



New PwC Headquarters Raises the Bar in Oslo



In a recently redeveloped section of Oslo's waterfront known as Barcode Village, rises the new Norwegian headquarters of Pricewaterhouse-Coopers. The 'Village' consists of 10 buildings with over 200,000m² of offices and apartments. It is the result of an international architectural competition, won by the Dutch architects MVRDV, and the Norwegian architects, a-lab and DARK. The very first office building in Barcode Village to be completed was PwC's headquarters.

At twelve stories, this 15,000m² (161,460 sq. ft.) tower provides office facilities to the entire Norwegian head office staff. The three lowest floors consist mainly of conference and meeting rooms. From the fourth to the eleventh floor are offices, and there is a staff restaurant on the 12th floor. Most rooms offer sea views; the restaurant enjoys a 360° panorama of Oslo and its fjord.

Transported to the future

By any standard, this is a remarkable building. Northern European architecture and building technology routinely determines the state-of-the-art these days, in everything from aesthetics and lighting to energy efficiency and pure tangible quality. Even so, the PwC headquarters is in a league of its own.

Many visitors to Scandinavia remark that it feels as though they have been transported into the future. The high level of technology, and the recently acquired wealth derived from oil and gas exploitation in Norway combine to heighten this impression.

The PwC HQ is a smart building, and much of its intelligence revolves around how TAC's systems attack energy waste at the root. A totally integrated, web-based solution uses TAC's reliable Vista® environmental control capabilities, based on open-source technologies. TAC Vista® efficiently and economically controls, checks and analyses all building operations, allowing system operators to control and monitor either on site or from remote locations.

TAC's solution for PwC incorporates:

- All heating, ventilation, and air conditioning applications, including 24 AHU with LON communication, district heating, and district cooling
- A zone-based control system for heating, cooling, ventilation and lighting, based on LON components with distributed intelligence for 600 working zones, in both open landscapes and offices
- A security system (access and safety) with sensors, activators, and alarms for 70 doors
- A closed-circuit TV system
- Fire alarms based on 800 detectors

TAC Vista® 'talks' through LON

Rather than attempting to become commercially competitive in the networks business, TAC often uses the LON networking platform, which has been specifically created to address the performance, reliability, installation, and maintenance needs of control applications. The platform is built on a protocol created by California-based Echelon Corporation for networking devices over the diverse mixture of media we typically find in buildings, especially older media, ranging from twisted pair, power lines, and more recently fiber optics, to wireless radio. It is especially popular for the automation of various functions within buildings, such as lighting and HVAC. LON forms the core of Oslo's latest smart building solution.

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A valued partner

TAC's primary guide and partner in Bjørvika is OSU (Oslo S Utvikling AS). With both government and private backing, OSU was established to secure the development and planning of the infrastructure of a specific area in Bjørvika, Barcode Village. TAC started working with the managing director of OSU Mr. Paul Lodoen, at a very early stage in the project. It was important for OSU that Barcode Village attracted large national and international companies. TAC therefore proposed to deliver an advanced technical solution with its sights set on "tomorrow's technology". In addition, TAC would take the responsibility for all interfaces, both electronic and physical.

Together, on both strategic and operational levels, TAC and OSU explored how various technical solutions would affect the value of the buildings and the success of the whole district. A key operational consideration was how to manage the buildings in Barcode Village with the lowest possible energy consumption, and with the most cost-effective and flexible staffing. As its first major project, all agreed that the PwC headquarters needed a fully integrated solution, where the various technical installations would share a single interface.

Why did OSU choose TAC as its partner for this prestigious project and how has it been to work together with TAC? Paul Lodoen explains: "TAC showed a positive and firm commitment during the period when PwC was being developed. As the project progressed, TAC's employees demonstrated a high level of competence, and during implementation they were committed, and always willing to cooperate."

Creating prime real estate

Barcode Village lies in the area of Oslo named Bjørvika along the estuary of the river Akerselv. An industrial zone from the 19th century to the end of the 20th, Bjørvika saw a period of decline and desolation as industry shifted to modern sites, port activities changed, and ship building assumed a different character. The district became a drab blot on Oslo's waterfront, marked by low real estate values and the need for environmental clean-up.

This has all changed today. Bjørvika is now emerging as the hottest jewel in Oslo's crown, with the development of commercial real estate, new homes and cultural sites. One of the most prestigious projects in Bjørvika is the new Norwegian Opera House, due to open in April 2008. This was designed by internationally renowned architectural firm Snøhetta, already well-known for Egypt's Alexandria library and New York City's new WTC Cultural Center.

Making a clear statement

By establishing its HQ right beside the new opera house, PricewaterhouseCoopers is sending a very clear message to its clients and potential clients: Norway is very high among PwC's priorities because of the remaining oil and gas in Norway's North Sea fields, the proximity of extremely large still untapped gas fields in the Barents Sea, and Norway's seagoing fossil fuel prospecting and production prowess. By now, all players have accepted the fact that the world is running out of fossil fuels. As this scarcity becomes more pronounced, prices will rise and remaining reserves will become even more valuable. Active fields will be located in less and less accessible places, like the hostile seas around the North Pole. PwC plans to be where the business is, in force.

Bjørvika promotes sustainability

The location in Bjørvika conveys much more than opportunism, however. With debates about climate change and sustainability forming the backdrop to the oil and gas endgame, PwC sees the sustainability commitments of Bjørvika as highly compelling. Its ambitious environmental program states that office buildings may consume no more than 110 kilowatt-hours of energy per square meter. In terms of lighting, ventilation, hypoallergenic materials, and sheer artfulness, the new headquarters also provides an unparalleled working environment.

A pillar of PricewaterhouseCoopers' mission is to 'contribute positively and actively to the development of society'. By advancing sustainable practices in Oslo, the new headquarters building clearly does this.

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