

4E

Mapping and Benchmarking Newsletter



Issue 2, August 2009

Welcome to the second issue of the 4E Mapping and Benchmarking newsletter.

In this issue, we will be looking at a couple of key areas that have been addressed in developing robust, consistent and transparent processes for the Annex:

- The development of the overall framework under which the mapping and benchmarking of products will be undertaken;
- The specific question of whether products should be compared by the technology they employ or the functionality they provide.

These issues have now been resolved for the pilot phase of the Annex but will be reviewed once we have experience of applying them to the first two products: Domestic Cold Appliances and Televisions.

Definitions for both TVs and Cold Appliances are complete and requests for data from the participating countries have been issued so your next newsletter should see the reporting of the first results in the Annex.

We encourage you to pass the newsletter on to anyone you think may find it of use, and should they wish to subscribe directly, they can do so by via our website, mappingandbenchmarking.iea-4e.org/newsletter.

Mapping and Benchmarking: Defining the Framework for Action

The Mapping and Benchmarking Annex seeks to gather and analyse efficiency, and other data, on a range of products across a number of countries. The aim is to present policy makers with clear and concise information on which to base effective policy decisions related to the efficiency of products (or at the very least, to allow policy makers to identify areas where further investigation is appropriate to enable these decisions).

Conceptually, the requirements of the mapping and benchmarking process are very straightforward as illustrated in Figure 1.

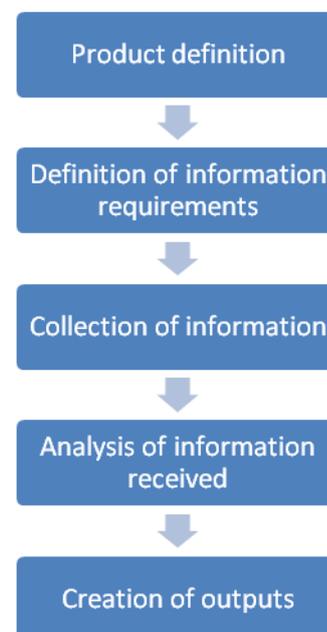


Figure 1: requirements of the mapping and benchmarking Process

However, when examined in detail, a large number of potential differences of input data, and complications in comparability of data between countries and between product types arise throughout this process. Hence, there is a need to create an overall framework detailing the approach that will be taken for the outputs, product definitions, data collection and data analysis methodologies. Such a framework ensures transparency for all participating countries and other data users. Hence, the Mapping and Benchmarking participants have now developed a comprehensive framework that provides for:

- Clear understanding of the information inputs required from all contributors to ensure the consistency and compatibility of data collected from the different participating countries
- A transparent and consistent approach which provides clarity for users of the resulting outputs, *particularly potentially non-specialist policy makers*
- Focused prioritisation of how best to use the available resources of the Annex to deliver appropriate and useful results.
- Fair and appropriate allocation of budget/analysis resources across countries, products and stages of the work.

While apparently quite simplistic, the framework is far from it and requires the creation of an approach flexible enough to accommodate a wide range of potential products and their associated characteristics, while maintaining consistency, fairness, accuracy and transparency.

To review the finalised framework, please visit <http://mappingandbenchmarking.iea-4e.org/news/090628-framework-available>

Cold Appliances and TV product definitions complete; but not without a dilemma

As planned in the “Product Framework for Product Definition, Data Collection, Data Analysis and Outputs” (see previous article), the first stage in the Mapping and Benchmarking process is the definition of the products, i.e. clearly setting the boundaries that define the products for use in data collection and analysis. We are pleased to report this product definition has now been completed for cold appliances (refrigerators and freezers) and for TV’s (see <http://mappingandbenchmarking.iea-4e.org/news/090803-first-product-definitions>). However, the process was not without complications, in particular the resolution of the Functionality vs Technology dilemma.

As an example of the functionality vs technology dilemma, consider refrigerator/freezer combination units i.e. where the refrigerator and freezer are packaged as one appliance.



Figure 2: How should you compare the efficiency of these two products?

For simplicity, we will assume the net volumes of the refrigerator and freezer compartments are identical and the units have no peripheral services such as ice makers or water coolers. In most regulatory systems, “side-by side” and “top and bottom” are considered separately because, primarily due to their physical design (technological) differences, “side-by-side” units almost always have inherently worse energy efficiency than their “top and bottom” equivalents. Therefore, comparing the two products would not be fair and thus most regulatory regimes require comparative efficiencies only to be considered within specific product groups.

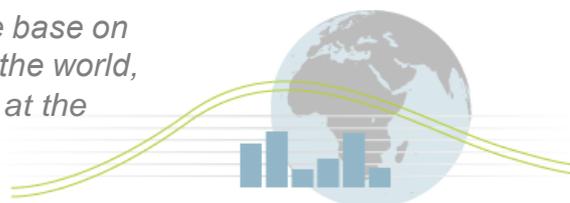
However, from a functionality view point, it seems reasonable to compare units that have the refrigerator and freezer mounted on top of each other with units that have the refrigerator and freezer mounted side by side because, in essence, both side by side and top and bottom are providing the same levels of service (functionality), i.e. cooling and freezing the same amount of space. Hence the dilemma; when the Annex is defining products, should these definitions be based on functionality (in this case grouping side-by-side and top and bottom refrigerator/freezer combinations into one category), or should the definitions be based on technological differences (where side-by-side refrigerator/freezer combinations would be treated separately from their and top and bottom equivalents)?

To resolve this dilemma, the overall goal of the Annex was considered. The Annex goal is:

“To provide policy makers with a ... knowledge base on product performance ... [in] economies across the world, thus enabling more informed policy making at the national and regional levels”.

Hence, the aim is to provide policy makers with information that allows them to compare the performance of products within their markets with others elsewhere. Potentially where the market share of each configuration varies, comparing side-by-side units with top and bottom units would give the wrong impression regarding relative efficiencies between markets. However, the alternative view is that as the units provide the same service, then this should be the comparison that the policy maker should be considering (in effect, this would highlight the potential that could be achieved across the product range, rather than the potential to improve a particular type of product).

Following considerable discussion, the later approach has been adopted, i.e. where functionality is the same, then products should be grouped – to do otherwise may lead policy makers to deliver policies that may improve the performance of one product type, when it may be more appropriate to move consumers from one product group to another. Do you have an alternative view – if so we welcome your thoughts as we will be reviewing the product definition and framework mid-way through the first year implementation. Please send comments and thoughts to: operating.agent@mapping.iea-4e.org



Mapping and Benchmarking website

The Mapping and Benchmarking Annex has a dedicated website which provides access to all the information related to the Annex. It is now live and can be accessed either through the main 4E website at www.iea-4e.org or directly by visiting mappingandbenchmarking.iea-4e.org



The website available on the website includes:

- Individual country mapping data sheets for all the products investigated;
- The associated benchmarking analysis reports;
- The supporting source material for all the mapping and benchmarking activities.

A restricted Members Area on the website allows the representatives from the

participating countries secure access to the confidential files associated with the Annex, such as financial reports, discussion and approval documents and any commercial-in-confidence source material or data sheets.

The website will be reviewed after the first six months of operation of the Annex to assess whether it is fully meeting the needs of the participating countries and other stakeholders. If you have any ideas on how we can improve its functionality to address your specific needs, please contact webmaster@mapping.iea-4e.org.

Dates for your diary...

Participating Countries to Supply data on refrigerators/freezers and televisions
14 August 2009

EEMODS '09 (Energy Efficiency in Motor Driven Systems) Conference
14-17 September 2009 – Nante, France

Annex Management Committee Quarterly Video Conference
2 September 2009

Annex Management Committee Face-to-Face Meeting
3 November 2009 – Seoul, Korea



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More information on the IEA 4E Implementing Agreement, including links to the other Annexes, can be found at www.iea-4e.org.

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