

Press Release

Research and lead the way

The most important levers for a sustainable transformation in the lighting market

Leading the way in sustainability ourselves and supporting other companies in the transformation - these are two central pillars of the TRILUX sustainability strategy. Within its own company, TRILUX is continuously looking for optimization potential at all levels in order to minimize its CO₂ footprint and achieve climate neutrality. At the same time, TRILUX develops solutions that are not only produced in a sustainable and environmentally friendly way itself - but also help other companies to reduce their CO₂ emissions. An important building block: research, also beyond the boundaries of the company.

Making your own company sustainable

TRILUX pursues its own sustainability strategy with ambitious targets. The company is working consistently to improve its carbon footprint. As a result, the production sites in Germany will be climate-neutral in Scope 1 and 2 as early as 2025.¹ will be carbon neutral. Residual emissions will then be offset via certified climate protection projects.

In terms of environmental and resource protection, TRILUX continuously identifies reduction potentials in all core areas and intensively pursues their implementation. The starting points in the company are correspondingly wide-ranging. In 2022, for example, the transformation concept was launched at the Arnsberg site to further save energy and reduce electricity consumption. As part of this, the outdoor lighting system around the plant there was upgraded and equipped with lighting management. This saves up to 64 percent energy per year. Another measure is paper recycling in the washrooms, which significantly reduces the amount of waste by saving almost 14 tons of paper per year.

¹ Scope1 (direct emissions): includes all emissions generated directly by TRILUX GmbH & Co. KG, for example through company-owned plants or vehicle fleets

Scope 2 (indirect emissions): lists emissions caused by purchased energy, for example electricity and district heating

Basic research for better luminaires

For over two years - from June 2021 to September 2023 - the SUMATRA (**Sustainable Materials in future luminaire designs - from Recycling back to Application**) project consortium looked for ways to improve the eco-balance of luminaires by using sustainable materials. In addition to TRILUX as an expert in LED luminaires, the Fraunhofer Institute for Reliability and Microintegration (IZM), Interzero, Inventronics and Kardoff Ingenieure Lichtplanung were also involved in the project, which was funded by the German Federal Ministry for Economic Affairs and Climate Protection.

As part of the research work, the product life cycle of a luminaire was examined from an eagle's eye view - from the extraction of resources to the recycling of raw materials. The investigations show, for example, that a luminaire causes most greenhouse gas emissions during its use phase (97 percent). CO₂ emissions during production amount to just 3 percent. This underlines how important the energy efficiency of a luminaire is. The type of LED also has a huge impact on sustainability. For example, LEDs with bond wires (gold alloy) consume 500 times more abiotic resources (non-renewable and mineral raw materials) than flip-chip LEDs. Based on the findings, a particularly sustainable luminaire prototype was developed. For TRILUX, sustainability research has a high practical benefit. "We incorporate the findings from our research projects directly into the development of new luminaires," says Dr. Sebastian Knoche, Lighting Technology Research Team Leader at TRILUX, who led the SUMATRA project.

Developing innovative products

A good example is the E-Line Next LED strip light, which was awarded the German Sustainability Award 2022. With top values for efficiency (up to 190 lm/W) and service life (up to 100,000 h), the E-Line Next LED helps companies to reduce their own carbon footprint and achieve excellent ratings for sustainable building certification such as BREEAM and LEED. In addition, there is a comprehensive overall concept with many clever features in the interests of nature and the environment. The innovative LED design (flip-chip LEDs) reduces abiotic resource consumption by 61 percent compared to previous solutions. For larger projects, the E-Line Next LED is also available with a module length of 2.25 m on request. This not only minimizes installation costs - it also saves 30 percent of the ballasts otherwise required. The packaging concept is also exemplary. Wherever possible, the trunking profiles are no longer packed individually or shipped as a bundle on pallets - instead they are delivered to the customer almost without packaging using a special E-Line shuttle. Despite its enormous success - the E-Line Next LED is Germany's best-selling continuous-row system - TRILUX has already developed the next generation. Unsurprisingly, the new E-Line Pro is also the logical continuation of the E-Line Next LED success story in terms of sustainability.

Partnerships that protect the climate

Partnerships are a further component of the TRILUX sustainability strategy. TRILUX has been the official climate partner of VfL Wolfsburg for many years - and ensures a minimal ^{CO₂ footprint} for the Volkswagen Arena with smart, energy-efficient light. And the commitment goes far beyond the lighting trade. As part of the coronavirus pandemic, TRILUX has provided interested companies such as VfL Wolfsburg with Plexiglas screens as hygiene protection at cost price. Now that the corresponding precautionary measures are no longer necessary, TRILUX is taking the Plexiglas panes back and returning them to the production process.

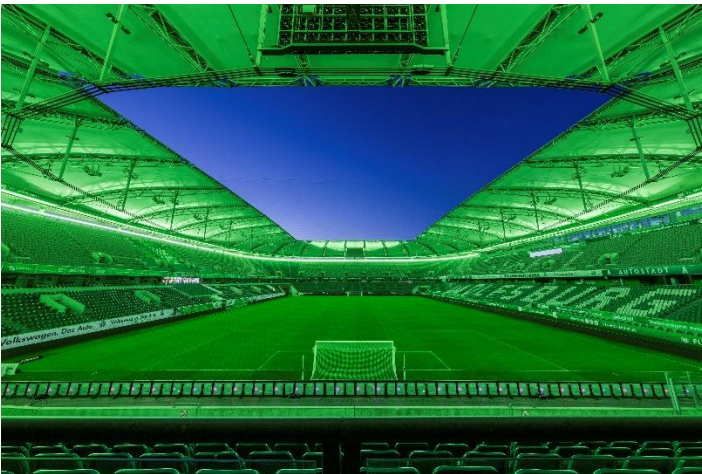
Picture gallery



[Photo: TRILUX_Sustainability Research]

Thanks to continuous research and development work and the prompt implementation of the latest technologies, TRILUX has repeatedly succeeded not only in improving the quality, performance and functionality of its products, but also in successfully increasing resource efficiency.

Photo: TRILUX



[Photo: TRILUX_VfL Wolfsburg]

As the official climate partner of VfL Wolfsburg, TRILUX makes a significant contribution to achieving the soccer club's sustainability goals with its innovative and intelligent LED lighting solutions.

Photo: TRILUX

About TRILUX

TRILUX SIMPLIFY YOUR LIGHT represents the most simple and reliable path to customised, energy-efficient and future-capable lighting solutions. In the dynamic and increasingly complex lighting market, customers are provided with optimal advice, ideal orientation and perfect light. In order to ensure this claim TRILUX accesses a broad portfolio of technologies and services as well as efficient partners and companies within the TRILUX Group. The lighting specialist brings together individual components to create tailor-made complete solutions – always perfectly matched to customer requirements and the field of application. This allows complex and extensive projects to be simply and rapidly implemented from a single source. According to the principle of SIMPLIFY YOUR LIGHT, easy planning, installation and use is the focus of customer solutions in addition to quality and efficiency.

The TRILUX Group operates six production sites in Europe and Asia and serves international customers through 30 subsidiaries and numerous sales partners. The lighting division includes the brands TRILUX SIMPLIFY YOUR LIGHT, Oktalite and Zalux. Affiliated companies include Crosscan, ICT and the online platform watt24. As the department for research and development, the Innovation Center bundles the innovative strength under the TRILUX umbrella. With locations in Germany, Austria, the Netherlands, Belgium, Great Britain, France, the United Arab Emirates, Switzerland, Poland and Spain (digital) the TRILUX Academy provides the necessary know-how on topics, trends and innovations in the lighting industry. The headquarter of TRILUX is located in Arnsberg.

Further information at www.trilux.com

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