

Buildings  
Simply Made  
Better

aedifion



# High-End Technology for Sustainable Building Operation

## Case Study: THE SHIP, Cologne

Gross floor area: 16 934 m<sup>2</sup> | Year built: 2020 | Building type: Office | Owner: evolutiq Property Management GmbH

THE SHIP in Cologne-Ehrenfeld, operated by the evolutiq Group, is the pioneer of a new generation of buildings: fully digitalized, forward-looking and equipped with high-end technologies, the building creates a very special atmosphere for tenants and visitors. Innovative room concepts and additional offers besides office operations create a modern mixed-use property that also has the optimum technical prerequisites for sustainable building operations.



# 79 500 €

annual operation cost savings

4.69 €/m<sup>2</sup>/a



# 518 MWh

annual energy savings

30.60 kWh/m<sup>2</sup>/a



# 227 t CO<sub>2</sub>

annual avoided emissions

13.38 kg /m<sup>2</sup>/a

## Task

Support of the operating personnel in daily building operation through AI-supported analyses. At the same time, the aim is to better understand one's own building in order to further optimize operations in a user-centric and needs-based manner.

## Solution

By connecting to the aedifion cloud platform and creating a digital twin of all installations with the help of aedifion's experienced engineering team, building operation is permanently monitored and analyzed. This makes it possible to reduce energy consumption in line with demand. The monitoring of the modern plant technology is now supplemented via a central dashboard in the cloud.

## Three Phases to Success

In order to meet the requirements of sustainable building operation and meaningful system monitoring in THE SHIP, three phases were central:

1. The simple provision of data in the aedifion Cloud-Plattform which operates as one central data hub.
2. The structuring of this data into more than 150 digital twins by experienced aedifion engineers
3. The continuous analysis of the systems and the optimization of the operation according to the needs.

On the basis of this process, THE SHIP was able to identify and implement significant energy savings in a very short time. This approach plays a key role in evolutiq's digital sustainability strategy.

all technical systems, the company has already thought ahead to ensure that the interaction of the technology is always under control. Monitoring, reduced CO<sub>2</sub> emissions and optimized building operation go hand in hand.

## The Future is Now

Focus on lasting optimization - to achieve this, evolutiq still has a lot to do in THE SHIP. The goal of consistently increasing user comfort is the next step. Through the future use of AI-based control from the cloud, room automation can act autonomously to further increase user comfort and reduce CO<sub>2</sub> emissions. This is an important step towards achieving the goal of limiting the earth's temperature increase to 1.5 degrees Celsius!

## Giving Space to New Technologies

With its consistent use of modern technologies, the evolutiq Group has shown that new construction projects can be planned and operated efficiently from the ground up. The use of the latest technologies and the aedifion software solution ensures a smoother operational process. With the use of the cloud platform as a standard trade for networking