



**Comments on the draft interim report for the revision of
the Ecodesign and Energy Labelling measures on vacuum cleaners**

July 2018

Scope (Task 1)

We believe that **all devices that fulfill the function of cleaning by sucking up air should be included in the scope** regardless of their power source (battery or plugged-in). The situation where some vacuum cleaners show a label and others not should be avoided as it is only more confusing for the consumer and does not address the vast quantity of battery-operated models penetrating the market. We welcome the proposed inclusion of robot and battery-operated vacuum cleaners in the scope. When it comes to definitions, we support the following proposals: the redefinition of “full size battery operated vacuum cleaners”; scenario 1 for the definition of cordless vacuum cleaners; the inclusion of definitions for “bagged” and “bagless” vacuum cleaners. We also recommend including the definitions of “mains handstick”, “upright” and “cylinder” as sub-categories of “mains operated and hybrid vacuum cleaners”, as shown in Figure 6 of the draft interim report.

Use patterns (Task 3)

We think that the formula for the calculation of the annual energy consumption needs to be improved. We invite the study team to consider only including in the formula parameters related to the energy consumption (and not the cleaning performance, already presented on the dust pick up on carpet and hard floors icons). The current situation means that the vacuum cleaner can reach higher energy class through modifications of the nozzle and increasing its surface resistance, instead of focusing on the motor of the product and other energy losses. A higher movement resistance makes it more difficult and tiresome for users to operate the vacuum cleaners, and because the nozzle is sealed to the ground, hinders the pick-up of debris.

Technology overview (Task 4)

Put together by Topten, the below tables show that the BAT for cylinder and upright vacuums cleaner included in the current regulation and in the draft interim report are out of date. A very fast technological improvement of vacuum cleaners can be observed:

- In October 2017, the best models were A+. By now, there are already many A+, three A++ and one A+++ cylinder vacuum cleaners with bag shown on Topten.eu. The maximum input power of the best model is only 350 watts, at the same time the model shows the best cleaning classes for both carpeted and hard floor and the best dust emission class.
- The best available cylinder vacuum cleaner without a bag is in energy class A++, again with the best cleaning classes and dust emission class, having a maximum input power of 450 watts.
- The best upright cleaner also has energy class A++ and a maximum input power of 485 watts.

Brand	Electrolux	Vorwerk	Hoover	Electrolux	Fakir
Model	PURED9 PD91-GREEN	Kobold VT300	TX60PET	PD91-8SSM	prestige TS 2000
Type	Cylinder with bag				
Power (W)	350	485	450	450	500
Energy class	A+++	A++	A++	A++	A+
Energy (kWh/y)	9.9	15.8	16	32	18
Cleaning class carped/ hard floor	A/A	/A	A/A	A/A	C/A
Dust emission class	A	A	A	A	A
Noise level (db(A))	67	80	64	69	70

Table 1: Most energy efficient cylinder vacuum cleaners with bag, Topten.eu, June 2018

Brand	Hoover	Miele	Dirt Devil	Hoover	Hoover
Model	RC60PET	Blizzard CX1	DD2226-5	ST50ALG	SL70PET
Type	Cylinder without bag				
Power (W)	450	550	550	550	550
Energy class	A++	A+	A+	A+	A+
Energy (kWh/y)	16	20	20	21	21
Cleaning class carped/ hard floor	A/A	C/A	C/A	A/A	C/A
Dust emission class	A	A	A	A	A
Noise level (db(A))	75	73	75	75	75

Table 2: Most energy efficient cylinder vacuum cleaners without bag, Topten.eu, June 2018

Brand	Vorwerk	Kärcher	Vorwerk	Miele
Model	RC60PET	Blizzard CX1	DD2226-5	ST50ALG
Type	Upright	Upright	Upright	Upright
Power (W)	485	500	750	550
Energy class	A++	A+	A+	A+
Energy (kWh/y)	15.8	20	21.4	22

Cleaning class carpeted/ hard floor	/A	C/A	A/A	C/A
Dust emission class	A	A	A	A
Noise level (db(A))	80	77	78	75

Table 3: Most energy efficient upright vacuum cleaners, Topten.eu, June 2018

In light of these results, we strongly support raising the ambition of the requirements with the ongoing revision, by for example setting a power cap of 600W and an annual energy consumption of max 25kWh/year (all 51 models on topten.eu are already below 25 kWh/y) at the first tier and 400W and 15 kWh/year at the second. Moreover, the annual energy consumption of robot and cordless vacuum cleaners being high, we support energy consumption limits for these. For robot vacuum cleaners, a special attention should be put on setting limits for the different standby modes. Robots and their docking stations are sold together, and both should constitute the product and therefore comply with standby requirements.

Resource efficiency (Task 4)

We look forward to reading the study team assessment on possible requirements to promote vacuum cleaners resource efficiency. The non-exhaustive list of measures below should be envisaged:

- Spare part availability: one of the major factors causing unsuccessful repair of products is the availability of spare parts in terms of being able to find spare parts for purchase (17% of those trying in a recent survey¹ could not find suppliers for the necessary parts) and/or the prohibitive cost of spare parts (18% of those trying to carry out repair found the parts too expensive).
- Durability requirements on (additional) early breaking parts
- Access to key components for non destructive disassembly
- Spare part availability to a fixed number of years that is representative of the expected lifetime of the product
- Unrestricted independent operator access to information and tools
- Restrictions on the use of plastics/polymers that impede adequate recycling, such as non-compatible for recycling polymer blends, incompatible coatings, very dark plastics that have no recycling routes, etc
- Marking of plastics and additives according to the relevant ISO standards, particularly marking content including flame retardants
- The study team could also mention the study on the repair index and discuss the usefulness of implementing it for vacuum cleaners.

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¹ <https://www.ellenmacarthurfoundation.org/assets/downloads/ce100/Empowering-Repair-Final-Public.pdf>