemptions for plastic parts foreseen? Some parts are asked to be excluded (e.g. PCB). It might be a lot of effort to calculate the percentage.

Further, according to a stakeholder's view, the 10% threshold might be ambitious to be applied to ALL product types. One stakeholder added that in smartphones only small parts of plastic are included, mainly in the PCB, whereas the rest is mostly made of aluminum.

Another stakeholder informed that actual EPEAT criteria require 2% content for all products; according to the EPEAT database, the actual range is from around 3% in tablets (which do not have so much opportunities for implementing) to around 15% in monitors and integrated desktops; for these additional content, optional points can be gained, scaled according to real data as basis. According to this experience, the GPP criteria might require different levels for different product types. Similar experience is given for TCO which applies a criterion on recycled plastics only for TCO Certified Edge certified products as it would rather limit the number of complying products if including the requirement into the TCO Certified scheme as well.

One stakeholder informed about his experience with regard to the implementation of this requirement, as often the power supply button is used to meet the recycled plastics criteria based on fears about reduced quality if implemented in „more important“ plastic parts like housing. It should be carefully evaluated which part would be fit for implementing the recycled content without quality decrease.

Another stakeholder proposed doing a market analysis before setting the benchmark; a stakeholder consider the contract performance clause not necessary due to the fact that the formulation of a material in terms of recycled content would be constant in order to meet the qualification requirement for their processes.

Two stakeholders asked if for the recycled plastic content also chemical or other GPP criteria (e.g. restrictions on hazardous substances) shall apply.

One stakeholder appreciated the inclusion of a criterion on recycled plastic content, however had concerns about the verification if this would rely on company based own declarations only. The real percentage will only be an estimation, companies would have to apply a mass balance approach of their own processes. Further, it is asked to align and harmonise criteria and documents to labels to make verification easier. Also concerns were raised about the mixing of pre consumers and post consumer plastic.

Another stakeholder asked if the inclusion of a criterion on biobased plastics would be foreseen as well, however knowing that rather no company has implemented it already. In this context, also another stakeholder deemed verification requirements to be very difficult and proposed using ecolabels as verification or rather use the calculation approach as documentation.

Finally, a stakeholder was missing packaging criteria, knowing that it is not an environmental hotspot, but also sees GPP as possibility for taking into account the potential of ‚smaller‘ issues.

JRC clarified that further work will be done to better set benchmarks at product group level and further analysis needs to be carried out also to ensure a solid verification for this criterion.



#### **Criteria area 4: End-of-life management – Recyclability / marking of plastics / marking of batteries**

One stakeholder sees low sustainability benefit in the restriction of glued-on or moulded-in metal inserts for smaller plastics (TS 23a/b) as they usually go into a grinder.

Regarding the marking of plastics (TS25), one stakeholder considered the limit value of 5 g for smartphones as very low and referred to a limit of 25 grams in other standards.

Further, one stakeholder informed that a battery pack marking (TS26) was introduced in Japan before, but they did not keep it. It is recommended to search for the reasons.

#### **Criteria area 4: End-of-life management – Declaration of critical raw materials (CRM)**

Regarding criterion TS27, declaration of critical raw materials (CRM), one stakeholder remarks that the ecodesign directive only requires information on 2 CRM whereas GPP wants information on 5 CRM and asked for the reason. Also regarding the term "indicative weight range", it is expected that the approach will probably have to be very indicative as the supply comes from various manufacturers. The criteria are seen as going too far for GPP. On the other hand, a stakeholder informed about a programme looking from a Circular Economy perspective on ICT where 22 CRMs were found in smartphones; a number which might be slightly different depending on the product category.

One stakeholder asked about the aim and targeting group for getting the information on CRM; if for the procuring authorities, the purpose of this information is unclear; if aimed at targeting recyclers, they might know it from other sources and do not need the range. Also, another stakeholder asked about the purpose of the transparency on CRM which is just informing about weight ranges, but rather not on where and how they were sourced; thus the value of this criterion remains unclear.

One stakeholder informed about a report of the Nordic Council on CRM in discarded products, where the percentages found in ICT equipment were so small that it does not make sense to recycle them (except for batteries); thus, the proposed GPP criterion would not make sense. Further, the CRM list would not add as much benefit for procurers; it is proposed that the issue should be addressed at another level, not necessarily in the GPP context.

#### **Criteria area 4: End-of-life management – Reporting on end-destination of ICT equipment**

Regarding the criterion TS28 and contract performance clause CPC3, one stakeholder asked about the aim of this criterion besides just to have transparency. In TS28, it is recommended that the requirement of „providing a service for the re-use and recycling“ should be rather an „or“-criterion, as most ICT products will end up in recycling; even if there is a growing market in refurbishing, the greatest obstacle is the supply of appliances.

Another stakeholder criticized that there is just a contract performance clause on reporting, but no clause on requiring refurbishment at the end-of-life.

Finally, a stakeholder proposed to require information about how much CO2 emissions would be reduced by different end-of-life options.

JRC: keep track on these materials; needs clarification of purpose of this criteria; DG GROW: included in server regulation: compulsory to declare for 2 cobalt / indium; rationale / whom targeting: information aimed for benefit of recyclers; findings: it could be useful to have an idea about weight ranges; thresholds to take fast decisions if to attempt to extract materials or not; information has to be made available on website accessible for third parties ; If we want to establish circles, at least we should try to

establish some information (hen-egg-problem); ED was kind of compromise. TC28: aim is to ensure in case of eol: Authorities should be assisted; organisations that are able to provide EoL scenarios, not only device as waste

### **Concluding remarks of stakeholders**

One stakeholder proposed to organise the documentation for verification as kind of checklist. Another stakeholder would also be in favour of checklists for verification, especially to make clear, for each criterion proposed, which are the main Ecolabels that can serve as proof of compliance.. A stakeholder proposed to align all core criteria to ecolabels.

A stakeholder asked again for packaging criteria to be included, as there are large differences between manufacturers. Another stakeholder asked for social criteria to be included in the GPP criteria.

On the other hand, a stakeholder pointed out that with the revision, there is a higher number of criteria than before, whereas the analysis of GPP application revealed that in average only 4-8 criteria are usually applied. Several stakeholders also asked to simplify and reduce the overall number of criteria proposed during the discussion.

It was proposed to seek active feedback from procurers about the application of criteria. Also another stakeholder proposed to pilot the revised criteria to assess which ones might be used. It was also mentioned to differentiate between criteria that are covered by ecolabels, where fulfilment can be achieved easier, and criteria that go further than existing labels in order to push the market.

Finally, a stakeholder proposed to provide a better orientation for procurers on the most relevant criteria, e.g. the prolonged use of the computers and provide background information on the expected purpose of different criteria (e.g. number of battery cycles is related to product durability), i.e. link the criteria to objectives such as extended usage of 4 years in the office, being robust for outdoor working conditions etc.).

JRC answers: In tendering process, procurer will not apply ALL criteria; maybe guide better different scenarios; JRC finally described the next steps of the process and reminded stakeholders about the deadline to provide written comments on the first criteria proposals for Computers and Monitors through the BATIS system: by Monday 3rd of February 2020