

# THE EDGE AMSTERDAM, THE NETHERLANDS



- 1 The Atrium
- 2 Flexible Workspaces
- 3 Activity Based Working
- 4 Orientation
- 5 Façades
- 6 Solar Panel Roof
- 7 Rain Water Reuse
- 8 Thermal Energy Storage
- 9 Ecological Corridor

## WORKPLACE

### 1 THE ATRIUM

The atrium provides opportunities for chance encounters and social interaction with fantastic city views, thus making it the social heart of the building. Post-occupancy research on the building has shown that the terraces in the atrium are the most popular working areas for Deloitte employees.

### 2 FLEXIBLE WORKSPACES

Deloitte's employees spend significant amounts of time out of the office, in meetings, and working from home, and this means that the building is smaller than it otherwise would need to be. To accommodate this new way of working, The Edge provides flexible workspaces and there are no assigned desks. This reduces the need for desks dramatically, and so increases the amount of space available for breakout areas.

### 3 ACTIVITY BASED WORKING

In The Edge, the percentage of unallocated net space for gathering, meeting and breakout spaces is 25%, compared to the average 10% in modern office buildings. The Edge is designed so that workers take responsibility for choosing what kind of environment they need for each specific task; whether quiet and focused, connected and social, standing, sitting, or even eating. These different atmospheres enable Activity Based Working.

### CHANGE MANAGEMENT

The building is designed with the future in mind. On a basic, structural level, it could be converted to other uses such as education or even housing with relative ease. The building was partly masterminded by Deloitte's Change Management Department and with the developer OVG. Both helped to create the organisational plan around the design of the new building, translating Deloitte's strategy into a successful, targeted approach to change.

### THE MOBILE APP

Every employee is connected to the building via an app on their smartphone. The app combines multiple functions and is the interface for their interaction with the building: they can find parking spaces, free desks or another colleague, report issues to the facilities team, or even navigate within the building.

### PERSONALISED WORKSPACES

Employees can customise the temperature and light levels anywhere they choose to work in the building via the mobile app. The app remembers how they like their coffee, and even tracks their energy use so they're aware of it.

### DIGITAL FACILITIES

The digital infrastructure embedded into The Edge is connected to every ceiling panel, every lightbulb, and many other aspects of the building's HVAC and other systems. This dramatically improves facility management by automatically alerting managers to lights that need replacing, printers that need paper, and a multitude of other daily occurrences in a large office environment.

### DATA

The vast amount of data generated by the building's digital systems and the mobile app, on everything from energy use to working patterns, has huge potential to inform not just Deloitte's own operations, but our understanding of working environments as a whole. Discussions are currently ongoing regarding the future of this data, and its use for research and knowledge transfer.

### 4 ORIENTATION

The building's orientation is based on the path of the sun. The atrium bathes the building in northern daylight while the solar panels on the southern facade shield the workspaces from the sun.

### 5 FAÇADES

Each facade is uniquely detailed according to its orientation and purpose:

- Load bearing walls to the south, east and west have smaller openings to provide thermal mass and shading, and solid openable panels for ventilation.
- Louvers on the south facades are designed according to sun angles and provide additional shading for the office spaces, reducing solar heat gain.
- Solar panels on the south facade provide enough sustainable electricity to power all smartphones, laptops and electric cars.
- The North facades are highly transparent and use thicker glass to dampen noise from the motorway.
- The Atrium facade is totally transparent, allowing views out over the dyke and steady north light in.

### SMART LIGHTING

The building integrates an Ethernet-powered LED lighting system, which integrates 30,000 sensors to continuously measure occupancy, movement, lighting levels, humidity and temperature, allowing the building to automatically adjust energy use.

### 6 SOLAR PANEL ROOF

Solar panels on the roof of the building generate energy to power the thermal energy stores.

### 1 ENERGY REUSE

The atrium acts as a buffer between the workspace and the external environment. Excess ventilation air from the offices is used once again to condition the atrium space. The air is then ventilated back out through the top of the atrium where it passes through a heat exchanger to re-use any leftover temperature conditioning.

### 7 RAIN WATER REUSE

Rain water is collected on the roof and used to flush toilets and to irrigate the green terraces in the atrium and other garden areas surrounding the building.

### 8 THERMAL ENERGY STORAGE

Two 129m deep wells reach down to an aquifer, allowing thermal energy differentials to be stored deep underground.

### 9 ECOLOGICAL CORRIDOR

The greenspace that separates the building from the nearby motorway acts as an ecological corridor, allowing animals and insects to traverse the site safely.

## SUSTAINABILITY