



> Newcastle Science Central & Decision Theatre

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Newcastle Science City (NSC) is a long-term committed partnership between Newcastle University and Newcastle City Council. The NSC partnership was established to maximise the North East's scientific potential, raising awareness of the region's scientific expertise across the world.

From 1 April 2015, the NSC partnership will focus delivery on Newcastle Science Central, one of the largest developments of its kind in the UK, designed to support a thriving new community, creating jobs and making ground-breaking scientific advances.

Newcastle Science Central is a landmark development for Science, Business, Living and Leisure set in 24 acres of prime city Centre

development in the heart of Newcastle Centre. Combining cutting-edge architecture with new public spaces, world-renowned scientific expertise and leading-edge companies.

"Science Central will be an innovation hub where investors, businesses, scientists, and citizens collaborate to plan and develop solutions for tomorrow's cities."

The Brief

The University required a total of 9 seminar rooms, syndicate rooms and presentation spaces to have the latest in audio visual technology installed as Phase 1 with a 'Decision Theatre' to be installed in Phase 2.

The Decision Theatre will be the "front end" of the new Cloud Centre located in the CPD Centre, Level 2, The Core Building, Science Central, Newcastle upon Tyne. The facility will enable the public, businesses, policy makers and academics to understand how to use massive data sets to inform decision making. It will be a physical space for collaboration for 30 people and will contain high spec technology that will enable stakeholders to generate and test different sustainable scenarios and see real time representations of the consequences of behavior, decisions and policies in order to examine the impact of their decisions.

Planning and Installation

Universal AV already worked with Newcastle University on the NEUPC (North Eastern Universities Purchasing Consortium) so tendered for the work and were awarded it early 2015.

Phase 1 was to supply and install several classrooms and open spaces with the latest in audio visual technology, befitting of the building it was being installed into. The 2nd phase was to install a Decision theatre. Universal worked in partnership with the University, Antycip Simulation and Barco to deliver the required solutions in the tight time frames.

The installation was carried out under the Project Management of Universal AV, the following rooms/scenarios were installed:

Decision Theatre Requirements

The decision theatre would be based around a large display (around 5m x 2m) – Supplied by BARCO and installed, with various supplementary technologies depending on use-case. Following a consultation process with potential users, various use-cases for a potential Decision Theatre were produced.

Boardroom

The room would double as a technologically enhanced meeting space. The technology provides a large shared display where participants can share documents and data relevant to the meeting. It is required that participants can interface with the Decision Theatre from their own devices, hence Bring Your Own Device (BYOD) support is essential. The ability for the chair to control the meeting was also required (i.e. overrule BYOD functionality if required). It would also be useful to include stereo-vision capabilities for 3d data.

Lecture/Seminar Space

The Decision Theatre was to have the capability as an enhanced lecture / seminar facility. This would require a control console for the presenter, and again would benefit from stereo-vision for showing 3d presentations. Including video conferencing facilities and video streaming would add the capability of using the decision theatre as a remote facility for multi-cast events (e.g. remote lectures).



Interactive Space

The decision theatre would be used as an interactive space for the closer examination of data, and for performing interactive research. In order to achieve the desired effect a rear projection rig was built to house 2 x Single Chip DLP™ Professional use projectors, using 2 x specialist mirrors to project on to a Barco semi-rigid rear projection surface to offer a 5100mm x 1.875mm image size, supporting edge-blended arrays. Solstice software from Mersive was employed to enable multiple users to connect simultaneously to a shared display using a range of BYOD devices over a WiFi or Ethernet network. With a Solstice-enabled display in the room, any number of users can instantly connect, share and control the display, fostering collaboration and decision-making.

This AV system would maximize the flexibility of the room, allowing it to be used for the three different scenarios. A TeamMate lectern with a control console was used as a central hub to control the operation of the system, providing a simple and easy to operate interface for all levels of users.

The solution enables a large display with no shadow impact. It can be used to support business meetings and presentations with collaboration capabilities and also with full VR tracking and stereoscopic projection modes.

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Experience from the project:

"The project was extremely complex. The client knew what they wanted and how they wanted it to work. The Universal AV project manager worked closely with the customer and Antycip Simulation to ensure that the project was delivered on time, with the tight timescales and deadlines set, as well as providing the functionality and growth options requested. We are extremely proud of the installation and work carried out at Science Central, knowing we are helping shape the way in which data is analysed and used is very satisfying".

Comments, Mark Atkinson,
Universal AV Branch Manager, Newcastle.