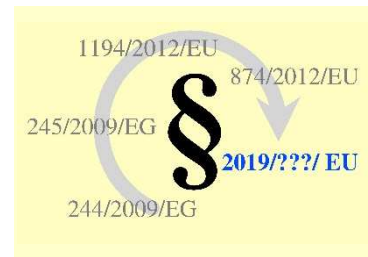


Texte zu den geplanten neuen EU-Regelungen zur umweltgerechten Produktgestaltung und zur Energieverbrauchskennzeichnung in der Beleuchtung – Zusammenstellung ^[1] des Umweltbundesamtes (UBA), Deutschland



Gesundheit

Hintergrundtext:

SCHEER-Stellungnahme ^[2] zu möglichen Risiken für die menschliche Gesundheit durch Leuchtdioden (LED) – Stellungnahme lichtfragen.info ^[3], 20. August 2018 –

Hinweis: Dies ist die englischsprachige Version; die deutschsprachige kann heruntergeladen werden unter ^[4]

EN: Information on the coming EU Lighting Regulations – Ecodesign and Energy Labelling – Compilation ^[1] of the Federal Environment Agency (UBA), Germany

Health

Background information: SCHEER ^[2] Opinion on Potential risks to human health of Light Emitting Diodes (LED) – Comments by lichtfragen.info ^[3], 20 August 2018 –

Please notice: This is a text in English. A version in German language can be downloaded at ^[4]

FR: Informations sur les futures réglementations de l'UE concernant l'éclairage – l'écoconception et l'étiquetage énergétique – Compilation ^[1] de l'Agence Fédérale de l'Environnement (UBA), Allemagne

Santé

Informations de fond : Avis du SCHEER ^[2] sur les risques potentiels pour la santé humaine par diodes électroluminescentes (DEL) – Commentaires par lichtfragen.info ^[3], 20 août 2018 –

Indication : C'est un texte en anglais. Une version allemande peut être téléchargé sous ^[4]

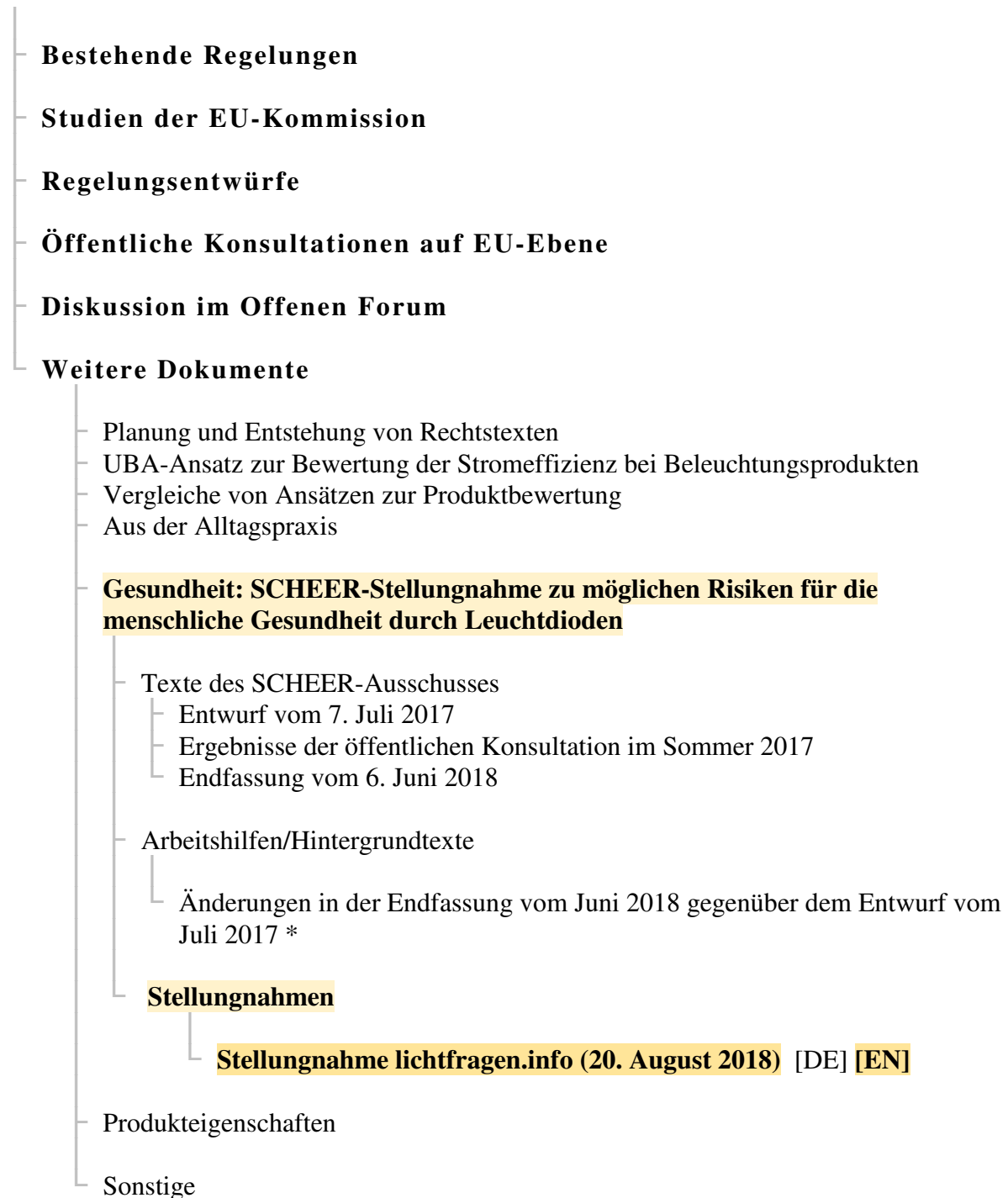
^[1] <https://www.eup-network.de/de/eup-netzwerk-deutschland/offenes-forum-eu-regelungen-beleuchtung/dokumente/texte/>

^[2] SCHEER = Scientific Committee on Health, Environmental and Emerging Risks ◊ **DE:** Wissenschaftlicher Ausschuß für Gesundheits-, Umwelt- und aufkommende Risiken ◊ **FR :** Comité scientifique sur la santé, l'environnement et les risques émergents | https://ec.europa.eu/health/scientific_committees/scheer_en

^[3] <https://www.lichtfragen.info>

^[4] https://www.eup-network.de/fileadmin/user_upload/Lichtquellen_SCHEER_Stellungnahme_lichtfragen.info_DE

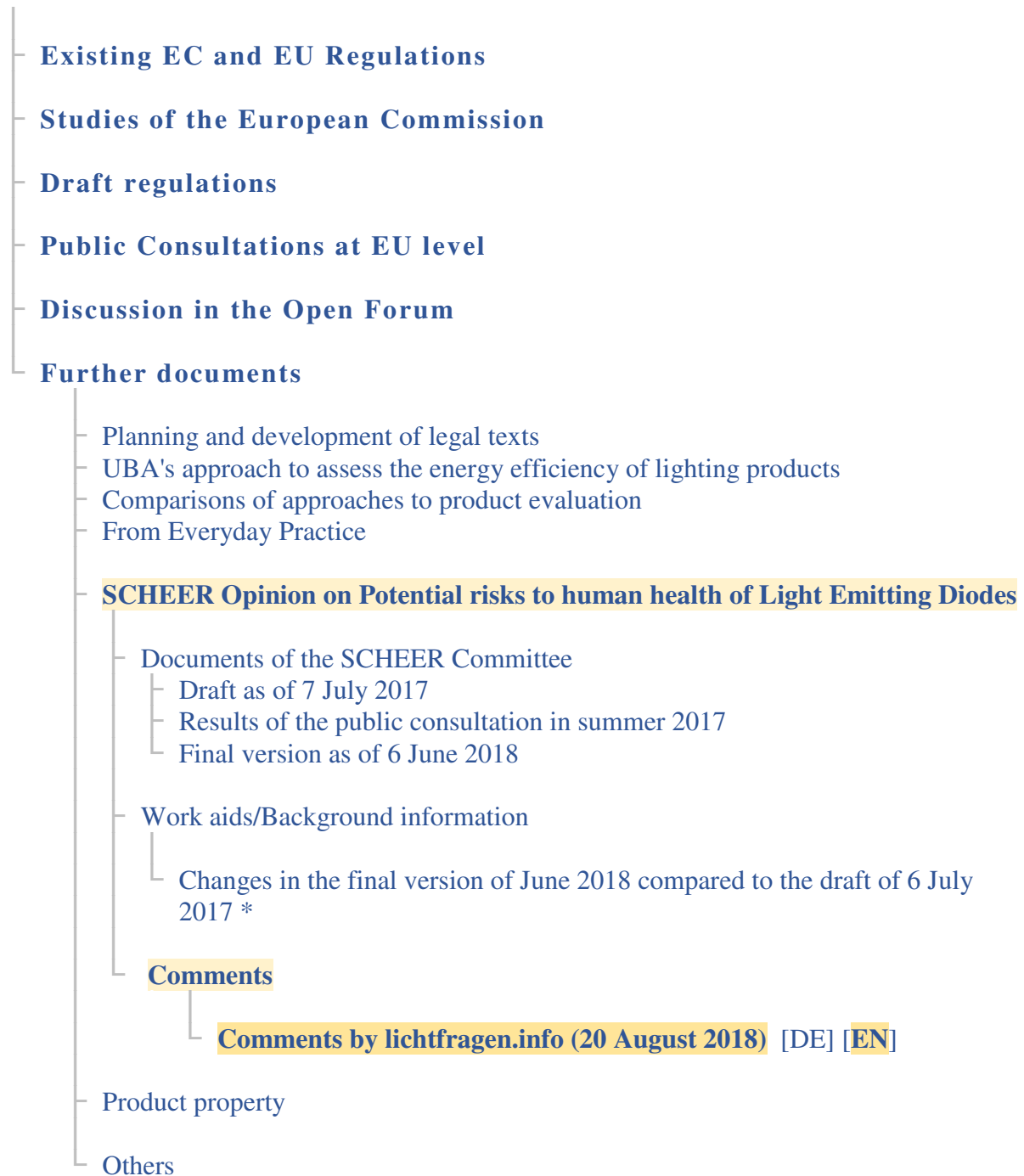
Texte im Offenen Forum und Kennzeichnung des vorliegenden Textes



* Stand: 22. November 2018: Dieser Text ist noch nicht verfügbar.

Abkürzungen: • SCHEER: Wissenschaftlicher Ausschuß für Gesundheits-, Umwelt- und aufkommende Risiken; https://ec.europa.eu/health/scientific_committees/scheer_en

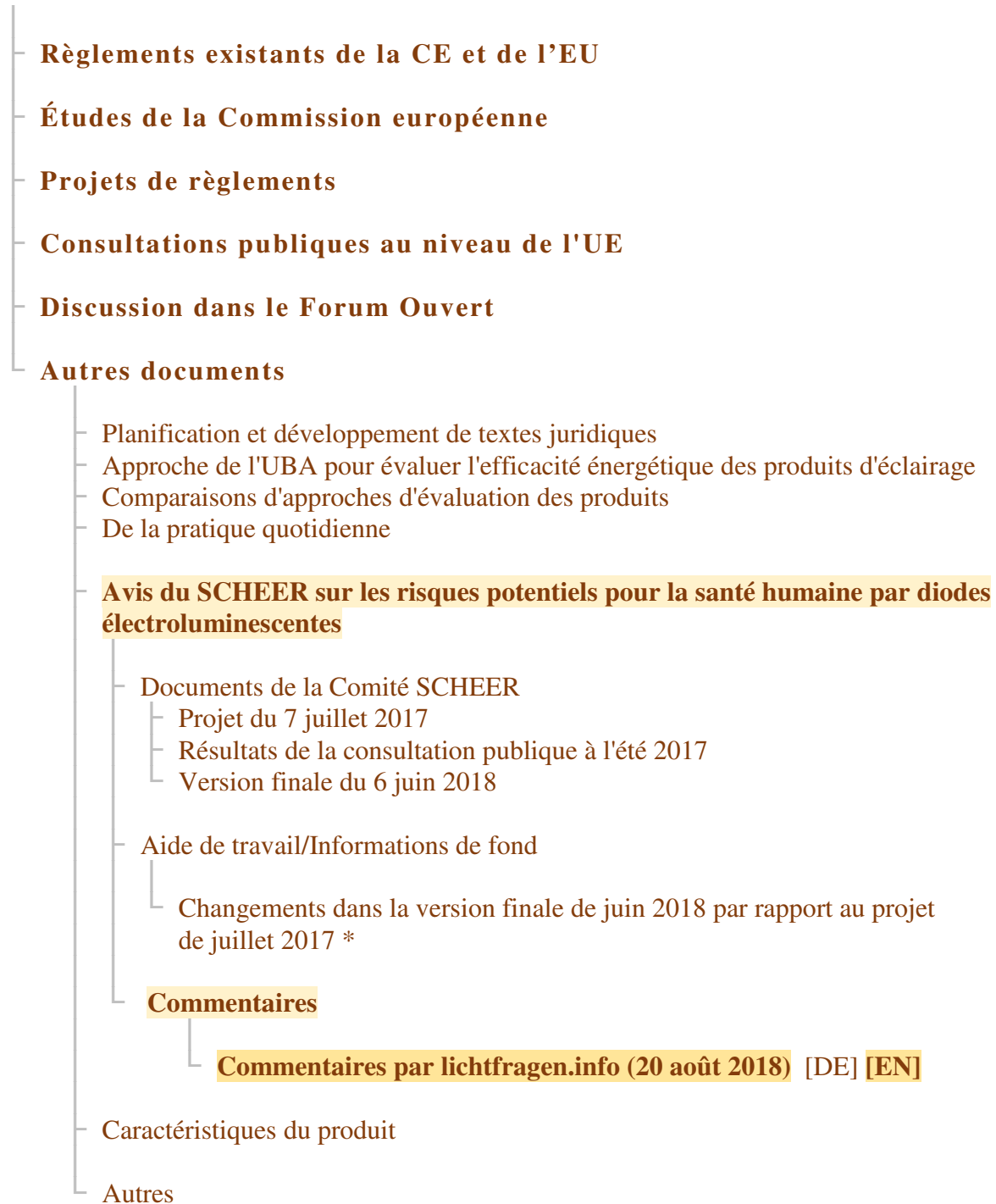
Documents in the Open Forum and identification of the text at hand



* Status as of 22 November 2018: This text is not yet available.

Abbreviations: • SCHEER = Scientific Committee on Health, Environmental and Emerging Risks;
https://ec.europa.eu/health/scientific_committees/scheer_en

Documents dans le forum ouvert et marquage du présent document



* État au 22 novembre 2018 : Ce texte n'est pas encore disponible.

Es folgt ein unveränderter Originaltext.

EN: The following is an unmodified original text.

FR: Ce qui suit est un texte original.

EU assesses risks from LEDs

Commentary on the SCHEER Report of 6 June 2018

In connection with the planned tightening of energy requirements, which amounts to a ban on all light sources other than LEDs, the EU Commission commissioned a scientific assessment of the potential health risks posed by LEDs. This was the responsibility of the Scientific Committee on Health, Environmental and Emerging Risks (SCHEER). The report by the SCHEER panel was published in mid-July 2018:

https://ec.europa.eu/health/scientific_committees/consultations/public_consultations/scheer_consultation_05_en

In summary, the panel concludes that "there is no evidence of health-related damage to the general healthy population from LEDs in normal use (of lamps and displays)".

Known risks and lack of knowledge

This conclusion is irritating when a number of statements in the report are taken into consideration, namely:

- It is found that children are more sensitive to blue light, and that LEDs can cause retinal damage, especially in children under the age of three.
- A health risk is considered to be posed by LEDs to groups of people who already have retinal disease.
- There is a group of sensitive people who suffer as a result of the high-frequency flickering of LEDs (temporal light modulation).
- There is a lack of knowledge about the effect of different dose levels of LED devices, at all wavelengths, on the health of the general healthy population?
- There is a lack of knowledge about the current light exposure of the population. This knowledge is necessary for an assessment of the health risk. This assessment must be differentiated according to different age groups, such as small children, children, adolescents, adults and the elderly.
- SCHEER recommends intensive monitoring of the long-term health effects of LED use.
- SCHEER recommends an investigation into whether bright (LED) vehicle headlights cause more accidents.
- European Standard 62471, which evaluates the health safety of light sources, does not take light-sensitive groups, such as children, into account. SCHEER recommends a corresponding change.

Large population groups not included

It is unacceptable that SCHEER notes considerable gaps in knowledge and admits a number of health risks, but nevertheless concludes that there is no evidence of health damage to the general healthy population. Therefore, in their conclusion, SCHEER appears to have ignored children, the elderly, the visually impaired and people sensitive to flickering. This is many millions of EU citizens who have been disregarded.

Without a knowledge of the dose-response relationships, without an observation of long-term effects and without taking into account differently sensitive groups of people, no statement can be made about the risk of LED technology. Therefore, a sound technological assessment would look very different from the one carried out by SCHEER.

Important studies not considered

SCHEER argues that the studies that found health damage in cell or animal experiments using LEDs worked with unrealistic light intensities. However, the French study by Krigel et al. (2016) was able to show in experiments with rats that at 500 lux (normal office brightness), after 24 hours, clear eye damage was caused by LEDs, whereas this did not occur with comparison lamps.

The current work of Ratnayake et al. (2018) was not considered by SCHEER: The researchers found indications as to why blue light causes the death of cells, namely an interaction with retinal, a molecule that makes vision possible in the first place. The harmfulness of blue light to the eyes, something that ophthalmologists have been stressing for years, has thus once again been scientifically proven.

The SCHEER report also did not consider possible behavioural changes or psychological reactions in children under LED. Our own study found considerable effects here. Instead of greater alertness, as experiments with adults and older adolescents observed with LEDs, we found negative effects on creativity and memory compared with light bulbs or halogen light.

This indicates that significant areas of light effect have not yet been recorded with the previous studies. In our opinion, there is an urgent need for action here before potentially serious long-term effects of LED light endanger human health in the long term.

20.8. 2018

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