

Stakeholder Meeting

EuP Study Lot 4, Imaging Equipment

Date: Wednesday 24.10.2007

Time: 10:00 – 16:00

Place: DG TREN, rue Demot 24,
 1040 Brussels

Agenda

10:00	Opening of the meeting	Stephan Kolb, DG TREN, EU
10:15	Brief summary of main results of Tasks 1-3	Lutz Stobbe, IZM
11:15	Presentation and discussion of main results of Tasks 4 and 5	Lutz Stobbe, IZM
12:30	Lunch	
13:30	Presentation and discussion of main results of Tasks 6 and 7	Lutz Stobbe, IZM
15:45 – 16:00	Next steps	

List of participants

Last name	First name	Company/Organisation
Lot 4 stakeholders		
Beekwilder	Jos	Océ Technologies B.V.
Bonislawski	Piotr	Kreab (on behalf of Emerson)
de Bruin	J.G.R.	Kyocera Mita Europe B.V.
Drachenberg	Tino	German Energy Agency (dena)
<i>Furkel</i>	<i>Maxime</i>	<i>Lexmark</i>
Hatano	Hirimitsu	RICOH Europe
Heymann	Sharon	SHARP Europe
Hirose	Koichi	SHARP Europe
Kadribaks	R.H.	Kyocera Mita Europe B.V.
Kimura	Masashi	Toshiba Tec
Kuriyama	Yoshinobu	Canon Europe
Finn	Laurence	Xerox
McAlister	Catriona	AEA Technology – UK Market Transformation Programme
Moin	Nathan	Hewlett-Packard
Mordziol	Christoph	Federal Environment Agency Germany
Niwano	Kentaro	Canon Europe
Pollet	Kris	Pollet Environmental Consulting
Rodriguez Martinez	Sara	Hewlett-Packard
Saito	Masahito	Toshiba Tec
Schonbach	Claire	Xerox
Sicsic	Pierre	Hewlett-Packard
Smit	Elco	Epson Europe

Tanaka	Yoshiki	Toshiba Europe
Ulken	Dierk	Toshiba Tec
van Dijk	Vincent	ETIRA - European Toner & Inkjet Remanufacturers Association aisbl
Viegand	Jan	Viegand & Maagøe (consultant for Danish Energy Authority)
European Commission		
Kolb	Stephan	DG TREN
Lot 4 consortium		
Stobbe	Lutz	Fraunhofer IZM
Ruiz	Nerea	Fraunhofer IZM
Turunen	Lea	BIO Intelligence Service
Quack	Dietlinde	Öko-Institut e.V.

Minutes

Prepared by Lea Turunen, BIO Intelligence Service; Dietlinde Quack, Öko-Institut; Nerea Ruiz, IZM and Lutz Stobbe, IZM

Note: The main aim of these minutes is to show the questions and answers brought up during the meeting. The actual content of the presentations is not elaborated in the minutes.

Begin: 10:15

Introductory note from Mr Stephan Kolb (SK), DG TREN

SK reminded that the meeting will cover Tasks 1 – 7 of the Lot 4 preparatory study. The purpose of the stakeholder meeting is the discussion of technology. The Formal forum for policy options is the Consultation Forum. This means that Task 7 is not intended to represent the political measures. Task 8 will be published as draft shortly after the meeting; study will be finished in December 2007.

SK also gave a general overview of the EuP policy process. The EU will commission an impact assessment study (framework contract exists already, so no tendering will be necessary) and will then publish the proposed measures together with an impact assessment study. For the proceeding within the impact assessment study a selective stakeholder involvement is foreseen. However, the consultants are not required to lead a stakeholder communication process. This is the responsibility of the EC.

Industry asked about the current consultants. SK told that he does not know.

10:30 Brief summary of main results of Tasks 1-3

Lutz Stobbe (LS) introduced the definition of scope (**Task 1**) and the product distinction criteria. He explained why the study narrowed on unattended “office imaging equipment” in personal or workgroup environment. Further explanations were given on the definitions, test standards, as well as the scope and the functional unit of the study.

SK made the remark that the scope of the preparatory study does not necessarily have to be equal to the scope of the base-cases.

LS continued the presentation on **Task 2**, pointing especially at the current market trends. He pointed to the fact that limitations regarding the availability of explicit marked data have an effect on the study's results. The EU statistics are not appropriate.

SK remarked that the base-case selection as well as the environmental impact assessment and scenarios are based on the presented market data, which mainly comes from one source (InfoTrends). Unless comments were made, it is assumed that stakeholders are fine with the market analysis and figures.

Jan Viegand (JV): Did you compare market figures from InfoTrends with data from companies?

LS explained that the data was discussed with industry in meetings and through bilateral contacts and question rounds, without being ever questioned.

There was no contradiction on that among the participants of the stakeholder meeting.

LS continued the presentation on **Task 3**, drawing attention to the lack of homogenous definition of modes and the way use pattern were determined for the base-cases.

SK: On slide 20, you mention standardisation in brackets. Does this mean that there is a need to standardise the mode definitions?

LS explained that this is indeed the opinion of the contractors, either each "ready/standby mode" should be defined separately or "intermediate transition modes" should be defined together (where does this mode start and when does it change into networked standby or off-mode).

JV: Energy Star did not define these modes individually as it is a complex issue and very difficult to define for this kind of products.

LS remarked that there are different ways of calling (naming) the modes and insisted on the importance of clear definition(s) in order to be able to assess improvement options.

Pierre Sicsic (PS): In relation with Lot 6, none of these reactivation functions / transition modes is included in the Lot 6 (passive) standby. Is this correct?

LS and SK confirmed that this is the case. Imaging equipment has typically "networked standby" or "off-mode" and not "passive standby".

PS: Is a printer, which is connected via USB to a computer, considered to be in "networked standby" and thus out of the scope of lot 6 (passive) standby and the proposed lot 6 implementing measures?

LS and SK again confirmed that this is the case. SK then inquired if industry saw a need for standardisation related to mode definitions. LS clarified that it is not necessary to define all different "transition modes", but that the limits of "network standby" and "transition phase" should be clearly defined.

Jos Beekwilder (JB): Why don't you leave all these modes under one heading and leave freedom to manufacturers to design the best scheme? We should not spend years to create definitions instead of creating implementing measures.

PS commented in that respect that low power modes are related to technologies and thus difficult to define horizontally.

LS agreed and repeated his earlier statement that it is probably not necessary to define each low power mode separately. He made reference to Blue Angel criteria based on power budget and gave word to Mr. Mordziol (CM) to explain how the issue is dealt with within Blue Angel label.

CM: In development of Blue Angel criteria, it was considered best not to rely on modes. Thus, we have a limit curve and the manufacturer can decide the number of steps and energy consumption in an individual step. The limit curve is calculated for each appliance based on speed and other such parameters. We have also specified time requirements for reactivation/recovery.

LS argued that such a system still does not allow comparing fairly different technologies.

PS: You say that TEC (slide 23) does not correspond to real life use pattern. Do you have proof of this?

LS: Estimating the real life use patterns is difficult. Thus, we should look at the worst case that is technically possible – that is a prolonged “ready mode” phase. The Energy Star TEC method does not allow estimating this.

11:50 Presentation and discussion of main results of Tasks 4 and 5

LS introduced the **Tasks 4- 5** of the study, focusing on the base-case selection and key results of the analysis.

Catriona McAlister (CMA): Did you take into account the weight and materials of the cartridges?

LS explained that cartridges were part of the total BOM, but not considered separately. Toner was taken into account, but ink could not be analysed as default data does not exist in EcoReport and no life cycle analysis data exists for ink. Toners including their cartridges don't show a major impact. We have to assume the same for ink.

Dietlinde Quack (DQ): Did you consider the differences between SFD and MFD inkjet products? SFD are simpler, smaller and should have less impact. On the other hand, MFDs have more housing, more electronics and therefore a higher impact. So optimizations – with the goal to prevent an increase of environmental impacts (rebound effect) should focus on MFD.

LS: IJ-MFDs have been chosen because they are more dominant in the market. Their eco-impact not necessarily has to be higher, take the example of off-mode power consumption.

JS: (Slide 35) It is not acceptable to multiply base-case results with the European stock. For example, the resulting paper consumption is too high.

LS agreed that the paper consumption is too high in comparison to the data provided by InfoTrends. However, the results correspond with the applied TEC use pattern, which assumes a higher paper output. Indeed, low speed devices had been chosen in the study in order to get a more realistic amount of paper consumption. Paper itself has a high eco-impact (GWP). Paper is a special issue and has to be treated independently, therefore we analysed paper in a separate way throughout the study. Furthermore, paper is not targeted under the EuP Directive except by requirements addressing the aspect of duplex printing, misprints or paper jams.

PS: It is not true that all customers change pre-settings to worse!

LS: Correct, but why does the customer still get the chance to use the appliance in a suboptimal way.

SK: To verify what was mentioned by LS; the 6 base-cases are already in line with new Energy Star requirements. But we have also had comments to say that the new limits are difficult to achieve. Indeed, the total consumption of 6,2 TWh for the whole stock seems extremely low! What is the background of these data?

LS admitted that the total power consumption is low in comparison to other product groups. This result is related to the use patterns derived from test standards (Energy Star TEC). The TEC has some shortcomings regarding the assumed use pattern (15 min active/ready) as well as the assumed paper output.

JV: But TEC was not created for this purpose!

LS jumped to slide 50 to already give insight to the further analysis and the role of ready/transition mode energy consumption. He shows the impact of ready mode duration according to two scenarios for base case 1 and 3.

Laurence Finn (LF): Here we have assumptions on top of assumptions. This is not the reality!

LS pointed out that there is no data to describe the reality in a non-contestable way. It is better to base the analysis on an existing use pattern described in test standards, than start from scratch and try to build a consensus. Based on this use pattern adopted from Energy Star TEC, it is then possible to show by simple modelling (e.g. slide 50) that it is the transition mode time that matters.

CM: The assumption that many users prolong the standby time settings is supported by the results of a measurement campaign carried out by RICOH a couple of years ago.

Kentaro Niwano (KN): Energy consumption according to TEC may be higher than in reality.

SK: I see a problem with the analysis, as it looks as the base-cases correspond to 6 best performing product models. Is the energy consumption of the base cases representative?

LS and industry say that chosen products are not the best performing but average. LS showed again that each base-case is build upon 3 different product cases with varying performance. Base-cases take into account e.g. a product with 3W off-mode, which is clearly not a best performer.

SK: Please, make it explicit in the report that the analysis is not based on the best products only. I understand that from your experience most products will in few years be in line with new Energy Star requirements.

JV indicated that the products in stock are different (in performance) from the products sold in 2005 (which is the base for your assessment).

LS: It is not possible to have data of the old models that make up the 2005 stock. On the other hand, there is a fast turn-over due to short product lifetimes. This means that the 2005 products are today (2007) are already average stock.

Eelco Smit (ES): Looking at the 2010 sales makes sense as these products will make up the stock when the implementing measures come out.

SK and LS agreed

13:10 – 14:30 Lunch break

14:30 Presentation and discussion of main results of Tasks 6 and 7

LS introduced the **Tasks 6 and 7**, focusing on the improvement potential offered by better energy management. He presented values according to best performing products listed in the Energy Star database.

JV: Maybe manufacturers could tell the share of their products which achieve Energy Star? (Regarding the statement that the study could not determine how many products (of total) can achieve Energy Star requirement, slide no. 45)

Nathan Moin (NM) and others from industry: The share is rather high.

JB: Soon we need to provide figures to Energy Star about the share of products.

CM (regarding slide no. 48): The overall power budget is better than just reducing the ready mode time, since this might lead to suboptimal performance with no energy savings. It is important to look at the total level.

LS agreed that it may indeed be better reviewing this aspect completely. He proposed (in contradiction to the Option 1 and 2 which were outlined in the Task 7 draft report) to define only the “transitional mode” and apply an overall energy budget to it. This approach would still address the issue of prolonged “ready and sleep mode” and gives flexibility to the power management of individual products.

JB: What about manufacturers who may have to disable power management for clients like army, hospitals and other such public services?

PS: If the energy budget turns into policy, there needs to be an option to disable the “energy budget” functionality somehow.

CM: But this is extremely difficult, as you do not know where a particular product is finally used.

LS commented that these are already very specific cases and that we should first focus on the general idea of applying an energy budget to the “transitional modes”. The energy budget should be sufficient for most of the machines. It will provide the designers with enough flexibility to optimize power management for various applications and avoid the difficult task of defining single ready and sleep modes.

LF: Reliability is an issue in that respect as well. And it may be compromised if functionalities are shut down and started up again all the time.

LS: Indeed we are aware of the negative effects of cycling electronic components and this should be avoided. But the energy budget should be large enough in order to allow an appropriate power management.

NM: How do you intend to define the energy budget?

LS replied that he has not yet a solution. He continued explaining that a differentiation regarding imaging speed, colour, and other performance aspects might be necessary.

LF: Would technology be one factor in defining the energy budget?

LS: This is a tricky issue. It seems better to correlate an energy budget with performance criteria and not marking technologies. We should first define one energy budget based on EP-products and then verify if it applies to other technologies.

JV: How common are the fast fusing technologies?

LS replied that most of the Energy Star listed appliances are likely to use such technologies.

NM confirmed that below the speed of 50 ipm, fast fusing technology is possible and widely applied, but on higher speeds it's problematic.

CM: Energy budget should be as independent of technology as possible. Performance criteria should be the denominator, rather than technology, thus covering also future developments and new technologies.

Claire Schonbach (CS): It is important to consider technology and (image) quality, as these criteria affects the costs.

ES: Can you give a value for the energy budget already?

LS replied again that the adoption of an energy budget is a new idea and not yet fully developed. We have no values yet. Regarding the question if the lot 4 study can come up with a value proposal LS admitted that this does not seem possible within the budget and time of the present study. We could try to provide the methodology and some value(s) if industry supports this idea (and provides data). In order to clarify the intention of such energy budget, LS added that this approach aims to avoid suboptimal use by the consumer. It is not so much an “improvement potential” that is explored, but rather a “precautionary measure” in order to ensure that the high energy efficiency potential of the existing technology is utilized.

PS: The analysis presented here (task 7) lacks the assessment of potential for improvement.

LS: Indeed. The results of the base case assessment and best available technologies show that office imaging equipment has reached a very good level of energy efficiency. Such a result was not foreseen at the beginning of the project. If the energy efficiency potential is utilized in reality is a different question. It clearly depends on the individual use of products. The study has considerable limits (data and methodology) for assessing real life use. The ready mode scenarios (slide 49 and 50) indicate to some extent this aspect.

PS: But we do not know how realistic such a pessimistic user scenario is!

SK: So we should do a curve like in Blue Angel?

LS: Not a curve, but an energy budget (x kWh over e.g. transitional modes).

SK: Do we want to make a recommendation for energy budget?

LS: That would be desirable but I don't know if we can make it within the remaining time of the study.

JV: If we want to take an approach different from Energy Star we have to have good reasons for it.

SK: So you propose no provision for the “on-mode” or the “active” printing cycle?

LS confirmed that the idea is to have no provision for “on-mode”. Here the Energy Star TEC is sufficient to determine overall energy efficiency. But additionally to the TEC value we would suggest an energy budget for “transitional mode phase” as well as a minimum power requirement for “networked standby”.

SK: But we have no idea of the values for the energy budgets.

LS told that this was the case, yes.

LF: Is this not what Energy Star is doing?

LS: No, in the Energy Star TEC the “active”/“ready” modes times are fixed to 15 minutes between jobs. A prolonged ready mode is not reflected. This aspect is however addressed by the proposed energy budget.

SK reminded that the EuP measures should favour LLCC and asked for some examples to be included in the study so as to see how the energy budget would be calculated.

LS replied that is quite difficult and only possible based on scenarios.

NM: Will you intend to quantify the improvement potential of the energy budget? This is required according to the methodology.

LS told that he cannot promise this, although according to the methodology it should be done. He asked industry to provide data. He added that the energy budget is difficult to define in short time; the study will rather provide recommendation(s) for future work. The energy budget may thus be taken out of the options of task 7 and presented only as a recommendation in task 8.

SK: But isn't much of the required data available from Energy Star testing? Couldn't we at least look at some few examples?

Kimura Masashi (MK)?: Would the energy budget be different according to the speed? And to whom is the information on the energy budget given to?

LS stated his option again; differentiating speed, colour, etc might be necessary. Regarding the second part of the question, the EU is responsible to make that decision but that it would probably be public.

SK pointed at the annex I of the EuP Directive on self regulatory measures, which could be one option for imaging equipment. He further inquired if the definition of lot 6 on "network standby" was suitable in the context of imaging equipment.

LS told that basically it should be, but that it must be verified taking into account the lot 6 stakeholder comments.

SK underlined that the "network standby" should be taken onboard in this vertical study, as it is not part of the proposed implementing measure on standby and off-mode. Imaging products do not really have lot 6 "passive standby".

JB: Would requirements for "off-mode" be in line with the lot 6 implementing measures?

LS told that suitability of these values needs to be verified but in principle the definition is the same, and in lot 6 study it was shown that proposed values are feasible. The idea is not to produce new figures here.

LB: What about requirement of reducing ozone emissions and substitution of corona wire technology?

LS stated that the lot 4 study has no scientific competence with respect to the problem of ozone and micro dust emissions. However from his limited understanding of this issue it is known that corona wire is an important source of ozone emissions.

DQ: If emissions are not covered by Lot 4 study, where will this issue be considered?

ES: The important thing is to focus on the threshold for those emissions rather than focusing on the technology.

LF: Why are emissions a question in EuP?

SK commented that the micro dust issue couldn't be solved in the current study, but underlined that Blue Angel's concept for ozone emissions is highly welcome and that could be adopted for this issue.

LS replied that indeed stakeholders proposed to adopt the Blue Angel thresholds for ozone emissions.

JB commented that the Blue Angel requirements advocated by German Federal Environment Agency are already driving industry towards these limits, which were well thought off.

DQ inquired whether the micro dust emission issue would be looked at in detail by somebody else. SK told that this issue is beyond the EuP work and will not be further investigated in this context.

LS: What do you think about taking Blue Angel requirements for duplexing?

ES would rather adhere to Energy Star on this issue.

Dierk Ulken (DU) pointed at the importance of harmonisation.

JB thought that it maybe more important to educate the user to do duplex.

LS asked the industry, how feasible a common user interface/menu (like for computers) would be, e.g. through an industry self-commitment.

JB commented that brainstorming within industry is needed on this issue.

ES admitted that the duplexing could at least be a “first level option”, i.e. included in the basic menu, rather than being hidden as an advanced option, as often is the case.

16:45

End of the presentation and related discussion. LS thanked all stakeholders once more.

SK gave a short summary of next steps of the Lot 4 study:

- slides and minutes would be published on the project website (www.ecoimaging.org)
- draft Task 8 report will be published within 2-3 weeks on the web for comments
- revised tasks 1-7 will also be published, reflecting the discussion of this meeting
- aim is to have the lot 4 final report before Christmas

There was a question about the timing of the consultation forum on this issue. SK replied that it would be sometime next year; there are already a number of finished preparatory studies in line for the consultation forum. Many parameters (international policy developments, existence of (voluntary) schemes, etc.) affect the order in which the products are presented to the consultation forum.

Closing at approx. 17:00