

Case Study

The TYKS Lighthouse Hospital

Customer The TYKS Lighthouse Hospital

Location Kupitta Turku, Finland

Requirements Combine two existing buildings in need of refurbishment and build a third new building, to create one large functional hospital to provide exceptional healthcare to patients. There wasn't much space in the cramped centre so creative thinking was needed!

Equipment Cat6a cable and fibre optic systems, Excel CCA-rated Cables for telecommunication cabling, 29,000 cat6A F/FTP connectors, 500 km cat6A S/FTP (CCA) , 8000 OS2 LC /APC pigtail fibres, 4000 pcs SM LCD APC adapter, 24 km FTMSU 24xOS2 CCA optical cable

excel
without compromise.

An Overview

The project started in 2012 but took nearly 10 years to complete. The Lighthouse Hospital project required a totally new hospital to be built, in a very unusual location. It had to fit in between two old hospital buildings and on top of mainline train tracks and the Helsinki motorway! Space limitations required a solution that connected the existing buildings to streamline and improve the functionality of the hospital complex. The existing buildings were refurbished and connected to form one new hospital. The entire new building is not on a plot of land, but on a concrete deck that had to be constructed over the tracks and main highway.

The data cabling work was awarded to Excel Cabling Partner Saipu Oy, who specializes in the design and implementation of demanding building services systems. Saipu's operations cover all building services - design, engineering, and maintenance. Electrical works were carried out by Caverion Suomi Oy and both companies were supplied via Sonepar Suomi Oy.

Sourcing a Partner

The developer of the project was the Hospital District of Southwest Finland (VSSHP), a consortium of municipalities that provides specialist care services in the Tyks hospitals it owns. Caverion did the electrical work, Saipu carried out the general cabling and Sonepar Suomi was the product distributor. As an accredited Excel Distribution Partner based in Finland, Sonepar Suomi had Excel products stocked in stores across the country. This was a huge project and Sonepar Suomi's commercial warehouses were able to hold on-site stock which helped with the daily work of installers and prevented any delay while waiting for products to arrive.

Caverion and Saipu had both worked with Excel before on other Turku projects such as Turku City Theatre and Turku UAS Medisiina A-C.

In addition to construction professionals, a group of experts from the healthcare industry were involved in the development of the hospital's operations. According to VSSHP, the starting points for the design were ensuring changes met the needs of patients and were family-orientated and focused on patient safety.



Photo by Sonepar Suomi Oy

The Right Product

The universal cabling contract included copper data cable and fibre optic systems and choosing Excel cables was an easy decision to make, Project Manager Markku Iso-Ilomäki from Saipu (the installer) said: “We have good experience with Excel from previous projects, so the choice for the project was quite natural.”

In hospital construction, a system warranty is a prerequisite and Saipu knew Excel offers a 25-year warranty on its products. Installer training was essential and was arranged through Sonepar Suomi and a guarantee for the cables was provided. A full 25-year warranty performance was required for the entire network including CCA-rated copper and fibre cables.



Matias Sinkkonen from Sonepar said:

“Excel had recently completed another large project in partnership with Sonepar which was the Children’s Hospital in Helsinki. That project gave us great confidence to use Excel in our hospital as Excel had delivered on time and carried out site visits to check on the installation process. The process for getting the 25-year warranty issued was straightforward and quick.”

He added: “Excel did a great job again with logistics and Andrew Powell (Regional Sales Manager at Excel Networking) assisted with project support and also made site visits to check on progress. He made sure the entire project was delivered by Excel on time and without issues. There was an occasion where we were running through fibre pigtailed quicker than expected, so Excel arranged a next-day delivery from the UK to ensure works could continue.”

The practical planning of the communication system was essential to patient safety. A traditional nurse call facility was not considered good enough for future needs. A more comprehensive solution that incorporated device alerts and integrated with the patient monitoring system was chosen which directly sends alerts to mobile devices carried by nursing staff.

Design and Installation

In the lighthouse hospital project, Saipu used Excel S/FTP CCA-rated cables for telecommunication cabling. Initially, Sonepar Suomi took the entire computed cable pot to the logistics centre and stored it there. This was really helpful to Saipu and as Marrku said: “Interim storage was a new service for us. Fortunately, we took advantage of it, because if we had ordered smaller batches of cable more often, there would have been problems. Hundreds of kilometres of cable alone were laid at this site. Due to the delay, the men would have been taken off the site when replacement work could not be done. This was not the case now due to the interim storage, so everything went extremely well”

The Result

The Lighthouse Hospital is now connected to the Medical University of Finland. The connecting of the different buildings has improved and streamlined the functionality of the entire hospital complex. After a 10-year build, the project met the deadline as planned in October 2021 and hospital operations began as normal in February 2022 when they welcomed back patients.



Photo by VSSHP / Riikka Aaltonen

Project in numbers

55,000 square metres – how much the total area of the new hospital increased by after the project

Project cost 189 Million Euro

3 connected hospitals

First opened 1756. Second oldest hospital in the Nordics

Excel House
Junction Six Industrial Park
Electric Avenue
Birmingham B6 7JJ
England

T: +44(0) 121 326 7557

E: sales@excel-networking.com

www.excel-networking.com

excel
without compromise.