GVAV Case Study

University of Exeter

ADA Computer Labs

GVAV

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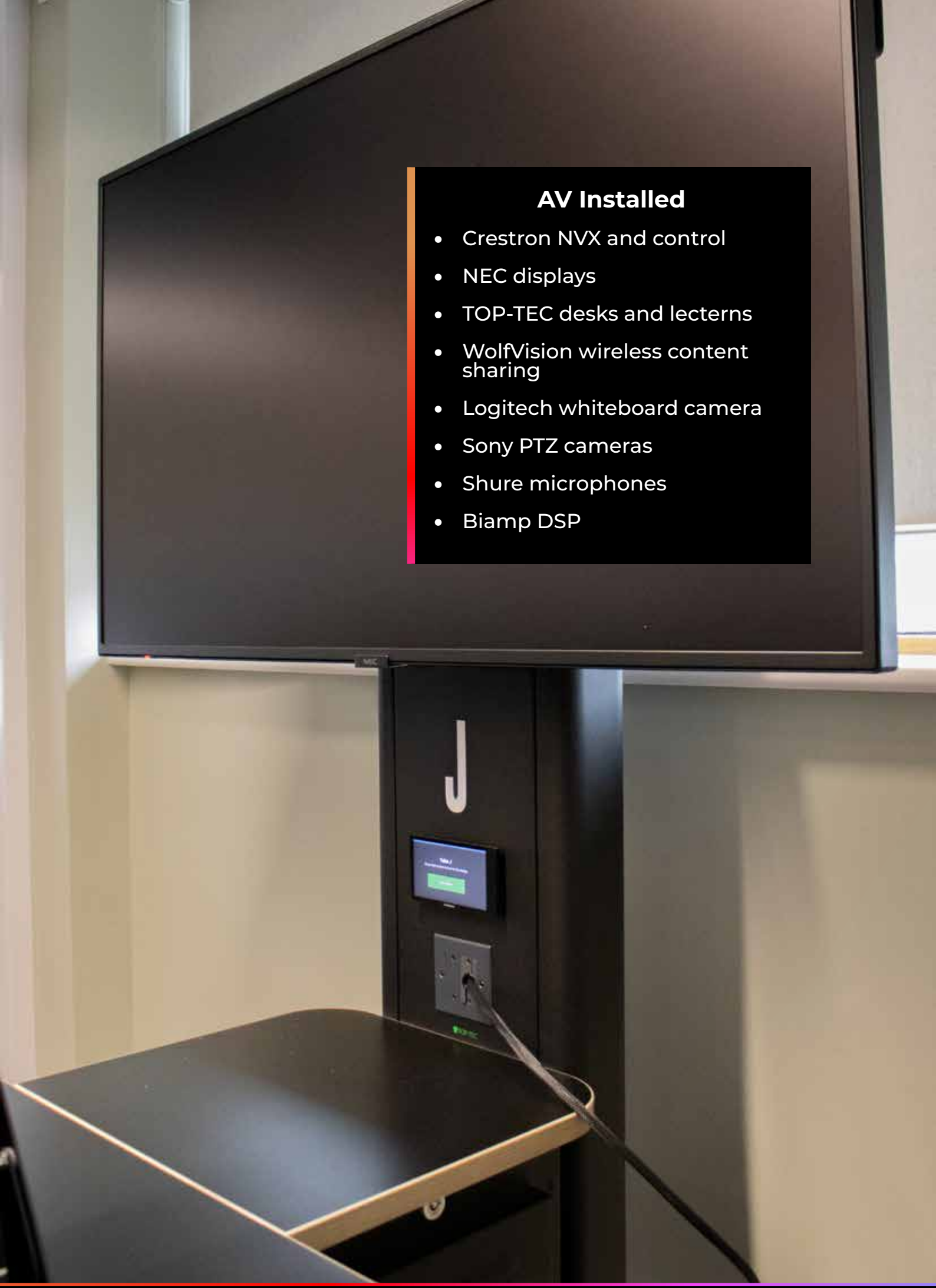


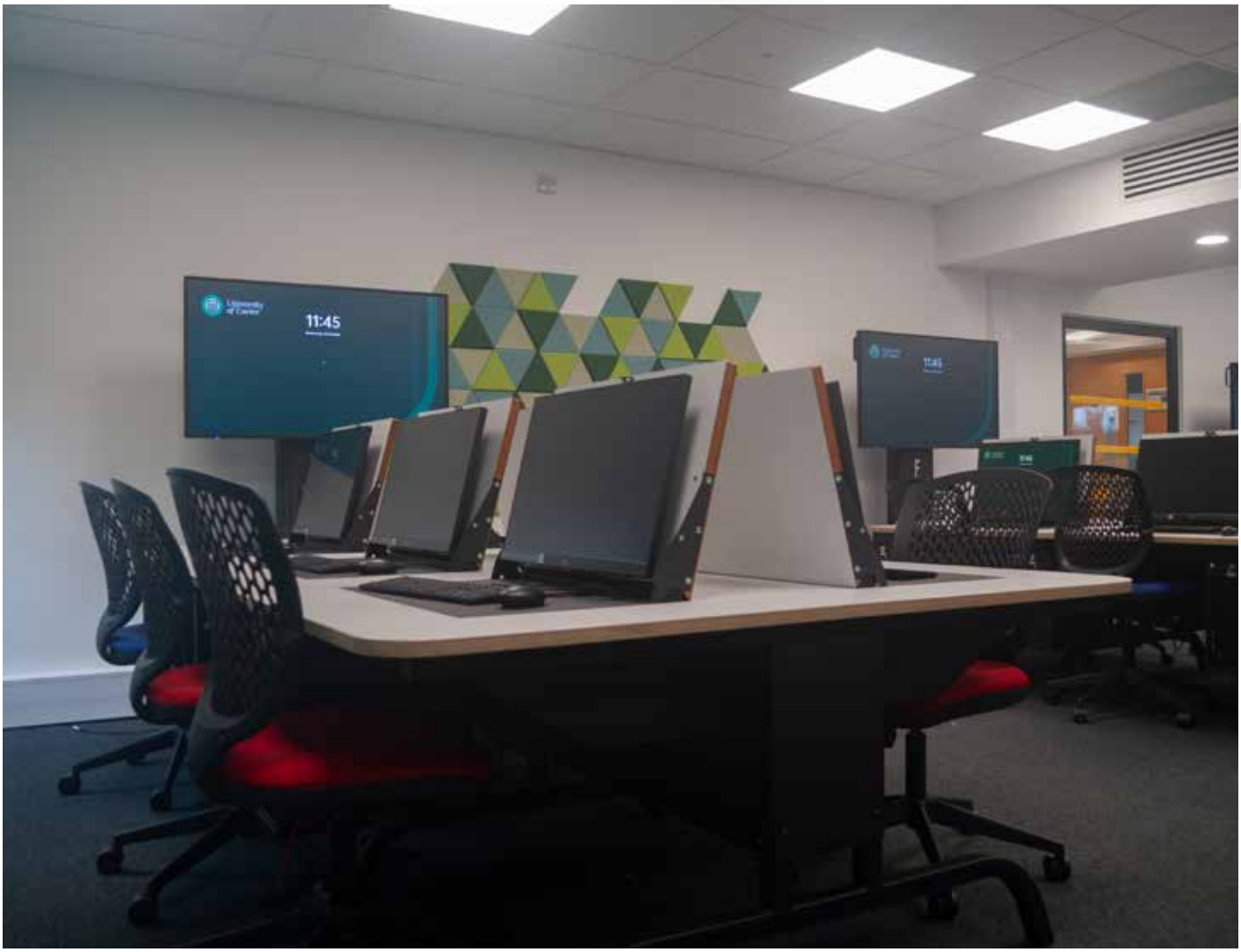
AV Installed

- Crestron NVX and control
- NEC displays
- TOP-TEC desks and lecterns
- WolfVision wireless content sharing
- Logitech whiteboard camera
- Sony PTZ cameras
- Shure microphones
- Biamp DSP

The University of Exeter's new ADA Computer Labs are a cutting-edge addition to the University's ongoing commitment to innovative education and advanced learning environments. Developed as part of Project ADA, a pioneering initiative aimed at accelerating data science and artificial intelligence research, these two new dynamic computer labs provide engaging spaces for collaborative and flexible learning.

Building on a trusted relationship spanning more than two decades, **GVAV** were brought into this project by the University at the design stage. Working closely with the University's in-house AV Team, the **GVAV** Technical Team began by working to refine the core system concept to meet the ambitious requirements for the new suites before supplying and installing the systems for this project.

Named after two pioneers of computer science and artificial intelligence in Ada Lovelace and Charles Babbage, the new facility encompasses two state-of-the-art PC suites, between them accommodating over 200 work stations. These spaces have been designed to flexibly cater to a range of learning styles including collaborative group work, self-study and traditional lectures, while being robust and scalable to ensure reliable operation during high capacity use.



Key to these suites' unique nature is their high-performance content sharing abilities, allowing low-latency, dynamic sharing between groups, workstations and teaching displays.

Each PC workstation is equipped with localised HDMI switchers and Crestron NVX encoders, making content switching simple. Crestron TSW-570 touch panels are mounted on each desk allowing easy sharing from any PC within the group using a simple and intuitive **GVAV**-designed Graphical User Interface (GUI). Students are able to select a group PC to share to the table, or to the wider room on approval from teaching staff.

The GUI also offers students volume control and wired content sharing options with USB-C through an integrated fly lead. At the head of each desk is a 49" NEC display, providing up to 4K resolution with 500 cd/m² brightness for excellent visibility so content can be seen clearly in all lighting conditions.

At the heart of the system's control and content sharing capabilities is the Crestron ecosystem, providing simple control of all peripherals as well as IP-based AV routing with support for 4K60 4:4:4 HDR distribution.

The decision to deploy Crestron NVX in these suites was driven by its scalability, low latency and its high performance, allowing the client to distribute content from a large number of high-end workstation GPUs across the room without compromising on signal quality. A combination of DM-NVX-D30, DM-NVX-E30 and DM-NVX-360 encoders and decoders along with HD-MD4X2-4KZ-E matrix switches were specified

to achieve this.

The NVX solution ensures high-quality video streaming across over 200 sources with minimal latency, and its IP-based infrastructure reduces cabling complexity compared with a traditional DTP matrix, future-proofing the new labs for evolving educational needs. At the back end, the systems can be centrally managed internally with the client's existing Crestron Fusion setup.

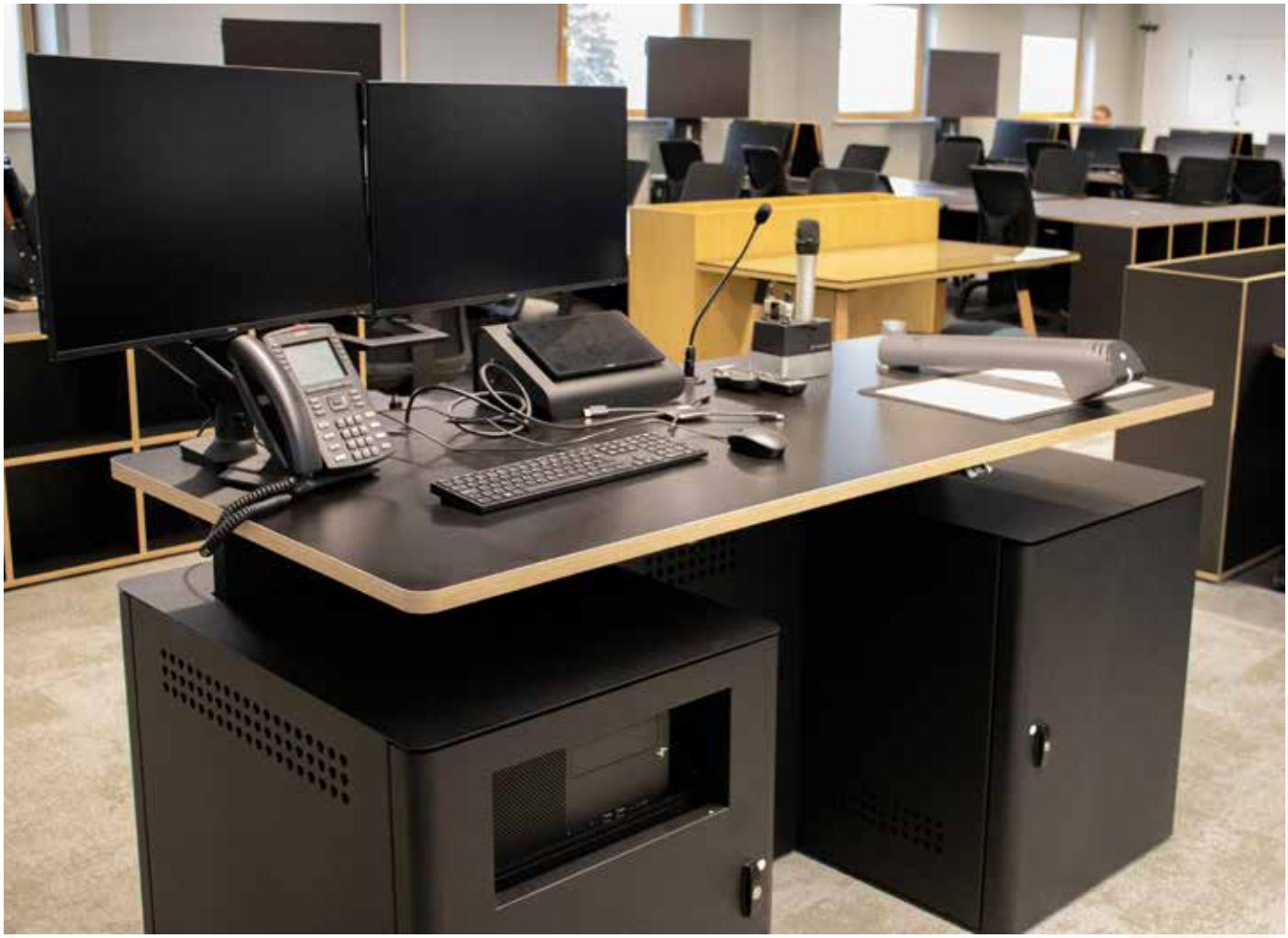
University staff have full control of the system from a TOP-TEC Gemini4 Duet lectern in each room. Integrated into the lecterns includes a Crestron TSW-1070 control panel, facilitating effortless control and interaction with the complex system. Staff can choose from a selection of input and output options, as well as controlling the room's cameras and the audio volume.

A multitude of input options are available to teaching staff including the University PC, wired content sharing via HDMI/USB-C/USB-A, or wirelessly through a WolfVision Cynap Pure Mini. Additionally, a WolfVision visualiser is integrated into the teaching lectern for sharing documents, as well as a Logitech Scribe whiteboard camera and a Sony SRG-A12 PTZ auto-framing camera.

Each input, including any selected student PC, can be shared to a variety of output displays such as the room's wall-mounted screens, each table's main display, or the lectern PC's extended monitor. Additionally, the Crestron control system has been designed to accommodate an NVX MJPEG preview feature integrated into the GUI, providing the lecturer with a preview of the students' shared content request before broadcasting it to the room.

This sophisticated system allows for dozens of input/output variations across the two suites, meaning different education styles can be achieved, such as group learning and traditional whiteboard teaching.

For audio, Shure gooseneck microphone is integrated into the lectern to ensure teaching staff can be clearly heard throughout the room, and a selection of Sennheiser wireless microphones are also provided for portability. A Biamp Tesira Forte manages advanced audio processing and distribution for consistent sound quality, while Sonance pendant speakers have been hung to distribute audio evenly above each student desk.



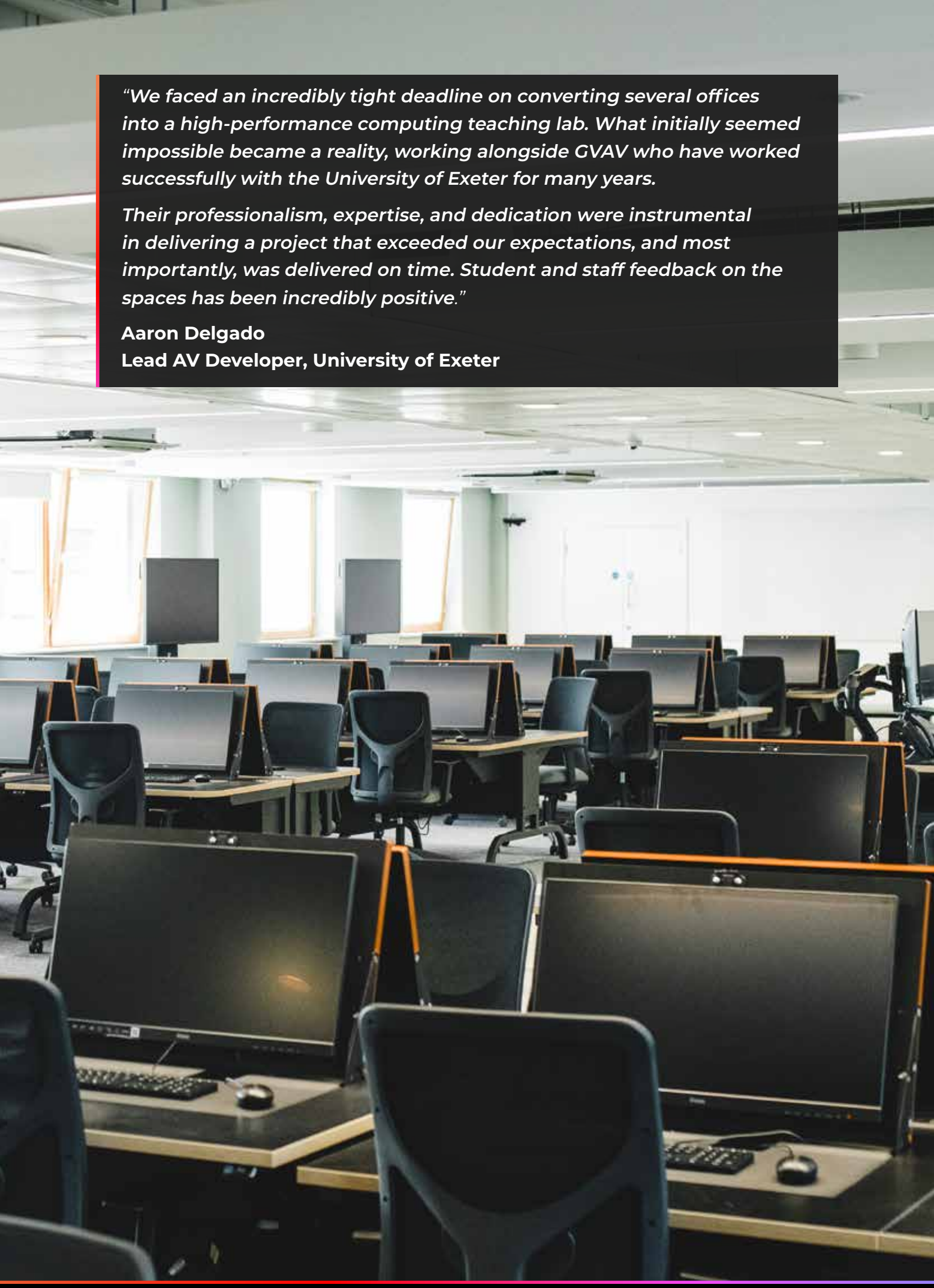
The suites' student workplaces are TOP-TEC Evoke desks, adapting a flat writing surface into a PC workstation. With a simple lever, a concealed screen, keyboard and mouse are revealed. The Evoke's discreet design allows all equipment to be securely stored when not in use, maintaining a tidy workspace and adding another dynamic to the learning environment.

This project was delivered in two phases, requiring close coordination with other contractors handling services such as air conditioning, electrical systems and decorating. GVAV were able to leverage a wealth of experience within the South West Technical and Account Management teams in managing complex, multi-contractor projects to ensure these rooms were delivered efficiently and on schedule.

Networking the extensive array of AV devices and workstations required rigorous troubleshooting to ensure stability across the system's infrastructure. Situated just 15 minutes away from the campus, the Exeter-based GVAV team were well-positioned geographically to meet regularly with the client when required.

The labs' advanced AV infrastructure ensures accessibility, with high-quality signal distribution allowing every student to engage fully, regardless of their position in the room. By blending this technology with intuitive design, the University have created spaces that are both functional and engaging. Students benefit from an interactive, dynamic, high-tech environment where small group collaborations can transition effortlessly into full-room presentations.

The University of Exeter's investment in these new spaces underline its leadership in innovative educational spaces. In partnership with GVAV, the University has delivered a project that is future-proof, scalable, and capable of supporting the evolving needs of AI and data science education by leveraging cutting-edge solutions such as Crestron NVX.

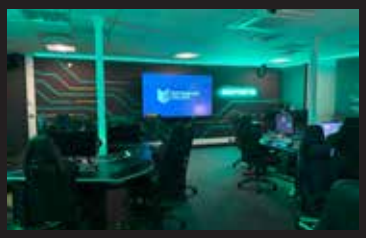


"We faced an incredibly tight deadline on converting several offices into a high-performance computing teaching lab. What initially seemed impossible became a reality, working alongside GVAV who have worked successfully with the University of Exeter for many years.

Their professionalism, expertise, and dedication were instrumental in delivering a project that exceeded our expectations, and most importantly, was delivered on time. Student and staff feedback on the spaces has been incredibly positive."

Aaron Delgado
Lead AV Developer, University of Exeter

Check out our other recent case studies from across the UK...



Nottingham College: E-Sports Suite

A new E-Sports Suite features an interactive teaching display and gaming monitors from ViewSonic, alongside cluster desks from TOP-TEC.

University of London: Senate House

Meeting rooms, teaching spaces and a conference room have been upgraded in the historic Senate House with AVoIP and hybrid technology.

University of Edinburgh: Edinburgh Futures Institute

Four NEC LED displays have been installed at Edinburgh Futures Institute to enhance digital signage capabilities.

Cardiff Business School: VETS Suite

A new virtual teaching suite featuring the X2O OneRoom system, designed for interactive online learning with up to 96 participants.

London School of Economics: Sheikh Zayed Theatre

LSE's Sheikh Zayed Theatre has been upgraded with a host of state-of-the-art AV technology centred around a modern Extron NAV system.

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Why GVAV?

Rack build

At GVAV, we don't just excel at systems design...

Our highly skilled engineers build AV racks in-house to the highest quality and specification. With regional build centres located across the UK, you can rest assured we'll build your equipment rack locally - reducing time and travel.

With dedicated rack wiremen and our extensive portfolio of AV products, our AV racks are consistent with the highest standard and ready to fit.

Predominantly built at one of our controlled facilities and designed to exact specifications, AV racks comply with industry standards. Arriving on site, fully assembled and tested, we provide installation, integration, commissioning and handover services as part of our comprehensive service. And, with large stocks of rack equipment, materials and integration hardware in stock, we can also accommodate last minute changes with ease.

Whether your project is small or large, GV rack build is here to get the job done fast.

Systems Integration

Acknowledged in the industry for providing top quality integrated solutions. We develop systems that are easy to use and offer a great user experience.

Working efficiently on site alongside third parties and contractors, we seamlessly integrate cutting edge technologies into legacy systems.

And, with our commitment to uncompromising Project Management, we've got the experience needed to smoothly integrate into any construction or refurbishment scheme, no matter the size.

With technical teams continuously receiving the latest training and development, we ensure they have the most up-to-date skills and product knowledge.

With **GVAV** you can be confident in gaining a beautifully designed and robust AV solution.

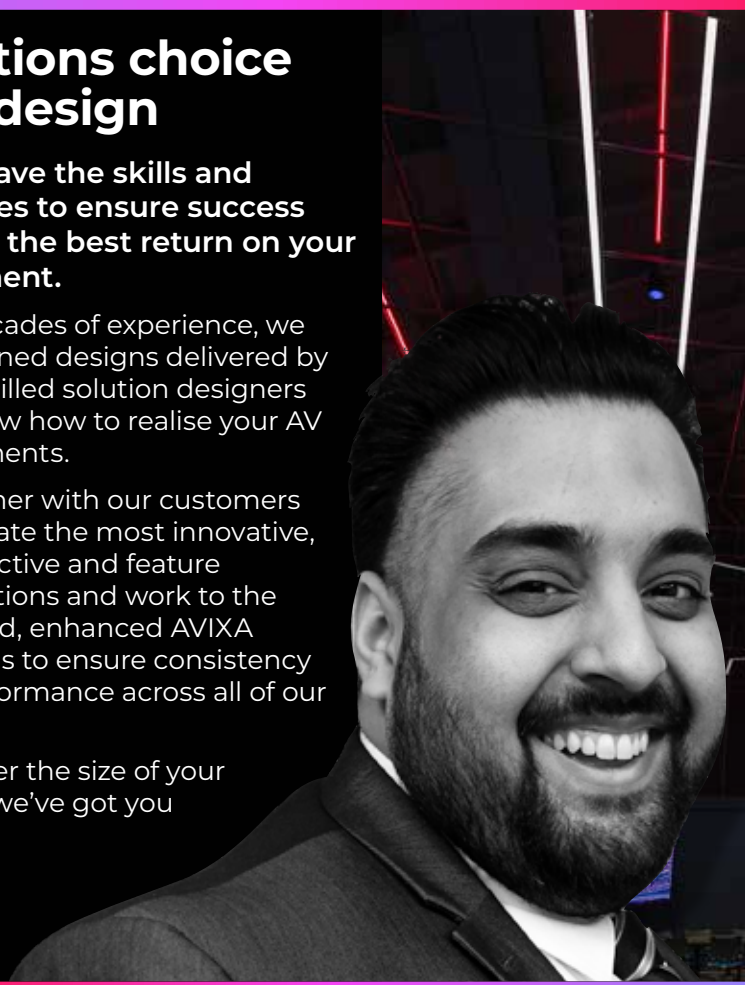
Solutions choice and design

GVAV have the skills and resources to ensure success and get the best return on your investment.

With decades of experience, we offer refined designs delivered by highly skilled solution designers who know how to realise your AV requirements.

We partner with our customers to generate the most innovative, cost effective and feature rich solutions and work to the respected, enhanced AVIXA standards to ensure consistency and performance across all of our projects.

No matter the size of your project, we've got you covered.



Project management

We understand the importance of excellent project management, and our experienced team of trained, accredited professionals do too.

As a company we invest heavily in our national PM teams supporting training to accredited standards particularly PRINCE2 and CTS.

Flexible project reporting ensures transparency for customers who can view their project progress throughout the process, and our system helps deliver agile, timely visibility to key stakeholders. Ensuring projects stay on time and in budget.

We will provide additional project managers giving appropriate support depending on the project size. PMs will focus on contractual, multi-trade, SHESQ and onboarding elements of the broader project with tangible benefits to our clients.

This capability is hugely beneficial when the work forms part of an overarching construction project or multiple jobs require management. We will integrate tightly with the principal contractor project team.

Maintenance

With our nationwide network of branches, we offer local expertise, which means you get the support you need!

Offering a wide range of maintenance services supported by our skilled engineers, we will manage your request every step in a friendly, helpful and efficient manner from your very
first call.

Our maintenance packages offer excellent value, protects your AV system, reduces downtime, and ensures that it will run smoothly for years to come providing a great return on your investment.

Control systems

Since its inception, GVAV has been at the forefront of bespoke integrated AV systems for business and education. Our mission, to deliver designs that offer excellence to our customers technically and in user experience.

Whether using Crestron, AMX, Extron, or one of our other excellent manufacturers, the foundation is simple, logical, elegant, well-programmed interfaces that make our solutions work for you.

Our highly qualified experts have designed, programmed and supplied a wealth of projects from individual meeting rooms, classrooms and lecture theatres to expansive building wide installations.
We incorporate estate-wide management that handles lighting, audio and building control, and we support environmental room monitoring and asset booking.

Our team carries certifications from all major system manufacturers so that you can expect an efficient and timely control solution. Whether for a new system or to update your existing one. Our interfaces are intuitive and reliable.

Training

We recognise the difficulties organisations face in implementing new technologies, promoting user adoption and building operational confidence amongst end users.

They are the fundamental elements that help guarantee you're getting the most out of your system.

No matter the level of in-house technical knowledge, adopting new products and work methods can be complex. But, taking on these challenges allows you to augment your business practices, provide your customers with better service, and compete more effectively.

Technology changes fast, and AV is constantly evolving, making it a truly exciting field. However, we understand this is a daunting prospect if you don't deal with AV all the time. We can provide the reassurance you need through training.

Training is an essential element of any well designed AV solution and represents a powerful tool for promoting user adoption. It maximises the benefits of the technology by enabling it to reach its full potential.

Technical support

GVAV knows how vital good technical support is to our customers and understands their wide range of support needs. We will match support levels to your specific requirements considering user experience and system complexity.

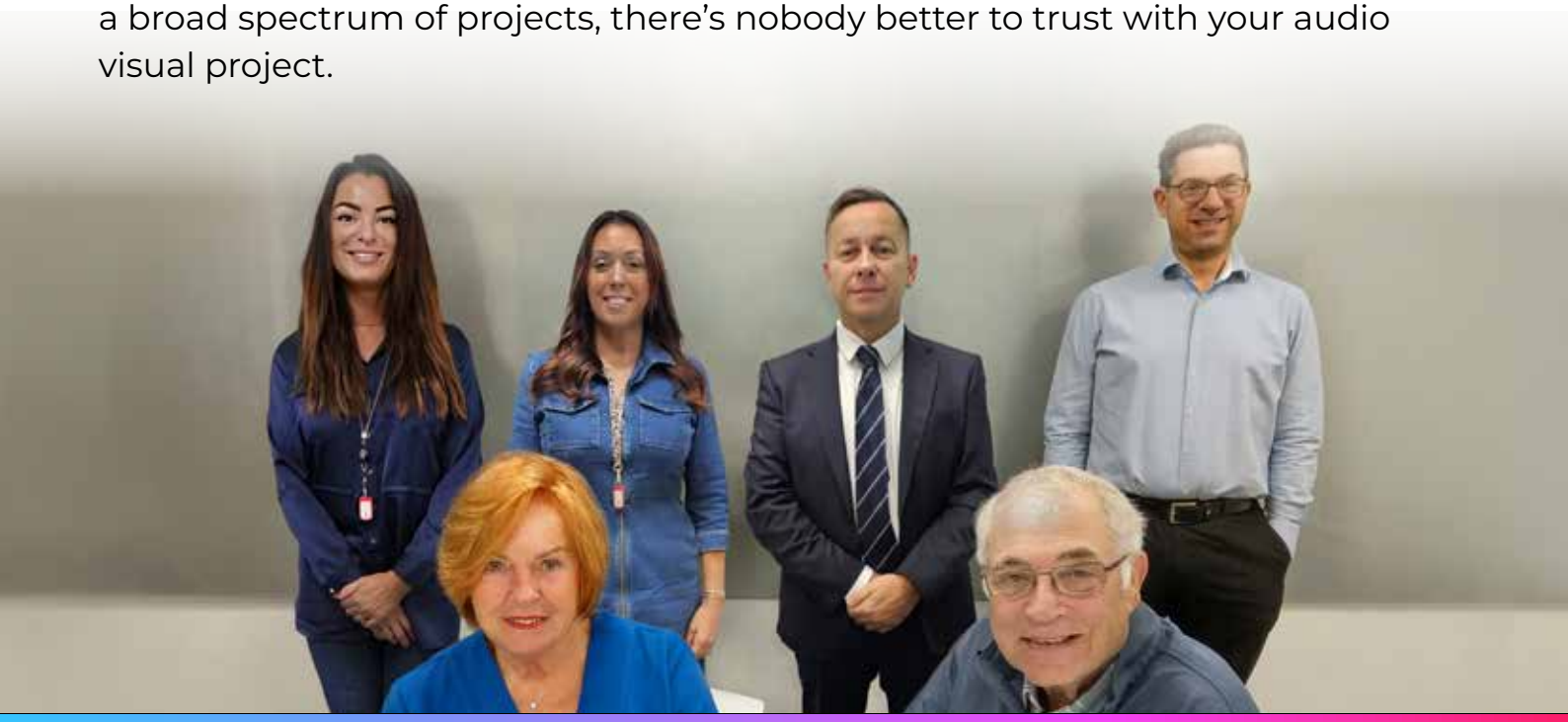
Our support services include access to **GVCORE**, our support and service desk solution for incident logging, management and resolution, accessible by phone, email or secure login

Customer satisfaction is of paramount priority, and we take pride in the quality and professionalism of our support services. You will receive expert advice on usage, helping you get the best out
of your equipment and keeping it working in peak condition.

GVAV - a family business

The secret to our success is the people behind the business, with every member of our team passionate and dedicated to developing innovative AV solutions for our customers. With a heritage dating back to 1976, **GVAV** embraces a family ethos that has run through the business since the beginning.

Now with more than 150 people and with over 45 years in the industry delivering a broad spectrum of projects, there's nobody better to trust with your audio visual project.



Don't miss out...

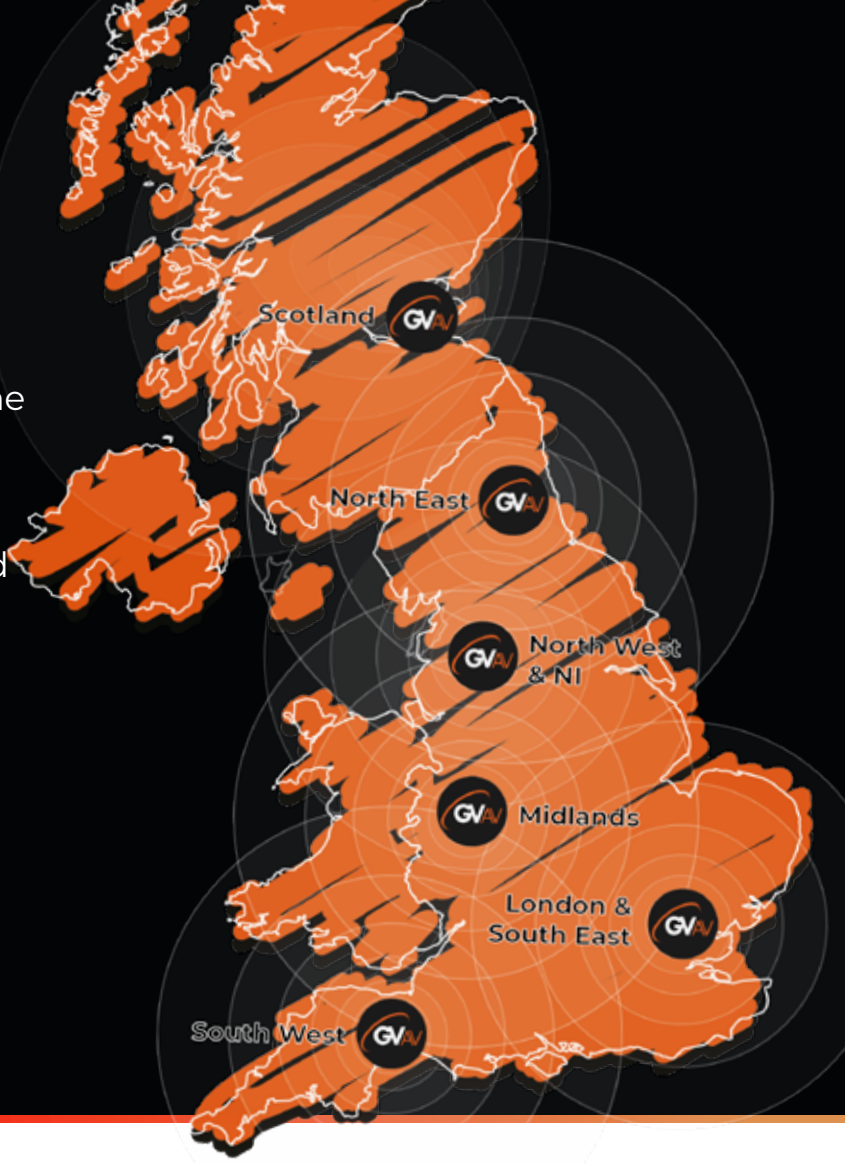
Follow us

Ready to deliver the systems you need

Our six dedicated local hubs across the UK offer a full range of services to make your AV ambitions come to life. From consultation, planning, design, training and maintenance, we have the experience to deliver.

With recent moves to enhanced branch facilities in London, Exeter and Dundee, we're in the best position to offer a bespoke local service to customers across the UK.

Whether you're looking for a full AV solution, a refit of an existing space, or just want to upgrade some old kit, contact your local **GVAV** Account Manager.



Delivering the next generation of collaborative spaces

GVAV's nationwide team are ready and waiting to support this new world. We deliver outstanding AV solutions that allow you to work more closely than ever, no matter how far apart. Collaboration has genuinely become a superpower for success.

Speak to your local branch today and find out how our dedicated team can help you revolutionise your space!

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jmcgarty@gvav.com

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matkinson@gvav.com

Scotland
Unit 1B, Kilspindie Road,
Dundee, Scotland
DD2 3JP
01382 848680
ngraham@gvav.com

New address!

Six local branches across the UK

GVAV has installed thousands of projects nationwide. With local branches covering the entire country and a central hub of systems and resources, we are ready for any project, no matter the size or complexity.

At GV, we have the skills, local resources and experience to take your needs from a concept to a fully integrated and supported Audio Visual solution.

On hand to help

GVAV provides sales, service and support, accessible via mobile, web or email. Our customers can contact us whenever and wherever they need to, and we take customer satisfaction very seriously, so training, support and effective project management are critical to all we do.

Maintenance and support

Our nationwide network of branches means local, experienced engineering resources for our customers. From essential preventative maintenance to site-resident engineers, extended hours and short term events or full operational support, whatever you need, **GVAV** can help.

Our project, technical, and programming teams ensure your AV projects deliver on every level.

We pride ourselves on offering the best quality goods and services, and our customers know they always get great value for money.

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