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## **Tapping the potential of the Ecodesign Directive – A call to activate the third implementing option of Directive 2009/125/EC**

### **I. Introduction**

The German Engineering Association (VDMA) is the largest European association of the capital goods industry with around 3,100 members, primarily medium-sized German and European companies. The sector in Germany has around 993,000 employees in total (January 2014) and generates revenues of €206 billion (2013).

With this discussion paper VDMA aims to contribute to the debate on the further development of the Directive establishing a framework for the setting of ecodesign requirements for energy-related products (Directive 2009/125/EC, also known as Ecodesign Directive). It will elaborate on the following concerns regarding its implementation:

- Observing strictly the application of the 'Article 15 criteria' of the Ecodesign Directive;
- Considering the development of generic requirements ('third implementing option') in cases where capital goods fulfil the Article 15 preconditions.

### **II. Capital goods and the Ecodesign Directive**

The capital goods industry has extensive experience with the implementation of the Ecodesign Directive. Initially, products installed in machines as components were regulated by product-specific regulations. These include lamps as well as electric motors or circulators. The Ecodesign working plans are increasingly focusing on complex capital goods, such as industrial furnaces, machine tools or industrial washing facilities. In total, the mechanical engineering industry is affected by on-going or completed procedures in 25 product groups.

The Directive serves from a political perspective to achieve the European climate and energy targets for 2020 as it contributes to the increase in energy efficiency at product level. The Directive is nevertheless designed as an environment policy instrument that cuts-off products with the greatest environmental impact from the market. This means other resources than energy can be taken into account. To this end the Ecodesign methodology 'MEErP'<sup>1</sup> has recently been amended to enable the setting of material efficiency requirements in implementing measures.

The mechanical engineering industry supports the objectives of the Directive. The regulatory approach of Europe-wide harmonised minimum requirements based on holistically assessed

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<sup>1</sup> Methodology for the Ecodesign of Energy-related Products (MEErP)

environmental impacts is a sensible and appropriate approach from the perspective of an export-oriented sector. The most significant environmental impacts will effectively be prevented through the exclusion of the poorest performers while free and technology-neutral product design remains possible in the rest of the market, as long as the minimum requirements are observed.

The Directive sets out criteria under which products are eligible for regulation within the scope of an implementing measure. According to Article 15 of the Directive, these include a clearly definable product, market relevance (minimum unit production of 200,000 per annum) and 'significant' improvement potential in terms of its environmental impact. Owing to these cumulative conditions, complex, custom-made systems are normally unsuitable for this form of regulation. The Directive was created with the intention of regulating mass-produced goods. The working plans on the implementation of the Ecodesign Directive are nevertheless also focussing on machines, as illustrated by machine tools or industrial furnaces.

The text of the Directive offers three implementing options. Product-specific limits values are most frequently set in an implementing measure in the form of a legally binding regulation ('first option'). There is also the option of negotiating a voluntary agreement on the industry side which subsequently has to be recognised by the European Commission ('second option'). This option involves strict requirements which present industry with tasks that are difficult to resolve (keyword: market surveillance).

The legal framework in principle provides for a 'third option' which sets out the generic requirements of eco-friendly product design – in contrast to specific limits values – in an implementing measure (see Article 15(6) in conjunction with Annex I of the Directive). This third option is an important alternative when implementing the Directive for manufacturers of complex machinery as specific limit values can often not be determined for such complex products. Uniform application is required to determine a specific and representative limit value for the product concerned. That is not the case for most machines and systems as they have no constant operating point due to the wide range of application profiles. However, the regulation option with the generic requirements has not been used in practice.

VDMA calls for the activation and use of the third regulatory option, if products are identified in the Ecodesign working plan as fulfilling the Article 15 criteria, so that

- the specific requirements of complex products are taken into account to a greater extent in the Ecodesign Directive's implementing options;
- expert knowledge required for complex products is used effectively and at an early stage through standardisation work.

### **III. Why the third implementing option?**

The objective is to identify an alternative to the implementing options used to date which is better tailored to the requirements of the capital goods industry and makes better use of the expertise of the interest groups concerned.

It is proposed that the existing third implementing option is used and that it is further developed for the product groups of the capital goods industry. The point of departure is the option set out in the Directive that eco-design requirements cannot just be determined via specific limit values but also via generic requirements (Article 15(6)). Capital goods are mostly unsuitable for setting specific eco-design requirements. The traditional implementing measure

cannot be the appropriate regulatory format for various reasons: product boundaries difficult to determine, high degree of complexity of the machines and different application profiles.

#### **Example: machine tools**

Machine tools in the metal processing industry cover an extremely wide range of different processing technologies. Around 400 machine groups and around 2,000 different machine types make technical and technological comparability extremely difficult, if not impossible. Machine tools have no constant operating point. Typical application cases for machine tools do not generally exist as the same machine is used for different purposes for the processing of a wide range of materials. The application determines the energy consumption. The requirements of ISO 14044 to use standardised 'functional units' as a reference for a life-cycle assessment (LCA)<sup>2</sup> cannot be applied to a machine tool with its wide range of application scenarios. Other efficiency evaluation procedures must therefore be used to provide verifiable results for the target-setting in the framework of regulatory approaches such as the Ecodesign Directive.

#### **IV. How should it be implemented?**

VDMA believes the option of setting generic requirements already set out in the Directive should be further developed in order to enable an effective option to regulate the complex products of the capital goods industry within the framework of the Ecodesign Directive. The generic requirements of Annex I could be fleshed-out by means of a horizontal implementing measure on a product-independent and non-technology-specific basis (example: essential requirements in the Machinery Directive). These fleshed-out generic requirements should be specific enough to provide manufacturers with sufficient guidelines.

The drawing-up of the horizontal implementing measure should go hand in hand with the development of a non-product-specific standardisation mandate. Product-specific standards<sup>3</sup> would be developed on this basis taking account of the fleshed-out generic requirements. The selection of products could continue to be carried out via the working plan of the European Commission. The requirement for inclusion in the working plan is that the product groups have been categorised as worthy of regulation pursuant to the Article 15 criteria. Whether the use of the third implementing option is appropriate for the respective product group in question should be discussed with the stakeholders concerned. VDMA would like to offer support in developing this approach further as this is an unexplored field within Ecodesign processes.

This approach would enable the drawing-up of a well-balanced standard in terms of content and technical aspects accepted in equal measure by industry and civil society and would be flexibly adapted to new developments or customer requirements. The preparatory study would become redundant after having developed the horizontal implementing measure. Product-specific standards would be developed based on a standardisation mandate. The composition of the standardisation committees with representatives from all interest groups (including civil society) was recently strengthened making it comparable with the representativeness of a preparatory study. A CEN consultant is responsible for quality management.

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<sup>2</sup> The Ecodesign Directive does not provide for the implementation of a LCA pursuant to ISO 14044. The MEEuP / MEErP method on which the preliminary studies are based uses the term 'functional unit'. However, it is not possible to define uniform functional units across all variants of machine tools. The variable use of system or unit limits is more expedient.

<sup>3</sup> See, for example, Annex A and B of the ISO standard 14955-1 'Environmental evaluation of machine tools – Part 1 energy saving design methodology for machine tools'.

Efficiency gains compared to the current procedures are anticipated. A standardisation procedure takes 36 months on average. The development of an implementing measure currently takes at least 55 months.

Placing on the market would be linked, as with the traditional implementing measure, to the CE label, the use of a harmonised standard and the drawing-up of a conformity declaration.

## **V. Recommendation**

The German mechanical engineering industry supports the Ecodesign Directive as the key instrument for the definition of environmental, product-specific minimum efficiency standards. No amendment of the legal framework is required based on the current situation. Action is nevertheless required in the implementation of the Directive as regulatory efforts have increasingly focused on capital goods. In order to meet their complex requirements, VDMA recommends improving the usability of the instrument of the third regulatory option and applying this in practice.

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