



J R C T E C H N I C A L R E P O R T S

Revision of the European Ecolabel and Green Public Procurement (GPP) Criteria for Furniture

Briefing Paper

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TABLE OF CONTENTS

I. CURRENT PRODUCT GROUP DEFINITION AND SCOPE FOR EU ECOLABEL AND GREEN PUBLIC PROCUREMENT FOR FURNITURE.....	4
II. CONCLUSIONS FROM BACKGROUND INFORMATION AND PRELIMINARY RECOMMENDATIONS ON THE EXTENSION OF SCOPE	5
1. CONCLUSIONS FROM OTHER ENVIRONMENTAL LABELLING	5
2. CONCLUSIONS FROM MARKET ANALYSIS	5
3. CURRENT PENETRATION OF EU ECOLABEL.....	6
4. CONCLUSIONS FROM LCA SCREENING	8
5. GENERAL CONCLUSIONS	8
ANNEX II – PRELIMINARY MARKET SCREENING	10
ANNEX II – COMPARISON OF THE SCOPE ESTABLISHED FOR THE MOST RECOGNIZED EUROPEAN ECOLABELS	16

I. CURRENT PRODUCT GROUP DEFINITION AND SCOPE FOR EU ECOLABEL AND GREEN PUBLIC PROCUREMENT FOR FURNITURE

At present in the EU Ecolabel criteria document for 'wooden furniture' the following definition and scope are given:

The product group of 'wooden furniture' shall comprise free-standing or built-in units, which are used for storing, hanging, lying, sitting, working and eating of domestic furniture, whether for indoor or outdoor use, or used indoors for business purposes. Business purposes shall include office and school furniture as well as furniture for restaurants and hotels.

The following conditions shall be fulfilled:

- (a) The product shall be made of at least 90 % w/w solid wood or wood-based materials. Glass, if easily replaceable in case of damage or breakage, may be excluded from the weight calculation as may technical equipment and fittings.
- (b) The weight of any individual material, other than solid wood and wood-based materials, shall not exceed 3 % of the total weight of the product. The total combined weight of such materials shall not exceed 10 % of the total weight of the product.

Regarding to the current scope for the Green Public Procurement of furniture the following is indicated:

Furniture is a broad product group that encompasses very different types of furniture (chairs, tables, wardrobes, shelves, cupboards...) with very different uses (for schools, offices, kitchens, bathrooms, outdoors, special uses, etc.). The criteria cover:

- **Indoor furniture:** This includes indoor furniture for business purposes, e.g. offices and schools, as well as for domestic purposes. It includes all free-standing or built-in furniture units, which are used for storing, hanging, lying, sitting, working and eating. It does not include, however, building products (for example, steps, walls, moulding, panels), sanitary equipment, carpets, fabrics, office supplies, and other products, whose primary purpose is not to function as furniture.
- **Outdoor furniture:** This includes mainly benches, tables and chairs, excluding other products, whose primary purpose is not to function as furniture (such as streetlights, bike-parks, playgrounds, etc.).

The criteria are based on existing ecolabel sources and focused on the materials which are most typically used in the production of furniture: wood and wood-based materials, metals, plastic, padding and textiles. Criteria are also recommended for coating and adhesives/glues in the assembly of the product and for packaging.

II. CONCLUSIONS FROM BACKGROUND INFORMATION AND PRELIMINARY RECOMMENDATIONS ON THE EXTENSION OF SCOPE

1. CONCLUSIONS FROM OTHER ENVIRONMENTAL LABELLING

The scope of the product group of furniture varies between different analysed ecolabels. There are labels which focus on special type of furniture (such as office furniture, for instance in Marque NF Environnement), labels which include a whole variety of furniture (such as outdoor, kitchen furniture, etc.) and labels which focus on one material (there are several labels for wooden furniture). There are also ecolabels which cover products exceeding the usual definition of furniture including, for instance, floors and/or doors (e.g. Blue Angel, Nordic Swan, ÖkoControl).

The labels include criteria for a variety of materials for a wide range of furniture. In order to harmonize with the different ecolabels, it is proposed to expand the current scope of the EU Ecolabel from wooden furniture to other types of furniture. Criteria would mainly focus on environmental aspects related to the materials that are typically most used in furniture (including surface treatment and adhesives). Specific requirements would be set for such materials.

According to preliminary feedback collected from the registered stakeholders, furniture made of at least 90% by weight of solid wood or wood-based materials does not represent a significant share of the market (even wooden furniture often contains several other materials); therefore the penetration of the EU Ecolabel is currently negligible. Other environmental labelling schemes, such as the Blue Angel, set the minimal content of wood to 50% by weight..

The threshold on the minimal content of wood should be decreased. During the criteria revision process, further conditions for the definition and scope will be considered.

2. CONCLUSIONS FROM MARKET ANALYSIS

The preliminary results of the market analysis highlight that:

- The most common material used in furniture sector is wood (56% of the pieces of furniture produced in the EU 27 in 2011 are based on wood, which represent 56% of the production value). Metal is the second material most commonly used in furniture industry (12% of items produced and 17% of the production value), followed by plastic (6% of items produced and 1% of the production value) and other materials (1% of items produced and negligible production value) like bamboo, canner, osier, etc. which represents about 56% of the furniture production in 2011. The remaining 25% represents materials which are not specified within the PRODCOM database.

- 18% of the pieces of furniture manufactured in 2011 in the EU-27 is composed of wooden furniture used in dining rooms, living rooms and bedrooms (20% by value). Another 24% is represented by unspecified wooden furniture (9% by value). Other important production subsectors are kitchen furniture (15% by number, 18% by value), non-upholstered seats (14% by number, 8% by value), office furniture (9% by number, 12% by value), upholstered seats (8% by number, 15% by value), mattress supports (7% by number, 10% by value).
- Although wood is the most common material used, the pieces of furniture contain also elements made of other materials. The requirement of 90% content by weight of wood or wooden-based material is considered too restrictive by the manufacturers.

Based on the segmentation of the furniture market it is considered reasonable to widen the scope of the EU Ecolabel criteria in order to cover a much broader share of the furniture market and to respond better to the expectations of the potential licence holders.

3. CURRENT PENETRATION OF EU ECOLABEL

More than three years after the approval of the ecological criteria for the award of the EU Ecolabel for wooden furniture, there seems to be only one producer¹ holding the EU Ecolabel (licence right awarded in Poland in 2012).

The lack of furniture products awarded with the EU Ecolabel can be partially due to the exclusion of both non-wooden furniture and wooden furniture with less than 90% by weight of solid wood or wood-based materials. The statistical information obtained from Eurostat shows that at least 20% of the pieces of furniture produced in 2011 in the EU-27 are made mainly of other materials than wood. Hence, there is a significant share of the market that is excluded from the current scope. Although more than 56% of the production volume, expressed as number of items, is classified as wooden furniture, it is reasonable that only few products are composed of wood for at least 90% by weight. Other materials should be included within the scope in order to allow a higher amount of manufacturers to apply for the label.

Although an average composition can be difficultly defined for the different pieces of furniture (as the materials used can vary considerably depending on the type of furniture and on its intended use), stakeholders generally agree that wooden materials generally form less than 90% of the weight of the furniture. For example, according to the Swedish furniture industry, the average Swedish furniture product consists of: 70% wood based materials, 15% padding materials (mainly polyurethane and polyester foam), 10% metals, 5% other materials (plastics, textiles, glass, etc.).

¹ http://ec.europa.eu/environment/ecolabel/news/archives/news_alert/dec2012.pdf

A preliminary market questionnaire was provided to the registered stakeholders at the beginning of the project in order to determine the average composition of different types of furniture: domestic indoor furniture, domestic outdoor furniture, professional office furniture, school furniture and hotels and restaurants furniture. The results of the questionnaires are shown in Table 1.

Table 1. Percentage by weight of the component materials used in different types of furniture

Type of furniture	Material	Stakeholder n°							Average
		1	2	3	4	5	6	7	
Domestic indoor furniture (%)	Wooden	75	75	-	60	75	90	60	73
	Metal	15	20	-	10	8	5	20	13
	Plastic	5	5	-	25	3	5	20	11
	Other	5	0	-	5	14	0	0	4
Domestic outdoor furniture (%)	Wooden	30	30	-	40	30	-	75	41
	Metal	40	30	-	25	30	-	5	26
	Plastic	20	40	-	30	30	-	20	28
	Other	10	0	-	5	10	-	0	5
Professional office furniture (%)	Wooden	35	68	30	45	45	85	60	53
	Metal	30	30	40	25	40	10	30	29
	Plastic	25	2	15	25	5	5	10	12
	Other	10	0	15	5	19	0	0	6
School furniture (%)	Wooden	35	-	25	35	40	-	50	37
	Metal	30	-	55	45	50	-	30	42
	Plastic	25	-	15	15	5	-	20	16
	Other	10	-	5	5	5	-	0	5
Restaurant & Hotel furniture (%)	Wooden	35	-	-	50	40	-	50	44
	Metal	30	-	-	35	20	-	30	29
	Plastic	25	-	-	15	20	-	20	20
	Other	10	-	-	5	20	-	0	8

Source: Preliminary market questionnaires answered by furniture manufacturers and furniture associations

4. CONCLUSIONS FROM LCA SCREENING

From the screening of the existing LCA studies and EPDs on furniture it can be seen that the majority of pieces of furniture so far analysed are made of a mixture of different materials, mainly wood and wood-based materials, metal, plastic, textiles. Wood normally constitutes less than 90% by weight of the furniture, including when it forms the main material. This supports the doubts about the appropriateness of the current scope of the EU Ecolabel.

The preliminary results from the identified studies indicate that materials extraction and processing have significant contribution to the environmental impacts. Specific requirements must be set in order to ensure that minimal environmental impacts are associated with all materials included within the scope. These requirements could cover the sourcing of the materials as well as the processing and other treatments that they can receive.

Preliminary comparisons among materials show that the environmental impacts of a specific type of furniture could increase when metals are used in place of other alternative materials. This is especially true for primary aluminium and due to the high amounts of energy embodied in metals. In general, also the use of plastics seems to produce bigger environmental impacts than wood. These results show the importance of the producer design choices and highlight the need of regulating sourcing and production of materials and the potential promotion of less-energy demanding materials, such as recycled materials. Also other materials like glass have the potential to yield significant environmental impacts. Thus, the scope proposal should be left open enough to allow for the potential inclusion of glass and any other critical material which were identified along the project.

Regarding the different uses or applications that furniture can have, in the majority of studies the use phase is not assessed while in others only maintenance and cleaning are included (but have low environmental impacts). It is considered that the scope should not differ among different uses, but that it should be focused on the type of furniture and their component materials.

5. GENERAL CONCLUSIONS

The following recommendation on the potential scope extension can be made on the basis of the analysis of legislation and existing labels and on the preliminary screening of market information and LCA studies for furniture,:

- Furniture often seems to consist of different materials. The most common materials used in the furniture sector are wood and wood-based materials, followed by metals and plastics. Therefore the product group should be expanded in order to allow for the inclusion of types of furniture most commonly used. However, it should be noted that this proposal might result in the use of materials that are not desirable from the environmental point of view.

- According to the LCA screening, it will be important to set criteria for the different material types which may be used in furniture. The focus should be on the most important environmental impacts associated to wood and wood-based products (such as sustainable forestry), metals, plastics and any other critical material identified along the project. Glass should be not excluded "a priori" from the scope, due to relevant impacts associated with the use of this material.
- Although 56% of the production volume is classified as wooden furniture; few products are composed of at least 90% by weight of wood. Consequently, the current scope does not cover the significant share of the wooden furniture in the market. No matter the scope is widened or not to cover other materials, it is proposed to reduce the wood content weight threshold for wooden furniture. For instance, the minimal threshold could be set to 50%, as in the Blue Angel.
- For the definition of the scope it is important to take into account the types of furniture with the greater market shares (e.g. furniture for dining rooms, living rooms and bedrooms, kitchens, seats, office furniture). Specific types of products whose primary function is not to be used as domestic or office furniture should be excluded from the scope (e.g. streetlights, bike-parks, playgrounds, building products - steps, walls, panels -, sanitary equipment, carpets)

Based on the elements above, the following scope definition is preliminarily proposed for the EU Ecolabel on furniture:

The product group of 'furniture' shall comprise free-standing or built-in units of different types of furniture used for storing, hanging, lying, sitting, working, cooking and dining in domestic and non-domestic situations and in the context of indoor or outdoor use. Non-domestic situations include, for example, offices and schools as well as restaurants and hotels.

The product group shall include furniture based on wood, metal, plastic and other materials (e.g. bamboo, canner, osier). Furniture can also contain other components made, for instance, of textiles, glass or stone.

The following conditions shall be fulfilled:

(a) The product shall be made of at least X % w/w solid wood or wood-based materials (to be discussed, this could exclude some types of furniture based on other materials).

(b) The weight of any individual material, other than solid wood and wood-based materials, shall not exceed X % of the total weight of the product. The total combined weight of such materials shall not exceed X % of the total weight of the product (to be discussed, this could exclude some types of furniture based on other materials).

Regarding to the current scope for the Green Public Procurement of furniture, no major changes are currently proposed.

ANNEX II – PRELIMINARY MARKET SCREENING

EU furniture production by materials

The EU furniture industry uses various raw materials to manufacture different types of furniture, such as tables, chairs, sofas, kitchens, wardrobes, support mattresses, etc. The most relevant materials for the production of furniture are:

- **Wood:** solid wood and wood based products such as panels are widely used in furniture production. Tables, desks and cupboards are the typical products where wood panels are used. Particleboard, fibreboard and plywood are the three main categories of wooden panels, which are produced under heat and pressure with the addition of an adhesive to particles, glue fibres or sheets of wood respectively.
- **Metal:** aluminium, steel and iron are the main types of metals used in furniture products. Most of them are used as a base material, for example in cupboards, tables and chair legs. Steel and iron are used in many products, ranging from office furnishings to outdoor settings. For example, the properties that offer cast iron (hardness, heaviness and general tough composition) are adequate for outdoor use, and this material is common used for bench legs and solid iron tables. Stainless steel is used widely for modern interior furnishings, such as chairs legs, supports and body pieces, slides and hinges. It is especially suited for chair legs, supports and body pieces due to its high tensile strength, allowing it to be applied using hollow tubes and reducing weight. Aluminium furniture has great advantages as it does not rust, is tough, light and durable. This material is used extensively for stamped and cast furniture, especially in molded chairs. Other applications are tables, dining tables, sofas, etc. Other metals are also used in fittings, like zinc, nickel or chrome.
- **Plastic:** thermoplastics and thermosetting polymers are used in the furniture sector. Thermosetting polymers provide stronger structure for furniture components, being more durable than thermoplastics. Polystyrene (PS) and polyvinyl chloride (PVC) are common types of thermoplastics used in tables and plastic lawn furniture. Another thermoplastic used is polypropylene (PP) which can withstand movement, and for this reason is an appropriate material for hinges. On the other hand, thermosets are generally used as padding materials, polyurethane foams are used in upholstered furniture as a filling material for sofas, seats, back of seats, arm rests, etc, and phenolics are used as a furniture adhesive.
- **Other materials** used in furniture industry include cane, bamboo and rattan – used to produce armchairs, sofas, tables, etc.

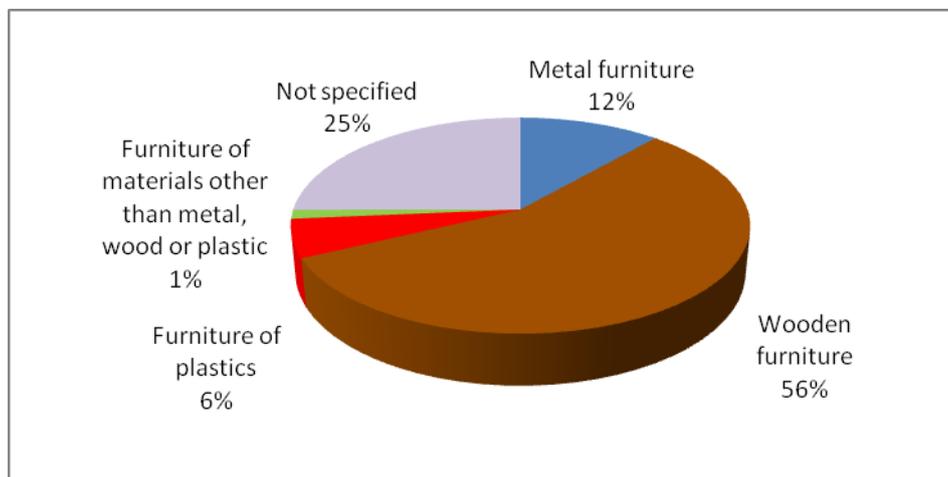
Information regarding furniture production in 2011 in the EU-27 is provided in Table 2. Both quantity (millions p/st) and value (millions €) of the main materials used for furniture is reported. Production and market value of pieces of furniture based on different materials is presented in Figure 1 and in Figure 2.

Table 2. Furniture production in the EU-27 classified by materials (2011)

Product	Furniture production	
	Quantity (M p/st)	Value (M €)
Wooden furniture	378	32392
Metal furniture	>77	9660
Furniture of plastics	38	442
Furniture of materials other than metal, wood or plastic	9	290
Not specified	168	15185

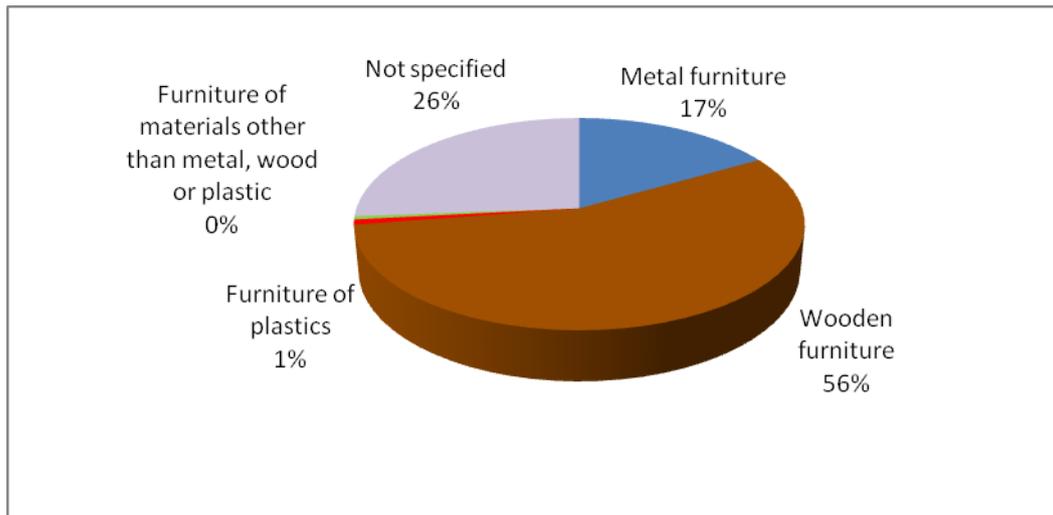
Source: Eurostat. PRODCOM

Figure 1. Furniture production in the EU 27 classified by materials (2011)



Source: Eurostat. PRODCOM

Figure 2. Market value of EU 27 furniture by materials (2011)



Source: Eurostat. PRODCOM

The most common material used for furniture is wood (56% of the pieces of furniture produced in the EU 27 in 2011 are based on wood, which represent 56% of the production value). Metal is the second material most commonly used in furniture industry (12% of items produced and 17% of the production value), followed by plastic (6% of items produced and 1% of the production value) and other materials (1% of items produced and negligible production value) like bamboo, canner, osier, etc. There is a lack of quantitative data about the materials used for kitchen furniture, mattress supports and some kind of seats. This unknown information refers to 25% of the total number of items produced or, in other terms, to 26% of the production value. However, it is expected that these 25% also contains wooden, metal, plastic and other materials.

EU furniture production by type

Classifying furniture in accordance with the type (application) of the furniture is one of the most commonly used methods for segmenting the market. There are a wide variety of types of furniture available on the market, with different styles and different functions. According to data obtained from Eurostat, the types of furniture considered for the market segmentation are the following: upholstered seats, non-upholstered seats, office furniture, furniture for shops, kitchen furniture, mattress supports, bedroom furniture, dining-room and living-room furniture, and finally other type of furniture. Some examples of the types of furniture included in each category are listed below:

- Upholstered seats: armchairs, reclining chairs, sofas, divans, footstools, seating elements upholstered with leather, wool, synthetic material, cotton, etc.
- Non-upholstered seats: seats, armchairs, rocking chairs, seats convertible into beds, stools, etc.

- Office furniture: desks, chairs, drawer unit, filing cabinets, integrated workstations, etc.
- Furniture for shops: counters, display cases, shelves, etc.
- Kitchen furniture: kitchen tables and chairs, fitted cabinets and kitchen units, free-standing pieces such as moveable trolleys and butcher blocks, etc.
- Mattress supports
- Bedroom furniture: beds, headboards, bedside tables, dressing tables, chests of drawers, wardrobes (fitted or free-standing), etc.
- Dining and living room furniture: dining sets (tables and chairs), dressers, coffee tables, sideboards, shelf systems, room dividers, etc.
- Other furniture: cupboards, bookcases and wall units, garden chairs and seats, occasional furniture such as desks, small tables, mirrors or hall-stands, bathroom furniture like storage cabinets, baskets, etc.

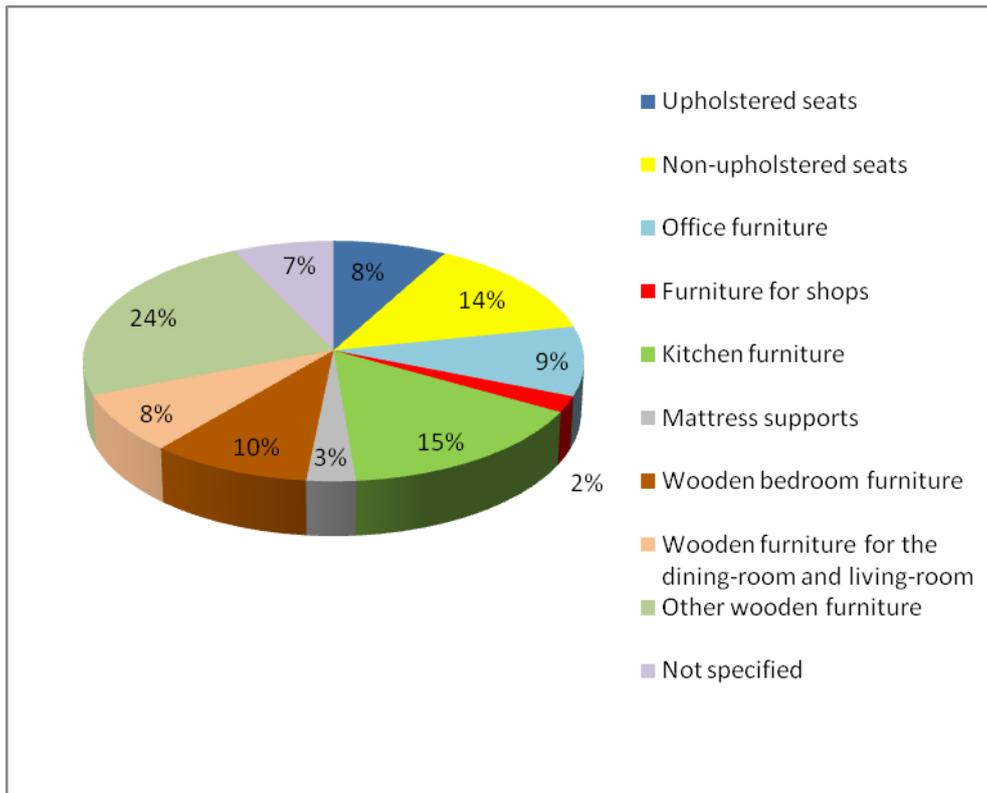
Quantitative data regarding furniture production by type is reported in Table 3. These pieces of information are even presented in Figure 3 and in Figure 4 with the aim of providing a better overview of the market segmentation in terms of both quantity (millions of items) and value (millions €).

Table 3. Furniture production in the EU-27 classified by type (2011)

Product	Furniture production	
	Quantity (M p/st)	Value (M €)
Upholstered seats	54	8679
Non-upholstered seats	92	4837
Office furniture	63	7198
Furniture for shops	14	3250
Kitchen furniture	104	10595
Mattress supports	19	1214
Wooden bedroom furniture	64	6111
Wooden furniture for the dining-room and living-room	53	5176
Other wooden furniture	160	5200
Not specified	47	5711

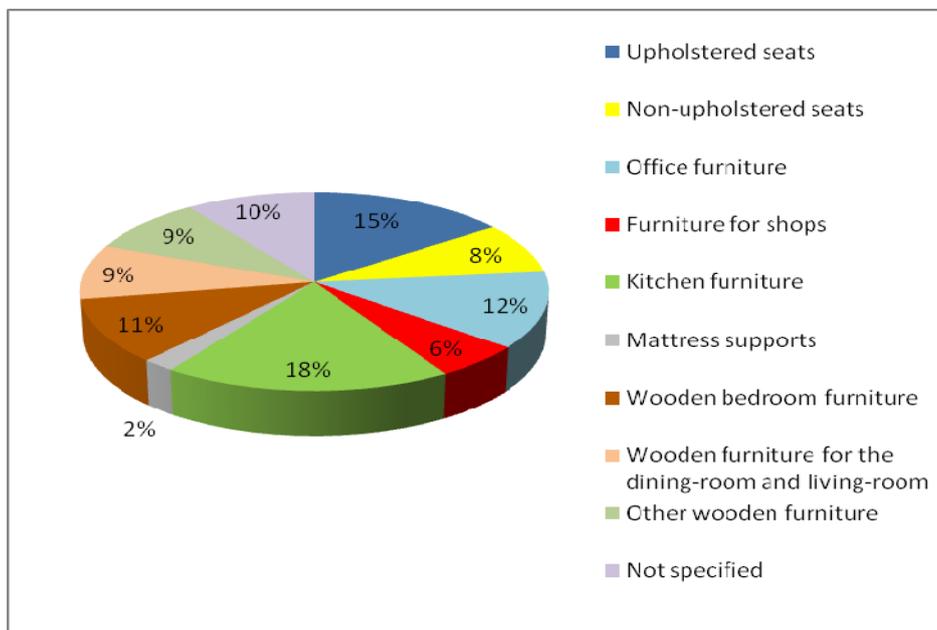
Source: Eurostat. PRODCOM

Figure 3. Furniture production in the EU-27 classified by type (2011)



Source: Eurostat. PRODCOM

Figure 4. Market value in the EU-27 by type of furniture (2011)



Source: Eurostat. PRODCOM

18% of the pieces of furniture manufactured in 2011 in the EU-27 is composed of wooden furniture used in dining rooms, living rooms and bedrooms (20% by value). Another 24% is represented by unspecified wooden furniture (9% by value). Eurostat does not provide quantitative data about bedroom, dining-room and living room furniture other than wooden. Part of this information is included in the group classified as not specified, which represents about 7% of the total items produced (10% by value). Due to this fact, the shares of bedroom, dining-room and living room furniture are expected to be higher. Other important production subsectors are kitchen furniture (15% by number, 18% by value), non-upholstered seats (14% by number, 8% by value), office furniture (9% by number, 12% by value), upholstered seats (8% by number, 15% by value), mattress supports (7% by number, 10% by value).

Kitchen furniture has grown in importance due to a general change in consumer behaviour. Kitchen has become one of the most important rooms at home, and nowadays it is not just a place where meals are prepared but also a room for socializing and/or entertainment.

More than a half of the office furniture produced in Europe is made of wood (about 60%), whereas metal represents more than 35%.

ANNEX II – COMPARISON OF THE SCOPE ESTABLISHED FOR THE MOST RECOGNIZED EUROPEAN ECOLABELS

A comparison of the scope established for the most recognized European ecolabels is given in the below table:

Table 4. Comparison of the scope established for the most recognized European ecolabels

ECOLABEL NAME	LOGO	SCOPE	CONDITIONS TO BE FULFILLED
<p>EUROPEAN ECOLABEL FOR WOODEN FURNITURE</p>		<p>Free-standing or built-in units used for storing, hanging, lying, sitting, working and eating of domestic furniture (indoor and outdoor use) or business purposes (office, school, restaurants and hotels) (indoor use).</p>	<ul style="list-style-type: none"> - The product shall be made of at least 90 % w/w of solid wood or wood-based materials. Glass, if easily replaceable may be excluded from the weight calculation as may technical equipment and fittings. - The weight of any individual material, other than solid wood and wood-based materials, shall not exceed 3 % of the total weight of the product. The total combined weight of such materials shall not exceed 10 % of the total weight of the product.
<p>NORDIC SWAN FOR FURNITURE AND FITMENTS</p>		<p>Furniture, fitments, doors and lamps for indoor use may be Nordic Ecolabelled.</p> <p>Outside the definition of this product group are: Building products (e.g. walls, stairs, mouldings, plates and boardsplate materials), sanitary equipment, carpets, textiles, office equipment and other products that primary have another function than a piece of furniture, as well as furniture for outdoor use.</p>	<ul style="list-style-type: none"> -The whole product shall be approved, for example a bed may only be marketed as ecolabelled, if both the mattress and the bed end are approved. - The different materials (wood, wood-base panels, metal, plastic, padding materials, textiles and glass) in the products may be

ECOLABEL NAME	LOGO	SCOPE	CONDITIONS TO BE FULFILLED
			<p>approved on the basis of a specific list of materials. Combination of materials must fulfil the requirements of the criteria and in the case of the individual products, all requirements must be fulfilled.</p>
<p>NORDIC SWAN FOR OUTDOOR FURNITURE AND PLAYGROUND EQUIPMENT</p>		<p>This label applies to outdoor furniture (garden furniture) and play and park equipment (domestic use and for public play areas)</p> <p>Outdoor furniture includes :</p> <ul style="list-style-type: none"> • tables, • movable chairs, • armchairs, • benches, • sofas. <p>Playground equipment includes:</p> <ul style="list-style-type: none"> • swings, • slides, • play houses, • other outdoor equipment for play. <p>Park equipment includes:</p> <ul style="list-style-type: none"> • railing/fences, • window boxes, • flag poles; <p>Refuse baskets and outdoor furniture left outdoors on a permanent basis.</p> <p>This product group does not include:</p> <ul style="list-style-type: none"> • outdoor furniture featuring padding or textiles, 	<p>The different materials in the products may be approved on the basis of a specific list of materials.</p>

ECOLABEL NAME	LOGO	SCOPE	CONDITIONS TO BE FULFILLED
		<ul style="list-style-type: none"> • swing seats, • hammocks, • safety surfaces for playground equipment, cycles or toys for outdoor use. 	
<p>NORDIC SWAN FOR PANELS FOR THE BUILDING, DECORATION AND FURNITURE INDUSTRIES</p>		<p>Products that can be labelled include:</p> <ul style="list-style-type: none"> • wood-based panels made up of a least 85% wood in terms of weight, with or without laminate finishes, • plasterboards, • mineral-based acoustic panels • solid wood (with finish) that has been assembled in panel form (for instance, by the consumer) <p>Materials for panels for both indoor and outdoor use can carry the Nordic Ecolabel. Uses for the panels can be found in interior lining of ceilings, walls and floors, in the exterior wind-proofing of walls and ceilings and in the manufacture of furniture and fittings, such as desks, cabinets, etc.</p> <p>The criteria do not pertain to metal panels or facing panels and panels that are used primarily to insulate against heat/cold loss, irrespective of the materials used in these panels. Neither do the criteria pertain to pure HPL (High Pressure Laminate) panels nor to plastics-based panels, such as those used in bathrooms.</p> <p>Ordinary untreated planed and unplaned wood panels are not eligible to carry the Nordic Ecolabel.</p>	<p>The different materials (wood, bamboo and willow, paper and cardboard and minerals) in the products may be approved on the basis of a specific list of materials.</p>

<p>BLUE ANGEL FOR WOOD PRODUCTS AND WOOD BASED PRODUCTS (RAL-UZ 38)</p>		<p>The German “Der Blaue Engel” does not have an eco-label for furniture in general, but it does have a label for objects made out of wood and/or wood-based material (RAL-UZ 38). The label applies to ready-to-use final products for indoor use (e.g. furniture, interior doors, panels, floorings with painted surfaces, laminate floorings, prefabricated parquet/linoleum) which are made for more than 50%, from wood and/or wood-based materials (chipboards, coreboards, fibreboards, veneer panels, each non-coated or coated).</p> <p>This product group does not include:</p> <ul style="list-style-type: none"> • window frames, • semi-finished products. 	<p>Despite this relatively low percentage requirement leaving space for other materials, this label does not include any requirement for non wood materials. This means that it appears as a label of wood in furniture rather than of furniture made from wood-based materials.</p>
<p>BLUE ANGEL FOR UPHOLSTERED FURNITURE (RAL-UZ 117)</p>		<p>The label applies to ready-to-use indoor upholstered furniture (RAL-UZ 117) according to DIN 68880, which are not mainly made from wood and/or wood-based materials (allocated to the RAL-UZ 38), i.e. less than 50%.</p>	<p>The different materials (e.g. leather, textiles, foams) in the products may be approved on the basis of a specific list of materials.</p>
<p>MILIEUKEUR FOR FURNITURE²</p>		<p>Indoor and outdoor furniture. The certification scheme includes the following types of furniture:</p> <ul style="list-style-type: none"> • chairs (for offices, dining rooms, gardens), seats, sofa’s and stools, • tables and desks, • cupboards, shelves, worktops, • kitchens (excl. equipment and accessories), • beds, bedsteads and cradles (excluding mattresses), • bathroom furniture. 	<p>In order to be eligible for the eco-label, furniture must consist of one or more of the materials mentioned in the scheme. The list contains a broad range of materials, i.e.:</p> <ul style="list-style-type: none"> • ligneous materials, such as solid wood, cane, bamboo, chipboard, plywood, MDF, softboard, hardboard, paper, • metals, such as iron and steel,

² Information provided by the national Competent Body from the Netherlands, SMK.

Excluded are:

- medical furniture, like dentist's chairs and wheelchairs;
- chairs connected to the surroundings, like street furniture, train-seats and cinema-seats.

- stainless steel, aluminium,
- plastics, such as polyolefin, acrylic polymers, polystyrene and ABS, polyurethane, polyester, polyamide, polycarbonates,
- rubbers, NR, NBR, SBR, EPM/EPDM,
- resin and synthetic resin such as bakelite, melamine resin, urea resin, epoxy resin, alkyd resins,
- wool, cotton and other natural fibres,
- leather.

Combined materials (like boards made of plastic/wood fibre) are included provided that the separate components comply with the stipulated material criteria (unless the material constitutes less than 5% of the piece of furniture (see below)). Composite stone materials (plastics/minerals) are also included.

In total 95% (w/w) of the material used in a piece of furniture should comply with the criteria. Glass and mirrors can be applied without further requirements. Materials that make out a small percentage (to a maximum of 5% (w/w)) of the total weight of the furniture are exempted from the criteria. These materials need to be specified. The use of

			adhesives and coatings falls outside the 5% (m/m) exception rule. Lead should not be applied (lead materials do not fall within the exemption rule). For all materials for which no material requirements are drawn up, these materials may contain no cadmium or mercury compounds.
ÖKOCONTROL FOR FURNITURE		Applies to furniture made of massive wood, including chipboard and triplex boards, block boards, laminate consisting of a number of veneering, back walls and bottoms of drawers consisting of triplex furniture containing padding.	-
ÖSTERREICHISCHE UMWELTZEICHEN FOR WOODEN FURNITURE (UZ06)		<p>The following types of furniture are covered:</p> <ul style="list-style-type: none"> • Furniture for the living area: for sleeping and living rooms, teenagers 'and children's rooms, antechambers and wardrobes, kitchens and bathrooms. • Office furniture • Furniture for public buildings: for schools, nurseries and kindergartens, hospitals and sanatoriums, laboratories, workshops, commercial premises (shop-fittings), restaurants, hotels and boarding houses, boarding schools and homes, barracks, function halls, theatres, cultural and sacred buildings, libraries, bathing and sports facilities and meeting rooms. <p>Outdoor furniture is not covered.</p>	<p>The main material of which furniture carrying the Austrian Eco-label shall be made is wood. The following wood-based panels specified in ÖNORM EN 13986 may be used for eco-labelled furniture:</p> <ul style="list-style-type: none"> • solid wood panels, • plywood, • oriented strand boards (OSB) , • resin-bonded particleboard, • fibreboards. <p>For surface treatment stains, oils and waxes, varnishes and glazes are permitted. Furthermore, also coatings with non-halogenated plastic, non-halogenated</p>

			<p>plastic lamination or edge protection are permitted. The following non-wood materials can be part of the furniture:</p> <ul style="list-style-type: none"> • metals – also with chromium plated or anodised surface • glass, • natural stone slabs, • resin-bonded mineral panels, • leather provided compliance with the criteria, • textiles provided compliance with the criteria <p>HPL boards (high-pressure laminate boards)</p> <p>The use of plastic components shall be explained and limited to a minimum which is functionally necessary (e.g. slide bearings). The use of halogenated synthetics is prohibited.</p>
<p>ÖSTERREICHISCHE UMWELTZEICHEN FOR OFFICE CHAIRS (UZ34, UZ54 and UZ55)</p>		<ul style="list-style-type: none"> • desk-chairs and swivel-chairs (UZ34) • low-emitting upholstered furniture (UZ54) • bed mattresses (UZ55) 	<p>-</p>

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