



2019



Case Study

Lighting with an intelligent control system for a European pioneer in the sanitary market Geberit

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European pioneer in the sanitary market



At the beginning of project a representative of Luxon helped us to efficiently and professionally identify the areas that need lightning. All the suggestions turned out to be very accurate. Thanks to the change in the lightning system, we received three important benefits: comfort, safety and economy.



Roman Budny
Distribution Supervisor
Geberit

Geberit is a company that creates sanitary technology. Currently, it has 29 factories around the world, together with a network of warehouses. Some of them are located in Poland, and we equipped them with new luminaires with an intelligent control system. As the sustainable development is one of the company's core values, their goal is to reduce water consumption and use only energy-saving installations and modern logistics systems. Geberit was looking for a way to reduce energy consumption and improve the working conditions for employees in their warehouses in Włocławek. We carried out an audit and interviews with decision-makers, and we offered a system of luminaires adapted to the company's needs, which was then implemented in their warehouses, cross-docks and technical warehouses.





Challenge

Eco-friendly and economical lighting system. Which luminaires provide wide angles of light distribution and increased intensity of light at the same time?

The customer's goal was to replace their old luminaires with more ecological and energy-saving ones that allow for remote control. The customer had specific expectations and a vision of the new system, which we adapted our luminaires to. The luminaires had to meet the PN-EN standard and also have high light intensity to provide sufficient illumination of a large area, even when installed

at a great height above the floor. One of the storage warehouses had higher air temperature, so the luminaires had to be heat resistant. A particular challenge was posed by aisles with a height of 5 meters and a high-bay warehouse with a height of 12 meters; at the same time, we had to create a lighting system with wider light distribution and higher intensity (300 lux) for cross-docks.



Solution

Luminaires with wide angles of light distribution, high intensity and low installation costs

Luxon LED carried out a detailed audit in Geberit's warehouses, cross-docks and technical warehouse, which allowed us to calculate possible savings. Based on the results of the audit, we selected appropriate luminaires that would meet the customer's requirements: they would lower energy costs, increase light intensity and reduce CO2 emission. The customer used to use 24kWh of energy; to reduce this amount, we installed the Ultima 2.0 luminaires with a high luminous efficacy of 140lm/W, that can be used in high air temperature of up to 65°. In

addition, we used the INDUSTRIAL 4.0 luminaires, which have a wide variety of light distribution options, and Highbay 3.0 with an optical system that can be used at high altitudes. The luminaires were adapted for the existing electrical installations, and we used the DALI control system combined with motion sensors to adjust the intensity of light automatically. The whole process of implementation was carried out while the warehouses were operating, which enabled the customer to work on their ongoing projects.



Customer benefits

We have fulfilled the client's requirements

- Reduction of daily energy consumption from 24 kWh to approx. 2 kWh
- 3-fold increase in light intensity, according to the standards of work in high-bay warehouses
- Post-implementation support in case of any failures
- Intelligent control system
- Reduced CO2 emission compliant with the sustainability which is one of the company's core values

Implementatnion Summary

91% energy savings per year

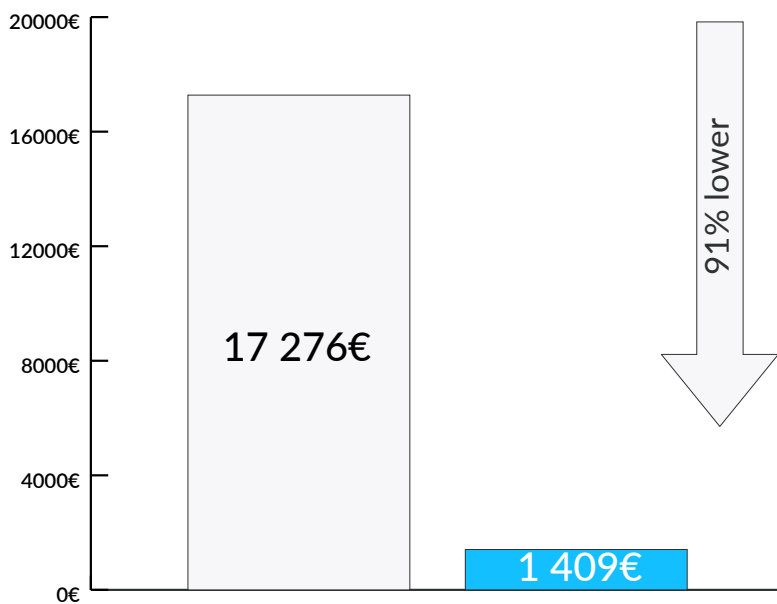
Annual reduction of CO₂ emissions by 147.5 tonnes



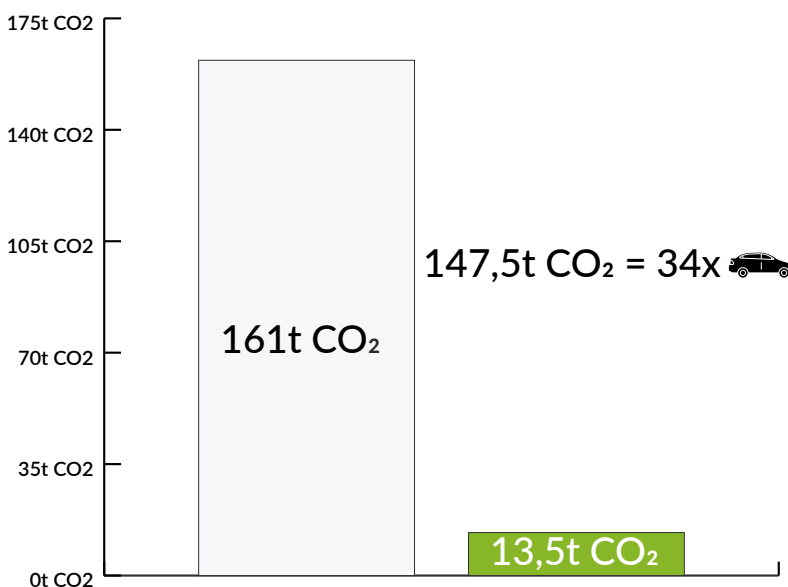
Project was a huge success due to adaptations of solutions to the client's needs. Geberit company is our strategic partner for many years and thanks to trust and partner relations, the common projects are much more effective.



Kamil Frątczak
Key Account Manager



91% energy savings
on a yearly basis



Annual reduction of
CO₂ emissions from
161 tons to 13.5 tons



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