



**TRILUX**

# **LIGHTING FOR DATA CENTRES**

**LARGE AMOUNTS OF LIGHT FOR LARGE AMOUNTS OF DATA**



## AREA WITH HIGH DEMANDS

POWERING THE FUTURE: SAFE, SUSTAINABLE, EFFICIENT

**As digitalization progresses and data volumes increase, the demand for data centres is on the rise. These centres must adhere to the high sustainability standards set by the EU Green Deal, with the goal of achieving climate neutrality by 2030. The significant energy consumption from thousands of servers, along with the heat they generate, presents major challenges. Security is also crucial for smooth operations and staff well-being.**

### **General challenges**

- Compliance with the EU Green Deal – climate neutrality by 2030
- Avoiding excessive heat generation
- Reducing energy costs
- Reliable prevention of operational failures
- Ensuring emergency lighting
- High standards for occupational safety



**TRILUX lighting solutions offer the perfect answer to the varied needs across all data centres environments. With innovative LED technology and smart lighting management, energy consumption can be reduced by up to 85% compared to conventional systems. Even if this only accounts for a small proportion of total energy consumption, there are numerous other advantages: LED and thermal management technologies help prevent excess heat generation, and therefore also additional energy consumption by HVAC systems. The extended service life of TRILUX luminaires (up to 100,000 hours) and their excellent quality of light also ensure high efficiency and safety.**



**SMART SOLUTIONS FOR EVERY TASK**

**DATA CENTRE HALLS**

## **THE COMPLEX TERRAIN OF DATA CENTRE HALLS**

- Good recognisability of IT equipment requires vertical illuminance levels
- High energy costs due to continuous operation of servers and energy-intensive HVAC systems
- Permanent heat build-up and dust deposits due to continuous server operation
- Ideal visibility is required in aisles and along servers: colour-coded hardware components must be quickly identified
- Connection to emergency lighting system required



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## DATA CENTRE HALLS MEET E-LINE PRO

THE PERFECT MATCH

**Highly sustainable:**

- Thanks to demand-based lighting control (lighting management), energy costs and CO<sub>2</sub> can be reduced
- Suitable for sustainability certifications such as BREEAM or LEED



**Further benefits:**

- Quick installation for cost and time savings
- Long service life (up to 100,000 hours) and ease of maintenance avoids downtime
- Flexibility in application: Function modules such as cameras, sensors, etc. can be integrated retrospectively

- High quality optical systems increase visibility in narrow aisles and server racks
- Natural colour rendering (CRI 90) to quickly and reliably identify colour-coded cables, connections and interfaces in the servers
- Excellent heat dissipation and high dust-tightness thanks to outstanding thermal management
- Can be integrated into central emergency lighting battery systems
- Lighting management enables the required lighting level for video recording to be maintained



# SMART SOLUTIONS FOR EVERY TASK

Data centres also have other functional areas that place a wide variety of demands on the building equipment and therefore on the lighting:

## OFFICE AREAS



### Maximum comfort for working environments

- A high quality of light is required to ensure the best working conditions and well-being in the office
- Smart lighting management for needs-based lighting control
- This makes everyday work more comfortable and ensures optimum lighting conditions at the desk



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## PLANT ROOMS



### Resistant to rough conditions

- Plant Rooms are permanently in operation and house technical building equipment: air conditioning, emergency power supply etc.
- This causes dirt, dust, vapors and high temperatures
- TRILUX lighting solutions are extremely robust and resistant to external influences



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## CIRCULATION AREAS



### Safety and well-being in high traffic areas

- Highly frequented areas require safe routes and first-class orientation
- Thanks to the attractive lighting effect of TRILUX solutions, even long corridors or winding stairwells can be effectively illuminated
- The high-quality light creates a pleasant feel-good atmosphere



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## AROUND THE BUILDING



### Welcoming appearance

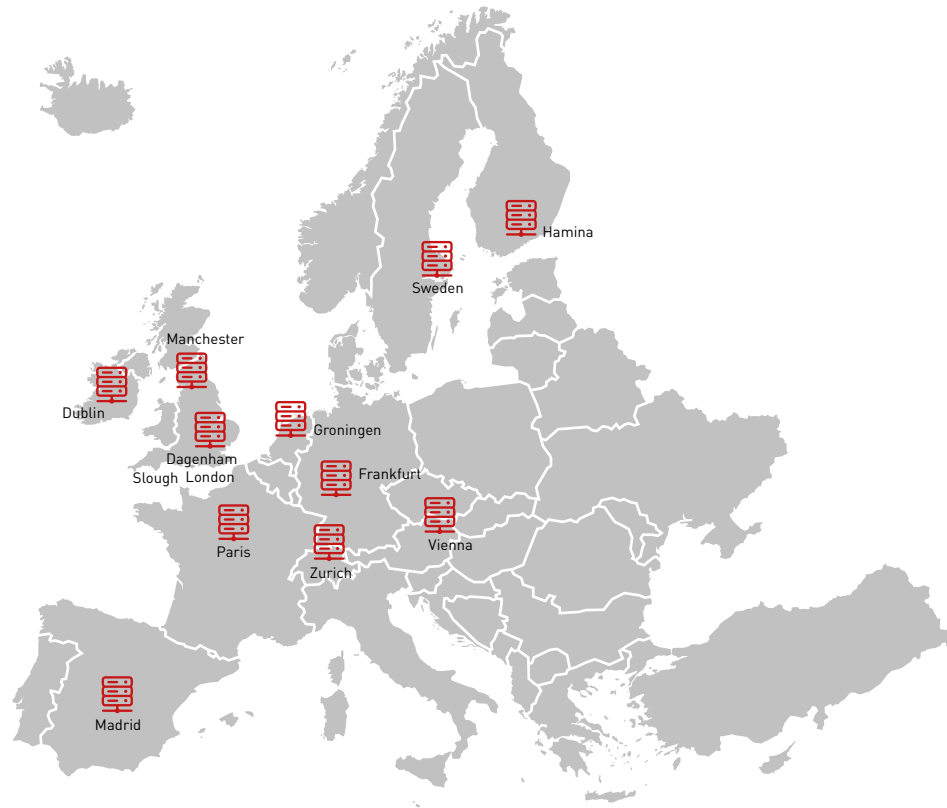
- Exterior areas of the building must be inviting and provide good lighting conditions
- TRILUX lighting solutions offer ideal stylistic devices to effectively present outdoor areas in the right light
- Visitors and employees can find their way around safely even in dark times of day



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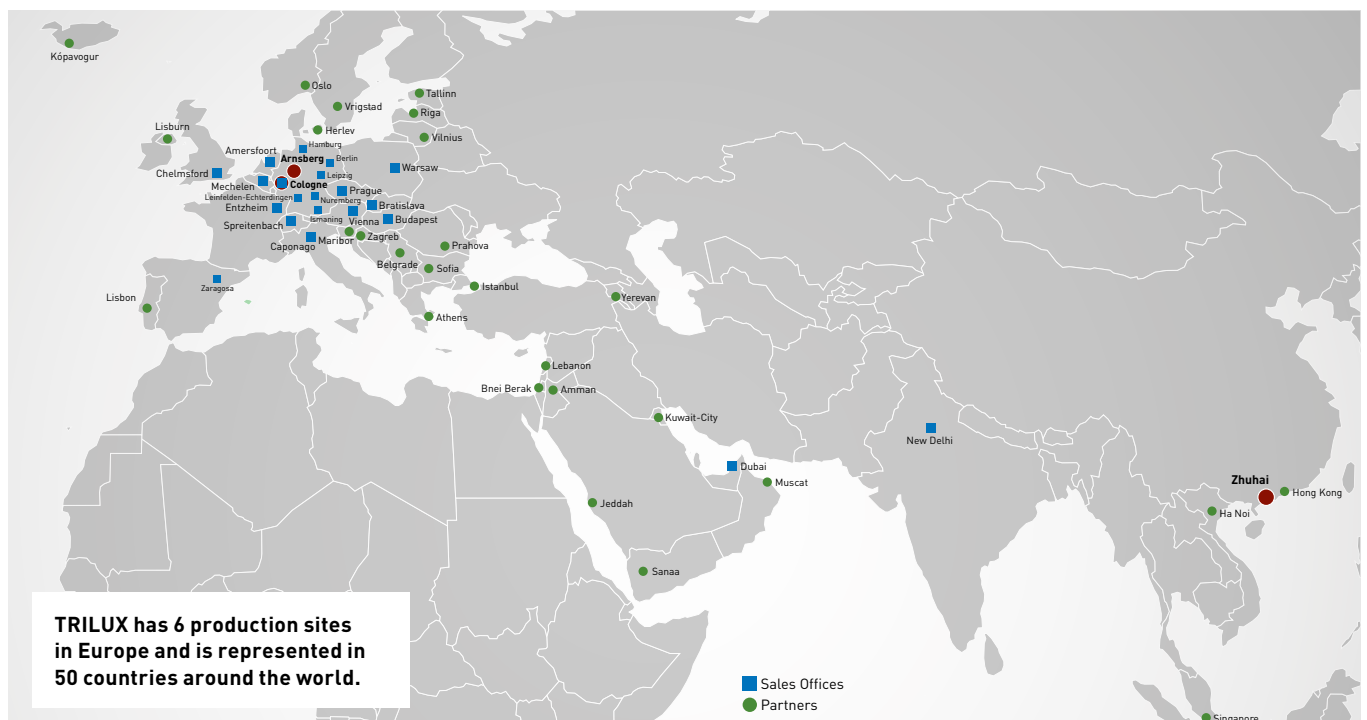
# REFERENCES

The demand for data centres is currently growing rapidly and is expected to increase in the coming years. We are optimally prepared for this development and are always on hand to support our customers. The best proof of our expertise is the numerous data centres that we have already helped to develop. The following map provides an overview:

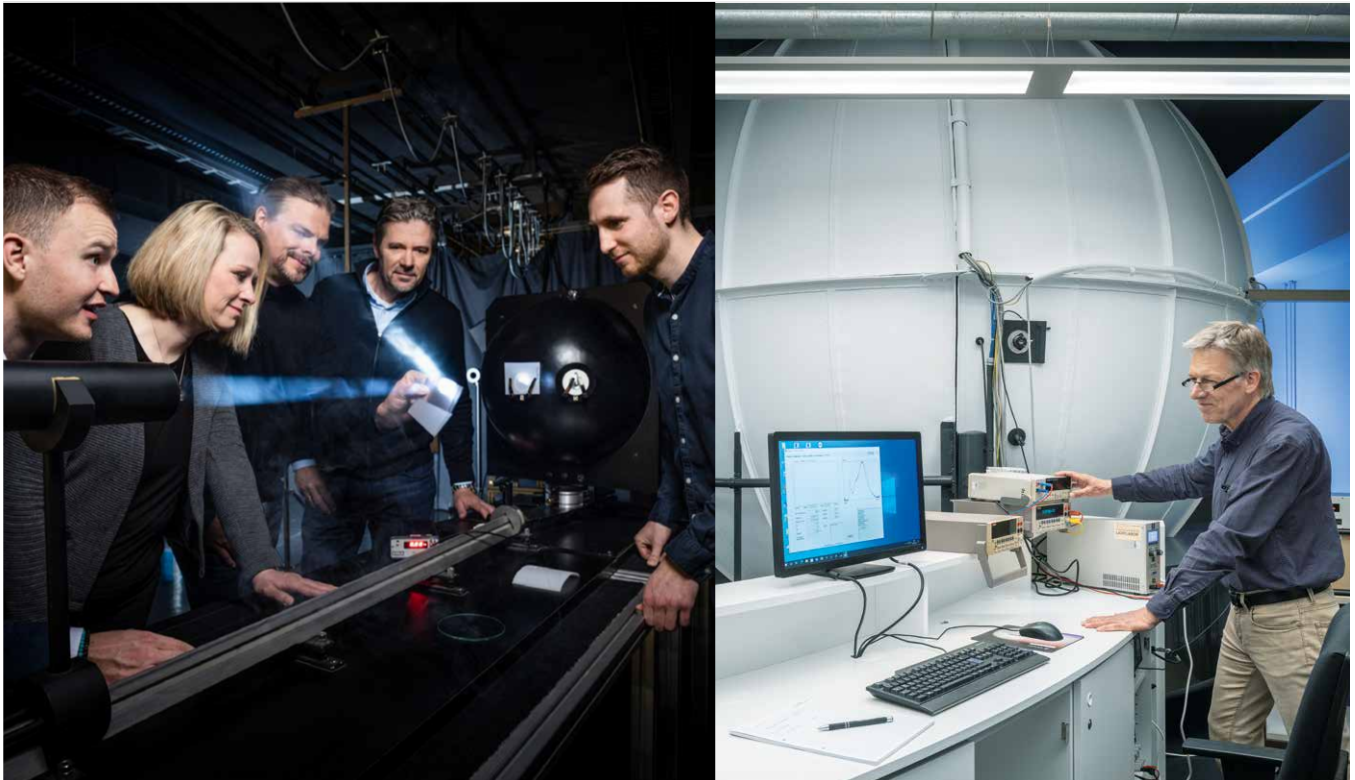


# YOUR GLOBAL PARTNER FOR ALL LIGHTING SOLUTIONS

TRILUX operates internationally and is present in numerous countries. We provide comprehensive support projects on site. Please contact us for further information.



# TRILUX – SIMPLIFY YOUR LIGHT



**TRILUX SIMPLIFY YOUR LIGHT** stands for the simplest and safest way to a customised, energy-efficient and sustainable lighting solution.

Our many years of experience and extensive know how enable us to offer you innovative lighting solutions. We develop and manufacture our products to the highest standards in Germany, relying on traditional craftsmanship – from the careful selection of materials and sophisticated design to precise lighting technology. Our products undergo comprehensive quality checks and are manufactured in-house with the highest precision. In this way, we ensure that you always receive lighting solutions of first-class quality “Made in Germany”.

**> 100 years**



TRILUX was founded in Menden (Germany) in 1912. Since then, TRILUX has played a decisive role in shaping the lighting market through innovation.

**50 countries**



As an international company, TRILUX is present in 50 countries all over the world.

**6 production sites**



TRILUX produces in Germany and several other European countries, spread over 6 plants.

**5,000 employees**



TRILUX employs around 5,000 people worldwide around the world.

As a full-service provider, we focus on products for all areas of application, both indoors and outdoors. We are also happy to manufacture customized products according to your wishes. With our full-service offer, we also support you from planning and financing through to installation and operation. This means that we are always reliably at your side.

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