

Minutes of the first Stakeholder Meeting for EuP Preparatory Study Lot 1: Refrigerating and Freezing equipment

Place: European Commission, Centre Borschette, 36 Rue Froissart, 1049 Brussels – (Belgium)

Date / Time: 15th of July 2009, 10:00-17:00

Document: Draft Minutes

Contact BIO IS: Shailendra Mudgal, Sanaée Iyama
Tel.: +33 (0)1 53 90 11 80
Email: sanaee.iyama@biois.com, shailendra.mudgal@biois.com

Participants:

| Name: | Organisation: |
|---------------------|---|
| Olivia Amos | Shecco |
| Gianpiero Artico | EPTA |
| Marino Bassi | Embraco |
| Jean-Michel Bonnal | Ingersoll Rand |
| Sylvain Courtey | Eurovent Certification |
| Maya De Groot | FPS Health |
| Duccio De Santis | CECED Italia |
| Tom Duhoux | FEAD |
| David Gibson | Defra MTP programme |
| Nils Peter Halm | PfannenberG GmbH |
| Joop Hoogkamer | NVKL/NKI |
| Karin Jahn | VDMA Refrigeration and Heat Pump Technology |
| Frank Kienle | HKI-Industrial Association for Cooking and Heating Appliances Manufacturers |
| Perrine Lavelle | Bio Intelligence Service |
| Régis Leportier | Tecumseh Europe / ASERCOM |
| Shailendra Mudgal | Bio Intelligence Service |
| Claire Nantier | FEAD |
| Per Henrik Pedersen | Danish Technological Institute |
| Stefan Pietrek | Danfoss GmbH |
| Anne Rasneur | AGC Flat Glass Europe |
| Emmanuel Régnier | Tecumseh Europe SA |
| Giuliano Riccabone | Askoll P&C srl |
| Pierluigi Schiesaro | ARNEG SPA |
| Niels Schreuder | AGC Flat Glass Europe |
| Manfred Schwarz | ASSKÜHL GmbH & Co. KG |
| Fabio Sinatra | Electrolux Professional |
| Thomas Tomski | Emerson Climate Technologies GmbH |



Felix Van Eyken
Dirk Van hessche
Guy Van Marcke de Lummen
Kathrin Völker

Nikolaus Tacke
Veerle de Smedt
Frank rinne
Darlusz Kiszotpu
Carlo Cardinali
Kristin Sjebion
Christoph Brouwers
Morbert Brath
Laurent Legin

European Commission

Laure Baillargeon

Project Team

Shailendra Mudgal
Sanaée Iyama
Marta Liput
Jonathan Bain
Felipe Tibocho

Eurovent
PlasticsEurope
AGC Flat Glass Europe
HKI-Industrieverband and EFCEM - European
Federation of Catering Equipment Manufacturers
European Union Affairs Manager, Coca-Cola Europe
Daikin Europe
Dupont de Nemours
Coca-Cola
Misa Sp.A
Dometic Group
Carrier Commercial Refrigeration
Embraco Slovakia
Trane

European Commission – DG ENTR

Bio Intelligence Service
Bio Intelligence Service
Bio Intelligence Service
Bio Intelligence Service
Bio Intelligence Service

OBJECTIVES AND AGENDA

The main objective of the meeting was to present the draft tasks reports of the DG ENTR Lot 1 preparatory study, covering Tasks 1 to 3. The presentations and discussions were based on the documents already published on the project website in May and June 2009, at:

http://www.ecofreezercom.org/documents_1.php

Following agenda was proposed and adopted for this meeting.

| | | |
|---------------|---|--------------------------|
| 09:30 – 10:00 | Arrival and registration | |
| 10:00 – 10:10 | “Tour de table” introduction | All participants |
| 10:10 – 10:20 | The Ecodesign Directive | Laure Baillargeon (EC) |
| 10:20 – 10:30 | General approach to ENTR Lot 1 | BIO Intelligence Service |
| 10:30 – 11:00 | COFFEE BREAK | |
| 11:00 – 11:45 | Task 1- presentation of findings Product definitions | BIO Intelligence Service |
| 11:45 – 12:30 | Discussion | All participants |
| 12:30 – 13:30 | LUNCH BREAK | |
| 13:30 – 14:00 | Task 2 – presentation of findings Market trends and analysis | BIO Intelligence Service |
| 14:00 – 14:45 | Discussion | All participants |
| 14:45 – 15:15 | COFFEE BREAK | |
| 15:15 – 15:45 | Task 3 – presentation of findings Consumer behaviour analysis | BIO Intelligence Service |
| 15:45 – 16:15 | Discussion | All participants |
| 16:15 – 16:30 | Next Steps | BIO Intelligence Service |
| | Base-Case Approach / Ecoreport | |
| 16:30 – 17:00 | Discussion and AOB | BIO Intelligence Service |

Throughout the meeting, the participants were encouraged to comment on different aspects of the study. Comments and resulting discussions are summarised in these minutes.

The meeting was introduced by Ms. Laure BAILLARGEON (LB) (DG ENTR), officer in charge of ENTR Lot 1, drawing the attention on Article 15th of the Ecodesign Directive (2005/32/EC), and also highlighting that the main objective of this meeting was to generate a collaboration channel between the stakeholders and BIO Intelligence Service (BIO).

This was followed by an overview of the project and methodology by Mr. Shailendra Mudgal (SM) (BIO). Subsequently, the draft results from Tasks 1 to 3, and next steps were presented by Ms. Sanaée Iyama (SI) (BIO).

PRESENTATION OF TASK 1 DRAFT RESULTS

➤ OUTCOME LOT 12:

Mr. Per Henrik Pedersen (PP) (Danish Technological Institute) pointed out that the Consultation Forum for the Lot 12 has not yet taken place. He also asked for the final outcomes and actual status of Lot 12. Mr. Pierluigi Schiesaro (PS) (ARNEG SPA) also asked about the final situation of Lot 12. Additionally, he mentioned that the

EUROVENT working group on display cabinets (WG14) is about to finish a draft industry proposal for a legislation for display cabinets to be proposed to the Commission. He asked for the person in charge of Lot 12 within the EC in order to send the proposal once it is finished. LB explained that Lot 12 activities were undertaken by DG TREN and not by DG ENTR but that the documents could be sent either to her or to BIO and that they would be forwarded to the policy officer in charge of Lot 12 at DG TREN.

➤ **CHILLERS**

PP asked why chillers for air-conditioning were excluded from the study. SI answered that the study focuses on the refrigeration sector and not on air conditioning; she also mentioned that there will be another study dedicated to air conditioning equipment. SI also added that it would be appreciated if stakeholders have further information to share about the segmentation of the chillers' market per application (e.g. refrigeration vs. air-conditioning).

➤ **BEER CELLARS**

Mr. David Gibson (DG) (Defra MTP programme) asked if beer cellars would be included in the scope of the study. SI answered that all commercial refrigeration equipment are included in the scope of the study. However, no robust data from literature has been collected so far on the significance of beer cellars, in terms of sales and trade volumes and environmental impact, and on their improvement potential (cf. Article 15 of the Ecodesign Directive). Therefore, any information on these three aspects was welcomed

➤ **NET VOLUME DEFINITION**

Mr. Fabio Sinatra (FS) (Electrolux Professional) asked what was understood as net volume for service cabinets. SI answered that that the definition of ISO 23953 was used here.

➤ **END OF LIFE ANALYSIS**

Mr. Tom Duhoux (TD) (FEAD) asked about the end-of-life behaviour for the products included in Lot 1. He mentioned the importance of assessing the end-of-life impact of the materials used in this kind of products. SI answered that Task 1 was a first screening of the different product categories, focusing on the main factor(s) foreseen to contribute to the environmental impacts during the full life-cycle of commercial refrigerators (i.e. energy consumption) but that in later tasks the end-of-life impacts would be taken in consideration and estimated.

➤ **TESTING CONDITIONS FOR SERVICE CABINETS**

PP mentioned that test standard conditions as in EN143 for domestic refrigerating appliances do not fit with commercial service cabinets as the door opening frequency is different. He mentioned that in Denmark the EN 441 is used in order to get more accurate results. He also mentioned that they presented a paper in which results for tests on 30 different service cabinets under different condition are presented. He said that their tests are based on an ambient temperature of 30 °C which is the average

temperature in professional kitchens. SM asked PP if it is possible to share the mentioned paper with BIO. PP said that he would send it to BIO.

➤ **FINAL APPLICATION OF CHILLERS**

- DG mentioned that in a recent study, it was found that process chillers are as representative as air conditioning chillers on the overall chillers market in the UK. However, he also mentioned that the data was obtained from just one source (BSRIA) and this might not be representative of the EU situation. He asked the opinion of the other stakeholders about this statement. SI asked if any estimates could be provided on the split of the installed base of chillers (i.e. stock) per application (in order to use data from e.g. the EUROVENT association). Mr. Laurent Legin (LL) (Trane) replied that this was very difficult to assess.
- Further, LL mentioned the complexity of defining “process” chillers. He said that it was very difficult since chillers can be used by the final user for both refrigeration and/or air conditioning purposes. He suggested addressing this issue in task 2. LL also asked if the term “units” in the figures presented in the working document referred to products or to refrigeration capacity. SI answered that the term “units” referred to products.
- DG added that in the UK, the typical refrigeration capacity of chillers is assumed to be 234 kW.

➤ **WORKING DOCUMENTS**

Mr. Frank Rinne (FR) (Dupont de Nemours) suggested that in the working document the modifications should be in a different colour in order to facilitate the revision by the stakeholders. This suggestion was accepted by BIO.

PRESENTATION OF TASK 2 DRAFT RESULTS

➤ **MARKET DATA FOR CHILLERS**

- PP mentioned that he was expecting market figures for chillers to be much higher than those presented in Task 2. SI answered that these figures only included chillers for refrigeration.
- LL mentioned that Prodcom codes have changed over eight times in the last 5 years. Therefore, for some countries the data reported for chillers may be related to other products for which the Prodcom code was used before. LL also said that due to differences between certification procedures during the use phase, the costs related to such procedures may vary between countries and that estimating European average maintenance costs for refrigeration products was a challenging task. SI answered that it is useful to illustrate the variability between Member States but that an estimate was required by the MEEuP methodology in order to be able to later estimate the Life-Cycle Costs and in later tasks a sensitivity analysis will

be performed in order to estimate how representative these costs are in the overall life-cycle-cost.

PRESENTATION OF TASK 3 DRAFT RESULTS

➤ USER PATTERN

DG mentioned that it was not realistic to link energy consumption to the usage pattern only. He explained that even though the refrigeration equipment may be on all the time, its compressor may not operate constantly. SM answered that user pattern approach was used due to under the Ecodesign work frame it is necessary to give hours of operation.

NEXT STEPS

- DG asked if stakeholders had already some ideas of the approach to chose when selecting of base-cases and for the development of test standards for walk-in cold rooms. He also added that the energy consumption of walk-in cold rooms is strongly dependent on what they are used for and how frequently they are used. He mentioned that there is a new regulation in US (DoE regulation) which explicitly mentions computer modelling to achieve energy consumption standards of walk-in cold rooms by 2012. FR mentioned that the standardisation process for walk-in cold rooms can be very difficult due to the different applications and operating conditions of walk-in cold rooms. DG added that despite the difficulties to estimate the stock, they estimate that the energy consumption of walk-in cold rooms in the UK to around one third of that from supermarket refrigeration as a whole approaching 2000 GWh/year.
- PP mentioned some standards existed in the Netherlands related to insulation for walk-in cold rooms
- FR mentioned the difficulties represented by user behaviour and final applications when developing standards for walk-in cold rooms.
- DG asked about the selection process for the base-cases. SM answered explaining that the normal process is the publication a proposal for base-cases on the project website and then the stakeholders can react to this proposal so that a common agreement is found in order to define which and how many base-cases would be relevant to take in consideration.
- SI added that it is important to know that BIO's analysis is a relative analysis of the improvement potential of base-cases rather than try to know what the absolute energy consumption of base-cases is (however, the figures need to be as correct as possible).

CONCLUSIONS

To conclude the meeting, the next steps and corresponding schedule were presented:

- Revision of Draft task reports 1-3 - Comments from stakeholders and replies to the first questionnaires sent to stakeholders will be included in order to complement the draft reports – Stakeholders are invited to send their comments by the end of August.
- The second questionnaires for stakeholders are expected to be published by the end of September 2009. This second questionnaire will be mainly focused on product specific inputs (e.g. typical BOM¹data, use phase parameters, end-of-life aspects), and BAT/BNAT² data (monetary and environmental impact)
- The Interim Report (Tasks 1-5) is expected to be published at the beginning of 2010 on the project website³.

¹ Bill of Materials

² BAT=Best Available Technology, BNAT = Best Not Available Technology

³ <http://www.ecofreezercom.org>