ORGALIME

Position Paper

Brussels, 16 January 2012

COMMISSION / JRC PROJECT:

"Development of resource efficiency and waste management assessment methods to identify eco design requirements"

At the Eco Design Working Group meeting of 4 October 2011, the Commission Joint Research Centre (JRC) presented the first findings on the study that aims at developing resource efficiency and waste management assessment methods to identify eco design requirements beyond energy efficiency. In view of this, Orgalime would like to provide its comments hereafter:

Executive Summary

Orgalime supports the general **objectives of the EU's Resource Efficiency policy** and agrees that **energy efficiency represents a priority topic,** not only in the context of the EU's energy and climate change policy, but also in that respect.

We therefore also support that the Eco Design Directive in its ongoing implementation, has assessed and, where this has been identified as a significant factor, regulated on the parameters of a product's energy and water consumption in the use phase, thereby already contributing to the EU's resource efficiency policy objectives.

Any further eco design parameter and methodology needs to be developed in **full application of all criteria and procedural aspects of the Eco Design Directive**. This is in our view not the case in the ongoing JRC study and its methodological approach. In particular, the methodological approach is not in line with article 15 of the Eco Design Directive and the requirement of demonstrating "**significant potential for improvement in terms of its environmental impact without entailing excessive costs**".

The four resource efficiency parameters presented by JRC are in our view not promising in terms of significant environmental improvement potential from a life cycle perspective, while the proposed **methodological approach ignores the existing MEErP methodology** that has been particularly established for the implementation of the Eco Design Directive.

Furthermore, **the methodological approach for the four proposed parameters does not take into account the following points**:

- Existence of a market for reused or recovered equipment
- Reusability potential of parts/components
- Technical properties of secondary raw materials
- Other relevant aspects and product characteristics, such as the required lifetime of the product, its expected quality and reliability, safety-relevant aspects, fitness for purpose, particular customer needs and requirements, raw materials prices and the related impact of these on the final product price, availability of the material, competition in the market place, the product's overall environmental performance or new developments in the raw materials market in general

Orgalime, the European Engineering Industries Association, speaks for 34 trade federations representing some 130,000 companies in the mechanical, electrical, electronic, metalworking & metal articles industries of 22 European countries. The industry employs some 9.7 million people in the EU and in 2010 accounted for some €1,510 billion of annual output. The industry not only represents some 28% of the output of manufactured products but also a third of the manufactured exports of the European Union.

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- A real life cycle approach looking at the impact of any of the four parameters on other environmental aspects during all life cycle phases - especially, impacts on the just established energy efficiency requirements under the Eco Design Directive are not considered
- The objective of non-discrimination of technologies
- Costs
- Product liability issues, especially for reuse of products and requirements of recycled content for low value materials
- Other existing legislation, and in particular the RoHS Directive and REACH Regulation.

Therefore, Orgalime cannot support the JRC study in its present form for the further implementation of the Eco Design Directive.

1. RESOURCE EFFICIENCY UNDER THE ECO DESIGN DIRECTIVE

Orgalime supports the holistic approach of the Eco Design Directive: It establishes a framework for setting eco design requirements throughout the whole life cycle, addressing all life cycle stages and all environmental aspects and thereby ensures constant environmental improvement. At the same time, this approach allows focusing on those areas where most significant achievements can be made without negative aspects arising on other environmental aspects throughout the various life cycle stages. Finally, the Directive takes into account costs and other important product aspects, such as safety.

The ongoing implementation has regulated resource efficiency parameters where they were identified significant in accordance with article 15 of the Directive: The recently adopted EU 2020 flagship initiative for a resource efficient Europe and subsequent Resource Efficiency Roadmap also prioritise energy efficiency. The ongoing implementation on some 35 different product groups that have/are about to establish eco design requirements on the energy consumption of these products during the use phase are therefore a milestone for the realisation of the EU's Resource Efficiency agenda. In addition, where identified significant, implementation measures have also addressed further resource efficiency parameters, such as water use of certain appliances.

Any further resource efficiency parameter must be equally assessed against all criteria of the Eco Design Directive. In particular, a "**significant potential for improvement in terms of its environmental impact without entailing excessive costs**" according to article 15 of the Directive needs to be demonstrated in advance. In this respect, the JRC study raises Orgalime's particular concern: The study concludes having identified "potential for improvement", however its significance in comparison to all other environmental aspects, in particular energy efficiency, over all stages of the life cycle has not been evidenced. Neither has the criterion of costs nor the subsequent criteria of article 15 concerning "technology neutrality", "(non-)existence of other legislation" or "failure of market forces" been taken into account.

For most appliances covered (and regulated) by the Eco Design Directive today, energy consumption in the use phase is by far the overriding environmental aspect. Orgalime is therefore critical that the resource efficiency parameters of the JRC study would qualify as significant under the legal framework of the Eco Design Directive.

In addition to our concerns on the significance of the potential for improvement of the resource efficiency parameters addressed in the JRC study, **Orgalime recalls the existence of the MEEuP methodology as the methodology for the setting of any eco design requirements.**

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The JRC study does not tie in with the MEEuP methodology, which immediately risks disruption of the ongoing implementation.

2. COMMENTS ON PROPOSED ADDITIONAL RESOURCE EFFICIENCY PARAMETERS

Orgalime has severe concerns on the proposed methodological approach of the four parameters "RRR", "recycled content", "use of priority resources" and "use of hazardous substances" for the reasons specified hereafter:

2.1 Reusability/Recyclability/Recoverability ("RRR")

We challenge the appropriateness of the proposed methodology in the following respects:
Firstly, it is not clear whether "reusability and recoverability" are addressed to waste or to equipment.
Secondly, in both cases, it has not been assessed whether there will be a market for reused or recovered equipment/parts in the future. In the electronic sector, the reusability potential of components is somewhat limited. By the time products are entering the waste phase, most of the electronic parts of any considerable value have changed in their technical specifications. For example, hard disk capacities double roughly every 12-18 month. This requires a significant change to the electronics as well as a constant refinement of mechanical design. Five years old hard drive components can therefore not be used in any current design, apart from their screws.

Thirdly, while we acknowledge the social benefits of reuse/reusability, giving priority to "re-use" outside a life cycle approach risks counterproductive environmental results, especially in the area of energy efficiency, the overriding environmental aspect for most products falling in the scope of the existing Eco Design Directive.

Furthermore, reusing parts, such as capacitors, is not cost efficient due to the low individual value compared to the high costs of identification, recovering, and refurbishment. Cost efficiency is a criterion of the Eco Design Directive.

Also, the reuse of components raises quality issues, since it is hard, or even impossible, to know the exact component life cycle. As a main consequence, this would jeopardize the reliability of any new product containing refurbished parts.

In conclusion: Recovery and recycling have a key role to play in improving the EU's resource efficiency. For example, today's recycling technology for Waste Electrical and Electronic Equipment (WEEE) allows for the recovery of up to 95% of the base materials in any case.
No detailed technical requirements on disassembly should, in our views, be defined.
Specifying technical solutions on (dis-)assembly of products in the product design doesn't tie in with the fact that recovery and recyclability always depend on the recycling technology available at the time of the actual recycling of a product. It is however difficult to determine future recycling technology development at the product design stage.
Requiring dismantling instructions for specific products would hamper recycling technology developments, while appropriate recycling methods should be developed by the market and waste management actors. A dialogue between producers and waste companies can be helpful.

Orgalime strongly emphasises that, regardless which environmental aspect is regulated, the legislator should only prescribe the aim and leave manufacturer deciding how to reach this general goals. Implementation measures must neither discriminate, nor forbid a particular technology, but they must be neutral with regard to different technical solutions.

All these aspects are in our view missing in the JRC methodological approach.

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2.2 Recycled content for low value materials

We agree with the statement that there is currently more incentive to recycle high value materials of products, such as metals, than low value materials, i.e.: plastics.
However, setting requirements for recycled content to stimulate the use of secondary raw materials that are otherwise not “attractive” for recycling, is in our view the wrong way forward:

Choosing the material content for products, including whether or not to use recycled materials (e.g.: plastic materials), is determined by many factors, such as the required lifetime of the product, its expected quality and reliability, safety-relevant aspects, fitness for purpose, particular customer needs and requirements, raw material prices and related impact on the final product price, availability of the material, competition in the market place, the product’s overall environmental performance or new developments in the raw materials market in general.

Some recycled plastic materials also differ in their technical properties in comparison to the primary material, which could lead to the exact opposite effect, namely that either more material has to be used or a different plastic type with higher environmental impact would have to be chosen.

Finally, we have the concern that it is impossible to trace the use of recycled materials, since recycled raw materials are in many different uses which will be hardly identifiable on the recycled material. At the same time, producers are liable for their products, any default, functional or other failure. This is particularly sensitive in applications that require particular safety and reliability performances, e.g.: aerospace, transport or industrial.
Producers therefore have to remain in a position to obtain the necessary information on the materials (or any other input, such as components, parts, chemicals etc.) that enter their final products.

We therefore feel that the market should remain the main driver for innovation in recycling technologies. If recycled materials can be used in products, it can be assumed that the market will drive such innovation, in particular in times of ever higher prices of primary raw materials.

2.3 Use of priority resources that grant largest environmental benefit when reused/recycled/recovered

Orgalime strongly emphasises that the resource efficiency parameter of the environmental performance of a product should not be taken in isolation from other environment aspects related to the product (e.g. energy efficiency, material use or waste generation), since arbitrary environmental results could be the consequence. For example, the amount of copper used in electric motors immediately impacts the energy efficiency performance of the motor. We therefore welcome the approach taken for the prioritisation of resources, which has to be related to resource function in a product in a life-cycle perspective.

However, the objective of the resource prioritisation seems to be the identification of resources that can grant largest environmental benefits when reused/recycled/recovered. Requiring manufacturers to document Reusability/Recyclability/Recoverability (RRR) benefits would be more of academic interest than of practical relevance for the environmental impact of the product, especially for high value materials such as metals. Due to price pressure of material, manufacturers do not use more priority resources than technically required. In addition, industry will strive towards reduced amounts of high value materials in products on its own to reduce production costs and dependency on uncertain resource flows.

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These considerations are equally valid for the proposed alternative eco design requirements of minimum thresholds of RRR benefits and/or requirements on disassembly of key components.

2.4 Use of hazardous substances

The Eco Design Directive addresses all environmental aspects of products, including the use of hazardous substances, throughout their whole life cycle, which we support. Nevertheless, there is in addition, the REACH Regulation which provides Europe with a harmonised framework for the EU wide management of chemicals, which also applies to products regulated under Eco design Directive, and a sector specific Directive 2011/65/EC on the restriction of the use of hazardous substances in electrical and electronic equipment (RoHS). It is therefore of utmost concern to our industry that these regulations should be consistent with each other.

The JRC study identifies possible eco design requirements, in particular maximum hazardous substances thresholds, while such chemicals management provisions are already foreseen in the REACH Regulation: In fact, Title VIII REACH provides a restriction process for the manufacturing, the placing on the market and the use of dangerous substances in articles. The Recast RoHS Directive restricts the use of certain hazardous substances in electrical and electronic equipment.

The implementation process to the Eco Design Directive can assess the use of hazardous substances during use, manufacturing and end-of-life treatment for a particular product group, as it has been done under the ongoing implementation. In case, the preparatory study demonstrates that the use of a specific substance in a given product category is of significant importance and needs to be restricted, the relevant substance restriction should be adopted under the REACH Regulation or, where relevant, under the Recast RoHS Directive in full coherence with the REACH Regulation.

The proposed eco design requirement of declaring the content of hazardous substances duplicates articles 7 and 33 of the REACH Regulation, which set notification, information and communication requirements on dangerous substances in articles. Energy related products are articles under REACH. In addition, article 11 of the Waste Electrical and Electronic Equipment Directive requires manufacturers to communicate treatment information for electrical and electronic equipment, such as components, materials, the location of dangerous substances and preparation in EEE, to reuse centers, treatment and recycling facilities.

We oppose that any further provision on the use of hazardous substances, be it restrictions, information obligations or other, should be addressed in any other further legislation as it would introduce further overlaps, increase bureaucratic and administrative burden, with questionable environmental benefit.

Industry in Europe requires a consistent, predictable and reliable legislative framework without multiplied requirements and consequent inefficiencies for implementation and enforcement and ineffectiveness for the environment.

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