Chemical Manufacturer | Germany

Energy Management Strategies and Results | Case Study

LOCATION
Chemical Manufacturing Facility, Germany
IMPLEMENTATION PARTNER
TRiALED (Germany)
PROJECT SCOPE
Warehouse, Parking Lot, Facade Lighting
PROJECT SIZE
15,000 m² | 169 Fixtures | 169 Sensors
TIMELINE
2 weeks installation, 2 days onboarding
COMPLETION DATE
December 2025

CONTROL STRATEGIES
- Occupancy-based control
- Daylight harvesting
- Task tuning
- Sunrise/sunset scheduling

SYSTEM FEATURES
- Mobile app commissioning & control
- Wireless Bluetooth mesh
- Configurable lighting profiles
- Reconfigurable zones
- EN 12464-1:2021 compliant

THE CHALLENGE

From Manual Switches to Intelligent Automation

This German chemical manufacturer faced a common challenge: outdated lighting infrastructure driving unnecessary costs. Across their 15,000 m² facility—including warehouse, parking lot, and facade areas—approximately 60% of lights were controlled manually via on/off switches. The remaining fixtures operated on basic twilight switches. This meant lights often ran regardless of occupancy, with the aging non-LED fixtures consuming roughly 59,450 kWh annually.

Combined LED upgrade and smart controls deliver 89% reduction in energy consumption.

THE SOLUTION

The Power of IoT Controls

TRiALED, an Autani partner in Germany, designed and implemented a comprehensive smart lighting solution featuring 169 new LED fixtures, each integrated with Keilton+autani sensors. The sensors provide both occupancy detection and daylight harvesting capabilities, ensuring lights operate only when and where needed, at optimal brightness levels based on available natural light.

For the outdoor parking lot and facade lighting, the system utilizes sunrise/sunset scheduling to automatically adjust operation based on seasonal daylight patterns. All fixtures are managed through the Keilton+autani App, giving facility managers complete visibility and control over their lighting environment.

Outdoor lighting uses sunrise/sunset scheduling for year-round efficiency.

Implementation

The project was completed between November and December 2025. Fixture and sensor installation took approximately two weeks, followed by system onboarding and schedule configuration in just two days. TRiALED maintained clear communication throughout, keeping stakeholders informed at every step of the process.

TRiALED completed installation in just two weeks, with system onboarding in two days.

THE RESULTS

Measurable Results and Rapid Payback

The combined impact of LED technology and intelligent controls delivered dramatic results. Annual energy consumption dropped from 59,450 kWh to approximately 6,500 kWh—an 89% reduction. This translates to €21,590 in annual savings and a projected €215,900 in savings over ten years, with a payback period of just 26 months.

Full payback achieved in just 26 months.

> *"The TRiALED team implemented a highly professional project at our site and kept us informed about every single step. With the modern lighting control system, a piece of the future has been implemented."*
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> **— Operations Director**

Looking Ahead

Based on the success of this initial deployment, the facility plans to expand the Autani system to their internal manufacturing halls, further extending the benefits of intelligent lighting control across their operations.

TRiALED
LED LICHT: MADE IN GERMANY

Implementation Partner: TRiALED GmbH

TRiALED develops and manufactures high-quality LED products for commercial and industrial applications at their certified Delitzsch facility. As Autani's partner in Europe, TRiALED provides comprehensive lighting solutions including professional design, system integration, and long-term support.

Headquarters: Ratingen, Germany | **Website:** www.trialed.de

Ready to Reduce Your Energy Costs?

Contact Autani to learn how smart lighting controls can deliver measurable savings for your facility.

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