

# Dronning Euemias gate 8 (DEC 8)

## Highly Energy Efficient Renovation of Office Building in Oslo

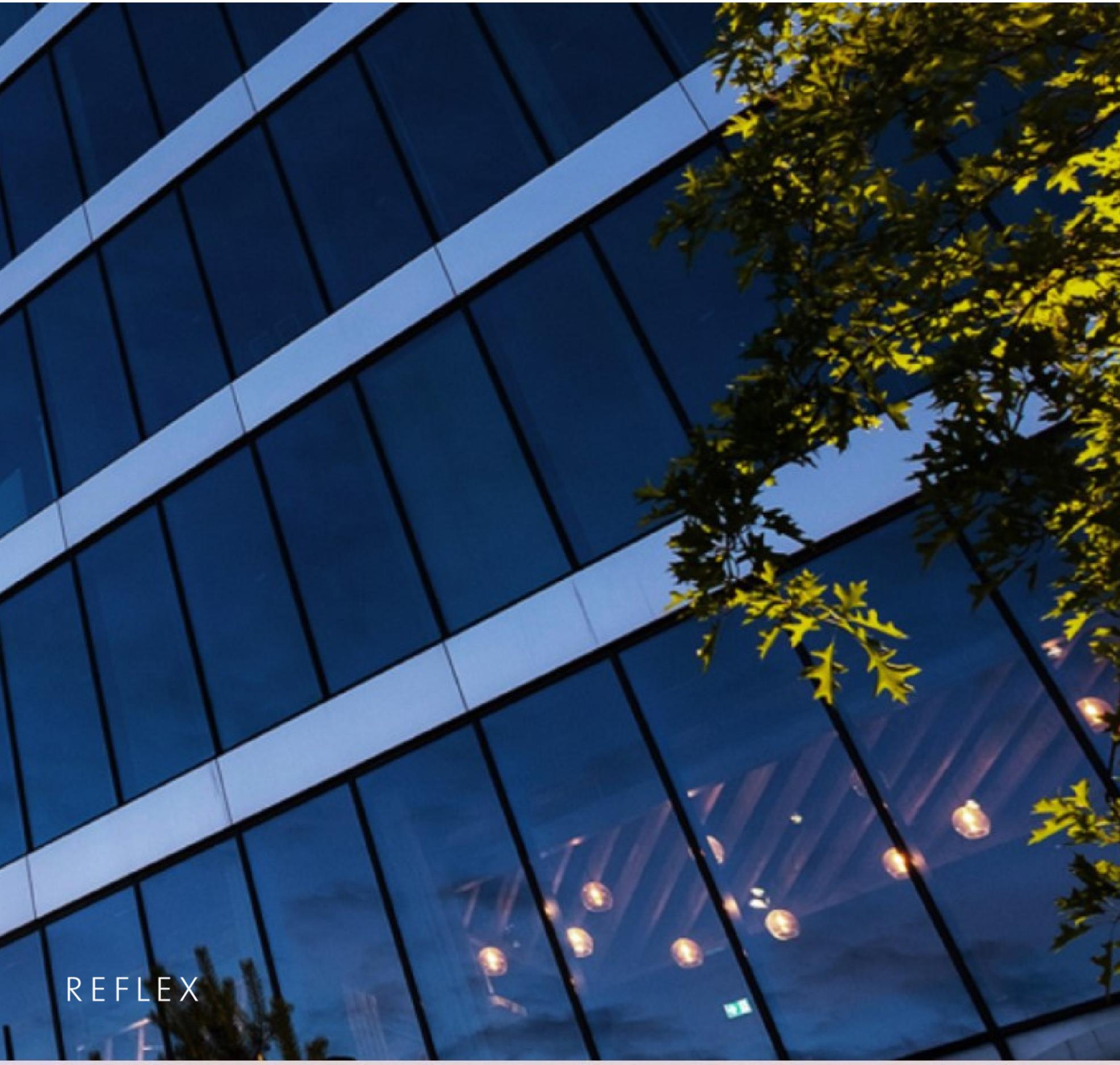
by Reflex

# DEG 8

## The Background

The 12-storey office building was the first in the Barcode district in Oslo, and was completed in 2007. It was an building with over 90 percent glass, but proved not to function optimally. In the summer, large amounts of energy went to cooling, in the winter to heating. The indoor climate was an eternal headache for both owner and users. The building was built for one large user and could not be rented out to several. It was furnished with cell offices and inflexible for different ways of working. And the decision was made in 2019 - after only 12 years, a state-of-the-art building had to be completely renovated.





REFLEX

# DEG 8

## The Goal

The goal of the renovation has been to reduce energy consumption, increase comfort for tenants and make DEG8 a flexible multi-purpose building. It has been a goal from the developer all the way that DEG8 should lead when it comes to creating a future-oriented building that sets a new standard for how office buildings can contribute to the tenants' value creation.

# DEG 8

## The Solution

**At DEG8, an interdisciplinary advisory team has worked together to find the best solutions for achieving effective, sustainable goals. This goal opened the door to the innovative glass facade solution Q-Air by Reflex.**

§ The installed Q-Air glass elements have  $U_g$  value of 0.29 W/m<sup>2</sup>K, while the system has a  $U_{cw}$  value of 0.40 W/m<sup>2</sup>K

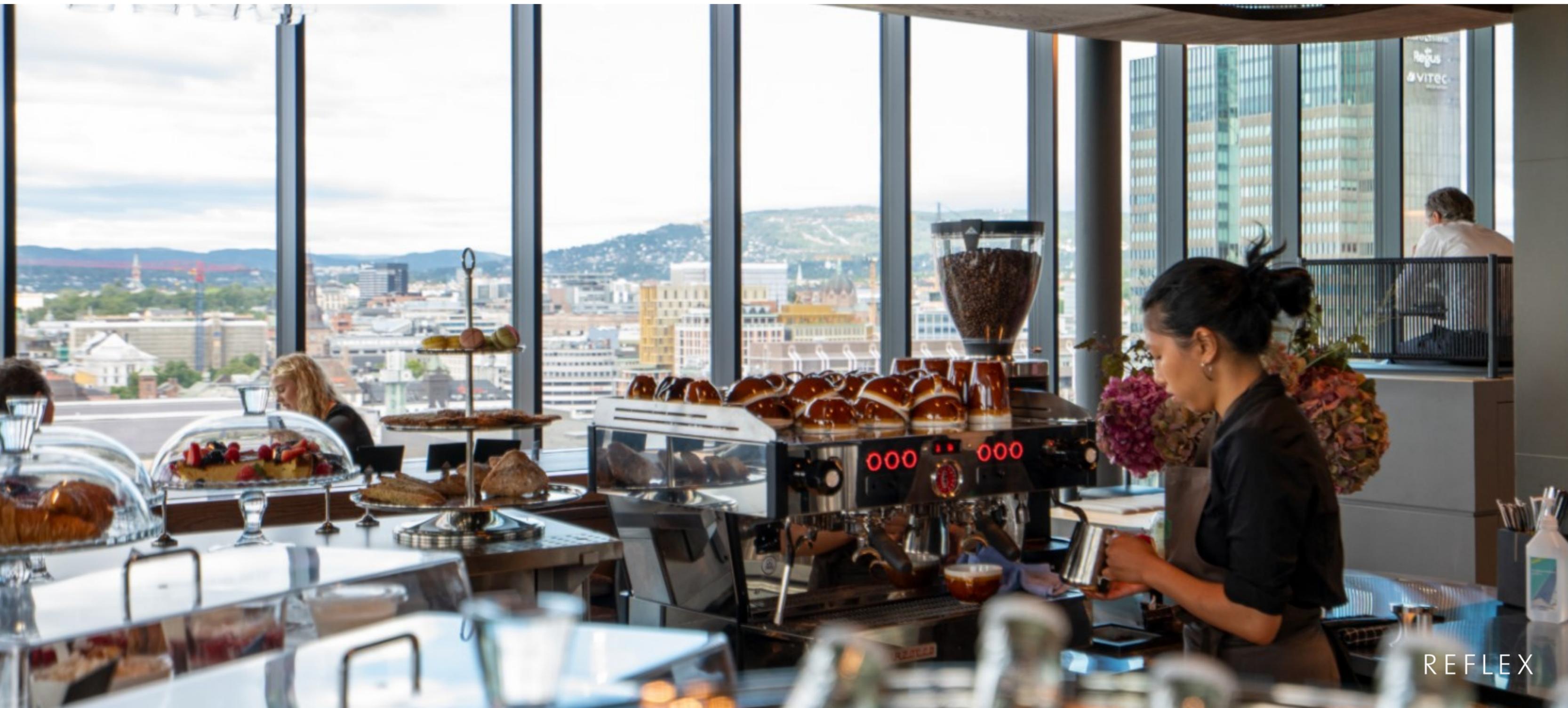
§ The occupants of the building are very pleased with the interior comfort. A person can stand by the glass wall with an outside temperature of minus 15 degrees Celsius without feeling any cold draught at the glazing.

Furthermore, in summer, the low solar gain coefficient ( $g$ ) of 0.20 prevents the overheating of the inside of the building.

§ The refurbishment resulted in significant annual energy savings. After two years of rebuilding the goal is to halve energy consumption. The indoor climate should be extremely much better. And in the premises, offices, landscapes, meeting rooms and workstations can easily be reshuffled based on the tenants' needs.



# Interior View



# Q-Air

Innovative Glass  
Facade Solution

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