

TRILUX
SIMPLIFY YOUR LIGHT.

LIGHTING SOLUTIONS
& SERVICES



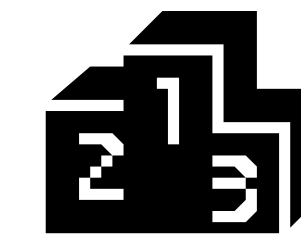


TRILUX GROUP

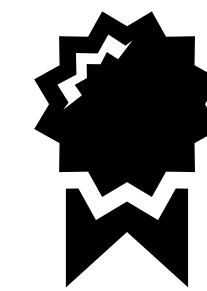
HOLISTIC EXPERTISE



**No. 1
in Germany**



**No. 3
in Europe**



**Over 100 years
of experience**



**Made in
Germany**

TRILUX
SIMPLIFY YOUR LIGHT.



TRILUX GROUP

HOLISTIC EXPERTISE

TRILUX

THE LIGHT SIMPLIFIER

- Founded: **1912**
- Legal form: **Limited liability company**
- Consolidated annual turnover 2017: **€ 714m**
- Global employees: **> 5,200**
- Service subsidiaries: **50 countries**

- 7 production locations
- 33 subsidiaries and participations
- including 12 distribution companies

HOLISTIC ADVICE

GAINING PERFECT LIGHT WAS NEVER MORE SIMPLE

The lighting market has changed enormously due to the LED transformation, increasing digitalisation and social mega-trends such as connectivity and big data. On the one hand this provides diverse opportunities. On the other, lighting solutions are becoming increasingly complex and their selection, configuration and operation more complicated.

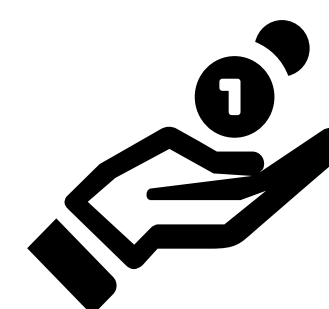
TRILUX makes this complexity manageable thanks to intelligent solutions that set new standards in terms of energy efficiency and quality of light, and also by offering a wide range of customer-oriented services.



**ORIENTATION
+ SAFETY**



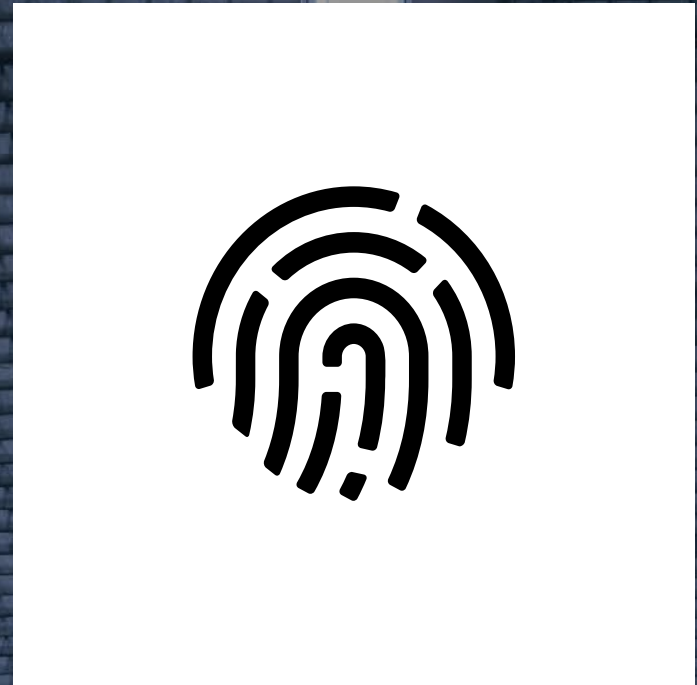
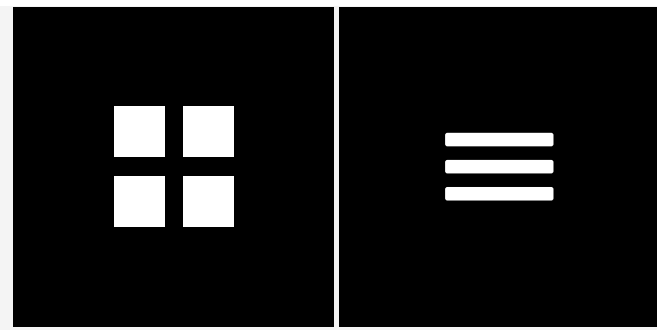
**LIGHTENING
WORKLOADS**



SAVINGS



SUSTAINABILITY



ORIENTATION & SAFETY

In increasingly complex surroundings, we'll work together with you to identify the right technologies and products, especially with regard to:

- efficiency
- quality
- performance and
- service life.

We also provide consultation about networked, intelligent and sensor -controlled solutions:

- Reducing energy consumption and therefore also operating costs
- Increasing the sustainability of the complete system.

In this way you gain a customised lighting solution for your project – with dependability and reliability.

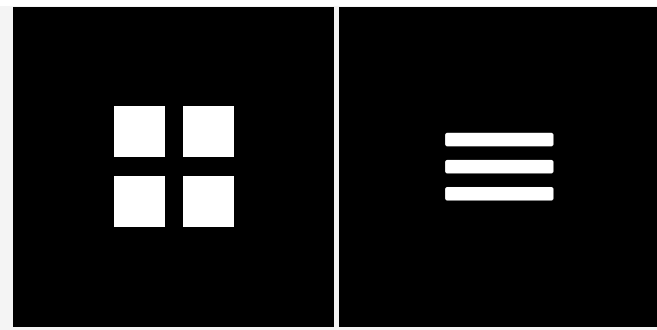


LIGHTENING THE LOAD

Upon request, we can take responsibility for complete range of tasks concerning lighting:

- Technological consultation
- Customised financing concepts
- Complete project management for all systems

In this way you not only gain a lighting solution from a single source, but also the required flexibility to concentrate on you own business.



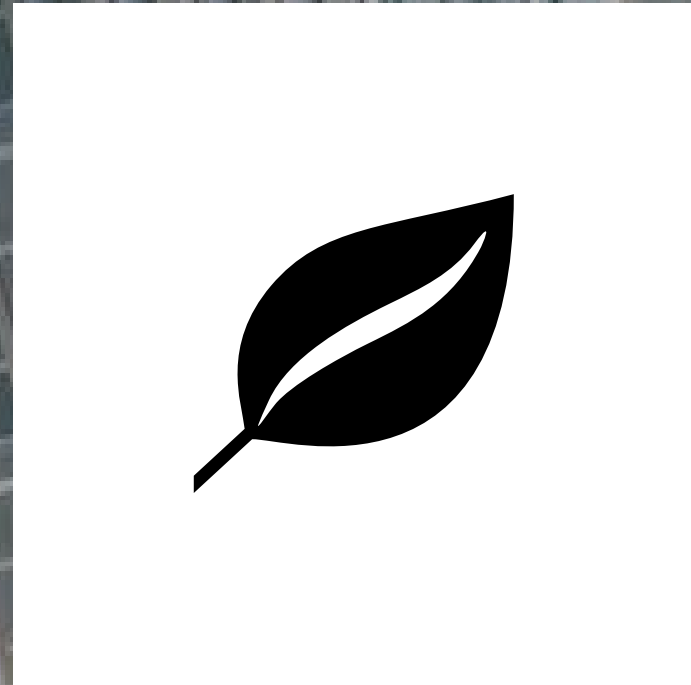
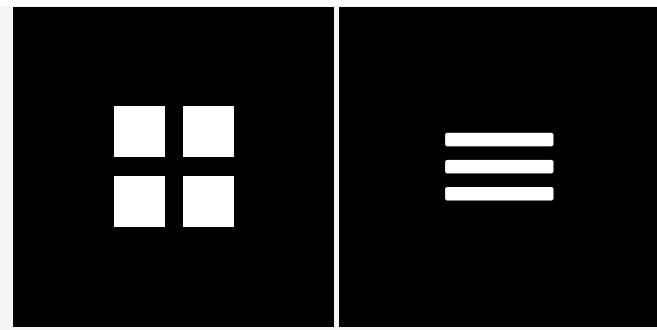
SAVINGS

TRILUX lighting solutions are extensively planned to provide you as a cost-conscious client with many advantages:

- Reduction of operating overheads of up to 75%
- Elimination or minimisation of project-related work and complexity thanks to TRILUX Services
- Possible balance-neutral implementation without own investments due to high operating cost savings

Equity capital is protected via a wide selection of financing models enabling you to maintain your handling flexibility.





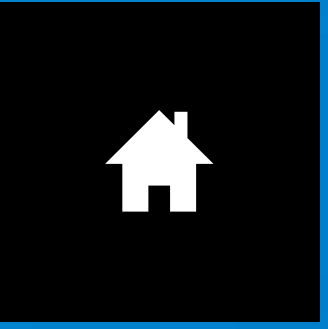
SUSTAINABILITY

The lighting solution is a central component of sustainable building management:

- High influence on appropriate certifications such as Green Building or BREEAM
- Sustainable reduction of energy consumption and green house gas emissions via environmentally-caring lighting systems based on cutting-edge LED technology and intelligent control solutions.

TRILUX lighting solutions therefore make a valuable contribution to protecting the environment and are an increasingly important part of any credible CSR strategy.

HOLISTIC SOLUTIONS



Industry



Office



Outdoor areas



Light management



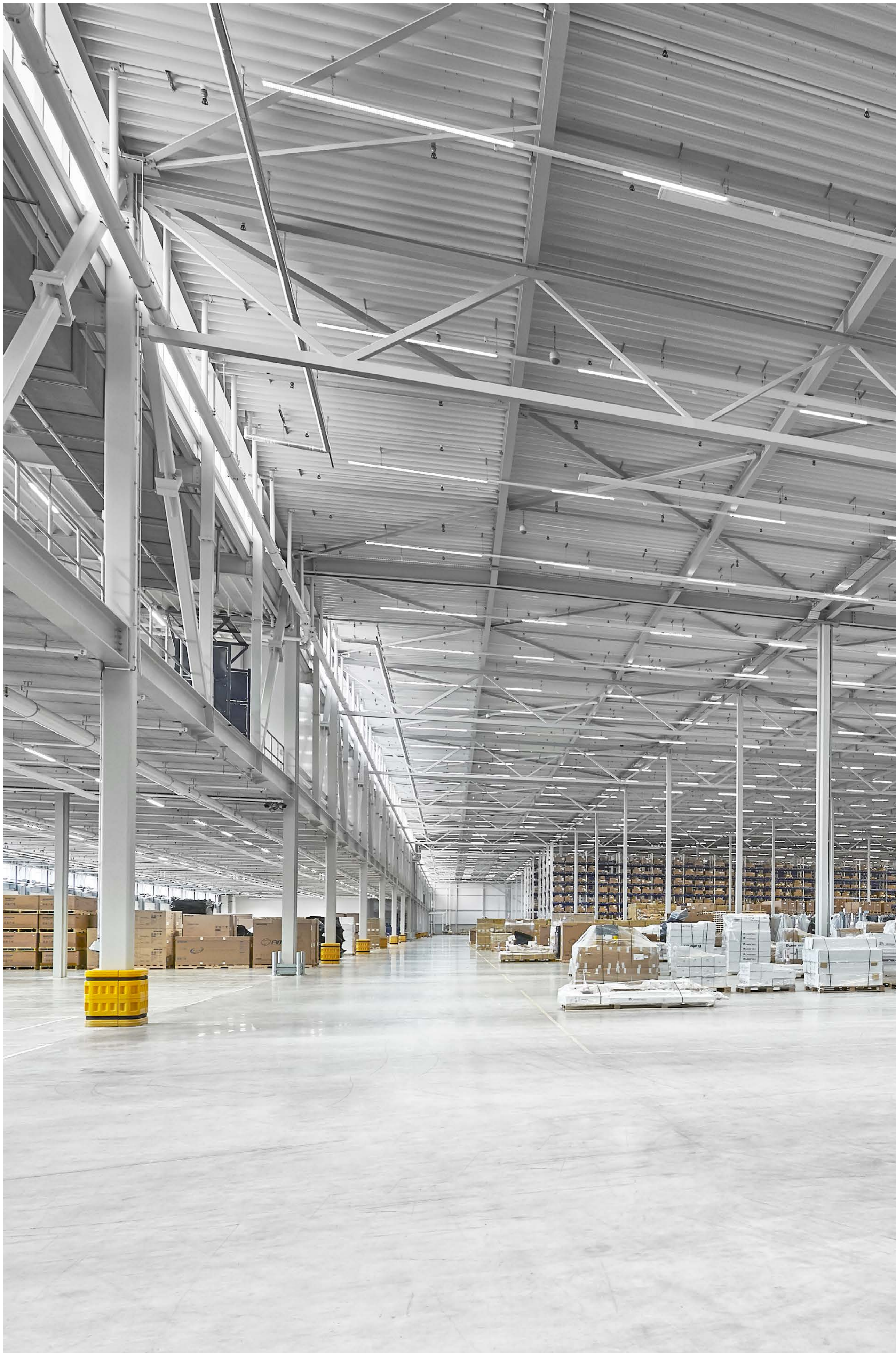
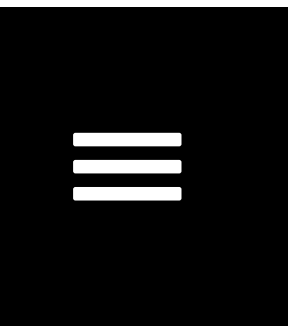
INFORMATION & ADVICE

FINANCING

TECHNICAL SERVICES

PROJECT MANAGEMENT

DIGITAL SERVICES



INDUSTRY

High warehouses, especially sensitive or tough production environments, heat, low temperatures, humidity or vibrations – TRILUX has precisely the right solution for all applications. One common factor: exceptionally high material quality and workmanship for optimum light, maximum energy efficiency and a long service life.

A further plus point: all TRILUX luminaires fulfil their specific tasks in compliance with relevant standards.

After all, it's better to be safe than sorry.



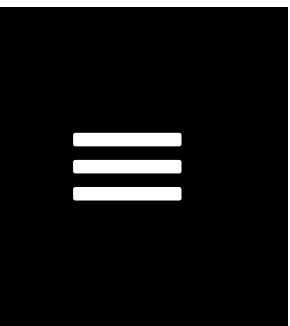
THE CHALLENGE

New construction of a distribution hall of 45,000 square metres with high demands concerning sustainability, intelligence and comfort that guarantees low-maintenance and durable lighting with simultaneously perfect illumination of the workplaces.

THE SOLUTION

The building is equipped with the latest-generation LED luminaires and sensors for precise, needs-compliant lighting. The dimmable luminaires also help to reduce energy costs.

DOKVAST NEW LOGIC VIII



OFFICE

New worlds of work and New Work concepts place new demands on lighting solutions, e.g. regarding flexibility and quality of light.

The standard-compliant, glare-free illumination of rooms and individual task areas also influence concentrated, fatigue-free work.

Technologies such as Human Centric Lighting help to stabilise the biorhythm and therefore promote the ability to perform and support the well-being of employees.



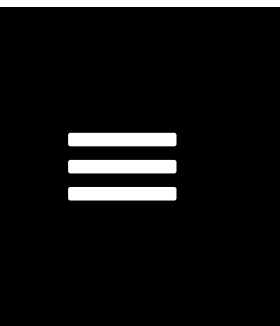
THE CHALLENGE

New construction of an administration building with approx. 1,800 workplaces. A location of well-being should be created; also the gaining of maximum benefits from daylight via efficient lighting.

THE SOLUTION

The holistic lighting solution from TRILUX essentially contributes to the creativity- and performance-supporting style of the complete building: around 6,000 light points with a uniform design vocabulary form a coherent overall concept that meets all requirements concerning energy efficiency, design and light comfort.

DATEV IT-CAMPUS



OUTDOOR AREAS

Almost all buildings have outdoor areas around the building, e.g. car parks, access ways and facade or entrance areas. Many companies use their outdoor lighting as an extended form of business card if aesthetic or emotional aspects are focused on.

The TRILUX product portfolio enables the lighting solutions, above and beyond the borders of the building, to be implemented with a uniform design and from a single source.



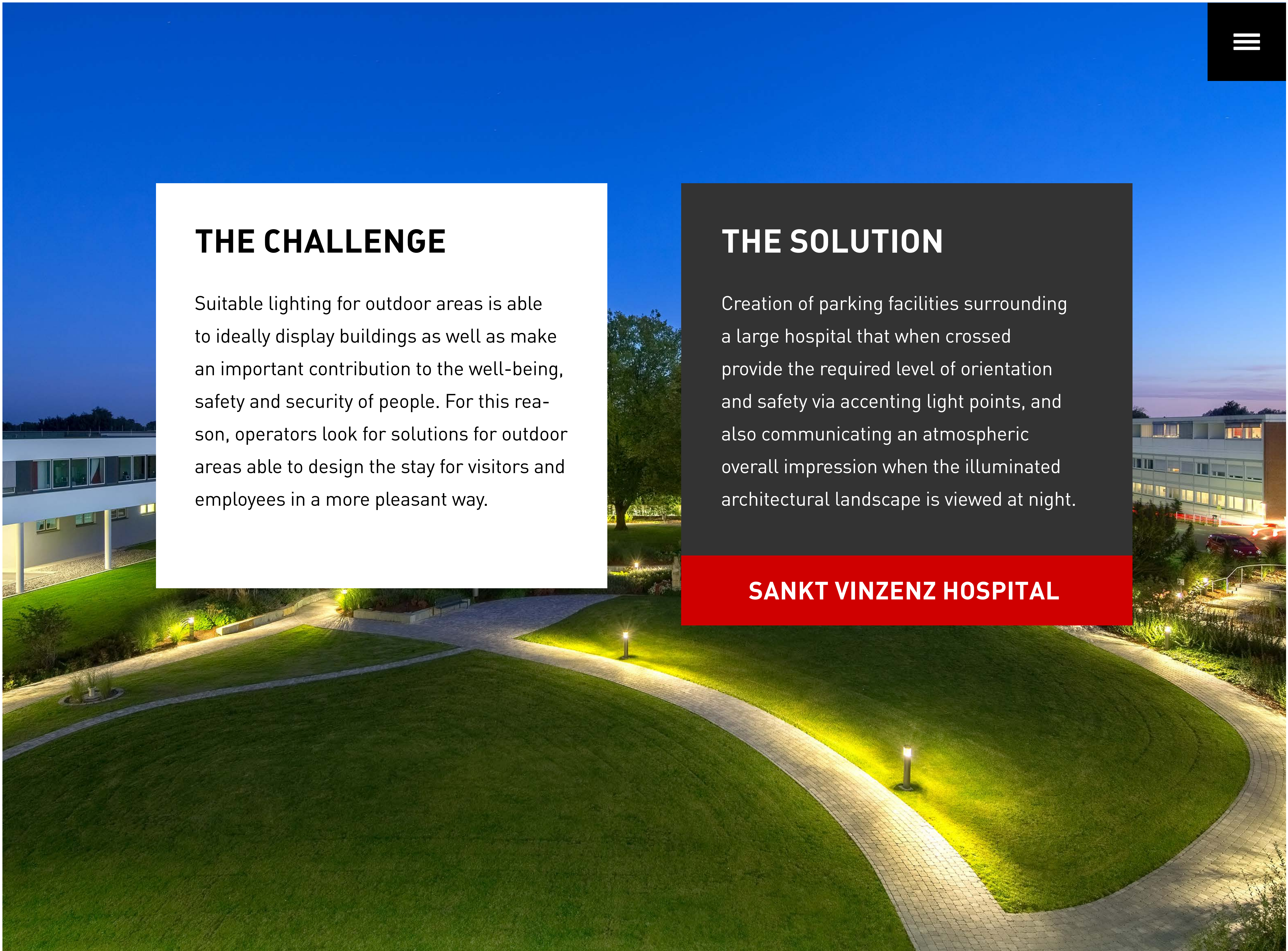
THE CHALLENGE

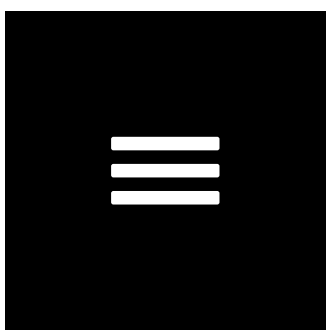
Suitable lighting for outdoor areas is able to ideally display buildings as well as make an important contribution to the well-being, safety and security of people. For this reason, operators look for solutions for outdoor areas able to design the stay for visitors and employees in a more pleasant way.

THE SOLUTION

Creation of parking facilities surrounding a large hospital that when crossed provide the required level of orientation and safety via accenting light points, and also communicating an atmospheric overall impression when the illuminated architectural landscape is viewed at night.

SANKT VINZENZ HOSPITAL





LIGHT MANAGEMENT

Welcome to the digital world. The next few years will witness the complete penetration of LED technology, enabling the transformation in the lighting market to enter a new phase. Light management, the intelligent control of light, will then be the dominant topic.

The LiveLink light management system enables the effortless setting up, control, regulation and monitoring of the lighting network.



THE CHALLENGE

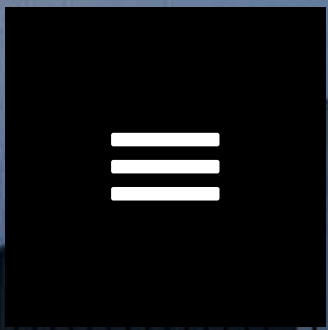
Four newly purchased distribution halls of a company from the logistics industry should be upgraded for the future before occupation: halls illuminated compliant to requirements should create better work conditions for the workforce in addition to energy- and cost savings.

THE SOLUTION

Needs-compliant TRILUX light here became a competitive advantage. The TRILUX light experts supported the company in its upgrading to modern LED lighting and intelligent control via LiveLink in the four storage halls, the delivery area and integrated office.

The result: improved work conditions and energy consumption slashed by 64%.

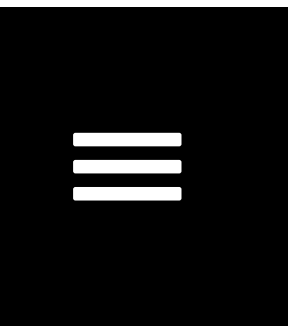
TASKIN GMBH – DISTRIBUTION HALL



INFORMATION & ADVICE

WE'LL HELP YOU FIND
THE PERFECT SOLUTION





INFORMATION & ADVICE

WE'LL HELP YOU FIND THE PERFECT SOLUTION

- **Expert advice** according to needs for the system, technology, financing and services
- **Calculation of energy and cost efficiency** (existing system vs. new system)
- **Complete information** concerning lighting: energy efficiency, the benefits and disadvantages of various solutions and online configuration of the lighting installation

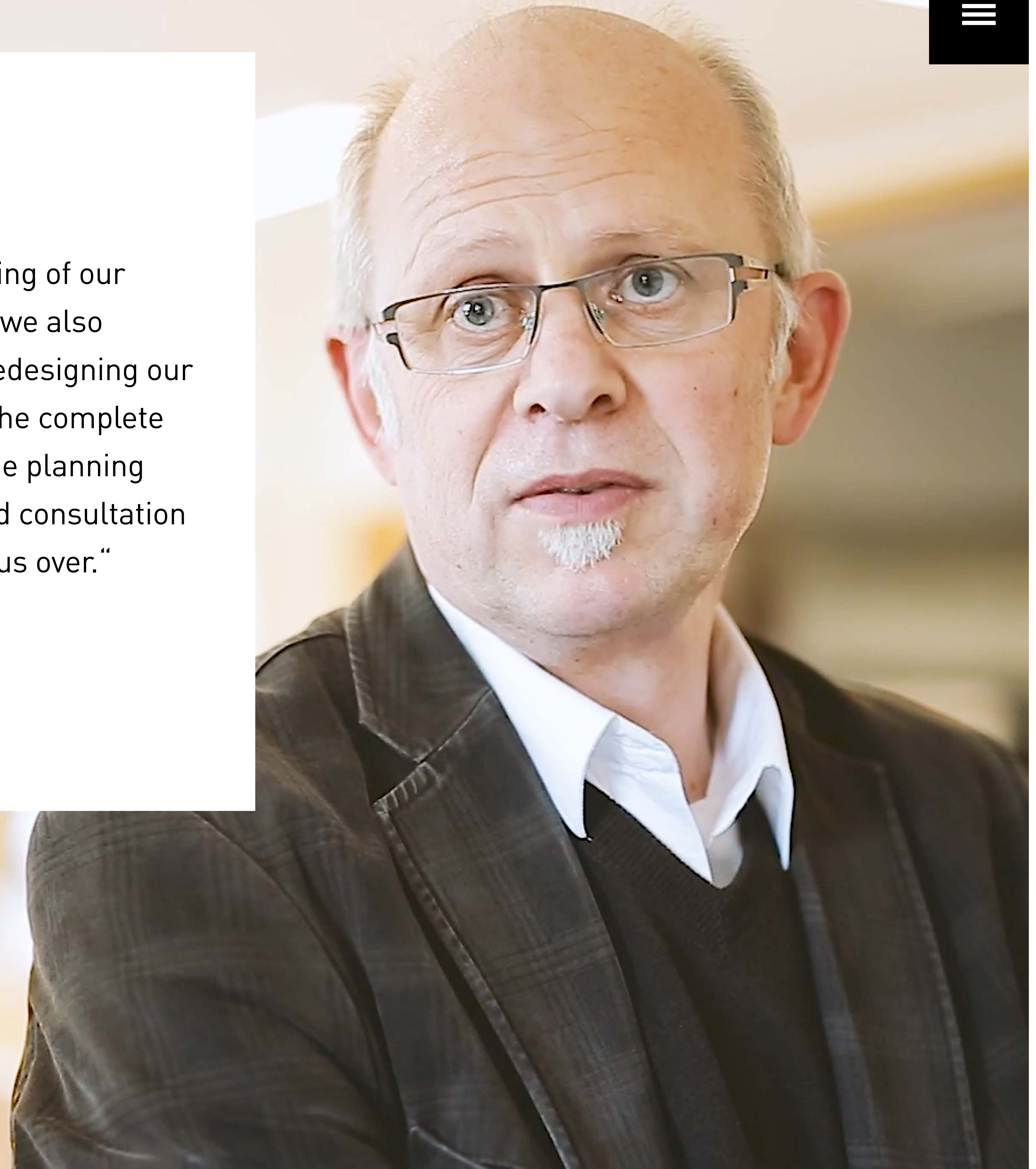


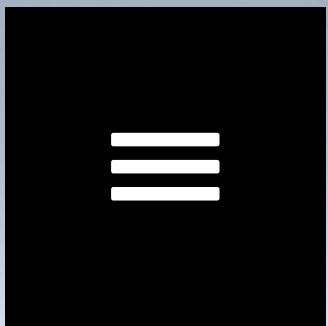
REFURBISHMENT OF AN INDUSTRIAL HALL

„Following the successful upgrading of our multifunctional hall with TRILUX, we also worked closely with them when redesigning our production area. Support during the complete project was outstanding, and in the planning phase in particular, the advice and consultation matched to our needs really won us over.“

Fred Wenselowski

Production Manager
Börde Industrie Service





FINANCING

VARIOUS POSSIBILITIES
AND EXTENSIVE ADVICE



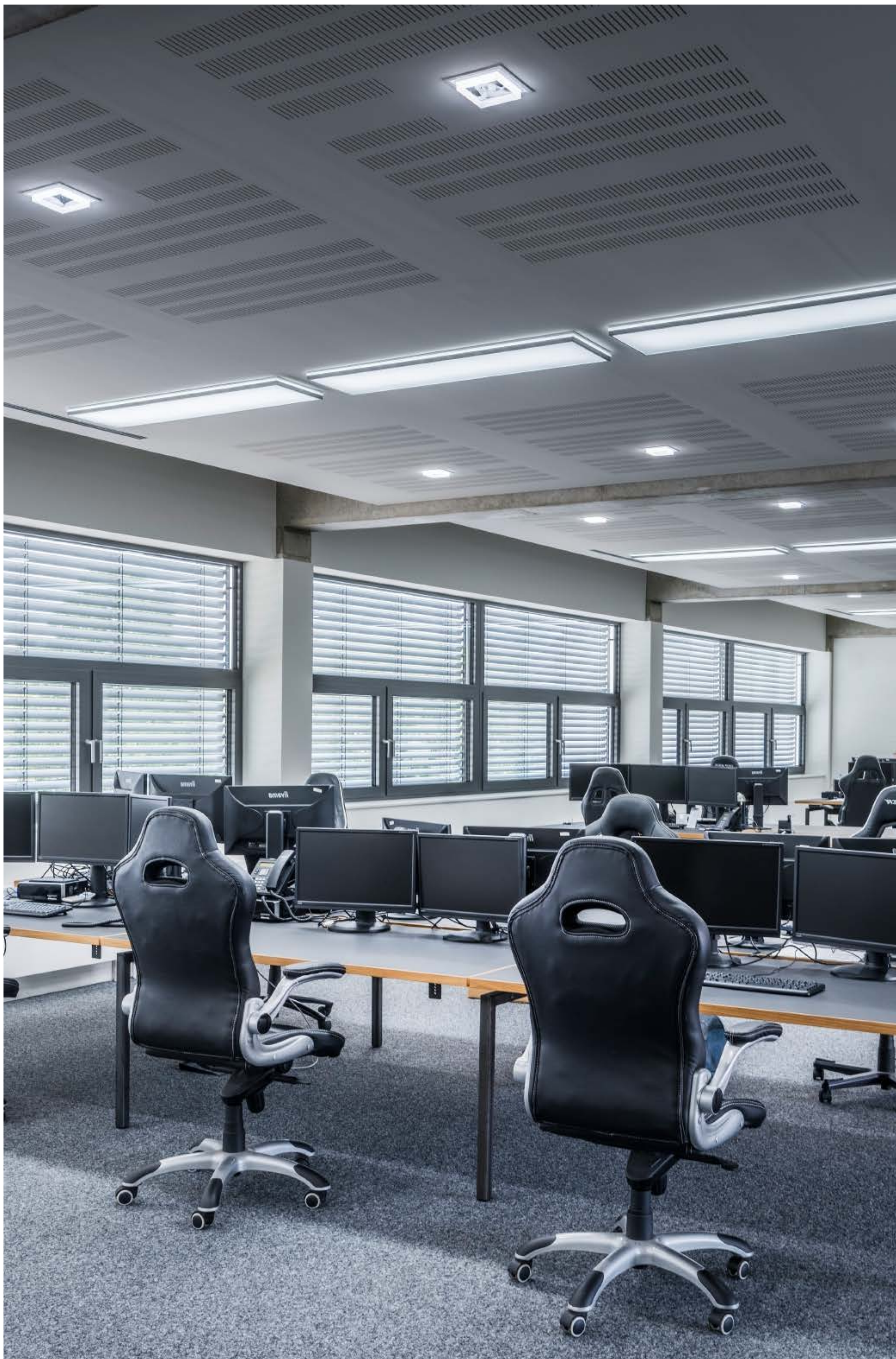


FINANCING

VARIOUS POSSIBILITIES AND EXTENSIVE ADVICE

Together with you we draw up your ideal financing solution.

- **Balance-neutral realisation** of lighting projects without own investments: greater scope for action by protecting your equity capital
- **Cost-covering** for a new lighting solution often from day one via savings in operating overheads
- **Renting** only the light actually needed on a monthly basis.





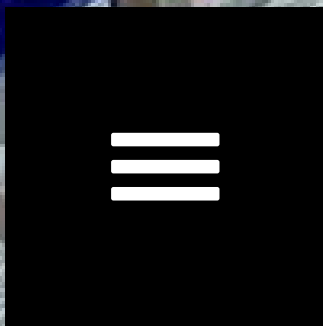
LED UPGRADE OF AN OFFICE BUILDING

„The project was a logistical challenge for everyone involved but in the end everything worked well. We upgraded the lighting during running operation and managed to keep within schedule.“

Holger Rost

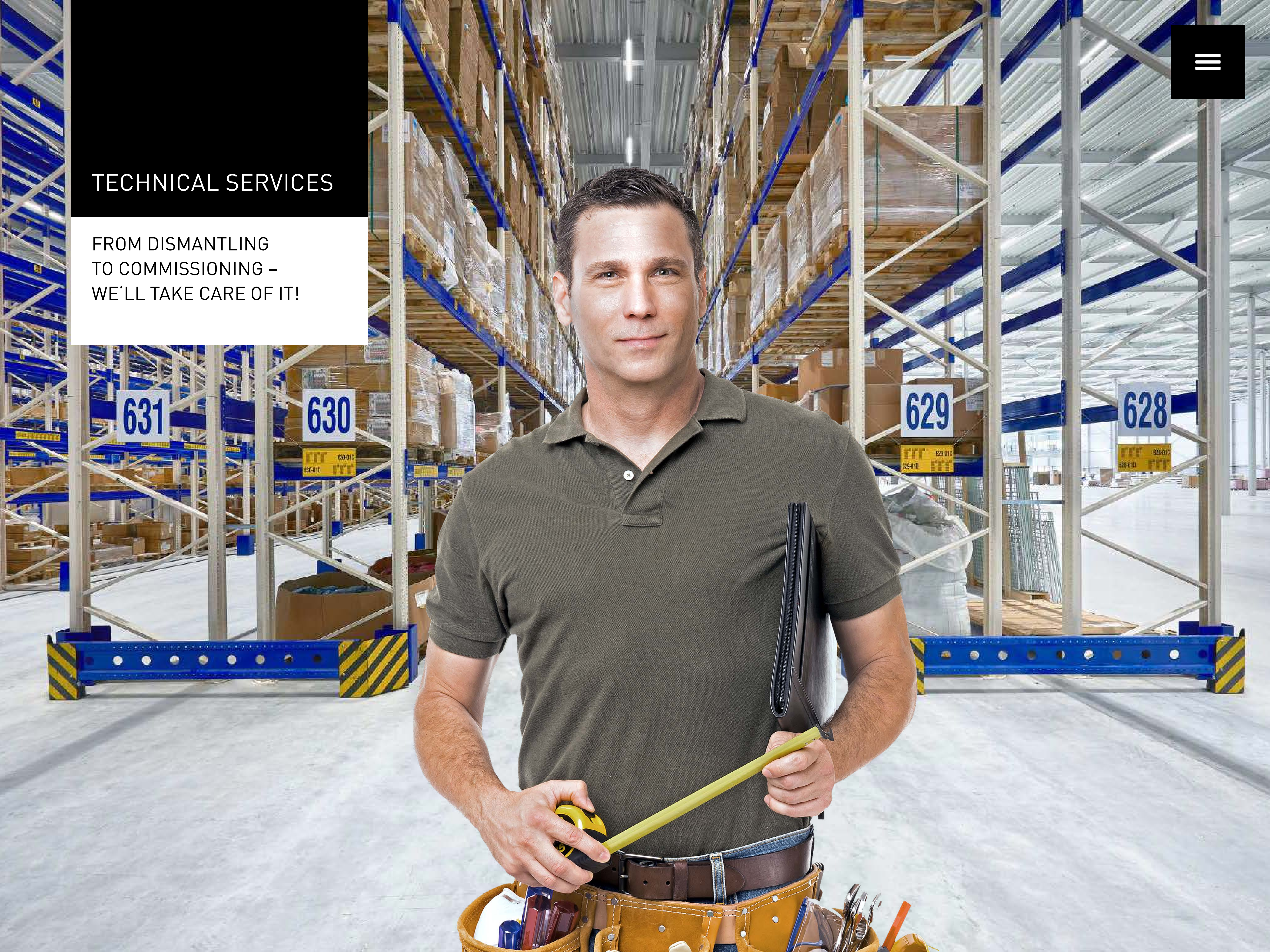
Managing Director
Bochum Netz GmbH public utility





TECHNICAL SERVICES

FROM DISMANTLING
TO COMMISSIONING –
WE’LL TAKE CARE OF IT!

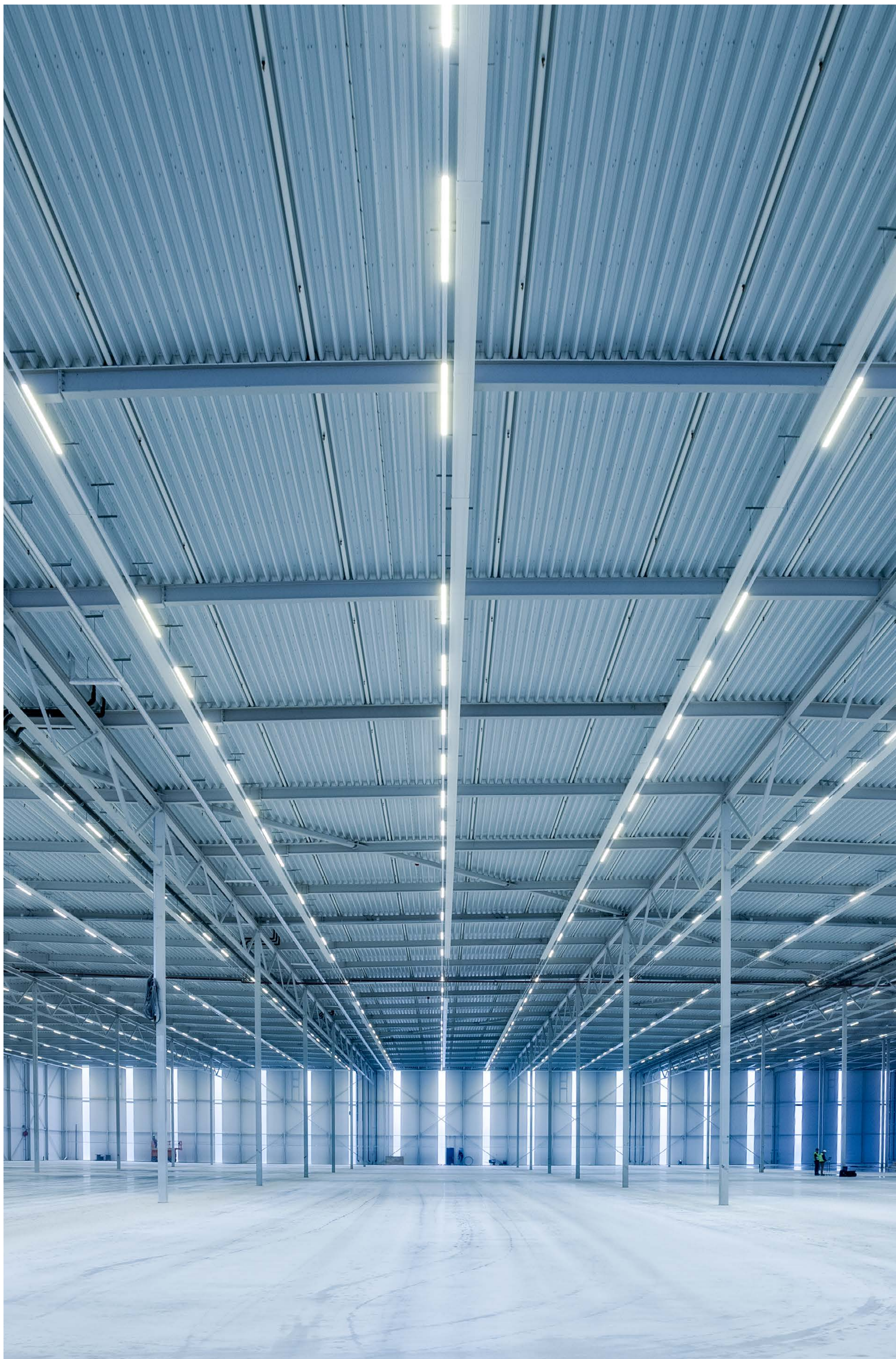




TECHNICAL SERVICES

FROM DISMANTLING TO COMMISSIONING – WE’LL TAKE CARE OF IT!

- **Dismantling of the obsolete system** – the existing lighting installation must be correctly disassembled and disposed of before the new system can be installed. We would be happy to work together with a local electrical contractor.
- **Installation and commissioning** – TRILUX Services takes responsibility for the complete installation and commissioning of your new lighting system including programming as well as the commissioning of a light management system such as LiveLink.





CONSTRUCTION OF A NEW DIY STORE

„We are satisfied, we have a good feeling and we've also got super light. If only everything had functioned on the site as well as the light it would have been great.“

Jörg Stangl

Managing Director
Gerhardt DIY centre





PROJECT MANAGEMENT

COORDINATION OF
LARGE PROJECTS





PROJECT MANAGEMENT

COORDINATION OF LARGE PROJECTS

- **Full Service Package** for the customer: TRILUX acts as the general contractor in all lighting related aspects of the project.
- **Implementation of all coordination tasks** by TRILUX Project Management.
- **These range from lighting design consultations to the integration of various lighting-related systems** such as indoor, outdoor and emergency lighting, light management including sensor technology, distribution, supply, mounting, installation and maintenance.



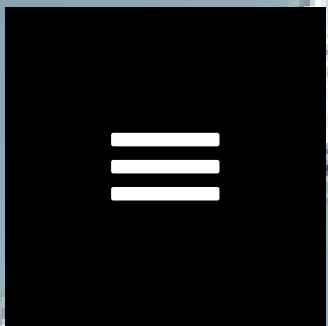
LIGHT REFURBISHMENT OF A DISTRIBUTION HALL

„The demand we put on TRILUX for the refurbishment of the hall was to receive everything from a single source – and in a very tight time schedule. It worked out very well!“

Selcuk Taskin

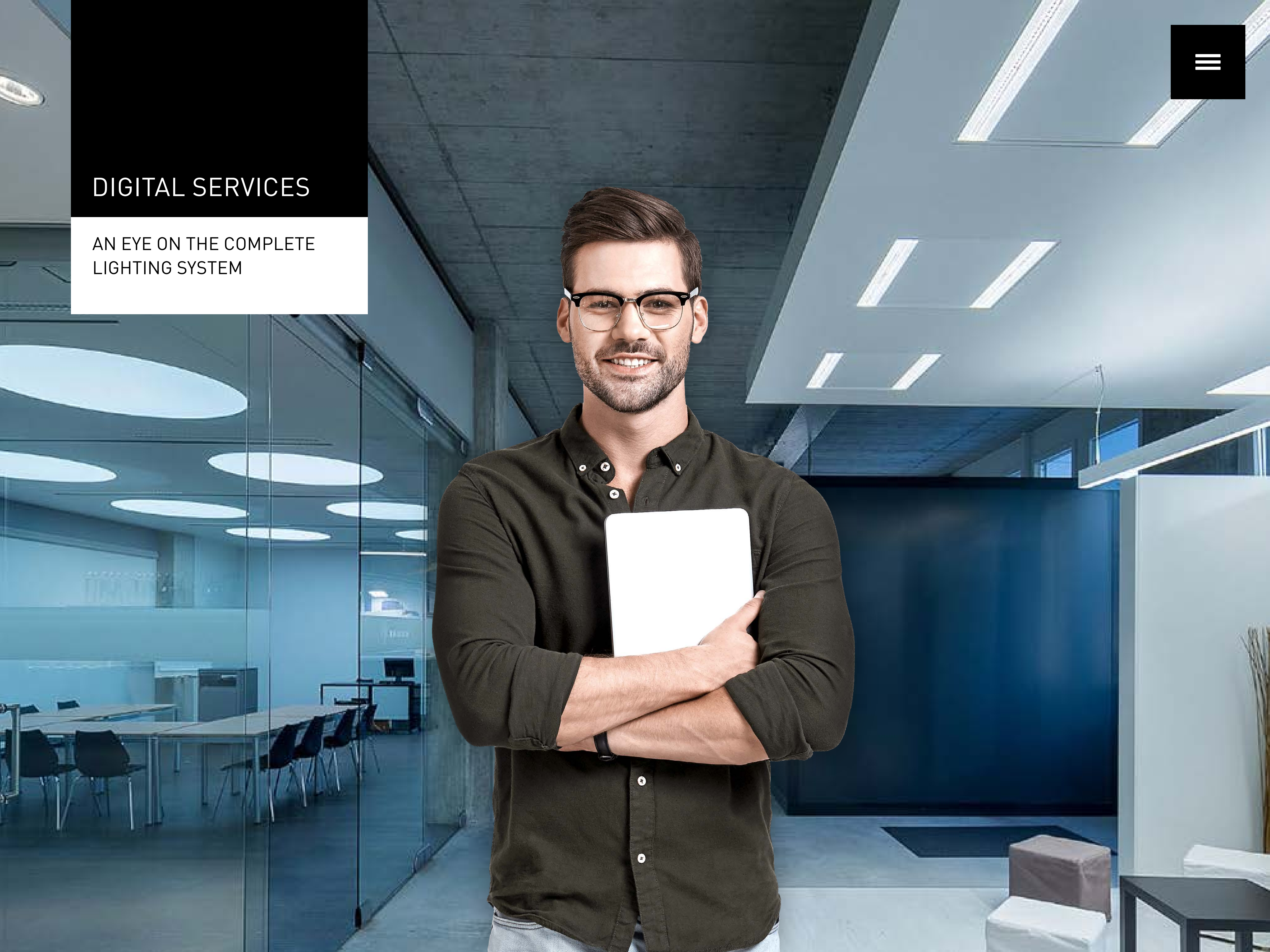
Gebr. Taskin Logistics GmbH

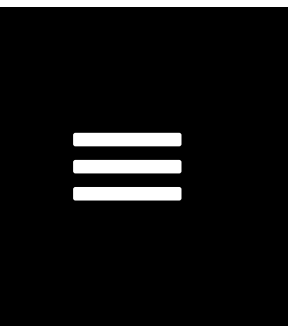




DIGITAL SERVICES

AN EYE ON THE COMPLETE LIGHTING SYSTEM





DIGITAL SERVICES

AN EYE ON THE COMPLETE LIGHTING SYSTEM

TRILUX Digital Services enable customers to realise the full potential of digital lighting solutions.

Users can select between

- **Energy Monitoring**
Energy consumption analysis and optimisation
- **Light Monitoring**
Monitoring the lighting and detecting maintenance needs

The result is increased comfort, greater transparency and reduced costs.



ENERGY MONITORING

ANALYSING AND OPTIMISING ENERGY CONSUMPTION

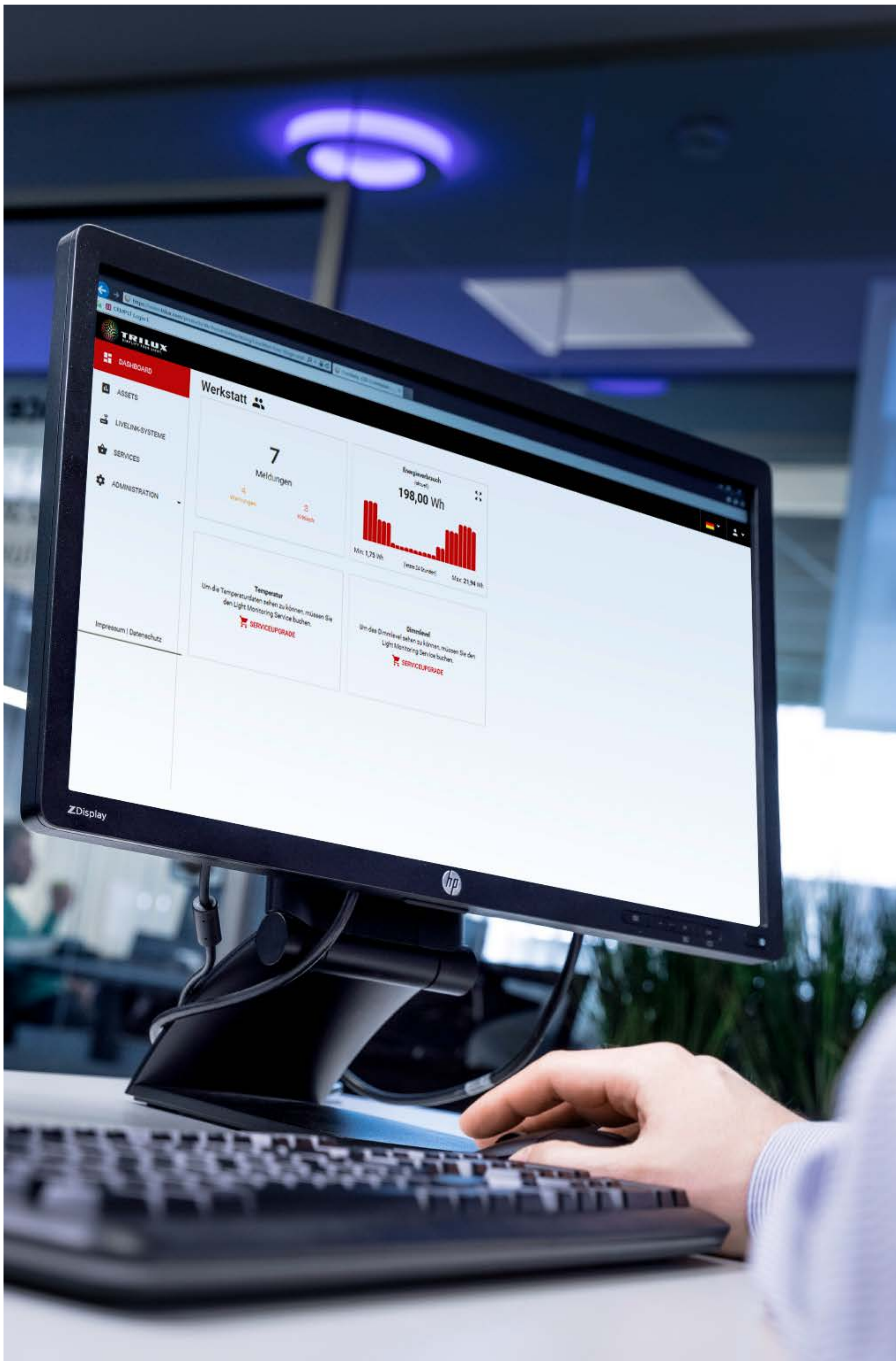
Energy consumption operating data can be read out via the LiveLink light management system

Benefits for the customer are obvious:

- higher cost transparency
- Optimisation of energy consumption

Energy monitoring supplies data for:

- Operating status (on or off)
- Energy consumption
- Operating duration





LIGHT MONITORING (1/2)

FULL CONTROL OF THE COMPLETE LIGHTING SYSTEM

Access to all relevant operating data of the lighting system, in particular active information on necessary maintenance (predictive maintenance).

Clear customer benefits:

- Energy consumption levels are optimised
- Maintenance cycles are adapted to real needs: reduced complexity and cost savings via predictive maintenance instead of fixed maintenance intervals
- New service offer: Generation of added value by installers and facility managers.





LIGHT MONITORING (2/2)

FULL CONTROL OF THE COMPLETE LIGHTING SYSTEM

Light monitoring supplies data on:

- Operating and dimming status
- Energy consumption and operating duration
- Required (predictive) maintenance
- Error notifications and ECG temperature





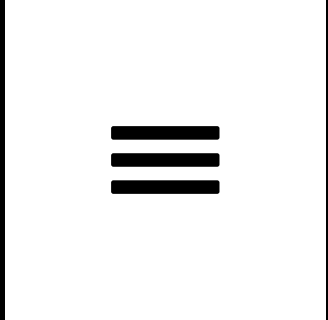
NEW CONSTRUCTION OF A LOGISTICS CENTRE

“For this project as well, toughest standards apply in terms of sustainability and technological advancement. In cooperation with TRILUX and DOKVAST, we have realised a future-proof light plan and set the bar even higher yet again.”

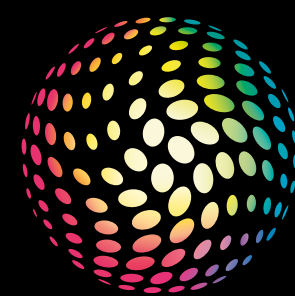
Jos Klanderman

Managing Director
DokVast





**MANY THANKS
FOR YOUR ATTENTION.**



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