

LightingEurope calls for **LIGHTING** TO FEATURE IN THE **THE GREEN DEAL**

LightingEurope is supporting the call to scale up renovation across Europe and is working hard to make sure it includes lighting. Renovation is at the heart of the European Green Deal (see page 40) and has been identified as a key driver for social and economic recovery post COVID-19. There cannot, and should not, be any renovation of buildings in Europe without upgrading the lighting installations, says **Paul O'Connor, Chairman, Lighting Association Ireland (LAI)**, which is the Irish member representative body of LightingEurope.

Many perceive lighting mainly as a driver for energy efficiency and this indeed remains one of the core values for the lighting industry. The now mostly accomplished transition to LED technology has led to up to 90% savings for European consumers. The implementation of a comprehensive light management system will save 20 to 29 TWh per year as of 2030 (Lot 37 Ecodesign Lighting Systems <<http://ecodesign-lightingsystems.eu/introduction>>).

However, the benefits from lighting for the health, well-being, productivity and safety of people are rarely seen as added value. At best, they come for free as part of the energy savings. These benefits received more attention in 2017, when three biologists were awarded the Nobel Prize for helping to explain how the

human circadian rhythm works, including how light affects our daily biological cycle.

With the EU Renovation Wave initiative, the discussion must move beyond energy savings to also address healthier buildings, peoples' quality of life and a lower level of inconvenience. We spend 90% of our time indoors and the quality of our indoor environment has a direct and indirect impact on our health, well-being, and productivity.

To date, most people think of heating, cooling and ventilation when referring to indoor environmental quality. The importance of good indoor air quality, for instance, is well known. However, according to LightingEurope we must look beyond air quality and address all aspects of indoor environmental



Paul O'Connor,
Chairman, LAI

quality which includes ventilation, cooling, heating, daylight, electric lighting, air-conditioning, dehumidification, plumbing and building automation and controls.

The visual impact of lighting can be felt directly, i.e. we can see sufficiently to carry out our task and for orientation. The impact on our body and emotions from lighting is felt more indirectly but has meanwhile been proven in many studies <<https://www.valueoflighting.eu/>>. With good quality lighting employees perform better, students score higher, and it is known to improve the sleep, mood and behaviour of patients suffering from Alzheimer disease.

LightingEurope proposes that no renovation should take place without an upgrade of the lighting

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installation. It also recommends the following:

- Focus on non-residential buildings (public and commercial buildings), as already set out in the Energy Performance of Buildings Directive. It believes that public buildings should lead by example;
- Use LED lighting, in combination with controls and sensors. By switching from incandescent lamps to energy efficient LED lamps, it is estimated that Europeans have benefitted from up to 90% savings. Furthermore, these lighting systems, in addition to allowing for large energy savings, also offer significant benefits to the building users with regard to their visual comfort, wellbeing and productivity;
- Prioritise a full renovation of luminaires to include controls and sensors, with a minimum SRI level. “Just relamping” – simple replacement of a lamp – should be avoided. Replacing luminaires or introducing a whole new lighting design should be encouraged as this will lead to greater benefits in terms of energy savings and IEQ;
- The Smart Readiness Indicator (SRI) should be applied across the EU to maximise its energy savings potential and capture all the benefits it can bring to the wellbeing and performance

of building occupants. Renovations should lead to a certain minimum SRI score;

- Introduce mandatory minimum requirements on IEQ. Criteria



Healthy Buildings for All was published by an informal Indoor Environmental Quality (IEQ) gathering of eight European industry associations, representing companies involved in technical building systems and their maintenance. The objective is to collectively promote healthy buildings with an adequate level of indoor environmental quality.

for lighting can be found in EN 12464-1 and should be referenced in the Renovation Wave initiative;

- Access to public financing should be subject to the fulfilment of certain conditions. An obligation to include lighting renovation to obtain full subsidy should be introduced.

Conditions to be fulfilled

- Lighting should comply with EN 12464-1;
- Use of controls and sensors, with minimum SRI level;
- For lighting Service 1a (occupancy control for indoor lighting), a minimum functionality of Level 2 (automatic detection) should be required, as Level 2 functionality is simple to implement and is based on established technologies that provide good additional levels of energy saving and user satisfaction as compared to Level 1;
- For lighting Service 2 (control artificial lighting power based on daylight levels), a minimum functionality of Level 3 (automatic dimming) should be required, as Level 3 functionality is simple to implement and is based on established technologies that provide good additional levels of energy saving and user satisfaction as compared to Level 2.

For more information seek out the LightingEurope *Position Paper on Healthy Buildings* at www.lightingeurope.org



LIGHTING ASSOCIATION IRELAND