



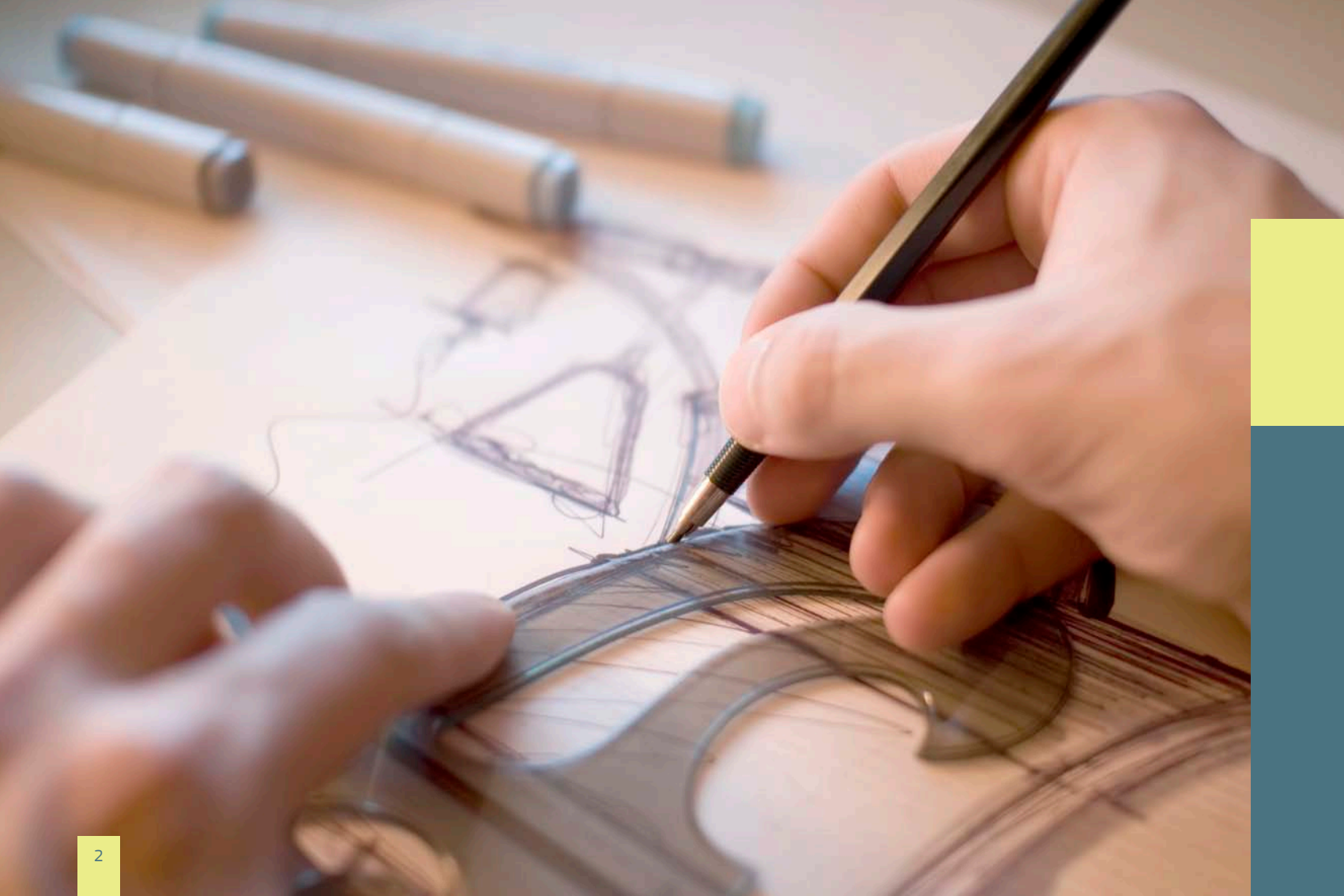
European  
Commission

# Ecodesign

## Your Future

*How Ecodesign can help  
the environment by making  
products smarter*





# How **ecodesign** can help the environment by making products **smarter**

**A**ll products have an impact on the environment during their life-cycle spanning all phases from cradle to grave, including the use of raw materials and natural resources, manufacturing, packaging, transport, disposal and recycling. More than 80% of the environmental impact of a product is determined at the design stage.

**Ecodesign** implies taking into account all the environmental impacts of a product right from the earliest stage of design. In particular, this avoids uncoordinated product planning (for example, eliminating a toxic substance should not lead to higher energy consumption, which on balance could have a negative impact on the environment).

The Ecodesign Directive provides a **coherent and integrated framework** which allows setting mandatory eco-design requirements for some products. For instance, the Ecodesign Regulation on standby requires that many domestic electrical and electronic products such as washing machines, TV or personal computers do not consume more than 0.5W in off mode as of 2013.

However, eco-design requirements must not lower the functionality of a product, its safety, or have a negative impact on its affordability or consumers' health.

A methodology has been developed to provide operational guidance to the Commission on how to assess whether and which eco-design requirements are appropriate for a given product.

For more information on this Ecodesign Methodology, please see the website of DG Enterprise and Industry:  
[http://ec.europa.eu/enterprise/policies/sustainable-business/ecodesign/methodology/index\\_en.htm](http://ec.europa.eu/enterprise/policies/sustainable-business/ecodesign/methodology/index_en.htm)



*Table 1*

*The first 13 measures (more are planned) = annual savings by 2020 equivalent to more than 12% of the electricity consumption of the EU in 2009*

<b>Ecodesign Measure</b>	<b>Adoption</b>	<b>Estimated annual savings by 2020</b>
Standby	December 2008	35 TWh
Simple set top boxes	February 2009	6 TWh
Street & Office Lighting	March 2009	38 TWh
Domestic Lighting	March 2009	39 TWh
External power supplies	April 2009	9 TWh
Electric motors	July 2009	135 TWh
Circulators	July 2009	23TWh
Domestic refrigerators	July 2009	4 TWh
Televisions	July 2009	28 TWh
Domestic dishwashers	November 2010	2 TWh
Domestic washing machines	November 2010	1.5 TWh
Fans	March 2011	34 TWh
Air conditioners and comfort fans	March 2012	11 TWh
<b>Total</b>		<b>366 TWh</b>

For up-to-date information on all Ecodesign measures, please refer to our website: <http://ec.europa.eu/enterprise/ecodesign>



# What are the benefits for European **citizens** and **industry**?

If, for instance, ecodesign requirements for domestic refrigerators have been set under the Ecodesign Directive, any refrigerator which does not comply with these requirements will not qualify for CE marking, and therefore cannot be sold in the European Union. The energy consumption requirements set via the Directive lead to considerable **energy savings**. By 2020, the first Ecodesign Regulations on 13 product groups (see Table 1) are projected to allow energy savings equivalent to more than **12% of the electricity consumption of the EU in 2009** (compared to a 'business as usual' scenario).

Measures will trigger numerous product improvements such as lower power consumption in standby mode of electric and electronic appliances or wider use of variable speed drives in electric motors.

Ecodesign requirements address only the main environmental parameters of products which have significant sales and trade in the EU (indicatively more than 200,000 units), a significant environmental impact and potential for improvement. Ecodesign requirements must remain cost-effective. Excessive administrative

burden for manufacturers has to be avoided, as well as negative impacts on affordability for consumers and on industry's competitiveness. Ecodesign Regulations aim at promoting **sustainable competitiveness** by allowing manufacturers to get a competitive edge through improved performance of their products.

The harmonised rules at EU level ensure that no divergent national or regional measures on ecodesign hinder the **free movement of goods** and oblige manufacturers to comply with many disparate regulations. Manufacturers can thus take advantage of **economies of scale**.



# Which **products** does the Ecodesign Directive **cover**?

The Ecodesign Directive was extended in 2009 to all energy-related products (the use of which has an impact on energy consumption), including:

- **energy-using products (EUPs):** products which use, generate, transfer or measure energy (e.g. electricity, gas, other fossil fuel), including consumer goods such as boilers, computers, TVs, washing machines, light bulbs and industrial products such as transformers, industrial fans, industrial furnaces.
- **other energy related products (ERPs):** products which do not necessarily use energy, but have an impact on energy consumption (direct or indirect) and can therefore contribute to saving energy, such as windows, insulation material or bathroom devices (e.g. shower heads, taps). **The Ecodesign Directive does not create binding requirements on products by itself:** product requirements are set in Commission Regulations.



TVs



machine tools



computers



water heaters



refrigerating equipment



air conditioning

# What type **of product** requirements can be set at **EU level**?

The Ecodesign Directive foresees two types of mandatory product requirements:

## Specific requirements, which:

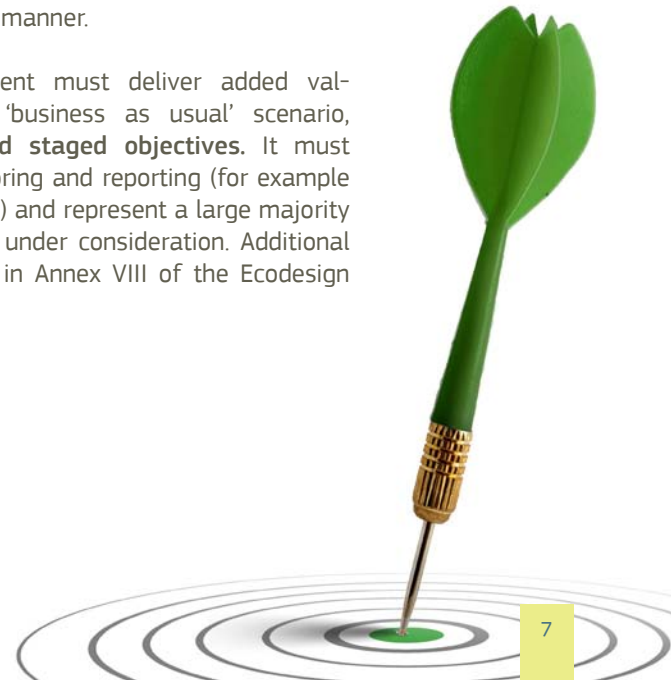
- Set **limit values**, such as maximum energy consumption or minimum quantities of recycled material.

## Generic requirements, which:

- Do not set limit values
- May require, for example, that a product is “energy efficient” or “recyclable” (compliance with the relevant harmonised European standard, gives presumption of conformity with the requirement).
- May entail **information requirements**, such as material provided by the manufacturer about best practices to use and maintain the product in order to minimise its environmental impact.
- May require that the manufacturer perform a life-cycle analysis of the product in order to identify alternative design options and solutions for improvement.

Under the Ecodesign Directive, if a **voluntary agreement** by industry fulfils certain conditions, it is considered as a priority alternative to mandatory requirements. The voluntary agreement must achieve the same objectives as binding legislation in a more rapid and cost-effective manner.

The voluntary agreement must deliver added value compared to the ‘business as usual’ scenario, through **quantified and staged objectives**. It must foresee **credible** monitoring and reporting (for example independent inspections) and represent a large majority of the industrial sector under consideration. Additional conditions are detailed in Annex VIII of the Ecodesign Directive.







# How are **mandatory** product requirements **decided**?



**1** The European Commission adopts a Working Plan, which sets out an indicative list of priority products to be explored for their ecodesign potential over the next three years.

**2** Each product group mentioned in the Working Plan is analysed in a preparatory study, in order to assess whether and which ecodesign requirements are appropriate (according to the Ecodesign Methodology).

**3** A draft Commission Regulation is submitted to the **Consultation Forum** (representatives of EU and EEA Member States and of 30 stakeholders such as business federations, NGOs and consumer organisations) for comments. A thorough impact assessment follows, which details essential figures such as energy saving potential or costs for industry.

**4** The draft is submitted to the vote of the **Regulatory Committee** (representatives of EU Member States).

**5** The draft Commission Regulation remains under the scrutiny of the **European Parliament** and the Council for 3 months.

*The Commission ensures a common understanding of the framework Directive and its implementing measures through meetings of representatives of Member States and all interested stakeholders, in the Ecodesign Working Group. All issues relating to the implementation of the Directive, including market surveillance, are discussed there.*



## What are the **next steps?**

The Ecodesign Working Plan 2009-2011 contains an indicative list of products which have been investigated as a priority up to end 2011, including products such as non-household refrigerators, DVD players and game consoles, food preparing equipment (e.g. ovens, hobs and grills, coffee machines), machine tools etc. All information related to the Ecodesign Working Plan 2012-2014 is available at our website: <http://ec.europa.eu/enterprise/ecodesign>

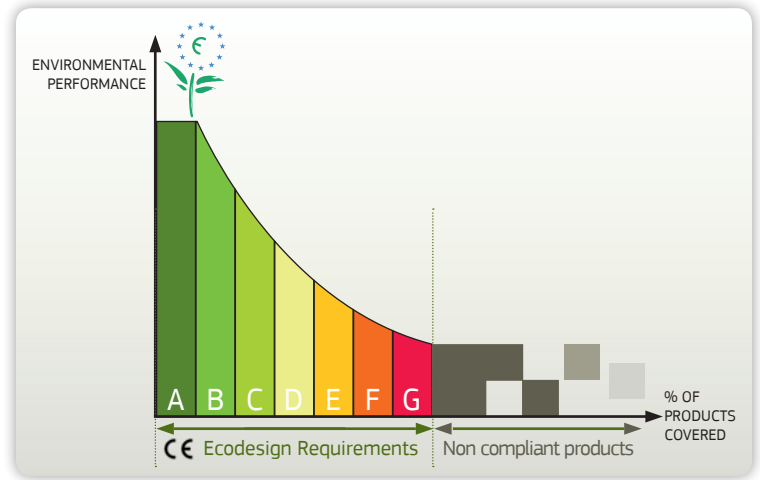
A study reviewing the effectiveness of the Ecodesign Directive and its implementing measures is available at: [http://ec.europa.eu/enterprise/policies/sustainable-business/ecodesign/review/index\\_en.htm](http://ec.europa.eu/enterprise/policies/sustainable-business/ecodesign/review/index_en.htm) Based on this review, the Commission has to assess by end 2012 whether any amendment to the Ecodesign Directive is necessary, including an extension of its scope beyond energy-related products.

The Commission has also updated its Ecodesign Methodology (to take into consideration the experience gained from the first Ecodesign measures, and the extension of the scope to energy related products). The updated methodology can be downloaded at: [http://ec.europa.eu/enterprise/policies/sustainable-business/ecodesign/methodology/index\\_en.htm](http://ec.europa.eu/enterprise/policies/sustainable-business/ecodesign/methodology/index_en.htm)

The Ecodesign Directive is meant to be used together with other policy tools, in particular the Energy Labelling Directive. The effects of mandatory requirements under these two Directives can be significantly reinforced if combined with other voluntary schemes such as the EU Ecolabel, Green Public Procurement (GPP) and financial incentives.

The Ecodesign Directive allows the Commission to regulate the minimum performance of products. As a consequence, it “pushes” the market away from the worst performing products. In addition, the Energy Label classifies products remaining on the market according to their efficiency, with an A to G scale (A being the most efficient and G the least efficient). It thus “pulls” the market towards more efficient products by better informing consumers. For some product groups, the most efficient products are identified through the Ecolabel “flower”.

*The graphic below shows the integration of several policy instruments to generate a “push and pull” effect on the market.*



**Which department is responsible for the Ecodesign Directive in the Commission?**

The Ecodesign Directive is under the common responsibility of DG Enterprise & Industry and DG Energy.

**Contacts:**

**[ENTR-Ecodesign@ec.europa.eu](mailto:ENTR-Ecodesign@ec.europa.eu)**

**[ENER-Ecodesign@ec.europa.eu](mailto:ENER-Ecodesign@ec.europa.eu)**

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## To find out more:

<http://ec.europa.eu/enterprise/ecodesign>

[http://ec.europa.eu/energy/efficiency/ecodesign/eco\\_design\\_en.htm](http://ec.europa.eu/energy/efficiency/ecodesign/eco_design_en.htm)

## Contact:

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