

Minutes of the Final Stakeholder Meeting for Ecodesign Preparatory Study Lot 25: Non tertiary coffee machines

Venue: Room 3A, Centre Borschette
36 rue Froissart
1040 Brussels, BELGIUM

Date/Time: 14 March 2011, 10:00-16:30

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ARTS

Stakeholders

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Christophe Boussemart (CB)

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AGENDA

10:00 – 10:20	Welcome, tour de table, schedule update
10:20 – 10:30	Short introduction to the Ecodesign Directive
10:30 – 10:50	Task 1 - Definition
10:50 – 11:10	Task 2 – Economic and market analysis
11:10 – 11:30	Task 3 – Consumer behaviour
11:30 – 11:50	COFFEE BREAK
11:50 – 12:10	Task 4 – Technical analysis
12:10 – 12:30	Task 5 – Base-Case analysis
12:30 – 13:00	Task 6 – Technical analysis of BAT and BNAT
13:00 – 14:00	LUNCH BREAK
14:00 – 15:00	Task 7 – Improvement potential
15:00 – 16:00	Discussion of Tasks 6 and 7
16:00 – 16:30	Next steps and Conclusions

The presentations and discussions in this meeting were based on the documents published on the project website: www.ecocoffeemachine.org

WELCOME, TOUR DE TABLE AND SCHEDULE UPDATE; SHORT INTRODUCTION TO THE ECODSIGN DIRECTIVE

BT presented the agenda for the day and introduced the project consortium. A tour de table was done to introduce all participants.

BT presented an overview of the Ecodesign Directive and background information on BIO Intelligence Service. CS completed with a presentation of ARTS.

TASK 1 – DEFINITION

LL presented the results and conclusions of the Task 1 document.

In response to a question about the distinction between low- and high-pressure portioned machines, BJ said the boundary is 8 bars of pressure.

TASK 2 – ECONOMIC AND MARKET ANALYSIS

PL presented the results and conclusions of the Task 2 document.

The question was asked as to which Base-Case represents Tassimo machines, since these use hard capsules but are not considered espresso machines. BT explained that Base-Case 2 (pad filter coffee machine) in fact represents all low pressure portioned machines including Tassimo, whereas Base-Case 3 (hard cap espresso machine) in fact represents all high pressure portioned machines, so excluding Tassimo.

DQ asked what coffee bean price was used for fully automatic machines. BT explained that a ground coffee price was used instead.

BJ proposed to harmonise the categorisation of coffee machines used by Lot 25 and revised IEC 60661 (concerning Figure 1-20 in Task 1).

TASK 3 – CONSUMER BEHAVIOUR

BT presented the results and conclusions of the Task 3 document.

CB asked about the reliability of the method used to calculate energy consumption, since he suggested that the amount of coffee per day for cup-by-cup coffee machines (720 ml, split into three coffee periods) in the draft CENELEC method might be far higher than reality. DQ pointed out that this should not affect the relative performance (ranking) of machines since the energy required to heat water should be similar across machines. CB agreed but said it would still affect the proportion of each use mode in total energy consumption. DQ added that they had tested different scenarios and the ranking of machines did not change. BJ agreed with CB about the quantity of coffee brewed in each CENELEC coffee period being too high and suggested using two coffee periods for cup-by-cup coffee machines rather than three. The amount for drip filters (2*850 ml) is considered realistic. BT said this issue will be examined as part of the sensitivity analysis in Task 8.

AJ informed the meeting that in the upcoming measurement method for drip filter machines, drip filters would be tested without coffee (water only) as this would not make any difference to the energy consumption.

DQ asked whether the environmental impacts of the coffee itself, and the hard caps and pad filter, were considered. BT replied that it was not the aim of the study to do a complete life cycle assessment of the full coffee supply chain. EG said that the study should consider the environmental impacts of consumables. DQ gave the example of difficulties recycling capsules that use both plastic and aluminium. BT said that although such issues may not be considered in the LCA, this does not stop policy recommendations being made in Task 8. One of the reasons consumables are not included in the LCA is that the EcoReport tool cannot take into account all the end-of-life characteristics. CB mentioned a forthcoming environmental labelling and awareness scheme in France as an example of attempts to address these issues at national level. VL stated that the Ecodesign Directive is focused on the machines but that there are voluntary schemes in place in some countries. Task 8 should describe these options and make appropriate policy recommendations, not necessarily eco-design requirements but perhaps other policy tools. EG responded that if there are

currently no other initiatives at EU level, Ecodesign should be used. VL said that Ecodesign is not appropriate.

TASK 4 – TECHNICAL ANALYSIS

BT presented the results and conclusions of the Task 4 document.

EG asked if grinders are included in the Bills of Materials (BOM). CS answered that for the fully automatic espresso machine, the grinder was indeed considered in the BOM.

DQ and BJ asked how many machines were chosen and models were used. BT said the project team would check if we could share this information since some of the machines that were dismantled were provided by manufacturers. BJ asked that the machines be described in the report, including characteristics such as the standby time delay.

CB said that machines with manual standby do exist on the market.

EG said that off mode does not always imply zero energy consumption and offered to send information on this aspect to the project team. MR said that other studies have defined standby/off modes according to the Standby Regulation and that Lot 25 should do the same. BT said that the project team will check this. AJ added that the IEC uses a definition of standby that involves “waiting for a signal”.

DQ asked if machines should not be representative of sales rather than stock. BT replied that they should be representative of the stock, according to the MEEuP methodology.

CB said that the RTU (Ready-To-Use) energy consumption appears too high and should be of the order of 10-15 instead. CB asked if steam production was included; BT said no, just the coffee making function. CB said that with the exception of pump machines, consumption should be similar for all machines, except for some small difference due to insulation. AA agreed that total annual kWh figures appeared two or three times too high, compared to measurements under the FEA/CECED methodology. BT said that this may be partly explained by the new methodology but that new data would be gathered through a new questionnaire.

AA also said the time taken to make each coffee is too long. CB said that if it takes 60 seconds to make a coffee, the thermoblock is really only on for 20 seconds. DK said rated power output should not be used and that calculating the electricity consumption by just multiplying the power output by the time is not a good approach as when making a coffee the machine is not always at 100% of its rated output power. CB, AA and DK agreed that it takes 20-30 seconds to make a coffee of 40 ml.

BJ emphasised that actual measurements or machines from manufacturers are needed. Other stakeholders agreed and CB said he can provide some data. BJ acknowledged that coffee preparation itself is not such a big point. CB said that the energy used for heating up does vary by machine according to the technology used.

In response to a question from CB, BT said he believes the figure of 50 g of coffee needed to make 850 ml of coffee with a drip filter machine comes from the draft CENELEC standard. AJ said he would check this.

CB noted that rinsing is not considered yet it consumes electricity if hot water is used. BJ confirmed that the TopTen website includes rinsing and pointed out that default factory settings should be used. CB said rinsing only applies to fully automatics. MD said that rinsing is necessary but whether it uses hot or cold water is a design choice that should be left up to the manufacturer. This question has been considered by CENELEC.

TASK 5 – BASE-CASE ANALYSIS

LL presented the results and conclusions of the Task 5 document.

EG asked if decalcification was considered in the environmental impacts. BT answered that only the cost of decalcification was considered in the analysed and not its environmental impacts due to a lack of data and because the EcoReport tool could not model the decalcifiers in the life cycle inventory.

CB asked about the prices used in the LCC calculations and BT explained that these are averages based on market data purchased from GFK. This will be mentioned in the updated report.

TASK 6 – TECHNICAL ANALYSIS OF BAT AND BNAT

LL presented the results and conclusions of the Task 6 document.

TASK 7 – IMPROVEMENT POTENTIAL

PL presented the results and conclusions of the Task 7 document.

DISCUSSION OF TASKS 6 AND 7

CECED had sent some written comments to the project team in advance of the meeting. With respect to one such comment concerning patented technologies, BT said that patented technologies could not be recommended as a minimum requirement but that the improvement potential could nevertheless be assessed.

BJ distinguished three water-heating technologies: boiler, thermoblock and flow-through heater. MD said that thermoblock and flow-through heater should have more or less the same energy consumption.

BT asked whether the Illy criteria for espresso making are agreed upon by all stakeholders. MD said they are agreed worldwide. Stakeholders were in general of the opinion that although there is no universal taste, the rules for good espresso should be respected. BT said that if, for example, thermoblock or flow-through heater technology was recommended as a MEPS, it should not affect quality. EG said BEUC had an article by French BEUC member *Que Choisir* on this topic that he could share.

BT asked about potential patent issues. CB said that at least two companies hold some kind of patent related to flow-through heater technology. Thermoblock technology is not patented.

EG argued that the risk of losing functionality in the short term should not preclude the possibility of ecodesign measures, saying that the very risk of losing functionality is what pushes manufacturers to innovate and adapt.

DK said that from a materials point of view, the thermoblock requires more material, while the flow-through heater requires more electronics, so it is not clear which is more beneficial. MD said that flow-through heater electronics are more expensive, and how much depends on the level of precision.

CECED agreed that the comments they submitted before the meeting could be circulated to all participants.

NEXT STEPS AND CONCLUSIONS

BIO will send minutes to participants and the EC and then publish on www.ecocoffeemachine.org.

EG offered to crosscheck measurements if provided with the list of models used. MR said CECED could share data from measurements using the new CENELEC methodology.

BT concluded the discussion and thanked all participants for their valuable input.