

NEC Display Solution client installation Education / Healthcare

The Quadram Institute of Bioscience

Facilitating collaboration with visualisation of uncompressed 4K video



INAVATION AWARDS
PROJECT WINNER 2019

Bringing together partners from medical, educational, research and commercial spheres, the Quadram Institute (QIB) relies on a robust AV infrastructure to sustain successful collaboration between many diverse parties. Multiple adaptable meeting spaces are equipped with NEC displays to visualise pixel-perfect uncompressed 4K video of live clinical procedures.

The £75m scientific institute is Europe's largest gastrointestinal and endoscopic research site and fully functional NHS facility, under one roof. Focusing on the study of food and the human microbiome (the bacteria in our guts), the building houses 400 scientists and clinicians collaborating to improve the health of patients around the world.

SITE INFORMATION

Sector

- Education / Healthcare

Client Information

- The Quadram Institute of Bioscience
www.quadram.ac.uk

Partner Information

- Snelling Business Systems
www.snellingbiz.com

Installation date

- Autumn 2018

EQUIPMENT

- NEC 70" MultiSync® E705 large format displays
- NEC 42" MultiSync® E425 large format displays
- NEC 55" MultiSync® E556 large format displays
- NEC SP-TF1 Speaker systems



The Challenge

The QIB is the product of a unique pioneering vision where researchers, scientists and clinicians collaborate under one roof, in real-time. Close links with the food, pharmaceutical and medical industry demanded the provision of enterprise-quality video conferencing and collaboration facilities. To support this vision, the AV infrastructure is designed and integrated by Snelling Business Systems with the latest display technologies from NEC.

The paramount objective of the brief was to enable clinicians, researchers and students to work together on clinical research, more closely than ever before, in order to deliver world-leading medical developments. This unique coming together of expertise must not be hindered by space - permitting larger cohorts to gather at the same time and allowing for future growth was an essential requirement. Reliability of the system to perform consistently was a crucial factor for the client, plus, as a fully functional NHS medical facility, there were significant engineering and specification challenges such as stringent standards for medical grade power supplies, equipment and specialist surfaces. This project required Snelling Business

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Systems to collaborate with NEC, the AV consultant and other vendors to ensure all standards and requirements were fully met.

The NEC Solution

The AV infrastructure was developed for two-way interaction with live streaming of clinical endoscopic procedures to students and researchers without crowding the endoscopy rooms. Two-way audio and video - with four sources including EndoCam, Endoscope Guide, wide angle view of the endoscopy suite, and clinician view - allows live interaction between clinicians performing procedures in the endoscopy suites and students in the seminar rooms. QIB is the UK's first facility of its kind to be run entirely on AVoIP.

"Snelling Business Systems have rolled out the first endoscopy site in the UK utilising uncompressed 4K video (SDVoE) over a 10GB Ethernet network using fibre interconnectivity. They have accomplished this feat in association with their technology partner NEC, with unmatched skill and nuance," states Charlie Sullivan, business development manager for ZeeVee Inc who supplied its SDVoE ZyPer4K product to support the deployment. *"The client brief specified there could be no compromise on uncompressed, real-time video without quality loss during a medical procedure – mission critical performance!"*

Due to the varying sizes of user groups in the spaces at any given time, flexibility was a crucial requirement. The AV infrastructure was developed for divisible meeting and seminar rooms to allow the user a choice of pre-sets on touch control panels. The audio and visual facilities follow standardised equipment provision scaled according to room layout and size.

A two-way divisible seminar room, 3-way divisible lecture space and further meeting rooms are designed for collaboration and equipped with facilities for unified communications with the ability to stream live news and media to any space, including event broadcasting and recording. NEC displays are standard within each specialist medical endoscopy monitoring



and training space, equipped with wall mounted 70" displays with side-speakers. The infrastructure also includes full IPTV and digital signage systems, developed for use within a medical facility as well as a research building featuring a range of 50-80" NEC displays.

"It was clear from day one that the Quadram Institute would be a project with zero scope for any compromise on quality, longevity, reliability and future-proof technology," stated Steve Royans, sales director at Snelling Business Systems. *"As the leaders in the field of LFD, by working with NEC I am assured of high-quality components and design, high operational safety and an incredibly robust support and service offering."*

"Given the use of uncompressed 4K digital video at QIB, the displays we specified had to be up to the job. NEC went above and beyond to assist us with all our options with the client's best interest at heart," continued Royans. *"In terms of their capabilities, I was thoroughly impressed with the high standards of colour reproduction, enhanced contrast ratio and high brightness support, slim bezel, lightweight and space saving design. They have proven their mettle as incredibly versatile display solutions to support QIB's distinct user groups seeking robust and fuss-free workplace solutions."*

The Result

The growing demand for specialist endoscopic delivery, training and innovation is now met by the larger base for NNUH's gastroenterology department. QIB is equipped with the most advanced AV infrastructure for laboratories, teaching spaces, meeting and collaboration spaces, building-wide digital engagement and more.

"It's very unusual to find a scientific institute and an NHS facility this close together. This is a unique environment, you won't find anything like this in the world." Dr Simon Rushbrook

The Quadram Institute installation won Best Healthcare Project at the InAVation Awards ISE2019.



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